COMMUNITY ENGAGEMENT, CULTURAL INTEGRATION, AND LIVELIHOOD OUTCOMES OF THE KARIMOJONG PASTORALISTS IN WILDLIFE CONSERVATION IN KIDEPO VALLEY NATIONAL PARK, NORTH EASTERN UGANDA

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A THESIS SUBMITTED TO THE FACULTY OF INTERDISCIPLINARY STUDIES IN FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN DEVELOPMENT STUDIES OF MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY.

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DECLARATION

I, Lolem Lucy Chegem, confirm that this research thesis, entitled *'Community Engagement, Cultural Integration, and Livelihood Outcomes of the Karimojong Pastoralists in Kidepo Valley National Park, Northeastern Uganda*,' is my original work. It has never been submitted to any other Institution for any award.

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Supervisors' Approval

This is to certify that this research dissertation titled: *Community Engagement, Cultural Integration, and Livelihood Outcomes of the Karimojong in Kidepo Valley National Park, Northeastern Uganda*, is submitted with our approval.

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DEDICATION

I dedicate this work in loving memory of my parents, Mr. Simon Peter Longor, a first-generation educated Karimojong who dared go to school when it was almost a taboo; who later turned out to be a passionate educator who, during his role as head teacher for over thirty years spent his energy to grab the Karimojong children from kraals and forced them to stay at school to learn. I thank my mother, Mrs. Longor Elizabeth, for being such a great support to my dad when no one else understood him in society and for promoting education in the Karamoja region.

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LIST OF ABBREVIATIONS AND ACRONYMS

AWR	Alledeghi Wildlife Reserve
CBD	Central Business District
FGDs	Focus Group Discussions
FLEGT-	Forest Law Enforcement Governance and Trade Voluntary Partnership
VPA	Agreement
KIIs	Key Informant Interviews
KVNP	Kidepo Valley National Park
MUST	Mbarara University of Science and Technology
UNCST	Uganda National Council of Science and Technology
NEMA	National Environment Management Authority
REC	Research Ethics Committee
Ras	Research Assistants
UWA	Uganda Wildlife Authority
WWF	World Wide Fund for Nature
TEK	Traditional Ecological Knowledge
SLF	Sustainable Livelihoods Framework
CEM	Continual Engagement Model
IWT	Indigenous Wholistic Theory
ENG	Engagement
INT	Integration
LIVE	Livelihood Outcomes
CULT	Culture
IRB	Institutional Review Board
ULII	Uganda Legal Information Institute

ABSTRACT

Wildlife conservation in Uganda's Kidepo Valley National Park (KVNP) takes place in a culturally sensitive context where the Karimojong pastoralists hold extensive ecological knowledge and deep cultural ties to the land. Yet, mainstream conservation approaches have often marginalized these Indigenous values and practices, leading to limited community ownership and livelihood benefits. This study investigated the interrelationships among cultural values, community engagement, cultural integration, and livelihood outcomes of the Karimojong in KVNP, while also examining the moderating role of culture in these relationships.

A convergent parallel mixed-methods design was applied. Data were collected from 243 respondents, five key informant interviews (n =5), and five focus group discussions (n = 37). Stata version 17 and NVivo 12 were used for quantitative and qualitative analyses, respectively. Findings showed that culture was disrespected (M = 2.8/5), with 50.4% (n = 979) disagreeing. Community engagement was low, with 89.3% (n =1,737) disagreeing that communities actively participate (M =1.4/5). Integration was limited, scoring an overall mean of 1.4/5, with 89.5% (n =2,176) disagreeing. Livelihood outcomes scored an overall mean of 2.6/5, with 69.7% (n = 508) reporting a disagreement. Community engagement significantly predicted livelihood outcomes through cultural integration (indirect effect = 0.147, 95% CI [0.05, 0.18], p <0.001), but the effect weakened when cultural alignment was low. Thematic analysis identified four dominant themes: erosion of traditional ecological practices, marginalisation in decision-making, resilience through cultural rituals, and aspirations for co-management.

Overall, the study shows that Indigenous cultural systems remain central to conservation success but are insufficiently incorporated into current frameworks. Strengthening conservation outcomes requires inclusive governance models, deliberate integration of Karimojong cultural practices, and recognition of Indigenous leadership. The study recommends policy reforms that embed co-management, promote culturally sensitive livelihood opportunities, and reconnect conservation strategies with the cultural worldviews of the Karimojong to ensure ecological sustainability, community empowerment, and cultural preservation.

CHAPTER ONE

INTRODUCTION

This study, titled *"Community Engagement, Cultural Integration, and Livelihood Outcomes of t Karimojong Pastoralists in Wildlife Conservation in Kidepo Valley National Park, Northeaste Uganda,"* investigates how Indigenous pastoralist communities interact with state-led conservatic It focuses on three interrelated dimensions: the extent of community engagement, the integration cultural values and practices into conservation, and the resulting implications for local livelihoo By situating the analysis in the Karamoja sub-region, the study contributes to ongoing debates equity, sustainability, and inclusivity in conservation policy and practice in Sub-Saharan Africa.

Uganda's conservation system has long carried legacies of exclusion, beginning with colonial la alienation and continuing through post-independence models that privileged centralize technocratic management over Indigenous knowledge systems. Kidepo Valley National Pa (KVNP) embodies this history: it overlaps spaces that the Karimojong regard as spiritual ecologically, and economically significant. Tensions emerging from this history, cultu dislocation, marginal livelihoods, and mistrust- frame present-day relations between conservati authorities and communities and motivate the community-centred approach taken in this study.

The study responds to contemporary policy commitments that now emphasize participation and c management (e.g., the Uganda Wildlife Policy, 2014, and the Uganda Wildlife Act, 2019) wh acknowledging persistent implementation gaps. In practice, conservation authorities balar biodiversity goals, tourism revenue, and community well-being, often under conditions of limi resources and historical mistrust. Understanding how Karimojong cultural systems sha

engagement and integration is, therefore, timely and necessary for designing conservation th both socially just and ecologically effective.

Accordingly, this chapter introduces the problem, situates the study historically and contextu and outlines the conceptual orientation used to interpret the findings. Subsequent sections dev the historical and contextual background, state the problem and objectives, and present conceptual framework that guides the analysis.

1.1.1 Historical background

Conservation as a practice has evolved through shifting global and local paradigms. Early gl frameworks, such as the *World Conservation Strategy* (1980) and the Convention on Biolo Diversity (CBD), emphasized species protection, habitat preservation, and sustainable us resources (Rittenhouse et al., 2023; Obura & Agrawal, 2023). While these frameworks adva ecological priorities, they often marginalized Indigenous populations whose livelihoods worldviews had historically sustained ecosystems (Koh et al., 2022).

In Africa, conservation history reveals the tension between imported models and Indige ecological practices. Colonial authorities, drawing inspiration from Yellowstone in the U States, introduced the national park system primarily for hunting, recreation, and tourism (Thal & Koot, 2023). This approach displaced communities and ignored long-standing Af conservation systems. Pastoralist groups such as the Fulani, Maasai, and Gedeo prac environmental stewardship through taboos, sacred species, and spiritual restrictions that regu use of land and wildlife (Selemani, 2020; Maru et al., 2020). These Indigenous systems not protected biodiversity but also reinforced cultural identity and social cohesion.

Jganda's conservation trajectory mirrors this continental pattern. Colonial legislation such as t leeping Sickness Ordinance of 1908 and the 1961 Legal Notice restricting hunting, forc ommunities off ancestral lands and criminalized traditional practices (Ashaba, 2021). T stablishment of national parks in the mid-20th century, including Murchison Falls in 19 xtended this exclusionary model. The creation of Kidepo Valley National Park in 1964 epitomiz hese dynamics, as the Karimojong were displaced from grazing areas and sacred sites to make w or wildlife protection (Mehmood, 1982). These exclusions eroded trust, weakened Indigenc tewardship, and created enduring conflict between conservation authorities and local people.

'ost-independence governments largely continued these approaches, often in partnership w nternational conservation organizations (Brewer, 2002). While biodiversity protection gair)rominence, local voices remained marginalized. By the 1990s, however, policy began to shift. T Wildlife Policy (2014) and Wildlife Act (2019) formally recognized the importance of commur)articipation and co-management, calling for frameworks that blend ecological sustainability w ocal benefits. Nevertheless, studies show that these reforms remain unevenly implemented, w)ersistent tensions over trust, access, and benefit-sharing (MacKenzie et al., 2017; Haenlein)pyene, 2021).

Jganda's conservation history reveals a structural contradiction: while policies increasin ıcknowledge Indigenous knowledge, practice continues to reflect exclusionary legacies. T lisjuncture explains present-day mistrust in Kidepo Valley National Park and highlights v :ulturally grounded approaches are essential for achieving sustainable outcomes.

1.1.2 Contextual Background

The Karimojong, a Nilotic pastoralist community in Northeastern Uganda, derive their liveliho cultural identity, and spirituality from cattle herding and semi-arid landscapes (Gray et al., 2 Bettencourt et al., 2015). Livestock functions as both an economic resource and a cultural syn shaping rituals, marriage systems, and community prestige. The Karimojong's relationship with and biodiversity is deeply spiritual, with sacred sites and ritual landscapes guiding reso governance (Cocks, 2006; Press, 2005).

Karamoja, however, has long faced complex socio-political pressures. Disarmament campa insecurity from cattle raiding, and the proliferation of small arms have disrupted pastoralist mol and cultural practices (Mkutu, 2008; Muhereza, 2019). Land alienation through mining concess agricultural expansion, and conservation gazettement has further constrained access to resou with nearly half of Karamoja's territory designated as protected areas or licensed for extractic 2014 (Houdet et al., 2014). These processes have heightened poverty, displacement, and comm vulnerability.

The creation of Kidepo Valley National Park (KVNP) in 1964 converted previously comn grazing land into a protected area, forcing relocations and severing traditional ties to land wildlife (Mehmood, 1982; Goldsmith, 2001). While the park contains rare species such as ch and Guenther's dik-dik (Carmody & Taylor, 2016), its establishment entrenched mistrust bet conservation authorities and local communities. Recent efforts at inclusion, such as the Ug Wildlife Policy (2014) and Wildlife Act (2019), provide legal frameworks for comm participation. However, implementation remains limited, and Karimojong perceptions of excl and marginalization persist (Haenlein & Opyene, 2021).

The Karamoja context reflects a clash between Indigenous ecological knowledge and ext interventions driven by conservation, security, and investment agendas. For conservation to suc in KVNP, governance frameworks must move beyond token participation to genuine cu integration that respects pastoralist values, ensures equitable benefit-sharing, and rebuilds between the state and Indigenous communities.

1.1.3 Conceptual background

This study is guided by a conceptual model that examines four interrelated constructs: comm engagement, cultural integration, culture, and livelihood outcomes. These constructs are info by three theoretical perspectives, the Continual Engagement Model (CEM), Indigenous Ho Theory (IWT), and the Sustainable Livelihoods Framework (SLF), which together provide a ho lens for analyzing conservation in Kidepo Valley National Park.

Community Engagement is treated as the independent variable. It captures the degree to whic Karimojong participate in conservation activities, feel emotionally attached to landscapes, sustain long-term commitment to biodiversity stewardship (Wali et al., 2017; He et al., 2020). CEM emphasizes that genuine engagement must be continuous, collaborative, and rooted in cul realities rather than symbolic or one-off participation.

Cultural Integration functions as the mediating variable. It refers to the extent to which Indige ecological knowledge, leadership, and practices are incorporated into formal conserv governance. This includes blending traditional and scientific knowledge, establishing management structures, building trust, and ensuring reciprocal communication (Reid et al., 2

Wei et al., 2018). Cultural integration is therefore the mechanism through which engage translates into improved livelihood outcomes.

Culture is treated as a distinct construct, operating as the moderating variable. It encompasse Karimojong's underlying values, norms, and practices, such as taboos on hunting, sacred landsc rituals, and seasonal mobility systems (Infield & Mugisha, 2018; Louis, 2007). Culture independently shape conservation behavior (for example, taboos protecting species regardle park rules). Within the model, however, its main role is to condition the strength of the relatio between engagement and integration. Where conservation strategies align with cultural n engagement is more likely to foster integration; where they conflict, mistrust and resistance we integration.

Livelihood Outcomes represent the dependent variable. They are conceptualized through acti (e.g., eco-tourism, pastoralism), assets (e.g., land, livestock, income), and capabilities (e.g., ada skills, education, and decision-making power). This aligns with the SLF, which situates livelil within broader socio-economic, ecological, and policy contexts (Büscher & Dressler, 2012).

By distinguishing culture from cultural integration, the framework recognizes that Indig cultural systems have an independent influence on conservation dynamics, but that sustai livelihood improvements depend on whether these systems are formally embedded v conservation governance. The three models are therefore complementary: CEM highlights proc of participation, IWT emphasizes Indigenous worldviews and values, and SLF links these dyn to livelihood outcomes. Together, they provide a culturally responsive and policy-rel framework for examining conservation in KVNP.

Livelihood Outcomes represent the dependent variable. These outcomes are understood in ter activities (e.g., pastoralism, eco-tourism), assets (e.g., land, livestock, income), and capabilities adaptive skills, education, decision-making power). This aligns with the SLF, which fr livelihoods as multidimensional and shaped by broader policy and environmental contexts (Bü & Dressler, 2012). Figue1 illustraes the relationship between the study variables.

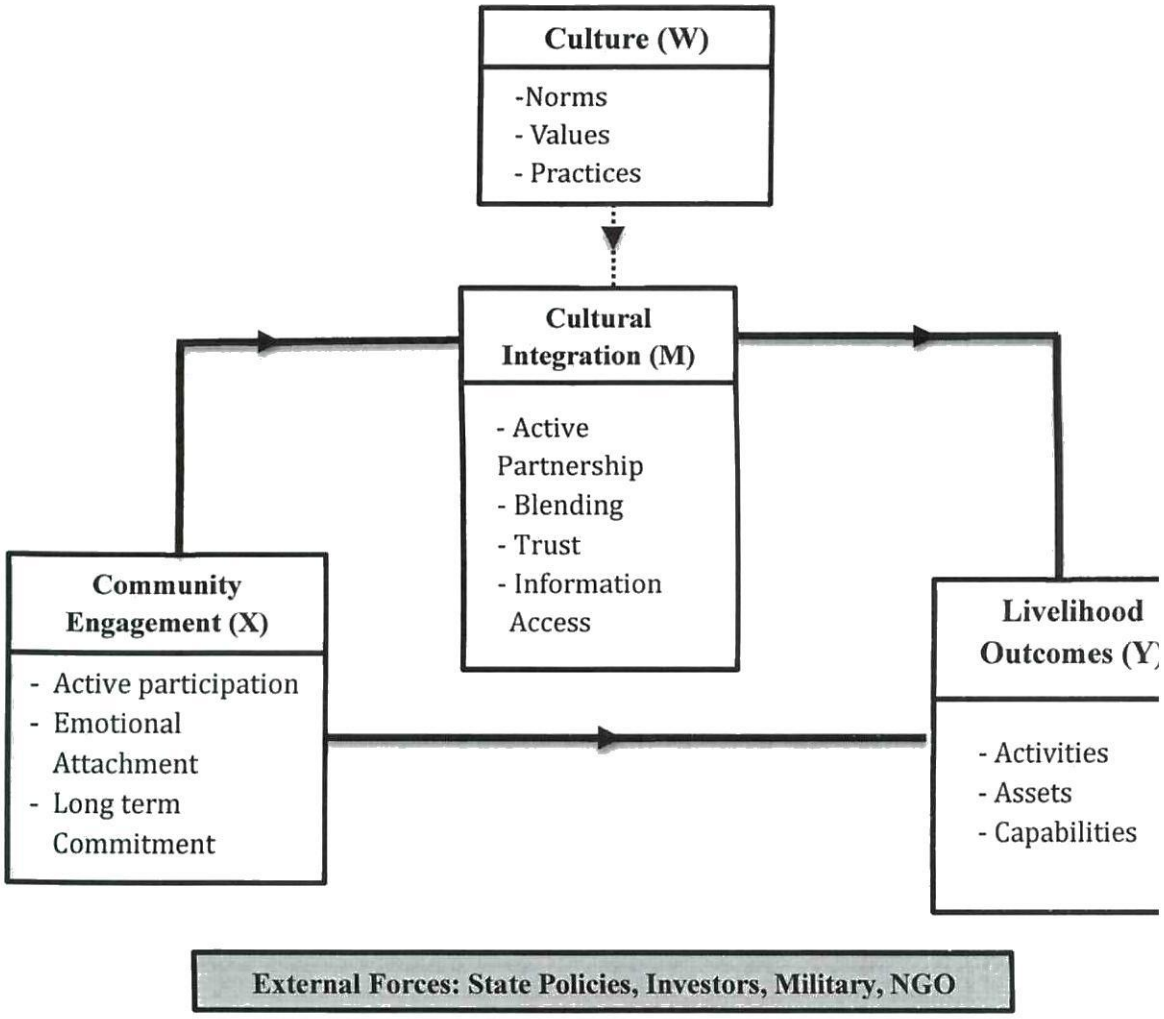


Figure 1: Conceptual Framework

Source: Modified from Hayes (2018), CEM (Reid et al., 2016), IWT (Absolon, 2016), and (Hussein & Nelson, 1998).

By combining these three models, the study captures different dimensions of conservation: (highlights the process of engagement, IWT emphasizes the cultural and spiritual foundatio knowledge, and SLF situates outcomes within a broader socio-economic system. Together, provide a holistic framework for analyzing how community participation and cultural sys influence conservation outcomes in KVNP.

The framework in Figure 1 illustrates how Community Engagement (X) influences Liveli Outcomes (Y) both directly and indirectly through Cultural Integration (M), with Culture moderating the strength of the engagement, integration link. External Forces, such as state pc investors, military interventions, and NGOs, form the broader context that shapes these relations either enabling or constraining conservation outcomes. The model highlights that sustai livelihoods depend not only on engagement but also on meaningful integration of Indige cultural systems within formal conservation structures.

1.2 Statement of the Problem

Kidepo Valley National Park (KVNP) in Northeastern Uganda is home to the Karimc pastoralists, who have long coexisted with wildlife through Indigenous stewardship prac (Carmody & Taylor, 2016). Yet, with 60% of Karamoja's land now under conservation, pas resources are increasingly restricted, creating a disconnection between formal conservation po and Indigenous knowledge (Ssenkaaba, 2015; WCSU, 2024; Akalibey et al., 2024). Tou benefits have also weakened, with visitor numbers falling from 13,472 in 2018 to 7,393 in (Nyakabwa, 2023), while poverty has risen from 65% to 74.2% regionally, and to 92.5 Kawalakol Sub-county, despite national poverty rates declining (UBOS, 2023/24).

These dynamics highlight the exclusionary nature of current conservation, which undermines cultural legitimacy and livelihood resilience. In this regard, the study challenges dominant top-d models and validates the integration of Indigenous knowledge as a foundation for sustair conservation (Reid et al., 2016). Therefore, there is an urgent need for culturally grounded managed approaches that embed Indigenous knowledge and foster equitable conservation outc (Absolon, 2016; Reid et al., 2016).

Accordingly, this study seeks to examine the nature and extent of community engagement, cul integration, and livelihood outcomes of the Karimojong pastoralists in KVNP, while also asse the moderating role of culture in shaping these dynamics.

1.3 Objectives and Research Questions

1.3.1 General Objective

To examine the nature and extent of community engagement, cultural integration, and liveli outcomes of the Karimojong pastoralists in wildlife conservation in Kidepo Valley National Northeastern Uganda.

1.3.2 Specific Objectives

1. To explore the conservation values, norms, and practices of the Karimojong.
2. To assess the extent of Karimojong community engagement in conservation activities.
3. To evaluate the degree of cultural integration within conservation governance.
4. To analyze the livelihood outcomes associated with conservation participation.

5. To examine the moderating role of culture in the relationship between comm engagement, cultural integration, and livelihood outcomes.

1.3.3 Research Questions

1. What are the conservation values, norms, and practices of the Karimojong?
2. To what extent is the Karimojong community engaged in conservation activities?
3. What is the degree of cultural integration within conservation governance?
4. What livelihood outcomes arise from conservation participation?
5. How does culture moderate the relationship between community engagement, cu integration, and livelihood outcomes?

1.4 The scope of the study

1.4.1 The content scope of the study

The study examined the Karimojong's conservation values, norms, and practices, their engage in conservation activities, and the extent of cultural integration within formal governance struc It also analyzed livelihood outcomes arising from participation in conservation and assesse moderating influence of culture on these relationships.

1.4.2 The time scope of the study

The study was anchored on the Uganda Wildlife Act (2019), which marked a shift to community participation in conservation. Data were collected during a three-month field stu 2024, supplemented with documentary evidence covering the period 2019–2024. This timef reflects the first five years of policy implementation under the Act.

1.4.3 Geographical scope

The study was conducted in and around Kidepo Valley National Park (KVNP), located in Kai District in the Karamoja sub-region of Northeastern Uganda. KVNP covers approximately 1 km² and is characterized by semi-arid savannah, mountainous terrain, and unique biodiversit location on the border with Kenya and South Sudan, combined with its cultural and ecolo significance, makes it a contested yet vital site for examining conservation governance.

1.5 Significance of the study

This study is significant at scholarly, policy, and practical levels. At the scholarly level, it contri to the limited body of empirical research on the intersection of Indigenous knowledge sys community engagement, and conservation outcomes in Uganda. By distinguishing between cu and cultural integration within a moderated mediation model, the study advances theoretical de on how Indigenous worldviews interact with conservation governance.

At the policy level, the study provides timely evidence for assessing the effectiveness of the Ug Wildlife Policy (2014) and the Uganda Wildlife Act (2019), both of which emphasize comm participation but remain weakly implemented in practice. Findings from this study can in revisions of conservation policy, highlight the importance of embedding Indigenous cultural sys in wildlife management, and strengthen co-management frameworks.

At the practical level, the study offers insights for the Uganda Wildlife Authority, NGOs, and leaders on how to reduce conflicts, build trust, and design culturally responsive engage strategies that promote both biodiversity conservation and community well-being. For Karimojong, the study underscores pathways for reclaiming cultural agency in conservatior

achieving more equitable livelihood benefits. More broadly, lessons from KVNP can be adapt other pastoralist and Indigenous communities facing similar challenges across Africa.

1.6 Operational Definitions

Community engagement refers to the active and meaningful participation of the Karimojong pas community in wildlife conservation activities. It encompasses direct involvement in the plan and implementation of conservation initiatives, emotional attachment to land and wildlife, a long-term commitment to these efforts. This engagement is essential for promoting sustainat and ensuring that conservation outcomes are community-driven and culturally relevant (Wali e 2017; He et al., 2020).

Cultural integration is the formal and informal processes through which the Karimojong incorporated into conservation systems. These mechanisms involve collaborative partnerships wildlife authorities, blending traditional ecological knowledge with scientific conservation pract community access to conservation information, and building mutual trust among stakeholders (et al., 2016; Wei et al., 2018).

Livelihood outcomes refer to the social and economic impacts of conservation engagement or Karimojong community. These outcomes include the capacity to sustain livelihood activities as pastoralism, access to essential assets like grazing land and water, and the enhancemer capabilities, including skills development and the ability to make informed decisions. T elements are essential for improving well-being and reducing vulnerability (Hussein & Nel 1998; Vedeld et al., 2016).

Culture represents the norms, values, and traditional practices shaping Karimojong's relatio with wildlife and natural resources. These cultural factors influence how conservation strategie perceived and implemented and play a critical moderating role in determining the effectivene community-based conservation efforts (Absolon, 2016; Vinyeta & Lynn, 2020).

The term Karimojong in this study refers to a nomadic pastoralist ethnic group in Northea Uganda, historically reliant on livestock herding and communal land use. A participant is consic "Karimojong" based on self-identification (Czuba, 2011).

Wildlife is defined as all wild animal species that inhabit Kidepo Valley National Park ar surrounding ecosystems. Although broader definitions may include plant and microbial life study focuses on wild animals (Stephen, 2014).

Wildlife conservation refers to the protection and sustainable management of wild animals and habitats, aimed at maintaining ecological balance and ensuring long-term environmental and s economic benefits. It aims to meet the needs of the present generation while safeguardin potential of future generations (Knox et al., 2021).

Kidepo Valley National Park (KVNP) is a protected area in Karenga District, Northeastern Ug Gazetted in 1962, it is the third-largest national park in the country and lies at the intersection borders of Uganda, Kenya, and South Sudan (Aruho et al., 2021).

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews theoretical and empirical literature on community engagement, cult integration, and livelihood outcomes among the Karimojong pastoralists in Kidepo Valley Nati Park (KVNP), Uganda. It situates the study within wider academic and policy debates conservation, Indigenous knowledge systems, and sustainable livelihoods. The review synthes knowledge on pastoralist participation in conservation, the integration of cultural values protected area governance, and the socio-economic outcomes of these interactions. It also evalu the relevance of existing theories and global evidence to the Karamoja context, while identif gaps that justify the present study. This is particularly important within Uganda's cu conservation policy landscape, where frameworks such as the Uganda Wildlife Policy (2014), Wildlife Act (2019), and the UWA Community Conservation Policy (2019) emphasise commu participation, yet evidence shows persistent exclusion of pastoralist groups like the Karimojong f decision-making and benefit-sharing. The chapter is organised into three sections: the first outl the theoretical foundations (the Continual Engagement Model, Indigenous Wholistic Theory, the Sustainable Livelihoods Framework); the second reviews empirical studies on community-b conservation, Indigenous knowledge, and participatory governance in pastoralist settings; an third highlights gaps in existing research.

2.1 Theoretical Review

Theoretical frameworks provide a foundation for understanding the complex dynamic: community involvement, cultural integration, and livelihood outcomes in conservation setting this study, applying relevant theories is essential for examining how Indigenous knowledge syst socio-cultural structures, and participatory processes influence conservation effectiveness amon Karimojong pastoralists. By grounding the investigation in theory, the study gains analytical cl and a structured lens through which to interpret empirical findings. The selected theories reflec multifaceted nature of the Kidepo Valley National Park conservation challenge, encompassing ecological and socio-cultural dimensions. The discussion below outlines and justifies the applic of three core frameworks: the Continual Engagement Model (CEM), Indigenous Wholistic Th (IWT), and the Sustainable Livelihoods Framework (SLF).

2.1.1 Continual Engagement Model (CEM)

The Continual Engagement Model (Reid et al., 2016) provides a dynamic framework for susta community participation in conservation initiatives. It emphasises iterative cycles of dialogue, design, joint action, and reflection. This model draws upon the principles of Engagement Th (Kearsley & Shneiderman, 1998), which promotes meaningful engagement through collabor and authentic tasks, and Practice Engagement Theory (Reder, Gauly, & Lechner, 2020), w highlights the development of competencies through repeated, context-relevant practices.

Applied to the Karimojong context, the CEM frames community engagement through struct partnerships with traditional leaders, routine community forums (barazas), and shared manage of natural resources (Ocaido et al., 2025). Conservation activities such as seasonal patrols, l

tourism initiatives, and community sensitisation are embedded in cultural practices, reinforcing ownership. Traditional norms such as hunting taboos, sacred site protection, and land-use cus are integrated into conservation strategies to maintain cultural relevance (Akalibey et al., 2024)

The model further promotes trust-building through visual monitoring tools, storytelling sess and public recognition of community conservation champions. It also encourages the develop of boundary-spanning teams that blend scientific and local knowledge to address biodiversity grazing conflicts, and conservation-compatible land use (Wei et al., 2018). Studies from Ug demonstrate that this model can enhance local participation and align community and nat conservation goals (Joseph, Norah, & Charles, 2022; Nantongo, Byaruhanga, & Mugisha, 200

2.1.2 Indigenous Wholistic Theory (IWT)

Indigenous Wholistic Theory, as articulated by Absolon (2016), provides a culturally grou framework that highlights the interconnectedness of physical, emotional, mental, and spi dimensions of life. It rejects reductionist approaches and supports relational, stewardship-b worldviews that are central to many Indigenous communities. Within this framework, human not separate from nature but are active caretakers within an interconnected system (Berkes, 20

For the Karimojong, this perspective manifests in treating wildlife and the environment as int to cultural identity, spirituality, and community cohesion. Practices such as sacred site conserva seasonal rituals, and ecological taboos are essential for maintaining environmental and cul health (Louis, 2007; Vinyeta & Lynn, 2020). Conservation, therefore, becomes an ecolo imperative and a means of cultural continuity and spiritual renewal.

The theory also introduces the concept of healing and restoration. Conservation efforts incorpor traditional knowledge and Indigenous leadership contribute to ecological rehabilitation an revival of disrupted cultural practices (Barra & Jessee, 2024). Initiatives such as commu managed wildlife areas and Indigenous land trusts reflect this relational and restorative ethos (P Martín & Esquivel-Martín, 2024).

2.1.3 Sustainable Livelihoods Framework (SLF)

The Sustainable Livelihoods Framework (Vedeld, 2016)) offers a comprehensive tool for anal how individuals and communities sustain their well-being through various assets and activiti conservation settings, SLF is instrumental in assessing the impacts of protected area manage on local livelihoods and designing community-driven strategies for resilience (Büscher & Dre 2012; Lesorogol & Lesorogol, 2024).

The SLF identifies five key asset categories, natural, physical, human, social, and financial, v communities rely on for survival. For pastoralists like the Karimojong, access to grazing l water, and forest products is vital. However, conservation-related restrictions often lead t alienation of these natural assets, with minimal compensation or alternative support mechar (Okech, 2011; Vedeld et al., 2016). Additionally, intangible assets such as sacred landsc traditional medicinal knowledge, and cultural practices are frequently overlooked, weak community cohesion and food security (Galvin, 2009).

The capabilities aspect of the SLF refers to a community's ability to access resources, infl decision-making, and improve quality of life. While community-based conservation initiatives to promote local empowerment, studies suggest that participation is often superficial and deci

making remains centralized (Barrow & Murphree, 2001; Roe et al., 2009). There is a pressing for conservation approaches that actively build community capabilities through leade development, skills training, and inclusion in governance (Lesorogol & Lesorogol, 2(Furthermore, limited longitudinal research examines how enhanced capabilities affect conserv outcomes and community resilience, highlighting a critical gap in current practice.

The Continuous Engagement Model, Indigenous holistic theory, and Sustainable Livelih Framework provide a robust theoretical foundation for this study. These frameworks align witl lived realities of the Karimojong and offer culturally relevant, participatory, and resilience-foc perspectives on community engagement, integration, and livelihoods in conservation contexts. T integration enables a deeper understanding of how conservation initiatives can succeed by respe Indigenous knowledge systems and addressing socio-ecological challenges holistically inclusively.

2.1.4 Integration of Theories

While each theoretical framework offers unique insights, their integration provides a r comprehensive analytical lens for this study. The Continual Engagement Model (CEM) is prim concerned with how communities participate in conservation through iterative cycles of dialo action, and reflection. It explains the processes of engagement but pays limited attention tc cultural dimensions shaping how engagement is interpreted and sustained.

The Indigenous Wholistic Theory (IWT) addresses this gap by foregrounding culture as a li system of values, practices, and spiritual connections to the environment. In this study, I strengthens the analysis of how Karimojong traditions, such as sacred site protection, ecolo

taboos, and rituals, moderate the pathways through which engagement produces integration. Ye itself, IWT does not fully capture the socio-economic outcomes of conservation.

The Sustainable Livelihoods Framework (SLF) complements both by analyzing how conserv influences livelihood outcomes, including assets, activities, and capabilities. It allows this stu assess the tangible and intangible trade-offs of conservation, while connecting ecolo governance to household resilience. However, the SLF is less attuned to cultural and particip dimensions, which are captured through CEM and IWT.

Together, the three frameworks address the study's moderated mediation model: commu engagement (CEM) influences livelihood outcomes (SLF) through cultural integration, with cu (IWT) moderating the process. This triangulation ensures the study does not privilege ecologic economic dimensions alone, but situates conservation within cultural meaning systems, govern processes, and livelihood realities.

Furthermore, integrating these theories acknowledges the multi-layered governance of Ki Valley National Park, where conservation outcomes are shaped simultaneously by local pract cultural legitimacy, and policy frameworks. This pluralistic perspective is critical in contexts Karamoja, where top-down conservation has historically excluded Indigenous voices.

2.2 Culture: Norms, Values, and Practices of Pastoral Communities around National Par

Understanding the conservation landscape among pastoral communities requires an in-d examination of their embedded cultural constructs, namely, the norms, values, and practices shape their relationship with nature. These elements inform community worldviews and influ behaviours and responses to wildlife management interventions. In Indigenous settings suc Karamoja, traditional ecological systems are governed by a complex set of culturally sancti rules and belief systems that have historically contributed to the sustainable use of biodiversity. section unpacks these dimensions, beginning with the normative structures that guide accep conduct concerning wildlife and natural resources.

2.2.1 Norms

Research across Africa highlights those cultural norms, such as taboos, sacred animal beliefs spiritual restrictions, significantly shape community attitudes and behaviours toward wil conservation. In various Indigenous communities in Uganda and Cameroon, these norms traditionally regulated hunting, limited wildlife exploitation, and promoted respect for biodive (Bortolamiol et al., 2018; Ngoufo et al., 2014). These practices offer a framework for cultu grounded conservation strategies that align well with local worldviews. However, integrating t norms into formal conservation frameworks has proven challenging. Conflicts often arise w statutory conservation laws override traditional customs, leading to resistance and undermi conservation efforts (Ngoufo et al., 2014). Scholars argue that recognising and institutional indigenous cultural norms in conservation models could enhance their legitimacy and effective (Adolf et al., 2024). Culturally based conservation approaches are increasingly recommende they bridge traditional ecological ethics with formal wildlife governance systems.

2.2.2 Values

Cultural values such as viewing animals as symbols of identity, ancestry, and spiritual powe deeply embedded in many African communities' relationships with nature (Bortolamiol et al., 2 Infield & Mugisha, 2018). These values influence conservation behaviour and offer intr motivations for wildlife protection. However, conservation strategies prioritising economic ecological indicators often overlook or conflict with these cultural foundations (Infield, 2001). misalignment can lead to diminished community support or even resistance. Scholars advocat integrating traditional cultural values into protected area governance to enhance conserv initiatives' legitimacy, acceptance, and sustainability (Infield & Mugisha, 2018).

Historically, the national park concept, as Harper and White (2012) observe, was rooted i colonial idea of protecting "pristine" landscapes for recreation and conservation. Originati settler societies like the United States and Australia, this model spread globally. In Uganda, Ki Valley was first gazetted as a game reserve in 1958 under British colonial rule, leading to the evi of Indigenous inhabitants. The post-colonial government later upgraded it to a national park in 1 setting a precedent for conservation-driven displacement and local exclusion (Harper & W 2012).

Several studies have examined local perceptions and conservation challenges in different cont In Ethiopia, Kabede, Mano, Gure and Abie (2018) identified habitat destruction, species loss poaching as major threats, while noting local dependence on natural resources. Although respondents supported conservation, the study lacked clarity on how communities were engag these efforts. Similarly, Gebo, Takele, and Shibru (2022) reported resistance to carni

conservation in the Southern Rift Valley due to livestock predation, calling for targeted aware programs to promote coexistence.

In South Africa, Duncker and Gonçalves (2017) found that community attitudes toward wil crime and conservation were mixed. While many endorsed conservation, they were only willi support it if it provided tangible benefits. Their study highlighted the need for conserv partnerships that offer equitable returns to local communities, an area often neglected in r contexts.

Cebrián-Piqueras et al. (2020) and Cortés-Avizanda et al. (2022) found that community knowl of endangered or emblematic species varied by occupation and age. In Mediterranean prote areas, animal husbandry workers and hunters were more familiar with species than other gro suggesting that conservation strategies must tailor engagement to specific social actors. Both stu call for awareness campaigns that emphasise lesser-known species, reinforcing the need community-based education in conservation.

Bennett (2016) underscores that community perceptions offer valuable insights into conserv policies' social and ecological impacts. He argues that involving local people in governance monitoring enhances the legitimacy and effectiveness of environmental management. Jyrwa e (2020a) further observed that socio-economic status and education levels influence percepti poorer individuals often held negative views of wildlife due to conflicts, while more educ individuals appreciated its ecological role. However, like many other studies, their research la a detailed exploration of how local communities are meaningfully involved in conserv activities.

The literature suggests a consistent gap in understanding the active role of Indigenous and l communities in conservation beyond perception and attitude assessments. Despite evidenc cultural alignment with conservation ideals, actual involvement in decision-making, benefit-shai and ecological governance remains minimal or poorly documented. This gap underpins the ratio for the current study, which seeks to contextualise the involvement of the Karimojong in wil conservation in Kidepo Valley National Park, addressing issues of values, participation, integra and livelihood outcomes from both qualitative and quantitative perspectives.

2.2.3 Practices

Traditional practices such as totemic restrictions, elder-led regulated grazing, and commu defined hunting taboos have historically supported biodiversity conservation in many Afi societies (Bortolamiol et al., 2018; Ngoufo et al., 2014). Deeply embedded in cultural routines, t practices can provide a basis for locally acceptable conservation measures. Nevertheless, as fo conservation policies have expanded, tensions have arisen where these modern laws igno marginalise Indigenous systems. Scholars like Infield (2001) argue that cultural practices have undervalued in conservation design, with economic incentives often replacing social and cul motivations. Integrating these practices into official management plans has the potential to reco traditional and modern conservation goals, fostering more sustainable outcomes.

The reviewed studies demonstrate that norms, values, and practices provide locally legiti governance mechanisms. However, most existing literature is descriptive and does not examine these cultural constructs are operationalised within contemporary conservation governance example, while taboos and rituals are acknowledged, few studies assess how they are nego

within Uganda Wildlife Authority frameworks. This gap underscores the need for empirical rese that situates Indigenous practices in relation to state-led conservation in KVNP.

2.3 Community Engagement in Wildlife Conservation among Pastoralists aroundNationa Parks

Community engagement is widely recognised as a cornerstone of effective and sustainable wil conservation, particularly in contexts involving pastoralist societies. Among such commun engagement goes beyond mere consultation; it encompasses a spectrum of involvement, inclu participation in decision-making, emotional investment in conservation goals, and long- commitment to protecting biodiversity. However, engagement levels often vary due to s political, cultural, and institutional factors. This section explores the different dimensior community engagement, beginning with examining active participation, which reflects comm members' tangible roles and actions in conservation efforts.

2.3.1 Active Participation in Wildlife Conservation

Community participation is crucial for effective wildlife conservation, but challenges persist. tenure systems and wildlife policies significantly influence community engagement (Kipkeu, 2 Education plays a vital role, with youth whose parents are involved in tourism-related acti exhibiting more positive attitudes towards conservation (Kioko & Kiringe, 2010). However, wil corridors face threats from human settlements and conflicting land uses. Minimal comm involvement in planning and management and a lack of direct benefits hinder active particip (Kiria, Ayonga, & Ipara, 2014). Also, cultural influences affect community perspectiv participation within wildlife conservation (Lolem et al., 2025). Equitable benefit-sharing inclusive decision-making are essential for sustainable conservation efforts (Tarimo & Olotu, 2

Proposed solutions include integrated conservation models, zoning for spatial conflict resolu environmental education, and ecotourism initiatives that allow communities to benefit protecting wildlife and their habitats (Kiria et al., 2014). Historical top-down approa disregarding indigenous land rights, further constrain conservation efforts (Ipara, Akong Akama, 2005). These approaches aim to foster a sense of ownership and long-term commit among local populations, thereby enhancing the effectiveness of conservation efforts.

2.3.2 Emotional attachment to Wildlife Conservation

Emotions play a crucial role in shaping human attitudes towards wildlife conservation. Studies shown that emotional responses to wildlife are diverse and context-dependent, ranging from fea anger to joy and interest (Arbieu, Taysse, Gimenez, Lehnen, & Mueller, 2024; Castillo-Hu Naranjo, Santos-Fita, & Estrada-Lugo, 2020). These emotions can significantly influ conservation attitudes and behaviours. For instance, fear of large predators like wolves negatively impact conservation efforts, while positive emotions like joy can foster support (A et al., 2024; Notaro & Grilli, 2022). Emotional dispositions, relatively stable traits, serve as cr for appraising the emotional relevance of wildlife encounters (Jacobs, Vaske, & Roemer, 2 Research has identified key emotional dispositions such as novelty, valence, and compatibility standards (Jacobs et al., 2012). Understanding and addressing these emotional dynamics is cr for developing effective conservation strategies, particularly for species that evoke ambiv reactions (Castillo-Huitrón et al., 2020).

Research suggests that emotional attachment plays a significant role in wildlife conservatior influences human attitudes towards animals. Emotional bonds with conservation spaces, suc wildlife centres or parks, can foster pro-environmental behaviours and a deeper appreciatio

biodiversity. For instance, Alias, Mariapan, Aziz, and Samdin (2023) found that visitors who fo emotional connections with wildlife centres were likelier to engage in environmentally respon behaviour. However, the emotional landscape surrounding wildlife is complex and often spe specific. Large predators and reptiles commonly evoke fear, anger, or anxiety, while charismat endangered species may inspire empathy, admiration, or sadness (Castillo-Huitrón et al., 2020)

In the context of human-wildlife conflict, these emotions become particularly salient. For exan Kaltenborn, Bjerke, Vitters, and oslash (1999) showed that farmers' emotional attachme livestock strongly predicted negative attitudes towards large carnivores, reinforcing oppositic predator conservation. Similarly, Castillo-Huitrón et al. (2020) found that fear and emp influenced how communities in Mexico perceived and engaged with wildlife, especially in a prone to human-wildlife encounters. Media also shapes emotional responses; Casola et al. (2 demonstrated that wolf-related videos could elicit awe or fear, significantly affecting suppo wolf conservation.

Recognising and integrating these emotional dynamics into conservation planning is increasi essential. Naranjo, Santos-Fita, and Castillo-Huitrón (2024) argue that including local knowl and emotional connections in conservation frameworks leads to more culturally resonant effective interventions. This perspective emphasises the need for emotionally intelli conservation strategies that address community concerns, mitigate fear, and cultivate emp particularly towards species that elicit ambivalent reactions. Understanding human-wil relationships' emotional undercurrents can greatly enhance conservation efforts by fostering i inclusive and sustainable practices.

While the literature confirms the importance of participation, attachment, and commitment, ı studies remain fragmented: participation is often reduced to meeting attendance, emotions are rı integrated into governance analysis, and commitment is examined only in relation to econ benefits. Few studies evaluate how these three dimensions interact or how they are mediate cultural integration. This gap is particularly evident in pastoralist contexts like Karamoja, w historical exclusion, poverty, and insecurity complicate engagement processes. The present s therefore examines engagement holistically, using the Continual Engagement Model to analyse participation, attachment, and commitment translate into conservation legitimacy.

2.3.3 Long-term Commitment to Wildlife Conservation

Historical, socio-economic, and policy-related factors shape long-term commitment to wil conservation among African communities. Colonial-era protected areas often excluded communities from their traditional lands, fostering mistrust and resistance (Tessema, Ashe Lilieholm, & Leader-Williams, 2007). Communities support conservation when they perc tangible and sustained benefits; however, land-use changes, livelihood pressures, and hur wildlife conflicts often deter sustained commitment (Okello, 2005). Among Maasai pastora shifting conservation policies, land dispossession, and altered livelihoods have eroded commit to conservation, though targeted benefits and respectful engagement can restore trust (Fernár Llamazares et al., 2020; Tessema et al., 2010).

Historical marginalisation of community-based conservation in academic discourse (Matheka, 2 has since given way to studies highlighting the role of perceptions, socio-demographic factors governance models in shaping long-term commitment (Katswera, Mutekanga, & Twesigye, 2

Travers, 2021). In Ethiopia, Bussa (2023) found that inclusive and context-sensitive strategie crucial for fostering lasting support.

Socio-economic exclusion hinders enduring conservation participation (Hobbs & White, 2(Kansky et al. (2016) note that individuals are more likely to sustain conservation efforts \ benefits outweigh costs. Solak (2003) and Bhatia et al. (2020) stress the need for culturally infor approaches, while Milich et al. (2021) advocate for participatory models that foster ownership commitment.

Although Woolley et al. (2021) focus on urban contexts, their findings reveal that particip conservation, rooted in nature connection and sustained engagement, fosters long-term commitr Muhereza (2019) and Derkyi et al. (2021) likewise found that enduring participation is link(leadership roles, training, and equity in benefit distribution.

Human-wildlife conflict remains a significant deterrent to long-term commitment. Treves ((2009) and Ochieng et al. (2021) argue that participatory conflict resolution and compens mechanisms are essential for restoring community trust and sustained engagement. Bitariho ((2019) affirm this by highlighting the limited durability of donor-driven interventions.

In Karamoja, high poverty levels (James & Tonny, 2019), perceived benefit exclusion (IIED, 2(and bureaucratic inefficiencies (Government of Uganda, 2013) further constrain long- conservation commitment. Ferguson et al. (2019) add that historic insecurity and poaching created deep-seated mistrust, discouraging sustained local involvement.

Overall, the reviewed literature underscores long-term community commitment to conserv hinges on inclusive governance, sustained and equitable benefits, cultural alignment, and t

building. These insights inform the current study's focus on understanding the barriers and pathv to long-term conservation commitment among the Karimojong in Kidepo Valley National Park

2.4 Cultural Integration in Wildlife Conservation aroundNational Parks

Cultural integration in conservation refers to the meaningful incorporation of Indiger worldviews, knowledge systems, and socio-political structures into formal conserva frameworks. For pastoralist communities such as the Karimojong, integration is a pathway tov mutual respect, trust, and shared responsibility between conservation authorities and l populations. Moving beyond tokenistic inclusion, effective integration demands deliberate strate that acknowledge community agency and foster collaborative governance. The follov subsections unpack key pillars of integration, starting with active partnerships, which are centr fostering co-management, accountability, and equitable benefit-sharing in wildlife conservatior

2.4.1 Active Partnerships

Community-based conservation (CBC) has emerged as a promising approach to address limitations of traditional top-down conservation models in Africa (Namara, 2006; Hackel, 19 CBC emphasises community involvement in wildlife management and decision-making, promc co-ownership of conservation processes. While it has demonstrated potential in reducing threa protected areas and enhancing local livelihoods (Mugisha & Jacobson, 2004; Chhetri et al., 20 challenges remain in achieving truly participatory and equitable models (Goldman, 2003, 20 Recent reviews show CBC initiatives often lead to positive ecological outcomes but mixed sc results (Galvin et al., 2018). When conservation empowers Indigenous peoples through sh

governance and acknowledges customary institutions, it produces more inclusive and lasting re (Dawson et al., 2021; Sele & Mukundi, 2024).

2.4.2 Knowledge Blending

Traditional Ecological Knowledge (TEK) is increasingly recognised as crucial to biodive conservation and natural resource management (VijayKumar, 2019; Ens et al., 2021). Integra TEK with Western science enhances ecosystem understanding and promotes sustainable prac (Huntington, 2000). However, challenges such as power imbalances, ethical concerns, and cul misunderstanding persist (Shackeroff & Campbell, 2007; Yanou et al., 2023). Effective integra depends on respect for Indigenous worldviews, collaborative fieldwork, and equitable knowl exchange (Hoagland, 2017; Drew, 2005). Participatory and interdisciplinary approaches essential to decolonise conservation and center Indigenous perspectives (Molnár & Babai, 202

2.4.3 Trust-Building

Trust between communities and conservation actors is foundational for long-term engagement success. Historical injustices, such as forced displacement and marginalisation, have weakened in conservation institutions (Chatty & Colchester, 2003). Efforts to restore trust include ben sharing arrangements, such as tourism revenue schemes, although their success depend transparency and institutional support (Archabald & Naughton-Treves, 2001). However, s programs fail to shift deep-rooted behaviours such as poaching (Infield & Namara, 2001). Contr resource access and inclusive management, as seen in Uganda's Mount Elgon National (Mutebi, 1996), can help. Still, conservation often persists despite local opposition due to domi

conservation narratives (Brockington, 2004). Understanding the intersections of power, identity governance is crucial for equitable partnerships (Dietsch et al., 2021).

2.4.4 Access to Information

Community participation in conservation depends significantly on the quality and frequenc information sharing. Effective communication between conservation agencies and l communities enhances awareness, compliance, and trust (Andrade & Rhodes, 2012; McCartl al., 2018; Anagnostou et al., 2020). Access to biodiversity and conservation data is especially in resource-limited settings (Hammond et al., 2008). Uganda Wildlife Authority has impleme collaborative programs including regulated resource use and community education (Chhetri e 2003; Infield & Namara, 2001; Mutebi, 1996). However, many communities remain unaware of rules, face unequal benefit distribution, and experience unresolved grievances (Rugady Kamusiime, 2013). Woodhouse et al. (2015) stress the importance of situating local stakeholde the centre of conservation, linking land rights, education, and livelihoods for integrated, cultu grounded management strategies.

The reviewed literature underscores that integration is not only about adding community voice restructuring conservation governance to reflect Indigenous systems of knowledge and autho While partnerships, blended knowledge, trust, and information-sharing are well recognised, the often implemented superficially. Few Ugandan studies assess how integration is perceive communities themselves, or how cultural legitimacy interacts with state power in shaping outco This gap justifies examining cultural integration in KVNP as a mediating variable, lin engagement to livelihood outcomes.

2.5 Community Livelihood outcomes attributed to Wildlife Conservation of pastoralists around National Parks

Wildlife conservation does not occur in isolation from the socio-economic realities of adj communities. Among pastoralist populations, conservation efforts inevitably intersect livelihoods, influencing access to resources, economic opportunities, and overall well-b Evaluating livelihood outcomes is crucial for understanding conservation interventions' perce benefits and trade-offs. These outcomes can be assessed across three key dimensions: livelil activities, access to livelihood assets, and the enhancement of capabilities. The discussion b with exploring livelihood activities, which reflect the economic engagements and daily prac shaped or transformed by conservation policies and programs.

2.5.1 Activities

In the community-based conservation (CBC) context, livelihood activities, such as tourism, enterprises, and revenue-sharing schemes, are often positioned as avenues for generating inc and fostering positive conservation behaviour. However, the literature reveals that such activitie frequently misaligned with traditional livelihoods, especially in pastoralist settings. Roe et al. (2 and Barrow and Murphree (2001) advocate for the diversification of conservation-related inc streams, but caution that unless these are culturally appropriate and accessible, their impact remain limited. Büscher and Dressler (2012) critique many CBC models as symbolic, designed r for political legitimacy than genuine economic empowerment. Lesorogol and Lesorogol (2 similarly argue that externally imposed conservation-related activities can clash with local temp and spatial livelihood patterns, generating resistance and disillusionment. Vedeld et al. (2 further note that conservation efforts often replace or restrict traditional activities such as gra

and foraging, especially where protected area boundaries exclude communities from key resou These misalignments can undermine the sustainability of both conservation goals and livelihoods.

2.5.2 Assets

Assets, both tangible and intangible, form a critical pillar of the Sustainable Livelihoods Frame and have received increasing attention in conservation literature. Traditionally, the focus has on material assets such as land, water, livestock, and income-generating tools. However, G (2009) and Lesorogol (2024) emphasise that intangible cultural assets—such as sacred medicinal plant knowledge, and ritual spaces, are equally vital, particularly among Indigenous pastoralist communities. Okech (2011) highlights how conservation often fails to account for t less-visible assets, leading to cultural alienation and identity loss. In many African contexts, alienation for protected areas has disrupted access to both types of assets, creating long-term s economic vulnerabilities (Vedeld et al., 2016). Bortolamiol et al. (2018) stress that conserv strategies must account for these diverse assets to foster community resilience and participatic failure to integrate these concerns risks marginalising Indigenous groups, even under commu based conservation regimes.

2.5.3 Capabilities

Literature on conservation and capabilities focuses on the community's ability to act, adapt, influence conservation decisions. Roe et al. (2009) underscoreunderscore the importance of buil local capabilities as part of meaningful participation in natural resource governance. However, c argue that capacity-building often remains surface-level, focusing on technical skills rather

enabling structural change. Büscher and Dressler (2012) contend that many conservation prog inflate perceptions of empowerment without transferring absolute authority or influence. creates what they describe as "performative inclusion," where communities appear engaged but limited control over outcomes. Barrow and Murphree (2001) call for a reorientation towarc management frameworks that recognize and bolster local capabilities in implementation planning, monitoring, and evaluating conservation programs. Lesorogol and Lesorogol (2024) that the failure to connect growing awareness with actual roles in governance leads to incre frustration, despite communities becoming more conservation-literate. Effective conserv requires more than awareness; it demands agency and shared authority.

The Sustainable Livelihoods Framework (SLF) concept of activities refers to the various actions endeavours that individuals or communities undertake to support their livelihoods. These activ can include farming, pastoralism, fishing, trade, or other survival strategies. In the context of wil conservation, activities are often shaped, and sometimes constrained, by external forces suc conservation policies, land use restrictions, and community-based tourism projects. Alth conservation-related activities like tourism revenue-sharing and eco-tourism enterprises promoted as livelihood opportunities, they often fail to align with the traditional practices aspirations of pastoralist communities (Büscher & Dressler, 2012; Lesorogol & Lesorogol, 2(Many initiatives provide only marginal or unpredictable economic benefits, leading to widesp dissatisfaction and weakening local support for conservation efforts (Okech, 2011; Vedeld e 2016). However, a significant gap remains in designing conservation-linked activities compa with local livelihoods, culturally appropriate, and resilient to external shocks such as climate ch or tourism market fluctuations. Few studies have systematically assessed how to co-dev activities that integrate conservation with seasonal pastoral needs or diversified livelihood strate

In the SLF, assets are tangible and intangible resources that individuals and communities use to l and sustain their livelihoods. These include natural, physical, human, social, and financial asset conservation contexts, pastoralist communities are particularly dependent on natural assets suc grazing lands, water sources, and forests. However, establishing protected areas often results ir alienation of key assets, notably land and sacred sites, with limited or no compensation mechan in place (Okech, 2011; Vedeld et al., 2016). Conservation-driven asset loss has profoundly impa food security, cultural survival, and social cohesion among affected communities (Galvin, 2 Lesorogol & Lesorogol, 2024). However, a significant gap in conservation policy and pra remains regarding recognising and protecting intangible assets like spiritual sites, traditi knowledge, and medicinal resources. Furthermore, little research has focused on restorin compensating for lost assets beyond monetary payments, including options like negotiated ac ecosystem service payments, or community-managed zones.

Within the SLF, capabilities refer to the capacity of individuals and communities to exercise age access resources, make meaningful choices, and improve their quality of life. In many conserva settings, local communities suffer from limited capabilities due to exclusion from govern structures, discrimination in employment within protected areas, and minimal investment in s development (Roe et al., 2009; Barrow & Murphree, 2001). While community-based conserva initiatives theoretically promote participation, critiques highlight that participation is c tokenistic, with real decision-making power retained by external actors (Büscher & Dressler, 2 Lesorogol & Lesorogol, 2024). A critical gap exists in developing conservation approaches include communities and actively build their capabilities over time through sustained investme education, leadership development, and institutional empowerment. Additionally, few studies l

itudinally tracked how enhanced capabilities affect conservation outcomes and community ience, suggesting a need for longer-term, community-driven evaluation frameworks.

evidence shows that conservation produces uneven livelihood outcomes: while some seholds benefit through tourism and alternative activities, many experience loss of assets, kened food security, and limited agency in decision-making. Existing literature rarely applies SLF holistically, most studies emphasise economic benefits while neglecting cultural assets or tical capabilities. This narrow focus leaves important trade-offs unexamined, particularly in oralist regions where identity, mobility, and ecological resilience are central to livelihoods. The ent study addresses this gap by applying the SLF comprehensively to assess how conservation apes activities, assets, and capabilities among the Karimojong.

Moderating Role of Culture in the Relationship between Community Engagement, gration, and Livelihood Outcomes in Conservation

s summary synthesises findings from multiple community-based conservation and tourism lies, emphasising the interplay between community engagement, cultural context, and livelihood comes. Community engagement in conservation efforts has positively impacted livelihoods and ural preservation. For instance, Ahebwa et al. (2016) highlighted that community participation conservation initiatives can enhance economic well-being and cultural heritage. However, the cess of such interventions is heavily influenced by local cultural contexts and institutional neworks. Waylen et al. (2010) emphasised that interventions aligning with local institutions and tural norms are more likely to succeed.

The relationship between community engagement and livelihood outcomes may be mediated b embeddedness. Karatepe and Ngeche (2012) found that job embeddedness partially mediate impact of work engagement on job performance and turnover intentions, suggesting that d integration into one's job role can influence the effectiveness of community engagemer livelihoods.

A case study of the Buhoma-Mukono community-based tourism project in Uganda demonst that well-integrated conservation and development interventions and strong institutional framew can successfully contribute to local livelihoods while addressing conservation needs (Ahebv Duim, 2013).

Recent studies further underscore these findings. Gidebo (2023) examined community-b tourism development in Ethiopia's Nech Sar National Park, revealing that such initiatives can local livelihoods with biodiversity conservation, provided community participation and pos attitudes toward tourism. Similarly, Stone et al. (2021) theorised the linkages between prot areas, tourism, and community livelihoods, emphasising the need for contextualised approa considering local socio-cultural dynamics.

Evidence from East Africa shows that conservation succeeds when interventions fit local institu and values. Using comparative case analysis, Waylen et al. (2010) reported higher effectiv where interventions aligned with community norms. In Uganda, Ahebwa & van der Duim (2(through a mixed-methods case study of the Buhoma-Mukono initiative, found that cultu embedded arrangements improved livelihood benefits and compliance. Longitudinal work ar Bwindi showed that benefit-sharing schemes increased cooperation but did not erase distrust w cultural grievances persisted (Bitariho et al., 2019). Participatory studies in Ugandan parks simi

highlight that acknowledging sacred sites and customary leadership increases acceptance of r and monitoring (Infield & Namara, 2001; Dietsch et al., 2021).

In Uganda, Kiconco et al. (2025) investigated livelihood strategies among communities near nati parks, finding that both tourism-related and non-tourism-related activities influence sustain livelihood outcomes, highlighting the importance of diversified livelihood strategies. A case st from Botswana's Goo-Moremi Gorge illustrated that community-based tourism can lead to so economic benefits, including job creation and cultural preservation, when local people are acti involved in tourism development (Tourism Cases, 2024).

2.6.1 The research gap

The reviewed literature provides a strong foundation for understanding the dynamics of commu engagement, cultural values, and conservation outcomes in various African contexts. Howe several critical gaps remain that specifically justify an in-depth study focused on the Karimojor Northeastern Uganda, particularly around Kidepo Valley National Park.

First, although numerous studies acknowledge the role of cultural norms, values, and traditi practices in shaping conservation behavior (Bortolamiol et al., 2018; Infield & Mugisha, 2 Ngoufo et al., 2014), there is limited empirical research examining how these socio-cultural elen are actively integrated into formal conservation strategies. Much of the literature ren descriptive, focusing on attitudes and perceptions, without evaluating how such values translate long-term conservation commitments or influence ecological governance.

Second, while community-based conservation (CBC) initiatives are lauded for prom partnerships and co-management (Namara, 2006; Hackel, 1999; Dawson et al., 2021), they ofte

short of genuine community empowerment. Many CBC models are still top-down in design, lac mechanisms for meaningful engagement or equitable benefit-sharing (Büscher & Dressler, 2(This gap is pronounced in pastoralist regions like Karamoja, where livelihoods are de intertwined with land use patterns that may be incompatible with rigid conservation policies.

Third, emotional attachment and socio-economic conditions are recognized as key predictor community support for conservation (Arbieu et al., 2024; Castillo-Huitrón et al., 2020; Fernán Llamazares et al., 2020). However, few studies have explored how these factors influence long-t conservation commitment. This gap is particularly evident in contexts marked by displacen poverty, and historical marginalisation (Ferguson et al., 2019; James & Tonny, 2019).

Fourth, the literature emphasises the importance of integration through active partnersl knowledge blending, trust-building, and information access but lacks detailed assessments of integration is operationalised or perceived at the grassroots level (Goldman, 2003; Ens et al., 2 Dietsch et al., 2021). In particular, there is scarce documentation of how Karimojong commun experience or interpret their inclusion in conservation decision-making around Kidepo Va National Park.

Finally, while livelihood outcomes are frequently discussed in terms of income generation tourism benefits (Roe et al., 2009; Barrow & Murphree, 2001), few studies critically examine conservation affects pastoralist activities, access to assets (especially intangible cultural assets community capabilities to influence policy. The Sustainable Livelihoods Framework (SLI seldom applied holistically in conservation research, leaving gaps in understanding conservation impacts intersect with pastoral resilience and identity (Lesorogol & Lesorogol, 2 Okech, 2011).

Table 2.1: *Summary of Research Gaps in Literature on Conservation, Culture, and Livelihoods*

Theme	What Literature Shows	Identified Gap
Cultural norms, values, and practices	Many studies describe taboos, rituals, and sacred sites that regulate resource use (e.g., Ngoufo et al., 2014; Infield & Mugisha, 2018).	Few studies evaluate how these cultural constructs are actively integrated into formal conservation governance, particularly in Uganda.
Community-based conservation (CBC)	CBC initiatives promote partnerships and co-management (Namara, 2006; Dawson et al., 2021).	Most CBC models remain top-down; little is known about how pastoralist communities like the Karimojong negotiate power and benefits within these structures.
Emotional attachment & socio-economic drivers	Emotions and poverty strongly influence conservation attitudes (Castillo-Huitrón et al., 2020; Fernández-Llamazares et al., 2020).	Limited analysis of how emotions ar socio-economic exclusion shape *lon term conservation commitment* in pastoralist contexts.
Cultural integration mechanisms	Literature highlights partnerships, knowledge blending, and trust-building as important (Ens et al., 2021; Dietsch et al., 2021).	Few empirical studies assess how communities themselves perceive integration efforts, or how cultural legitimacy interacts with state conservation authority.
Livelihood outcomes	Studies examine tourism, income, and assets (Roe et al., 2009; Büscher & Dressler, 2012).	Narrow focus on economic benefits; little research on intangible cultural assets, political capabilities, and resilience of pastoralist livelihoods.
Application of SLF and theory	SLF is widely used in development research (Vedeld et al., 2016).	Rarely applied holistically in conservation studies; limited integration with cultural and engagement theories in African pastoralist settings.

Overall, the reviewed literature demonstrates that while African pastoralist cultures contri important ecological norms and values, their integration into formal conservation remains limi often tokenistic, and poorly understood. Community-based conservation initiatives have expan participation but tend to neglect deeper issues of cultural legitimacy, equity, and power relati Emotional attachments, livelihood pressures, and generational shifts remain underexplored as

CHAPTER THREE

METHODS

This chapter outlines the methodology adopted to investigate community engagement, cul integration, and livelihood outcomes among the Karimojong pastoralists in the context of wil conservation in Kidepo Valley National Park (KVNP), Northeastern Uganda. The methodolo choices were guided by the need for cultural sensitivity, analytical rigor, and alignment witl study objectives.

A convergent parallel mixed-methods design was employed. This design allowed simultan collection of quantitative and qualitative data, enabling comparison, triangulation, and integr of findings. Quantitative methods provided measurable trends in community engagen integration, and livelihood outcomes, while qualitative methods generated in-depth insights lived experiences, cultural norms, and historical perspectives. To enrich the cross-sectional snap retrospective questions were included, drawing on community recall of the past 10 yea conservation practice since the implementation of the most recent KVNP General Management

The chapter is organised into the following sections: research philosophy, study design, s setting, study population, sampling, data collection, instruments, quality control, data anal ethical considerations, dissemination, and positionality.

3.1 Research Philosophy

The study was grounded in pragmatism, which values both objective and subjective realitie addressing complex conservation issues (Creswell & Creswell, 2018). Pragmatism allows integration of quantitative approaches for identifying empirical patterns with qualitative approa for exploring meaning and lived experience (Scotland, 2012).

In this study, surveys quantified perceptions of engagement, integration, and livelihood outco while interviews and focus group discussions explored the cultural meanings and power dyna shaping those outcomes. This dual orientation ensured that neither numerical patterns nor cul narratives were privileged in isolation. Pragmatism also required ongoing reflexivity (Engl 1994), cultural sensitivity, and ethical engagement. As an insider researcher, positionality acknowledged and managed through collaborative interpretation and respect for Indige knowledge systems.

3.2 Study Design

The research adopted a convergent parallel mixed-methods design (Creswell & Plano Clark, 2(In this design, quantitative and qualitative data were collected concurrently, analysed separately, then merged for interpretation. The rationale was threefold:

Triangulation; to cross-validate findings from different data sources, complementarity; to a qualitative narratives to explain or expand quantitative trends, and developmental insight, to gen both generalisable patterns and culturally embedded explanations relevant to the Karimo context.

While primarily cross-sectional in execution, the design incorporated retrospective element asking participants to reflect on changes and continuities in conservation engagement over the decade. This approach enriched the analysis by situating current perceptions within a temporal historical frame, without claiming a longitudinal design.

Quantitative data were collected through structured surveys to measure participation, cul integration, and livelihood outcomes. Qualitative data were collected through focus g discussions and key informant interviews to capture perspectives on cultural norms, instituti interactions, and generational change. Integration of the two strands occurred during interpreta where convergences, divergences, and expansions were documented to provide a holistic accou how culture moderates the engagement–integration livelihood pathway.

3.3 Study Setting

The study was conducted in Kidepo Valley National Park (KVNP), situated in the rer northeastern region of Uganda, specifically at Kaabong and within Karenga Districts, approxima 510 kilometres by road from Kampala, the capital city (Mugerwa et al., 2014). Gazetted in 1 KVNP covers an area of 1,442 square kilometres (557 square miles), making it Uganda's th largest national park after Queen Elizabeth and Murchison Falls National Parks. Located at northernmost tip of the country, the park lies at the tri-border area where Uganda meets Kenya South Sudan. Its northwestern boundary runs along approximately 50 kilometres of the internati border with South Sudan (KVNP-GMP, 2010).

The study specifically focused on three sub-counties within Karenga, Lokori, and Kawalakol targeted eleven parishes within these administrative units for data collection.

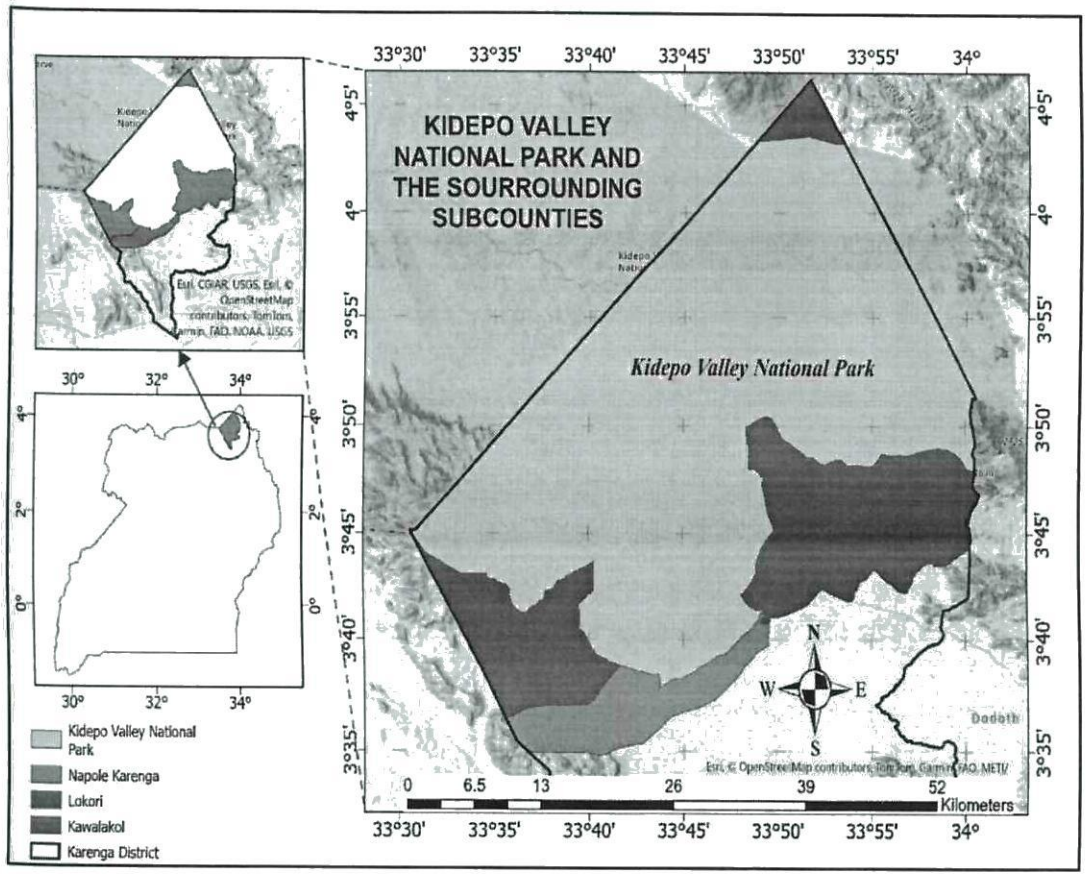


Figure 2: Map showing the Study Area

Source: Adapted from Google Earth at https://www.bing.com/images/search

Kidepo Valley National Park, located in Karenga District in Northeastern Uganda, spans about 1, km² of semi-arid savannah, with average temperatures of 29°C and annual rainfall of around mm. Key features include Mount Morungole and the Kidepo and Narus rivers, which sustain lif the otherwise dry terrain. The park borders South Sudan to the northwest, Kenya to the west, the Napore Ridges to the southeast, lying about 220 km from Moroto and 520 km from Kampala the Soroti–Mbale route (Carmody & Taylor, 2016).

The surrounding communities are mainly Karimojong pastoralists, whose semi-nomadic revolves around cattle herding, small-scale farming, and cultural practices tied to livestock, gra

lands, and sacred sites. Alongside them, the Ik people depend on wild plants, water, and wild The Karimojong trace their origins to Ethiopia and are part of the broader Ateker cluster, inclu the Jie, Dodoth, Turkana, Toposa, and Pokot. Today, cattle remain central to their social, cult and spiritual life, symbolising survival and identity, while conservation policies increasi intersect with their traditional practices and historical ties to the land.

3.4 Study Population

The study population comprised individuals and institutions directly connected to wil conservation and Indigenous cultural practices in communities surrounding Kidepo Valley Nati Park (KVNP). Two categories of respondents were targeted. The first category consisted of a Indigenous Karimojong men and women aged eighteen years and above, residing in villages adja to KVNP. These participants were selected because of their lived experiences with conservat livelihood dynamics and their role in sustaining cultural traditions. The second category compr institutional respondents, including local leaders such as elders, Local Council officials, cul custodians, and parish-level representatives, alongside officials from the Uganda Wildlife Auth (UWA) stationed in KVNP. Their perspectives were essential for understanding govern processes, policy frameworks, and institutional approaches to conservation. Together, these categories provided a balanced population encompassing both grassroots and institutional a shaping the interface between community engagement, cultural integration, and conserv outcomes.

3.5 Inclusion and Exclusion Criteria

To ensure cultural relevance and data quality, clear inclusion and exclusion criteria gui participant selection. For the community sample, eligible respondents had to be of Karimoj ethnicity, aged eighteen years or older, and have lived continuously in the study area for at least years. These requirements ensured that participants had both the cultural grounding and experien knowledge necessary for providing valid insights into the research questions. For institutic participants, the criteria required that UWA officials must have served in KVNP for at least months, while local leaders needed a minimum of one year of active involvement in governanc conservation-related decision-making. Individuals who did not belong to the Karimoj community, had resided in the area for less than ten years consistently, or who were unwillin unable to provide informed consent were excluded from the community sample. Similarly, U staff with less than six months of service and leaders with insufficient experience were exclu from the institutional sample. This streamlined framework replaced the earlier, overly detailed and ensured consistency across both quantitative and qualitative strands of the study.

3.6 Sampling Approach

The study employed a convergent parallel mixed-methods sampling strategy, where quantitative qualitative samples were drawn separately but later integrated during analysis to allow triangul of findings. For the quantitative strand, a three-stage sampling design was adopted. In the first st eight villages were purposively selected from the thirty-two bordering KVNP, with one vil chosen per parish based on proximity and intensity of interaction with the park. In the second st eligibility screening was conducted using the criteria outlined above to establish a culturally contextually appropriate sampling frame. From this process, 650 eligible participants

identified. In the final stage, a stratified random sampling procedure was used to select respondents from the frame. Stratification by gender, age, and social roles such as elders, wor and youth ensured demographic balance and statistical validity. The sample size was determ using the Krejcie and Morgan (1970) formula for finite populations, which confirmed that the respondents were sufficient to represent the target population.

For the qualitative strand, purposive sampling was used to capture maximum variation institutional knowledge. Five focus group discussions (FGDs) were held, one per selected pa each comprising between six and nine participants. The participants were drawn from Local Cor 1 committee members, including representatives of youth, women, and elders, whose r positioned them as cultural and political custodians within their communities. The FGDs conducted in Ngakarimojong, facilitated by a trained moderator and assisted by a note-taker. I session lasted between sixty and ninety minutes and was held in community halls or shaded out spaces agreed upon with local leaders. Audio recordings were taken with consent, and refreshm and transport reimbursements were provided. In addition, five key informant interviews (KIIs) conducted with purposively selected institutional actors, including the Senior Wildlife Offic KVNP, the District Agricultural Officer, a religious leader, a Local Council V councillor responsibility for education and health, and the District Environmental Officer. Interviews conducted in either Ngakarimojong or English, depending on the respondent's preference, and lasted between forty-five and sixty minutes in quiet, private settings. The selection of t informants was based on their institutional knowledge, decision-making roles, and strat positions in shaping conservation outcomes. This combined sampling design ensured that the s generated both the breadth necessary for generalisation and the depth required for cultural institutional insight.

3.7 Data Collection Methods

The study employed multiple data collection methods aligned with the convergent parallel mi methods design. Quantitative and qualitative data were collected concurrently, ensu complementarity and enabling triangulation.

Quantitative data were obtained through a structured household survey administered to respondents. The survey captured socio-demographic characteristics, cultural values and pract levels of community engagement, and perceived livelihood outcomes. This tool directly addre research objectives one to four by generating measurable indicators of conservation va engagement practices, and livelihood impacts.

Qualitative data were collected through five focus group discussions (FGDs) and five key infor interviews (KIIs). The FGDs were conducted in Ngakarimojong, moderated by a trained facili with assistance from a note-taker, and held in neutral community spaces such as local halls. session lasted between sixty and ninety minutes, and discussions explored intergenerati knowledge, gendered perspectives, and local narratives of conservation and cultural integra KIIs, lasting forty-five to sixty minutes each, were conducted with purposively selected leader officials, including local council members, religious figures, and Uganda Wildlife Authority These interviews elicited expert views on governance frameworks, conservation policy, institutional relationships with communities. Both FGDs and KIIs addressed objectives one, and five by providing contextualised explanations of cultural practices, engagement processes the moderating role of culture.

This multi-method approach ensured that quantitative patterns could be validated and expa through qualitative insights, while qualitative findings were grounded in broader quantit evidence.

3.8 Data Collection Instruments

All instruments were adapted from validated tools in conservation research and tailored t Karimojong context to ensure cultural sensitivity and semantic accuracy.

The quantitative instrument consisted of a four-part structured questionnaire covering s demographics, cultural norms and practices, community engagement, and livelihood outco Responses were captured on a five-point Likert scale ranging from strongly disagree (1) to stro agree (5). Items were translated into Ngakarimojong, back-translated into English, and pre-t with twenty non-sample respondents to confirm reliability and clarity. The questionnaire gene numerical data for descriptive statistics, correlation analysis, and moderated mediation modelli

For the qualitative strand, two semi-structured guides were developed. The FGD guide incl open-ended prompts exploring Indigenous ecological knowledge, conservation values, perceptions of co-management arrangements. The KII guide was tailored to officials' and lea roles, focusing on institutional mandates, benefit-sharing arrangements, and decision-ma processes. Both guides encouraged probing for depth and were piloted with a small group to er clarity and appropriateness. These instruments generated rich narrative data, which were transcribed, translated, and thematically analysed.

Together, the instruments were designed not only to capture data but also to link directly t analysis framework. For example, the survey instrument provided inputs for moderated medi

analysis of the relationship between engagement, integration, and livelihood outcomes, while FGD and KII guides generated qualitative evidence to interpret and contextualise those statis relationships.

3.9 Data Collection Procedure

Data collection was carried out in two concurrent streams—quantitative and qualitative—consi with the convergent parallel mixed-methods design.

For the quantitative strand, enumerators mobilised participants with assistance from local lea and conducted structured face-to-face interviews using tablets preloaded with the questionnai Google Forms. Interviews were held in private community spaces to ensure confidentiality lasted approximately 40 minutes. Completed forms were uploaded daily to a secure cloud fo and entries were monitored by the principal investigator for accuracy and completeness.

For the qualitative strand, five FGDs were conducted in neutral community halls and open sp agreed upon by participants. Each group comprised 6–9 participants selected through purpo sampling from local council committees. Sessions lasted 60–90 minutes, were facilitate Ngakarimojong by a moderator, and supported by a note-taker. Discussions followed a s structured guide with probing questions on cultural practices, engagement processes, conservation experiences. Five KIIs were conducted in offices or community settings convenier informants, each lasting 45–60 minutes. These targeted local leaders and Uganda Wildlife Auth officials with direct responsibilities for conservation. All qualitative sessions were audio-reco with consent, transcribed verbatim, and translated into English before analysis.

This structured but culturally sensitive approach ensured consistency across sites while respe
community norms.

3.10 Data Quality Control

Several measures were adopted to enhance reliability, validity, and trustworthiness across
quantitative and qualitative strands.

Training and Piloting: Six enumerators underwent a three-day training workshop on et
protocols, interviewing techniques, and cultural sensitivity. Instruments were piloted in a non-s
village to refine question flow, translation accuracy, and timing.

Supervision: Daily field debriefings were conducted, and spot-checks ensured adherence to prot
Inconsistencies were corrected in real-time.

Instrument Reliability and Validity: For the quantitative tool, internal consistency was tested u
Cronbach's alpha, targeting ≥ 0.70 for all multi-item scales. Construct validity was supporte
adapting items from validated conservation engagement tools.

Qualitative Trustworthiness: Credibility was ensured through triangulation of FGDs, KIIs,
documentary reviews. Dependability was enhanced by maintaining detailed field notes and an a
trail of coding decisions. Transferability was facilitated by a thick description of the study cont

Data Handling: Survey entries were double-checked and exported into Stata 17 for analysis. A
files were anonymised, securely stored, and transcribed by trained bilingual assistants. Transc
were checked for accuracy before coding in NVivo 14.

3.11 Data Management and Analysis

Data analysis followed the convergent parallel mixed-methods strategy, where quantitative qualitative datasets were analysed separately and then integrated during interpretation.

3.11.1 Quantitative Analysis

Survey data were cleaned, coded, and analysed using Stata version 17. Descriptive stati (frequencies, percentages, means, and standard deviations) were generated to summarise partici characteristics and core variables. Bivariate analysis (chi-square, t-tests) explored prelimi associations between community engagement, cultural integration, and livelihood outcomes.

The main inferential analysis employed Hayes' PROCESS macro (Model 14) to test a moder mediation framework. Community engagement (X) was modelled as the independent varia livelihood outcomes (Y) as the dependent variable, cultural integration (M) as the mediator, culture (W) as the moderator of the X → M path. Bootstrapping with 5,000 resamples gener bias-corrected confidence intervals for indirect effects. Moderation was probed at high, medium, low levels of culture, following Aiken and West's (1991) guidelines. This allowed assessmer whether cultural context strengthened or weakened the effect of engagement on integration, consequently, on livelihood outcomes.

This approach was selected because it allowed simultaneous testing of mediation and modera effects in line with the study's conceptual model.

3.11.2 Qualitative Analysis

FGD and KII transcripts were uploaded into NVivo 14 and coded inductively and deductively. In open coding captured recurrent ideas on conservation values, engagement, integration, livelihood outcomes. Codes were then clustered into categories and themes aligned with the st objectives. Thematic analysis was complemented by constant comparison to refine subther Representative quotes were selected to illustrate community voices and institutional perspectiv

3.11.3 Integration of Findings

Results were merged at the interpretation stage through side-by-side comparison tables and narra synthesis. Convergences (e.g., when both strands supported similar conclusions), divergences (e where qualitative insights contradicted quantitative patterns), and expansions (e.g., where qualita data provided depth beyond numeric findings) were explicitly documented. This integra approach ensured that statistical associations were contextualised within lived experiences cultural narratives.

3.12 Ethical Considerations and Administrative Clearance

This study adhered to internationally recognised research ethics standards and the guideline Mbarara University of Science and Technology (MUST). Ethical approval was first obtained f the MUST Research Ethics Committee (MUST-REC), under reference MUST-2024-1428 follo by registration with the Uganda National Council for Science and Technology (UNCST), u reference SS3755ES. Administrative permissions were also secured from the district, sub-cou and parish offices to ensure compliance with local governance structures.

Informed Consent

Participation in the study was entirely voluntary. Before any interview, focus group discussio survey, participants were briefed in detail about the objectives of the research, the procedures t followed, potential risks, expected benefits, and their rights including the right to declin withdraw at any stage without penalty. Information sheets were provided in both English Ngakarimojong. For participants with limited literacy, information was read aloud and consent obtained verbally, with thumbprints or signatures used to document agreement. An impartial wit was present for illiterate participants to safeguard voluntariness.

Confidentiality and Anonymity

To protect privacy, no personal identifiers were used in transcripts or data files. Each participant assigned a unique code, and any quotations used in reporting were anonymised. Audio f transcripts, and survey data were stored in password-protected digital folders and in locked cabi accessible only to the researcher and authorised assistants. Data handling followed MUST's management and protection policy to ensure that confidentiality was maintained throughout study and beyond dissemination.

Risk Minimisation and Participant Protection

The study anticipated minimal risks, but special attention was given to sensitive themes suc cultural loss, forced displacement, and disarmament. To reduce emotional distress, facilitators v trained in culturally sensitive communication and basic psychological first aid. In instances wh participants showed signs of discomfort, discussions were paused and, if necessary, referrals v made to local psychosocial support providers. Gender-matching between moderators

participants was applied where possible to increase comfort, particularly in FGDs addres gendered experiences.

Community Engagement and Cultural Sensitivity

Recognising the historical marginalisation of Indigenous communities in conservation research, study incorporated deliberate mechanisms for cultural respect and reciprocity. Community entry facilitated through meetings with elders, clan leaders, and local council officials, who prov guidance on culturally appropriate practices. Research assistants were drawn from the Karimo community and trained on confidentiality, respect, and sensitivity to cultural taboos. Rese instruments were translated into Ngakarimojong and pilot-tested to ensure clarity and cul resonance.

Data Sharing and Reciprocity

Ethical research extends beyond data collection to sharing findings with those who contrib Accordingly, dissemination meetings were planned in each participating sub-county, during w results were presented in plain language and Ngakarimojong translation. Community members invited to validate interpretations and refine recommendations. This participatory feedback ens that findings were not extractive but contributed directly to local knowledge and capacity.

Researcher Positionality and Sestive Topic Management

As a member of the Karimojong community, the researcher recognised the dual role of insider academic investigator. Reflexivity was maintained throughout fieldwork to balance closeness critical distance, and steps were taken to avoid bias by using trained assistants, triangulating

sources, and consulting external experts during analysis. This reflexive practice strengthened credibility and trustworthiness of the study while ensuring respect for Indigenous worldviews.

Sensitive topics such as displacement, land loss, and militarisation were introduced cautiously, participants retaining the right to skip questions or withdraw. These strategies ensured that pc imbalances did not silence vulnerable voices and that sensitive subjects were approached dignity and respect.

In sum, the ethical safeguards implemented in this study extended from formal institutional appr to field-level cultural sensitivity and reciprocity. These measures ensured that the research not protected participants' rights and welfare but also fostered trust, respect, and meaningful engager with the Karimojong pastoralists whose voices and experiences formed the heart of the study

CHAPTER FOUR

DATA PRESENTATION AND INTERPRETATION

This chapter presents the analysis and interpretation of data collected through a convergent par mixed-methods design, combining quantitative and qualitative approaches to provid comprehensive understanding of the interactions between cultural identity, conservation pract and livelihood outcomes among the Karimojong in Kidepo Valley National Park (KV Quantitative data were analysed using descriptive and inferential statistics, with results presente tables and figures supported by means, frequencies, standard deviations, and correlations; w relevant, moderated mediation analysis was employed to test conditional relationships. Qualita data from focus group discussions and key informant interviews were thematically analyse capture lived experiences and Indigenous meanings, illustrated through themes, subthemes, verbatim quotes. Together, these strands complement one another, with qualitative insights enric quantitative findings. The presentation is organised around the study's five objectives: explc conservation values, norms, and practices; assessing community engagement; examining cul integration; evaluating livelihood outcomes; and analysing the moderating role of culture in sha these relationships.

4.1 Background characteristics of Respondents

A total of 243 respondents participated in the survey. Table 4.2 presents their demographic socio-economic characteristics.

The majority were female (51.9%), while 48.1% were male. Most respondents were in the 3(years age bracket (61.0%), followed by 19–29 years (24.9%), with only 14.1% aged 50 years

above. This indicates that the study sample largely consisted of individuals in their m economically active years.

Education levels were generally low. Half of the respondents (50.0%) had no formal educati while 36.0% had primary education, 11.6% secondary, and only 2.5% tertiary. This reflects limited educational opportunities available in the Karamoja region and has implications community participation in formal conservation programs also showing the karimojong depende on land resources.

Table 4.2: Background characteristics of Respondents

Characteristics	Definition	Frequency	Percentage (%)
Gender	Female	126	51.9
	Male	117	48.1
Age (Years)	19–29 years	60	24.9
	30–49 years	147	61.0
	≥50 years	34	14.1
Education	No formal education	121	50.0
	Primary education	87	36.0
	Secondary education	28	11.6
	Tertiary	6	2.5
Marital status	Not married	8	3.3
	Married	235	96.7
Religion	Catholics	219	90.9
	Anglican	8	3.3
	Others	14	5.8
Residence	Rural	195	80.2
	Urban	48	19.8
Origin	Migrant	46	19.1
	Native	195	80.9

Marital status showed that nearly all respondents were married (96.7%), suggesting that househ level perspectives and responsibilities may have influenced conservation attitudes. In term religion, the population was predominantly Catholic (90.9%), with small proportions of Angli (3.3%) and others (5.8%). Residence patterns revealed that most respondents were rural dwe

(80.2%), and 80.9% were native residents, with only 19.1% being migrants. This demogra distribution highlights the importance of conservation strategies that are sensitive to local tradit and livelihoods.

4.2 Wildlife conservation values, norms, and practices of the Karimojong around KVNP

The first objective of this study was to explore the wildlife conservation values, norms, and pract of the Karimojong community living around Kidepo Valley National Park (KVNP). The gui question was: *What are the wildlife conservation values, norms, and practices of the Karimojon KVNP?* To address this, survey responses were analysed using descriptive statistics, compleme by qualitative narratives from focus group discussions (FGDs) and key informant interviews (K

Table 4.3 summarizes Karimojong cultural values, norms, and practices related to wil conservation using a 5-point Likert scale coded 1=Strongly Agree (SA), 2=Agree (A), 3=Undec (UD), 4=Disagree (D), 5=Strongly Disagree (SD); thus, lower means indicate stronger endorsem Each item has N=243 valid responses.

Table 4.3: Descriptive Statistics on Wildlife Conservation Values, Norms, and Practices of the Karimojong

Culture Item	SA+A (%)	UD (%)	SD+D (%)	Mean ±
Karimojong culture upholds wildlife conservation	76.9	5.3	17.7	1.9 ± 1.
Animals as cultural symbols of power/wisdom	48.5	8.6	42.8	2.8 ± 1.
Overall Values	62.8	7.0	30.2	2.4 ± 1.
Hunting non-edible wild animals for fun	42.4	4.5	53.1	3.2 ± 1.
Killing sacred animals is prohibited	32.5	4.9	62.5	3.6 ± 1.
Wild meat excluded from rituals	31.6	3.3	65.1	3.6 ± 1.
Overall Norms	34.0	4.2	61.2	3.5 ± 1.
Elder leadership supports conservation	58.0	7.4	34.5	2.6 ± 1.
Restrictive hunting as conservation	55.6	6.6	37.9	2.6 ± 1.
Cultural protocols regulate wildlife	57.2	8.2	34.5	2.6 ± 1.
Overall Practices	56.9	7.4	36.5	2.6 ± 1.
Overall Culture	50.4	6.1	43.5	2.8 ± 1.

4.2.1 Cultural Values and Wildlife Conservation in KVNP

The results show that conservation values are widely acknowledged in Karimojong culture combined 77% of respondents (61.7% SA, 15.2% A) agreed that Karimojong culture upho wildlife conservation, with a relatively low mean of 1.9 ± 1.4, suggesting strong positive consen Similarly, more than half (48.5%) agreed that animals are viewed as cultural symbols of power wisdom. However, a significant 42.8% disagreed, and the mean score was higher (2.8 ± 1 indicating weaker endorsement compared to the general belief in conservation. Overall, 62. supported conservation-related values, while 30.2% disagreed, showing that although wildlif symbolically meaningful, its interpretation is contested across the community.

Qualitative evidence on values also, revealed that values still persist within cultural memory practices. Three subthemes emerged from the narratives. First, animals remain important symb of identity and bravery. One participant explained: *"The horn of a buffalo is worn by someone*

lled it to show bravery" (FGD A, R16). Second, wildlife continues to play a role in rituals an edicine, as illustrated by the statement: *"The zebra's brain was used to cure patients with epilepsy* GD D, R16). Third, values are framed as heritage and continuity, with elders stressin tergenerational transmission: *"If the children are born and find no animals, it is not good at all* GD A, R3).

uantitative data on values suggest strong overall support for conservation values, while qualitativ idings too show that symbolic, ritual, and heritage-based meanings still exist among elders an aditional leaders. This suggests that while values are declining across generations, they remain tential cultural resource for conservation if integrated into formal strategies.

2.2 Cultural Norms and Wildlife Conservation in KVNP

ie findings on cultural norms reflect fragility and decline. While conservation values wer firmed, only 34% (SA+A) supported restrictive norms such as prohibitions against killing sacre imals or excluding wild meat from rituals. In contrast, more than 60% (61.6%) disagreed wit ese statements. The high mean values (3.6 ± 1.8) confirm this tilt toward disagreement, indicatin at traditional taboos are no longer widely practiced. This suggests a shift away fro stitutionalised cultural norms, likely driven by statutory conservation laws and restricted ritu cess that undermine traditional authority.

ualitative findings reinforced these trends and revealed four subthemes about norms. First, stron otection of sacred animals and totemic species was evident, as one elder shared: *"...the pregna imals and those with the young are set free"* (FGD C, R4). Second, norms around communit gulation of hunting emerged, with participants recalling: *"Extinction of certain species, like th*

oan antelope, was taken seriously since it was our totem" (KII 2, Agriculture Officer). Thi
ultural performances such as dances and songs promoted conservation values: *"Songs and danc*
ere used to promote wildlife respect" (KII 3, Senior Warden). Finally, sacred sites were govern
y community consensus, such as *"Akiriket is where we would gather for blessings... now locked*
ie park" (FGD C, R10).

lorms remain the strongest and most intact cultural mechanism regulating conservation. Wh
uantitative results confirm their prevalence, qualitative insights highlight their richness, rangi
om taboos on hunting to cultural education through performances. These enduring norms provi
n important entry point for linking Indigenous traditions with formal park management.

.2.3 Cultural Practices and Wildlife Conservation in KVNP

ultural practices showed a more balanced pattern. About 57–58% agreed that elder leadersl
58%), restrictive hunting (56%), and cultural protocols (57%) support conservation, while rougl
6–27% disagreed. The mean scores across these items were 2.6 ± 1.7, reflecting moder
greement. These results highlight that although not universal, practices anchored in elder author
nd customary regulation still retain legitimacy for over half of the community. However,
ersistence of about a quarter of respondents in disagreement underscores that these practices, wh
live, are unevenly adhered to and therefore fragile.

Qualitative findings illustrated both persistence and decline. Five subthemes on cultural practi
merged. First, regulated grazing reflected shared responsibility, as participants noted: *"Peo*
hared park resources... directed where and when to graze their cows... under surveillance of p
uthorities" (FGD A). Second, elder-controlled hunting was described as sustainable

accountable: *"Long ago, there were open sessions for hunting. Controlled by the elders and later the Local Council I Committee members"* (FGD E, R3). Third, cultural performances reinfor conservation values in the community: *"We even had days where cultural groups would danc the park. That promoted peace"* (KII 3, Senior Warden). Fourth, community scouts were recrui for wildlife deterrence, though unsustainable: *"In 2022, there was recruitment of commu scouts... but they abandoned the work because of lack of motivation"* (FGD B, R6). Fina traditional monitoring of animal movements demonstrated ecological knowledge: *"Small anim like ngamemun were shepherded with cows and goats... moving with goats harmoniously"* (FGD R16).

Quantitative results suggest moderate adherence to conservation practices, while qualitative findi illustrate a tension between persistence and decline. Traditional practices remain significant but l institutional support, making them fragile. Incorporating these practices into formal governa frameworks could enhance sustainability and strengthen co-ownership of conservation.

When aggregated, 50.4% of respondents agreed across the cultural dimensions, while 43. disagreed. The overall mean (2.8 ± 1.4) positions cultural orientation toward conservation moderately positive but inconsistent. Taken together, the evidence suggests that cultural mean and symbolic values remain strong, but weakened norms and partially sustained practices limit t effective enactment. In other words, culture continues to provide a moral basis for conservation, the institutional environment constrains how these values and practices are lived out in every life.

The results show a hierarchy of cultural conservation mechanisms: norms remain strong and wid observed, practices are moderately sustained but fragile, and values are weak and erodi

Quantitative trends highlight these differences, while qualitative narratives provide insight into symbolic, ritual, and practical meanings behind them. Together, the findings indicate t conservation strategies in KVNP should focus on revitalising weakened values, reinforcing fra practices, and strengthening the already resilient cultural norms.

4.3 Community Engagement in Wildlife Conservation of the Karimojong around KVNP

The second objective of this study was to assess the extent of community engagement in wild conservation among the Karimojong living around Kidepo Valley National Park (KVN Community engagement was measured using three items across three dimensions (Participati Emotional Attachment, and Long-term Commitment) on a 5-point Likert scale (1=SD, 2=D, 3=U 4=A, 5=SA). For reporting, we grouped responses into Disagree (SD+D), Neutral (UD), and Ag (A+SA) and presented n (%). We also report Mean ± SD using the original 1–5 coding (highe more engagement). Each item had N=243; scale totals are the sum of three items.

While the Karimojong have historically maintained strong cultural ties to the land and its wildl the findings reveal a disconnection between these traditions and the current conservation structu Table 4.4 shows the qualitative results, while the interpretation integrates both quantitative evide and qualitative narratives to present a comprehensive picture of community engagement.

Table 4.4: Community Engagement in Wildlife Conservation

Category	Item (short)	Disagree n (%)	Neutral n (%)	Agree n (%)	Mean ± SD
Participation	**Scale total**	**(88.1%)**	**(7.0%)**	**(4.9%)**	**1.4 ± 0.8**
Participation	Involvement	214 (88.1%)	22 (9.1%)	7 (2.9%)	1.4 ± 0.8
Participation	Decision-making	219 (90.1%)	12 (4.9%)	12 (4.9%)	1.4 ± 0.8
Participation	Collaboration	209 (86.0%)	17 (7.0%)	17 (7.0%)	1.5 ± 1.0
Attachment	**Scale total**	**(90.1%)**	**(7.0%)**	**(2.9%)**	**1.4 ± 0.7**
Attachment	Indigenous knowledge	220 (90.5%)	16 (6.6%)	7 (2.9%)	1.3 ± 0.7
Attachment	HWC frameworks	218 (89.7%)	18 (7.4%)	7 (2.9%)	1.4 ± 0.8
Commitment	**Scale total**	**(90.1%)**	**(5.3%)**	**(4.5%)**	**1.4 ± 0.8**
Commitment	Workshops	218 (89.7%)	12 (4.9%)	13 (5.3%)	1.4 ± 0.9
Commitment	Funding	220 (90.5%)	13 (5.3%)	10 (4.1%)	1.3 ± 0.8
Commitment	Plan	219 (90.1%)	14 (5.8%)	10 (4.1%)	1.4 ± 0.8
Overall engagement	**Scale total**	**(89.4%)**	**(6.4%)**	**(4.3%)**	**1.4 ± 0.7**

4.3.1 Active participation in wildlife conservation among the Karimojong

Perceptions of hands-on involvement are overwhelmingly negative (88.1% disagree; 4.9% agree M=1.4 ± 0.8). Item-wise, Collaboration with government/NGOs shows the highest (though still low endorsement (7.0% agree), while Involvement is weakest (2.9% agree) and Decision-makin remains marginal (4.9% agree). The pattern points to limited inclusion in planning and executior with only isolated signs of external partnership.

Qualitative accounts deepen this picture by highlighting how exclusion manifests in every experiences. Many participants reported that they are routinely "informed, not consulted" (KII4 conservation meetings, signalling a lack of genuine participatory structures. Others emphasi systemic marginalisation in employment: *"Our youths are qualified but ignored... outsiders employed in Kidepo"* (KII5). Even community-based roles such as wildlife scouts, once intende foster participation, have become unsustainable due to a lack of facilitation. One respondent n with frustration, *"How can you risk your life to sleep in the forest when you are not given anyth even soap?"* (FGD B, R6).

At the same time, community narratives showed that cultural forms of participation remain al albeit unrecognised by formal conservation systems. Traditional practices such as regulated graz controlled hunting under elder supervision, and cultural performances in the park once sustai participation. As one elder explained, *"People shared park resources... directed where and whe graze their cows... under surveillance of park authorities"* (FGD A). Another recalled, *"Long a there were open sessions for hunting. Controlled by elders... the pregnant animals and those the young are set free"* (FGD E, R3; FGD C, R4). Such quotes underscore that participation is absent, but culturally embedded in practices of stewardship. However, these mechanisms increasingly sidelined, leaving communities to feel alienated.

The synthesis of quantitative and qualitative findings demonstrates a clear contradiction: while Karimojong maintain strong traditions of stewardship, formal conservation systems exclude tl from decision-making, employment, and collaboration. This duality explains why ac participation scores so poorly: participation exists, but in cultural forms unrecognised by exte institutions.

4.3.2 Emotional attachment to wildlife conservation among the Karimojong

Affective/cultural alignment with conservation is the weakest of the three dimensions (90.: disagree; 2.9% agree; M=1.4 ± 0.7). Both Indigenous knowledge valued and HWC framewo: effective, attracting only 2.9% agreement each, indicating that local knowledge is not perceived integrated, and conflict-management structures are not felt on the ground.

Qualitative narratives highlight this disconnect vividly. Many participants described the closure sacred sites, which has caused spiritual frustration: *"Sacred sites have been closed off... community is spiritually frustrated"* (KII5). Elders recalled a past harmony between people a wildlife: *"We lived with animals... there was harmony between the community and wildlife"* (F(A, R1). Others mourned the cultural and emotional loss caused by conflict and displacement. (respondent recounted, *"We cried when animals were extensively killed by gunmen from So Sudan, and we composed a song crying for help to save animals"* (FGD B, R8).

At the same time, community pride in wildlife remained visible. Some participants linked anin to identity and belonging: *"We feel proud when we see giraffes and lions. It is like our home value"* (FGD D, R2). Others emphasised deep ancestral connections: *"There are animals we do kill. They are our ancestors' animals... we feel bad when they die"* (FGD F, R6). Such stateme reveal that emotional attachment persists at a cultural level, but institutional neglect erodes it failing to respect or integrate these attachments into conservation practice.

In summary, the low quantitative scores reflect alienation from formal conservation, w qualitative accounts show that emotional bonds remain strong within cultural frameworks. Witl

recognition of these emotional and spiritual dimensions, conservation risks undermining the ver values that could foster community support.

4.3.3 Long-term commitment to wildlife conservation among the Karimojong

Signals of sustained investment and planning are similarly low (90.1% disagree; 4.5% agree; M=1. ± 0.8). Workshops/training shows the "least negative" view (5.3% agree), but Funding and Pla remain especially weak (≈4% agree each), suggesting structural bottlenecks (resources, clea roadmaps) that undermine long-term engagement.

Qualitative narratives, however, reveal resilience in cultural continuity. Elders stresse intergenerational responsibility: *"Even our children must know how to protect these animals. If w lose them, we lose our name"* (FGD A, R3). Another reflected, *"Wildlife is not for today. We protec it because our great-grandfathers did, and our grandchildren should also find it"* (FGD D, R6). A recurring theme was the sacred obligation of stewardship: *"God gave us this land and these animal If we misuse them, our children will suffer curses"* (KII1, Elder).

Yet frustrations were also evident. Communities expressed anger at broken promises, especiall around compensation: *"They said if animals eat someone's garden, it must be compensated... bu since then, no one has been compensated"* (FGD B, R5). Others criticised unsustainabl conservation policies: *"If people are not part of it, they won't support it... they retaliate by killin animals or setting fires"* (KII3). Distrust in government and NGOs was common: *"Communitie don't see much... some projects are ghost projects"* (KII4).

Thus, while cultural narratives show a willingness to sustain conservation across generations institutional neglect, unfulfilled promises, and lack of inclusion weaken this commitment

Quantitative disengagement is therefore not a reflection of community apathy, but broken trus external actors.

Aggregating across items, perceptions are stark: 89.4% disagree, 6.4% neutral, 4.3% agree (M= ± 0.7). Taken together, the data indicate a systemic engagement gap, communities feel exclu from decisions, undervalued in knowledge contributions, and unsupported by resources planning. Any co-conservation strategy should therefore prioritize inclusive decision platfor formal recognition of indigenous knowledge, and visible, funded action plans (with commun facing workshops as an achievable early win).

In a nutshell, the analysis of community engagement reveals a consistent pattern: quantitative res show extremely low levels of engagement across active participation, emotional attachment, long-term commitment, while qualitative narratives highlight the cultural depth of engagement t exists but is unrecognised by formal systems. The Karimojong continue to value conservation part of their heritage, spirituality, and identity, but they perceive themselves as excluded fr decision-making, marginalised in employment, and unsupported in compensation or long-te planning. Engagement is thus not absent, but structurally suppressed. Bridging this gap requi conservation policies that genuinely integrate Indigenous voices, respect cultural practices, rebuild trust through transparent and equitable benefit-sharing.

4.4 Cultural Integration in Wildlife Conservation at Kidepo Valley National Park, Northeastern Uganda

Cultural integration was assessed across four dimensions, Active Partnerships, Blending (integration of Indigenous and scientific knowledge), Trust building, and Information Access, using a 5-point Likert scale coded 1=Strongly Disagree (SD), 2=Disagree (D), 3=Undecided (UD), 4=Agree (A), 5=Strongly Agree (SA). Because this coding is reverse-valenced (lower values = weaker endorsement/integration), we report Mean ± SD on the original 1–5 scale and also present collapsed response bands: Disagree = (SD+D), Neutral = (UD), Agree = (A+SA) with row-wise percentages. Each item has N=243 valid responses; scale totals pool items within a dimension. The section provides a table (Table 4.5) and a detailed interpretation that integrates quantitative results with qualitative evidence (quantitative patterns first, followed by qualitative explanations and illustrative quotations).

Table 4.5: Cultural Integration in Wildlife Conservation among the Karimojong around KVNP: Collapsed Likert Descriptives (N=243 per item)

Item (short label)	Disagree % (SD+D)	Neutral % (UD)	Agree % (A+SA)	Mean ± SD
Active Partnerships	**88.5**	**7.2**	**4.3**	**1.5 ± 0.9**
Strong partnership with external orgs	89.7	8.2	2.0	1.4 ± 0.8
Community participates in wildlife management	87.2	6.2	6.5	1.4 ± 0.8
Blending	**89.9**	**5.3**	**4.8**	**1.4 ± 0.9**
Indigenous values/practices integrated	90.9	4.1	5.0	1.5 ± 0.9
Open dialogue for balanced solutions	88.8	6.6	4.6	1.4 ± 0.9
Community updated via local channels	89.7	5.3	5.0	1.4 ± 0.9

Item (short label)	Disagree % (SD+D)	Neutral % (UD)	Agree % (A+SA)	Mean ± SD
Trust	**90.7**	**5.9**	**3.5**	**1.4 ± 0.8**
Involved in planning	91.7	6.6	1.6	1.4 ± 0.7
Collaborates with scientists	90.1	6.2	3.7	1.3 ± 0.7
TEK respected and utilized	90.1	4.9	5.0	1.4 ± 0.9
Information Access	**88.4**	**7.6**	**3.9**	**1.4 ± 0.9**
IK/practices in official policies	90.1	6.2	3.7	1.4 ± 0.8
Formal mechanism to integrate IK in decisions	86.9	9.1	4.1	1.4 ± 0.9
Overall	89.5	6.3	4.1	1.4 ± 0.8

Notes. Percentages are row-wise and may not sum to 100% due to rounding. Lower means indic weaker perceived integration (reverse coding: 1=SD … 5=SA).

4.4.1 Active Partnerships

Perceived partnership is very weak (M=1.5 ± 0.9), with 88.5% disagreeing and only 4.3% agree overall. The sharpest deficit is in "strong partnership with external organizations" (Agree 2.0' while "community participates in wildlife management" is slightly less negative (Agree 6.5' Together these show minimal shared roles and limited co-management.

Interviews/FGDs portray symbolic or episodic partnerships: communities are mobilized mainly casual labor or ceremonies, not co-planning or resource governance. As participants put it, *"Th is a partnership on paper, but we are only invited when they need labor, not when planning"* (KI *"We follow their instructions, but they do not do their part. We never see the benefits"* (FGD

The benefits and authority are perceived as unevenly distributed, reinforcing the low agreer rates.

4.4.2 Blending (Integration of Indigenous and Scientific Knowledge)

Blending shows consistently low endorsement (M=1.4 ± 0.9): 89.9% disagree and only 4.8% a overall. Items on integrating Indigenous values/practices (Agree 5.0%), open dialogue (Agree 4.6 and regular updates via local channels (Agree 5.0%) all cluster at the bottom.

Narratives indicate institutional disregard for Indigenous Knowledge (IK) and erosion of ea culture–conservation linkages. Respondents describe a top-down approach. "They only inform, don't consult" (KII4)—and recall the discontinuation of joint cultural events that once fost mutual respect (KII3). Some community members report being treated like poachers for b traditional practices (FGD C). In short, co-learning is rare, and IK is not visibly embedde operational strategies.

4.4.3 Trust

Trust registers the lowest agreement (M=1.4 ± 0.8): 90.7% disagree; 3.5% agree. The most nega item is "involved in planning" (Agree 1.6%), with modestly higher, but still poor, endorsemen "collaboration with scientists" (Agree 3.7%) and "TEK respected and utilized" (Agree 5.0%).

Trust deficits stem from exclusion from decisions, unmet commitments, and opaque recruitm Participants cite broken promises. *They promised to build a school. Only a foundation was l People are bitter"* (KII4), and the feeling that local recruitment into ranger roles would rec conflict, *"If our own were recruited, this conflict would reduce"* (KII2). These accounts map dire onto the weak quantitative endorsement.

4.4.4 Information Access

Quantitative. Information systems are perceived as non-responsive (M=1.4 ± 0.9): 88.4% disagree overall; only 3.9% agree. Agreement remains low on both "IK/practices in official policies" (Agree 3.7%) and "formal mechanisms to integrate IK in decisions" (Agree 4.1%), indicating thin procedural pathways for Indigenous input and feedback.

Qualitative. Participants report one-way communication and weak feedback loops: *"They come to take data... then nothing. They measure, write... the problem dies in the process"* (FGD B). Cultural marginalization compounds disengagement: *"Our culture is treated like a threat. That is why people retaliate when they see an animal"* (FGD C). The qualitative strand clarifies why agreement is so low: communities do not receive timely updates, cannot trace decisions, and do not see their inputs reflected.

Generally, the numbers quantify a pervasive pattern of non-integration (means ≈1.4–1.5; agreement ≈3–5%), while the voices explain it: tokenistic partnerships, sidelined IK, eroded trust through broken promises and exclusion, and fragile, one-way information systems. Moving from extractive to co-productive conservation will require: (i) institutionalized co-decision platforms with translated materials and public feedback timelines; (ii) formal embedding of Indigenous Knowledge (named elder roles; IK clauses in plans/HWC SOPs; revival of culturally safe joint events); and (iii) resourcing the last mile (predictable micro-budgets, gear for community scouts, transparent micro-granting, and regular radio/village-meeting updates tied to concrete actions).

4.5 Livelihood outcomes among the Karimojong attributed to wildlife conservation in KV

Livelihood outcomes were assessed across three dimensions, Activities (external pressu economic benefits, community-led initiatives), Assets (compensation, inclusivity/anti-bias, cult alignment, land/resource rights), and Capabilities (cultural/economic reliance on KVNP), using point Likert scale coded 1=Strongly Disagree (SD), 2=Disagree (D), 3=Undecided (UD), 4=A (A), 5=Strongly Agree (SA). Because 1–5 is ordered from disagreement to agreement, higher me indicate stronger perceived positive outcomes (note: items worded negatively, e.g., "pressure f external actors" or "racism/bias," reflect perceived problems when agreement is high). For cla we report collapsed bands—Disagree = SD+D, Neutral = UD, Agree = A+SA, as row-v percentages, alongside Mean ± SD computed on the original 1–5 coding. Each item has N=243 v responses; scale totals pool items within each dimension (equal Ns). Results are summarize Table 4.6, and the interpretation integrates quantitative patterns first, followed by qualita evidence (quotes/FGD/KII).

Table 4.6: Livelihood Outcomes among the Karimojong Attributed to Wildlife Conservation in KVNP: Collapsed Likert Descriptives

Item (short label)	Disagree % (SD+D)	Neutral % (UD)	Agree % (A+SA)	Mean ± SD
Activities	**73.3**	**6.9**	**19.9**	**2.0 ± 1.2**
Pressure from external actors	72.4	5.8	21.8	2.1 ± 1.5
Tangible economic benefits	75.8	6.2	18.1	2.0 ± 1.5
Community-led projects	71.6	8.6	19.8	2.0 ± 1.5
Assets	**66.2**	**8.0**	**25.9**	**2.4 ± 1.4**
Compensation schemes effective	70.8	7.8	21.4	2.0 ± 1.6

Item (short label)	Disagree % (SD+D)	Neutral % (UD)	Agree % (A+SA)	Mean ± SD
Racism/bias exclusion (problem indicator)	51.0	7.4	41.6	2.8 ± 1.8
Aligned with traditional values	71.6	7.8	20.6	2.1 ± 1.6
Land/resource rights reinforced	71.2	9.1	19.8	2.0 ± 1.5
Capabilities	**69.7**	**7.7**	**22.6**	**2.2 ± 1.6**
KVNP source of medicine/plants	66.7	9.1	24.3	2.0 ± 1.5
KVNP source of income	72.4	7.4	20.2	2.1 ± 1.6
KVNP for religious practices	70.0	6.6	23.4	2.8 ± 2.0
Overall	**69.3**	**7.6**	**23.1**	**≈2.2 ± 1.6**

As summarized in Table 4.6, perceptions of livelihood gains linked to conservation are generally weak. On the 1–5 scale (1=SD … 5=SA), the overall mean is 2.6 ± 1.6, with about 80.2% of responses in the Disagree band and only ~22.6% in Agree. In other words, most respondents do not perceive conservation as improving their socio-economic wellbeing. Qualitatively, participants describe thin or invisible benefit flows, contested land relations, and procedures that feel extractive rather than empowering, helping explain why agreement remains a minority position despite decades of "community-based" discourse.

4.5.1 Activities

The Activities dimension is the weakest performer (M ≈ 2.0 ± 1.2), with about three-quarters disagreeing (≈74%) that conservation has brought tangible economic benefits, visible community-led projects, or relief from external pressures on land and wildlife; only ≈20% agree across items. Item detail underscores the picture: tangible economic benefits show ≈76% disagree and ≈18%

agree; community-led projects record ≈72% disagree and ≈20% agree; external pressure paradoxical, ≈22% agree that pressure exists (a negative signal), reinforcing the broader sense daily life has not improved.

Interview and FGD narratives align tightly with these numbers. People describe land pressure a displacement ("*The Park has now taken our best land... we have nowhere to grow food.*" FGD I opaque or unrealized benefits ("*...they say money is given for schools and health centres. But whe are they?*" KII5), and non-functional compensation ("*There's a compensation policy, b implementation is poor... nothing has been done.*" KII3). Together, these accounts explain wh Activities scores are lowest: households do not see concrete, predictable, or fairly distributed gain from conservation activities.

4.5.2 Assets

Assets rate modestly higher (M ≈ 2.4 ± 1.4), yet ≈66% disagree overall and only ≈26% agree Agreement on effective compensation (≈21%) and alignment with traditional values (≈21%) remains limited, as does reinforcement of land/resource rights (≈20%). A notable outlier is "racism/bias causes exclusion" with ≈42% agreement, but this is a problem indicator, not a benefit, highlighting that many respondents perceive discriminatory dynamics inside conservation organizations.

Testimonies illuminate the mechanics behind the low asset scores: threatened land rights and eroded cultural assets dominate lived experience. Respondents recount park expansion into gardens ("*They told us to leave.*" FGD D), loss of medicinal and ritual resources ("*Ostrich eggs were kept by twins... now we have lost all that.*" FGD C), and restricted access to sacred sites ("*...now fenced off... people are bitter.*" KII4). These themes clarify why even the "better" dimension remains weak: perceived losses and exclusions overshadow sporadic recognition, keeping asset-related agreement low.

4.5.3 Capabilities

Capabilities sit between Activities and Assets ($M \approx 2.2 \pm 1.6$), with ≈22–23% agreement overall and ≈70% disagreement. Within this dimension, KVNP's role in religious practices is comparatively higher (≈23% agree; $M \approx 2.8$), while income (≈20% agree; $M \approx 2.1$) and traditional medicine/plants (≈24% agree; $M \approx 2.0$) remain minority views. The pattern suggests some cultural/spiritual connection to the park, but limited capability to convert proximity to wildlife/resources into livelihood gains.

Narratives point to gate-kept opportunity structures that depress capability development. Respondents describe exclusion from training and decent jobs ("*We want to be trained... Let us be guides. But the good jobs go to others.*" FGD D) and perceived discrimination in hiring/representation ("*Wildlife is good, but UWA is bad... Offices are filled with non-natives.*" FGD B). These barriers help explain why Capabilities do not lift the overall mean despite some cultural reliance: pathways to agency are narrow, so potential remains largely unrealized.

Taken together, the numbers show low perceived livelihood returns from conservation (overall $M=2.6$; ≈23% agree vs. ≈60% disagree), with Activities lowest, Capabilities modest, and Assets only slightly higher; partly because the strongest agreement within Assets flags a negative condition (bias/exclusion). The voices explain these scores: residents experience land pressure/dispossession, opaque or undelivered benefits, compensation that rarely materializes, restricted access to cultural resources, and exclusion from training and jobs. In short, the current model feels misaligned with local priorities, offering limited, unpredictable, and uneven gains.

4.6 Moderating Role of Culture in the Relationship between Community Engagem Integration, and Livelihood Outcomes (KVNP)

In this section, the moderating role of culture in the linkage between community engagement livelihood outcomes, both directly and indirectly via cultural integration, is evaluated for Karimojong around KVNP using normality screening, Spearman correlations, and a bootstrap moderated mediation (PROCESS Model 14).

4.6.1 Descriptive statistics and normality test results

Univariate distributions for Livelihood Outcomes (LIVE), Cultural Engagement (ENG), Cult Integration (INT), and Culture (CULT) were examined using skewness and kurtosis to ju approximate normality (|skew|, |kurtosis| ≤ 2; George & Mallery, 2010). This screening was use justify the choice of Spearman correlations and bootstrapped estimation in subsequent models w normality was not supported. Table 4.7, summarizes the normality test.

Table 4. 7: Descriptive statistics and normality test results for the study variables

Variable	Mean	Std. Deviation	Skewness	Kurtosis	Normality (Skewness/Kurtosis Criteria)
Livelihood Outcomes (LIVE)	2.6	1.6	1.0	0.3	Normal
Cultural Engagement (ENG)	1.4	0.7	2.2	4.2	Not normal
Cultural Integration (INT)	1.4	0.8	2.3	5.3	Not normal
Culture (CULT)	2.8	1.4	0.2	1.4	Normal

Approximate normality was indicated for LIVE and CULT, while ENG and INT were positiv skewed and leptokurtic, signaling deviations from normality. On this basis, Spearman's rho (n

parametric) and bias-corrected bootstrapping (5,000 samples) were employed to reduce reliance distributional assumptions. Qualitative evidence from interviews and FGDs was consistent v these shapes: engagement and integration were repeatedly described as limited or symbolic, wh would concentrate responses at the low-agreement end of the scale, whereas culture and liveliho appeared more dispersed across respondents.

4.6.2 Correlations between livelihood outcomes and cultural variables

Pairwise associations among LIVE, CULT, ENG, and INT were estimated using Spearr correlations due to the non-normal distributions of ENG and INT, the results of this correlation summarized in Table 4.8. The purpose was to establish baseline relationships to motivate interpret the subsequent moderated mediation model.

Table 4. 8: Spearman correlations between Livelihood Outcomes and cultural variables

Variable	1	2	3	4
1. Livelihood Outcomes (LIVE)	—			
2. Culture (CULT)	.681***	—		
3. Cultural Engagement (ENG)	.337***	.154*	—	
4. Cultural Integration (INT)	.320***	.121	.833***	—

Note. Spearman's rho is reported. $p < .05$*, $p < .01$**, $p < .001$*** (two-tailed).

A strong positive association between CULT and LIVE ($\rho = .681$, $p < .001$) indicates that stror cultural continuity/support coincided with better perceived livelihoods. ENG and INT each sho positive links to LIVE ($\rho = .337$ and .320, both $p < .001$), and ENG–INT were very strongly rel ($\rho = .833$, $p < .001$), consistent with the idea that where communities are more involved, t

knowledge is more integrated. Ground accounts specify how these links materialize: when ritual spaces and practices are acknowledged, small but concrete gains were described (e.g., *"We even had days where cultural groups would dance in the park... That promoted peace."* KII3), whereas restricted access and opaque benefit flows were said to mute outcomes despite activity (e.g., *"Cultural sites... are now within park boundaries. Rituals can't be performed."* KII4).

4.6.3 Moderated mediation analysis (PROCESS Model 14)

This section examines whether the relationship between community engagement and livelihood outcomes operates indirectly through cultural integration, and whether this pathway is conditioned by cultural factors. A moderated mediation analysis (Hayes' PROCESS Model 14, v4.2) with 5,000 bootstrap samples was applied to test these relationships. The model specified engagement (ENG) as the predictor, cultural integration (INT) as the mediator, livelihoods (LIVE) as the outcome, and culture (CULT) as the moderator of the INT → LIVE pathway.

The results are summarised in Table 9. Engagement strongly predicted integration (B = 0.83, $p <$ .001), indicating that when communities are more engaged, they feel more integrated into conservation structures. Integration, in turn, significantly enhanced livelihoods (B = 0.92, $p = .001$), while the direct effect of engagement on livelihoods was negligible (B = –0.03, $p = .893$). Culture had a strong direct positive effect on livelihoods (B = 0.97, $p < .001$). However, the interaction term (INT × CULT → LIVE) was negative and significant (B = –0.20, $p = .035$), suggesting that restrictive cultural conditions weaken the extent to which integration improves livelihoods.

Table 4.9: Moderated Mediation Analysis Results

Path	Predictor → Outcome	B (Estimate)	SE	t	p-value
A	ENG → INT	0.8316	0.0439	18.94	< .001
B	INT → LIVE	0.9162	0.2594	3.53	.0005
c′	ENG → LIVE (direct)	–0.0263	0.1943	–0.14	.893
W	CULT → LIVE	0.9712	0.1201	8.09	< .001
b_2	INT × CULT → LIVE	–0.1966	0.0927	–2.12	.035

Note: B = regression coefficient (size and direction of effect); SE = standard error (margi uncertainty); t = test statistic; p-value < .05 = statistically significant.

To further illustrate how cultural conditions shape this relationship, conditional indirect effects v estimated at three levels of culture (low, medium, high). As shown in Table 4.16, the indirect ef of engagement on livelihoods through integration was strong and statistically significant at levels of cultural restriction (0.60, 95% CI [0.09, 1.14]). At medium restriction, the effect weake and became statistically inconclusive (0.37, CI crossed zero). At high restriction, the effect ne disappeared (0.05, CI included zero).

Table 4.10: Conditional Indirect Effects of ENG on LIVE through INT at Different Levels of CU

CULT Level (Percentile)	Indirect Effect	Boot SE	95% Confidence Int
Low (16th; CULT = 1.00)	**0.5985**	0.3074	[0.0940, 1.1374]
Medium (50th; CULT = 2.39)	0.3715	0.2354	[–0.1635, 0.7268
High (84th; CULT = 4.33)	0.0536	0.3048	[–0.6890, 0.4256]

Note: Indirect effect = the part of engagement's impact on livelihoods that works throu integration. Boot SE = bootstrapped standard error (calculated from 5,000 re-samples for accurac 95% CI = range in which the true effect is expected to lie; effects are significant when the CI d not include zero.

These quantitative findings were reinforced by qualitative testimonies, which captured lived experiences of exclusion and restricted cultural access. Several respondents highlighted the loss of access to sacred sites and resources: *"Cultural sites are fenced off... people are bitter."* (KII3). Others noted that restrictive enforcement created hostility: *"Now, if you are seen even picking a feather, they arrest you. You are treated like a poacher."* (FGD C). Weak benefit-sharing mechanisms were also a recurring concern: *"There's a compensation policy, but implementation is poor."* (KII3).

Conversely, participants described instances where cultural access and participation created positive outcomes. As one elder explained, *"People shared park resources... directed where and when to graze their cows... under surveillance of park authorities."* (FGD A). A senior warden further emphasised how cultural events built trust: *"We even had days where cultural groups would dance in the park. That promoted peace."* (KII3, Senior Warden Officer).

Taken together, the statistical results and community narratives present a consistent picture: engagement enhances integration, integration enhances livelihoods, and culture supports livelihoods both directly and conditionally. However, restrictive cultural conditions weaken the integration-to-livelihood pathway, leaving communities frustrated and disengaged. Improvements are therefore most likely where cultural access is respected, decision-making is shared, and benefit pathways are transparent and enforceable.

4.7 Summary of Findings

This Section presents the findings of the study based on both quantitative and qualitative data, gu by the five specific research objectives. The analysis highlighted the interplay between cul values, community engagement, integration into conservation systems, and livelihood outcc among the Karimojong pastoralists in Kidepo Valley National Park (KVNP).

For the first objective, which explored conservation values, norms, and practices, results sho that the Karimojong retain deep-rooted cultural conservation systems, such as taboos against kil sacred species, community-based grazing controls, and the oral transmission of ecolog knowledge. Quantitative findings indicated moderate recognition of cultural norms but lim formal incorporation into park governance. Qualitative evidence confirmed that while cult practices remain alive, they are increasingly threatened by generational shifts and exclusion f decision-making processes.

The second objective, assessing community engagement, revealed very low levels of act participation, emotional attachment, and long-term commitment, with an overall mean score of out of 5. Most respondents felt excluded from decision-making and under-recognized conservation efforts. Qualitative accounts reinforced this exclusion, highlighting marginalisatio employment opportunities, poor facilitation of community scouts, and neglect of local voi However, positive practices such as regulated grazing, cultural performances, and voluntary wild monitoring demonstrated that when enabled, the community contributes meaningfully conservation.

With respect to the third objective, examining cultural integration in conservation systems, findi indicated weak alignment between Indigenous cultural practices and formal conservat frameworks. Communities reported that their ecological knowledge and cultural practices w rarely valued in official decision-making, and sacred cultural sites were fenced off without adequ consultation. This lack of integration was linked to perceptions of alienation and hostility towa conservation institutions.

The fourth objective evaluated livelihood outcomes associated with conservation. Quantitati results showed that respondents perceived limited benefits, with most disagreeing that conservatic had improved food security, income, or resilience. Qualitative data revealed widespread frustratic over unfulfilled promises of compensation for wildlife-related damages and inadequate support fa livelihood alternatives. At the same time, some community members acknowledged that tourism grazing regulation, and peace-building activities linked to conservation had modestly improved loca opportunities, though unevenly.

Finally, the fifth objective, which tested the moderating role of culture, revealed that community engagement improves livelihoods only when mediated through cultural integration, and that this pathway is conditional on cultural factors. Statistical evidence showed that engagement had no direct effect on livelihoods, but a strong indirect effect via integration at low levels of cultural restriction (indirect effect = 0.60, CI [0.09, 1.14]). Under high restrictions, however, the effect disappeared (indirect effect = 0.05, CI [–0.69, 0.43]). Qualitative testimonies mirrored this pattern: when cultural access was respected, communities described successful joint initiatives; when it was restricted, communities expressed bitterness, exclusion, and disengagement.

Overall, the results demonstrate that conservation in KVNP is at once culturally embedded ar institutionally exclusionary. The Karimojong maintain strong conservation values and emotional ti to wildlife, but these assets are not effectively harnessed in current governance framework Community engagement and cultural integration remain weak, resulting in minimal livelihood gain The evidence underscores the importance of co-management strategies that institutionalis Indigenous participation, respect cultural heritage, and ensure transparent benefit-sharin mechanisms.

CHAPTER FIVE

DISCUSSION

his chapter interprets the study's findings in relation to the objectives, highlighting areas onvergence and divergence between quantitative and qualitative evidence. The analysis focuses onservation values, community engagement, integration, and livelihood outcomes among t arimojong in Kidepo Valley National Park, with particular attention to the cultural moderati ole. The discussion is framed by three guiding theories: the Continual Engagement Mo ommunity–conservation interaction), the Indigenous Wholistic Theory (cultural and spiritu imensions), and the Sustainable Livelihoods Framework (conservation–livelihood linkages). Usi convergent mixed-methods design, quantitative analyses, including descriptive, correlational, a oderated mediation models are triangulated with qualitative themes from community voic lowing the findings to be interpreted within both theoretical and contextual perspectives. Tl scussion is organised around the five specific objectives, each examined in turn to show how tl sults align with or diverge from existing literature and theory.

1 Values, Norms, and Practices about Wildlife Conservation

ken together, the findings portray a culture in which wildlife retains symbolic and moral salienc t the everyday enactment of conservation-supportive customs is constrained by institutional an ess barriers. Endorsement of pro-conservation values was evident, but translation into norr servance and practice appeared uneven. This pattern suggests a separation between cultura aning (what wildlife represents) and governance experience (how conservation is administered he Karimojong context.

A central implication is that cultural support for conservation exists largely at the level of identity and belief, while compliance and cooperation are weakened when ritual spaces are restricted, nonthreatening customary acts are penalized, or elders' adjudicatory roles are sidelined. In such conditions, norms that once regulated harvests, ritual foodways, and seasonality lose their coordinating power, not because they are rejected, but because opportunities to enact them legitimately are diminished. The result is symbolic assent with practical disablement, an arrangement that predictably suppresses community-led stewardship.

This finding is consistent with work across Indigenous African settings showing that taboos, sacred species, and spiritual restrictions can regulate extraction when they remain institutionally legitimate (Bortolamiol et al., 2018; Ngoufo et al., 2014). It also aligns with arguments that economic incentives alone rarely repair value–policy misfit when cultural meanings are marginalized (Infield, 2001; Infield & Mugisha, 2018). The divergence from cases where ritual access and customary authority are guaranteed is instructive: where recognition mechanisms are in place, values more readily cascade into norms and practice; where such mechanisms are absent, "participation" becomes performative and fragile.

The findings also sit squarely within the study's theoretical frame. Under Indigenous Wholistic Theory (IWT), norms and rituals are not merely attitudes but moral obligations embedded in cosmology; fencing sacred sites or criminalizing benign cultural acts erodes the spiritual legitimacy on which stewardship depends (Absolon, 2016; Berkes, 2017). Through the Continual Engagement Model (CEM), the observed fragility of practice is interpreted as a breakdown in the engagement cycle—dialogue, co-design, joint action, reflection—when interactions are punitive or one-way rather than co-productive (Reid et al., 2016; Kearsley & Shneiderman, 1998; Reder, Gauly, &

Lechner, 2020). The Sustainable Livelihoods Framework (SLF) further clarifies the mechanism: ritual knowledge, elder institutions, and sacred landscapes are intangible social/cultural capital; when access and recognition are curtailed, these capitals cannot be converted into cooperative outcomes, even if positive values persist (Vedeld, 2016).

Historically informed interpretations strengthen this account. Fortress conservation's genealogy in KVNP, rooted in colonial ideals of "pristine" nature, helps explain why cultural authority over wildlife may be symbolically affirmed yet institutionally sidelined (Harper & White, 2012). In such settings, normative slippage is less a rejection of tradition than a product of governance designs that displace ritual calendars, reclassify customary materials as contraband, and reduce elders to ceremonial roles. These dynamics help reconcile the coexistence of cultural respect for wildlife with reluctance to comply with externally defined rules.

Several practical implications follow. First, restoring legibility and legality to customary practices (e.g., benign-use permits for feathers, medicines, and ritual paraphernalia) would remove the enforcement–culture collision that currently depresses cooperation. Second, formal sacred-site access clauses and co-scheduled ritual calendars within park standard operating procedures would re-embed cultural authority without compromising ecological goals. Third, co-decision seats for elders in rule-setting and dispute resolution would rebuild the social infrastructure that sustains norms in practice. These levers are directly responsive to the interpretive pattern here and are supported by evidence that respectful recognition of customary institutions improves conservation durability (Infield & Mugisha, 2018; Dawson et al., 2021).

Two caveats temper the interpretation. First, normative disagreement can sometimes reflect item polarity or phrasing (e.g., prohibitions versus permissions) rather than outright rejection of custom;

careful instrument design remains essential. Second, the absence of institutional perspectives in t present evidence limits insight into organizational constraints that may inhibit recognition reforn future work that includes park management viewpoints could refine implementation pathways.

In sum, the findings indicate that cultural meaning remains comparatively strong, while the mea to enact that meaning in lawful, visible, and respected ways are weak. This configuration agrees wi literature that emphasizes Indigenous moral ecologies yet contradicts cases where such ecologie translate seamlessly into compliant behavior. Read through IWT, CEM, and SLF, the implication i straightforward: recognition and access are not ancillary to conservation in Karamoja, they ar constitutive conditions for converting cultural capital into sustained, community-led conservatio practice.

5.2 Community Engagement in Wildlife Conservation

The findings indicate that community engagement around KVNP is procedural rather than substantive: participation is invited for implementation tasks, while agenda-setting, rule design, and resource governance remain externally driven. This configuration helps explain why willingness to "show up" seldom matures into stable cooperation. Reported exclusion from planning, opaque recruitment into ranger posts, and thin, irregular support for community scouts collectively devalue local agency, signaling that the rules are made elsewhere and merely communicated downstream. In such contexts, attendance can be secured, but ownership—the ingredient that sustains engagement when costs rise—remains fragile (Kipkeu, 2014; Kiria, Ayonga, & Ipara, 2014).

The emotional landscape described by participants clarifies the mechanism further. Loss of access to sacred sites and ancestral spaces, together with uncompensated wildlife damage, erodes

attachment to conservation, replacing pride and custodianship with grief, anger, and resignation. Scholarship on emotional dispositions predicts exactly this shift: fear, anger, and perceived injustice correlate with opposition to conservation where people feel marginalized or harmed (Jacobs, Vaske, & Roemer, 2012; Castillo-Huitrón et al., 2020). Media and official narratives can amplify these dispositions when they frame communities as threats rather than partners (Casola et al., 2020). In the present setting, attachment appears less as a fixed trait than a policy-sensitive state: where recognition and reciprocity are absent, attachment withers; where they are present, attachment can be rebuilt.

Long-term commitment, the third facet of engagement, is likewise undermined by credibility gaps, promised compensation not delivered, benefits not reaching those affected, and recruitment perceived as exclusionary. The literature is unequivocal that durable commitment hinges on equitable benefits, fair procedures, and trustworthy institutions (Tarimo & Olotu, 2020; Treves et al., 2009; Ochieng et al., 2021). Historical legacies of displacement and restricted access across East African parks compound this challenge: when past harms remain unaddressed, present programmes inherit deficit trust, requiring more than routine outreach to repair (Tessema et al., 2007; Fernández-Llamazares et al., 2020). Where inclusive tourism and transparent benefit-sharing exist, intergenerational attitudes can improve (Kioko & Kiringe, 2010), but the current findings diverge from such cases, suggesting that benefit pathways in KVNP are either too narrow or too opaque to counterbalance experienced losses.

Viewed through the study's theoretical lenses, the pattern is coherent. The Continual Engagement Model (CEM) anticipates that engagement deepens when communities iterate through cycles of dialogue, co-design, joint action, and reflection; the reported one-way meetings and post-hoc

information sessions imply stalled cycles, so practice never consolidates into habit or identity (Reid et al., 2016; Kearsley & Shneiderman, 1998; Reder, Gauly, & Lechner, 2020). Indigenous Wholistic Theory (IWT) explains the observed detachment as a spiritual and relational rupture: fencing shrines or criminalising benign cultural acts severs the moral grounds on which stewardship rests (Absolon, 2016; Berkes, 2017). The Sustainable Livelihoods Framework (SLF) clarifies why participation remains brittle: without reliable asset gains (e.g., compensation, access arrangements) and capability building (skills, voice, representation), engagement lacks the conversion factors that turn effort into wellbeing, so households rationally de-prioritise it (Vedeld, 2016; Roe et al., 2009).

The findings align with critiques that many community-based conservation (CBC) schemes in the region are symbolic, transferring minimal decision authority and offering benefits that are either delayed or socially uneven (Büscher & Dressler, 2012; IIED, 2016). They also resonate with evidence that leadership roles, training, and fair distribution increase endurance of participation (Muhereza, 2019; Derkyi et al., 2021). At the same time, they contradict success cases where devolution, clear compensation rules, and recognised customary leadership have stabilised cooperation (Tessema et al., 2010), suggesting that KVNP's engagement architecture lacks key enabling features observed elsewhere.

Three implications follow. First, shift from attendance to authority: create co-decision seats with voting rights for elders, women, and youth on rule-setting and budget oversight, and publish meeting minutes with action trackers (CEM-consistent). Second, make reciprocity auditable: institute time-bound compensation service-level agreements, public revenue-sharing dashboards to the parish level, and independent grievance channels with remedies (SLF-consistent). Third, rebuild attachment through recognition: codify sacred-site access clauses, issue benign-use permits for non-

extractive cultural materials, and co-schedule cultural calendars in park SOPs (IWT-consistent). In parallel, prioritise local recruitment pipelines (transparent quotas, appeals) and resource community scout schemes with training and stipends tied to co-produced monitoring, which evidence links to durable cooperation (Bitariho et al., 2019).

Two cautions temper the interpretation. Cross-sectional evidence cannot establish trajectory, engagement may be improving or deteriorating, and the absence of institutional perspectives limits understanding of internal constraints (budget, risk, compliance) that shape current practice. Even so, the convergent pattern across participation, attachment, and commitment supports a clear reading: in the absence of recognition, reciprocity, and real power-sharing, engagement remains performative and unstable. Restoring these three pillars is therefore not ancillary but constitutive of effective, community-led conservation around KVNP.

5.3 Cultural Integration in Wildlife Conservation

The findings portray cultural integration around KVNP as largely symbolic rather than substantive. Community members recognized the language of inclusion but described roles confined to execution rather than co-design, limited scope to bring Indigenous knowledge to bear, low trust stemming from unmet commitments and opaque recruitment, and communication that flowed predominantly one way (data collection without feedback). In combination, these patterns suggest that integration mechanisms exist in form but lack the substance, authority, access, and reciprocity, needed to re-embed Karimojong cultural systems within conservation governance.

Regarding active partnerships, the evidence indicated that invitations to participate primarily involved labor or short-term implementation, rather than co-decision-making. This aligns with

longstanding critiques of community-based conservation (CBC): ecological gains can occur while social outcomes remain mixed when authority is not meaningfully devolved (Goldman, 2003; Galvin et al., 2018). By contrast, studies that formalize community seats, recognize customary institutions, and share planning powers report more equitable and durable partnerships (Dawson et al., 2021; Sele & Mukundi, 2024). The present findings therefore diverge from those success cases, implying that the partnership architecture in KVNP does not yet incorporate the enabling features, clear mandates, voting rights, and budget oversight that translate presence into power.

On knowledge blending, participants described a conservation regime that was procedurally open but epistemically closed: Traditional Ecological Knowledge (TEK) was listened to but rarely codified into rules, calendars, or protocols. The literature is clear that respectful co-production between TEK and science improves monitoring sensitivity, compliance, and ecological fit (Ens et al., 2021; Huntington, 2000). Yet power asymmetries and methodological gatekeeping frequently sideline Indigenous knowledge (Shackeroff & Campbell, 2007; Yanou et al., 2023). The KVNP experience mirrors these concerns: without instruments such as co-authored ritual calendars, TEK clauses in standard operating procedures, or joint data stewardship, "integration" risks becoming extraction of information without recognition (Hoagland, 2017; Drew, 2005).

The trust dimension was weakened by narratives of unfulfilled compensation, non-transparent recruitment, and promises that did not materialize, classic drivers of deficit trust. Evidence from East Africa shows that revenue-sharing and controlled resource access can rebuild trust when they are transparent and reliably delivered (Archabald & Naughton-Treves, 2001; Mutebi, 1996), but can fail to shift behavior when procedure lacks credibility or when historical grievances persist (Infield & Namara, 2001). The present findings are consistent with the latter: trust eroded not because

communities reject conservation per se, but because reciprocity and accountability were not experienced as predictable (Dietsch et al., 2021).

For information access, community members reported being *informed about* conservation rather than *involved in* it, often learning of decisions post hoc and receiving little feedback on data collected from them. This replicates a well-documented failure mode: without regular, comprehensible, and dialogic communication, awareness and compliance degrade (Andrade & Rhodes, 2012; McCarthy et al., 2018). In low-resource settings, open access to biodiversity and governance information is particularly important to counter asymmetries (Hammond et al., 2008). Uganda Wildlife Authority has piloted community programmes elsewhere (Chhetri et al., 2003; Infield & Namara, 2001), yet the KVNP narratives suggest these instruments have not translated into two-way systems of briefing, feedback, and public action-tracking (Rugadya & Kamusiime, 2013; Woodhouse et al., 2015).

In comparison to the study's theoretical framework, the pattern is coherent. For example the Continual Engagement Model (CEM) predicts that integration deepens when communities move through repeated cycles of dialogue → co-design → joint action → reflection; the findings instead describe stalled cycles, in which dialogue is consultative, design is external, and reflection is internal to agencies, so the learning loop never closes. Indigenous Wholistic Theory (IWT) highlights that integration is not merely procedural: it requires recognition of spiritual geographies and moral obligations; when shrines are fenced or benign practices criminalized, efforts labelled "integration" lack legitimacy in the moral universe that sustains stewardship. The Sustainable Livelihoods Framework (SLF) adds that trust and information are institutional assets that mediate whether social and cultural capitals convert into wellbeing; weak assets at this layer help explain why communities report low perceived benefits even when "participation" occurs on paper.

Two broader inferences follow. First, the KVNP case agrees with critiques that CBC easily becomes integration-in-name when authority, epistemic parity, and reciprocity are absent; second, it contradicts success cases by clarifying *which levers* are missing locally. Consequently, remedial actions are identifiable and theory-consistent: (i) institutionalize co-decision rights (voting seats for elders, women, and youth on rule-setting and budgeting) to satisfy CEM's co-design requirement; (ii) codify TEK in SOPs (co-authored ritual calendars, sacred-site access clauses, benign-use permits, joint indicators) to satisfy IWT's legitimacy criterion; and (iii) make reciprocity auditable (time-bound compensation SLAs, public revenue dashboards, and independent grievance mechanisms) to strengthen SLF's institutional asset layer. Implemented together, these reforms convert cultural integration from a performative label into a governance reality, increasing the likelihood that Karimojong cultural authority becomes a driver—rather than a casualty of conservation in KVNP.

5.4 Livelihood Outcomes Attributed to Wildlife Conservation

The findings depict livelihood outcomes around KVNP as limited and uneven, with conservation-linked activities perceived as least beneficial, assets viewed as constrained or eroded, and capabilities rated only modestly higher, suggesting awareness and aspiration rather than genuine agency. Read together, the pattern indicates that conservation is experienced less as a pathway to well-being and more as a set of trade-offs that restrict access to resources, spiritual landscapes, and decision-making, while offering few predictable returns.

Interpretation of the activities dimension points to misalignment between project design and pastoralist livelihood rhythms. Community testimonies referenced external pressures, thin or opaque economic benefits, and ineffective compensation e.g., "The Park has now taken our best land… we

have nowhere to grow food" (FGD E); "They say money is given for schools and health centers. But where are they?" (KII5); and "There's a compensation policy, but implementation is poor… nothing has been done" (KII3). Such experiences are characteristic of symbolic CBC models that deliver visibility without material traction (Büscher & Dressler, 2012), and they echo warnings that livelihood activities must be co-designed and culturally compatible if they are to alter behavior (Roe et al., 2009; Lesorogol & Lesorogol, 2024). The divergence from success cases, such as Buhoma-Mukono, where culturally embedded tourism strengthened household incomes and compliance (Ahebwa & van der Duim, 2013), or Botswana's Goo-Moremi where active local involvement produced jobs and cultural preservation (Tourism Cases, 2024), suggests that enabling conditions (market access, clear benefit pathways, co-governance) remain underdeveloped in KVNP. Through the CEM, this misalignment signifies stalled engagement cycles (dialogue → co-design → action → reflection); through the IWT, it reflects a neglect of ritual calendars and pastoral seasonality that anchor meaningful work; and through the SLF, it shows that activities are not converting effort into livelihood gains because institutional conversion factors are weak (Reid et al., 2016; Absolon, 2016; Vedeld, 2016).

Within the assets domain, the findings point to cumulative losses across tangible and intangible capitals: loss of arable/grazing land and blocked access to sacred sites, plants, and ritual spaces—"The Park expanded into our gardens… They told us to leave" (FGD D); "Cultural sites that used to be sacred are now fenced off… people are bitter" (KII4). The literature shows that protected area expansion frequently alienates natural assets while overlooking cultural capitals essential to identity and food/health security (Okech, 2011; Vedeld et al., 2016; Galvin, 2009). Where compensation exists but is unreliable, trust and cooperation deteriorate (Archabald & Naughton-Treves, 2001). The present findings therefore agree with critiques that conservation practice undervalues intangible

assets and spiritual geographies, resulting in livelihood deficits even when nominal projects are present (Bortolamiol et al., 2018; Lesorogol & Lesorogol, 2024). The IWT clarifies why such losses weigh heavily: sacred landscapes and medicinal knowledge are not amenities but moral and spiritual infrastructure; the SLF locates them as social/cultural capitals whose erosion depresses resilience; and the CEM implies that without recognized rights of access, joint action cannot stabilize into cooperative norms (Berkes, 2017; Vedeld, 2016; Reid et al., 2016).

Findings on capabilities indicate promising awareness without power. Participants expressed desire for training and roles ("We want to be trained… Let us be guides. But the good jobs go to others" FGD D) and frustration with exclusionary recruitment ("Offices are filled with non-natives" FGD B). This mirrors evidence of "performative inclusion," where communities are present in workshops but absent from decisions and salaried posts (Büscher & Dressler, 2012). The capability literature argues that durable engagement requires authority, skills, and voice within governance, not just technical training (Barrow & Murphree, 2001; Roe et al., 2009). The present picture contradicts sites where co-management and transparent local hiring improved attitudes and stewardship (Tessema et al., 2010), implying that KVNP lacks the institutional bridges that convert growing literacy into influence. The SLF frames this as a conversion failure: human/social capital is accumulating too slowly or cannot be leveraged; the CEM highlights missing co-decision and feedback loops; and the IWT underlines that capability is inseparable from recognised cultural identity and belonging.

A cross-cutting cultural thread is visible: although some respondents acknowledged the park's spiritual significance, restrictions on ritual access and medicinal collection transformed culture from a source of resilience into a locus of grievance. This helps explain why livelihoods are not perceived to improve even where tourism narratives promise benefits. It also reconciles the coexistence of

cultural pride with institutional distrust—a pattern repeatedly observed where state conservatic governs "pristine" spaces without Indigenous ritual use (Harper & White, 2012). In theoretical term IWT positions spiritual value as a determinant of wellbeing; SLF emphasizes that losing suc capitals depresses outcomes even when small financial flows exist; and CEM suggests tha rebuilding co-ownership around sacred calendars and benign-use practices is prerequisite for an livelihood partnership to gain traction.

Three implications follow that are consistent with the findings and with evidence from comparabl contexts. First, negotiate access and reciprocity: embed sacred-site access clauses, benign-use permits (for feathers, medicinal plants, ritual paraphernalia), and time-bound compensation SLAs ir park SOPs, and publish parish-level revenue-sharing dashboards to rebuild credibility (Archabald & Naughton-Treves, 2001; Infield & Namara, 2001). Second, co-design livelihood activities that fi pastoral seasonality and clan institutions—e.g., community-run cultural tourism, ranger aide/eco-monitor roles recruited locally with transparent quotas and appeals, and micro-grant schemes for community initiatives—reflecting lessons from Buhoma-Mukono and other East African cases (Ahebwa & van der Duim, 2013; Bitariho et al., 2019). Third, invest in capabilities with authority: create voting seats for elders, women, and youth on budgeting and rule-setting; institute joint monitoring with co-authored indicators; and require public action-trackers after village meetings to close the CEM loop (Reid et al., 2016).

In summary, the livelihood findings agree with regional critiques that conservation often imposes asset losses and weak activities, and they contradict success narratives by pinpointing the missing enabling conditions in KVNP: recognized cultural rights, auditable reciprocity, and co-decision authority. Interpreted through SLF, IWT, and CEM, the pathway to improved livelihoods is clear:

restore and protect intangible capitals, align activities with pastoral and ritual calendars, and institutionalize shared governance so that awareness can be converted into agency and tangible gains.

5.5 Moderating Role of Culture in the Engagement → Integration → Livelihoods Pathway

The findings portray an important pathway in which community engagement fosters cultural integration, and integration, in turn, is associated with better livelihood outcomes. but this mediated link is conditioned by culture. Culture exerts a broadly positive influence on wellbeing in its own right, yet under present governance arrangements it also dampens the translation of "being integrated" into concrete livelihood gains. Qualitative evidence explains the paradox: where sacred sites are fenced, benign practices are criminalized, recruitment is perceived as exclusionary, and compensation is unreliable, a strong cultural identity becomes a site of grievance rather than a conduit for cooperation. In such contexts, people may participate and even experience moments of inclusion, but the absence of recognition and reciprocity blunts the benefits that integration would ordinarily deliver.

This pattern agrees with a wide body of work showing that engagement and co-production tend to improve outcomes when institutions fit local norms and distribute benefits credibly (Ahebwa et al., 2016; Waylen et al., 2010; Ens et al., 2021). It also echoes cases in Uganda where culturally embedded arrangements (e.g., recognised customary leadership, shared planning) have enhanced livelihoods and compliance (Ahebwa & van der Duim, 2013; Bitariho et al., 2019). At the same time, the findings contradict success narratives that assume culture will automatically amplify integration's benefits. Here, culture functions as a buffer, not because cultural identity opposes conservation, but because unrecognised culture resists assimilation. This resonates with critiques of

community-based conservation that document symbolic inclusion without devolution of power or redress of historical harm (Büscher & Dressler, 2012; Dietsch et al., 2021). Put simply: where cultural authority is respected and codified, culture likely catalyzes the integration →livelihood pathway; where it is contained or instrumental, culture attenuates that same pathway.

The theoretical framework clarifies why. Under Indigenous Wholistic Theory (IWT), culture is not a variable to be "added" but a moral and spiritual order that grounds legitimacy (Absolon, 2016; Berkes, 2017). If sacred geographies and ritual practices are excluded, what is labelled "integration" lacks standing in the community's moral universe; culture then constrains the conversion of institutional inclusion into wellbeing. The Continual Engagement Model (CEM) interprets this as a broken learning cycle—dialogue and implementation occur, but co-design and joint reflection are truncated; without those stages, practices do not consolidate and trust remains brittle (Reid et al., 2016; Kearsley & Shneiderman, 1998; Reder et al., 2020). The Sustainable Livelihoods Framework (SLF) adds a conversion lens: cultural identity, sacred sites, and TEK are intangible capitals; when recognition and fair procedures (the institutional "asset layer") are weak, these capitals cannot be converted into material or capability gains, even if participation indicators look positive (Vedeld, 2016).

Comparative literature helps position the pattern. In settings where recognition and reciprocity are institutionalized, co-decision seats, ritual calendars in management plans, transparent revenue-share rules, the mediation from engagement through integration to livelihoods typically strengthens (Ahebwa & van der Duim, 2013; Stone et al., 2021; Gidebo, 2023). In KVNP's present configuration, the divergence from these cases is instructive: integration is experienced as procedural rather than substantive, so culture becomes a gatekeeper demanding legitimacy before permitting

the flow of benefits. Evidence from diversified livelihood strategies around Ugandan parks and southern Africa similarly shows that when local people are actively involved, with fair hiring, co-managed tourism, and enforceable compensation, livelihood payoffs increase and resistance declines (Kiconco et al., 2025; Tourism Cases, 2024). Where those enabling conditions are absent, culture does not disappear; it pushes back.

Two implications follow. First, improving livelihoods via integration requires treating culture as an enabling infrastructure, not an add-on. Practically, that means sacred-site access clauses, benign-use permits for non-extractive cultural materials, and co-authored ritual and grazing calendars embedded in park SOPs (Ens et al., 2021; Infield & Namara, 2001). Second, the institutional asset layer must be strengthened so that integration has something to convert into: co-decision mandates with voting rights (elders, women, youth), auditable reciprocity (time-bound compensation SLAs, public revenue dashboards), and independent grievance channels with remedies (Archabald & Naughton-Treves, 2001; Waylen et al., 2010). These steps are consistent with IWT (legitimacy), CEM (complete engagement cycles), and SLF (conversion of capitals).

A final caution is warranted. The statistical index of moderated mediation was not conclusive, which counsels against over-generalizing the conditional pattern. That said, the directionality observed is theoretically coherent and corroborated qualitatively, suggesting heterogeneity rather than absence of effect i.e., integration pays off where cultural legitimacy is secured and falters where it is not. Future work could stratify analyses by recognition intensity (e.g., parishes with vs. without formal access agreements) to test this mechanism directly. Until then, the present findings, read with the literature, point to a pragmatic summary: culture will amplify or buffer integration's benefits depending on whether governance makes room for it. Designing for amplification, through

recognition, reciprocity, and shared authority, is therefore central to achieving equitable conservation–livelihood synergies in Karamoja.

5.6 Synthesis of Findings and Theoretical Integration

Across all five objectives, one pattern is clear: cultural meaning is strong, but institutional conversion is weak. Wildlife holds enduring symbolic and moral value for the Karimojong, yet the means to enact that meaning, ritual access, elder authority, and benign customary uses, are constrained by current governance. As a result, engagement tends to be procedural (attendance without power), integration largely symbolic (listened to but not codified), and livelihood gains limited and uneven.

This configuration aligns with studies showing that taboos and sacred obligations steward biodiversity when they are institutionally recognised (e.g., Bortolamiol et al., 2018; Ngoufo et al., 2014) and diverges from success cases where co-decision, local hiring, and transparent benefit-sharing convert participation into wellbeing (e.g., Ahebwa & van der Duim, 2013). It also explains the moderation finding: culture amplifies the engagement → integration → livelihood pathway only when it is respected and embedded; where culture is fenced off, it shields that pathway.

The theoretical framework clarifies the mechanism: IWT foregrounds legitimacy via sacred geographies and moral obligations; CEM shows stalled cycles (dialogue without co-design, action without reflection); SLF diagnoses a conversion failure, social/cultural capital cannot become tangible gains without rights, access, compensation, and representation.

Implications follow briefly: (1) Recognition, categorize sacred-site access and benign-use permits; (2) Shared authority, create voting seats and joint monitoring with public action-trackers; (3) Auditable reciprocity, time-bound compensation and parish-level revenue dashboards; (4)

Livelihood fit, co-design culturally compatible, seasonally aligned opportunities. Do these, and culture becomes a catalyst rather than a brake on equitable conservation and livelihoods in KVNP.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

This chapter draws together the major findings of the study into concise conclusions and offers recommendations for policy, practice, and further research. The conclusions are presented in line with the five specific objectives, highlighting the extent to which the study answered the research questions and contributed to knowledge. The recommendations are derived directly from the empirical evidence and are framed to support both immediate conservation practice and long-term institutional reforms in Kidepo Valley National Park (KVNP) and similar contexts.

6.1 Conclusions

6.1.1 The wildlife conservation values, norms, and practices of the Karimojong in Kidepo Valley National Park

The study established that cultural norms continue to play a central role in shaping conservation practices among the Karimojong. Norms such as taboos against killing sacred animals, restrictions on hunting, and rituals regulating human–wildlife interactions remain strong and act as natural deterrents against overexploitation. By contrast, cultural values and practices, while still evident, showed weaker alignment with conservation ideals. Values such as symbolic attachment to animals, their use in medicine, and their role in identity formation are gradually losing influence, particularly among younger generations. Similarly, traditional practices like elder-controlled hunting and regulated grazing are increasingly undermined by external pressures and declining cultural authority. Collectively, these findings indicate that while the cultural system of the Karimojong still offers significant conservation potential, it is under strain, requiring deliberate revitalisation and integration into formal conservation frameworks.

6.1.2 The Karimojong community engagement in wildlife conservation activities

The findings revealed that community engagement in wildlife conservation around KVNP is very limited and largely symbolic. The Karimojong reported little involvement in decision-making, minimal recognition of their Indigenous knowledge, and a lack of long-term investment in training or resource support. Emotional attachment to conservation, once rooted in spiritual bonds and shared heritage, has been weakened by restricted access to sacred sites and by displacement, leaving many feelings excluded from conservation processes. Although there is evidence of willingness to participate, through voluntary scouting, cultural performances, and traditional stewardship practices, these efforts remain poorly supported and often unsustainable. Overall, the low levels of active participation, emotional connection, and long-term commitment point to a critical gap between conservation authorities and the local community. Bridging this gap requires inclusive governance, respect for Indigenous knowledge, and deliberate investment in community capacity to foster trust and genuine collaboration.

6.1.3 The extent of cultural integration in wildlife conservation among the Karimojong.

The study revealed that cultural integration in wildlife conservation at KVNP remains weak and poorly institutionalized. Quantitative findings showed very low ratings across the four dimensions of partnerships, blending of Indigenous and scientific knowledge, trust, and access to information. Qualitative narratives confirmed that community participation is often tokenistic, restricted to casual labour or ceremonial roles, with little involvement in decision-making. Indigenous ecological knowledge and practices, once central to sustainable resource management, are now sidelined or criminalized, eroding trust and deepening resentment. Limited communication, unfulfilled promises, and exclusionary recruitment practices further exacerbate community dissatisfaction. While some cultural values and practices, such as regulated grazing, taboos against sacred species, and ritual

performances, continue to offer conservation potential, they remain largely disconnected from formal systems. The conclusion is that without genuine integration of Indigenous worldviews, knowledge, and leadership into conservation structures, cultural disempowerment will persist, weakening community support and threatening the sustainability of conservation efforts.

6.1.4 The livelihood outcomes experienced by the Karimojong as a result of wildlife conservation

The findings demonstrated that livelihood outcomes derived from conservation in KVNP are perceived as limited and unevenly distributed among the Karimojong. Quantitative results indicated low mean ratings across activities, assets, and capabilities, reflecting dissatisfaction with economic benefits, compensation mechanisms, and opportunities for empowerment. Qualitative insights confirmed these patterns, with community members repeatedly citing land dispossession, inadequate compensation for wildlife-related losses, exclusion from employment, and erosion of cultural practices as major challenges. Although some respondents acknowledged the park's cultural and spiritual value, particularly in relation to sacred sites and traditional rituals, these benefits were overshadowed by systemic inequities and unfulfilled promises. Discrimination in recruitment and perceived bias in conservation governance further contributed to feelings of marginalisation and mistrust. Overall, the conclusion is that conservation in KVNP has not translated into meaningful livelihood improvements for the Karimojong, but instead has deepened vulnerabilities. Sustainable outcomes will require more inclusive governance, transparent benefit-sharing, and explicit recognition of Indigenous land rights and cultural heritage within conservation frameworks.

6.1.5 The moderating role of culture on the relationship between community engagement, cultural integration, and livelihood outcomes in KVNP

The analysis revealed that culture plays a pivotal yet complex role in shaping the relationship between community engagement, cultural integration, and livelihood outcomes in wildlife conservation. Quantitative results showed that while engagement significantly predicted integration, and integration in turn predicted livelihood outcomes, the strength of this pathway diminished under conditions of strong cultural attachment. Qualitative findings enriched this picture, illustrating how cultural exclusion, such as denial of access to sacred sites, criminalization of traditional practices, and marginalisation in decision-making, creates tension that weakens the benefits expected from engagement and integration. Despite these challenges, culture itself was found to directly enhance wellbeing by fostering resilience, social cohesion, and continuity of Indigenous knowledge systems. Taken together, the findings suggest that culture is not only a direct source of livelihood strength but also a conditional factor that can either amplify or constrain the effectiveness of conservation efforts, depending on whether it is respected and integrated. Therefore, sustainable conservation in KVNP will require strategies that treat culture not as a peripheral concern but as a central determinant of success.

In synthesis, the study concludes that sustainable wildlife conservation in KVNP cannot be achieved through technical or ecological interventions alone. Culture, as the backbone of Karimojong identity and livelihood systems, must be placed at the centre of conservation policy and practice. Effective conservation requires co-management models that formally recognise Indigenous knowledge, respect cultural practices, and provide equitable livelihood benefits. Only by bridging the current

gap between state-led conservation and community-based cultural systems can ecological sustainability, community empowerment, and cultural preservation be simultaneously realised.

6.2 Recommendations

6.2.1. Policy Recommendations

Policymakers should prioritize frameworks that recognize and embed Indigenous cultural systems within conservation law and governance. This includes the development of formal co-management agreements between the Uganda Wildlife Authority (UWA) and Karimojong leaders to ensure representation in decision-making processes. Compensation schemes for human–wildlife conflicts must be streamlined, transparent, and responsive to restore community trust. Furthermore, policies should protect access to sacred sites and guarantee that cultural rituals can coexist with conservation regulations, thereby safeguarding both heritage and biodiversity.

6.2.2 Practice Recommendations

Conservation practitioners should design and implement inclusive community engagement programs that empower Karimojong youth, elders, and women as co-stewards of KVNP. Reviving cultural education, such as song, dance, and storytelling, can be used as a culturally grounded tool for promoting conservation awareness. Community scouts and local conservation committees should be adequately trained, equipped, and remunerated to foster ownership and continuity. Importantly, integrating traditional practices, such as regulated grazing and hunting restrictions, into formal wildlife management plans would provide culturally acceptable and sustainable conservation outcomes.

6.2.3 Research Recommendations

Future studies should examine longitudinal impacts of cultural integration on both conservation outcomes and community livelihoods to understand how relationships evolve. Comparative research across different Indigenous communities in Uganda and the wider East African region could highlight best practices for culturally grounded conservation. Additionally, more participatory research methods, such as community-led monitoring, should be employed to amplify Indigenous voices in shaping conservation knowledge and practice.

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APPENDICES

Appendix I: Questionnaire English

THE SURVEY QUESTIONNAIRE FOR KARIMOJONG INDIGENOUS COMMUNITY MEMBERS

COMMUNITY ENGAGEMENT, CULTURAL INTEGRATION, AND LIVELIHOOD OUTCOMES OF THE KARIMOJONG PASTORALISTS IN WILDLIFE CONSERVATION EFFORTS IN IKIDEPO VALLEY NATIONAL PARK, NORTHEASTERN UGANDA

Introduction

I am Sr. Lolem Lucy, a PhD student at Mbarara University of Science and Technology doing a study **on "COMMUNITY ENGAGEMENT, CULTURAL INTEGRATION, AND LIVELIHOOD OUTCOMES OF THE KARIMOJONG PASTORALISTS IN WILDLIFE CONSERVATION EFFORTS IN IKIDEPO VALLEY NATIONAL PARK, NORTHEASTERN UGANDA"** I want to thank you for accepting to participate in this study. Please be assured that this study is for academic purposes only. We will not use any names in this report; therefore, you are assured of utmost confidentiality, your input is valuable and will help us understand the cultural wildlife values, practices, nature, and the degree of Karimojong Pastoral Community's participation and integration in Wildlife Conservation Interventions in Kidepo Valley National Park.

1. **Identifiers of the respondents** **Demographic Characteristics of the Respondents**		
	Study identification №: |___|___|___|___|___|	Date of Interview: |__|__|/|__|__|/|__|__|__|__| (dd/mm/yyyy)
1. 1	Fill in your age, please |___|___| (complete years)	1.2 Your gender, please a) Male |___| b) Female|___|
1. 3	What is your level of education? a)No formal education |___| b)Primary level |___| c)Secondary level |___| d)Technical education |___| e)Diploma |___| f)Bachelor's degree |___| g)Other Specify.....	1.4 What is your ethnic name a) Dodoth b) Jie c) Ik d) Other, specify .....
1. 5	What is the name of your cultural or clan identity? a) Ngitome	1.6 What is the significance of the animal attached to your cultural identity/clan a) Wisdom

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	b) Ngimoru c) Ngigetei d)Any other.....	b) Power c) Courage Any other .....
1.7	District of residence	1.8 County of Residence .....
1.9	Village of Residence	1.10 Residence type a) Rural b) Semi-urban/Trading center c) Urban
1.11	Do you have children? Yes|___| No |___|	1.12 If yes, How many? |___||___|
1.13	Did your family originally live in the park? a) Yes |___| b) No |___| c)Don't know |___|	1.14 If not, in which village did your household originate? .....
1.15	For how long have you lived in this present county? |___||___| Years	1.16 What is your religion? a) None |___| b) Traditionalist |___| c) Catholic |___| d) Anglican |___| e) Moslem |___| f) Pentecostal |___| g) Others If other, please specify..... h)
2	**The Social Characteristics of respondents regarding the park**	
2.1	Is the Karimojong community well-informed about the objectives of wildlife conservation in KVNP? a) Yes |___| b) No |___| c) I don't know |___|	2.2. Do Community members understand the benefits of wildlife conservation in KVNP? a) Yes |___| b) No |___| c) I don't know |___|
2.3	Is information about conservation practices effectively communicated to the Karimojong community? a) Yes |___| b) No |___| c) I don't know |___|	2.4 Does the Karimojong community face challenges in balancing livestock herding with wildlife conservation goals? a) Yes |___| b) No |___| c)I don't know |___|

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2.5	Do The Karimojong experience difficulties in accessing resources due to conservation restrictions a) Yes |___| b) No |___| c)I don't know |___|	2.6 Is there a strong sense of ownership and responsibility among the Karimojong towards conservation efforts in their area a) Yes |___| b) No |___| c)I don't know |___|
3	**The economic characteristics of respondents regarding the park**	
3.1	Does your family own land? a) Yes |___| b) No |___| c) Don't Know |___|	3.2 If yes, how did your family acquire land? a) Ancestral land inherited from parents|___| b) Purchased |___| c) Acquired for free from local government|___| d) Acquired from a government organization|___| Don't know |___|
3.3	How big is your land? a) Less than an acre b) One to two acres c) More than two acres d) Others, specify.....	3.4 How do you use your land? a) Cultivation b) grazing c) Others, specify.....
3.5	Does your family own a house? a) Yes |___| b) No |___| c) I don't Know |___|	3.6 What type of house do you stay in? a) Temporary house (Grass thrutched roof and mad walls) b) Semi-Permanent (Iron roof with mad walls) |___| c) Permanent (Iron roof, brick walls) |___| d) Other Specify..... .....
3.7	What do you do to get income to live on? a) Through formal employment |___| b) Allowances c) from Casual labor d) From Peasant farming e) From business f) From cattle keeping g) Specify any other	3.8 How many livestock does your family own? indicate any of the following livestock and please fill in options: 5, 10, etc a) Cattle |___| b) Goats or sheep |___| c) Chicken |___| d) Pigs |___| e) Other livestock specify .....
4	**The nature of the Karimojong participation/intervention in wildlife conservation, how? In which ways?**	

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4.1	Do you feel that protecting Kidepo Valley National Park is important? a) Yes |___| b) No |___| c) I don't know|___|	4.2 Do you feel responsible for caring for Kidepo Valley National Park? a) Yes |___| b) No |___| c) I don't know|___|
4.3	Do you think there is effective collaboration between the park officials and the Karimojong community ? a) Yes |___| b) No |___| c)I don't know|___|	4.4 Do you feel involved in wildlife conservation even if you don't work in the park a) Yes|___| b) No |___| c) I don't know |___|
4.5	Please specify the role you play in protecting wildlife in KVNP.	4.6 Do you or your family members hold leadership positions in the park affairs? a)Yes |___| b)No |___| c) I don't know|___|
4.7	If yes, which position do you/a family member hold? a) administrative role b) Member of the community leadership c) Security services d) Wildlife monitoring e) Community Education f) anti-poaching efforts g) Other, specify	4.8 What motivates you to participate in wildlife conservation**?** (Select all that apply) a) Community Responsibility b) Personal interest c) financial incentives due to poverty d) educational opportunities e) Cultural significance f) Other (please specify): .....
4.9	What challenges do you face in participating in conservation activities? (Select all that apply) a) Lack of awareness b) Limited resources c) Insufficient support from organizations d) Cultural barriers e) I feel discriminated	4.10 What kind of support has encouraged more participation from your community? (Select all that apply) a) Training programs b) financial assistance c) Increased awareness campaigns d) Collaboration with local organizations e) Other (please specify): .....

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	f) Other (please specify): _____	
4.11	4.10 Do you think policies have emphasized indigenous knowledge of wildlife conservation? a) Yes |___| b) No|___| c) I don't know|___|	4.12 Wildlife conservation policies support Karimojong representation in conservation discussions at all levels a) Yes|___| b) Not at all|___| c) Somehow|___|
4.13	The KVNP conservation policies and guidelines encourage and promote the community's input and participation a) Yes|___| b) Not at all|___| c) Somehow|___|	4.14 There is recognition of Karimojong cultural practices related to wildlife conservation a) Yes|___| b) Not at all|___| c) Somehow|___|
4.15	There are community advisory boards that collaborate with park management to conserve wildlife. a) Yes|___| b) Not at all|___| c) I don't know |___|	4.16 Eco-Tourism opportunities have been developed to provide economic benefits to the Karimojong a) Yes|___| b) Not at all|___| c) Somehow|___|
4.17	How would you rate your knowledge about wildlife conservation in KVNP? a) Very low b) Low c) Moderate d) High e) Very high	4.18 Sustainable practices such as rotational grazing and controlled hunting have helped to promote the participative maintenance of ecosystems in the park a) Yes|___| b) Not at all|___| c)I don't know |___|

5	**The degree of the Karimojong's participation** in wildlife conservation activities					
	Please indicate the level of your agreement	**Not at all**	**Rarely**	**Sometimes**	**Frequently**61% - 90%,	**Always**91% - 100%

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		0% - 10%	11%- 40%	41%- 60%		
5.1	I feel my community is actively involved in wildlife conservation efforts					
5.2	Indigenous knowledge is valued and incorporated into wildlife conservation strategies.					
5.3	There are effective frameworks in place for addressing human-wildlife conflicts reducing hostility and promoting co-conservation					
5.4	My community participates in decision-making processes related to wildlife conservation					
5.5	There are regular workshops or training sessions in my community focused on wildlife conservation					
5.6	My community collaborates with government agencies or NGOs for wildlife conservation projects					
5.7	There is sufficient funding available for wildlife conservation initiatives in my community					
5.8	There is a clear plan for wildlife conservation activities that involves community members					

6	Finding out the **nature of Karimojong Integration** in Wildlife Conservation efforts	
6.1	Do you see Kidepo Valley National Park as a key part of your cultural identity? a) Yes |___| b) No |___| c) I don't know|___|	6.2 Indigenous knowledge is regularly sought and utilized in conservation planning processes. a) Yes |___| b) No |___| c) I don't know|___|
6.3	There is the involvement of the Karimojong Indigenous governance over wildlife In KVNP a) Yes|___| b) Not at all|___| c) I don't know|___|	6.4 There is implementation of the community-driven policies and regulations over wildlife a) Yes |___| b) No |___| c)I don't know |___|

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6.5	If yes, please specify if any, ...	6.6 There is greater respect for Indigenous contribution to conservation a) Yes|___| b) No |___| c) I don't know|___|
6.7	How confident do you feel about participating in park decision-making processes in your community? a) Very confident |___| b) Not confident at all |___| c) A little bit confident |___|	6.8 If yes, please specify which decision you have participated in. a)..... b).....
6.9	Conservation policies uphold indigenous land rights. a) Yes|___| b) Not at all|___| c) I don't know|___|	6.10 Conservation policies promote state control over the conserved land. a) Yes|___| b) Not at all|___| c) I don't know|___|
6.11	I am aware and know about the wildlife conservation policies and guidelines regarding KVNP a) Yes |___| b) No|___|	6.12 There is between the Karimojong community and the wildlife conservation organizations operating in the area. a) Yes|___| b) No|___| c) I don't know|___|
6.13	Indigenous communities are engaged as co-managers of protected areas and conservation projects a) Yes|___| b) No|___| c)I don't know|___|	6.14 Traditional knowledge has been combined with scientific methods to enhance conservation strategies a) Yes |___| b) No |___| c)I don't know|___|
6.15	Wildlife capacity-building initiatives for Indigenous communities have led to developing expertise in areas like wildlife habitat restoration in KVNP a) Yes|___| b) No|___| c)I don't know|___|	6.16 There is a cultural integration of Indigenous values leading to culturally sensitive and effective conservation which benefits all a) Yes |___| b) No|___| c) I don't know|___|
6.17	Are your community leaders constantly involved in key decision–making processes related to wildlife conservation?	6.18 The integration has led to advocacy for policies that recognize Indigenous land rights and governance a) Yes|___| b) No|___|

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	a) Yes |___| b) No |___| c) I don't know|___|	c) I don't know|___|
6. 19	There a clear and respectful communication between the Karimojong communities and conservation organization a) Yes |___| b) No|___|	6.20 Modern approaches to wildlife conservation are regarded as superior to Indigenous conservation knowledge a) Yes |___| b) No|___|
6. 21	Do the Legal wildlife frameworks recognize Indigenous land rights a) Yes |___| b) No|___| c) I don't know|___|	6.22 Do you feel that traditional practices are implemented in the park? a) Yes|___| b) Not at all|___| c) I don't know|___|
6. 23	Who do you think participates most in decision-making regarding park affairs? a) Members of the local community participate most in decision-making in the park b) Park officials c) Both a and b d) I don't know	
Please tick ALL that are relevant to you		
6. 24	How have wildlife conservation policies restricted Indigenous community involvement in the wildlife conservation process a) State control over land b) Undermining of Indigenous land rights c) Neglect and prohibition of wildlife traditional practices d) Focus on wildlife preservation over cultural values e) Scientific approaches undervalue the Indigenous	6.32 In which ways do policies focus on wildlife conservation over human survival in your area? a) The park policies have led to the displacement of community members around the park b) The government has directed more funding to conservation initiatives c)There is more focus on wildlife conservation over agriculture around the park d)There are strict regulations on land use around the park

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	ecological knowledge developed over centuries f) Any other.....	e)Any other.....
6.25	How would you describe the wildlife management authority in your area a) Top-down approaches to management b) Absence of meaningful consultations with Indigenous community c) Lack of representation in the decision-making process d) Delegation of wildlife management to external agencies e) Any other.....	
7	**The degree of integration** of the Karimojong people in wildlife conservation activities.	

Please indicate the level of your agreement		**Not at all** 0% - 10%,	**Slightly** 11%- 40%	**Moderately** 41% - 60%	**Highly** 61% - 90%,	**Fully Integrated** 91% - 100%
7.1	Indigenous community members are involved in the planning of wildlife conservation projects.					
7.2	There is a strong partnership between my community and external conservation organizations					
7.3	Local Indigenous values, practices, and customs are integrated into wildlife conservation strategies					
7.4	My community has access to information about wildlife conservation efforts and initiatives in KVNP.					
7.6	My community collaborates with scientists and researchers on wildlife conservation projects					
7.7	Community members participate in wildlife management.					
7.8	My community's traditional ecological knowledge is respected and utilized in conservation practices					

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7.9	There is Open dialogue and discussions that help to find balanced solutions that respect conservation objectives and Indigenous interests					
7.10	Indigenous traditional practices and knowledge are incorporated into official conservation policies					
7.11	Conservation programs and initiatives are designed to align with Indigenous cultural practices and community needs					
7.12	There is a formal mechanism for integrating indigenous perspectives into conservation decision-making processes.					

8	**The Karimojong Wildlife Conservation Cultural Values, Norms, and Practices**

Please tick ALL that is relevant

81	Do you know of any cultural practice that protects wildlife? Yes|___| No|___|	8.2. If yes, please list any 1 2 3
8.3	Do you know of any cultural norms or customary laws that protect wildlife? Yes|___| No|___|	8.4 If yes, please list any 1 2 3
8.5	What are the Karimojong traditional systems for wildlife governance **(tick all relevant)** a) Customary laws b) Elder leadership c) Cultural protocol d) Any other?.....	8.6 How do the Karimojong demonstrate the importance of wildlife conservation? a) Restriction of hunting b) Respectful hunting practices c) Cultural protocol d) Any other……..
8.7	How do the Karimojong demonstrate the importance of land for wildlife conservation? a) Strict restriction of land resource access in certain cultural sites b) Sustainable land use access	8.8 How do the Karimojong demonstrate the cultural significance of certain species? a) Symbolism: Certain animals are symbols of power, Wisdom and protection b) Certain animals help define a group's identity, heritage, and way of life c) Animals hold economic value d) Reliance on specific species for healing properties

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	c) Management of water resources to enhance wildlife d) Landscape management such as reducing the risk of fires e) Any other.....	e) Wildlife is used to strengthen social cohesion and community bonds f) Any other .....
8.9	What is the wildlife's medium for your cultural expression and identity? a) Totem b) Sculpture c) Craft Any other.....	8.10 How do the Karimojong allow the wildlife population to recover and maintain ecological balance? a) Through seasonal hunting b) Through instructions from the Elder leadership c) Reciprocal; agreement d) Any other.....
8.11	As a Karimojong, how are you culturally connected with wildlife? a) Animals are central characters in Folklore b) Animals are used in tales to impart moral lessons and respect c) Local wildlife names are incorporated into the culture d) Certain animals symbolize values or traits like wisdom, bravery, strength e) Any Other.....	8.12 The following is true about how the Karimojong express their indigenous traditional sense of interconnectedness with wildlife. a) They view themselves as part of an ecological community b) They believe that taking from nature requires giving back c) Wildlife narratives convey important lessons about respecting all living beings d) They align their cultural practices with wildlife migration patterns of wildlife e)Any other.....
8.13	Which essential services do wildlife resources provide you? a) Food b) Shelter c) Clothing d) Beauty e) Security f) Medicine g) Any Other.....	8.14 What is the role of wildlife in ceremonies and rituals? a) Initiation rites b) Childbirth c) Harvest celebrations d) Spiritual practices e) Any other.....
8.15	What is the role of wildlife in promoting health and wellness among the Karimojong people?	8.16. What are the Karimojong Indigenous traditional sustainable practices for wildlife a) Seasonal Hunting b) Restrictive and selective hunting

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	a) Interaction with wildlife reduces stress, and anxiety, and promotes relaxation and emotional health b) Shared wildlife values enhance emotional support and community health c) Animal-assisted therapy improves mental health d) Wildlife serves and supports a healthy nutrition and wellbeing e) Any other……..	c) Intergenerational knowledge transfer d) Ceremonial practices conducted before and after hunting e) Community regulation f) Any other……..
8.17	How do the Karimojong indigenous people express the elder wildlife wisdom? a) Oral tradition and storytelling to convey lessons about wildlife b) Mentorship and teaching to pass on ecological knowledge c) Ceremonies and Rituals that honor wildlife d) Community gathering, a platform for sharing wisdom e) Traditional healing practices of wildlife used in traditional healing f) Any other……	8.18 The Karimojong traditional beliefs that promote respect for wildlife include; a) Animism, hence fostering a sense of respectful treatment and reverence for wildlife b) Sacredness of life to teach the importance of wildlife c) environmental stewardship, a sense of duty to protect wildlife d)……..

Opinions on the Karimojong Wildlife Conservation Cultural Values, Norms, and Practices

Please indicate the level of your agreement		**Strongly Disagree** 0% - 10%	**Disagree** 11% - 40%	**Neutral** 41% - 60%	**Agree** 61% - 90%	**Strongly Agree** 91% - 100%
8.19	The Karimojong cultural systems uphold wildlife conservation of the KVNP					
8.20	The Elder Leadership is one of the Karimojong Indigenous practices that upholds the traditional wildlife conservation practice					

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8.21	Restrictive hunting is a traditional practice among the Karimojong that demonstrates the wildlife conservation practice					
8.22	Cultural protocols are a traditional practice that demonstrates the wildlife conservation practice					
8.23	Our culture does not allow the hunting and killing of non-edible wild animals for fun					
8.24	Cultural attachment to animal species as symbols of power, wisdom, and protection are significant Karimojong Indigenous conservation opportunities for KVNP					
8.25	Our culture and religion do not allow the killing of sacred animals					
8.26	We do not use wild meat for sacred rituals such as weddings and childbirth ceremonies					

9	**The Karimojong livelihood needs/ opportunities associated with Kidepo Valley National Park**	
9.1	Have you ever moved freely in the park? a) Yes |___| b) No |___|	9.2 When did you last move to the park in search of firewood? a) Less than a week ago b) One week to 2 weeks c) 3 weeks to 4 weeks d) More than a month ago e) No more
9.3	When did you last move to the park for cultural purposes? a) Less than a week ago b) One week to 2 weeks c) 3 weeks to 4 weeks d) More than a month ago e) No More	9.4 The park management upholds and is sensitive to the Karimojong traditional spiritual connectedness with wildlife. a) Yes |___| b) No|___| c) I don't know |___|
9.5	When did you last move to the park for spiritual purposes? a) Less than a week ago b) One week to 2 weeks c) 3 weeks to 4 weeks d) More than a month ago	9.6 When did you last move to the park in search of medicine? a) Less than a week ago b) One week to 2 weeks c) 3 weeks to 4 weeks d) More than a month ago

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	e) No more	e) No more
9.7	When was the last time you moved to the park in search of food? a) Less than a week ago b) One week to 2 weeks c) 3 weeks to 4 weeks d) More than a month ago e) No more	9.8 The Karimojong communities have access to wildlife-related resources and funding a) Yes |___| b) No|___| c) I don't know
9.9	What kind of resources are being exploited in your area? a) Gold b) Animal related c)Marbles d)Other.....	9.10 How does this resource exploitation benefit you sustainably (tick where relevant. a) I get a good monthly salary b) My wage pays school fees for my children c) I don't see any benefit at all d) it is a health risk job to me
9.11	Who benefits most in the resource exploitation a) My community b) External stakeholders c) I am not aware of anything	9.12 There is a conflict of economic interest based on resource exploitation in my community a) Yes b) No
9.13	Does the conflict of resource exploitation lead to the destruction and loss of wildlife? a) Yes b) No	9.14 Does tourism pressure promote wildlife over your community's human well-being? a) Yes b) No c) I don't know
9.15	Does emphasis on wildlife promotion over your community's well-being cause human-wildlife conflict? a) Yes b) No c) I don't know	9.16 Are their tensions between the membership of your community and wildlife conservation authorities? a) Yes b) No I don't know
9.17	How much food did you harvest for your family in the last two seasons? a) No food harvest at all b) A small amount of food (less than one sack) c) A moderate amount of food (Less than two sacks) d) A large amount of food	9.18 What is your main source of Livelihood? (*Tick only one*) a) Farming |___| b) Petty trade |___| c) Salaried job |___| d) Humanitarian support |___| e) Cattle keeping f) Fishing None |___|

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		c) Other specify……..
9. 19	Do the wildlife conservation efforts benefit people in your village? a) Yes b) No c) I don't Know	9.20 Are you a beneficiary of any development project in the park? 1. Yes 2. No 3. Don't know
9. 21	Government land use requirements around KVNP are not considerate of the land use needs of the people who live around the park a)Yes b)No c)I don't know	9.22 G If yes, which area of support are you benefiting from? a) Education b) Food c) Employment d) Health e) Land f) Housing g) Rights Advocacy Others specify……
9. 23	Have you had any food harvests in the last two seasons for your family? a)Yes b)No c)I don't know	9.24 What wildlife livelihood needs does your village community depend on for survival? a) Food Security b) Medicinal resources c) Cultural and spiritual value d) Medicinal Resource e) Craft and clothing f) Job creation e.g. traditional healers g)Any Other…… ……..
9. 25	If no, why? a) Due to poor harvest b) Due to drought c) Wildlife destroyed my garden	9.26 Have you ever been satisfactorily compensated for any destruction or death caused by wildlife a) Yes b) No c) Any other, specify ……
9. 27	If yes, what kind of compensation did you get? a) Money b) Land c) Food d) Any other Specify…… ……..	9.28 In the last month, did your family receive any support from the UWA humanitarian agency to meet your needs? a) Yes b) No c) Don't Know

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9. 29	Are you a beneficiary of any wildlife development intervention? a) Yes b) No c) Don't know	9.30 If yes, which area of support are you benefiting from? a) Education b) Employment c) Health d) Housing e) Rights Advocacy Others specify……..
9. 31	In the last few months, have you or any member of your village experienced violence from wildlife? a) Yes b) No Don't Know	9.32 If yes, What kind of violence? a) Physical attack from wildlife b) Destruction of property from wildlife c) Destruction of crops e) Any other, Specify ……..
9. 33	Was the issue handled justly? a) Yes b) No	9.34 To you, what have unresolved human-wildlife conflicts in KVNP resulted to? a) Retaliation b) Increased tension c) Displacement d) Any other……..
9. 35	Which of the following agencies is the main source of support for the Karimojong people who live around the park? a) Local Government b) UWA c)Community-Based Organization d) Local NGOs e) International NGOs f) Others Specify	9.36 Do you easily access any of the following public services? (Please put **yes** or **no)** a) Health care |___| b) Education |___| c) Water Access |___| d)Transportation |___| e) Any other specify……

Opinions on the Karimojong livelihood needs/ opportunities associated with Kidepo Valley National Park KVNP

Please indicate the level of your agreement		**Strongly Disagree** 0% - 10%,	**Disagree** 11% - 40%,	**Neutral** 41% - 60%,	**Agree** 61% - 90%,	**Strongly Disagree** 91% - 100%
9. 37	The Karimojong Indigenous land and wildlife experience pressure					



	from external activities such as mining and tourism					
3	Wildlife conservation efforts have led to tangible economic benefits for my community					
)	There are Community-led conservation projects and initiatives based on community needs and priorities					
)	There are effective compensation schemes for livestock loss or damage caused by wildlife					
l	Racism and biases within conservation organizations create exclusion of the Karimojong perspectives in conservation					
2	Conservation efforts have been aligned with traditional values to support and ensure sustainable livelihoods					
3	Land and Resource rights have been reinforced through advocacy to strengthen claims to traditional land from external threats.					
4	KVNP is a source of Karimojong Indigenous and Traditional Medicine, rituals, and cultural identity					
5	KVNP is the source of income for Karimojong Communities					
6	KVNP is important for the Karimojong Communities' religious practices					

ıank you very much for participating in this survey. Your time is greatly appreciated.

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Appendix II: Questionnaire Translated

AKIGITIGITO KOTERE GITUNGA AEKITELA AGIKARIMOJONG

Epite ka adolit Aakitiyanakin angikarimojong ka acunakinit nguna eripio alotooma akigago alotooma KVNP, kuju-kide ekitela a Uganda.

Guna egeunito

Arai ayong asistat ngina ebe Lolem Lucy. A yai nasomet ngina asalunet anasometa alotooma e University alo Mbarara University of science and Technology etiyai "Epite ka adoketait aetic aekitela angikarimojong ka acunakinit akingango ka akirip nguna ka akiyar kaamwani alootoma KVNP-kuju, kide Uganda". Eketalakari mono ayong iyes acamun akitiyanakin alotooma akisyom na . Ekelipit ebe erai akisyom na ngina isitiyao a losukul ebon. Emam nyisitiyao ediokiro a lotooma eripot lo inges atemar ebe ikilimokinitai ebe iwayo emam ngini eyeuni, Akusikiwakinet ijaunitai ka elosi akingarakin a lotooma akupun alootoma ngitalio ngulu ka ajokis, akitetem, ayakau ka adolit aetic ka acunakina aekitela angikarimojong a lotooma aripirip akingango ka akiyar kaamwani a lotooma KVNP.



Alimoret angikabongonokinak nguna itodiunito nguna akikabongonokinok	
Enamba ngolo elimorit: |__|__|__|__|	Akolongit ka akigito: |__|__|/|__|__|/|__|__|__|__| (akwar/elap/ekaru)
Kiwa ngikoni karu |__|__| (ngulu ebeikina daadang)	1.2 Ayakau kon c) Ekile |__| d) Aberu|__|
Ai idolit iyong anakisyom kon? a)Emam nyasomit |__| b)Losukul lo apremari |__| c)Esukul lo asecondari |__| d)Esukul lo esubere ngiboro |__| e)Edipoloma |__| f)Edigiri |__| g)Nguluce tolimo.....	1.4 Nyo erai akus kwap a) ngidotho b) ngijiyee c) ngitewuso d) nguluce, tolimo .....
Nyo erai akusikiriket? d) Ngitome a e) Ngimoru a f) Ngigetei a d)nguluce tolimo.....	1.6 Nyo ajokis anyityang angina iwakinitai kori elimitai anakiriket kus a) aosou b) angongou c) Akisimukekinet Nyece .....
Ekusi Distik	1.8 Ekus counti .....
Ekus re	1.10 Epite ngolo akibois d) Ecaalo e) Erai etau iwadio f) Erai etau
Iyakatar iyong ikoku a? Ee|__| Emam |__|	1.12 Ani kiyakar, ngi ai? |__||__|



3	Iboitotor mono ekonikal aneni aere angityang a? a) Ee |___| b) Emam |___| c)Emam nyayeni |___|	1.14 Anibo pa kerai, alire kolong ayai ekonikal? .....
5	Iya iyong ngikaru ngiai iboi alotooma ecounti lo? . |___||___| Years	1.16 Nyo erai ekonkelesia? i) Emam |___| j) Emuron |___| k) Ecatolika |___| l) Ekelesia ngolo a uganda |___| m) Emosilem |___| n) Epenitecostal a |___| o) Nguluce keya, tolimo.....
	Nguna itodiunito akirukit angikabongonokinok etapit akibois angityang	
	Elimokinitai mono ekitela angikarimojong angikisila kori aloskinet akingango ka akiyar kamwaani alotooma KVNP a? a) Ee |___| b) Emam |___| c) Emam Nyayeni |___|	2.2. Eyenunito mono ngitunga ka ekitela ajokis ka akingongo ka akiyar kaamwani alotooma KVNP a? a) Ee |___| b) Emam |___| c) Emam Nyayeni |___|
3	Ikekinitai mono ngakiro nguna ka akingongo angityang kire neni ka ngitunga aekitela angikarimojong? a) Ee |___| b) Emam |___| c) Emam Nyayeni |___|	2.4 Eya mono ngatiokisio eriamunito ngikarimojong alotooma akikor atwarit angityang keere ka alosikinet ka akigango ka akiyar ka akigango ka akiyar ka amwani a? a) Ee |___| b) Emam |___| c) Emam Nyayeni |___|
5	Eriamunito mono ngikarimojong ngatiokisio anariamun ngiboro kaamwani kotere awowunitor anakigango a? a) Ee |___| b) Emam |___| c) Emam Nyayeni |___|	2.6 Eyai mono atapit ngina ngogong ka ayakau angilopeyek ka etic alokiding ngikarimojong edolit akigango alotooma ngigup ane a? a) Ee |___| b) Emam |___| c) Emam Nyayeni |___|
	Nguna itodiunito alowai a ngisilinga angikabogonokinok etapit neni iboiyoto	

yakatar mono ekusikal alupu a?) Ee |___|) Emam |___|) Emam Nyayeni |___|	3.2 Ani keyai, alipite kolong ariamunia ekusikal galup nu? e) Nguna kiruma alokawuriak|___| f) Ngagwelan |___| g) Ariamunio emam etaci anapukan |___| h) Ariamunio anapukan|___| i) Emam nyayeni |___|
lalemono angalup kus? e) Nyedoli ayeka f) Ayeka apei kori ngarei g) Egeparete ngayekai ngarei h) Ngunace, tolimo…… ……..	3.4 Ikwani mono isitiyata iyes ngakusilup? a) Itao b) Edakasi ngibaren c) Ngunace, tolimo……
Eyakatar mono ekusikal ikayi a? ı) Ee |___| ›) Emam |___| :) Emam Nyayeni |___|	3.6 Alipite eyakar akaikus ngina iboyoto iyes? a) Akai ngina anganyia b) Ngina angababatii alokidiama kwap adwaat |___| e) Ngina ka esimit ebon |___| f) Ngunace, tolimo…… ……
Nyo itiyai iyong kotere iriamunia ngisilinga ngulu iyaria? a) Etic lo acamunit |___| b) Lowai lo aetic kang c) Akilejilej d) Nakitare e) Anagelenar f) Alobaren g) Ngunace tolimo	3.8 Ngibaren mono gia I eyakar ekusikal? Kiwak ngidio alotooma ngibaren ka ekelipit kiwak alotooma 5, 10, kiwapak nguluce daadang f) Ngaitu |___| g) Gakinei kori gamesekin |___| h) Gikokoroi |___| i) Giguruwoi |___| j) Gice tyang tolimo ……

Continuation

Epite itiyanakineta/ etameta ngikarimojong alotooma akigangit akiyar ka amwani, ikwani? Aalupitesyo?

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ikitapit mono iyes akigango akidepo atemar ejok a? a) Ee |___| b) Emam |___| c) Emam nyayeni|___|	4.2 Iitamunitomono ites atemar igon ikwuriarit kidepo a? a) Ee |___| b) Emam |___| c) Emam nyayeni|___|
Iitamunito mono iyes atemar eyayi arucokino kiding ngikapolok anayokotyang ka ekitela a ngikarimojong a? a) Ee |___| b) Emam |___| c)Emam nyayeni|___|	4.4 ikitapi mono iyok ayekwau tooma akiwiriarit akiyar kaamwani anapaka a?i a) Ee|___| b) Emam |___| c) Emam nyayeni|___|
Ekelipit toseu etic golo iboliat iyong anakingagit akiyar kaamwani alokidepo	4.6 Iyakatar mono iyong Kori idiotunganan alokal kus ewai ngol ka arakai ekarikon alotooma guna imanimanere apaka a? aEe |___| b)Emam |___| c) Emam nyayeni|___|
Ani kera Ee, aliwai iyakar iyong/idiotunganan alokal kus eyakar? a)Etic ngolo ka Akimaniman b) Epei alokarikok alobuku kosi c) Ewai ngolo imanimanere aiwara d)Acoikinit akiyar kaamwani e) Akisyom ngina ka ebuku f) Ekewakinan ngigup neni Nyecamitere amen ngityang g)Keya ngice , tolimo	4.8 Nyo ikisimukekinit iyong akitiya tooma akingago akiyar kaamwani?(Toseu nguna daadang iwakinio) a) Etic alobuku b) Ekibure Kang bon c) Amamkwau angisilinga kan akuliako d) Abaat ka Akisyom e) Apolou angitaalio f) Ngice (Ekelipit toseut): ....

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	.... _____	
	Anutwokisyo iriamunito iyes alotic alotooma guna igagotere ngityang ?(Toseutu nguna daadang iwakinio) a) Amamkwou ayenut b) Akudiok agiboro c) Amamkwou angakiganakineta aneni atalojokayau d) Angolorit Agitalio e) ayoli akatapit f) Ngace (Ekelipit tolimosi): _____	4.10 Ani kigago esimukek Etic alobuku kus? (Toseu nege dadaang) a) Guna itetemere b) akigaranakin alowai agisilinga c) akiyatakin ayenut lotunga d)Arucokino ka atalojokotau lu keree e) Ngice (Tolimosi nege): .....
1	4.10 Iitamunit mono iyong ebe arucokis gikisila aosou neni ka akingago akiyar kaamwani a? a) Ee|___| b)Emam|___| c) Emam nyayeni|___|	4.12 Ngikisila gulu ka akingago ka akiyar kaamwani einakinit ayakau a ngikarimojong lorwor anadoketa adaadang a) Ee|___| b) Emam jik|___| c) iwadio|___|
3	Akingago ka ngikisila a KVNP ikwes esimukes ka ekyasi akiwakin ka Etic alobuku a) Ee|___| b) Emam jik |___| c) iwadio|___|	4.14 Eyai akiwakinet angitaalio angikarimojong etapit akingago ka akiyar kaamwani a) Ee|___ **b) Emam jik**|___| c) Iwadio|___|
5	Eyakasi gulu isirorete anatukot alobuku gulu dang erucokina ka lu imanimanete akigangit akiyar kaamwani a) Ee|___| bEmam jik|___|	4.16 Ngiboro gulu Eyaunito ngabatio ewakin ayaun gajokisia neni a ngikarimojong a) Ee|___| b) Emam jik|___| c) Iwadio|___|

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	c) Emam nyayeni|___|	
7	ikwani mono isikwania iyong akoni wosou etapit akingago ka akiyar kaamwani alotooma KVNP a) Edit nooi b) Edit c)Eyai kiding d) Epol e)Epol nooi	4.18Ngiticisyo ikwa akisidak gibaren eyenitai ka amen gina ebukinitai egarakis akikyar Etic aginibore daadang alotooma apak a) Ee|___| b) Emam jik|___| c) Emam nyayeni|___|

Eetiaye aetic a ngikarimojong alotooma giwatin ngulu ka akingago ka akiyar kaamwani

	Ekelipit kitodiut eetiaye ka acamunet kus	**Emam jik** 0% - 10%	**Palem ca** 11%- 40%	**Ngice saai** 41%- 60%	Pakapaka 61% - 90%,	**Anginakolongit** 91% -100%
1	Atamunit ebe Eyai ebuku Kang room nooi akingago ka akiyar kaamwani					
2	Aosou agitunga itojokitai ka iwakinitai tooma gipitesyo ngulu ka akingago ka akiyar kaamwani					
3	Eyakasi guna tooma akigodia kiding gitunga ka ngityang akinyipuny aronis ka akikyar akingago					
4	Eyayi ebuku Kang tooma neni eyere nguna etapito guna ka akingago ka akiyar kaamwani					
5	Eya gakiboinikineta Kori akitetetem alobuku					

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ecoit akingago ka akiyar kaamwani					
Erucokina ebuku Kang ka ngulu ka apukan Kori NGOs anakingago ka akiyar kaamwani					
. Eyakasi gisilinga ngulu ebeit kotere akingago ka akiyar kaamwani alobuku Kang					
Eyakasi ngipulanin ngulu ecate kotere guna daadang ka akingago ka akiyar kaamwani ngulu iwakinit gitunga ke ebuku					

Arukoun epite angikarimojong anacunakina tooma ngigup ka akingago ka akiyar kaamwani	
iyanyunit KVNP ikwa Ewai ngolo angogongon analimorit etaal kusi a? .a) Ee |___| b) Emam|___| c) Emam nyayeni|___|	6.2 Aosou ngina paka etamunio ka isitiyaitai alotooma ayere nguna ka akingago a) Ee|___| b) Emam|___| c) Emam nyayeni|___|
Eyai nyakau kaakipukat angikarimojong akiyar kaamwani alotooma KVNP a) Ee|___| b)Emam jik|___| c) Emam nyayeni|___|	6.4 Eyakasi ngikisila gulu iwakinitai emeit ebuku ka nguna kiwapa etapit akiyar kaamwani a) Ee |___| b) Emam|___| c) Emam nyayeni|___|
Ani kera Ee, ekelipit Tolimo	6.6 Eyai akereu ngina apolon kotere ayaunit angitunga tooma akingago a) Ee|___| b) Emam |___| c) Emam nyayeni|___|
Ani kiyokino iyakar iyong etapit etic alotooma akiye akisub guna ka apak alotooma ebuku kus? a)eyokinit ayong nooi |___|	6.8 kera Ee, ekelipit Tolimo anutameta iwakinit lotic alotooma ngityang. a)..... b).....

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	b) Emam nyeyokinit ayok daadang |___| c) Eyokinit ayong iwadio |___|	
	Ngikisila ngulu ka akingago ikewunete apedor agitunga. **a) Ee**|___| b) Emam jik|___| c) Emam nyayeni|___|	6.10 . Ngikisila Ngulu ka akingago ikewunit akwap akigangit neni eya ngityang a) Ee|___| b) Emam|___| c) Emam nyayeni|___|
1	Ayeni ka ayenikinit ngikisila ka guna erikito akingago ka akiyar kaamwani etapit KVNP a) **Ee**|___| b) Emam|___|	6.12 Eyai kidding ebuku angikarimojong ka ngikegagang akitiya alotooma ere. **Ee**|___| a) **Emam**|___| b) **Emam nyayeni**|___|
3	Ngibukui Eyakasi ikwa ngiketiyak lowatin ka giwatin ka akingago a) Ee|___| b) Emam|___| c)I Emam nyayeni|___|	6.14 Arucokin Kona aosou angirwa alu ka ngina a kolong akiwakin ngirotin akingago a) Ee |___| b) Emam |___| c) Emam nyayeni|___|
5	Aduketait ngina ka akiyar kaamwani kotere ngitunga ebuku ayaut akitopolor ka akinyakuno alotooma ngireria ngulu ka akiyar kaamwani alotooma KVNP a) Ee|___| b) Emam|___| c)Emam nyayeni|___|	6.16Eyai Kona arucokino angitaalio angitunga ajokis ayaun akingago ngina ebeikina ngina Eyaunit ajokis neni adaadang a) Ee|___| b) Emam|___| c) Emam nyayeni|___|

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Eya mono ngikarikok ebuku kus eupakina tooma alotooma ayere ka akisub etapit akingago a? a) Ee |___| b) **Emam**|___| cEmam nyayeni|___|	6.18 Acunakinet ayau akiyalar kotere ngikisila ngulu etamunito apedor angalup ka akipukat a) Ee|___| b) Emam|___| c) Emam nyayeni|___|
There a clear and respectful communication between the Karimojong communities and conservation organization Eya mono nguna etakanete ka ekeritai alotooma erwor kiding ebuku angikarimojong ka ngulu imanimanete akingago a a) Ee |___| b) Emam|___|	6.20 Ngipitesyo ngulu kitetet akingago akiyar kaamwani iwakinitai erai Ngulu ejwang nooi adepar aosou ngina kolong a) Ee|___| b) Emam|___|
Isilerewunito mono ngatiketa nu ka akiyar kaamwani apedor angalup a) Ee |___| b) Emam|___| c) Emam nyayeni|___|	6.22 Itami mono iyong ebe ngipitesyo ngulu ngorok elomarete tooma napak a? a) Ee|___| b) Emam|___| c) Emam nyayeni|___|
Ngai itamete iyes itiyai nooi akitam ayere etapit nguna ka apak? a)Ngitunga ngulu ka ebuku itiyayete nooi alotooma akitam ayere alotooma apak b) Ngikapolok ka apak c) Ngulu a ka b d) Emam nyayeni	

lipit tociata daadang nguna iyokino

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24	Ikwani esididingiata ngikisila ayakau a ebuku tooma akingago ka akiyar kaamwani a)Akingagit akwap ngalup b) Amenit apedor angalup a lotunga c) Ajalakinit ka alemarit ngitaalio ka akiyar kaamwani d)Acoikin akiyar ka amwani aiyun alotaalio e)Ngakitodiuneta nguna angarwa anu ayaut akitoditiuno aosou ngina kolong ewakinio ngikaru f)Ngunace…… ……	6.32 Aalupitesyo angikisila ecoito akingago ka akiyar kaamwani ankyakunio angitunga alore kus? a) Ngikisila ka apak ayaut akiyaliyalar angitunga alobuku eyapi anapak b)Ewak apukan ngisilinga lu alalak nakinagago c)Eyai Acoikinit nooi akingago ka akiyar kaamwani akilo akitaare adiiyete apak d)Eyai nguna etwouko iwapitai neni isitiyare ngalup adiiyete apak e) Keya ngice tolimo……
25	Ikwani mono isikwania epite etwaritere akipukat akiyar kaamwani alotooma ere a) Kidiama kwap akitodol akiyokit b) Amamkau akingitigito Gina esubakina ka ngitunga ebuku c) Amamkau ayakau tooma neni etamere _ eyere guna ka apak d) Akipotonokin ngulu etwarito akiyar kaamwani neni angulu akinga e) Ngace tolimo…… …… ……	

	Etiaye ka acunakinet angitunga akarimojong tooma akingago ka akiyar kaamwani .					
	elipit kioltodiu etiaye ka amunet kon	**Emam daadang** 0% - 10%,	**Iwadio** 11%-40%	**Kiding** 41% - 60%	Nooi 61% - 90%,	Ecunakina nooi 91% - 100%
	Eyakasi ngitunga ebuku tooma ayere giporejecta ngulu ka akingago ka akiyar kaamwani					
	Eyakar ebuku Kang acunakina ngina ngogo ka ngulu kegang ngulu akinga					



3	Ajokis ngina angitunga, ngitaalio ecunakinio tooma ngipitesyo ngulu ka akingago ka akiyar kaamwani					
4	Ebuku Kang eyakar ariamunet ngakiro nguna etapit akingago ka akiyar kaamwani alotooma KVNP					
6	Ebuku Kang erucokina ka gikasakak akingago ka akiyar kaamwani					
7	Ngitunga ke ebuku itiyayete tooma atwarit akiyar kaamwani					
8	Aosou ngina kolong a ebuku Kang ekeritai ka isitiyo alotooma ngakitetemeta					
9	Eyakasi ngirworisyo nguna egaara nu ikingarakinete arukoun nguna iitenikinete akereu nguna ka akingago angiporojekita ka Ekibure angitunga					
10	Ngitaalio lu akolong ka aosou iwakinitai tooma ngikisila lu ka akingago inapakina					
11	Nguna iwakinitai kan akingago era nguna esubakinitai eupakina ka ngitaalio ka Ekibure a ebuku					
12	Eyakasi nguna kiwapa kan iwanakinere ngatameta tooma ayere akitam nguna					
	Ngitaalio angikarimojong lu etapito akingago ka akiyar kaamwani					

kelipit tociata daadang nguna iyokino

	Iyeni ngidio taalio ngulu iuriarito akiyar kaamwani a? **Ee**|___| **Emam**|___|	8.2. Anikera Ee, kigirak kwap 1 2 3
3	Iyenia ngidio kisila ngulu iuriarito akiyar kaamwani a? Yes|___| No|___|	8.4 kera Ee, kigirak gadio 1 2 3
5	**Nyo etaal angikarimojong ngolo ipukat akiyar kaamwani (tociata daadang nguna iyokino)** a) Ngikisila gulu akolong b) Arikit ngina aapolou c) Etupene ngolo angitaalio d) Ngice Tolimosi.....	8.6Ikwani itodiunitotor ngikarimojong ajokis akingago ka akiyar kaamwani? a) Akitogogit amej b) Amej ngina ekeritai c) Akiwapit angitaalio d) Ngadio Keya……..
7	Ikwani itodiuniata ngikarimojong ajokis angalup kotere akingago ka akiyar kaamwani? a) Akitongogogit eriamune angalup alotooma Ngice waatin angitaalio b) Akisitiya ngalup nguna irukou lokajokan c) Acoikinit neni angakipi kotere akiyar kaamwani d) Akiwiriarit ngakiro nguna ka akicun akwap	8.8 Ikwani mono itodiunitotor ngikarimojong ajokis angicetyang? a) Akitodiunet: Ngice tyang itodiunito atiirion, aosou ka akingago b) Ngice tyang ikingarakinete ayenut atukot,akirum ka epite akiyar c) Eyakatar ngityang ajokis ngina riamunet ngisilinga d) Agwagakina lotyang Ngice kotere akitagalekinia e)Erai akiyar kaamwani ngina itogogogit akirukit kaapei ka itogogogit ebuku f) Ngace Keya……

5	Nyo Etic ka akiyar kaamwani alotooma akikeun angaleu ka akiyar na iyaapara alotooma ngitunga ikwa ngikarimojong? a) Interaction with wildlife reduces stress, and anxiety, and promotes relaxation and emotional healt Ayakau kaapei ka akiyar kaamwani inyipuni aronis alotaii, akitam aronis ka iikeyari akinapakina ka asegis akwan b)Akorit Akiyar kaamwani ajokis ka Akingagit angaleu ebuku c)Akichipichip ka akingarakinit ngityang iitojoki asegis d)Akiyar kaamwani ekori akingago angamuja anguna asegak ka eyakaune ngolo ajokan e) Ngunace……..	8.16Nyo ngitaalio itetemete ngikarimojong kotere akiyar kaamwani a) Amej ngina angarwa b) Amej ngina itogogogitai ka eseunitai c) Ayaanar aosou ngina ecunitai iwapei d) Ngacunanakineta esubanakinio eringa ka kedaun Amej e) Akinyipunit ebuku f) Ngace Keya……..

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17	Ikwani mono itodiuniata ngikasukou angikarimojong aosou ngina ka akiyar kaamwani? a) Akisisya ka alimunun ngistoryo akiwa ngitatam etapit akiyar kaamwani b) Akimaniman ka akitatam akiwakin aosou c)Ngakiboinikineta ka gitaalio lu ekerito akiyar kaamwani d)Acunakinanakin ebuku akikor aosou e)Akitangalenekin akiyar ka akiyar kaamwani isitiyo anakitangale f) Ngunace dang.....	8.18 Ngatameta angikarimojong nguna ikyarete akirereu ka akiyar kaamwani ikwes nu a) Akiyokit;Atemar ebe iwakini akereu akiped ka ainakina neni ka akiyar kaamwani b) Akurian kan akiyar akitatam ajokis ka akiyar kaamwani c) Akingagit ekitela kojokan, atametait ngina keetic akigangit akiyar kaamwani d).....

gatamitameta neni ka akingago, ngitaalio angikarimojong neni ka akiyar kaamwani

	kelipit kitodiu etyeye konicamunet	**Nyacam uni jik** 0% - 10%	**Nyacam uni** 11% - 40%	**Emame ayong** 41% - 60%	**Acamun it** 61% - 90%	**Acamunit nooi** 91% - 100%
19	Epite angitaalio angikarimojong ekeunor akingago ka akiyar kaamwani alotooma KVNP					
20	Ngikarikok ngulu mojong angikarimojong ikewunit akingago ka akiyar kaamwani					
21	Amej ngina itogogogitai aneni angikarimojong iitodi akingago ka akiyar kaamwani					
22	Akiwapit angitaalio iitodi akingago ka akiyar kaamwani					

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23	Ekosi taal nyecamit Amej ka akiyar ngityang kaamwani lu pa nyenyamio caricar					
24	Arucokino angitaalio lotyang kan Akitodiunet angogogu, aosou,ka akingago erai ajokis kan abaait ka akingago akiyar kaamwani kotere KVNP					
25	Ekosi taal ka gidinio nyacamito akiar ngityang lu nyacamitai					
26	Emam isua akisitiya akiring angityang kaamwani anacunanakineta ikwa akiitar ka akidouno angidwee					

	Ekibure ka akiyar Kori ngabatio nguna angikarimojong erukito ka KVNP	
1	Ilositor mono iyong Emam akingago anapak a? a) Ee |___| b) Emam |___|	9.2 Wori ilositor iyong napak ikujai ngakito? a) Nyedoli esabit b) Epeisabit todolite ngireei c) Ngisabeto nguuni todolite ngomwon d) Edepari elap e) Emam nyadoli
3	Alurwa ilositor iyong napak kan ajokis keng? a) Nyedepari esabit b) Epeisabit todolite ngireei c) Ngisabeto nguuni todolite ngomwon d) Edepari elap e) Emam nabo	9.4 Akingagit apak ikeuni ka etapakina neni angitaalio ka arucokina angikarimojong ka akiyar kaamwani a) Ee|___| b) Emam|___| c) Emam nyayeni |___|
	Work ilositor iyong napak kan ngakilipasinei? a) Nyedepari esabit b) Epeisabit todolite ngireei Ngisabeto nguuni todolite ngomwon c) Edepari elap	9.6 Wori ilositor iyong napak akujar ngikito? a) Nyedepari esabit b) Epeisabit todolite ngireei c) Ngisabeto nguuni todolite ngomwon d) Edepari elap e) Emam nyadoli

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	e) Emam nabo	
7	Ani kolongit ngina esodion ilositor iyong napak akuja Akimuj? a) Nyedepari esabit Epeisabit todolite ngireei b) Ngisabeto nguuni todolite ngomwon c) Edepari elap e) Emam nabo	9.8 Eyakatar ngibukui angikarimojong arukwaun Ngiboro gulu eyaunito akiyar kaamwani ka ngisilinga a) Ee |___| b) Emam|___| c) Emam nyayeni
	Aluboro mono inyasunitar aloreria kus? a) Egolid b) Ngityang c)Ngimobolia d)Ngice…… ……	9.10 ikwani mono ejokiata Ngiboro gulu inyasunitai eupikina (tociata neni ebeikina. a) Arukwaunini emucaara ailolap b) Aka lenjilej etaci gidwee alosukul c) Emam nyete adiojokis daadang d) Erai etic ngolo etiono ake segis neni Kang
	Ngai enyami nooi alotooma akinyasunit angiboro a) Ekabuku b) Ngikemanimanak lu akinga c) Emam nyanikinitor Ngadio	9.12 Eyayi amaria eekibure etapit akinyasunit angiboro alobuku Kang a) Ee b) Emam
	Eyauni mono amaria ka akinyasunit angiboro akiranyun ka acakar akiyar kaamwani a? a) Ee b) Emam	9.14 Epedorit mono akikirikira angikalotok napak akikiar akiyar kaamwani alotooma ayakau kojokan angitunga aebuku angikarimojong a? a) Ee b) Emam c) Emam nyayeni
	Eyauni mono eporomotion ka akiyar kaamwani tooma ayakau kojokan aebuku arasit kiding ngitunga ka akiyar kaamwani a? a) Ee b) Emam	9.16 Eya mono akitokuriana kiding ngitunga keebuku ka ngilopei akiyar kaamwani a? a) Ee b) Emam Emam nyayeni

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	c) Emam nyayeni	
17	Akimuj netiai elemunitor ekusikal alotooma gikaru ngireei? a) Emam nyelemuna adikimuj b) Akimuj ngina dioci(nyedolintaa r adepepedep) c) Akimuj capei (nyedolete ngadepidepio ngareei) d) Akimuj ngina alalan	9.18 Nyo erai sek ni iyaria iyong? (*Tociata nyipei bon*) a) Akitaare |___| b) **Angilanar ca**|___| c) **Emucaara**|___| d) Akingakino alotunga |___| e) Atwarit ngibareen f) Akikam ngikolia Eeme alokiding angul |___| c) Ngice Tolimosi……..
19	Erukwaunito mono ngitunga ajokis anakingago akiyar kaamwani alore kus a? a) Ee b) Emam c) Emam nyayeni	9.20 Irai mono iyong ngini irukwaunit etic alodio projekitia alotooma apaka a? 1. Ee 2. Emam 3. Emam nyayeni
21	Ngakiitaneta kapukan akisitiya ngalup alodiyete KVNP nyerai ngacamakineta angalup angitunga angulu eyarete alodiyete apak a)Yes b)No c)I don't know	9.22 Ani kerai Ee, aliwai irukwaunitor iyong akingakino aetic? a) Akisyom b) Akimuj c) Etic lotacat d) Asegis e) Ngalup f) Aduketait g) Akikeunun ngapedorosyo Ngunace tolimo……
23	Irukwaunitor iyong adio kimuj alotooma ngikaru ngireei lu alunyara a? a)Ee b) Emam c) Emam nyayeni	9.24 Ani yare anakiyar kaamwani erukwaunit ere ka ebuku kuse kotere eyareta? a) Aiwara ka Akimuj b) Ngiboro lu erai ngakito c) Ngitaalio ka ajokis angikuwamisinei d) Ngiboro angikito e) Ayere ka enapenene f) Ayere Ngiticisyo ikwa ngiketangalekinak lu eere g)Eya Ngice Ngice a……

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25	Ani kerai emam, kaninyo? a)Kan amunaara angalemeta b) Kan ecaune akolong c) Wildlife destroyed my garden	9.26 Ikitachi iyes anu ka amunaarit Kori atwanit ayaunete ngitunga a a) Ee b) Emam c) Ngace Keya ……
27	.Ani kera Ee, Ani kigarakino aponi ikinakin? a) Ngisilinga b) Ngalup c) Akimuj d) Nyice nabo keyai tolimo…… ……..	9.28 Alolapio alu esidiok abu ekuusi kaal toriam adio kigarakino alo UWA? a) Ee b) Emam c) Emam nyayeni
29	Irai iyong ekariamunan adiokingarakino alotooma Apolou akingago ka akiyar kaamwani a? a) Ee b) Emam c) Emam nyayeni	9.30 Ani kera Ee, Ani wai akingago iriamunitor iyong etic? a) Akisyom b) Etic ngolo etacho c) Asegis d) Aduketait e) Akisera ngapedorosyo Ngace tolimo……..
31	Alotooma ngilapio lu eporousi, Eyai alokiding kus ngini abu toriam aryenyeo aneni ka akiyar kaamwani a? a) Ee b) Emam Emam nyayeni	9.32 Ani kera Ee,alu rasyo eya? a) Ariaanyu angityang na etakani b) Amunaar angiboro alotyang c) Akiranyun ngamaanat e) Ngice Tolimosi ……..
33	Aponi kirumai ngakiro ngun ejok a? a) Ee b) Emam	9.34 Neni Kon, resulted to Nyo ayaut nu paesubakina anakiguruguro angitunga ka akiyar kaamwani alotooma KVNP? a) Akinyakuna b) Apipil ngina iyatakina c) Akitonyunun d) Ngace……..
35	Ani pukan erai jik ngina igagit akiyar angikarimojong alu eyarete alodiyete apak? a) Apukan na ere b) UWA	9.36 Iriamunimietesi Ngadio jokisya ikwa? (Ikwai bo, Ee kode emam) a) Asegis |___| b) Akisyom |___| c) Ngakipi |___| d)Alosit |___| e) Ngace Tolimosi……

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	c) apukan na ebuku d) Atalojokotau lu anepei ane e) Atalojokotau lu akinga f) Ngice tolimo	

gatameta aekibure aakiyar angikarimojong Kori ngabatio nu erukito ka KVNP

	kelipit kitodiu etyeye konicamunet	**Emam nyacamuni jik** 0% - 10%,	**Nyacamuni** 11% - 40%,	**Ayai kiding** 41% - 60%,	**Acamunit** 61% - 90%,	**Emam nyacamuni** 91% - 100%
37	Ngalup angikarimojong ka akiyar kaamwani eriamunito adidingu alokinga ikwa akibong egolid ka alosit angiketok ngityang					
38	Ngigup ka akingago ka akiyar kaamwani ayau ngajokisya lobuku Kang					
39	Eya ngiporojekita lu kebuku lu etamunitere Ngiboro lu kebuku ka isingarenikinitai					
40	Eya nggakinyakanakineta kotere acakaro angibaren Kori Amunaar ngina Eyaunit akiyar kaamwani					
41	Atiakitiakara ka amenit na Eyai tooma napukanisei eyeuni alemaaro angatameta					

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	angikarimojong anakingago					
42	Ngigup lu ka akingago eruconokino ka ngitaalio akinga ka akikewun epite kakiyar					
43	Ngalup ka ngapedorosyo angiboro ewakin angogong alotooma akitogogong apainikin aneni angalup angulu eponito alokinga					
4	Erai KVNP neni angikarimojong ka ka ngitaalio lu angikito,amuronut ka alimoret angitaalio					
5	KVNP erai neni agisilinga kotere ngibukui angikarimojong					
6	KVNP erai ngina ajokan kan ngidiinio ka ebuku					

Alakara nooi kotere akusiyakau tooma Akisyom na.
Etalakarit ainakina ekusi saa

Appendix III: FGD Guide English

COMMUNITY ENGAGEMENT, CULTURAL INTEGRATION, AND LIVELIHOO OUTCOMES OF THE KARIMOJONG PASTORALISTS IN WILDLI CONSERVATION EFFORTS IN IKIDEPO VALLEY NATIONAL PAR NORTHEASTERN UGANDA

FOCUS GROUP DISCUSSION GUIDE WITH THE KARIMOJONG COMMUNIT LEADERS, ELDERS AND STAKEHOLDERS

Date of interview: _____/ _____/ _____

Name of district/Village _____

Venue: _____

Language of discussion: _____

Number of participants: _____

Time started: _____ Time ended: _____

FGD identifier: _____

The IDI identifier should be composed of the details FGD followed by the name of the village where the FGD (first four letters), the date of the interview in the format ***yy/mm/dd,*** and FGD number (3 digits) assigned cumulatively. For example, if the first FGD was done on September 5th, 2024 in Lokori village; this FGD's identifier should be in the form: FDG/LOKO/24/5/001 a number i.e 1, 2 3 can be added if there is for example Moruita 1, Moruita 2 etc.

TEAM INTRODUCTION

Thank you for agreeing to participate in the study on **the Nature and Degree of Karimojong Pastoral Community Participation and Integration in Wildlife Conservation Interventions in Kidepo Valley National Park, North Eastern Uganda**. We are now ready to begin our discussion. Let us introduce ourselves so we get to know who is participating in this discussion. I am_____ and I am with you today to lead the discussion. My colleague _____ will be taking notes during the discussion. As I mentioned, the criteria

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session will be audio-recorded. To protect everyone's privacy, we will use first names only referring to individuals. Your response will not be linked to you personally, so feel free to s whatever is on your mind. Let's begin this side [moderator points to the right side]. Please tell your name, where you come from, and your expectations from this discussion. We will go rou like this [moderator demonstrates in a clockwise fashion] until each of us has introduced him/hers

GROUND RULES

Before we begin, let's remind ourselves of the following rules that each of us should respect if have to have a meaningful discussion:

1. We would like to encourage each person here to freely contribute to the discussion, but m importantly, to stick to the subject being discussed. We will be glad if we let only one pers to speak at a time. We would like to remind you to respect each other's privacy; please do tell other people who are not here what any person has said here.
2. In our discussion today, please keep in mind that we are interested in your opinions a perspectives. We would like to know what you think, what you think other people think, a what you know other people have experienced. The purpose of this discussion is not to t about your own personal experiences. However, if you feel you have had your own perso experiences that are relevant to the discussion and that you are comfortable talking abo you are welcome to share this information. In summary, if we get on a topic, and you someone you know has had an experience related to the topic, it would be most appreciat if you could share that story – but you don't have to.
3. There is no need to raise hands. Please speak right up from your seat but also respect oth when they are talking. This discussion will last up to two hours.
   Is there anyone who can't stay for the duration of the discussion? Are there any questio before we begin?

   We would like to audio-record this discussion. The recording is only to help us make su we "hear" everything that is said and to make good notes. Only people who are working this study will ever hear any of the recordings or read the notes we take. After the study a all planned data analysis have been completed, these tapes will be destroyed.

   Does anyone have any objections to being tape-recorded?

Thank you for your attention, we can now begin the discussion



Part 1: Wildlife conservation policies

- How do wildlife conservation policies address the needs of both wildlife and the lively hood of the local people?
- How are the Karimojong community members involved in the conservation policy-mak processed for KVNP? (Probe for some of the successful stories of integration and those have failed)

Part 2. Integration of Karimojong's social values and cultural practices

- What are some of the examples of the Karimojong wildlife values and practices?
- How does UWA and other agencies collaborate and integrate the Karimojong communit values and practices in the wildlife conservation processes?

Part 3: Traditional knowledge and values: Wildlife importance to the Karimojong

- What specific animal holds particular significance to your community?
- Please mention any Karimojong folklore or oral tradition containing lessons about the importance of wildlife
- What ethical principles guide your community interaction with wildlife?
- What role do elders play in teaching about wildlife and traditional practices?

Part 4: Incorporation of traditional knowledge

- Are there recent examples where the Karimojong traditional values and practices have be successfully combined with contemporary wildlife conservation methods?

Part 5: Barriers and motivators in involvement

- What challenges does your community face in accessing or managing wildlife resources ir KVNP?
- What are the barriers to Karimojong's involvement in the conservation of the KVNP? (Prob and categorize the responses in the social, cultural, economic, security, legal, and politic barriers)

Part 5: Opportunities

- What type of support (Financial, Technical, educational, Medical...) has been mos beneficial to your community?

- What mechanisms are there in place to include community members in decision-ma processes in the park?

Part 6: Livelihood needs

- What is the contribution of KVNP to the livelihoods of the Karimojong? (Probe f security, land, identity…..)
- What advice would you give to non-indigenous conservationists seeking to collaborate indigenous communities?

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Appendix IV: FGD Guide Translated

AKIIRARIT EPITE KA ADOLIT AETIC AEKITELA ANGIKARIMOJONG KA ACUNAKIN ALOTOOMA AKINGANGO AKIYAR KA AMONI KA AKITAM ALOTOOMA KVNP, KUJU-KIDE EKITELA A UGANDA

NGUNA ERIKITO ATUKOT NGINA ECOIT EYOK KIYAN KA EKITELA ANGIKARIMOJONG, NGIKARIKOK, NGIKASUKOU KA NGIKEMANIMANAK

Ngirwa ka akingito...../...../.....

Ekiro ka edistik/ere.....

Neni iwaakinio.....

Angajep ngina ka akingito.....

Enamba angiketiyak.....

Esaa logeunet..... esaa losalunet.....

Ekalimonoron angasuban.....

Ekalimonoron angakiro anu emaikina eyakatar nguna ileleba kiwapakinite ekoro a ekecere aneni keyayi akingitingito (nganyukutai nguna kengarenok ngomwon), ngirwa nguna ka akingitingito alotooma ekaru /elap/akolongit ka enamba ngolo ka atikit (nginabai ngiuni) iwaakinitai erucokina Akitoodikinet, ikoni keyayi akiboikino ngina ka Ekingaren elap lomuge, ngirwa kelap ngikan, ekaru 2024, alotooma lokori, emaikina enamba ngolo ka atikit ikoni ne; atikit/LOKO/24/5/001, enamba ikwa 1, 2, 3 ikwes tari iyatakinio ikoni keyakasi ikwa moruita 1, moruita 2 ka nguluce dang.

AKITOODIUNIO ATUKOT

Alakara acamun akitiyanakin alotooma akisyom neni ka epite ka apolou aekitela ngikarimojongbka acunakina tooma akingagoka aripikinit akiyar ka amoni alotooma KVNP kuju ide ekitela a Uganda.

kisubakina kona isua ageun eyok kiyan. Etoodiunos mono iwon ngayokowat kotere ikiyenuni ebe gai eyayi nakingitingito na.

Arai ayok..... ka ayai ka iyes pepe anarikit akingitingito na. ekarukitos..... losi akingir alotooma akingitingito. Ikwa ngina alimunitor, nguna daadang elosio akiyanake wakinio naredio iwaitai akingango anginitunganan elosio akisitiya ngirorwa ngulu esaunak bon cilimonori ngitunga. Akon bongokinet nyerai ngina kon bon, emaikina kona tolacakina alotoo limun nguna daadang eya natameta kon.

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Atogeuto mono alowai alo (ekarikon edodi lowai ngolo loteten). Ekelipit ebe tolimo ekonikiro, neni ibunitor iyong ka nguna iitanit iyong alotooma ekiyan lo. Ikilosi iwon alowai alota (elosi ekarikon akitoodikin alotooma epite elosio akitoodiunoiwapitai napei aloteten paka nginitungan daadang kitoodiu akekuwan.

NGUNA KIWAPA

Eroko iwon ngegeuna, esitamutu mono ngayokowat alotooma akiwapit nguna kiwapa nguna emaikina nginitunaganan tokerite ebe iwon toyakaunere ekiyan ngolo ka apolou.

1. Elosio kona akisimukekin nginitunganan ane ikilacakina tolimut alotooma ekiyan nguna apolok nooi torucokina nguna iyanai neni eyokokiyan. Elakaroi isua ikiyaun ipei tungana bon iyani angolo saa einakinitai. Ikilipitai ebe totamunitor akerit epite akiyar anguluce; ekelipit nabo iyes ebe towasi robo ilimokinete ngicetunga ngulu emam nege nguna daada alimun ane.

2. Alotooma eyokokiyan nakolongit na, toyenete ebe ikicamit isua nguna itamete iyes ka nguna iyakatar dang. Iitanitai kona isua nguna eyakasi natameta kus kori nguna itamete iyes, nguna itamete iyes ebe etamete nguluce ka nguna iyenete iyes ebeb ngulucetunga itiyaito. Nguna elosikinit ekiyan lo mere akirworo nguna etapito ngipitesio kus angilopeyek. Anu, ikicamit iyong ebe iyakatar iyong epite kon ngolo ikwaan ka nguna iyeni ka toyeni ebe emam ngace kalim alokiyan alo, ikijaunitai alimun. Ikitouriani, ani ikidol lokiyan, ikilipi ebe ipedori alimun ka akikor nguna ka eemut kon-nyipedori tar dang akikor.

3. Emam nyecamitai akikianar ngakan. Kiyan iboi akicolong kon ka tokerite ngulucetunga esaa ngolo iyenatar. Eyai eyokokiyan ngisaai ngiaarei. Eyayi mono idiotunganan ngini ebala nyapedori inges ayakau lokiyan lo ngisaai ngulu a? Eyakasi mono ngadiokingisingiseta eroko iwon nyegeuna a?

   Iitanitai kona akiwakin ekiyan lo tooma naredio. Erai akiwakina naredio ibore ngini epedori iwon akiirar ibore ngini aponi tolimunai ka ayeun ngakingireta nguna ajoak. Erai ngiketiyak tooma nakisyom na bon epedorete akirar ka epedorete akisyom nguna adaun akingir alotooma akisyom na. ani kirikakin akisyom na ka keanyun nguna aponi tosyomunai; emunaari ngaredioi nu. Eyakatar mono idiotunganan nguna nyecamitere ngakiro nu iwaakinio naredio a?

   Alakara kotere akus tenit, ikigeuni kona eyokokiyan

   Ewai ngolo 1: ngikisila ngulu ka akingango akiyar ka amoni.

   - Ikwaani mono ebukinio akingango ka ngikisila akiyar ka amoni angitunga?
   - Ikwaani mono eyakatar ngitela akaramoja tooma nayeere ngikisila ngulu ka akingango alotooma KVNP? (ngunace alotooma ngieemuto ngulu apot kilama alotooma arucokino ka ngulu apotu nyilama)

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Ewai ngolo 2: acunakin akirukit ka ngitalio angikarimojong.

- Nyo ngadio kitoodiuneta nguna angikarimojong alotooma ajokis ka nguna isisiao ka nakiyar ka amoni?
- Ikwaani mnon erucokinitotor ka ecunakinitor UWA ka ngaeketukoto ekitela, ajokis ka ngitalio angikarimojong tooma akingango ka nakiyar amoni alosit?

Ewai ngolo 3: aosou ka ajokis ngina akolong: ajokis ka akiyar amoni neni angikarimojong.

- Alutyang mono eyakatar kori irumito ngajokisia alokitela kus?
- Ekelipit ebe tolimutu mono iyes nguna kolong angikarimojong kori nguna elimunito ka akituketapit etal angikarimojong ngolo eyakatar nguna ikitatamete etapito apolou ka ajok akiyar kaamoni.
- Alukisila erikito ekuskitela ka erwor akiyar kaamoni ka aluticisio itetemunete ikwes?

Eai ngolo 4: akiwaakin aosou ngina ngorot.

- Eya mono ngadio kitoodiuneta neni ka ajokis ka ngitalio ngulu apotu kilamaecunakinitai nguna ekuriooro akingango akiyar kaamoni angikec pitesio a?

Ewai ngolo 5: nguna engolorito ka ngikesimukekinak alotooma ayakau.

- Anutyokisio eriamunit ekus kitela alotooma arukaun kori akirumit ngiboro ngulu eriamunitai anakiyar kaamoni alotooma KVNP?
- Anu kon ebuikinito ngikarimojong ayakau tooma neni ka akingango ka akiyar kaamoni alotooma KVNP? (kiwaakisi epite eyakatar kona anakirukit, ngitalio, alowai angikisila, aiwara, anacamit ka nguna ka ngikawaak daadang)

Ewai ngolo angikan (5): nguna ikiriamuni.

- Ani wai mono ikingangere (ngisilinga, etekenicala, akisyom a, asegis a....) erai ngolo ajok nooi alo kitela kus a?
- Alupitesio eyakasi tooma iwaakinitai ngidiotunga alokitela kus alotooma ayere nguna etapito neni eya ngityang ikwa kidepo a?

Ewai ngolo 6: ngiboro ngulu iitana.

Nyo eyaunit KVNP nakiyar angikarimojong? (Akimuj, aiwara, ngalup, alimor

Ani limunet iinakini iyong neni angulu pa epedorito akingangit akiyar akaamon esake epite ngolo erucokinotor ka ngitela nguluce?

ɔoma akingingito kotere ngikasukou ngulu akaramoja ka ngikatamak kori ngikarikok

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Appendix V: Key Informant Interview (KII) For Karimojong Elders and Opinion Leader
FOR OFFICIAL USE ONLY

Date of interview: _____/_____/_____

Name of district: _____

Venue/village: _____

Language of interview: _____

Number of participants: _____

Time started: _____ Time ended: _____

IDI identifier: _____

Note: The IDI identifier should be composed of the details IDI followed by the name of the villag where the interview took place (first four letters), the date of the interview in the format ***yy/mm/d*** and IDI number (3 digits) assigned cumulatively. For example, if the first IDI was done o September 5th, 2024 in Lokori village; this IDI's identifier should be in the form IDI/LOKO/24/5/001 a number i.e 1, 2 3 can be added if there is for example Moruita 1, Moruita etc.

INTRODUCTION

Thank you for agreeing to participate in the study on **COMMUNITY ENGAGEMENT, CULTURAL INTEGRATION, AND LIVELIHOOD OUTCOMES OF THE KARIMOJONG PASTORALISTS IN WILDLIFE CONSERVATION EFFORTS IN IKIDEPO VALLEY NATIONAL PARK, NORTHEASTERN UGANDA.** We are now ready to begin our discussion. Let us introduce ourselves so we get to know who is participating in this interview. I am_____ and I am with you today to lead the interview. My colleague _____ will be taking notes during the interview. As I mentioned, the entire session will be audio-recorded. To protect everyone's privacy, we will use first names only in referring to individuals. Your response will not be linked to you personally, so feel free to say whatever is on your mind.

We would like to audio-record this interview. The recording is only to help us ensure we hear everything that is said and make good notes. Only people who are working on this study will ever

hear any of the recordings or read the notes we take. After completing the study and all plann data analyses, these tapes will be destroyed. Do you have any objections to being tape-recorde Do you have any questions for clarification?

Thank you for your attention, we can now begin the discussion

Part 1. Wildlife Conservation Policies/ Implementation

- What do you know about wildlife conservation policies in your region? (Probe for t policies that have to do with KVNP)
- How are these policies implemented? (Probe for – by who? And for what?)
- How is the community involved in the implementation of the wildlife conservation Policie (Probe who is involved and for what?)
- What are the major challenges faced in enforcing these policies?

Part 2: The Karimojong Indigenous wildlife values and practices

- What Karimojong cultural norms do you associate with wildlife conservation and wh (Probe for real-life examples and their nature in conservation)
- What traditional and cultural practices do the Karimojong attach to KVNP? (Probe f spiritual/religious, security, health, traditional medicine, food, cultural ethics, etc.)
- How important is KVNP to the livelihood of the Karimojong? (Probe for vegetation, anim species, landscape…)

Part 3: Integration of Indigenous peoples' social values and cultural practices

- How are Karimojong cultural values and practices integrated into the wildlife conservati of the KVNP? (Probe for conservation policies and guidelines
- What are the opportunities for the integration of the Karimojong indigenous conservati practices into the government policies and guidelines?
- What are the challenges for the integration of the Karimojong indigenous conservati practices into the government policies and guidelines?

Part 4: participation of Indigenous peoples' social values and cultural practices



- What are some specific ways your community participates in wildlife conservation?
- What challenges does your community face in participating in wildlife conservation?
- How do you think Indigenous knowledge can be better integrated into wildlife conservati efforts

ırt 5: The Karimojong community's livelihood needs which are associated with wildlife

- What is the contribution of KVNP to the livelihoods of the Karimojong? (Probe fooc security, land, identity…..)



Appendix VI: Key Informant Interviews (KII) For Karimojong Elders and Opinion Leade Translation

NENI ETIC ANGIKAPOLOK ABON

Ngirwa ka elap akingitingito...../...../.....

Ekiro ka edistik.....

Neni kiwakina/ere.....

Angajep ngina ka akingingito.....

Enamba angiketiyak.....

Esaa ngolo esakinet..... esaa ngolo edaunor.....ekalimononor angasuban.....

Nguna kiwapa: ekalimononoro angakiro anu emaikina eyakatar nguna ileleba anu iwapakinete ekiro aekecere aneni keyayi akingitingito (nganyukutae nguna kingarenok ngomwon), ngirwa nguna ka akingingito alotooma ekaru/elap/akolongit, ka enamba ngolo ka atikit (nginambae ngiuni) iwakinitae erucokina ka akitoodikinet; ikoni keyayi akiboikino ngina Ekingaren elap ngolo angitomon angiaarei, nirwa ka elap ngikan 2024 alotooma lokori, emaikina enamba ngolo ka atikit ikoni ne; atkit/LOKO/24/5/001 enamba ikiwaak 1, 2, 3 ikwes tari iyatakinio ikoni keyakasi ikwa moruita1, moruita 2 ka ngice dang.

NGUNA ITOODIUNITO

Alakara acamun akitiya alotooma akisyom aneni angipitesio ka apolou angikarimojong angikatwarak ebuku kec etic ka acunakina alotooma akingo angityang angulu ka ariyet akitam alotooma ere angitynag ikwa kidepo, kuju-kede ekitela a Uganda.

Ekisubakino kona isua angeun ayok kiyar. Etoodiunos mono iwon ngayokowat kotere ikiyenuni ebe ngai mono eyai nakingitingito nu, erai ayong..... ka eyai ka iyes pepe anarikit akingitingito.

Ekarukutos..... Elosi akingir alotooma akingitingito ikwa ngina elimunitor, nguna daadang elosio akiyena, elosio akiwaakin naredio Iwaitai akingangao anginitungana, elosio akisitiya ngirworia ngulu angikaseunak bon. Ikilimonoori ngitunga.

Akonbongokinet nyerai ngina erucokino neni kon bon, emaikina tokona tolacakinae alimun nguna daadang nguna eya natameta kon.

Iitanitai kona akiwaakin angitingito na tooma naredioi. Akiwaakino ngin erai ebore ngini ikingarakini iwon "akirar" nguna daadang aponi tolimunai ka akiwaare ngakiro. Erai ngiketiyak alotic alo ebon elosete akirar nguna ewaakin naredio ka esomete nguna adaun akingin Ani.

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ikirikakini akisyom ka nguna daadang idaun ayeun alotooma ekiyan, ngaredioi ngun elosio amunaar. Iyakatar mono iyong adironos naredioi a?

Iyakatar mono iyong ngadikingisingiseta ikeyenuni a?

Ikilakara anguna ka atenit kus, ikingeuni kona eyokokiyan.

Ewai 1: ngikisila ngulu ingangito akiyar ekitela/akiwaakino.

- Anu mono iyenete iyes anguna ka akingango ka akiyar anakwapakis a? (akiwapakin ngikisila ngulu epedorete etic ka KVNP).
- Ikwaani mono iwakinitere ngikisila lu? (Ngai iwaakinit ka anu ainyo?)
- Ikwaani mono eyakatar ekitela alotooma akiwaakinit ngikisila ngulu ka akingitingita akiy ka ekitela kori ka amoni (ngai eyai ka anu ainyo?)
- Nyaanu nguna aronok eriamunitai alotooma akiwanakin ngikisila lu?

Ewai 2: ngipitesio ngulu etapit akiyar angikarimojong alotooma akiyar ka amoni.

- Alutaalio angikarimojong ikirucokini ka akiyar amoni: ka kotere nyo? (ikoni kere akiyar l iitodiunit ka epite alotooma akingango)
- Alutaalio ka ngipitesio angikarimojong epedorio akitadapakin neni a KVNP? (nguna etapi ngidiinio, aiwara, asegis, ngikito lu ka amoni ngulu ebokio, akijuj, nguna angitalio ka ngunace)
- Ikwaani mono ejokia KVNP aneni ka akiyar angikarimojong? (Kotere ngikito ka nginyia, ekabila angitynag, ayakau angalup....)

Ewai 3: acunakin ngipitesio angitunga, akirukit kaapei ka ngipitesio.

- Ikwaani mono ecunakinitere ngipitesio angikarimojong alotooma akingango akiyar amoni aneni a KVNP? (etapito ngikisila akingango ka nguna erikito akingango akiyar amoni)
- Nyo ngajokisia acunakin ngipitesio akiyar angikarimojong tooma lokisila ka nguna erikito ngikisila ka apukan?
- Nyo ngaronisia ka acunakin ngipitesio akiyar angikarimonjong tooma lokisila ka nguna erikito ngkisila ka apukan?

Ewai 4: etic angitunga akirukit kaapei kangitalisio.

- Nyo ngiwaatin kere ngulu itoodiunete ebe eyai ekitela kus lotic ngolo akingango akiyar ka amoni
- Nyo ngatyokisio eriamunit ekuskitela alotooma etic ngolo ka akingango angitynag.
- Alipite itamete iyes ebe aosou ana epedori acunakin tooma ngingup ngulu ka akingango

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Ewai 5: acamit angikarimojong ngina erukito ka akiyar ka amoni.

- Nyo eyaunit KVNP neni ka akiyar angikarimojong? (Akimuj, aiwara, ngalup, alimoro.....)



Appendix VII: Informed Consent Form

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RESEARCH ETHICS COMMITTEE

P.O. Box 1410 Mbarara, Tel: +256-48-543-3795, Fax: +256-48-542-0782

E-mail: irc@must.ac.ug, mustirb@gmail.com

INFORMED CONSENT FORM

This document outlines the research study and expectations for potential participants. It should be written in layman terms and typed on MUST-REC letterhead.

Instructions

1. The wording of this document should be directed to the potential participant not MUST-REC.
2. If a technical term must be used, then define it the first time it is used and any acronyms or abbreviations used should be spelled out the first time they are used.
3. All the sections of this document must be completed without any editing or deletions.
4. Please use a typing font that is easily distinguishable from the questions of this form. Preferably the font size should be 12.

Study title – This should be the same as on all other documents related to the study.

Nature And Degree of Karimojong Pastoral Community Participation and Integration in Wildlife Conservation Interventions in Kidepo Valley National Park, North Eastern Uganda

Principal Investigator(s)

Lolem Lucy Chegem

Introduction

What you should know about this study:

RESEARCH ETHICS COMMITTEE
MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
P.O. BOX 1410, MBARARA

Leave blank for REC office only MUST-REC Stamp:	REC OFFICE USE ONLY: APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

1. You are being asked to join a research study.
2. This consent form explains the research study and your part in the study.
3. Please read it carefully and take as much time as you need.
4. You are a volunteer. You can choose not to take part and if you join, you may quit at any time. There will be no penalty if you decide to q
5. uit the study.

Brief background to the study

This study is focused on the people of Karamoja who live either within or around Kidepo Valley National Park (KVNP). Karamoja region being situated near KNVP and having people living within or around the park can pause threats on human life and even wildlife. In as much as there are interventions by the government of Uganda through UWA to conserve wildlife, it is not yet known how the Karimojong people have received/perceived these interventions. It is also not yet clear how the local people are involved in these government interventions/programs. We recognize the diverse groups of people within the Karimojong region and we anticipate that their unique cultures, traditional values and beliefs may influence how they deal with wildlife and how they perceive these wildlife conservation strategies by UWA. In this study, therefore, we are going to explore these areas which are related to the Karimojong people and the conservation of wildlife in the KVNP.

Purpose of the research project

Include a statement that the study involves research, estimated number of participants, a explanation of the purpose(s) of the research procedure and the expected duration of the subject participation.

To examine the state of wildlife conservation regarding values, perceptions, practices, and livelihood outcomes of the Karimojong, establish the barriers and motivators of the Karimojong involvement in wildlife conservation, existing interventions, their effectiveness, and the extent to

which the existing interventions and policy framework accommodate the Karimojong values anc livelihood outcomes aroundKidepo Valley National Park.

Leave blank for REC office only MUST-REC Stamp:	REC OFFICE USE ONLY: APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

Why you are being asked to participate?
Explain why you have selected the individual to participate in the study.

You have been selected to participate because;

1. You have lived in the study area for at least 1 year.
2. You are an adult who is 18 years and above.

Procedures
Provide a description of the procedures to be followed and identification of any procedures that experimental, clinical etc. If there is need for storage of biological (body) specimens, explain wl and include a statement requesting for consent to store the specimens and state the duration storage.

- Following your acceptance to participate in this study, you will be required to sign two cop of consent forms to confirm your voluntary participation. One of the signed copies of t consent form will remain with you while the other will be kept by the research tea Consenting for participation in the study will be done individually.

- You will then be interviewed as a group by the research assistant to document so information about your values, perceptions, and practices concerning the state of wildl conservation, establish the barriers and motivators of the Karimojong involvement in wildl conservation, establish the existing interventions, their effectiveness, and the extent to whi

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MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
P.O. BOX 1410, MBARARA

the existing interventions and policy framework accommodate the Karimojong values livelihood outcomes aroundKidepo Valley National Park.

- This interview will take between 45 minutes to 1 hour. Each interview will be audio reco and later translated and transcribed.

Leave blank for REC office only MUST-REC Stamp:	REC OFFICE USE ONLY: APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

Risks or discomforts
Describe any reasonably foreseeable risks or discomforts-physical, psychological, social, legal other associated with the procedure, and include information about their likelihood and seriousne Discuss the procedures for protecting against or minimizing any potential risks to the subje Discuss the risks in relation to the anticipated benefits to the subjects and to society.

There may be some risks or discomfort regarding your participation in this study. Anticipated ris may include discomfort in recalling experiences you underwent due to being dislocated. You should feel free to decline to respond to some questions in case they elicit unbearable discomfort. We shall endeavor to maintain confidentiality of the information you give to us.

Benefits
Describe any benefits to the subject or other benefits that may reasonably be expected from th research. If the subject is not likely to benefit personally from the experimental protocol note this i the statement of benefits.

There are minimal direct benefits related to your participation in this study. However, the information obtained from you will be used to provide information to the relevant stakeholders an public on how to establish, appreciate, and put into use the Karimojong values, perceptions, and practices in the effective wildlife conservation around Kidepo Valley National Park and also ensure effectiveness in carrying out wildlife interventions so that policy guidelines accommodate the values and livelihoods of the communities aroundKidepo Valley National Park.

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Incentives or rewards for participating
It is assumed that there are no costs to subjects enrolled in research protocols. Any payments t made to the subject, e.g., travel expenses, token of appreciation for time spent, must also be sta including when the payment will be made.

You will not be paid to participate in this study.

Time compensation and transport refund

For your time compensation, we shall have a snack and a drink. There will be no transport refun to participate in this study.

Leave blank for REC office only MUST-REC Stamp:	REC OFFICE USE ONLY: APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

Protecting data confidentiality
Provide a statement describing the extent, if any, to which confidentiality or records identifying tl subjects will be maintained. If data is in form of tape recordings, photographs, movies or videotape researcher should describe period of time they will be retained before destruction. Showing playing of such data must be disclosed, including instructional purposes.

All the information you will give us and all the data collected for this study will be kept confidential and any information that identifies you will be removed.

Protecting subject privacy during data collection
Describe how the privacy of the participant will be ensured during the process of data collection.

Your name or personal identifiers will not appear in the documents used for the study or in any communication related to the results of this study.

Right to refuse or withdraw
Include a statement that participation is voluntary and that refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled.

RESEARCH ETHICS COMMITTEE
P.O. BOX 1410, MBARARA

Your participation in the study is completely voluntary. If you decide that you do not want to participate in the study or if you would like to withdraw your participation at any time, and for any reason, this will not affect you in any way.

What happens if you leave the study?
Include a statement that the subject may discontinue participation at any time without penalty or l of benefits.

You may choose to discontinue your participation in this study at any time. This will not affect y in any way.

Who do I ask/call if I have questions or a problem?
Include contact for the researcher and Chairperson, MUST-REC.

In case you have questions regarding participation in this study, please contact the people below

The Principal Investigator

Leave blank for REC office only MUST-REC Stamp:	REC OFFICE USE ONLY: APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

Lolem Lucy Chegem

PhD student

Mbarara University of Science and Technology

Faculty of Interdisciplinary Studies,

Tel: +256 782 786 342

Email: srlucy2018@gmail.com



Contact for Research Ethics Committee

Assoc. Prof. Paul Alele

Chairman, MUST-REC

P.O. Box 1410 Mbarara

Tel: 0485433795/0773573372

What does your signature or thumbprint on this consent form mean?

Your signature on this form means

- You have been informed about this study's purpose, procedures, possible benefits and risks
- You have been given the chance to ask questions before you sign
- You have voluntarily agreed to be in this study

_____	_____	_____
Name of adult participant	Signature/Thumbprint of participant/ Parent/Guardian/Next of Kin	Date
_____	_____	_____
Name of person obtaining consent	Signature	Date
_____	_____	_____
Print Name of witness	Signature or thumbprint or mark	Date

Leave blank for REC office only MUST-REC Stamp:	REC OFFICE USE ONLY: APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

RESEARCH ETHICS COMMITTEE
MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
P.O. BOX 1410, MBARARA

Appendix VIII: Translated Informed Consent Form

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY

RESEARCH ETHICS COMMITTEE P.O. Box 1410 Mbarara,

Tel: +256-48-543-3795, Fax: +256-48-542-0782

E-mail: irc@must.ac.ug, mustirb@gmail.com

INFORMED CONSENT FORM

NGUNA EMAIKINA TOKORA DADANG IKICUNAKINA

Akaratat na itodiunit nguna ka asakio ka nguna itana kotere ngulu elosete etic Emaikina ingii anakirot angina epatana iirario ka kingirai alo MUST-REC nganyukitai kec.

Nguna ikilimokinitai kiwwapai.

1. Ekingire anganyukitai akaratat ana emaikina itodiunitai tooma ngiketiyak mere MUST-REC
2. Anibo kisitiyai ace kirot ngina emaniana, kitodiu mono akepolou epite isitiyaitere ka ng ewiriaka ka emaikina kingirakinai ebeikina esaat ngolo isitiyare.
3. Ngatututubeta daadang nguna ka akaratat ana emaikina Kirikakinai emam akingir ace kori alem ngadio.
4. Ekelipit ebe kisitiya akingire ngolo epatana akitiak alotooma ngakingiseta akaratat ana. Ng tokona iitana ebeit ekingire anganyukitai erai ngitomwon angirei.

Nguna esiunak anakisyom.

NGIKARIMOJONG ALOTOOMA NGIROTIN? NGUNA INGANGITO KA NGU EINAKINETE IKES AYAKAU TOOMA AKINGAGIT AKIYAR ANGITYA ALOTOOMA KA NEPEINEN KIDEPO KUJU-KIDE AKWAP UGANDA.

Ekapolon ngina ka esakit,
Lolem Lucy Chegem.

Nguna itodiunito ewuriaka nakisyom

Akisyom na erai ngina ecoikinit ngitunga akaramoja ngulu iboyete adiete kidepo. Akwap ng akaramoja eyai diete kidepo ka toyakar ngitunga ngulu iboyete aneni pei ani ka epedorete akit nguna aronok nakiyar angitunnga ka ngityang. Alotooma eya nguna ingitai angityang, eri nyenuno ikwani mono ijaunitotor kori etameta ngikarimojong akingita na. Emam nabo d nyetakanete ejok ikwani ngitunga ngulu akaramoja ka ikikiarit ebe ngikes talio ka anupit epe ainakin epite ngolo itiyata ka ngityang ka nyepite ngolo etameta akingango angityang ikwa U Alotooma akisyom na, ikilosi iwon aanyun ngireria lu ngulu erucokin ka ngitunga akaramoja akingango akiyar angityang alotooma kidepo.

Nguna elosikinit Eporoject lo

Akitodiun epite ngolo ka akiyar ka akingango angityang elosikinit apolou, ngatameta ka ng itetemio iwon ngikarimojong, akiwakin epite ka ayakau angaronisia kidin ngitunga ka ngity ngakingiseta nguna sek eya, akes jokis ka neni edolito ngakingiseta etapit ngikiala ka acuna apolou ka eyare angikarimojong alotooma kidepo.

Leave blank for REC office only: MUST-REC Stamp:	REC OFFICE USE ONLY: APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

Nyo bo ikingisitere iyes ebe toyakas lotic lo?
Ikiseunitai iyes toyakas lotic lo kotere nu ta;
1. Iboyoto iyes alotooma ne eyai akisyom na ayaar epei karu.
2. Irakasi iyes ngitunga ngulu apolok edeparito ngikaru ngitomwon ka ngikanikauni (18) kidiam

nguna kiwapa.
-Iwapit akusicamuno akitiya anakisyom ana, ikitanitai tokona iyes totapakis eseei too ngakaratatia nu arei akitodiun akuscamuno angilopeyek etic.
Idongi apeikaratat ngina adoun atapakin eseei ka iyes ido co kidong ngina ce ka ngitunga lu esak ngakiro nu.
Atubunun kan akitiya tooma nakisyom na erai ngina itiyao anginitunganan abon.
-Ikingisingiseo iyes ikwa atukot itunganan ngini iwapit ekapolokiniton akisyom na akingir ngak nu etapit nguna ka apolou, ngatameta ka nguna itetemete etapit epite ngolo ka akiyar angityang akingango, akiwakin eyakaye ka adukun epite angaronisia kiding ngitunga ka ngitya ngakingisingiseta nguna se eya, akec jokis , akeswoyau neni eyakatar sek ngakingisingiseta ngikisila acunakin apolou angikarimojong ka akiyar tooma ka diete kidepo.
-Eyarete ngakingiseta nu ngadaka ngatomwonimon ka ngakan akitodol epei saa. Anginakingise iwakinio toom nasim ka co kana ngice saai itolimokin ka kingirai.
Nguna etioko kori Nyejokak
Eyekaun tokona nguna etioko kori nguna nyejokak tooma nayakau iyes lotic lo. Ngatiokisiyo ngu etakanunete ikes nu, aronis alotooma atamunun nguna paran irukounito iyes kedaun ayaar iyes iw Emaikina tolajara awowun ababongonokin ngadiokingiseta kepedorete ayaun ngunatiokok.
Epedori isua akiwait nguna dang idaut iyes alimokin isua.
Ngajokisia
Eyakaun ngajokisia ngakudio etapit akusiyakau tooma lotic lokakisyom ana. Alotooma anen, ngu dadang idaut iyes alimun isitiyao ainakin ngakiro neni angikarikok ka nyebuku alopite ang iwakinere, italakere ka iwakinere tooma akisitiya ngikarimojong akec apolou, ngatameta ka akisi alotooma akingangit akiyar angityang alotooma kidepo kanabo dang akiwakin ngakisiyaunen alotooma akirumit akingitingito etapit akiyar angityang kotere ngikisila ngulu ingangito acunak apolou ka eyare ekitela alotooma ka diyete kidepo.
Ibore nginikitalakaret anguna ka ayakau

Emam nyikitaco kotere ayakau tooma nakisyom na.



Akinyakakinet anginaka esaa ka anguna ka elote.
Kotere etatic anguna ka esaa, ikinakinio ibore nyamat ka nginimatat. Emam etaci anguna ka e kus kotere akisyom na.
Akingangit akiwaro angakiro anu
Nguna daadang ikilimokininete iyes isua ka nguna dang adaun isua aramun alotooma akisyom iwayo isua emam ngace ka ngakiro daadang nguna itodiunete ayenut iyes elemario.
Akingangio ka akiwawo angakiro anguna ariamun.
Ekonikiro kori nguna ikilimorito iyo emam nyetakanunete alotooma akaratat ngina isitiy: alotooma akisyom alotooma eriori lo etapit nguna eyauni akisyom.

Leave blank for REC office only:	REC OFFICE USE ONLY:
	APPROVAL DATE:
MUST-REC Stamp:	APPROVED CONSENT IRB VERSION NUMBER
	PI NAME:
	IRB NO:

Apedor awowun kori alemario
Akusiyakau tooma akitiya alotooma akisyom na erae nguna elajara akitiya anginitunganan. An kitamut iyes abe nyicamito ayakau tooma nakisyom na kori bo kicamito alemaro alotic alo edio ka anguna iyenete iyes, emam nguna ikitapete iyes alopitesio angimoti.
Nyo bo itiyaun kiyesik iyoo akisyom na?
Ipedori aseun ayesikin aroparit etic lo alotooma akisyom na ediosaa. Emam nguna ikitapete i alopitesyo angimoti.
Ngai mono apedori ayong akingit kori aramakin kacamit akingit akingiset kori nganironis
Ani kiyakar akingiset etapit akisyom na, ekelipi ebe toramak ngitunga luta;
Ekapolokiniton akisyom ana;

Lolem Lucy Chegem.
Ekasoman phD.
Mbarara University
Ngulu epolokinito nguna ka aiwaro anakisyom
Enamba: +256 782 786 342
Eimeil: srlucy2018@gmail.com
Enamba ka MUST-REC
Apis ngina epolokinit nguna ka akimaniman ngakiro (REC) ecoit akingango angina angiketiy alotooma esakit lo akiwakinit ebe ngikasakak iwapito ngikisila alotooma ainanakin ngakiro ngu etapit esakit ka ngiketiak totamut einakina etic kori emam. Kotere adiokingiset etapit ini alotoo nguna elosikinitoi, ikinakinitai enamba lo alokwap.
Ekapolon, MUST-REC
Ekapolon: Alele Paul

Enamba: +256 485433795/+256773573372

Abaruwa ngina ikongitere
Nyo erae apolou ka eseei kori akidiyakin anakaratat ana
Apolou eseei anakaratat ana ebei;

- adaun alimokin iyes nu etapito ajokis, ngipitesyo, nguna eyaunete ka ngatiokisio akis ana.
- Ikinakin adiopaki nginakingiset eringa nyetapakina eseei.
- Icamunosi iyes ngilopeyek ayakau nakisyom na.

Ekiro ekasukuot	Eseei/ekimoin	Ngirwa kelap
Ekiro aitunganan ijai nungu	Eseei	Ngirwa kelap
Ekiro ka esuuda	Eseei	Ngirwa kelap

Leave blank for REC office only: **MUST-REC Stamp:**	**REC OFFICE USE ONLY:** APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:



Appendix IX: Krejcie and Morgan (1970) Table

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Appendix X: MUST REC Approval

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
P.O. Box 1410, Mbarara Uganda. Tel: +256 485433795; Fax: +256 4854 20782
RESEARCH ETHICS COMMITTEE
E-mail: sec.rec@must.ac.ug

14/06/2024

To: Lolem Lucy
Mbarara University of Science and Technology
0782786342
Type: Initial Review
Re: MUST-2024-1428: Nature And Degree of Karimojong Pastoral Community Participation and Integration in Wildlife Conservation Interventions in Kidepo Valley National Park, North Eastern Uganda.

I am pleased to inform you that at the **167** convened meeting on **08/05/2024**, the MUST Researc Ethics Committee meeting voted to approve the above referenced application.

Approval of the research is for the period of **14/06/2024** to **14/06/2025.**

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to t REC for rereview and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information whic could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent form signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiratio date of **14/06/2025** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.

Leave blank for REC office only: **MUST-REC Stamp:**	**REC OFFICE USE ONLY:** APPROVAL DATE: APPROVED CONSENT IRB VERSION NUMBER: PI NAME: IRB NO:

6. The REC application number assigned to the research should be cited in any correspondence with the REC
of record.
7. You are required to register the research protocol with the Uganda National Council for Scie and
Technology (UNCST) for final clearance to undertake the study in Uganda.
The following is the list of all documents approved in this application by MUST Research Ethic Committee:

No.	Document Title	Language	Version Number	Version Date
1	Informed Consent forms	English	1	2024-03-04
2	Data collection tools	English	1	2024-03-04
3	Protocol	English	1	2024-03-04

Yours Sincerely



Dr. Paul Alele
For: MUST Research Ethics Committee

Appendix XI: UNCST Approval



Uganda National Council for Science and Tecl

(Established by Act of Parliament of the Republic of Uganda)

Our Ref: SS3755ES

9 April 2025

Lolem Lucy
Mbarara University of Science and
Technology **Mbarara**

Re: Research Approval: Nature and Degree of Karimojong Pastoral Community Participation and Integration in Wildlife Conservation Interventions in Kidepo Valley National Park, North Eastern Uganda

I am pleased to inform you that on **09/04/2025**, the Uganda National Council for Science and Technology (UNCST) approved the above referenced research project. The Approval of the research project is for the period of **09/04/2025** to **09/04/2026**.

Your research registration number with the UNCST is **SS3755ES**. Please, cite this number in all your future correspondences with UNCST in respect of the above research project. As the Principal Investigator of the research project, you are responsible for fulfilling the following requirements of approval:

1. Keeping all co-investigators informed of the status of the research.

2. Submitting all changes, amendments, and addenda to the research protocol or the consent form (where applicable) to the designated Research Ethics Committee (REC) or Lead Agency for re-review and approval **prior** to the activation of the changes. UNCST must be notified of the approved changes within five working days.

3. For clinical trials, all serious adverse events must be reported promptly to the designated local REC for review with copies to the National Drug Authority and a notification to the UNCST.

4. Unanticipated problems involving risks to research participants or other must be reported promptly to the UNCST. New information that becomes available which could change the risk/benefit ratio must be submitted promptly for UNCST notification after review by the REC.

5. Only approved study procedures are to be implemented. The UNCST may condu impromptu audits of all study records.

6. An annual progress report and approval letter of continuation from the REC must be submitted electronically to UNCST. Failure to do so may result in termination the research project.

Please note that this approval includes all study related tools submitted as part of the application as shown below:

No.	Document Title	Language	Version Number	Version Date
1	Key Informant Interview	English	1	26 March 2025
2	Questionnaire	English	1	26 March 2025
3	Informed consent Form	English	1	26 March 2025
4	Translated questionnaire	Karimojong	1	26 March 2025
5	Translated Key Informant guide	Karimojong	1	26 March 2025
6	Translated Informed Consent Form	Karimojong	1	26 March 2025
7	Focus Group Guide	English	1	26 March 2025
8	Translated Focus Group Discussion guide	Karimojong	1	26 March 2025
9	Project Proposal	English	1	
10	Approval Letter	English		
11	Administrative Clearance	English		

Yours sincerely,

Hellen Opolot
For: Executive Secretary
UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Appendix XII: Villages around KVNP

S/N	DISTRICT	SUB-COUNTY	PARISH	VILLAGE	HOUSEHOLD POPULATION	SA PE VI
1	KARENGA	KARENGA	NAKITOIT	Lorukul	407	
2				Nakitoit North	259	
3				Nakitoit South	215	
4			KANGOLE WARD	Loputuk	826	
5			KARENGA WARD	Lokodope	912	
6				Wapakiru	712	
7				Napeikori West	309	
8		KAWALAKOL	NASEPERWAE	Nataaba alokure	235	
9				Semukoi	362	
10				Moruita 1	530	
11				Moruita 2	346	
12				Moruita 3	941	
13				Moruita 4	534	
14				Nakisimoe	462	
15			Naoyagum	Morunyang	302	
16			Lomej Natiira	Kocholo 1	300	
17				Kocholo 2	239	
18				Kocholo 3	345	
19		LOKORI	Opotpot	Lokuyon	822	
20				Lokabaiya	838	
21				Opotpot	516	
22				Dukule 1	388	
23				Dukule 2	544	
24				Dukule 3	406	
25				Dukule 4	630	
26				Kaalimon	446	
28			Lokori	Nabeteleng	393	
29				Kachapangole	345	
30				Kalokudo	750	
31				Nawoyaro	682	
32				Lopain 1	412	
				Lokori	645	
= 17,723					**Total**	

Source: Parish Development Model Information Statistics (PDMIS) Household population 6th -Jan-2024