PV NATURE

PROJECT IDEA NOTE

Kalahari Biodiversity Conservation Project (KD2 Wildlife Management Area, Botswana)

Version 1.4
06 August 2025

Developed by: Gazelle Ecosolutions Botswana Pty Ltd & Kalahari Research and Conservation (KRC)

Gazelle Ecosolutions Botswana Pty Ltd ("Gazelle") is a Project Coordinator. Gazelle is an environmental services firm focused on carbon & biodiversity markets and the earliest nature-based carbon project developer in Botswana. Founded in 2022, Gazelle brings together a team of engineers, academics, and serial entrepreneurs with decades of experience in remote-sensing, dryland ecology, carbon dynamics, and ecosystem services.

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Kalahari Research and Conservation ("KRC") is a Project Coordinator. KRC was established by Dr. Glyn Maude in 2008. Over the years, KRC has built a wealth of experience in successfully conducting long-term research on wildlife in Botswana and paying a leading role in Wildlife Conservation efforts.

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Contents

Overview

Project Title:	Kalahari Biodiversity Conservation
Location:	Botswana, Kgalagadi District, KD2 Wildlife Management Area
Project description:	Kalahari Biodiversity Conservation (KBC) protects one of the largest remaining wilderness areas in Botswana's Kgalagadi District. In the last 10 years, the area has experienced increased grazing pressures due to encroachment into wilderness areas, coupled with unchecked poaching. KBC builds on a successful Memorandum of Understanding (MOU) with local communities to mitigate livestock encroachment and poaching to reduce overgrazing and loss of biodiversity. The project area is home to multiple at-risk and endangered species, e.g. Kalahari Lions, Vultures, and Wild Dogs (on the IUCN Red List). Simultaneously, the project creates local employment and through direct community involvement and participation in project activities (e.g. scout patrols, animal wildlife surveys, field data collection, etc.).
Project Area:	The proposed project area covers 21,357 hectares located in Botswana's KD2 Wildlife Management Area, which forms the northern boundary of the Kalahari Transfrontier National Park ("KTP") in the Kgalagadi District. Ecologically, the area falls within the Kalahari Xeric Savanna zone. The proposed area represents a pilot between Gazelle, KRC, and the community of Zutshwa. After 12 months (approximately September 2026) a review of the project performance and stakeholder consultation will take place to consider an extension of the project area.
Project Coordinator:	Gazelle: Amod Daherkar (Co-founder, CEO) amod@thegazelle.co Gazelle Ecosolutions is the project developer. Gazelle is headquartered in Maun, Botswana and has operational experience, capacity, and infrastructure across most of the country. KRC is headquartered in Hukuntsi, Botswana and has operations throughout most of Botswana. KRC: Glyn Maude (Founder, Director) glyn@krcbots.org
Project Participants:	The KRC team currently employs a team of 23 staff members and operates an office in the town of Hukuntsi alongside an off-grid research base located within the project area used for patrols & research. The workers come from the local villages and include both men and women in varying roles. The suggested project is a collaborative effort involving the community in the village of Zutshwa, KRC and the Community Trust in Zutshwa (comprised of the Kgosi – Chieftain – and elected representatives). KRC's mission is to undertake a holistic approach towards research and conservation in the Kalahari. The expected benefits of the project will flow

	directly back to the community that is involved with the work KRC is doing. This includes improved livelihood husbandry for individuals from the local community.
Project Intervention(s):	The project interventions are focused on conservation. KBC implements efforts outlined in an existing MOU between KRC and the village of Zutshwa, with a strong focus on livestock management practices within a 10 km radius around the village. Additionally, KBC monitors encroachment into the project area (beyond the 10km buffer zone) via horseback or motorized patrols, plant and wildlife, and mitigates poaching. Examples of poaching mitigation efforts include community awareness programs, workshops, and options for locally employed community members to substitute portions of salary for fresh meat from Hukuntsi (nearest village with food provisions) in lieu of the only alternative –poaching.
Expected Benefits:	The sale of Plan Vivo Biodiversity Certificates (PVBCs) will help finance project interventions. In the absence of long-term financial support (in this case through PVBCs, project interventions would not be possible due to the cost of salaries, equipment, research/surveys efforts, and transportation. Due to the extremely remote location of the project area, the cost of running conservation activities while creating strong incentive structures to protect wilderness areas is significantly higher than in other, less remote locations throughout Africa. The project area is home to roughly 106 Kalahari Lions (*Panthera leo verneyi*), with an unknown but significant number of other large carnivores including leopard (*Panthera pardus*), Cheetah (*Acinonyx jubatus*), Spotted Hyena (*Crocuta crocuta*), Brown Hyena (*Hyaena brunnea*), black-backed jackal (*Canis mesomelas*), cape fox (*Vulpes chama*) and others. Large herbivores resident in the area are Eland (*Tragelaphus oryx*), Gemsbok (*Oryx gazella*), Wildebeest (*Connochaetes taurinus*), Hartebeest (A*lcelaphus buselaphus*), Springbok (*Antidorcas marsupialis*), Kudu (*Tragelaphus strepsiceros*) and other species. Across Botswana, and in the project area, poaching is a large risk to wildlife populations, which the KBC aims to help reduce. The project has no negative environmental impacts since it is exclusively focused on reducing poaching and livestock encroachment and does not increase carbon emissions or harm local communities and local ecosystems in any way. The local community is involved in all the decision-making processes and has a key involvement within the project.
Methodology Design:	The project is classified as a terrestrial conservation project and qualifies for conservation PVBCs.
PIN Version:	V1.4
Date Approved:	15/08/2025

1 General Information

1.1 Project Rationale

The KD2 region is a Wildlife Management Area (WMA), spanning 6,000 km² and forming a crucial wildlife corridor in southeastern Botswana. A WMA is a large area of land set aside for wildlife conservation and supports wildlife-related land use types, e.g. photographic tourism. KD2 shares a boundary with the Kgalagadi Transfrontier Park (KTP) for about 250 kilometres, significantly and effectively extending the wildlife conservation area. This connectivity facilitates the free movement of wildlife, contributing to genetic diversity, extended range, and therefore enhancing the resilience of species to environmental changes. The KD2, KD1 and the KTP form a continuous, unfenced region of about 1.8 million hectares (ha). This represents one of the largest, connected and widely undisturbed wildlife areas in Africa, forming a regional core area for the Kalahari's biodiversity. KD2 is home to many important core areas, including those of the Kalahari Lion (*Panthera leo verneyi*) and African Wild Dog *(Lycaon pictus).* These habitats are crucial for maintaining the populations of these vulnerable species and other wildlife.

The Kalahari environment is rich in biodiversity, hosting various species adapted to its unique conditions. The project area supports not only the Kalahari Lion but also other species that rely on the region's resources. The project will help to prevent encroachment by humans, livestock, and other relevant anthropogenic disturbance for the benefit of all species and local communities. The local communities involved, the Bakagalagadi and Basarwa (San) people, are Indigenous to the region.

If the project interventions are well-received by the community for an extended period, the KBC project will expand to other neighbouring communities. This project aligns well with PV Nature's goals by addressing landscape conservation and threats to biodiversity. The emphasis on developing local capacity ensures long-term, sustainable conservation outcomes. By integrating community benefits with conservation objectives, the project exemplifies a model for sustainable development that PV Nature aims to support.

2.1.1 Conservation Projects Justification*

Under the Key Biodiversity Area (KBA) criteria, the project contributes significantly to the global persistence of a threatened species. The population of lions in KD1 and KD2 contributes significantly to the global persistence of this threatened species, meeting KBA designation criteria A1 (A1b and A1e). KBA criteria identify sites contributing significantly to the global persistence of threatened species (Criterion A1) or threatened ecosystem types.

In the areas of Botswana being measured, there is a presence of Kalahari Lions. Lions are classified as Vulnerable (VU) on the IUCN Red List (2023) under Criterion A2, indicating a significant population decline. According to the IUCN, the population of lions is severely fragmented, and there is a continuing decline of mature individuals. There is an estimated 36% decline in the species' range over approximately 21 years.[1]

KRC has conducted an extensive population assessment of lions in KD1 and KD2. *Panthera leo* has most recently been assessed for The IUCN Red List of Threatened Species in 2023. Panthera leo is listed as Vulnerable under criteria A2. According to the IUCN, the population of lions is severely

[1] Panthera leo (Lion)

fragmented, and there is a continuing decline of mature individuals. There is an estimated 36% decline in the species range over approximately 21 years.

KRC reports that there are an estimated 106 lions above the age of 1 in KD1 and KD2 as of last year (2023), based on spoor surveys, tracking 17,000 km on and off-road, and recapture methods.

Lions meet the A2 criterion for Endangered with the inferred rate of decline over 50% in three generations. Lion populations are declining in West, Central, and East Africa, whereas populations are only increasing in Southern Africa. Many lion populations are either now gone or expected to disappear within the next few decades, to the extent that the intensively managed populations in Southern Africa may soon supersede East African populations. The global population of lions is estimated to be between 23,000 and 39,000. Male lions are transitory, and female lions occupy the same territory for generations.

KBA Criterion A1: Threatened Species

The Kalahari Lion (*Panthera leo*) is classified as Vulnerable (VU) on the IUCN Red List (2023) under criteria A2, indicating a significant population decline.

The project site (KD2) has an estimated 106 lions above the age of 1 based on spoor surveys, tracking, and recapture methods (KD1 and KD2 Report).

Lions in West, Central, and East Africa are declining or disappearing, making Southern Africa a crucial location for the species' survival.

Key Biodiversity Areas (KBAs) are the most important places in the world for species and their habitats. They are identified by criteria that provide a scientifically defensible and rigorous global standard against which sites can be proposed and identified as globally important for the long-term survival of biodiversity. Sites qualify as global KBAs if they meet one or more of 11 criteria, clustered into five higher-level categories: threatened biodiversity, geographically restricted biodiversity, ecological integrity, biological processes, and irreplaceability.

Link to Lion Study: KD1&KD2 Report (1).pdf

2.2 Project Interventions

Table 1 – Project Interventions

Intervention Type	Project Intervention	Expected Benefits
Conservation	Increased Area Patrolling: Trained members of the community will patrol the perimeters and the core of the project area. Patrols take place	Increase in human presence is strongly correlated to a decrease in illegal activities, such as poaching, illegal livestock grazing, unauthorized

	on horseback or by car. The main task of this action is to show presence, detect, report and archive occurring 'irregularities' such as poaching, poisoning or any other unusual incident. To successfully implement this action point, it is necessary to recruit and train additional members of the community. Increasing the patrolling in the area leads to a decrease in animal losses to poaching while also employing local community members, both men and women	access for recreational purposes by tourists, etc. Community members can become eco-rangers and patrol the parks in search of poachers. Poaching is primarily done for food, which KRC addresses as mentioned below. With more community members involved, socioeconomic status will be improved, and the community will be involved in an essential conservation practice.
Conservation & Community Engagement	To reduce food insecurity and the incentive for bushmeat poaching, KRC facilitates periodic deliveries of affordable or subsidized meat from Hukuntsi to Zutshwa (65 km away with most of the locals not being able to transit that on a consistent frequency). Workshops are held with youth groups, adult conservation clubs, and herders to build awareness of wildlife laws, predator behaviour, and ecosystem health. These sessions are led by KRC field staff, often in Setswana and local dialects. Rugby matches with the schools are also held in order to increase familiarity and trust in KRC from the young people.	Poaching in KD2 is often motivated by a lack of food and income. Regular access to affordable meat reduces this pressure while increasing goodwill for conservation efforts. Educational sessions help shift local norms around wildlife and promote coexistence with carnivores. The use of existing social groups (e.g. conservation clubs) ensures participation is culturally relevant and logistically feasible in a remote setting.
Conservation	Recreational use monitoring: and Gate access control by local women The implementation of the project will allow more women	Women are hired to patrol the gate into KD2. They make sure people pay at the gate going into the park and aren't doing anything illegal in the park.

	to be employed at the park gates and monitor who comes in and out. With more women at the gate there is less risk that poachers can enter the gate therefore decreasing poaching risk. This is a necessary project intervention given many poachers enter the WMA illegally so increased monitoring will improve biodiversity in the project area.	This is extremely important to make sure the people who enter the gate are not there to poach. This increases socioeconomic status because in Botswana, women oftentimes rely on their husbands for all the household income. This way, women will have their own means of making money which benefits their livelihoods. Gate staffing reduces the risk of poachers and unauthorized tourists entering the area. It also increases participation of women in the local conservation economy—addressing gender inequality and providing independent income. Increased gate control strengthens rule enforcement, deters illegal activity, and ensures that entry fees are properly collected and monitored.
Improved Management	KRC will formalize livestock encroachment patrols by employing and training local cattle monitors to track herds entering the KD2 wildlife area from the village of Zutshwa. These community-appointed monitors will use visual observation, spoor tracking, and direct engagement with herders to enforce the 10 km grazing buffer established in the existing MOU. Grazing zones will be mapped seasonally to account for forage availability and rainfall. Incursions will be logged and reported to both the community trust and KRC, and	Cattle encroachment leads to overgrazing, vegetation degradation, and increases human–wildlife conflict, particularly with large carnivores like lions. This intervention provides a community-led, non-confrontational way to enforce spatial boundaries while maintaining herder buy-in. Trained cattle monitors create local employment and accountability. Enforcement of the buffer zone reduces ecological pressure on wildlife corridors and helps maintain habitat integrity. Linking compliance with the

	herders repeatedly violating the boundary may forfeit eligibility for future conservation-linked benefits.	Conservation Performance Payment (CPP) scheme gives herders a financial incentive to self-regulate and comply with agreed grazing boundaries.

1.3 Project Boundaries

Table 3 Project Boundaries

Location:	KD2 Wildlife Management Area, Botswana
Geographic Coordinates:	NW: 24°22'50.77"S, 20°40'51.26"E N: 24°10'29.90"S, 20°50'51.77"E NE: 24° 1'8.43"S, 21° 3'38.53"E S: 24°31'13.76"S, 21° 1'15.48"E Google Earth Pro Link with Project KML
Project Region(s):	The total ha of KD2 Wildlife Management Area are 1,208,800 hectares. The project borders KD1, which is 1,800,000 hectares. Both total to an area of 3,008,800 hectares.

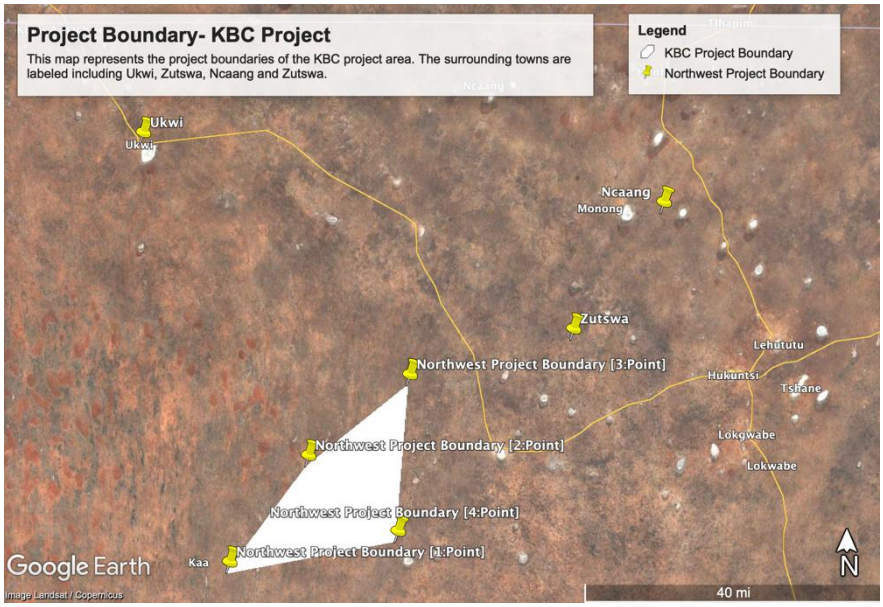


Figure 1: Map of KBC Project Area, including surrounding villages.

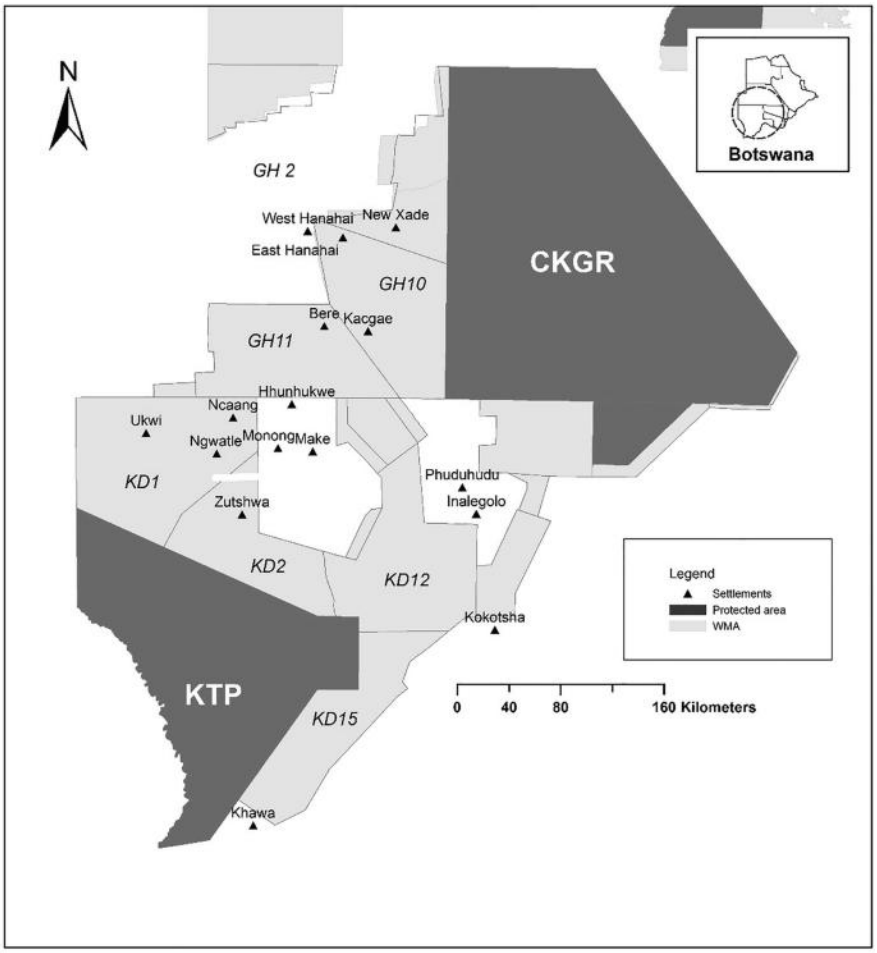


Figure 2: Map of Botswana, including KTP, KD1, KD2, and Zutshwa[2].

Project Area(s):	The proposed project area is 21,357 ha and the additional proposed area is 88,060 ha in the future.
Protected Areas:	KD2 is designated for wildlife conservation and sustainable use. It is a legally protected area under the Botswana Wildlife Conservation and National Parks Act of 1992. It is managed for both conservation purposes and controlled human use, and eco-tourism. Although they do have legal protections, they are not strictly protected like national parks or game reserves. They serve as buffer zones around national parks and game reserves (KTP).

1.4 Land and Management Rights

The project area is classified as tribal land, one of three major land-tenure designations in Botswana. Roughly 70% of Botswana is tribal land, 25% state-owned, and 5% privately owned freehold leases. Most land in the country is considered tribal and citizens can obtain land grants or leases from the Land Board and the land is heritable but not saleable (Rob, 2008a; Adams *et al*., 2003). In this case, the Tribal 6; Land Act of 1968 (amended 1993) governs tribal land and rights to be held by Botswana citizens and communities. It also vests administrative power from tribal chiefs to the twelve District Land Boards across Botswana, which have the authority to allocate land, cancel customary rights, and rezone agricultural land for commercial, residential, and industrial uses. The Act also allows for certificates evidencing rights to water wells, boreholes, and residential plots via common-law leases of land.

Therefore, the Community Trust of Zutshwa has customary rights to the KD2 WMA region under the Tribal Land Act of 1968, the Tribal Grazing Lands Policy of 1975, and the State Land Act of 1966. The Trust has a signed Memorandum of Understanding (MOU) in place with KRC with the approval of the Hukuntsi Land Board (relevant Land Board authority in the project's region of northern Kgalagadi District) and the Technical Advisory Committee (TAC), which is a government-sanctioned agency guiding local communities. Additionally, KRC has research permits for the area since 2012, the most recent one renewed on the 25th of October 2024, under the authority of the Ministry of Environment and Tourism of the Republic of Botswana. The permit allows KRC to conduct research and conservation activities and study predator-prey dynamics in the Kgalagadi District and surrounding areas. The permit's expiry date is the 30th of June, 2027. Therefore, KRC has the right to operationalize project activities and has the approval and participation of the local Zutshwa Community Trust, which holds customary and legal rights to the proposed project area.

None of the project areas was acquired, purchased, or leased for the proposed project. The project area, which is designated as a wildlife area, is an important wildlife corridor for the area and falls under the legal jurisdiction of the Botswana government, making its legal jurisdiction a combination of national government authority, local tribal or community governance, and the regulatory frameworks established by national legislation. In this case, the community has both legal and customary rights to area which are provided by the government.

[2] Sapignoli, M., Hitchcock, R.K. (2023). Coercive Conservation: Removals of Indigenous Peoples from Protected Areas in Southern Africa. In: People, Parks, and Power. SpringerBriefs in Anthropology(). Springer, Cham. https://doi.org/10.1007/978-3-031-39268-9_3

2 Stakeholder Engagement

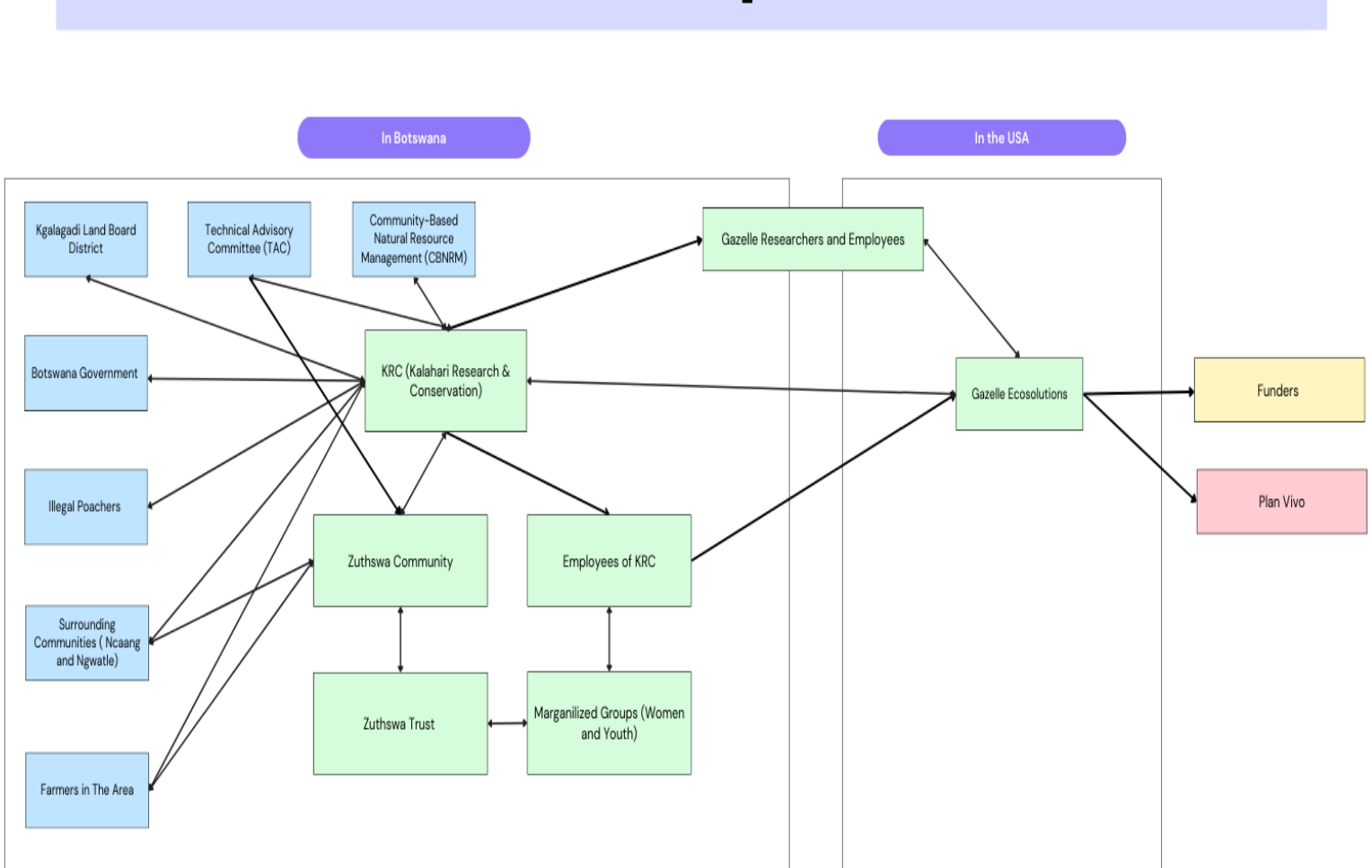
2.3 Stakeholder Identification

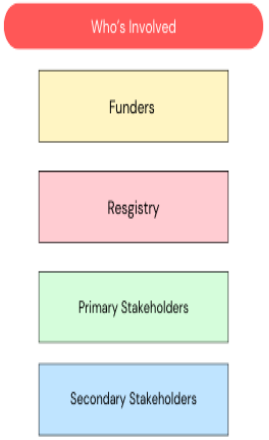
Stakeholder Type	Name/Title	Details
Local	Zutshwa Community and Zutshwa Trust	The Zutshwa community is the customary landholder of KD2, represented through the Zutshwa Trust. The Trust is the legal authority for communal land management and directly participates in governance and project decision-making. The community, primarily composed of Bakgalagadi and Basarwa (San) people, is involved through roles such as rangers, gate operators, monitoring assistants, and conservation education participants. KRC engages with the community through structured consultations, open meetings, and dialogue with the Village Development Committee (VDC) and Kgosi. Immediate Impacts: Provides employment, food security interventions (e.g., meat-sharing), and training in conservation practices. Long-Term Impacts: Strengthens local capacity in biodiversity governance and fosters long-term stewardship of KD2 through participatory decision-making and ecological awareness.
Primary	Local Project Employees (Rangers, Monitors, Gate Staff)	Community members employed by KRC perform key tasks in implementation, including anti-poaching patrols, livestock monitoring, camera trap maintenance, and gate access control. Women are intentionally hired as gate staff to promote inclusivity. Immediate Impacts: Access to income, skills training, and conservation experience. Long-Term Impacts: Builds a trained local workforce capable of continuing conservation work, reducing dependency on external actors.
Primary	Village Development Committee (VDC) – Zutshwa	The VDC is a statutory community body responsible for development coordination and representing village interests in external projects. The VDC collaborates with KRC in project planning and ensures broad-based consultation. Immediate Impacts: Strengthens transparency and community trust in project decisions. Long-Term Impacts: Institutionalizes conservation as part of the community's development strategy.
Primary	Local Livestock Herders	Livestock herders graze their animals in and around KD2. Some participate in the Conservation Performance Payment (CPP) program, receive grazing feedback and identify overuse areas. Immediate Impacts: Promotes sustainable rangeland use and reduces livestock encroachment. Long-Term Impacts: Leads to improved

Stakeholder Type	Name/Title	Details
		rangeland conditions, rotational grazing, and adaptive herd management.
Local (Not Directly Involved)	Ncaang and Ngwatle Communities	Neighboring communities located in KD1 that share ecological corridors with KD2. Like Zutshwa, they are composed primarily of Bakgalagadi and Basarwa peoples and are organized into community trusts. They are not currently engaged in project activities but are ecologically linked. Immediate Impacts: May benefit indirectly from improved wildlife movement and reduced resource conflict. Long-Term Impacts: Potential future collaborators in cross-boundary conservation efforts.
Primary	Women and Marginalized Community Members	Women and marginalized groups in Zutshwa historically lacked formal roles in land governance. KRC actively includes women in gate operations, conservation roles, and community consultations. The project promotes equity in hiring and leadership training. Immediate Impacts: Increased access to employment, voice in planning forums, and training in monitoring and enforcement. Long-Term Impacts: Promotes gender equity in natural resource governance and fosters a shift toward inclusive conservation leadership.
Secondary	Technical Advisory Committee (TAC) – Zutshwa	The TAC provides technical oversight on land use, infrastructure, and community development planning. While not directly implementing the project, it ensures project alignment with district-level objectives. Immediate Impacts: Facilitates coordination between the project and planning authorities. Long-Term Impacts: Enhances policy integration and institutional support for community-based conservation.
Secondary	Kgalagadi Land Board – Zutshwa Sub-Office	This sub-office manages tribal land allocations and recognizes the Zutshwa Trust's land rights in KD2. The Land Board's acknowledgment is essential for legal land-use planning. Immediate Impacts: Legitimizes project activities and land boundaries. Long-Term Impacts: Supports legal land tenure for community trusts and sustainable zoning enforcement.
Secondary	Potential Poachers	While not formal stakeholders, individuals who hunt illegally are critical actors. Often driven by food insecurity and economic marginalization, they are indirectly addressed through project measures such as the meat-sharing initiative and employment

Stakeholder Type	Name/Title	Details
		opportunities. Immediate Impacts: Reduced reliance on poaching through alternative income and food support. Long-Term Impacts: Cultural shift toward viewing wildlife as a community asset, not just a subsistence resource.
National/International	Government of Botswana (e.g., DWNP, MET)	The Department of Wildlife and National Parks (DWNP) and the Ministry of Environment and Tourism (MET) regulate the KD2 WMA and broader biodiversity policy. Although not directly implementing the project, they provide the legal framework and oversight needed for compliance. Immediate Impacts: Enable legal operations and ensure alignment with national policy. Long-Term Impacts: Allow potential replication or integration of the KBC model into national conservation and rural development strategies.

Stakeholder Groups





2.4 Project Coordination and Management

Gazelle and KRC are the project coordinator organizations taking overall managerial responsibility for the KBC project. Gazelle's primary responsibility includes methodological design, application, data modelling, documentation and ground support. KRC's primary responsibilities include the 'on the ground' project implementation, including community engagement, enforcing implementation of project interventions in collaboration with the Zutshwa community, data collection, monitoring and reporting. Responsible parties for each coordination and management function of the project are detailed in Table 4.

Gazelle is an environmental services firm with a combined 75 years of operational experience among the team. Dr. Thoralf Meyer, Gazelle's Chief Scientist, has over 25 years of ecology, remote-sensing, and research experience in Botswana. He is responsible for pioneering the identification and study of allometric relationships of woody vegetation in the Kalahari, the publication of the very first spectral endmember data sets for the region and for founding a successful GIS firm and environmental consultancy in Botswana. In this capacity, he wrote 75 plus documents for the corporate world and government institutions. He has also conducted numerous workshops to build local capacities in the fields of GIS, GPS, remote sensing and rangeland monitoring. The Gazelle team brings experience in environmental engineering, computational engineering, finance, and ecology to the KBC project. Gazelle is also one of the first nature-based carbon project developers in Botswana and has pioneered methodology development and implementation.

KRC was founded by Dr. Glyn Maude, who has over 25 years of experience in the Kalahari. KRC has a proven track record of working effectively with the Botswana Department of Wildlife and National Parks (DWNP), local communities, and other stakeholders. KRC has hired 10 staff members to track animal movement, eight women staff in Zutshwa at the gate for tourists into KD2, three full-time trackers from Zutshwa, and two private staff for invasive plants, and local two staff that work in the camp and switch out each week to a total of eight hired staff at the remote camp each month. The practical staff have consultations with the community who work closely with the community.

The majority of KRC's efforts have been focused on engaging community members in Botswana including several unique wildlife projects in the Central Kalahari Game Reserve (CKGR), Makgadikgadi and Linyanti regions focused on African Wild Dogs, Kalahari Lions and Wildebeest. KRC brings together a diverse mix of lifelong researchers and PhD students, including those from the local University of Botswana, to facilitate long-term ecology work.

A copy of the company registration certificates for project coordinators, KRC and Gazelle Ecosolutions, is provided in Annex 2.

No external organizations (and no organizations outside Botswana) have been contracted to function as the project coordinator or to conduct monitoring work. The PIN has been jointly prepared by both Gazelle and KRC (both co-coordinators), and although in this case not required, a signed statement from both parties acknowledging and consenting to the PIN submission is given in Annex 2.

The project's primary implementation coordinator is KRC which has been operating in the Kalahari area since 2009. KRC was founded in 2009 by Dr. Glyn Maude, and in 2013, Dr. Moses Selebatso joined to do his PhD on Kalahari Wildebeest and is now a KRC Director. KRC was founded to work consistently on Wildlife Research in the Central and Southern Kalahari to ensure management of the ecosystem in the face of climate and land-use change. Project interventions detailed in Table 1 Section 1.2 were developed and are planned to be further implemented with the possible additional

resources provided by the project over 12 years of research conducted by the KRC team, which includes a total staff based in Hukuntsi of 23 full-time employees. KRC has been a strong driver of local employment, job creation, student research and conservation. The organisation has long-term experience in working effectively with the Botswana DWNPs, local communities and other stakeholders. KRC employees are primarily Bakagalagadi and Basarwa.

Table 4 Responsibility for Project Coordination and Management Functions

Project Coordination and Management Function	**Responsible Party/Parties**
Stakeholder engagement during project development and implementation	KRC
Ensuring conformance with the Plan Vivo Biodiversity Standard (PV Nature) and compliance with applicable policies, laws and regulations	Gazelle
Developing technical specifications, land management plans and project agreements with project participants	KRC and Gazelle
Ensuring that the PDD is updated with any changes to the project	Gazelle
Registration and recording of land management plans, project agreements, and sales agreements	KRC
Managing project finances and dispersal of income to project participants as described by the benefit sharing mechanism	KRC and Gazelle
Managing Plan Vivo Biodiversity Certificates in the Plan Vivo Registry	Gazelle
Preparing annual reports and coordinating validation and verification events	Gazelle
Securing certificate sales and other means of funding the project	Gazelle
Assisting Project Participants to secure any legal or regulatory permissions required to carry out the project	KRC and Gazelle
Providing technical assistance and capacity building required for project participants to implement project interventions	KRC and Gazelle

Monitoring progress indicators, socioeconomic indicators and climate indicators and providing ongoing support to project participants	KRC and Gazelle
Measurement, reporting and verification of biodiversity benefits	KRC and Gazelle

2.5 Project Participants

Project participants include the community in the village of Zuthswa, which has a population of 680 residents as of 2022 [3]. There are a reported 344 males in the village and 336 females. Zuthswa is located on the eastern boundary of the proposed 21,000 ha project area. Zutshwa is located in Kgladadi District and is adjacent to the KD2 WMA, which is located directly south of the KD1 WMA. These are two of the main Wildlife Management Areas in the Kgalgadi Districtland; due to Zuthswa being the corresponding district to KD2 (where the pilot area is), it will be the community in focus.

Other villages in the area are Ukwi (795 residents, 412 male and 383 female), Ncaang (426 residents, 211 male and 189 female) and Ngwatle (471 residents, 253 male, 218 female). Although Zutshwa are the only Type I Project Participants due to its proximity to the project location and involvement with KRC currently. The village of Zutshwa is located 56 km west of Hukuntsi. None of the potential project participants are non-residents within the project area, therefore the local community of Zutshwa are considered Type I participants.

The land is zoned legally as WMA, therefore under jurisdiction of the Kgalagadi Land Board and community trust, is used as a wildlife area to separate between the National Game Reserves/Parks and the communal grazing areas set for the communities under the Tribal Land Act of 1968. The Act governs tribal land and rights to it held by Botswana citizens (this Act was amended in 1993). It also vests administrative power from tribal chiefs to the twelve district land boards across Botswana which have the authority to allocate land, cancel customary rights, and rezone agricultural land for commercial residential, and industrial uses. In the case of this proposed project, the project area falls within the jurisdiction of the WMA. The authority and customary rights are held by the people of Zutshwa and the trust.

None of the project areas was acquired, purchased, or leased to third parties for the proposed project. The project area, which is designated as a wildlife area, is an important wildlife corridor for the area and falls under the legal jurisdiction of the Botswana government, making its legal jurisdiction a combination of national government authority, local tribal or community governance, and the regulatory frameworks established by national legislation. In this case, the community has both legal and customary rights to area which are provided by the government.

[3] "Population & Housing Census 2022." *Population & Housing Census 2022 - Gaborone*, www.statsbots.org.bw/sites/default/files/publications/Population%20%26%20Housing%20Census%202022-%20Population%20of%20Cities%2C%20Towns%2C%20Villages%20%26%20Associated%20Localities.pdf.

2.6 Participatory Design

The project's primary implementation coordinator is KRC which has been operating in the Kalahari area since 2009. KRC was founded in 2009 by Dr. Glyn Maude, and in 2013, Dr. Moses Selebatso joined to do his PhD on Kalahari Wildebeest and is now a KRC Director. KRC was founded to work consistently on Wildlife Research in the Central and Southern Kalahari to ensure management of the ecosystem in the face of climate and land-use change. Project interventions detailed in Table 1 Section 1.2 were developed and are planned to be further implemented with the possible additional resources provided by the project over 12 years of research conducted by the KRC team, which includes a total staff based in Hukuntsi of 23 full-time employees. KRC has been a strong driver of local employment, job creation, student research and conservation. The organisation has long-term experience in working effectively with the Botswana DWNPs, local communities and other stakeholders. KRC employees are primarily Bakagalagadi and Basarwa.

There have also been several students who have worked with KRC and have made significant contributions in subjects such as ecology, wildlife conservation, environmental science, natural resource management, and more. The students are almost entirely from Botswana. There have been seven men and four women who have completed undergraduate and graduate university degrees under KRC.

The community officers report any poaching incidents, relevant community affairs, and coordinate communication with the local government ministries to ensure consistent communication between all parties. Project planning (from a methodological perspective involving sampling plans, data collection, etc.) is determined by KRC and Gazelle, with approval by the community as the co-coordinators of the project. All project design decisions involve both parties and are then brought to the community for further consultation. KRC primarily manages on-the-ground implementation, enforcement, and community liaisons. Both KRC and Gazelle are open and willing to adapt the project to the needs and wants of the community.

The community officers from the local community (Zutshwa) report any poaching incidents, relevant community affairs, and coordinate communication with the local government ministries to ensure consistent communication between all parties. Project planning (from a methodological perspective involving sampling plans, data collection, etc.) is determined by KRC and the community. All project design decisions involve all parties and are brought to the community for consultation. KRC primarily manages on-the-ground implementation, enforcement, and community records given its long-term community relations. Gazelle Ecosolutions is the technical partner involved in processing survey data, writing project documents, and managing external relations. All parties involved strive to promote diversity.

When it comes to the technical implementation of ecological monitoring activities—such as the placement of camera traps, deployment of AudioMoths, and development of sampling plans (which will be handled also by the Plan Vivo-approved third-party data service provider ensure data management)—design decisions have been led by the KRC and Gazelle teams. This is due to KRC's longstanding field presence, deep ecological knowledge of the KD1 and KD2 regions, and decades of wildlife monitoring experience, including recognized expertise in spoor surveys, predator-prey tracking, and habitat use assessments. Gazelle's role in the technical design complements this with capabilities in remote sensing, GIS, and ecological data processing.

However, on the community participation facet of the project, KRC takes the lead in ensuring that participatory processes are not only followed, but meaningfully embedded. KRC has worked with the

Zutshwa community and other surrounding villages for multiple years, having built trusted relationships through consistent engagement, employment opportunities, and collaborative conservation efforts. This trust has enabled KRC to facilitate inclusive dialogue and feedback loops that shape how the project operates on the ground.

To ensure meaningful community participation, particularly in benefit-sharing and project governance, the project will go beyond traditional consultation and implement a structured, participatory approach aligned with PV Nature. While KRC and Gazelle coordinate the technical components—such as data collection frameworks and ecological monitoring protocols, critical decisions around benefit-sharing, land-use planning, monitoring roles, and local enforcement structures will be co-developed with affected communities from the outset.

Community input has directly shaped the design and expected adaptation of several key components of the project, including the planned benefit sharing mechanism and implementation of interventions. For example, during consultations facilitated by KRC with the Zutshwa Trust and Village Development Committee, participants emphasized the need for equitable access to employment and recognition of women's roles in conservation. In response, the project ensured that women are employed at the KD2 gate, and that community members are prioritized for roles such as eco-rangers and camera trap monitors.

This process will include representative forums at the village and community-wide assemblies facilitated by KRC's trained outreach officers. Special attention will be given to ensuring that marginalized voices—particularly those of women, youth, and less formally represented user groups—are actively included. KRC's officers, who already serve as liaisons for reporting poaching incidents and coordinating with government ministries, will support this participatory structure. In situations where difficult trade-offs arise, such as between conservation area designations and grazing access, KRC will facilitate transparent and culturally appropriate deliberations to guide collective decision-making.

2.7 FPIC Process

KRC's approach to all its projects is that they must be a genuine expression of need for the project outcomes and participation from the local community. This will be the same approach for the KBC project. The initiation of a proposed project starts with open forums about what is needed in the community, both formal and informal, aimed at understanding where there is a need and if there is a desire to improve existing conditions. Once a project is approved and ready to be implemented, the community plays an active part in decision-making with policies that may affect their lands, territories, and resources. KRC consults with the community over KRC's involvement within the community and community roles, decision-making, and project implementation. The work done involves the Village Development Committee (VDC), the Trust and the leaders within the communities. Dr. Moses Selebatso of KRC is in an active leadership role for community engagement efforts and works with the community to better understand what is needed. Dialogue is maintained involving everyone in the decision-making process and continuing ongoing consent. This ensures the rights of the community are protected and projects that have genuine community consent are more likely to succeed as they are supported by everyone. When a new project is implemented, KRC tracks how the community responds to the project implementation and if it is effective, then they continue with that or change as needed.

Village councils and individuals are free to decide whether to join the project, making the community involvement completely voluntary. The idea behind this is that they choose to participate, creating a sense of ownership and purpose for the project.

Community meetings are held to maintain communication and clarity between KRC and the involved community. The meetings held by KRC started in 2019 and are held on average every two months.

In order to maintain all parties involved informed, KRC is extremely transparent with the VDC, the local Trust in Zuthswa and Ngwalte, councils and community members regarding project design implementation, maps, timelines and actions before going through with a project.

In terms of voluntary consent, agreements are signed when the project participants voluntarily join after receiving all the necessary information from KRC, VDC, and the Trust to decide. Anybody who wants to join the project can participate and attend open discussion meetings with the community, trust, staff, and anyone else interested. These meetings also involve engagements with workshop training and support for the other stakeholders within the villages, including the VDC, the Trust and the leaders within the communities. This inclusive process has directly shaped the design of previous projects. For example, concerns raised during early meetings led to the adoption of a flexible grazing buffer zone and the prioritization of local employment in patrol and gatekeeper roles. The interventions themselves—such as community-led patrols, gate access monitoring by women, and meat deliveries to reduce poaching incentives—reflect needs and solutions proposed by community members. Therefore, this project will not be implemented for the community, but rather with the community, using iterative consultation to ensure cultural appropriateness and relevance. Inclusivity will be ensured through proactive outreach strategies: meetings are held in Setswana, at accessible venues and times, and efforts are made to reach those who may be socially or economically marginalized. Women and youth are specifically encouraged to attend, and their feedback is tracked and addressed in follow-up consultations. Importantly, the project structure allows for ongoing entry—individuals or groups who initially opt out may join later under the same voluntary, informed conditions. This openness reinforces the project's long-term sustainability by embedding trust, transparency, and community ownership into its foundation.

The KBC project aims to follow the same community protocol and principles that KRC practices given their track record within the community. What this means is that all the principles talked about in the paragraph above have been continually practiced and will continue to occur between the community of Zutshwa and other communities in which KRC operates with. There is continual feedback and integration between the community and KRC that increases trust and employment possibilities.

3 Project Design

3.1 Biodiversity Baseline

The project area, defined as the 21,000-ha conservation area including the pilot area, is located within the WMA KD2. At the time of the project's start, the area has been under constant threat of poaching and livestock encroachment. Any area nearby the villages lacks a variety of species and oftentimes appears overgrazed by cattle that have entered the boundaries. Measures taken by KRC positively impact the ecological processes that are under threat in the project area referred to in Table 7. This includes livestock encroachment, soil damage and erosion, wind erosion, damage to plant succession, desertification, overgrazing, shrub encroachment, fire, poaching, habitat conversion, and installation of fences. Currently, all these factors are threats to KD2, and under the

baseline scenario, the multimetric biodiversity pillars set by Plan Vivo will be calculated to better understand how the conservation interventions are positively influencing the ecosystem.

These threats are well-documented in ecological literature for the Kalahari region. Studies have shown that livestock grazing near settlements and boreholes contributes to the formation of "piospheres," degraded zones characterized by the replacement of perennial grasses with unpalatable woody shrubs such as *Acacia mellifera* and *Dichrostachys cinerea*, as well as increases in bare ground and wind erosion (Dougill et al., 1999[4]; Moleele et al., 2002[5]; Skarpe, 1990[6]). These shifts degrade ecosystem function and reduce rangeland productivity, a process further exacerbated during drought years. Overgrazing in these areas has also been linked to a measurable decline in plant species richness and soil organic matter, driving desertification and undermining wildlife habitat quality (Reed et al., 2008[7]; Thomas & Twyman, 2004[8]).

Additionally, fencing and boundary infrastructure even where intended to be “wildlife-friendly”—have been found to significantly restrict the movement of large herbivores and carnivores, particularly along key migratory and dispersal corridors within the Kalahari ecosystem (Mbaiwa & Mbaiwa, 2006; Keeping et al., 2023). These barriers fragment habitat and reduce the functional connectivity essential for sustaining viable wildlife populations.

Under the KBC project, there will be improved conservation methods for the designated wildlife areas. Species will also be protected from poaching, increasing the abundance of individuals within the project area. Each species, from plants to predators, plays a specific role in maintaining ecological balance. If the project area is not managed correctly, there will be an encroachment of livestock, leading to shrub encroachment and desertification. There would also be an increase in the number of humans in the wildlife area. Under successful conservation measures, the number of predators and prey will be appropriate for the region. The baseline scenario underscores the urgent need for integrated conservation efforts to address the threats to the project area.

To monitor progress, the project will utilize remote sensing (e.g., NDVI trends), periodic spoor and vegetation surveys, and camera trap data to assess spatial changes in grazing pressure, vegetation health, and wildlife activity. This integrated evidence base combined with participatory ground-level reporting by community scouts will ensure that conservation efforts are continuously informed and adjusted based on measurable ecological outcomes.[9]

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[4] Dougill, A. J., Heathwaite, A. L., & Thomas, D. S. G. (1999). Environmental change in the Kalahari: Integrated land degradation studies for non-equilibrium dryland environments. *Annals of Arid Zone*, **38**, 543–566.

[5] Moleele, N. M., Ringrose, S., Matheson, W., & Vanderpost, C. (2002). More woody plants? The status of bush encroachment in Botswana’s grazing areas. *Journal of Environmental Management*, **64**(1), 3–11.

[6] Skarpe, C. (1990). Structure of the woody vegetation in disturbed and undisturbed arid savanna, Botswana. *Vegetatio*, **87**, 11–18.

[7] Reed, M. S., Dougill, A. J., & Baker, T. R. (2008). Participatory indicator development: what can ecologists and local communities learn from each other? *Ecological Applications*, **18**(5), 1253–1269.

[8] Thomas, D. S. G., & Twyman, C. (2004). Good or bad rangeland? Hybrid knowledge, science, and local understandings of vegetation dynamics in the Kalahari. *Land Degradation & Development*, **15**(3), 215–231.

[9] Mbaiwa, J. E., & Mbaiwa, O. I. (2006). The effects of veterinary fences on wildlife populations in the Okavango Delta, Botswana. *International Journal of Wilderness*, **12**(3), 17–24.
Keeping, D., Maude, G., & Selebatso, M. (2023). Spatial barriers and biodiversity risk: Lion and herbivore movement in the southern Kalahari. *African Journal of Ecology*. https://doi.org/10.1111/aje.13105

3.2 Socioeconomic Baseline

The livelihood baseline provides a comprehensive understanding of socio-economic conditions of the local communities within the project area. Key aspects include:

Agricultural Practices: Most livestock farmers are communal grazers, meaning their livestock are allowed to graze on land that is open access to all members of the community. Farmers near Zuthswa can engage in CPP activities that benefit them through engaging in responsible management practices. Livestock rearing provides a source of food, income, and cultural value. However, overgrazing contributes to land degradation, and livestock are vulnerable to diseases and wildlife predation.

Non-agricultural Income and Employment: The governmental service sector is one of the largest employers in the community, mainly employing non-community members as teachers, nurses, police and other government officials. Other non-livestock employment opportunities include a community-operated salt production operation, currently consisting of 44 operational salt ponds. Currently, the operation is not generating sufficient profit to sustain the business. Additional income opportunities are provided by KRC itself, boosting limited employment opportunities within the community.

Access to Infrastructure and Services: While basic government services, such as primary schooling, a health point and a police station are available in Zuthswa, access to the village itself is provided by a gravel road often in desolate condition. This circumstance makes access to and from the village difficult. Public transport is not available, restricting most residents to motorised transport using the rudimentary, privately operated taxi services or hitching a ride (commonly charged at the same rate as other alternative services). Some residents use donkey carts to travel the 51 km to the nearest larger village of Hukuntsi.

Drinking water is provided by the government through an existing but unreliable pipeline system. In the common event of pipeline failure, water is provided by the government by truck delivery (further straining the road conditions). Electricity is available to government facilities within Zuthswa, but connectivity of single households is very rare. Communal (cell phone) charging points are available, e.g. at the Kgotla facility (the central meeting point of the community, also the location of the Chief's office).

Cell phone services are available through the major Botswana providers, Mascom, Orange, B-mobile and BTC. This recent development provides relatively reliable internet connectivity to the residents of Zuthswa with all its potential pros and cons.

While government facilities do operate decentralized sanitation facilities, such as sewerage treatment plants, such facilities are almost non-existent on a household level.

Zuthswa residents have limited access to grocery shopping (or any shopping for that matter). Shopping facilities are limited to a community-operated but severely understocked and overpriced shop selling canned fish, flour, sweets, and other basics. Private stalls, so-called tuck shops, provide the same goods. Overall, access to purchasable food is extremely restricted, forcing residents to either travel to Hukuntsi (see comments on road conditions and pricing) or to rely on alternative food sources, such as livestock, plant-based natural resources, e.g. seasonally available berries or poached meat and others. This limited food accessibility is one of the main drivers for poaching in the region.

Recently, KRC has founded the Zuthswa Youth Rugby Club and installed a pitch and provides regular training. Currently, it is the only opportunity for the youth to engage in organised extracurricular activities. KRC not only conducts training but also organises competition-related travel, fundraising, etc.

The livelihood baseline highlights the interconnectedness of environmental and socio-economic challenges faced by the communities. With project interventions, some of these conflicts can be mitigated. For example, the KRC team is working on bringing more food to the community, and with more resources, this can be scaled up and the livelihoods of the people in the village of Zuthswa can be improved. This is one way the KBC project can help communities as well as the environment.

3.3 Environmental Baseline

The environmental baseline provides an analysis of ecosystem services that are expected to change or be preserved under the baseline scenario.

Biodiversity: The project area is very rich in different species of plants, animals, and birds. Degradation in agricultural expansion, overgrazing, and poaching have a profound impact on the number and distribution of species. Conservation of habitats preserves species richness and diversity. Key large mammals include the Kalahari lion (*Panthera leo*), African wild dog (*Lycaon pictus*), leopard (*Panthera pardus*), and herbivores such as gemsbok (*Oryx gazella*), eland (*Taurotragus oryx*), springbok (*Antidorcas marsupialis*), and kudu (*Tragelaphus strepsiceros*). The region is also home to globally threatened raptors including the white-backed vulture (*Gyps africanus*) and bateleur eagle (*Terathopius ecaudatus*), both listed as Endangered on the IUCN Red List.

Flora includes drought-adapted grasses such as *Stipagrostis uniplumis* and *Aristida meridionalis*, along with woody species like *Acacia erioloba* and *Terminalia sericea*, which are critical for forage, nesting, and shade.

However, pressures from overgrazing by livestock lead to the decline of palatable perennial grasses, which are replaced by unpalatable or invasive shrubs such as *Dichrostachys cinerea*. This shift reduces herbivore forage availability and accelerates desertification. Poaching has targeted large mammals like kudu, eland, and lion—disrupting predator-prey dynamics and depleting key functional species. Ground-nesting birds, such as the northern black korhaan (*Afrotis afraoides*), are particularly vulnerable to disturbance from human and livestock movement.

Habitat and land use: Environmental degradation leads to land use change and has long-term impacts on the environment. Habitat conversion would occur with the presence of livestock, which has profound impacts on ecological services. Conservation is necessary to keep the habitat and land use as it should be functioning without disturbance.

Soil quality: Conservation of the project area is important for maintaining soil quality and preventing long-term damage from overgrazing and harmful agricultural processes. Kalahari soils are extremely infertile and contain small amounts of organic matter, giving them low resilience to degradation. To maintain soil fertility, important soil microbes, vegetation cover, and protection of the soil is necessary.

Erosion control: Livestock encroachment also increases wind and soil erosion due to disturbance of soil and vegetation cover. When vegetation cover is less than 40%, aeolian transport increases dramatically. By preventing cattle from entering wildlife habitats, the vegetation will only be affected by wildlife, preventing further damage.

Human Impact: All ecological disturbances mentioned are accelerated by human activities. Agriculture, resource extraction, poaching, etc., impact biodiversity and cause habitat alteration. With better education about ecology and the impacts of poaching, people can better understand how to reduce their impact and engage in more environmentally conscious activities such as building buffer zones, maintaining wildlife corridors, improving herding practices, anti-poaching, and more.

Vegetation health: Vegetation in the project area could change without proper management of livestock, and keeping them out of the project area is key to maintaining vegetation health. It prevents plants from shifting from herbaceous to woody plant species.

Without the project interventions, these conditions continue to deteriorate, leading to increased environmental degradation, human-wildlife conflict, and poverty. The ecosystems in the Kalahari are critical in mitigating the effects of climate change, especially in the arid Kalahari, where water scarcity and desertification are significant threats.

3.4 Project Logic

Table 2 Initial Project Logic

	Description	**Assumptions/Risks**
Outcomes – Intended overall project aim		
Biodiversity Benefit	The primary biodiversity benefit of the project is the preservation of critical wildlife corridors, maintaining the movement routes for African wild dogs, vultures, and other migratory species. As well as protecting Kalahari Lions. Reducing human-wildlife conflict will decrease loss of animals through poaching and maintain species populations of animals, including kudu, springbok, leopard, lions, eland, gemsbok, vultures, guineafowl, and others.	**Assumptions:** Patrolling will decrease poaching in the project area and keep livestock out. Perimeter checks will keep livestock out of the WMA. **Risks:** With increased patrols, there may be a risk of tension between communities and poachers. Especially among those who poach for monetary gain. Poachers could still access the park where patrolling isn't happening.
Socioeconomic Benefit	By actively involving community members in conservation efforts, the KBC project will foster local ownership over natural resources and strengthens environmental awareness at the household and village levels. Through participation in biodiversity monitoring, patrols, land-use planning, and educational workshops, individuals gain valuable skills in ecological management, wildlife tracking, and data collection	**Assumptions** 1. **Strong Community Engagement:** It is assumed that the Zutshwa community and participating stakeholders will remain motivated and engaged throughout the project duration. This includes

	skills that are transferable beyond the scope of the project. The project also strengthens community governance through the involvement of the Zutshwa Trust and VDC in project design, feedback, and monitoring. This inclusive, community-led approach enhances local decision-making capacity and builds trust between community members and conservation stakeholders. A particular emphasis has been placed on promoting gender equity by ensuring that women participate meaningfully in the project. For example, the gate to KD2 is fully staffed by women from the Zutshwa community. This representation not only provides women with new roles in community-based natural resource management but also shifts local norms regarding women's visibility and leadership in traditionally male-dominated domains. Over time, conservation efforts are expected to generate sustained non-monetary benefits such as improved rangeland health, reduced human-wildlife conflict, and increased resilience to climate-related shocks (e.g., drought-induced livestock losses). The conservation of KD2 as a functional ecosystem also preserves future opportunities for nature-based enterprises such as ecotourism, sustainable harvesting, and cultural exchange, which can diversify livelihoods and reduce reliance on subsistence activities that degrade biodiversity. A key focus for KRC now is working with the communities to implement a community "Conservation	sustained participation in monitoring activities, conservation meetings, and adherence to agreed-upon land-use rules. The underlying assumption is that the perceived benefits of the project (e.g., enhanced governance, ecological stability, knowledge-sharing, and cultural value) will outweigh the opportunity costs associated with reducing poaching or limiting livestock grazing. 2. **Local Institutions Sustain Governance Roles:** The project assumes that local institutions specifically the Zutshwa Trust and VDC are sufficiently functional and trusted to mediate project-related decisions. It also assumes that these bodies will remain representative and inclusive of women, youth, and marginalized households, thereby ensuring the legitimacy and equity of project outcomes. 3. **Conservation Improves Local Ecological Resources:**

	Performance Payment (CPP)" project. This CPP project has been set up to address the issue of the WMAs of KD1 and KD2, being compromised by a recent upsurge of livestock encroachment and an increase in the poaching of wildlife. The COVID-19 pandemic temporarily removed all incomes for the communities that they previously obtained via ecotourism and legal trophy hunting. This has resulted in community members diverting to livestock farming and illegal hunting of wildlife for income. KRC's objective is to substantially decrease livestock encroachment and poaching in KD1 and KD2. Livestock and other farming in this arid region with low-quality grazing and limited water are not sustainable activities that will generate relevant incomes. The CPP project will provide significant direct financial payments into communities as a reward for their responsible management of livestock that does not encroach into wildlife areas, as well as evidence of decreased poaching. The better the communities achieve this, the higher their payments will be. Direct payments will also be paid based on the numbers of large carnivores photographed on camera traps set up near the villages. Direct payments will also be paid based on the numbers of large carnivores photographed on camera traps set up near the villages. Community members will also receive income through employment as livestock herders/monitors, anti-poaching eco-rangers and assisting with camera trap deployments.	A foundational assumption is that conservation interventions (e.g., buffer enforcement, poaching reduction, vegetation recovery) will result in tangible improvements in ecosystem health. This includes improved rangeland quality, stabilized predator-prey dynamics, and enhanced soil cover. These outcomes are expected to increase resilience for livelihoods dependent on natural resources, such as livestock herding and foraging. 4. **Increased Skills and Awareness Lead to Empowerment:** It is assumed that through capacity-building workshops and involvement in fieldwork (e.g., spoor surveys, gatekeeping, camera trap monitoring), participants will gain knowledge and skills that can empower them to make informed ecological decisions and even pursue other income-generating opportunities (e.g., eco-tourism, wildlife tracking).

		5. **Cultural Values Align with Long-Term Conservation:** The project assumes that traditional cultural values of the Bakgalagadi and Basarwa (San) communities such as respect for wildlife and ancestral territories can be reactivated and integrated into conservation practices, reinforcing project goals through a culturally grounded narrative. **Risks** 1. **Disengagement Due to Delayed or Unequal Benefits** If conservation outcomes or tangible benefits (e.g., improved grazing conditions or conservation performance payments) are delayed, or perceived to be unfairly distributed, community motivation may decline. This is especially relevant in cases where poaching or overgrazing previously provided short-term subsistence or income. However this is where financial additionality comes in,

		where opportunities would pop up for the locals to participate and benefit from something like the CPP, to not have to revert. 2. **Elite Capture and Exclusion of Marginal Groups** There is a risk that local elites, such as traditional leaders or politically connected households, may disproportionately influence project decisions or access benefits, leading to exclusion of women, youth, or low-income herders. This could undermine community trust and cause project fragmentation or resistance. However we believe that the grievance process set up and the trust in KRC from the community should counteract this. The participatory design process includes representation from women's groups, youth clubs, and conservation clubs, ensuring diverse voices are included. Project agreements are also reviewed and signed through the Zutshwa Trust and VDC, both of which have institutionalized

		procedures to promote inclusive decision-making. 3. **Economic Pressures Undermine Conservation Compliance** External shocks such as inflation, livestock disease outbreaks, or poor rainfall years may pressure households to revert to unsustainable practices (e.g., illegal hunting, encroachment into the WMA) as happened in the carbon project in Kenya. Without a strong safety net or economic alternatives, conservation behaviors may not be sustained. However, the project incorporates complementary strategies to address these vulnerabilities, such as subsidized meat deliveries to reduce bushmeat reliance and potential diversification into tourism-related livelihoods over time. Additional support from training workshops on sustainable herding practices will also help buffer shocks.

		4. **Institutional Fatigue or Turnover** Over time, frequent changes in leadership within the Trust, VDC, or partner institutions (e.g., KRC field staff) may disrupt continuity, institutional memory, and community relationships. This could reduce capacity for decision-making, coordination, and conflict resolution. However, the project promotes the documentation of community decisions, patrol logs, monitoring outcomes, and feedback sessions. This institutional memory, combined with capacity-building across a wider base of community representatives (not just leaders), helps ensure that knowledge is retained and transferable across leadership cycles. 5. **Unrealistic Expectations of Ecotourism or Future Revenues** If expectations for ecotourism, certificate sales, or other long-term revenue streams are not carefully managed, disappointment could

		lead to disengagement or opposition. There is also a risk that speculative expectations could crowd out more modest, achievable conservation incentives. However, the project team has committed to setting realistic timelines and expectations through regular community meetings and transparent financial reporting. All speculative income streams are presented as long-term possibilities rather than guaranteed benefits, with early-stage efforts focused on tangible ecological and livelihood improvements. 6. **Intra-Community Conflicts and Historical Grievances** In multi-ethnic or clan-based contexts like Zutshwa, unresolved historical land claims or political tensions may resurface during benefit sharing or land-use planning processes. Without transparent grievance mechanisms, these conflicts could stall implementation. However, the project has a functioning

		Grievance Redress Mechanism (GRM) in place, coordinated through the VDC and KRC's community outreach team. This GRM is accessible to all residents, promotes restorative dialogue, and is actively used to mediate disputes as they arise. Meetings are held in local languages to ensure accessibility and full community participation.
Environmental Benefit	The project contributes to the preservation of key ecosystem services including biodiversity, vegetation health, soil quality and water regulation. The Kalahari holds one of Africa's remaining wildernesses and strongholds for wildlife. Current conservation efforts in the Kalahari contribute to international biodiversity that helps mitigate climate change, prevent further species extinction, and habitat loss.	**Assumptions:** Conserving the natural environment can promote sustainable development that balances economic growth with environmental preservation. This ensures long-term benefits for both the environment and its people, supporting a holistic approach to development. **Risks:** It is necessary to have the entire community engaged in conservation and having communal understandings of what is best for the environment is key. Full community engagement is key because the success of ecological restoration and conservation in KD2 depends on collective action and shared stewardship of the land. Environmental threats like overgrazing, poaching, and fire are not isolated behaviors they are cumulative and often perpetuated by a

		few individuals acting outside the agreed-upon conservation framework. In such a tightly interconnected social-ecological system, even limited non-compliance can undermine months of restoration progress, disrupt wildlife movement, or reintroduce degradation into recovering habitats. When the entire community is aligned around conservation goals, it becomes socially and culturally reinforced, making rule-breaking less acceptable and easier to detect. Furthermore, inclusive participation ensures that conservation strategies reflect local knowledge, are more likely to be embraced, and are better adapted to the realities of pastoral life in the Kalahari. Without broad engagement, ecological interventions risk becoming externally imposed and unsustainable in the long term.
Outputs		
Output 1	Creating community conservation groups for both children and adults. KRC has been engaging with children in environmental education as well as creating an Adult Conservation Group. There are currently adult conservation groups in both Zutshwa and Ngwatle communities, and they have around 40 members each and are growing. KRC supports the groups by organizing presentations once a month, overnight bush trips and other activities, some of which provide knowledge and incomes for them. Other community work	**Risks:** Community members may be resistant to change and not willing to engage in educational programs. **Mitigation:** To address these risks, KRC will be collaborating closely with the community to understand their needs. Nobody in the community is obligated to participate and adjustments to the program are made where necessary.

	involves workshop training and support for the other stakeholders within the villages, including the VDC, the Trust and the leaders within the communities.	
Output 2	Community engagement in decision making processes will be done to ensure the actions of the KBC project are aligned with community needs as well as conservation. Also, addressing how conservation can increase socioeconomic status and efforts of the KBC project are intended to improve individual livelihoods. Community members will actively participate in project planning, implementation, and adaptive management through structured forums such as VDC meetings, Trust consultations, and KRC-led workshops. Local employment opportunities tied to conservation, such as eco-ranger patrols, camera trap monitoring, and entrance gate staffing, are designed not only to protect biodiversity but also to generate direct income and build skills within the community. In particular, roles for women and youth are being prioritized to ensure inclusive benefit-sharing and promote equity. By linking environmental outcomes to tangible livelihood improvements, the project aims to foster long-term local stewardship, reduce pressures like poaching and overgrazing, and ensure that conservation directly contributes to community resilience and well-being. The CPP project works to address WMAs being compromised by a recent upsurge of livestock encroachment and an increase in poaching of wildlife. The community can engage in activities such as setting up camera traps near the villages, being livestock herders	**Risks:** Community members may not respond well to advice. Lack of technical literacy among community members could hinder the effective use of mobile technology and the digital tools used (AudioMoths, camera traps, cameras). **Mitigation:** KRC has a proven track record with the communities and maintains good relationships with many authorities/non-authorities. KRC has a proven track record with the communities and maintains good relationships with many authorities and non-authoritative actors across the Kalahari region. Over more than a decade of continuous presence, KRC has built strong social capital through consistent community engagement, transparent communication, and respect for traditional leadership structures, such as the Kgosi and the VDCs. This trust has been reinforced through participatory research initiatives, employment opportunities for local residents, and direct benefits such as access to meat distribution, educational programming, and youth development activities. KRC's embeddedness within the social fabric of Zutshwa and surrounding villages allows it

	and anti-poaching eco-rangers, and assisting with camera trap deployments.	to identify emerging concerns early, respond with culturally appropriate solutions, and adjust interventions in collaboration with the community. These long-standing relationships significantly reduce the risk of disengagement or resistance and support the continued alignment of conservation efforts with community priorities. The project will conduct thorough training and ongoing technical support to ensure community members understand and feel comfortable using the technology.
Output 3	The gate access control system operated by women from the local community. Women are employed at the KD2 gate to monitor access, collect visitor data, and prevent unauthorized entry, particularly by poachers or off-route tourists. The gate acts as a key point of control and local empowerment.	Risks: Gate protocols may be inconsistently applied or bypassed during low-staff periods. Mitigation: Additional staff are trained as backups, and gate logs are reviewed monthly. Communication with patrol teams allows for coordinated response to suspicious activity.
Output 4	Overstocking and uncontrolled livestock movement in KD2 WMA have led to significant overgrazing, resulting in vegetation loss, exposed soils, wind erosion, and a shift toward bush encroachment. To address these issues, the KBC project supports the enforcement of a 10 km grazing buffer zone around Zutshwa village, where cattle are allowed to graze but are excluded from sensitive wildlife habitat further afield. Community members will act as livestock monitors to track herd	Risks: Herders may be reluctant to change long-standing grazing practices or lack sufficient pasture within the 10 km zone during dry periods. Mitigation: KRC works with the Zutshwa Trust and VDC to communicate the purpose and ecological importance of the buffer zone. Livestock monitors are recruited locally to facilitate culturally appropriate enforcement. The project builds on KRC's

	movements and engage with herders when cattle breach the designated boundary. These monitors collect data and support compliance through community dialogue and education. The buffer zone strategy is based on a Memorandum of Understanding (MoU) between KRC and the Zutshwa Trust and aligns with the broader CPP framework that incentivizes proper livestock management.	existing relationships and CPP pilot experience, and may expand incentive structures over time to reinforce compliance.
Output 5	Poaching remains a major threat to biodiversity in KD2, driven by poverty, lack of food access, and illegal trade in wildlife. The KBC project employs trained members of the Zutshwa community to patrol the project area by horseback and vehicle. These patrols are designed to show presence, report irregularities, and monitor poaching activity. Patrols also help enforce grazing boundaries and reduce unauthorized access for recreational or extractive purposes. To address the root causes of poaching, KRC organizes community education sessions and offers alternative food sources. Notably, it facilitates access to fresh meat from Hukuntsi—65 km away—as a substitute for bushmeat, which is often obtained through illegal hunting.	Risks: Patrol coverage may be insufficient to deter all illegal activity, especially in remote areas. Community members may continue to poach if food insecurity is not addressed. Patrol fatigue or insufficient coverage could reduce deterrence effectiveness. Mitigation: Patrol zones are actively managed, and additional community members are recruited and trained where needed. KRC continues its meat distribution program to reduce subsistence hunting. Community education and camera trap data are used to reinforce awareness of wildlife presence and promote pride and stewardship. Patrol zones are rotated, and additional staff are recruited as needed. Performance-based incentives and rotating shifts help maintain motivation and coverage.
Output 6	Fire is a natural part of the Kalahari ecosystem, but traditional practices have often resulted in burns at ecologically inappropriate times, exacerbating degradation rather than supporting regeneration. In	Risks: Uncontrolled or poorly timed fires may continue to be used by community members or started unintentionally by poachers.

	addition, poachers entering the WMA sometimes start fires that are not properly extinguished, increasing the risk of widespread damage. Improperly timed fires reduce vegetation cover, accelerate erosion, and harm regrowth cycles. The KBC project works to mitigate these impacts by preventing poacher entry through patrols and supporting fire awareness education. While not currently implementing a prescribed burning program, KRC addresses the risks of unmanaged fire through its community presence and conservation activities.	Mitigation: By maintaining patrol coverage and reducing unauthorized entry, the project lowers the likelihood of fire outbreaks caused by poachers. Community education is already part of KRC's conservation programming which includes information about the ecological impacts of fire. Ongoing engagement helps build understanding of sustainable fire use.

3.5 Proposed Biodiversity Monitoring

Table 5 Prospective Biodiversity Monitoring

Selected Biodiversity Monitoring Tool	**Target Groups(s) the Biodiversity Monitoring Tool will target**	**Reason why this tool has been selected**	**Monitoring activities. Detail project specific considerations for monitoring this target group.**
Required Target Groups			
Acoustic recorders and point counts	Birds	Point counts are taking tallies of all birds detected by sight and sound by a single observer located at a fixed position during a specific period. The advantages of using point count are that they are a standardized and widely used method that provides consistent results. Also, acoustic monitoring can be utilized to determine what bird	Several species of critically endangered or endangered raptors occur in the project area, including white-backed and white-headed vultures and bateleur eagles. We will need to consider the time and resources needed to make population counts. The more data that comes in, the easier it is to track patterns and similarities. Also, it will be important to

		species are around based off their calls.	find an acoustic monitoring system that is sufficient for the Kalahari Desert ecosystem. It is a generally under-studied area therefore, finding an accurate system will be necessary for accuracy.
High Resolution Imagery (Camera)	Plants (herbaceous and woody plants <2m in height)	Use of smartphones or DSLR cameras to monitor plants in the area.	Fires are more common starting mid-august. There are also vegetation shifts during the wet and the dry seasons. These shifts are largely influenced by rainfall patterns and temperature changes. Grasses are typically more abundant in the rainy season, possibly covering up small herbaceous and woody plants. In the dry season, there is less abundant grass causing animals to migrate. These factors will be considered during vegetation monitoring.
Additional Recommended Target Groups			

Camera Traps, spoor surveys and aerial surveys	Large Mammals	Camera traps are non-invasive, provide continuous monitoring, and add to long-term data collection. Spoor surveys are cost-effective, allow broad coverage, detect elusive species, and give behavioural insights. Lastly, the benefits of aerial surveys are that they provide large- scale coverage, are very efficient, and can be used for monitoring poaching activities.	Camera traps must be strategically placed based on the behaviour of target species. There needs to be a minimum human disturbance, and the coverage area should avoid large gaps. There are also considerations when it comes to battery life and staff to monitor the cameras. Spoor surveys require training for identification and weather and terrain can affect the feasibility of this method. Lastly, aerial surveys are effective but need to consider observer bias, environmental conditions, and habitat type.
High Resolution Imagery (Camera)	Plants (herbaceous and woody plants >2m in height) Use remote sensing to enable the precise mapping of land parcels, crop types, vegetation health, soil moisture, etc. Can use it to identify individual trees.	Use remote sensing to enable the precise mapping of land parcels, crop types, vegetation health, soil moisture, etc. It can be used to identify individual trees and shrubs. ArcGIS Pro, Google Earth Engine, MODIS imagery, and Landsat data will also be utilized.	We will need to consider the effects of the dry and wet seasons on vegetation. Botswana's vegetation undergoes a cycle of growth during the wet season and dormancy during the dry season with visible changes in plants.

3.6 Additionality[10]

Table 6 Initial Barrier Analysis

Project Intervention	**Main Barriers**	**Activities to Overcome Barriers**

[10] See Baseline Scenario and Additionality Assessment Tool

Reducing poaching through increased area patrolling and food subsidies: Unchecked poaching is one of the largest risks to biodiversity in the KD2 area. Not only is the activity illegal, but it also creates serious risks for wildlife populations. However, enforcing the law is not the long-term solution since local socioeconomic needs are the underlying cause.	**Economic Barriers:** People in the communities lack the financial resources to afford meat and resort to poaching for sustenance. **Social Barriers:** Poaching is oftentimes ingrained in communities' culture and there may be resistance to adopting new methods. **Environmental Barriers:** Previous poaching activities might have already reduced wildlife populations, pushing people to hunt more. Also, poachers can increase the fire risk in the area if they do not adhere to the rules.	To mitigate for the unchecked poaching this, KRC will only hire vetted, trusted, and reliable community members who have stopped poaching in the past. This will send a powerful signal (especially considering this is a small, tight-knit community of 500 people) and intends to make an impact. It will also demonstrate a strict adherence with the law, conservation practices, and sets the standard for coexisting with wildlife and respecting them. KBC will bring more resources to the community for education and involvement in the negative effects of poaching. Another possible outcome of this project could be an increase in meat for the local community which reduces the need to poach.
Reducing cattle and livestock encroachment through patrols: Reducing the intentional/unintentional movement of livestock to prevent ecological damage to the ecosystem	**Economic Barriers:** Requires investment in fencing, monitoring, and enforcement, which can be costly for the local community. **Social Barriers:** In Botswana, the amount of cattle is sometimes an individual's only asset. Restricting their practices could lead to tension between livestock owners and individuals intervening. **Environmental Barriers:** A lack of suitable grazing options for cattle.	Community members will be trained as patrol scouts. These scouts monitor the 10 km buffer between the allocated 20 km radius and enforced 10 km radius for livestock grazing around the village. Project activities will be designed reduce the tension between livestock owners and intervention and could include integrating the CPP program. This would bring financial incentives to cattle owners that engage in better management practices.

Controlling unauthorized access through gate monitoring by women staff: Unauthorized entry into KD2 is a direct driver of poaching and habitat disturbance.	**Social Barriers:** Gender roles may affect women's participation in formal employment; gatekeeping roles may be seen as non-traditional. **Institutional Barriers:** Lack of consistent enforcement at access points enables illegal access.	Women from the local community are trained and employed to monitor entry at the KD2 gate, ensuring that visitors pay and adhere to regulations. This discourages poachers and boosts gender inclusion. Employment opportunities for women also improve household income diversification and empower marginalized groups.

Table 7 Threat Analysis

Major threat to biodiversity	**Main Barriers**	**Activities to mitigate threat**
Overstocking of livestock	i. Overgrazing The Kalahari has been used for domestic grazing and human settlement for centuries, but since European colonial times, there has been a push further outwards into the desert. The Kalahari is now separated into grazing sections which are often overstocked, causing degradation. The grazing has changed lands from perennial grasslands to ephemeral, bush-encroached landscapes. This change has resulted in little forage during drought. ii. Loss of vegetation Disturbances that lead to a loss of vegetation include fire, drought, overgrazing and windstorms. Most land can recover by itself if the causes of degradation are removed. However, if degradation advances too far it would need human restoration. This is referred to as the 'threshold of	KRC has already implemented the CPP program due to an upsurge in livestock encroachment into wildlife areas including KD2. This program involves members of the community to decide to track where their livestock go to graze. If they allow their cattle to be tracked, they can receive data about where they go as well as better understand the areas where grazing is best. Most of the area where cattle graze is communal land. Through the KBC project, the positive outcomes from this tested program can be expanded for further community benefits. With PVBC revenue, the KBC project will expand and operationalize the program by enabling the following additional activities (managed by KRC): ● Hiring and training more livestock monitors from

	irreversibility'. Overgrazing can be reduced with proper control of livestock movement. iii. Erosion Wind erosion impacts arid regions particularly, but not exclusively. The combination of dry, loose soils lacking in vegetation creates the ideal circumstances for wind erosion. In the Kalahari, soils have become exposed through overgrazed veld or croplands. With wind erosion, the most fertile topsoil is removed which has consequences for the growth of vegetation. In the Kalahari, soil is highly eroded due to the lack of vegetation and degradation. The presence of livestock has also had significant effects on soil moisture and nutrient status, through the modification of organic input and outputs to and from soil. iv. Desertification Desertification refers to the process of severe long-term degradation of an area. Land degradation is defined as 'a negative trend in land condition caused by direct or indirect human-induced processes including climate change, expressed as long-term reduction or loss of at least one of the following: biological productivity, ecological integrity or value to humans.	Zutshwa to improve enforcement of the 10 km grazing buffer zone. ● Procurement of additional GPS tracking units and data processing tools to increase coverage of cattle movement monitoring. ● Development of visualized grazing maps and printed reports to support community meetings and participatory grazing planning. ● Facilitation of more frequent workshops for herders on rangeland degradation, seasonal forage trends, and vegetation recovery strategies. ● Operational costs (fuel, communications, equipment maintenance) for the monitoring system, allowing for year-round buffer enforcement and reporting. By involving local communities and helping people recognize the economic and social value of conserving biodiversity solutions that benefit both people and wildlife can be implemented.

Poaching	Biodiversity is under severe threat from poaching and animal tracking. Both are major contributors to the loss of wildlife populations and ecological imbalance. The illegal trade in wildlife and the hunting of animals endangers countless ecosystems around the world. Animal trafficking, encompassing the illegal trade of live animals and their body parts has grown into a highly profitable global enterprise [11]. Poaching and illegal wildlife trade also has serious socioeconomic implications. It undermines governance, fuels corruption, and contributes to global organized crime. Investing in community-based conservation programs, supporting alternative livelihoods, and protecting habitats are essential components of a holistic approach to combating animal trafficking and poaching	The project will do game drives to look out for illegal poaching within KD2. Poaching in these areas is usually driven by illegal trade, subsistence or predators threating livestock. In areas like KD2 where poverty is high, poaching is often driven by economic need. KRC acknowledges this and works to mitigate this by providing beef to be sold locally so that there is less pressure to poach in wildlife areas. The benefits of conserving wildlife include tourism and sustainable hunting and reducing natural populations lessens the ability for communities to benefit from these activities economically. KRC is one of the most important local community trusts working in anti- poaching by increasing patrol, community education, photography, and the use of tracking systems. Ensuring that the community trust is operating well helps prevent illegal poaching, benefitting the community in the long term.
Fire	Fire is a risk to biodiversity if it is imposed upon an ecosystem at the wrong time. Oftentimes traditional farming practices believe that fire helps grasses grow but it is implemented at the wrong time of the year causing further degradation.	Reintroducing a controlled fire regime could help the Kalahari return to a grass- dominated ecosystem and reduce bush scrub by burning existing fuel. Timing fire before the rainy season allows bush dieback, encouraging grass regrowth and seed germination. By using fire correctly grass growth could be encouraged and reduce shrubs,

[11] *Animal Trafficking and Poaching: Major Threats to The ...*, www.entomoljournal.com/archives/2023/vol11issue5/PartA/11-4-33-915.pdf. Accessed 14 Feb. 2025.

		creating a better rangeland. By preventing poachers from entering KD2, the project aims to keep illegal hunters out of wildlife areas. Oftentimes, poachers will start fires and fail to properly put them out. This could lead to accidental bush fires. By keeping poachers out of the area, there is a reduced risk of unintended bush fire.

3.7 Exclusion List

The project does not include any of the activities addressed in the exclusion list.

3.8 Environmental and Social Screening

See Annex 4 on Environmental and Social Screening.

3.9 Stacking and Double Counting

The project does not stack or double count credits.

3.10 Relevant Legislation and Policies

Table 9 National Level Legislation, Policies and Instruments

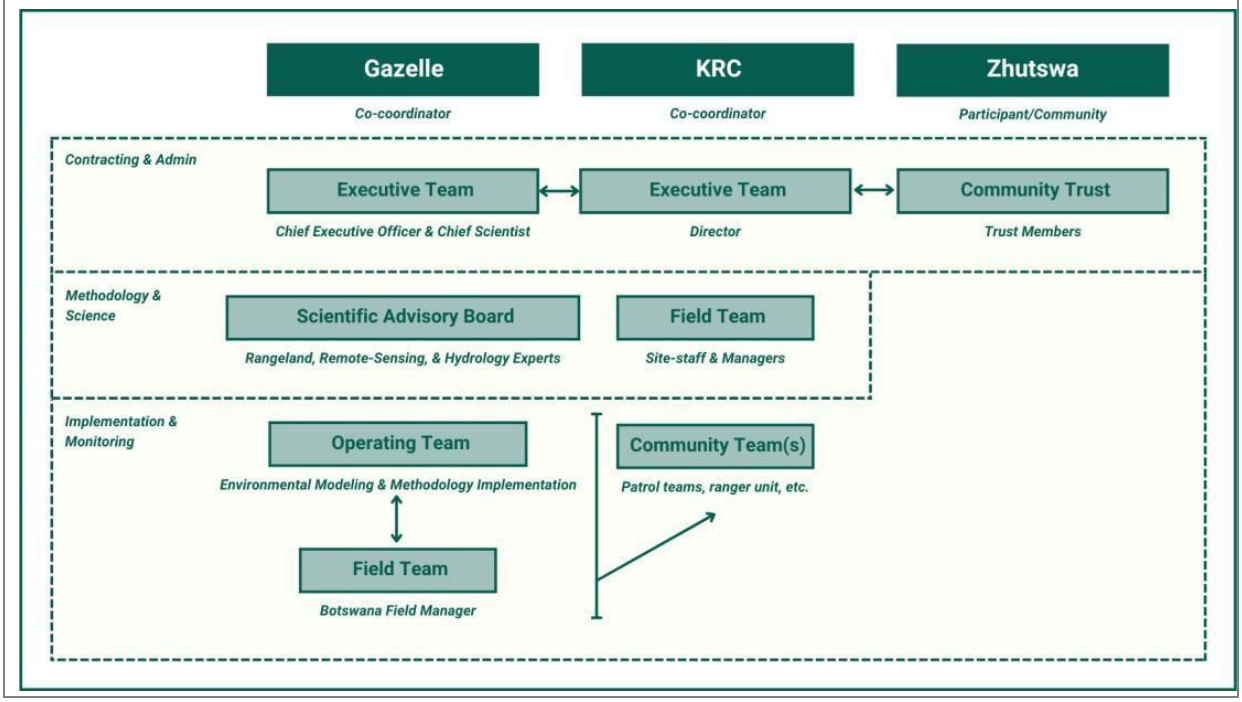
	Yes/No/Unsure	**Details**
Does the country receive or plan to receive results-based biodiversity or climate finance through bilateral or multilateral programs?	No	BIOFIN Botswana is working with the Government to revise park fees. The revised fees are expected to be implemented for all national parks, game reserves and all wildlife management areas in Botswana except the Kalahari Trans frontier Park.
Are there any other relevant regulations, policies or instruments?	Yes	Tribal Land Act of 1968, The Tribal Grazing Lands Policy of 1975, and the State Land Act of 1966.

4 Governance and Administration

4.1 Governance Structure

The project co-coordinators Gazelle and KRC take primary responsibility for technical project development and field operations/implementation respectively (roles and responsibilities for each co-coordinator are detailed in Table 4 Section 2.2). An organogram is provided below which details the flow of information and decision hierarchy regarding project stakeholders.

All decisions must involve and go through the community and the community's consent (provided via consultation with the Trust) is the backbone for the proposed project. Community involvement is not limited to information and consent. Rather, the project aims to directly involve the community in implementing project interventions and data collection while creating local employment. Key representatives from both co-coordinators (Amod Daherkar from Gazelle and Dr. Glyn Maude from KRC) are involved in all key decisions. Also, regardless of the primary responsibilities (as assigned in Table 4 Section 2.2), both co-coordinators and their respective leadership teams are involved in the decision-making process. Given the decades of rich operational experience of both organizations in the Kalahari, effort is taken to ensure all voices are heard. Most importantly, it cannot be stressed enough that community involvement is paramount to the project's design and long-term success.



4.2 Legal and Regulatory Compliance

A summary of legal and customary rights to the project area is given in Section 1.4 as follows: The project area is classified as tribal land, one of three land-tenure designations in Botswana. Roughly 70% of Botswana is tribal land, 25% state-owned, and 5% privately owned freehold leases. Most land in the country is considered tribal, and citizens can obtain land grants or leases from the Land Board, and the land is heritable but not saleable (Rob 2008a; Adams *et al*. 2003). In this case, the Tribal Land Act of 1968 (amended 1993) governs tribal land and rights to it held by Botswana citizens. It also vests administrative power from tribal chiefs to the twelve district land boards across Botswana, which have the authority to allocate land, cancel customary rights, and rezone agricultural land for commercial, residential, and industrial uses. The Act also allows for certificates evidencing rights to water wells, boreholes, and residential plots via common-law land leases, which can be used to obtain mortgages (COHRE, 2004; Adams et al., 2003; ROB 2008a; Taylor, 2007). The project observes all relevant regional national land laws governing land-use, land-tenure, tribal land rights, and wildlife management.

4.3 Financial Plan

Financing to fund the project will be jointly provided by both project coordinators (Gazelle and KRC) based on their respective cash balances on-hand and budget allocations. Currently, there is no plan

to raise debt, sell equity, or leverage any external financing for the proposed project. Revenues from PVBCs will fund ongoing project interventions. The 40% of revenues kept by the co-developers will cover administrative costs, overhead, and operations. Project interventions (e.g. meat-sharing, data collection, monitoring, community engagements, etc.) will also come from the 40% reserved for the continuation of other project activities. Detailed financial breakdowns will be provided in the PDD.

5 Annexes

Annex 1 – Project Boundaries and Habitat Types

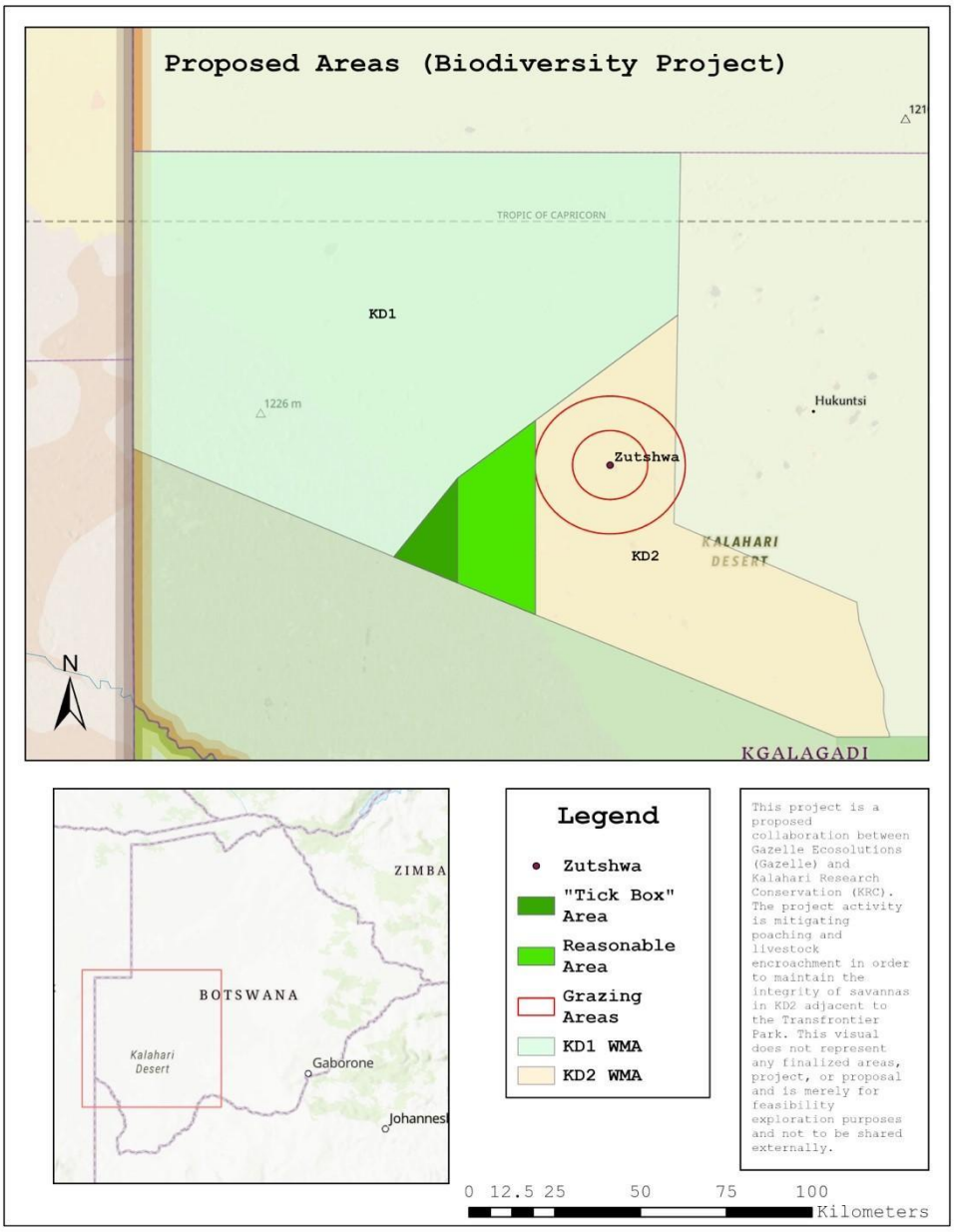


Figure 2. Proposed biodiversity project area with distinctions of land use types.

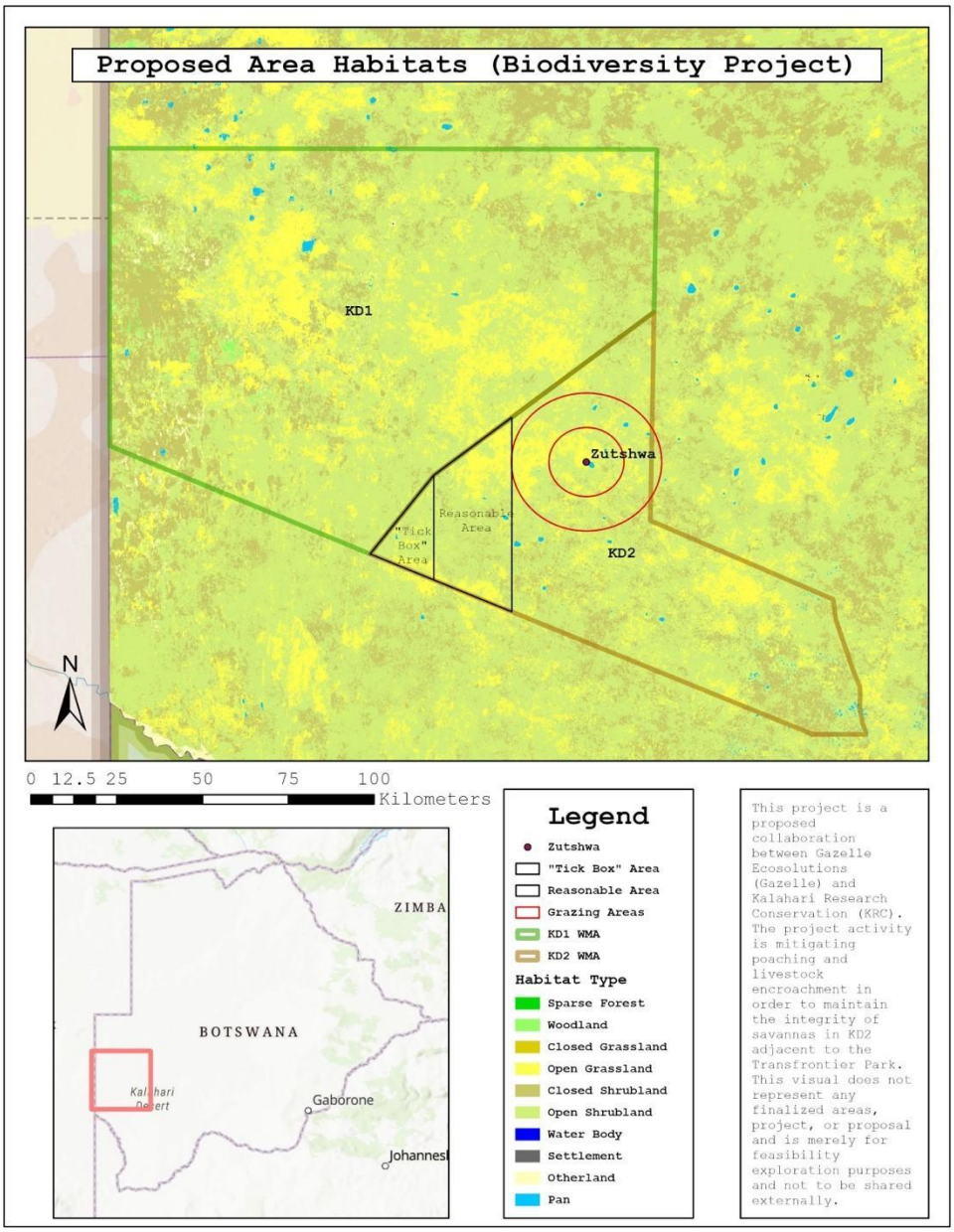


Figure 3. Habitats in the Project Area. The main habitat types are savannah grasslands, pan systems, stabilized dune fields, and open shrubland.

Dataset used for the habitat map information:

Land Cover of Zambia - Globcover (22 Classes) - Datasets - AMERIGEOSS Community Platform DataHub. (Beta), data.amerigeoss.org/dataset/d84ebf90-3ca6-4af2-990e-5df1ad982ff8. Accessed 4 Mar. 2025.https://data.amerigeoss.org/dataset/d84ebf90-3ca6-4af2-990e-5df1ad982ff8

The “Tick Box” area is the proposed project location, and the reasonable area is a possible continuation of the project.

Annex 2 – Registration Certificate

Private Company
Gazelle Ecosolutions Botswana Proprietary Limited
(BW00004297548)

COMPANIES AND INTELLECTUAL PROPERTY AUTHORITY
PROTECTING BUSINESS INTERESTS

Extract generated as at 16 August 2022 08:44 AM CAT
Page 1 of 3

Company Extract

General Details

UIN	BW00004297548
Company Name	Gazelle Ecosolutions Botswana Proprietary Limited
Company Type	Private Company
Company Status	Registered
Incorporation Date	15 August 2022
Have own constitution?	No
Annual Return Filing Month	August

Addresses

Registered Office Address	Plot 2464, Sedie Ward, Maun, Botswana
Postal Address	Private Bag 28, Maun, Botswana
Principal Place of Business	Plot 2464, Sedie Ward, Maun, Botswana

Directors

Thoralf Meyer

Residential Address	Matsaudi, Maun, Botswana
Postal Address	Private Bag 28, Maun, Botswana
Appointment Date	15 August 2022

Secretaries

Betty Gretel Toteng

Residential Address	Tribal Lot 53, Matlapana Ward, Maun, Botswana
Postal Address	P.O.Box Ha 3 Hak, Maun, Botswana
Appointment Date	15 August 2022

Extract generated as at 16 August 2022 08:44 AM CAT
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Private Company
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(BW00004297548)

COMPANIES AND INTELLECTUAL PROPERTY AUTHORITY
PROTECTING BUSINESS INTERESTS

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Page 2 of 3

Company Extract

Shareholders

Thoralf Meyer

Residential Address	Matsaudi, Maun, Botswana
Postal Address	Private Bag 28, Maun, Botswana
Appointment Date	15 August 2022

Mihir Yogesh Bendre

Residential Address	Matsaudi Ward, Maun, Botswana
Postal Address	Private Bag 28, Maun, Botswana
Appointment Date	15 August 2022

Benjamin Thomas Breed

Residential Address	Matsaudi Ward, Maun, Botswana
Postal Address	Private Bag 28, Maun, Botswana
Appointment Date	15 August 2022

Amod Atul Daherkar

Residential Address	Matsaudi Ward, Maun, Botswana
Postal Address	Private Bag 28, Maun, Botswana
Appointment Date	15 August 2022

Siddharth Thakur

Residential Address	Matsaudi Ward, Maun, Botswana
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Appointment Date	15 August 2022

PRIVATE BAG BO 199
GABORONE
BOTSWANA
REF: ENT 8/36/4 LVIII (130)

TEL: (+ 267) 3914955
FAX: (+ 267) 3951092

REPUBLIC OF BOTSWANA
MINISTRY OF ENVIRONMENT AND TOURISM

25th October 2024

Moses Selebatso
Kalahari Research Conservation
P.O Box 25650 Gaborone
Email: moses@krcbots.org

Dear Sir/Madam

AMENDMENTS TO RESEARCH PERMIT: EWT 8/36/4 XXXVIII (51) A PREDATOR-PREY RELATIONSHIP AND SYSTEM DYNAMIC STUDY IN THE KGALAGADI DISTRICT AND SURROUNDING AREAS.

We are pleased to inform you that your request to amend permit **"EWT 8/36/4 XXXVIII (51) A Predator-Prey Relationship and System Dynamic Study in the Kgalagadi District and Surrounding Areas."** has been acceded to.

The following individual(s) have been added to the permit:

Full Name	Nationality	ID Number	Role
Kebogile Babotse	Motswana	810510710	Tracker
Mothusi Keokopile	Motswana	205619419	Tracker
Letswang Omaatla Seokana	Motswana	220229523	Intern Research Assistant
Onneetse Gabatlwaelwe	Motswana	796417709	Logistics and Fleet Manager

Research sites remain as: **Kalahari Transfontier Park, Central Kalahari Game Reserve and WMAs in Kgalagadi and Ghanzi District**

Permit Expiry Date remain as: **30th June 2027**

This permit also covers the following current team member(s):

1. **Dr Glyn Maude – Researcher/ Coordinator**
2. **Dr Moses Selebatso - Researcher/ Coordinator**
3. **Tshepo Moatswi – Researcher/Student**
4. **Anton Van Schalkwyk – Logistics Assistant**
5. **Mmoloki Keiteretse –Logistics manager.**
6. **Bahiti Tshose – Tracker / Assistant**
7. **Oamogomotsa Cooper – Tracker / Assistant**

This permit is granted subject to the following **conditions**;

1. The permit does not give authority to enter premises, private establishments or protected areas. Permission for such entry should be negotiated with the owner or leaseholder of the property or management authorities of the area concerned;

2. The permit is valid only for the geographic location specified within territory Botswana, time period, activities and under the terms and conditions described on the permit, unless amended and revalidated by Ministry of Environment and Tourism;

3. You are to conduct the study according to particulars furnished in the approved application and/or proposal taking into account the above conditions;

4. Government of Botswana shall be duly acknowledged in all research outputs;

5. Copies of research outputs from the study shall be deposited directly with the Department of Wildlife and National Parks & Ministry of Environment and Tourism Headquarters;

6. This permit is **not transferable** and the permit holder is required to adhere to and comply with all laws and regulations that prevail in Botswana, **failure may result in the immediate revocation of the permit;**

7. **The government shall not be liable nor responsible for any loss, property damage or injuries that may be sustained by the permit holder or those involved in the project.**

Yours faithfully

MINISTRY OF ENVIRONMENT AND TOURISM
25 OCT 2024
PERMANENT SECRETARY
P/BAG BO 199, GABORONE

Dr. Cyril Taolo
For/PERMANENT SECRETARY

VISION: A World Leader in Environmental Sustainability

Annex 3 – Exclusion List

Complete the exclusion list by responding 'Yes' if the activity is included in the project and 'No' if the project does not include the activity.

Activities	**Included in Project ('Yes' or 'No')**
Any project activities leading to or requiring the destruction [1] of critical habitat [2] or any forestry project which does not implement a plan for improvement and/or sustainable management.	No, the project does require the destruction of any habitats.
Any activity which could be associated with the significant impairment of areas particularly worthy of protection of cultural heritage (without adequate compensation in accordance with international standards).	No, the project is not associated with any impairment of areas with cultural heritage.
Trade in animals, plants or any natural products not complying with the provisions of the CITES/Washington convention [3].	No, no animals are traded in the project activity.
Illegal, harvesting or trading in any wildlife resources.	No, the project does not involve the harvesting or trading of wildlife resources.
Destructive fishing methods or drift net fishing with a net more than 2.5 km in length, explosives and/or poison.	No, there is no water and no destructive fishing activities associated with the project.
Large-scale commercial logging operations for use in primary tropical moist forest.	No, there is no logging operations in the project area.
Production or trade in wood or other forestry products other than from sustainably managed forests [4].	No, the project does not involve the production or trade of wood or other forestry projects.
Exploitation of diamond mines and marketing of diamonds where the host country has not adhered to the Kimberley Process, and exploitation of other conflict minerals [5]	No, there is no diamond mine or diamond marketing associated with this project.
Activities involving harmful or exploitative forms of forced labour, [6] harmful child labour [7], modern slavery and human trafficking [8].	No, there is no harmful or unethical labor practices. All employment is voluntary and done with consent.
Projects that include involuntary physical displacement and/or forced eviction.	No, there is no displacement. No people live within the project boundaries and there is no forced movement of people associated with project interventions.
Production or activities that encroach on lands owned, or claimed or occupied by Indigenous Peoples, without full documented Free, Prior and Informed Consent (FPIC) of such peoples [9].	No, the project does not encroach on lands owned, claimed, or occupied by Indigenous Peoples. The land is owned by the government and no Indigenous Peoples are

	associated with the project area.
Harmful and unsafe production, use, sale or trade of pharmaceuticals, pesticides/herbicides, ozone layer depleting substances [10], and other toxic [11] or dangerous materials such as asbestos or products containing PCB's [12], wildlife or products regulated under CITES, including all products that are banned or are being progressively phased out internationally	No, there is no harmful or unsafe production or use of pharmaceuticals, pesticides/herbicides, or ozone depleting materials. The materials used in the project are only camera traps.
Production or trade of arms, ammunition, weaponry, controversial weapons, or components thereof (e.g., nuclear weapons and radioactive ammunition, biological and chemical weapons of mass destruction, cluster bombs, anti - personnel mines, enriched uranium).	No, no weapons are produced or traded in relation to the project. There is absolutely no use of weapons.
Procurement and use of firearms.	No, there is no usage of firearms associated to the project or the project area. The project does not include guns.
Provision of finances to military institutions involved in conservation or security activities.	No, the military is not involved with the project or security. All conservation is done by trained community members who are employed by KRC.
Production or trade of strong alcohol intended for human consumption or other alcoholic beverages (excluding beer and wine).	No, there is no alcohol associated with the project activities.
Production or trade of tobacco and other drugs	No, there is no trade or production of tobacco or other drugs in project interventions.
Gambling, gaming establishments, casinos or any equivalent enterprises and undertaking [13].	No, there are no casinos or gaming enterprises taking place in the project activities or project area.
Any trade related to pornography, prostitution or sexual exploitation of any form.	No, there is no trade related to pornography or sexual exploitation of any kind in this project.
Production or trade in radioactive material. This does not apply to the procurement of medical equipment, quality control equipment or other application for which the radioactive source is insignificant and/or adequately shielded	No, there are no radioactive material involved with the project.
Production or trade in unbound asbestos. This does not apply to the purchase or use of cement linings with bound asbestos and an asbestos content of less than 20%.	No, there is no production or trade in asbestos in this project.

Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.	No, there are no hazardous wastes being used in this project site or associated with project activities.
Transboundary trade in wastes, except for those accepted by the Basel Convention and its underlying regulations [14].	No, there is no transportation of wastes in the project activities.
Any activity leading to an irreversible modification or significant displacement of an element of culturally critical heritage [15].	No, there are no modifications being done that would result in the displacement of culturally critical heritage in the project.
Production and distribution, or investment in, media that are racist, antidemocratic or that advocate discrimination against a part of the population.	No, this project has no association to any discriminatory media being produced, distributed, or invested in.
Projects involving the planting or introduction of invasive species	No, there are no invasive species involved in this project.
Projects that increase the dependency of primary participants and other stakeholders on fossil fuels.	No, this project is not associated in fossil fuels in any way.

Notes:

[1] Destruction means (1) the elimination or severe reduction in the integrity of a habitat/area caused by a major and long-term/prolonged change in land-use or water resources or (2) the modification of a habitat such that this habitat's ability to fulfil its function/ role is lost.

[2] The term critical habitat encompasses natural and modified habitats that deserve particular attention. This term includes (1) spaces with high biodiversity value as defined in the IUCN's classification criteria, including, in particular, habitats required for the survival of endangered species as defined by the IUCN's red list of threatened species or by any national legislation; (2) spaces with a particular importance for endemic species or whose geographical range is limited; (3) critical sites for the survival of migratory species; (4) spaces welcoming a significant number of individuals from congregatory species; (5) spaces presenting unique assemblages of species or containing species which are associated according to key evolution processes or which fulfil key ecosystem services; (6) and territories with socially, economically or culturally significant biodiversity for local communities. Primary forests or high conservation value forests must also be considered as critical habitats.

[3] https://cites.org/eng/disc/text.php

[4] Sustainably managed forests are forests managed in a way that balances ecological, economic and socio-cultural needs.

[5] Conflict minerals, including tin, tungsten, tantalum and gold, can be used to finance armed groups, fuel forced labour and other human rights abuses, and support corruption and money laundering. See the EU Regulation on conflict minerals:

https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation/regulation-explained_en

[6] Forced labour means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[7] Harmful child labour means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development. Employees must be at least 14 years of age, as defined in the ILO's Declaration on the Fundamental Principles and Rights at Work (C138 – Minimum Age Convention, Article 2), unless local laws require compulsory school attendance or a minimum working age. In such circumstances, the highest age requirement must be used.

[8] Modern slavery is comprised two key components: forced labour and forced marriage. These refer to situations of exploitation that a person cannot leave or refuse due to threats, violence, deception or coercion. (https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_854733.pdf)

[9] https://www.fao.org/indigenous-peoples/our-pillars/fpic/en/

[10] Any chemical component which reacts with, and destroys, the stratospheric ozone layer leading to the formation of holes in this layer. The Montreal Protocol lists Ozone Depleting Substances (ODS), their reduction targets and deadlines for phasing them out.

[11] Including substances included under the Rotterdam Convention, Stockholm Convention and WHO "Pharmaceuticals: Restrictions in Use and Availability".

[12] PCBs (polychlorinated biphenyls) are a group of highly toxic chemical products that may be found in oil-filled electrical transformers, capacitors and switchgear dating from 1950 to 1985.

[13] Any direct financing of these projects or activities involving them (for example, a hotel including a casino). Urban improvement plans which could subsequently incorporate such projects are not affected.

[14] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal (1989).

[15] "Critical cultural heritage" is considered as any heritage element recognised internationally or nationally as being of historical, social and/or cultural interest.

Annex 4 – Environmental and Social Screening

Complete the table below by answering each risk question. Where relevant include details of any activities that will be carried out to better understand or mitigate potential risks.

Guidance on use

Background

The questionnaire includes questions aligned with the Plan Vivo Biodiversity Standard (PV Nature) Environmental and Social Safeguards (Section 3.9, v1.0) and other Safeguard Provisions that are embedded in PV Nature (namely Stakeholder Engagement, Stakeholder Consultation, Free Prior and Informed Consent, Grievance Mechanism).

The questionnaire also draws from the Plan Vivo Environmental and Social Policy Framework (ESPF).

The questionnaire is structured around the IUCN ESMS Questionnaire, which itself is designed to be aligned with the IUCN ESMS (2016), and the World Bank Environmental and Social Framework (2017), including World Bank Standards 1-10.

The number of questions has been limited in this version of the questionnaire to ensure that it is practical and user-friendly.

The purpose of the questionnaire is to establish: 1) the project risk rating; 2) the significance of risks and impacts; 3) alignment with safeguard provisions; 4) the need for further E&S assessment during project design; 5) the likely safeguard plans that should be developed.

Due to the early stage in project design, the questionnaire is not designed to assess alignment with PV Nature requirements, but rather prompt projects as to what will be expected regarding those requirements that relate to E&S safeguards.

Any social and environmental risks must inform the design of the *Project*.

Requirement

As per PV Nature v1.0 every project must conduct a screening of environmental and social risks and impacts at the PIN stage of project design. The questionnaire and screening report are to be submitted alongside the PIN to the Plan Vivo Foundation.

Process for use of the E&S questionnaire

The Project Coordinator is to fill in the "Project coordinator response" section of the questionnaire. This is the column shaded light grey.

Once completed by the Project Coordinator, the Plan Vivo Foundation Project Officer and E&S reviewer is to fill in the "E&S reviewer comments" section of the questionnaire. This includes filling in the "E&S reviewer conclusions".

The screening report is then completed at the end by the Plan Vivo Foundation E&S reviewer, and the results are shared and discussed with the Project Coordinator.

Establishing significance of risks and impacts

Table 1 illustrates how risk significance can be established based on an estimate of likelihood of something happening, and the impact should it occur. This likelihood-magnitude matrix can be used by the Project Officer and the E&S reviewer to estimate the risk and impact significance of the E&S risk areas indicated in the E&S questionnaire **Section B**, below. Note that while the questionnaire focuses on key topics and issues that are common to natural resource management projects, the project coordinator should include other known E&S risks and impacts associated with the planned project.

Likelihood represents the possibility that a given risk event is expected to occur. The likelihood should be established using the following five ratings:

Very unlikely to occur (1)
Not expected to occur (2)
Likely – could occur (3)
Known to occur - almost certain (4)
Common occurrence (5)

Impact (or consequence) refers to the extent to which a risk event might negatively affect environmental or social receptors – see below criteria distinguishing five levels of impacts:

Severe (5)	Adverse impacts on people and/or environment of **very high magnitude**, including **very large scale** and/or spatial extent (large geographic area, large number of people, transboundary impacts), cumulative, **long-term (permanent and irreversible**); **receptors** are considered **highly sensitive**; examples are severe adverse impacts on areas with high biodiversity value; severe adverse impacts to lands, resources and territories of indigenous peoples; significant levels of displacement or resettlement with long-term consequences on peoples' livelihood; impacts give rise to severe and cumulative social conflicts with long-term consequences.
Major (4)	Adverse impacts on people and/or environment of **high magnitude**, including **large scale** and/or spatial extent (large geographic area, large number of people, transboundary impacts), of certain duration **but still reversible** if sufficient effort is provided for mitigation; receptors are considered sensitive; examples are adverse impacts on areas with high biodiversity value; adverse impacts to lands, resources and territories of indigenous peoples; significant levels of displacement or resettlement with temporary consequences on peoples' livelihood; impacts give rise to social conflicts which are expected to be of limited duration.
Medium (3)	Adverse impacts of **medium magnitude**, **limited in scale** (small area and low number of people affected), **limited in duration** (temporary), impacts are relatively predictable and can be avoided, managed and/or mitigated with known solutions and straight forward measures.
Minor (2)	Adverse impacts of **minor magnitude, very small scale** (e.g. very small affected area, very low number of people affected) and only short duration, may be easily avoided, managed, mitigated.

Negligible (1)	Negligible or no adverse impacts on communities, individuals, and/or on the environment.

Table 1: Rating significance of a risk area (Source: IUCN ESMS questionnaire, 2020)

		Likelihood of occurrence				
		Very unlikely to occur (1)	*Not expected to occur (2)*	*Likely – could occur (3)*	*Known to occur - almost certain (4)*	*Common occurrence (5)*
Magnitude	*Severe (5)*	Moderate	Substantial	High	High	High
	Major (4)	Low	Moderate	Substantial	Substantial	High
	Medium (3)	Low	Moderate	Moderate	Moderate	Substantial
	Minor (2)	Low	Low	Moderate	Moderate	Moderate
	Negligible (1)	Low	Low	Low	Low	Low

Establishing project risk category

The project risk category will be determined based on an understanding of the types of potential E&S risks and impacts associated with the project, and the availability of appropriate and known mitigation measures. Most Plan Vivo projects are thought to be of either low or moderate risk. If high risk projects are identified, the E&S impact assessment would look to understand the alternative project designs available to reduce the potential risks and impacts.

Table 2: Rating significance of a risk area (Source: IUCN ESMS questionnaire, 2020)

Risk Category	**Definition**
Low	Insignificant or low potential environmental and social risks and impacts have been identified. No additional management measures are required; no Environmental and Social Management Plan (ESMP) section of the PDD required.
Moderate	Moderate and/or substantial potential adverse risks and impacts have been identified, in one or more risk areas. These risks and impacts can be mitigated through known mitigation measures, such as a Stakeholder Engagement Plan, livelihood restoration plan, or through the project's ESMP.
High	High risks and impacts that are potentially diverse and irreversible, and for which standard solutions are not sufficient to manage, and for which specialist safeguard plans and expertise is required.

Alignment with safeguard provisions

Section C of the questionnaire refers to PV Nature safeguard provisions which are integrated into the Standard. These include:

- *Stakeholder engagement and consultation*
- *Free, Prior and Informed Consent*
- *Grievance Redress Mechanism*

The project coordinator will answer the questions related to these provisions, and clarify the project's intentions to meet these Standard requirements during the project design phase.

Environmental and Social Assessment

The E&S questionnaire should determine what E&S assessment is required during the project design phase (PDD development). For low and moderate risk projects, a tailored E&S assessment is required. For high-risk projects, an Environmental and Social Impact Assessment (ESIA) is required. The project coordinator should consider in responses what further assessment of risks and impacts is required, and the E&S reviewer will comment on this and include a summary in the Screening Report section.

Safeguard Plans

The E&S questionnaire should determine which Safeguard Plans are required by the project. For low risk projects, it is unlikely that an ESMP will be required. For moderate risk projects, and ESMP will be required. Projects will, according to the Standard, also require a mandatory Stakeholder Engagement Plan and a Grievance Redress Mechanism.

Some projects might require specialist plans, such as an Indigenous Peoples Plan (IPP) or a Livelihood Restoration Plan.

SECTION A: PROJECT INFORMATION	
Project title:	**Kalahari Biodiversity Conservation Project**
Project coordinator:	**Gazelle Ecosolutions**
Country:	**Botswana**
Geography/ landscape:	**Kalahari Region, Botswana**
Project summary:	**The project is aimed at addressing biodiversity in the Kalahari Region of Botswana. The Kalahari is a grassland ecosystem with many threats to its conservation. The expected**

	outcome of the project is to help achieve more efforts involving the community and local companies such as KRC to increase efforts at preserving the Kalahari ecosystem. This includes employing community members, patrolling land for poachers, doing spoor surveys and animal counts, and more. The specific project area is KD2, or Kalahari District 2 in Botswana, with Gazelle Ecosolutions as project developers partnering with Kalahari Research and Conservation located in the Kgalagadi District Botswana.
Name and role of project coordinator staff member filling this questionnaire:	**Glyn Maude, KRC.** **Hanna Hoogendam, Gazelle Ecosolutions** **Nicolas Esteva, Gazelle Ecosolutions**
Confirm that the Plan Vivo Exclusion List is appended to this E&S questionnaire:	*Yes, above.*

SECTION B: POTENTIAL E&S RISKS AND IMPACTS			
Topic	**Question**	**Project coordinator response**	**E&S reviewer comments**
E&S Risks and Impacts			
Vulnerable Groups	Are there vulnerable or disadvantaged groups or individuals, including people with disabilities (consider also landless groups, lower income groups less able to cope with livelihood shocks/ stresses) in the project area, and are their livelihood	*Yes. While landlessness is not prevalent due to the communal land system in Botswana, there are still vulnerable groups in the project area whose participation may be limited*	*OK – are there any groups who, for example, are significantly separated by income or socioeconomic situation? Disabled or less able participants who may find it difficult or need support to participate in project activities? More thought should be given to*

	conditions well understood by the project?	*without specific inclusion efforts. These include:* • ***Women**: In many households, women have limited access to independent income and may be economically dependent on male relatives. The project addresses this through targeted employment of women as gate monitors and in other project activities to improve economic agency and gender equity.* • ***Youth and Elderly**: Youth unemployment is high in the region, and elderly individuals often have limited mobility and income. KRC's youth programs (e.g. the Zutshwa Rugby*	*the disadvantaged groups included in the project area, this is fine to include in more detail at PDD stage but some more detail would be good to include here if you have it already.*

		Club) and educational initiatives serve to increase engagement. Additional consideration is being given to elder inclusion through community meetings held at accessible locations and potential light-duty roles. • ***People with Disabilities**: While there is limited formal data, individuals with physical disabilities may face difficulty in engaging with physically demanding activities like patrols. The project recognizes the need to ensure that communication, training, and grievance*	

		mechanisms are accessible, and roles such as data handling, gate monitoring, or community liaison positions may be more appropriate. • ***Low-Income Households**: Many community members live on subsistence income. Food insecurity is a well-known issue and a major driver of poaching. The project's meat distribution option and CPP incentives directly target these households by offering legal and sustainable income and food sources.* *These dynamics are well understood by KRC through more than a decade of engagement in Zutshwa and*	

		surrounding villages, and have informed the project's design. Further disaggregation by vulnerability category and inclusion measures will be expanded in the PDD stage.	
	Is there a risk that project activities disproportionately affect vulnerable groups, due to their vulnerability status?	*No, there are no vulnerable groups that may be at risk by the project activities. This is unlikely to occur. Due to the project activities planned this is unlikely to occur.*	*OK – please see my above comment.*
	Is there a risk that the project discriminates against vulnerable groups, for example regarding access to project services or benefits and decision-making?	*No, there is no risk of the project discriminating against vulnerable groups. There is adequate access for all groups of people in the community to receive project services and be involved in decision making processes. Each decision made is agreed upon by the community and involves all representing parties. Due to the activities planned and the involvement of the community there is no*	*OK – please see my above comment.*

		risk and discrimination is unlikely to occur.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – Vulnerable groups have been identified and mitigation measures to prevent them becoming marginalised through the project activities should be further detailed and managed appropriately at PDD stage (at the latest).* *Estimated magnitude of risks (1-5) & justification: 2 – should this risk occur, it would have a significant impact on a low number of people.* *Risk significance: LOW*			
Gender equality	Is there a risk of adverse gender impacts due to the project/ project activities, including for example discrimination or creation/exacerbation or perpetuation of gender-related inequalities?	*No, women are intentionally hired to give them an opportunity to receive income independently. There is no perpetuation of gender inequality. The main goal is to involve both men and women in the project and not discriminate based on gender. This is unlikely to occur.*	*OK – a detailed description and evidence of the involvement of both men and women in the project should be provided at PDD stage.*
	Is there a risk that project activities will result in adverse impacts on the situation of women or girls, including their rights and livelihoods? Consider for example where access restrictions disproportionately affect women	*No. The project does not risk adverse impacts on girls or women. Their rights and livelihoods are not impacted by the project. This is also very unlikely to occur. KRC has and will continue to be*	*OK – please explain how the project can ensure this? A detailed description should also be provided at PDD stage. I'd personally like to see some detail on this here.*

	and girls due to their roles and positions in accessing environmental goods and services?	*very active in hiring women and paying attention to the effects of their hiring and involvement of women in past and future projects. The project has been designed to involve women and establish a clear grievance process if anything was to occur, which is highly unlikely due to KRC already being heavily involved with the community.*	
	Is there a risk that project activities could cause or contribute to gender-based violence, including risks of sexual exploitation, sexual abuse or sexual harassment (SEAH)? Consider partner and collaborating partner organizations and policies they have in place. Please describe.	*No. Every time patrolling happens, or anyone is sent out to a task, they are sent out in groups. There are check-ins often with employees insuring everything is okay. Groups are given radios to ensure safety among each member of the group. Preventing compromised safety is a priority. Both project coordinators, KRC and Gazelle Ecosolutions, have zero-tolerance policies toward SEAH. A grievance redress mechanism is in*	*Ok – please outline these policies and the grievance mechanism you will have in place within the PDD.*

		place that allows for confidential reporting of SEAH incidents. Reports can be made to trained community focal points, KRC staff, or through anonymous drop boxes. All field activities, especially those involving remote areas (e.g., patrolling or camera trap installation), are conducted in teams, never alone. Mixed-gender groups are monitored via radio communication and required to check in regularly. Sessions are held so that women staff members, including gate monitors, to ensure they understand their rights and feel empowered to report concerns. Staff are trained on appropriate workplace behaviour and the rights of women and marginalized persons. The project actively promotes women's involvement in roles traditionally occupied by men (e.g. gatekeeping,	

		conservation patrol), while ensuring these roles are designed with safety, dignity, and equal treatment in mind. Employment policies emphasize gender equity and respectful workplace culture.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – the nature of the engagements already in place as part of the project design process means that this risk is unlikely to occur.* *Estimated magnitude of risks (1-5) & justification: 3 – Should this risk occur, it would have a significant impact on a substantial number of people* *Risk significance: MODERATE*			
Human Rights	Is there a risk that the project prevents peoples from fulfilling their economic or social rights, such as the right to life, the right to self-determination, cultural survival, health, work, water and adequate standard of living?	*No, there is no risk of the project preventing people from fulfilling their rights. The project is not unethical in any way. The standard of living that meat provides is being addressed by the community as wild animals around the area are being hunted to very low populations and meat is being brought in in bigger quantities to further into Zuthswa to prevent*	*OK*

		poaching. But overall, the project does not infringe upon people's rights to way of life.	
	Is there a risk that the project prevents peoples from enjoying their procedural rights, for example through exclusion of individuals or groups from participating in decisions affecting them?	*No, the project does not affect people's rights or abilities. No groups are excluded from the project activities.*	*OK*
	Are you aware of any severe human rights violations linked to project partners in the last 5 years?	*No, there are no severe human rights violation that have occurred in either project partners operations in the last five years.*	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 – due to the project activities and oversight of the project coordinator, this risk is very unlikely to occur and can be considered negligible.* *Estimated magnitude of risks (1-5) & justification: 4 – should this risk occur, it would have a significant impact on a large number of people.* *Risk significance: LOW*			
Community, Health, Safety & Security	Is there a risk of exacerbating existing social and stakeholder conflicts through the implementation of project activities? Consider for example existing	*There is no risk of exacerbating existing social and stakeholder conflicts through the project. The community has been notified*	*OK – a detailed description of the land use, land and carbon rights, land tenure, and any potential points of conflict will be required at PDD stage.*

	conflicts over land or natural resources, between communities and the state.	*about the project and there are currently no issues with the implementation of the project. There is no conflict over the land currently and the community agrees that this area should not be poached given the governments conservation status of the land.*	
	Does the project provide support (technical, material, financial) to law enforcement activities? Consider support to government agencies and to Community Rangers or members conducting monitoring and patrolling. If so, is there a risk that these activities will harm communities or personnel involved in monitoring and patrolling?	*The project does not provide support to any outside monitoring agencies. The patrolling is all done by one of the 38 employees who has government permission to do so. There is very low risk that these activities will harm any law enforcers.*	*OK*
	Are there any other activities that could adversely affect community health and safety? Consider for example exacerbating human-wildlife conflict, affecting provisioning ecosystem services, and transmission of diseases.	*There are no activities that could compromise the health and safety of the community. There is a growing community need for meat that is being addressed currently. The project activities do not impact these processes but may provide*	*OK – a detailed description of the management measures in place to ensure no/reduced human—wildlife conflict will be required at PDD stage (as part of the E&S risk management plan).*

		support to local community members working to make this change happen. There is very low risk the project will exacerbate human-wildlife conflict or affect provisioning services. There is a big emphasis on meaningful work that helps human-wildlife conflict, not only for conservation actions but also community necessities. There is low risk the project will harm exacerbate any conflict since there is already a well-defined system in place that is often refined to fit the needs of the community.	
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 3 – due to the nature of the project activities and region, despite the appropriate risk identification and management provisions in place, this risk is considered likely to occur.* *Estimated magnitude of risks (1-5) & justification: 2 – should this risk occur, it would have a relatively significant impact on a fairly small number of people.* *Risk significance: MODERATE*			
Labour and working conditions	Is there a risk that the project, including project partners, would lead to working conditions for	*No. The project partners are aligned with labour laws and follow through on their*	*OK – at PDD stage, we will need specific labour laws that the Project Coordinators are aligned with*

	project workers that are not aligned with national labour laws or the International Labor Organization's (ILO) Declaration on the Fundamental Principles and Rights at Work (discriminatory working conditions, lack of equal opportunity, lack of clear employment terms, failure to prevent harassment or exploitation, failure to ensure freedom of association etc.)?	*obligations. Both companies have transparent employee contracts and non-discriminatory working conditions. There is low risk of this to occur given the nature of all parties involved and their personal ethics. The project partners are aligned with national labour laws and are aligned with the four main core ILO labour standards.*	
	Is there an occupational health and safety risk to project workers while completing project activities?	*There is no occupation health and safety risks involved. All activities that are ensued upon the employees is done so with consent and there is low risk involved in the activities. The activities mostly involve being in a car and patrolling, checking on camera traps, walking fence lines, and standing at the entrance gate to the WMA, KD2. There is low risk that the health of the workers will be affected during a project activity although proper*	*OK – a description of the necessary trainings given to participants as well as the procedure should an incident occur should be included in detail at PDD stage.*

		action would be taken place to take care of the employee is anything were to happen.	
	Is there a risk that the project support or be linked to forced labour, harmful child labour, or any other damaging forms of labour?	*Nobody is being forced to work against their will. Nobody who is hired is a child and nobody's health is being harmed while working.*	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – the nature of the project activities and appropriate management measures in place mean that is risk is unlikely to occur.* *Estimated magnitude of risks (1-5) & justification: 2 – should this risk occur, it would impact a relatively small number of people significantly.* *Risk significance: LOW*			
Resource efficiency, pollution, wastes, chemicals and GHG emissions	Is there a risk that project activities might lead to releasing pollutants to the environment, cause significant amounts of waste or hazardous waste or materials?	*No. Patrolling happens with cars due to the large extent of area being covered in the WMAs. The cars used are four-wheel drive vehicles since there are no proper roads in the park. The driving done does not exceed what is necessary and will not result in significant amounts of pollutants. Cars are the only form of pollutant in this project. There are no*	*OK – thank you for the detail here.*

		hazardous wastes or materials being released in the project activities.	
	Is there a risk that the project will lead to significant consumption of energy, water or other resources, or lead to significant increases of greenhouse gases?	*As mentioned previously, cars are the only consumer of energy in the project. The consumption of energy is minimized and there is not unnecessary waste. This means there is low risk of significant amounts of greenhouse gases being emitted.*	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – this risk is very unlikely to occur due to the project activities and singular use of cars in the project.* *Estimated magnitude of risks (1-5) & justification: 1 – this risk would have a minimal impact on a small number of people.* *Risk significance: LOW*			
Access restrictions and livelihoods	Will the project include activities that could restrict peoples' access to land or natural resources where they have recognised rights (customary, and legal)? Consider projects that introduce new access restrictions (e.g. creation of a community forest), reinforce existing access restrictions (e.g. improve management	*No. It is illegal to poach in the WMA's and although the project enforces that, it does not restrict any person's rights to the land. There are no new access restrictions being imposed through this*	*OK*

	effectiveness and patrolling of a community forest), or alter the way that land and natural resource access restrictions are decided (e.g. through introducing formal management such as co-management).	*project and there is low risk of this taking place.*	
	Is there a risk that the access restrictions introduced /reinforced/altered by the project will negatively affect peoples' livelihoods?	*There is no risk of any restrictions being put in place that do not already exist. The government imposes the restrictions being enforced by KRC. KRC does not alter or introduce any new restrictions and there is low chance of that happening.*	*OK*
	Have strategies to avoid, minimise and compensate for these negative impacts been identified and planned?	*Yes, there are strategies in place to avoid negative impacts.*	*OK – please detail these strategies in the PDD (or here if they are already established).*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – the nature of the project activities mean this risk is unlikely to occur.* *Estimated magnitude of risks (1-5) & justification: 2 – should this risk occur, it would have a substantial impact on a relatively small number of people.* *Risk significance: LOW*			

Cultural heritage	Is the Project Area officially designated or proposed as a cultural site, including international and national designations?	No, the site is not designated as a cultural site nor is it proposed to be.	*OK*
	Does the project site potentially include important physical cultural resources, including burial sites and monuments, or natural features or resources of cultural significance (e.g. sacred sites and species, ceremonial areas) and is there risk that the project will negatively impact this cultural heritage?	No, the project site does not have any important physical monuments or resources of cultural significance.	*OK*
	Is there a risk that the project will negatively impact intangible cultural heritage? Consider for example cultural practices, social and cultural norms in relation to land and natural resources.	No, there is no risk of the site negatively impacting intangible cultural heritage.	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 – negligible risk due to no presence of cultural sites within the project area.* *Estimated magnitude of risks (1-5) & justification: 2 – this risk would have a relative minor impact on a small number of people should it occur.* *Risk significance: LOW*			

Indigenous Peoples	Are there Indigenous Peoples living within the Project Area, using the land or natural resources within the project area, or with claims to land or territory within the Project Area?	No, there are no people that live in the project site, KD2. There are also no claims to the land within the project area.	*OK*
	Is there a risk that the project negatively affects Indigenous Peoples through economic displacement, negatively affects their rights (including right to FPIC), their self- determination, or any other social or cultural impacts?	No, there are no people that would be displaced as a result of the project.	*OK*
	Is there a risk that there is inadequate consultation of Indigenous Peoples, and/or that the project does not seek the FPIC of Indigenous Peoples, for example leading to lack of benefits or inappropriate activities?	There is no risk of inadequate consultation. The project will not involve any inappropriate activities that could lead to this being a risk.	*OK – please ensure the consultation and engagement process with communities is described and evidenced in detail at PDD stage.*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – due to the nature of the project participants and the consultation and participatory measures already in place through the project design process, this risk is unlikely to occur.* *Estimated magnitude of risks (1-5) & justification: 2 – should this risk occur, it would have a significant impact on a low number of people.* *Risk significance: LOW*			

Biodiversity and sustainable use of natural resources	Is there a risk that project activities will cause adverse impacts on biodiversity (both in areas of high biodiversity value, and outside of these areas) or the functioning of ecosystems? Consider issues such as use of pesticides, construction, fencing, disturbance etc.	No, there will be no changes to the environment in this way. The project does not include fencing, pesticides, ecological disturbances, or anything of that nature.	*OK*
	Is there a risk that the project will introduce non-native species or invasive species?	No, the project will not introduce any non-native or invasive species.	*OK*
	Is there a risk that the project will lead to the unsustainable use of natural resources? Consider for example projects promoting value chains and natural resource-based livelihoods.	No, this project does not use excess resources that could lead to unsustainable use.	*OK*
	Is there a risk that the project will lead to the exploitation of any wildlife? Consider the animal or plant groups being monitored under the PV Nature Methodology and how this will impact other groups.	No, all wildlife is respected and project activities do not involve interactions with wildlife.	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 – negligible risk*			

Estimated magnitude of risks (1-5) & justification: 2 – if this risk were to occur it would have a relatively minor impact on a small number of people. *Risk significance: LOW*			
Land tenure conflicts	Has the land tenure and use rights in the project area been assessed and understood?	Yes, the use rights are understood by all parties and relevant authorities have been notified on the project location.	*OK – please provide a description/evidence of how relevant authorities were notified and their responses where appropriate at PDD stage.*
	Is there a risk that project activities will exacerbate any existing land tenure conflicts, or lead to land tenure or use right conflicts?	No, there is no land tenure conflicts in the project location.	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – due to the nature of the project area and the management measures in place, this risk is unlikely to occur.* *Estimated magnitude of risks (1-5) & justification: 2 – should this risk occur, it would have a minor impact on a small number of people.* *Risk significance: LOW*			
Risk of not accounting for climate change	Have trends in climate variability in the project areas been assessed and understood?	Yes, many years of research in the Kalahari have been conducted by both the KRC and Gazelle team and ecosystem dynamics are well understood.	*OK – great, please provide this information on ecosystem dynamics in the relevant baselining sections at PDD stage.*

	Has the climate vulnerability of communities and particular social groups been assessed and understood?	Yes, climate vulnerability is understood within the communities involved.	*OK*
	Is there a risk that climate variability and changes might influence the effectiveness of project activities (e.g. undermine project-supported livelihood activities) or increase community exposure to climate variation and hazards? Consider floods, droughts, wildfires, landslides, cyclones, etc.	No, there is not a risk of climate change affecting project activities. The project location is prone to drought, but this does not impact project activity.	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 2 – the nature of project activities and work done in identifying this risk mean it is unlikely to occur.* *Estimated magnitude of risks (1-5) & justification: 2 – should this risk occur it would have a relatively minor impact on a fairly significant number of people.* *Risk significance: LOW*			
Other – eg. cumulative impacts	Is there a risk that the project will contribute cumulatively to existing environmental or social risks or impacts, for example through introducing new access restrictions in a landscape with existing	No, project activities do not impose land restrictions or land availability. The project will adhere to the current land use rules that is in place and will not impose new ones.	*OK*

	restrictions and limited land availability?		
	Are there any other environmental and social risks worthy of note that are not covered by the topics and questions above?	No. There are no other social or environmental risks involved with the project.	*OK*
E&S reviewer conclusions *Estimated likelihood of risks (1-5) & justification: 1 – negligible risk here.* *Estimated magnitude of risks (1-5) & justification: 1* *Risk significance: LOW*			
SECTION C: SAFEGUARD PROVISIONS			
Stakeholder engagement: requirements 2.1.1-2.1.3	Has a stakeholder analysis been conducted that has identified all stakeholders that could influence or be affected by the project, or is this still to be completed? Please describe.	Yes, the community of Zutshwa has been contacted and all stakeholders have been identified.	*OK*
	Are the local community and indigenous peoples statutory or customary rights to land or resources within the project area already clear and documented, or is further assessment required? Please describe.	Yes, local rights to the land are understood and no further assessment is required.	*OK*
	Are local governance structures and decision-making processes described and understood (including details of	Yes, the involvement of women is well understood and there are roles that are	*OK*

	the involvement of women and marginalized or vulnerable groups), or is further assessment required? Please describe.	fulfilled by only women to ensure the inclusion and protection of marginalized groups.	
	Are past or ongoing disputes over land or resources in the project area known and documented, or is there need for further assessment? Please describe.	No, there are no disputes over the land currently or previously.	*OK*
Stakeholder consultation: requirements 2.5.1 and 2.5.2	Does the project have a Stakeholder Engagement Plan with clear measures to engage Vulnerable Groups, or is this plan still to be developed? Please describe.	Yes, there is a plan in place that has been implemented. Women are currently hired and are in charge of the gate that goes into KD2.	*OK – details should be included at PDD stage.*
	Has the Project Coordinator informed all stakeholders of the project, through providing relevant project information in an accessible format, or does this still need to be completed? Please describe.	Yes, a project meeting has been conducted in Zutshwa and stakeholders were informed about the project.	*OK*
Free, Prior and Informed Consent: requirements 2.6.1-2.6.4	Has the project analysed and understood national and international requirements for Free Prior and Informed Consent (FPIC)? Please describe.	Yes, all aspects of FPIC are understood.	*OK – please include a thorough description and evidence of the FPIC process in the relevant sections in the PDD.*
	Has the project identified potential FPIC rightsholders and potential representatives in local communities and among indigenous peoples, or is	Yes, local representatives have been identified.	*OK – please provide their details at PDD stage.*

	this still to be completed? Please describe.		
	Has the project worked with rightsholders and representatives of local communities and indigenous peoples to understand the local decision-making process and timeline (ensuring involvement of women and vulnerable groups), or is this still to be completed? Please describe.	Yes, the community timeline is well understood. Women are involved in the decision-making process currently.	*OK – this involvement should be detailed further at PDD stage.*
	Has the project sought consent from communities to 'consider the proposed Project', and if so, where is this in principle consent documented? Please describe.	Yes, this has been done. Documentation is below in Annex 5.	*OK*
Grievance Redress Mechanism: requirements 3.16.1	Does the project already have a Grievance Redress Mechanism (GRM), or is this still to be established? Please describe.	Yes, this has already been established by the KRC team and will be utilized in all project activities.	*OK*
	For projects with a GRM, is this accessible to project affected people? Please describe.	Yes, this is accessible to all members of the community and is currently in place.	*OK*
E&S reviewer conclusions for safeguard provisions *Are the project Safeguard Provisions adequately addressed, or to be adequately addressed during the project design phase? YES*			

What additional actions need to be conducted during the project design phase? N/A beyond the required sections of the PDD (E&S Assessment, E&S Assessment Report and ESMP).

Any other comments

- *Some clarity around land claims and user rights of the project area, this is important to be ironed out before PIN approval*

SECTION D: SCREENING REPORT (NOT TO BE COMPLETED BY PROJECT: FOR USE OF PV E&S REVIEWER)

Name of E&S reviewer	***Amelia Evans***
Date of E&S screening:	***14/07/25***
Project risk rating:	*Low*
Principle risks and impacts	The main risks facing the project are surrounding community, health, safety and security. The project should ensure that thorough consultation with the community is completed and continued throughout the project design phase and the project period. This will help to ensure an inclusive, fair and safe project design which the community, as a whole, is bought into and has engaged with. This also covers the inclusion of vulnerable, disadvantaged, or marginalised groups. The PDD should include a description of how the project aims to include and engage with women and girls through the project activities, and identify how the project aims to protect their rights and limit risks of gender-based violence and SEAH.

E&S topic/ risk area	Likelihood (1-5)	Magnitude (1-5)	Significance (low, moderate, severe, high)
Vulnerable Groups	1	2	Low
Gender equality	2	3	Moderate

	Human Rights	1	4	Low
	Community, Health, Safety & Security	3	2	Moderate
	Labour and working conditions	2	2	Low
	Resource efficiency, pollution, wastes, chemicals and GHG emissions	2	1	Low
	Access restrictions and livelihoods	2	2	Low
	Cultural heritage	1	2	Low
	Indigenous Peoples			
	Biodiversity and sustainable use of natural resources	1	2	Low
	Land tenure conflicts	2	2	Low
	Risk of not accounting for climate change	2	2	Low
	Other – eg. cumulative impacts	1	1	Low
E&S assessment required	*The ESA (and corresponding ESA report) should focus on risks to community, health, safety and security, specifically those in the community who are marginalised, vulnerable or disadvantaged – particularly women and girls.*			

Likely safeguard plans required	*The ESMP should be filled out in detail in the PDD, focussing on the risks identified as moderate above.*

Annex 5 – Notification of Relevant Authorities

On December 9th, 2024, Gazelle Ecosolutions met with members of the Zuthswa community.

MEETING ATTENDANCE IN ZUTSHWA (PLAN VIVO)

NAMES	DEPARTMENT	CONTACT
Thoralf Meyer	Gazelle	thoralf@thegazelle.co 72670836
Mpho Kelewendo	Gazelle	mpho@thegazelle.co 72803880
Lillian Mokala	KRC, Community Outreach	lillianlobopo@gmail.com 75651594
Aone A J Aedige	S &CD	as4aedige@gmail.com 73146330
Tshegofatso Kota	VDC, Member	73167756
Kegomoditswe Mokoto	VDC, Secretary	75824598/74509832/78607608
Ofetotse Matsipanyane	Farmers Association Chairman	73400998
Thabang Setlalekgomo	KRC, Wildlife Dept.	thabang@krcbots.org 72462184
Kethabile Modise	KRC, Zutshwa Community Representative	modidekethabile@gmail.com 74772051
Ontuetse Mantle	Tsatlholego Conservation	75858960
Isaac Kalo	Veld Fires Prevention, Chairman	74868839
Oduetsenyana Senoye	VDC, Treasure	71659289/75881740/78216518
Ontlametse Kakego	VDC, Member	
Botshelo Kabatlhophanya	KRC, Community Outreach	
Faikile Orekang	Kgosana	
Ketlhalefile Peelelo	VDC, Member	73400963

KRC	Kalahari Research and Conservation
VDC	Village Development Committee

S&CD	Social and Community Development Office
Kgosana	Assistant to the Chief

Appendix 1 – Criteria for Key Biodiversity Areas

A. Threatened biodiversity		
A1 Threatened species		Assessment parameters
A1a	≥0.5% of global population size and ≥5 reproductive units (RU) of a CR/EN species	(i) no. of mature individuals (ii) area of occupancy (iii) extent of suitable habitat (iv) range (v) no. of localities (vi) distinct genetic diversity
A1b	≥1.0% of global population size and ≥10 RU of a VU species	
A1c	≥0.1% of global population size and ≥5 RU of a species listed as CR/EN due only to past/current decline [= Red List A1, A2, A4 only]	
A1d	≥0.2% of global population size and ≥10 RU of a species listed as VU due only to past/current decline [= Red List A1, A2, A4 only]	
A1e	Effectively the entire population size of a CR/EN species	
A2 Threatened ecosystem types		
A2a	≥5% of global extent of a CR or EN ecosystem type	
A2b	≥10% of global extent of a VU ecosystem type	
B. Geographically restricted biodiversity		
B1. Individual geographically restricted species	≥10% of global population size and ≥10 RU of any species	(i) no. of mature individuals (ii) area of occupancy (iii) extent of suitable habitat (iv) range (v) no. of localities (vi) distinct genetic diversity
B2. Co-occurring geographically restricted species	≥1% of global population size of each of a number of restricted range species in a taxonomic group: ≥2 species or 0.02% of the total number of species in the taxonomic group, whichever is larger	
B3. Geographically restricted assemblages		
B3a	≥0.5% of global population size of each of a number of ecoregion-restricted species in a taxonomic group: ≥5 species or 10% of the species restricted to ecoregion, whichever is larger	(i) no. of mature individuals (ii) area of occupancy (iii) extent of suitable habitat (iv) range (v) no. of localities
B3b	≥5 RU of ≥5 bioregion-restricted species or ≥5 RU of 30% of the bioregion-restricted species known from the country, whichever is larger	
B3c	Site is part of the globally most important 5% of occupied habitat for ≥5 species in the taxonomic group	(i) relative density of mature individuals (ii) relative abundance of mature individuals
B4. Geographically restricted ecosystem types		
	≥20% of the global extent of an ecosystem type	
C. Ecological integrity		
	Site is one of ≤2 per ecoregion with wholly intact ecological communities	composition and abundance of species and interactions
D. Biological processes		
D1. Demographic aggregations		
D1a	≥1% of global population size of a species, over a season, and during ≥1 key stage in life cycle	no. of mature individuals
D1b	Site is among largest 10 aggregations of the species	no. of mature individuals
D2. Ecological refugia	≥10% of global population during periods of environmental stress	no. of mature individuals
D3. Recruitment sources	Produces propagules, larvae or juveniles maintaining ≥10% of global population size	no. of mature individuals
E. Irreplaceability through quantitative analysis		

Appendix 2 – Criteria for Important Plant Areas

Sub-criterion	Threshold
(A) Threatened species	
A(i) Site contains one or more **globally threatened** species	Site known, thought or inferred to contain ≥**1%** of the global population AND/OR ≥**5%** of the national population OR the **5 "best sites"** for that species nationally, whichever is most appropriate
A(ii) Site contains one or more **regionally threatened** species	Site known, thought or inferred to contain ≥**5%** of the national population, OR the **5 "best sites"** for that species nationally, whichever is most appropriate
A(iii) Site contains one or more **highly restricted endemic** species that are potentially threatened	Site known, thought or inferred to contain ≥**1%** of the global population AND/OR ≥**5%** of the national population, OR the **5 "best sites"** for that species nationally, whichever is most appropriate
A(iv) Site contains one or more **range restricted endemic** species that are potentially threatened	Site known, thought or inferred to contain ≥**1%** of the global population AND/OR ≥**5%** of the national population, OR the **5 "best sites"** for that species nationally, whichever is most appropriate
(B) Botanical richness	
B(i) Site contains a **high number of species** within **defined habitat or vegetation types**	For each habitat or vegetation type: up to 10% of the national resource can be selected within the whole national IPA network OR the **5 "best sites"** nationally, whichever is the most appropriate
B(ii) Site contains an **exceptional number of species of high conservation importance**	Site known to contain ≥**3%** of the selected national list of species of conservation importance OR the **15 richest sites** nationally, whichever is most appropriate
B(iii) Site contains an **exceptional number of socially, economically or culturally valuable species**	Site known to contain ≥**3%** of the selected national list of socially, economically or culturally valuable species OR the **15 richest sites** nationally, whichever is most appropriate
(C) Threatened habitat	
C(i) Site contains **globally threatened or restricted** habitat/vegetation type	Site known, thought or inferred to contain ≥**5%** of the national resource (area) of the threatened habitat type OR site is among the best quality examples required to collectively prioritise **20–60%** of the national resource OR the **5 "best sites"** for that habitat nationally, whichever is the most appropriate
C(ii) Site contains **regionally threatened or restricted** habitat/vegetation type	Site known, thought or inferred to contain ≥**5%** of the national resource (area) of the threatened habitat type OR site is among the best quality examples required to collectively prioritise **20–60%** of the national resource OR the **5 "best sites"** for that habitat nationally, whichever is the most appropriate
C(iii) Site contains **nationally threatened or restricted** habitat/vegetation type, AND/OR habitats that have **severely declined in extent** nationally	Site known, thought or inferred to contain ≥**10%** of the national resource (area) of the threatened habitat type OR site is among the best quality examples required to collectively prioritise up to **20%** of the national resource OR the **5 "best sites"** for that habitat nationally, whichever is most appropriate