



Khaudum-Ngamiland Wildlife Dispersal Area:

Strategy Development Proposal

August 2019

Acronyms

BCPT	Botswana Predator Conservation Trust
BDF	Botswana Defence Force
CBNRM	Community Based Natural Resource Management
CBT	Commodity Based Trade
DWNP APU	Department of Wildlife and National Parks Anti-poaching Unit
FMD	Foot and Mouth Disease
KAZA TFCA	Kavango-Zambezi Transfrontier Conservation Area
KCCC	KAZA Carnivore Conservation Coalition
K-N WDA	Khaudum-Ngamiland Wildlife Dispersal Area
LUCIS	Land Use Conflict Identification Strategy
MEWT	Ministry of Environment Wildlife and Tourism
MIDP	Master Integrated Development Plan
NP	National Park
SAREP	South African Regional Environmental Programme
TFCA	Transfrontier Conservation Area
WDAs	Wildlife Dispersal Areas
WMAs	Wildlife Management Areas

Introduction

The Kavango-Zambezi Transfrontier Conservation Area (KAZA TFCA) is Africa's largest conservation landscape and the largest Transfrontier Conservation Area in the world (KAZA TFCA, 2015). KAZA holds both continental importance and global value for the survival of several flagship species. The KAZA TFCA is home to over 10% of the world's wild cheetahs (*Acinonyx jubatus*), 15% of the continent's lions (*Panthera leo*) and a quarter of its African wild dog (*Lycaon pictus*) population. In addition, KAZA holds over half of the world's savanna elephant (*Loxodonta africana*) population and a number of rare, or geographically restricted ungulate species, such as puku (*Kobus vardonii*), roan antelope (*Hippotragus equinus*), and red lechwe (*Kobus leche*) (KCCC, 2018).

KAZA is comprised of five countries, Angola, Zambia, Zimbabwe, Botswana, and Namibia, which work collaboratively to maintain wildlife corridors between numerous national parks of southern Africa. In a process involving key governmental departments, researchers and conservationists from the participating countries, a five-year Master Integrated Development Plan (MIDP) was developed for 2018-2022. The MIDP was created to conserve KAZA's rich biodiversity by connecting wildlife habitats and nature-based industries across international boundaries to provide sustainable pathways for economic growth and rural development. In order to restore this connectivity among transboundary landscapes, this unified approach highlights shared challenges, such as unsustainable land use, human encroachment, fragmented protected areas, low income livelihoods, human-wildlife conflict (HWC), and climate change, and ways to address them.

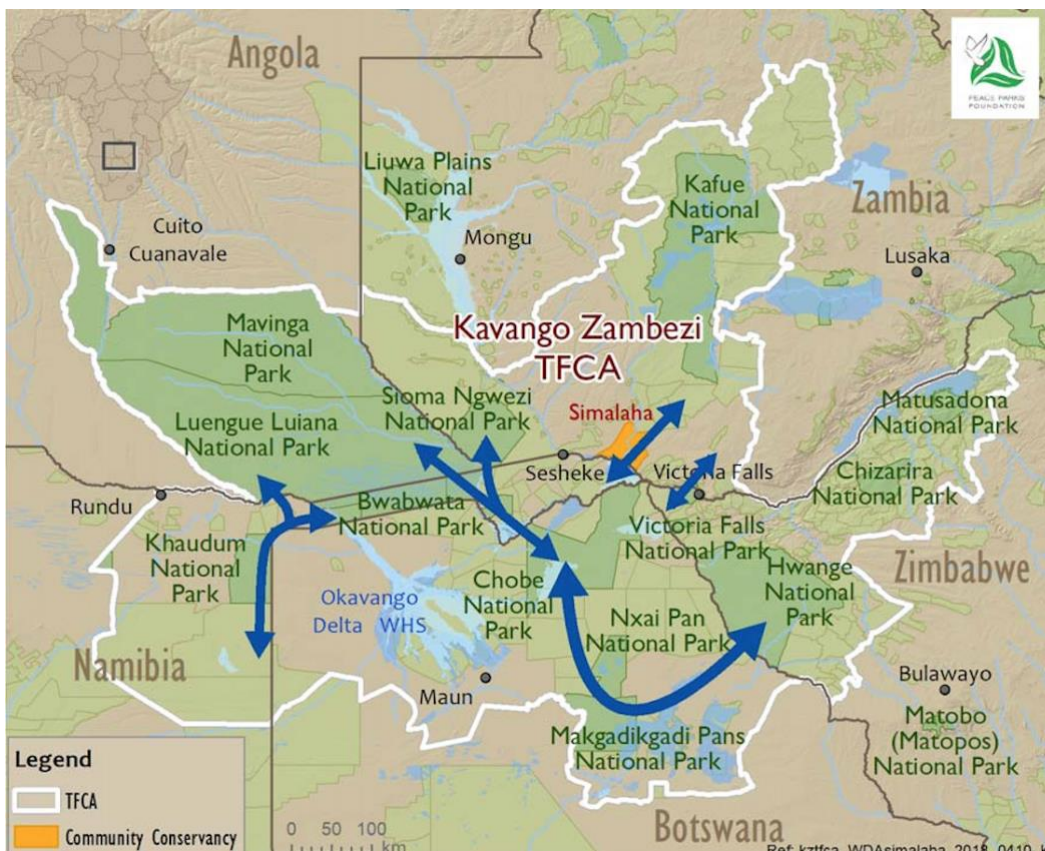


Figure 1. The Kavango-Zambezi Transfrontier Conservation Area (KAZA TFCA), showing major wildlife dispersal routes (blue arrows).

The MIDP and the KAZA sub-working group known as the KAZA Carnivore Conservation Coalition (KCCC) seek to mitigate these issues through conservation initiatives that are specifically designed for each of the six Wildlife Dispersal Areas (WDAs) that make up the KAZA landscape. These six WDAs have been identified as crucial geographic areas of wildlife movement, especially in climate-stressed areas where drier conditions have become more prevalent due to climate change.

The MIDP and KCCC have compiled conservation strategies for the greater KAZA landscape, but there has not yet been a conservation plan developed specifically for any of the WDAs. This proposal is the first conservation strategy plan of the KAZA TFCA that concentrates on one landscape: the Khaudum-Ngamiland WDA (K-N WDA, Figure 2). Due to the vast scale of the KAZA TFCA, which covers nearly 520,000 km², a conservation strategy that is designed for each of the six WDAs is imperative in order to refine the broad strategies of the whole KAZA landscape.

K-N WDA Description and Importance

The intention of this proposal is to set forth the first conservation strategy plan for the Khaudum-Ngamiland Wildlife Dispersal Area (K-N WDA) of the KAZA TFCA. The K-N WDA has been recognized as one of six priority landscapes for maintaining wildlife habitat connectivity in the greater KAZA landscape. The K-N WDA collectively covers 40,000 km² (**4 million hectares**) and includes western Ngamiland of Botswana and the conservation areas of eastern Namibia – most notably Khaudum National Park, Bwabwata National Park and the Nyae-Nyae and N̄a Jaqna Conservancies. The area has few livestock or game fences and minimal obstruction to the free movement of wildlife. There are four remaining veterinary control fences, but three of these are increasingly dilapidated due to elephant damage. There are approximately 4,000 people living in the core area at a density of 1 person per 10 km² (K-N Thematic Working Group Workshop, 2016). This WDA alone comprises about 20% of Africa’s largest remaining contiguous, relatively undisturbed natural habitat south of the Sahara Desert, with a **Human Footprint (HF) Index of between 0 and 1 out of 100** (0 being “most wild” and 100 “least wild”) (K-N Thematic Working Group Workshop, 2016).

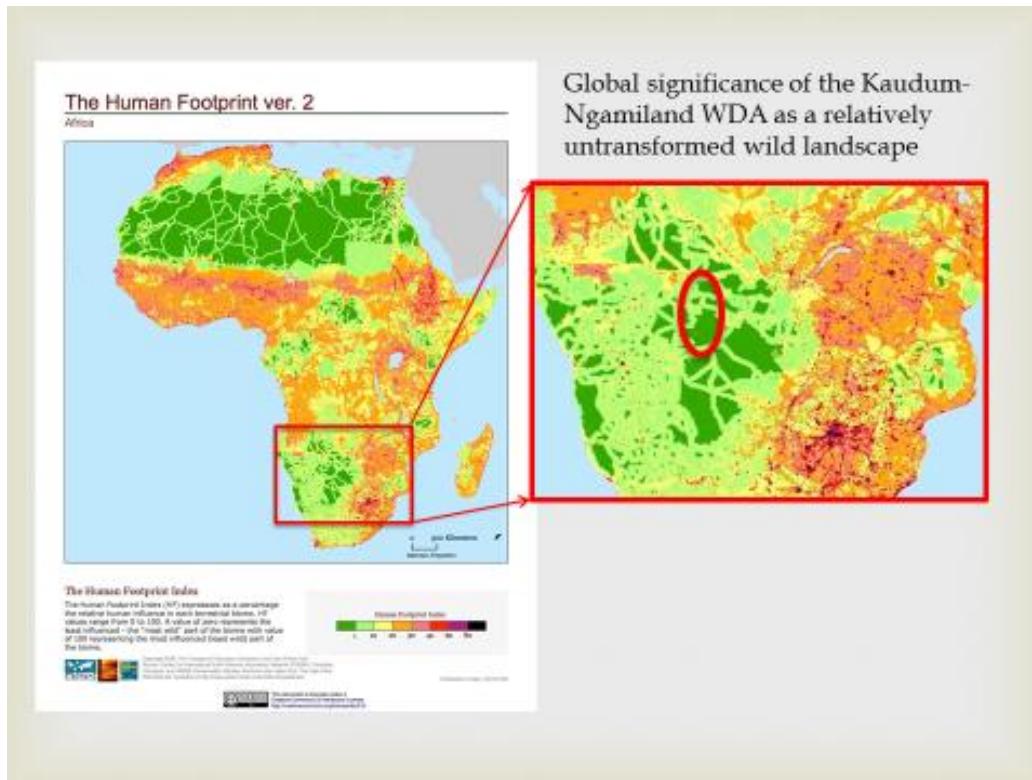


Figure 2. The K-N WDA falls in the centre of Africa's largest remaining undeveloped contiguous landscape (with the lowest human footprint measurable (green areas).

Located in western Ngamiland, Botswana, the landscape sustains significant populations of large, threatened carnivores, including leopard, lion, cheetah and the endangered African wild dog. Predator and prey populations in the K-N WDA are vital for the persistence of stable predator numbers in Bwabwata NP, Khaudum NP and Nyae-Nyae Conservancy located in neighbouring Namibia. Predator population dynamics in this region are relatively understudied in comparison with other regions of KAZA but the data that does exist indicates fragmented populations that are under carrying capacity and continually threatened by unsustainable land use practices, dwindling prey populations caused by illegal bushmeat harvest and retaliatory killings due to livestock-wildlife conflict. The K-N WDA also provides important habitat for seasonal elephant movements as well as other water-dependent species including buffalo (*Cynercus caffer*), zebra (*Equus burchelli*) and wildebeest (*Connochaetes taurinus*), which generally move from the Okavango Delta during the wet season out into the core area of the K-N WDA for better grazing and to utilize the seasonal pans.

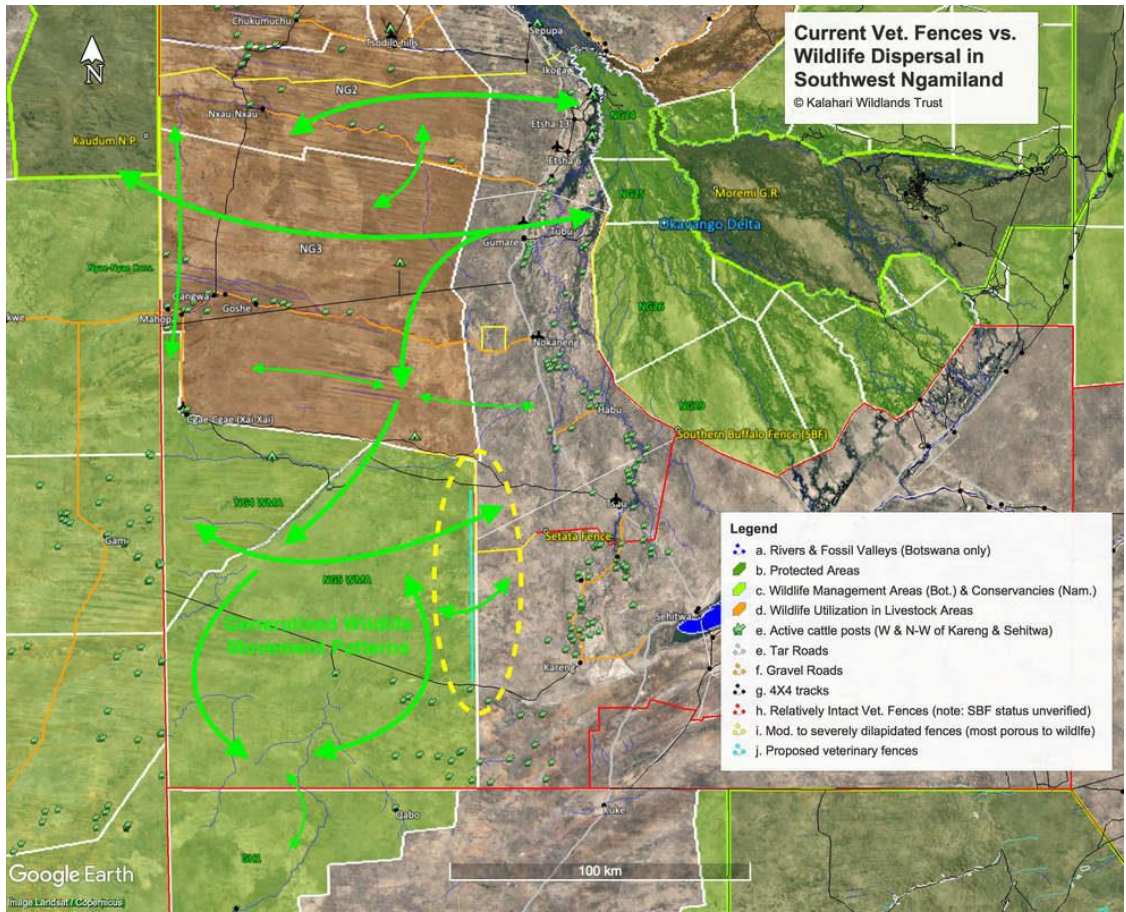


Figure 3. This map of southwest Ngamiland shows wildlife movements patterns (green arrows), protected areas (dark green), cattle posts (green cowboy), roads (grey, orange, black lines), vet fences (red line), water sources in Botswana (blue).

In addition to its ecological importance, the K-N WDA also holds immense tourism potential. The Tsodilo Hills World Heritage Site is one of Botswana’s most distinguished landscape features, as well as the Gcwihaba Caves, and Aha Hills, which are all located in western Ngamiland. Connecting these culturally significant features to wildlife-viewing areas is a critical piece of this landscape that is needed to improve socio-economic opportunities through community-based natural resource management (CBNRM). Building sustainable tourism infrastructure to connect these key cultural and ecological attributes of K-N WDA is necessary to develop viable, natural resource-based economies and livelihoods for rural communities.

Reliance on subsistence farming and cattle rearing in this drought-prone area has driven rural communities to become dependent on the government welfare system and has also increased human-wildlife conflict in the form of crop damage and livestock predation. Due to the unsuitable, dry conditions; the presence of toxic plants, and mineral deficiencies, less than 10% of the WDA is grazed by livestock, with the remaining 90% being cattle-free rangeland with relatively high grass basal cover (KCCC, 2018). Although most of the K-N WDA landscape is unsuitable for livestock rearing, it remains an important traditional practice and the most prevalent livelihood for rural communities in the WDA. Diversifying rural livelihoods so that they are not dependent on one industry (i.e. livestock husbandry), but on multiple

markets (i.e. livestock husbandry, crop production, safari and agrotourism, etc.) is key to developing rural economies in a sustainable and resilient manner.

Another component of the current strategy in western Ngamiland is the focus on the development of policy and legislation focusing on Commodity Based Trade (CBT) in Beef. CBT allows for the coexistence of domestic animals and wildlife by implementing mitigation measures of wildlife-associated livestock disease across the beef market value chain (KCCC, 2018). Through a process of risk-mitigation strategies for FMD across the individual value chains, CBT allows rural communities access to the historically restricted and more profitable markets that are currently only accessible to Botswana farmers in green zones. By mitigating disease transfer, CBT eliminates the need to geographically separate wildlife and livestock via fences. With the CBT strategy, dilapidated fences that harm wildlife and impede their movements can be removed. A fence-free K-N WDA would ecologically restore landscape connectivity with uninhibited wildlife migrations and dispersal patterns. In addition, rural communities will be able to market their culturally important cattle farming practices as “green” jobs that produce “wildlife-friendly” meat that aligns with the conservation of wildlife and habitat connectivity. Although the K-N WDA currently faces habitat degradation from bushmeat hunting, fences, and competition and conflict from wildlife and livestock, the potential to restore its wildlife biomass and enhance rural community livelihoods through landscape connectivity is perhaps the greatest opportunity that this region holds.

This proposal builds on the KAZA MIDP, KCCC Strategic Plan, a Heritage Trail Feasibility Analysis for western Ngamiland and from recent knowledge stemming from CBT initiatives, and purposes to develop a regional conservation strategy for the K-N WDA region of the KAZA landscape. The outputs and activities developed for this proposal result from inputs from key stakeholders, governmental departments, researchers and conservationists currently working in the K-N WDA.

Project Goal

The goal of this project will be to define the conservation strategy to protect core wildlife habitat, secure connectivity pathways and ensure communities are empowered to benefit from wildlife-based economies in the Khaundum-Ngamiand Wildlife Dispersal Area.

Project Structure

This project will be administered and implemented by the Botswana Predator Conservation Trust (BPCT). BPCT has been the longest and most continuous presence in northern Botswana in predator research and conservation with over 25 years of experience. In recent years BPCT has increased its presence in the K-N WDA through a variety of projects focused on human-wildlife conflict mitigation, community-based wildlife monitoring, commodity-based ‘wildlife friendly’ beef trade initiatives and pioneering the framework of a ‘Heritage Trail’ in the region to promote tourism and devolve benefits from wildlife to local communities.

Project Framework

The project framework has six outputs with corresponding activities. The overall outcome of the project framework is to develop the **K-N WDA Strategic Plan**.

Output 1 will align land use planning in western Ngamiland with K-N WDA conservation strategies.

Land allocations that go against the current land use plans for western Ngamiland threaten the viability of the K-N WDA (i.e. Livestock borehole allotments in the Wildlife Management Areas (WMAs) of NG 4 and 5). The five actions of this output aim to clarify the extent of encroachment into WMAs and critical wildlife corridors on the western side of the Okavango Delta: (1) to meet with regional Landboards and produce a land map with community trusts and governmental departments, (2) identify priority wildlife corridors through compilation of research on wildlife movements, (3) Analyse the Land Use Conflict Identification Strategy (LUCIS) first financed by USAID through the South African Regional Environmental Programme (SAREP) that was used to delineate elephant corridors in the Eastern Panhandle and develop a proposal to continue this work in western Ngamiland (4) establish land use planning resolutions by engaging with target communities, and (5) gain support for the K-N WDA initiative by consultation with private sector operators.

Output 2 will produce recommendations for increased law enforcement and prosecutions for wildlife crimes in western Ngamiland.

Recently it has been realized that a number of poaching syndicates are operating within the landscape however there has been little progress in arrests and prosecutions of those involved in illegal crime. To achieve this output, two actions will be implemented. First, illegal syndicates and other wildlife related crime will be addressed in targeted meetings with the Department of Wildlife and National Parks Anti-poaching Unit (DWNP APU), Botswana Defence Force (BDF) and Botswana Police Department. These consultations will aim to develop pathways to improve wildlife crime prevention in western Ngamiland. The second action is aimed to gain from successful community based wildlife monitoring initiatives recently implemented in the landscape (ie. Habu and Goshe), and develop a proposal for more community based wildlife monitoring programs in target communities that can aid to track wildlife movements and population dynamics in the K-N WDA. These communities stand to benefit from the monitoring program through the provision of wildlife-based employment opportunities.

Output 3 will generate a progress update and prioritization of actions in the current KCCC Strategy.

In light of recent knowledge there is a genuine need to update the current activity log in the KCCC Strategy and prioritize activities due to rapidly vanishing opportunities. While a number of activities highlighted in the KCCC strategy have gained traction (i.e. community-based wildlife monitoring, Heritage Trail planning and CBT policy related initiatives), several activities need re-evaluation and further development. Reviewing, revising, aligning, and updating the status of actions in the KCCC strategy and the KAZA MIDP for the K-N WDA plan will be needed to complete this output. In addition, updated conservation strategies and new opportunities will need to be incorporated into the conservation blue print for the K-N WDA.

Output 4 will compose recommendations for the formation of a legal governing body for the K-N WDA.

To do this, a legal advisor will be consulted to review lawful framework for establishing a K-N WDA Land Trust that will serve to secure core habitats and aid communities in benefitting from the K-N WDA through sustainable rangeland management practices and community based tourism.

Output 5 will foster cross border cohesion by meeting with key Namibian stakeholders including the Ministry of Environment Wildlife and Tourism (MEWT), private sectors, researchers and conservationists to establish a K-N WDA forum, that will serve to harmonize and direct the overall landscape strategy.

Output 6 will develop the K-N WDA Strategic Plan. To complete this deliverable, a draft of the strategic plan will be written and reviewed by the KCCC, KAZA secretariat, K-N WDA Thematic Working Group and other relevant stakeholders.

Work Plan and Timeframe

To accomplish the objectives laid out in the above framework this project should take an estimated 12 months from start date.

Output 1: Harmonize Land Use Planning in western Ngamiland with K-N WDA	Q1	Q2	Q3	Q4
Activity 1.1 Meet with Shakawe, Nokaneng and Gumare Land Boards, Department of Environmental Affairs and Department of Water Affairs to produce a land use map of all current and proposed land use allocations and borehole allotments for western Ngamiland.				
Activity 1.2 Compile all the current knowledge of research conducted on wildlife movements within the K-N WDA to define wildlife corridors and identify those most vulnerable and in urgent need of protection.				
Activity 1.3 Analyze LUCIS strategy used in eastern Panhandle of Okavango Delta and create proposal for replicating strategy for western Ngamiland.				
Activity 1.4 Site visits to targeted communities in western Ngamiland to establish clusters i.e. community structures for mobilization and land use planning resolutions.				
Activity 1.5 Engagement with key private sector operators in the K-N WDA to inform and garner support for the K-N WDA initiative.				
Output 2: Recommendations for increased law enforcement and prosecutions for wildlife crimes in western Ngamiland	Q1	Q2	Q3	Q4
Activity 2.1 Targeted meetings with Department of Wildlife and National Parks Anti-poaching Unit (DWNPAU), Botswana Defense Force (BDF) and Botswana				

Police Department to address known illegal syndicates and other regional wildlife related crime to develop pathways for effective wildlife based crime prevention.				
Activity 2.2 Develop a proposal for a community based wildlife monitoring program for targeted communities that will help shed light on wildlife movements and population dynamics in the K-N WDA while addressing poverty alleviation through the provision of wildlife-based employment opportunities.				
Output 3: Progress update and prioritize actions	Q1	Q2	Q3	Q4
Activity 3.1 Review, revise, align and update status of actions in KCCC Strategy and KAZA Master Integrated Development Plan (MIDP) for K-N WDA and incorporate added conservation initiatives and new opportunities.				
Output 4: Recommendations for the formation of legal governing body for the K-N WDA	Q1	Q2	Q3	Q4
Activity 4.1 Consultation with legal advisor to look at legal framework for a K-N WDA Land Trust.				
Output 5: Cross border cohesion	Q1	Q2	Q3	Q4
Activity 5.1 Meet with key Namibian stakeholders including MEWT, private sector, researchers and conservationists to establish a K-N WDA forum, harmonize and agree upon the overall landscape strategy.				
Output 6: Strategic Plan for K-N WDA	Q1	Q2	Q3	Q4
Activity 6.1 Write draft strategic plan to be reviewed by KCCC, KAZA secretariat, K-N WDA Thematic Working Group for review.				

Reporting

Quarterly narrative reports will be submitted to WWF Namibia (exact dates to be determined pending on dispersal of project funds). *The level of reporting content and detail will be based on the budgeted work days and at the discretion of BPCT.*

Budget

Budget Item	Quantity	Unit Cost US\$	Total Cost US\$	Justification
Personnel				
Principal Consultant	40 (days)	300	12000	Project coordination, organizing stakeholder meetings, reporting
Technical Consultant	15 (days)	300	4500	Facilitate targetted meetings, report writing
Legal Consultant	10 (days)	300	3000	Land Trust Consultation and Development
Travel				
Flights	2	250	500	2 roundtrips (Gaborone and Windhoek) to meet with key stakeholders
Fuel	5 (trips)	1400ks*.7/km	5000	Avg. approximate of roundtrips to strategic locations in K-N WDA repair fees included
Accommodation/food	-	-	2000	Hotels in Shakawe, Gumare, Gabarone and Namibia
Administration				
Running costs	-	3000	3000	Communication, Coordination, reporting
			Total	30000

References

In preparing this K-N WDA Proposal, reference was made to various reports, guidelines, and plans. These are listed below:

KAZA TFCA Master Integrated Development Plan. 2015-2022. KNWDA strategy/Final Draft KAZA TFCA Master ID_June 2017.

KCCC Strategy. 2018-2022. [KNWDA strategy/KAZA Carnivore Conservation Strategy lowres final Draft.docx](#)

Khaudum-Ngamiland (K-N) Thematic Working Group Workshop. August 2016. Maun, Botswana. Workshop Proceedings, Notes and Outcomes. [KNWDA strategy/Khaudum-Ngamiland Proceedings Draft final 011216 KH KO BH.docx](#)