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Kavango Zambezi Trans Frontier Conservation Area

Angola
Botswana
Namibia
Zambia
Zimbabwe

KAZA

POLICY BRIEF

Elephant Movements and Connectivity in the Kavango Zambezi Transfrontier Area (KAZA TFCA)

Compiled under the auspices of the KAZA Elephant Sub Working Group

January 2023

CONTENTS

EXECUTIVE SUMMARY

The Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA) is home to the largest population of elephants in the world. In 2011, the KAZA Partner States signed the KAZA Treaty and therein committed to the following among other objectives:

1. Maintain and manage the shared Natural and Cultural Heritage Resources and biodiversity of the KAZA TFCA to support healthy and viable populations of wildlife species;
2. Promote and facilitate the development of a complementary network of Protected Areas within the KAZA TFCA linked through corridors to safeguard the welfare and continued existence of migratory wildlife species; and
3. Promote fundamental and applied scientific and multi-disciplinary research in order to increase the knowledge base for the KAZA TFCA (KAZA Treaty, 2011).

In 2019, a Strategic Planning Framework for the Conservation and Management of Elephants in the Kavango Zambezi Transfrontier Conservation Area was developed and endorsed by the partner states, with the following vision: "KAZA's elephants, the largest viable and contiguous population in Africa, are conserved to the benefit of people and nature within a diverse and productive landscape".

The long-term viability of KAZA's elephants as a transboundary meta-population depends upon maintaining landscape connectivity. Thus, securing and connecting (or re-connecting) wildlife corridors and other high-connectivity value localities in the TFCA is a crucially important first step. Doing so will also allow movement from densely populated areas within the landscape to areas with greatly reduced elephant numbers. Transboundary movement corridors across KAZA TFCA are in various stages of intactness and face the potential threat of permanent closure due to, *inter alia*, encroaching human settlements, agriculture and infrastructure developments (e.g. roads, rail), livestock disease control measures (veterinary cordon fences), and potential mining developments.

In order to work towards the objectives and vision of the KAZA Treaty and the Strategic Planning Framework for the Conservation and Management of Elephants in the KAZA TFCA, the KAZA Elephant Sub Working Group (KESWG) was established and endorsed in 2022. The KESWG is a sub-working group of the KAZA Conservation Working Group comprising Partner State government and NGO conservation practitioners. KESWG works collaboratively and across national boundaries to develop and implement a strategic and unified program of outcome-focused activities related to KAZA's elephants and to facilitate the implementation

of the objectives of the Strategic Planning Framework for the Conservation and Management of Elephants in the KAZA TFCA. The aim is to secure KAZA as a focal landscape for elephants and other wildlife for the benefit of rural communities and society at large, in so doing meeting the vision and objectives of the KAZA Treaty as a nature-based driver of sustainable development, facilitating connectivity and promoting multi-disciplinary and collaborative research.

Emerging from meetings of the interim KESWG, the KAZA Secretariat submitted a concept note to the KAZA Partner States on the need for a policy brief on elephant connectivity in the KAZA TFCA, to be informed by the application of long-term monitoring data from elephant GPS collars. This document provides an overview of the current data and knowledge that KESWG has regarding elephant movements and connectivity in KAZA. It provides recommendations for securing and maintaining corridors at different scales to ensure persistence of landscape connectivity for elephants and other migratory wildlife.

Observed movements and predictive analyses highlighted a number of areas of high importance for maintaining connectivity through the KAZA TFCA, but it is also recognised that there are some significant threats to habitat connectivity across the broader KAZA landscape. Physical anthropogenic barriers (i.e., fences, roads and railways), human-elephant conflict, poaching and land use change pose the most significant threats to elephant and other wildlife movement connectivity in KAZA. Recommendations for actions needed to facilitate maintaining connectivity have been highlighted. It is important to consider the level of threats to connectivity on an ongoing basis so that a risk profile can be up-to-date and solutions for maintaining connectivity realistic.

INTRODUCTION

The KAZA TFCA's objective is to "promote and facilitate the development of a complementary network of Protected Areas within the KAZA TFCA linked through corridors to safeguard the welfare and continued existence of migratory wildlife species". KAZA presents a wonderful opportunity for the conservation of wide-ranging mammals. The TFCA is home to approximately half of Africa's remaining savanna elephants (Fig. 1). The latest elephant surveys undertaken during 2014 and 2015 in the KAZA area revealed a combined population of at least 220,000 across the five countries.

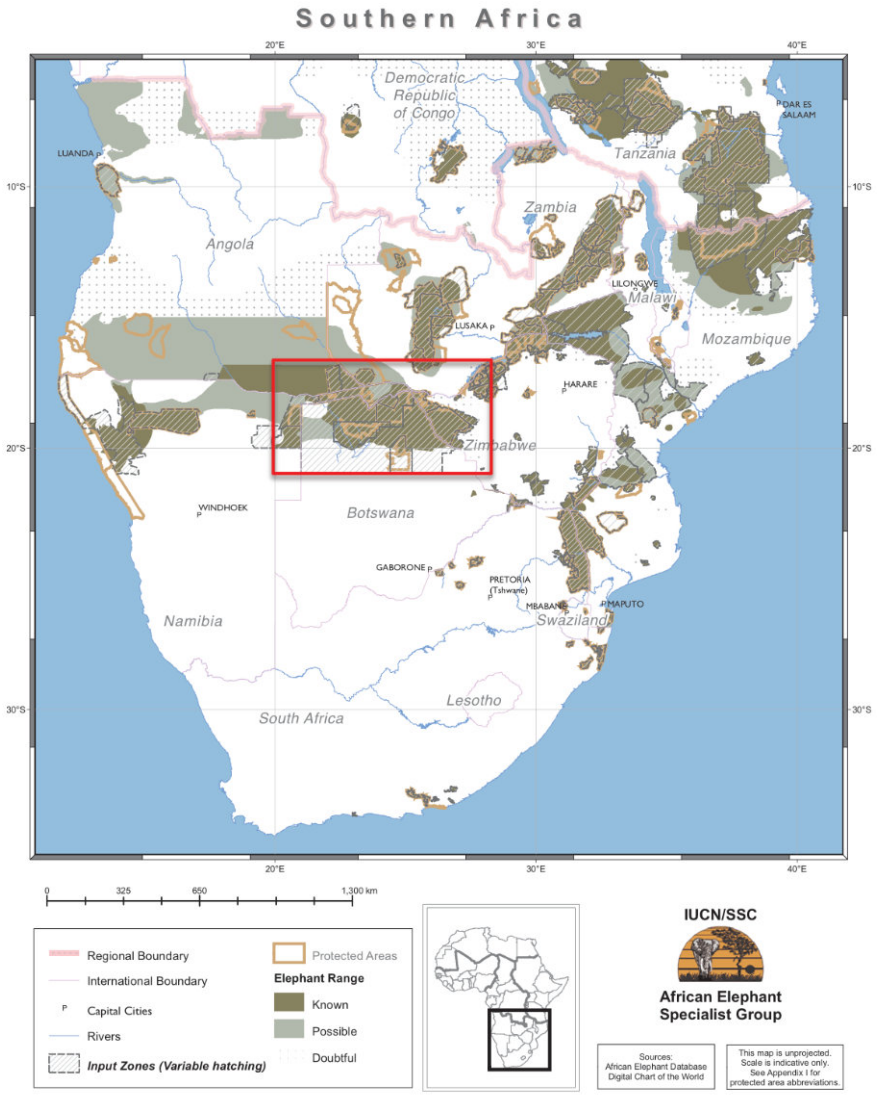

Fig. 1. African Savanna elephant *(Loxodonta africana)* range, with the KAZA TFCA highlighted in the red box.

In responding to these country-based counts and recognizing the need for a coherent approach, particularly during the current wildlife crime epidemic, the KAZA Partner States approved a Strategic Planning Framework for the Conservation and Management of

Elephants. One key objective of the framework is to maintain and manage KAZA's elephants as one contiguous population. To do so, the need for the first KAZA-wide aerial survey to provide a precise and accurate estimate of its elephant numbers has been recognized as an immediate priority. To this end, a coordinated synchronised KAZA-wide aerial survey was completed during August-October 2022 and data analysis and reporting are currently underway.

The long-term viability of KAZA elephants as a transboundary population depends upon securing landscape connectivity between protected areas. This ensures that important wildlife movement corridors between core habitats are identified and that elephants continue to play a role in human-occupied spaces between protected areas. To achieve this habitat connectivity, conflicting land uses, Human-Elephant Conflict (HEC) and illegal killing of elephants must be addressed. This will also facilitate elephant movement from densely populated areas within the landscape to areas with greatly reduced elephant numbers. However, a number of corridors are in various states of intactness and face the potential threat of permanent closure due to, among others, encroaching human settlements, agriculture and infrastructure developments (roads, rail, riparian), livestock disease control measures (veterinary cordon fences), and potential mining developments.

STATEMENT OF NEED

In seeking to pursue implementation of the objectives contained in the KAZA Treaty and the Strategic Planning Framework for the Conservation and Management of Elephants in the KAZA TFCA, the KAZA Secretariat submitted a concept note in early 2020 to the KAZA Partner States on the need for a policy brief on elephant connectivity in the KAZA TFCA, to be informed by the application of long-term monitoring using elephant collaring data. Subsequent endorsement and approval for the policy brief as described was received from the Partner States.

The policy brief consists of overview maps of all available elephant movements over the last decade or so, with an interpretation of the most prevalent movement routes and likely corridors. Additional derived products include animations that highlight the scale of elephant movements, heat maps representing movement frequencies, and modelled representations of current and potential future movement corridors. The assessment has been compiled for this specific purpose solely for use by the Partner State governments.

FINDINGS

a) Distribution and intensity of use of collared elephants

Our dataset (Fig. 2) includes > 3.9 million GPS observations from 291 collared elephants, of which 165 are females and 126 males, with the following collaring effort per country: Angola – 19 individuals (8 males, 11 females); Botswana – 60 individuals (35 males, 25 females); Namibia – 88 individuals (25 males, 63 females); Zambia – 32 individuals (23 males, 9 females); Zimbabwe – 92 individuals (35 males, 57 females). Intensity of use (i.e., number of GPS coordinates per 500-m grid cell, corrected for number of sampled individuals) is presented in Fig. 3. Areas that show particularly heavy use by elephants include (from west to east) parts of Khaudum National Park (Namibia), Mahango Game Reserve (Namibia) and adjacent areas in southern Angola and northern Botswana, the eastern Okavango Panhandle area (Botswana), Sioma Ngwezi National Park and adjacent areas to the east (Zambia), Livingstone-Victoria Falls, waterfront areas of Chobe National Park (Botswana), Kwando-Linyanti river system, southern Kafue National Park (Zambia), and Hwange National Park

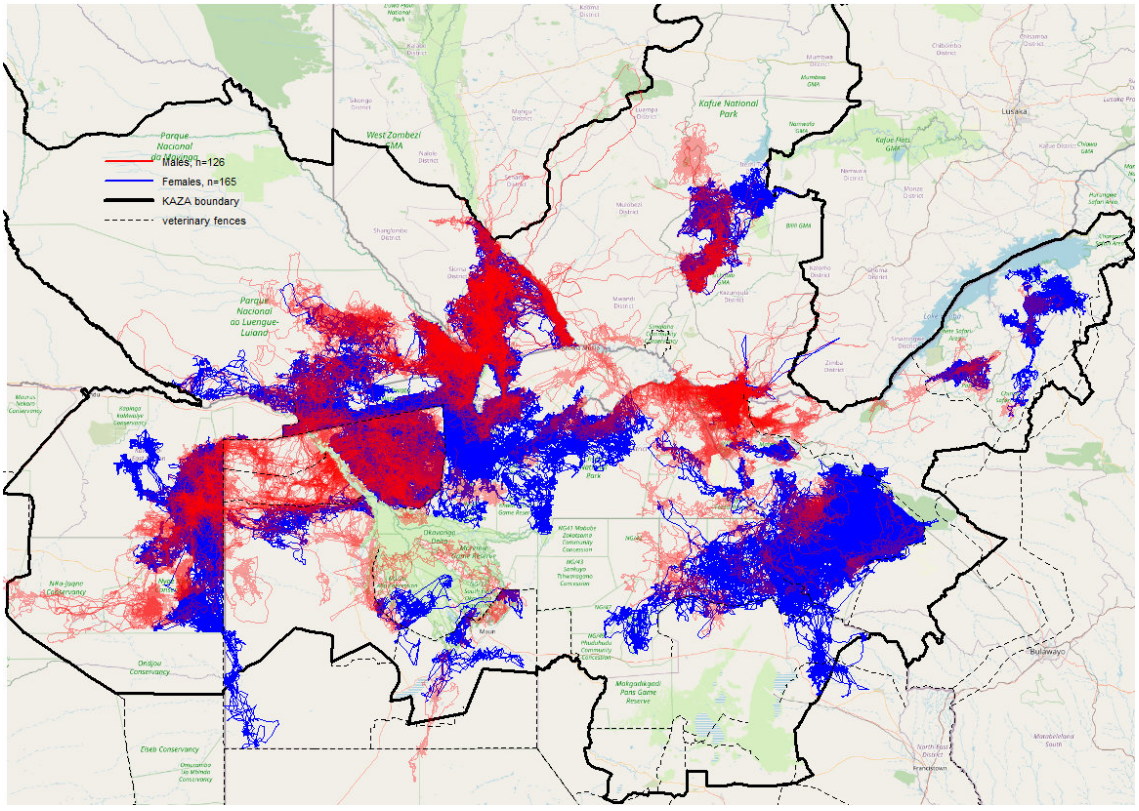

Fig. 2. Movement trajectories from 291 GPS-collared elephants (collaring done at various times from 2010 – present) in the Kavango-Zambezi transfrontier conservation area (KAZA). Red lines indicate male movements (n=126), blue lines female movements (n=165). Background map from OpenStreetMap; fences and the KAZA boundary are also indicated. Please note, where there are no tracks mapped it means that there were no collared elephant data in these areas available, it does not necessarily mean that there are no elephants.

(Zimbabwe). It must be noted that movement data presented here is from a sample of elephants within the KAZA TFCA and where movement has not been captured does not necessarily mean there is an absence of elephants or elephant movements.

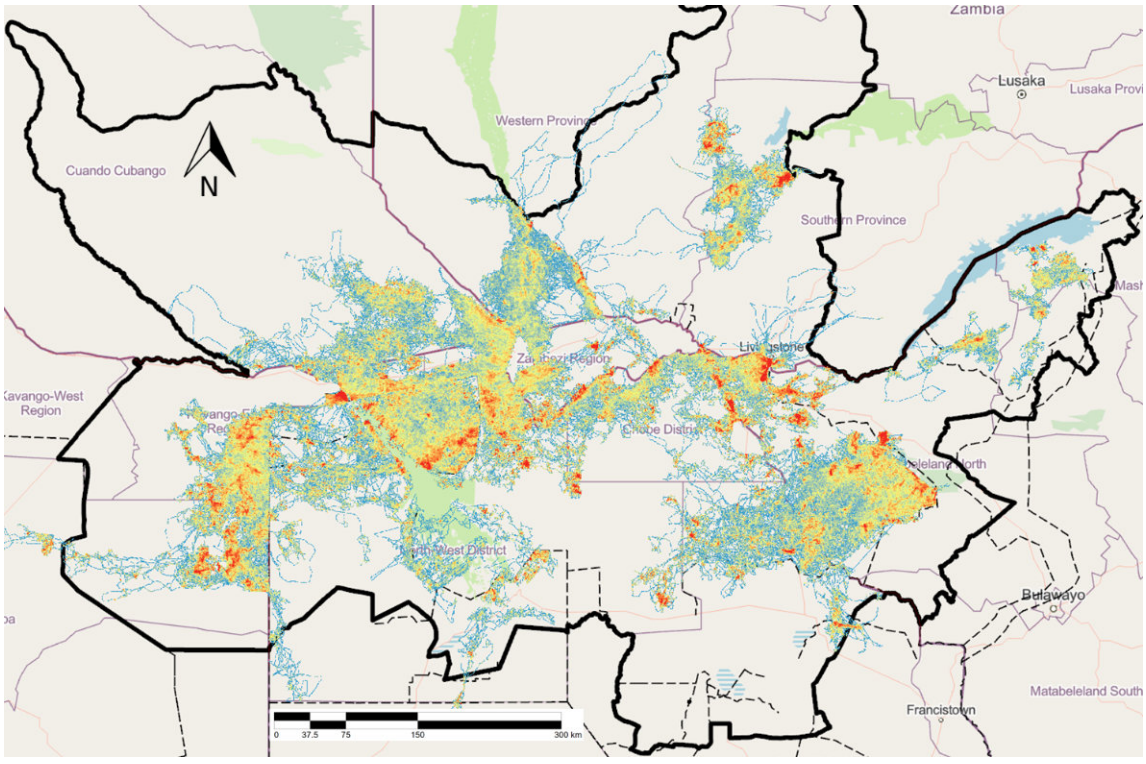

Fig. 3. Intensity of use, by 500-m grid cell, of collared elephants in the Kavango-Zambezi transfrontier conservation area. Intensity of use is defined by the (log-transformed) number of GPS points in each grid cell divided by the number of individual elephants that used the grid cell. This provides a measure of use that corrects for the fact that elephants are sampled unevenly throughout the TFCA, with warmer colours representing higher intensities of use. Please note, areas where no data is mapped indicates that none of the collared elephants in this study used them, it does not necessarily mean that there are no elephants utilising or moving through these areas.

b) Key Transboundary movements

Of the 291 collared elephants, 127 (44%) crossed an international border at least once, including 67 males (53%) and 60 females (36%). Transboundary movements were particularly frequent across unfenced land border sections, such as between southern Angola, Namibia, and northern Botswana along the Kwando River; southern Angola and Namibia near the Okavango River; southern Zambia and Namibia from Sioma Ngwezi southwards, and along various stretches of the Botswana – Zimbabwe border (Fig. 4). Transboundary movements also occurred across river borders (e.g., in some places across the Zambezi river between Zambia and both Namibia and Zimbabwe) and across fences, although the latter movements were more restricted and occurred almost exclusively among male elephants. Save for a single female at the very southwest edge of KAZA who crossed a border fence several times in 2021 and 2022, fenced borders have proven to be a completely impermeable barrier to collared female elephants in our dataset (Fig. 5).

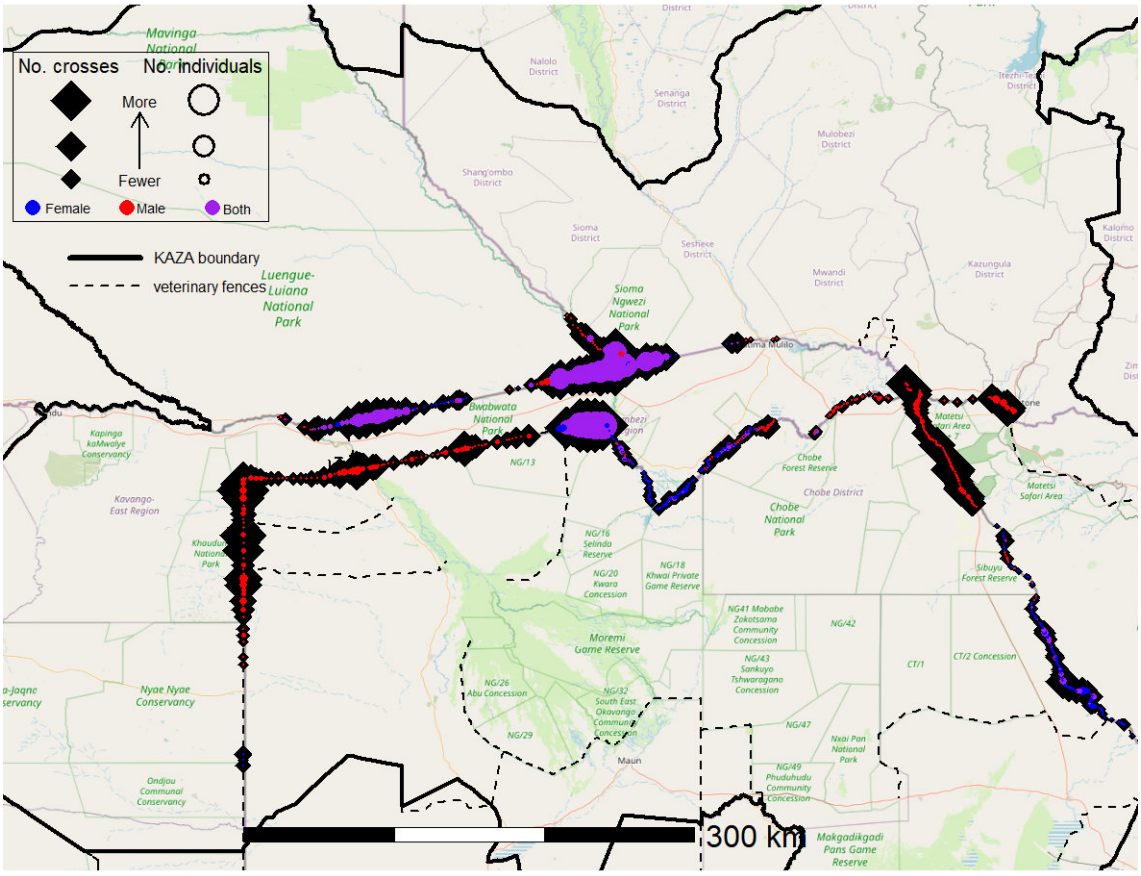

Fig. 4. Border crossing events by 291 GPS-collared elephants in the Kavango-Zambezi transfrontier conservation area (KAZA). Sizes of black crosses and circles are scaled to represent number of crossing events, and number of individuals making a cross, respectively, with larger symbols indicating more of each. Colours indicate whether a border segment is crossed primarily by males (red) or females (blue), or whether both sexes cross (purple).

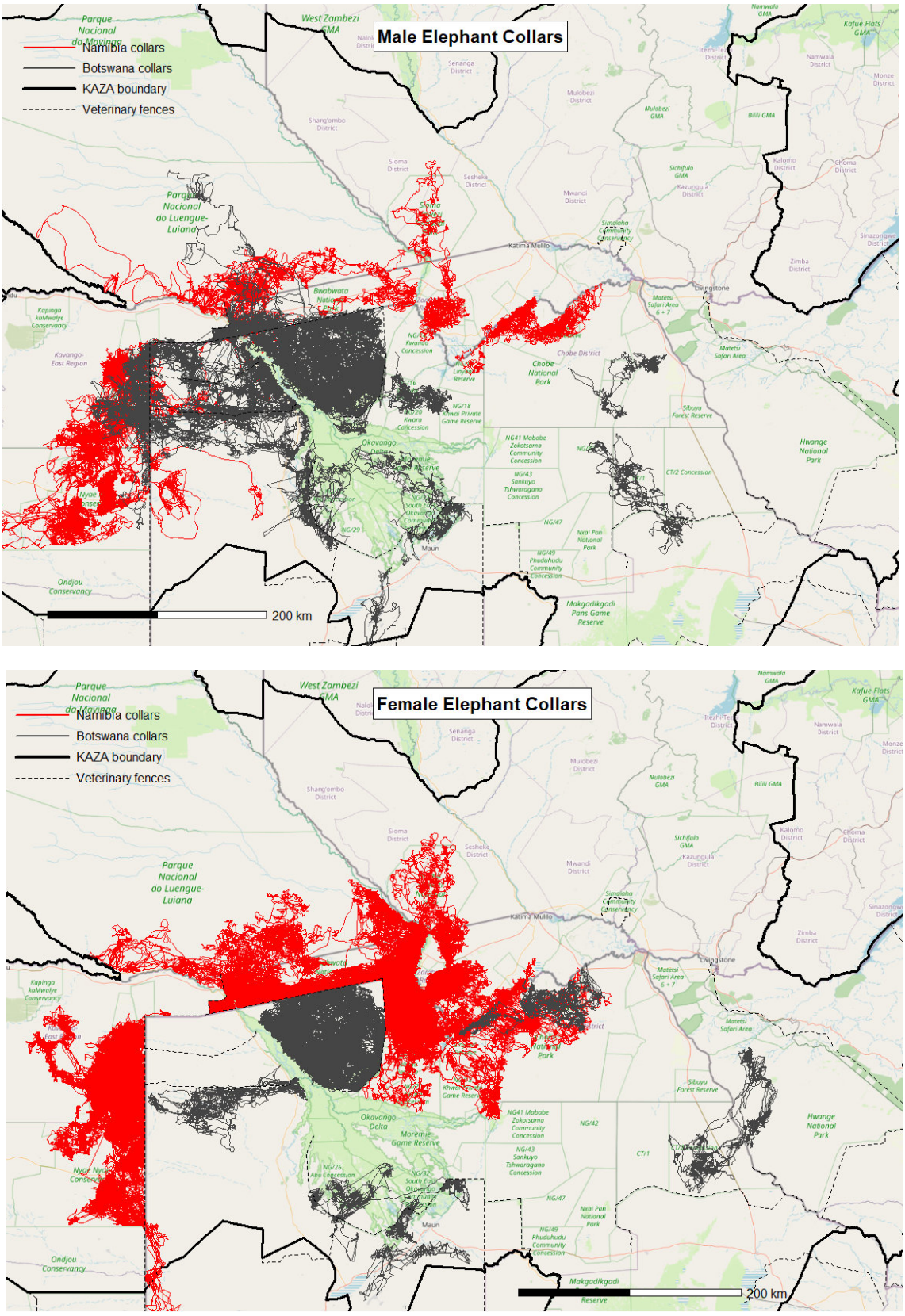

Fig. 5. Effect of border fences on movement of male (top panel) versus female (bottom panel) elephants collared in Namibia (red) and Botswana (gray). Males cross border fences regularly, whereas for females they are almost complete impermeable barriers to movement.

c) Observed elephant movement corridors

Movements indicating the possible presence of micro corridors (i.e., swift, directed movements in a linear orientation) were detected throughout the TFCA (Fig. 6). These corridors and corridor movements fall into three categories:

1. Directed movements to and from water (e.g. Fig. 6, 'A'): as in the Okavango Panhandle region, other areas along the Okavango, Kwando, Zambezi and Chobe/Linyanti rivers, and also in Khaudum and Hwange National Parks to/from artificial water points.

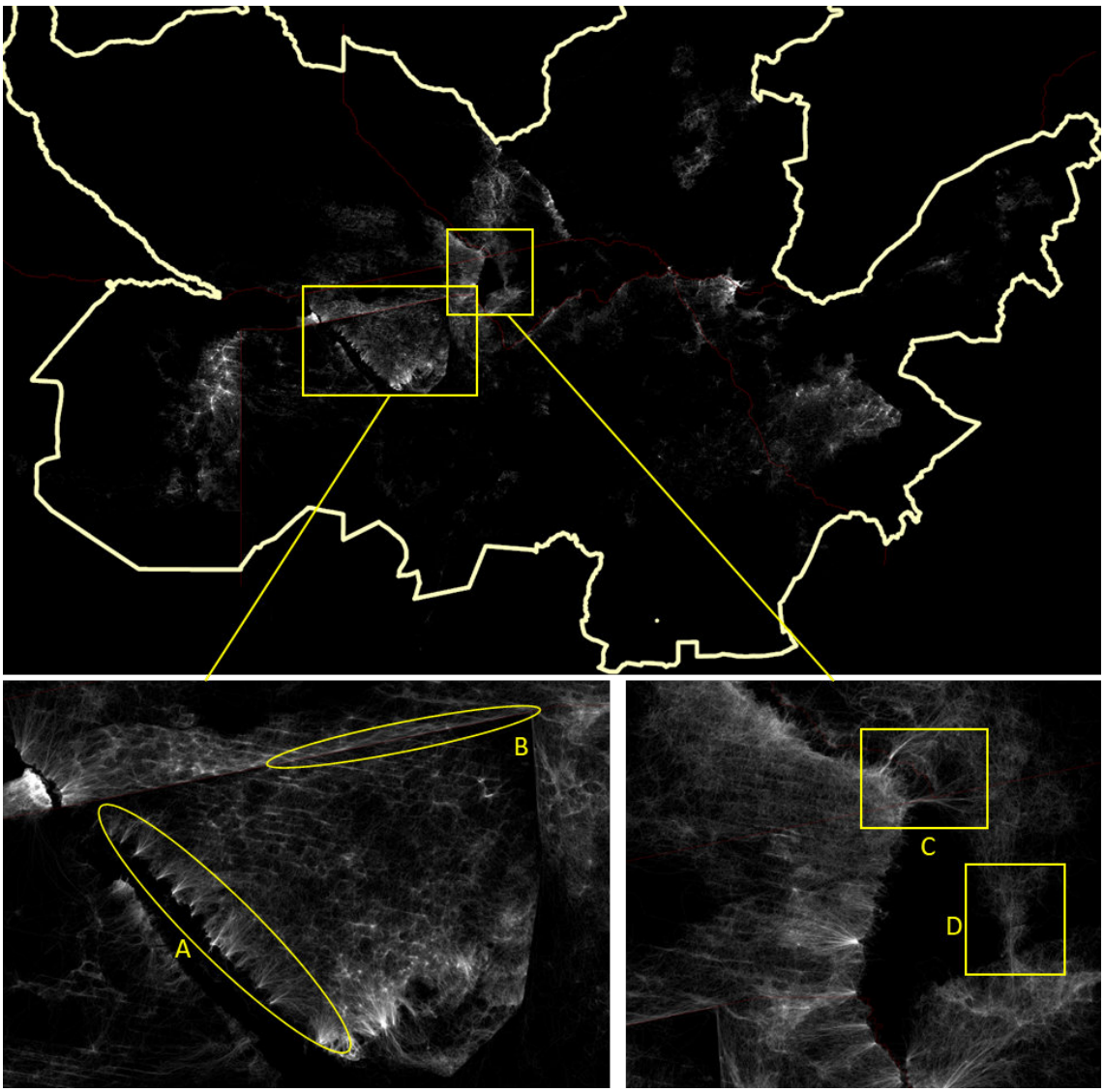

Fig. 6. Location of directed movements from 291 GPS-collared elephants that are indicative of elephant movement corridors across the Kavango-Zambezi transfrontier conservation area (upper panel), with location of insets (lower panel) indicated by square boxes. Brighter areas indicate more concentrated movements. See text for description of example areas A-D.

2. Directed movements along fences, with fences acting not only as barriers but also appearing to 'channel' movements alongside them. This is particularly prevalent alongside the Namibia-Botswana border fence in Bwabwata National Park (e.g. Fig. 6, 'B'), but also alongside other fences in Namibia and Botswana, especially the Northern Buffalo Fence.

3. Pinchpoints and directed movements reflecting elephant movement across (e.g., roads) or between (e.g., agricultural areas) human-modified parts of the landscape. For example, the clear, sharp corridors along the Namibia/Botswana/Angola border that occurs between agricultural fields (Fig. 6, 'C'), along with many others found throughout the TFCA. In particular, the Sobbe corridor in the Zambezi region of Namibia is an important transfrontier corridor (Fig. 6, 'D') that connects Sioma Ngwezi National Park in Zambia with Mudumu National Park in Namibia, with elephants using this corridor and then often crossing into northern Botswana. This micro corridor is wide enough that there are lateral movements side-to-side within it, rather than movements strictly following its north-south orientation. This is accentuated by a main tar road that bisects the corridor and acts to deflect elephants, sometimes sending their movements in perpendicular directions rather than exclusively parallel to the corridor.

d) Modelled, potential movement corridors

Extrapolating beyond our movement dataset to the broader KAZA landscape requires developing a model of long-range elephant movements in relation to important and observable landscape factors, and then using this model to predict 'permeability' to such movements across the entire TFCA. We used this permeability layer and assessed connectivity between sources and destinations of elephant movement via a least-cost corridor approach (Appendix available upon request from the KESWG for modeling details). These modelled results (Fig. 7) suggest several areas throughout the TFCA that may act as long-range or macro movement corridors, facilitating dispersal and or range expansion of elephants across large distances. Such important potential areas include connections from Chobe to the Victoria Falls area, the Kwando River corridor, Sioma Ngwezi through to Kafue National Park via a potential northeast movement corridor, and north-south connectivity from Kafue National Park to Victoria Falls. On the other hand connectivity between the Okavango Delta and other parts of KAZA appears limited, mostly due to fencing, as does connectivity in the Khaudum-Ngamiland Wildlife Dispersal Area (WDA), a situation likely to be worsened with the recent repair of the north-south border fences between Namibia and Botswana.

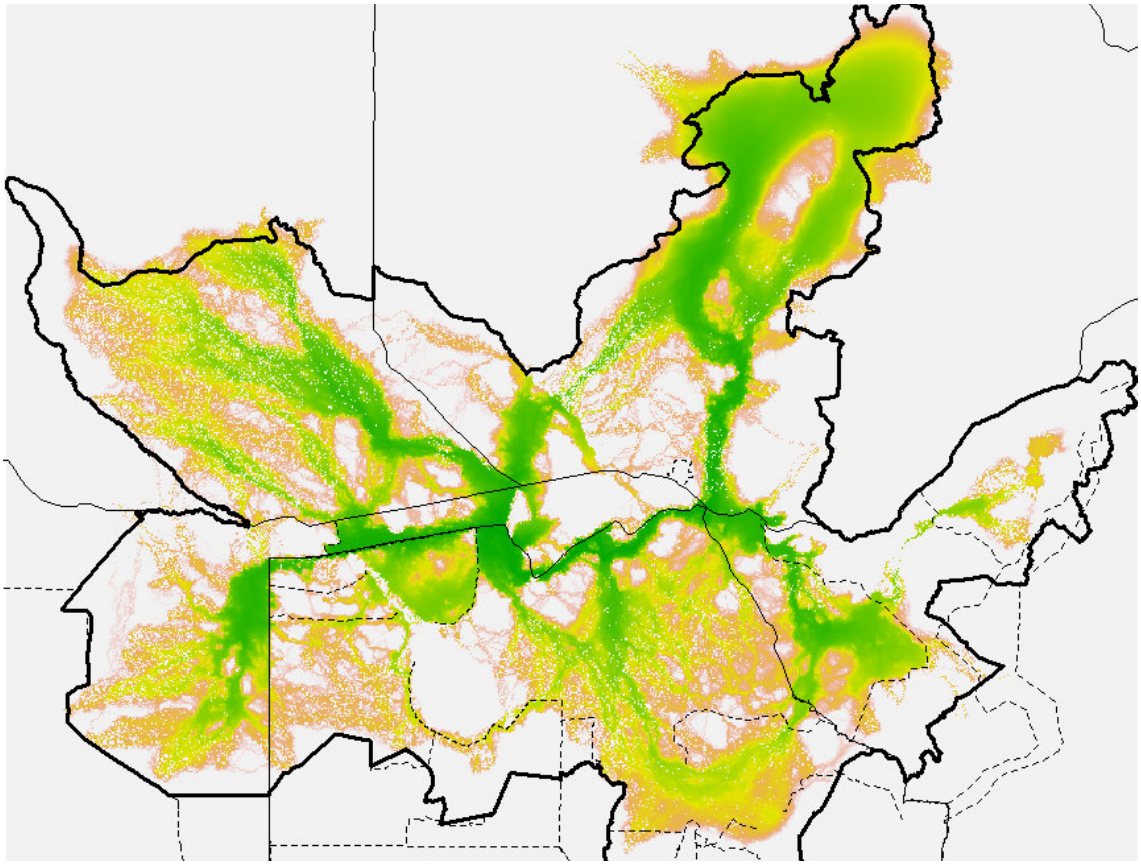

Fig. 7. Potential elephant connectivity and long-distance movement corridors in the Kavango-Zambezi transfrontier conservation area. Green shading indicates areas of highest connectivity. See text for indicative description.

e) Threats to Connectivity

It is recognised that there are some significant threats to habitat connectivity across the broader KAZA landscape. Fences, roads and land use changes e.g. infrastructure developments; human-elephant conflict (HEC); and poaching pose the most significant threats to elephant and other wildlife movement connectivity in KAZA. These threats were identified through expert knowledge and key KESWG stakeholder input with three main categories mapped, including HEC hotspots, poaching hotspots and other threats (including fences, roads and land use change), (see Fig. 8). Further detailed analysis is needed at each Wildlife Dispersal Area (WDA) level to identify specific threats and actions needed to maintain connectivity through both macro and micro corridors.

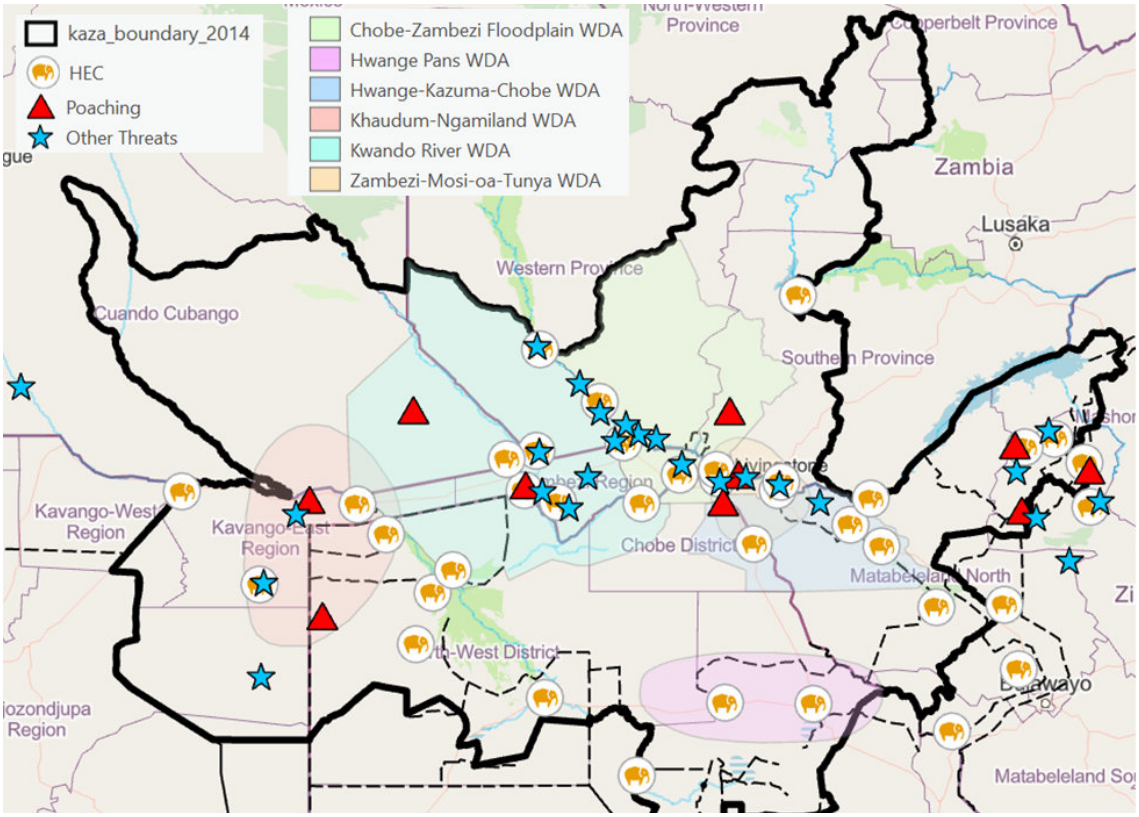

Fig. 8. Map of threats to connectivity across the KAZA TFCA, with red triangles indicating poaching hotspots, orange elephant markers indicating human-elephant conflict hotspots and blue stars indicating other threats to connectivity. These markers have been placed using expert opinion from KESWG forum members.

i) Physical Barriers to Movement

Fences

The collated KESWG elephant collar data shows that both male and female elephants are impacted by certain fences within the KAZA landscape, but this impact is much greater for female herds (see Fig. 5). It is evident that the northern buffalo fence in Botswana, the Botswana – Namibia Zambezi border fence, and the Botswana-Namibia western border fence are substantially constraining elephant movements.

Roads/Other Infrastructure

The data shows that roads and other infrastructure (e.g., railways) are having an impact on elephant movements in KAZA, for example highway B8 in Namibia has restricted female herd movement out of sections of Bwabwata National Park (see Fig 5).

Actions Needed:

- Review fences and their alignment to see where barriers to movement can be removed and connectivity enhanced;
- Increase signage on roads and railways, to facilitate safe movement of elephants across these barriers;
- Consider gates/bridges/tunnels on physical barriers to facilitate elephant movement.

ii) Land Use Change

In certain areas of KAZA, there are threats to connectivity associated with land use change, where mining developments, tourism developments, logging, and large agricultural irrigation projects are occurring. In addition, artificial water provision affects the natural distribution and movement patterns of elephant across the landscape and future proposals for artificial water provision need to be carefully reviewed.

Actions Needed:

- Expand current understanding of elephant movements in the KAZA landscape at each Wildlife Dispersal Area (WDA) level, in relation to where key resource areas are and threats to connectivity;
- Consideration of elephant and other wildlife movements in the planning phase of future development projects in KAZA;
- Review proposals for artificial water provision carefully and conduct further research on the effect of artificial water provisions on regional elephant movements.
- Cross-stakeholder, cross-border engagement and participation in the identification, development, and formal designation of elephant micro and macro corridors;
- Use of stakeholder participation tools and GIS models, like the ESRI ArcGIS' Land Use Conflict Identification Strategy (LUCIS) that help zonation of different land uses: placing agriculture and other development expansion zones away from critical elephant movement corridors.

iii) Human-Elephant Conflict

With both human and elephant populations increasing within KAZA and more land needed for agriculture and development, elephant movement corridors are under threat of being blocked, which will undoubtedly intensify levels of Human-Elephant Conflict (HEC).

Census data and information contained in the five KAZA countries' national integrated development plans suggest that the KAZA TFCA comprises 519,914 km^2 with a human

population of 2,677,086, giving an overall population density of 5.15 people/km^2. KAZA is home to the largest contiguous population of elephants in Africa, with ranges expanding outside of protected areas. The elephant population in KAZA is estimated to be 220,000, giving an overall population density of 0.42 elephants/km^2. Wherever and whenever elephants move into areas utilised and inhabited by people, there is a chance of negative interactions between people and elephants which can result in conflicts. A critical component to the success of facilitating larger regional scale movement of elephants and maintaining the functionality and connectivity of WDAs is therefore the protection of key local scale movement routes (micro level-corridors) through human inhabited areas that link critical resource use areas (as per Fig. 6, 'A'). Protecting such important movement corridors at a local level is essential for addressing land use conflicts - a key underlying driver of HEC. Community participation in the designation and acceptance of such corridors is key for success of such local scale movement corridors. Such corridors are being mapped in different areas across KAZA using different techniques. For example, in Botswana the Land Use Conflict Identification Strategy (LUCIS) is being used to identify existing and potential land use conflicts through a participatory approach and incorporating the needs of different stakeholders, including elephants and other wildlife (see Fig. 9). In Namibia, wildlife corridors are being mapped through participation from the community and the Government of Namibia have produced a report on Wildlife Corridors of the Zambezi region *"A Strategy for their Maintenance, Conservation, Socio-Economic Development and Human Wildlife Conflict Management"*.

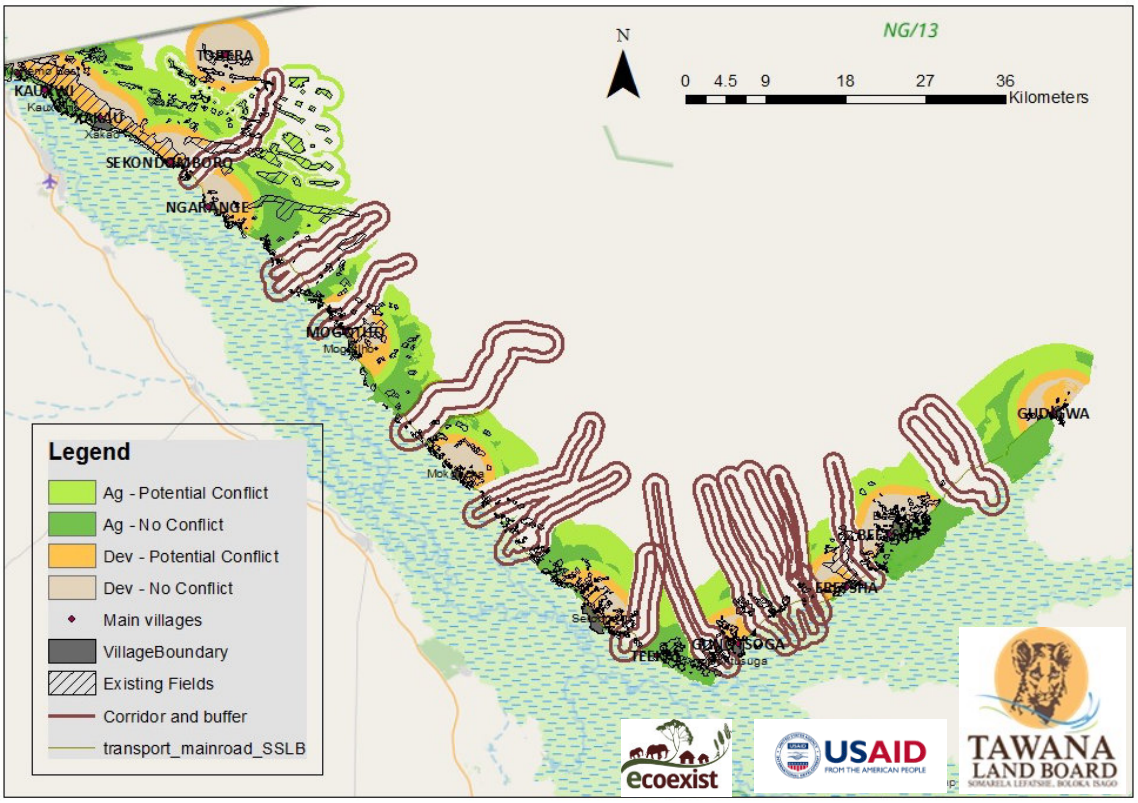

Fig. 9. Land Use Conflict Identification Strategy (LUCIS) map to guide future land use planning in the Okavango Panhandle, Botswana. Thirteen elephant corridors to allow access from dry land resources to the Okavango, areas of suitable soil for agriculture development and settlement expansion areas are incorporated into this plan. All are endorsed by Tawana Land Board, DWNP, and Ministry of Agriculture and corridors are demarcated.

Actions Needed:

- Holistic HEC management strategies are needed to reduce human-elephant conflict in the short and long term, which include:
  - land use planning that incorporates both micro-level (e.g., Fig. 9) and transboundary macro level movement corridors across the KAZA WDAs, ensuring elephants access key resources;
  - accessible elephant deterrent 'toolbox' adopted and shared widely to department officers, practitioners, and communities with techniques that can protect larger areas of arable land (i.e. solar electric fencing) as well as individual fields/property (i.e. chilli deterrents, solar lights, bee hive fences);
  - use of sustainable agriculture techniques to improve food security, make it easier to manage and protect fields, and reduce "slash 'n burn' habitat conversion rates;
  - economic diversification options that can bring benefits back to people from living with elephants and maintaining elephant micro-corridors;
  - increased awareness on how to be safe around elephants;
  - provision of access to safe transport, safe water access for people living in areas with high densities of elephants.

iv) Poaching

Illegal killing of elephants can affect the distribution of elephants across a landscape and lead to areas being avoided by elephants. This can significantly affect the connectivity of the landscape, preventing elephants from moving into high-risk areas. High levels of human elephant conflict can also result in negative attitudes towards elephants among communities and increase the likelihood of local people becoming more involved in elephant poaching incidents. Addressing both HEC and illegal killing of elephants simultaneously, will be important to maintain connectivity across the KAZA landscape.

Actions Needed:

- Focus actions to combat wildlife crime in key poaching hotspot areas where elephants and other wildlife need to move;
- Awareness raising on wildlife crime issues and consequences;
- Increase stewardship towards elephants through improved benefits to communities living with elephants;
- Reduce human elephant conflict and help transform negative perceptions of elephants to positive ones that promote a sense of pride in a valuable natural resource.

CONCLUSION – IMPLICATIONS AND RECOMMENDATIONS

The Collated KESWG data highlights important areas for connectivity within the existing wildlife dispersal areas (WDAs) in the KAZA TFCA and in some key additional areas. Transboundary movements were particularly frequent in unfenced land border areas and across river borders. In our dataset, fenced borders proved to be a completely impermeable barrier to collared female elephants, however male elephants did occasionally cross fences. The movement data indicated the presence of three types of micro corridors: a) directed movements to and from water; b) directed movements along fences, with fences acting not only as barriers but also appearing to 'channel' movements alongside them in a directed way; and c) pinchpoints and directed movements reflecting elephant movement across (e.g., roads) or between human-modified parts of the landscape (e.g., agricultural areas). These different types of movements can happen over a few days but can also change seasonally, especially when elephants are migrating from one resource area to another.

Observed movements and predictive analyses highlighted a number of areas of high importance for maintaining connectivity through the KAZA TFCA, but it is also recognised that there are some significant threats to habitat connectivity across the broader KAZA landscape. Physical anthropogenic barriers (i.e. fences, roads and railways), human-elephant conflict, poaching and land use change pose the most significant threats to elephant and

Fig. 9. An example of a functional elephant corridor within the Kwando Wildlife Dispersal Area (WDA). *(Photo. A Stronza, Ecoexist)*

other wildlife movement connectivity in KAZA. It is important to consider the level of threats to connectivity on an ongoing basis so that a risk profile can be up-to-date and solutions for maintaining connectivity realistic.

Recommendations and actions to reduce the threats to connectivity within KAZA include:

- Identify the key natural resource use focal points in KAZA (e.g., water, woodlands) which need to be available for access by elephants (and other wildlife);
- Undertake regular KAZA-wide synchronised aerial surveys to determine trends in numbers and seasonal distributions;
- As appropriate, assess the feasibility of removal or realignment of fences to allow movement – particular consideration to the northern buffalo fence in Botswana, the Botswana – Namibia Zambezi border fence, and the Botswana-Namibia western border fence;
- Focus interventions at key HEC hotspots, including mapping and facilitating micro-corridors along key large-scale macro movement/migration routes to facilitate connectivity within WDAs: making space at a micro-level between arable land and settlements to facilitate both frequent short-term and longer-term seasonal elephant movements throughout KAZA;
- Focus efforts on awareness and participation of communities (and the importance of their input) in corridor identification and protection/maintenance, how it can help alleviate HEC and generating opportunities to diversify tourism and other revenue streams for respective communities living alongside them;
- Leverage elephant corridors for further investment into 'nature-based solutions' for communities living with elephants: wildlife credit or green bonding investment schemes, ultimately focused on improving and diversifying local livelihoods among the communities living with elephants;
- Increase signage on roads where animals need to cross to ensure corridors/movement routes are considered;
- Standardise data collection on HEC and potential threats to connectivity across KAZA, including data on wildlife crime incidents, land use conversion etc. This could be achieved through standardising the data collected and the modes of collection, like using the ESRI Conservation Tools Survey123 app, or the the Spatial Monitoring and Reporting Tool (SMART) app that can be easily integrated into KAZA Impact Monitoring (KIM), on a central database;

- Invest in ground-truthing with a view to applying holistic and integrated approaches to connectivity research and monitoring corridors and their maintenance;
- Address cross-border operational challenges of doing connectivity research work e.g. strategies and permissions for retrieving collars and data across borders;
- Establish standard operating procedures or a collaborative protocol for research that address the above;
- Review proposals for artificial water provision and other developments carefully, with consideration for how these may affect and/or sustain transboundary and local elephant movements and maintain corridors;
- Policies and legislations are needed within KAZA to enable connectivity. Partner States have different management plans throughout the KAZA landscape and each needs to reinforce the need for policy and legislative responses to facilitate connectivity across the landscape;
- Engage the expertise and involvement of KESWG members for implementation of recommendations where needed.

ACKNOWLEDGEMENTS

We would like to extend our sincere gratitude to all the KAZA partner countries and organisations who contributed data for this policy brief. These include:

- Republica de Angola Ministerio do Ambiente (MINAMB) Instituto Nacional de Biodiversidade e Areas de Conservacao (INBC)
- Department of Wildlife and National Parks (DWNP), Botswana
- Ministry of Environment, Forestry and Tourism (MEFT), Namibia
- Ministry of Tourism, Environment and Natural Resources, Zambia
- Zimbabwe Parks and Wildlife Management Authority, Zimbabwe
- African Lion and Environmental Research Trust (ALERT), Zimbabwe
- African Parks, Zimbabwe
- Connected Conservation, Zimbabwe
- Centre National de la Recherche Scientifique (CNRS), Zimbabwe
- Ecoexist Trust, Botswana
- Elephant Connection, Zambia
- Richard Hoare, Zimbabwe
- Space For Giants, Angola
- Wilderness Safaris Wildlife Trust, Zimbabwe
- World Wildlife Fund (WWF), Namibia

We would also like to thank all of the donors who supported the elephant collar data collection and the production of this policy brief. These include:

- African Lion and Environmental Research Trust (ALERT)
- African Parks
- Agence Nationale de la Recherche (grants ANR-08-BLAN-0022, ANR-11-CEPS-003 and ANR-16-CE02-0001-01)
- Centre National de la Recherche Scientifique (CNRS)
- Connected Conservation
- Department for Environment, Food and Rural Affairs (DEFRA)
- Dhanam Foundation
- Elephant Crisis Fund
- Ecoexist Trust
- Elephant Connection
- Game Products Trust Fund (GPTF)
- Howard G. Buffett Foundation
- International Elephant Foundation
- Jeff Neu
- KfW Development Bank (NamParks Project)
- Paul G. Allen Family Foundation
- Prince Bernhard Nature Fund
- Space For Giants
- Stichting Natura Africae (SNA)
- The Amarula Trust
- van Tienhoven Foundation
- Wilderness Safaris Wildlife Trust
- Wild Philanthropy
- World Wildlife Fund (WWF), Germany
- World Wildlife Fund (WWF), Namibia
- World Wildlife Fund (WWF), USA
- World Wildlife Fund (WWF), Zambia

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