



## **Lions and Communities in KD1 and KD2 SW Botswana**

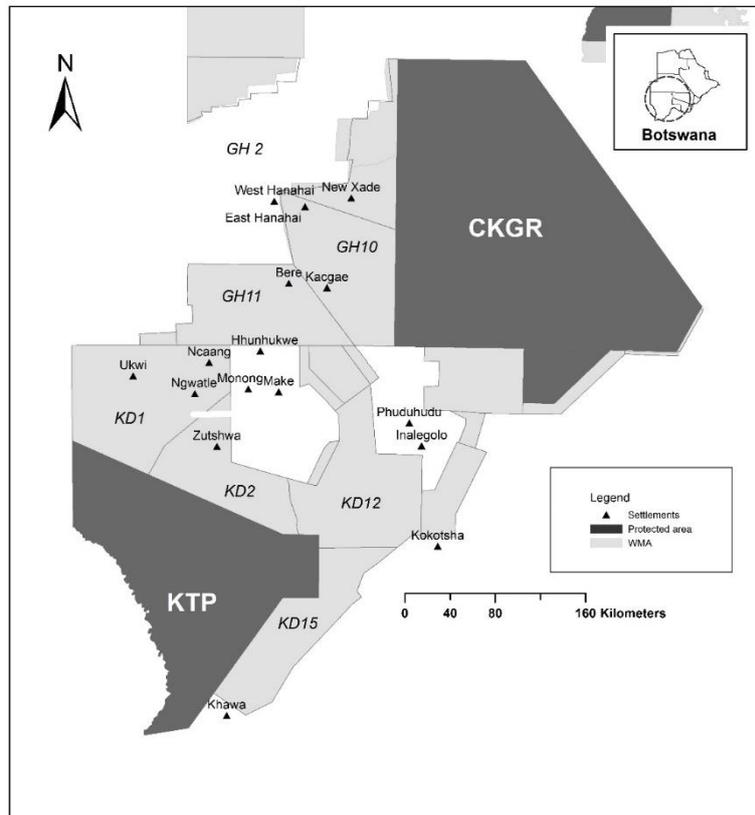


**Compiled by Glyn Maude on Behalf of KRC- June 2021**

KRC are delighted to announce that we are now in a position to initiate a Lion Conservation project and twin this with a Conservation Performance Payment Project (CPP) within 2 (Zuthswa and Ngwatle) of the four communities in KD1 and KD2 of SW Botswana (Figure 1). These two wildlife management areas (WMA's) are massive landscapes, with a combined size of 20 000km<sup>2</sup>. Present estimates for lion populations in our project area are, for just KD1 and KD2, between 114 (0.6 lions per 100 km<sup>2</sup>) and 186 (0.98 per 100 km<sup>2</sup>) lions. Our project area and the surrounding landscapes, more than 100 000km<sup>2</sup> (WMAs, Kalahari Transfrontier Park and the Central Kalahari Game Reserve) have a combined lion population estimate of more than 1300 lions (Winterbach & Maude, 2015). Clearly this region is highly important for lions. It is one of the ten stronghold populations remaining in Africa identified by Riggio et al (2013).

A significant threat for lions and other wildlife in KD1 and KD2 is cattle post encroachment, bush meat/commercial poaching and the harvesting of lions for body parts. The expansion of cattle posts and an increase in livestock in the area will also increase conflict between lions and humans and inevitably there will be more lions and other carnivores killed in retaliation to livestock losses to carnivores. KD1 and KD2 have the highest densities of lions in across all the WMAs in the region and yet still one of the lowest levels of conflict between lions and humans (Figure Two). This is due to the still abundant wild prey for lions to feed from and present low levels of humans and livestock. However, livestock numbers and cattle post

distributions are changing rapidly. In KD1 and KD2, approximately 30 % of new cattle posts have been set up in the last two years and 50 % in the last 5 years.



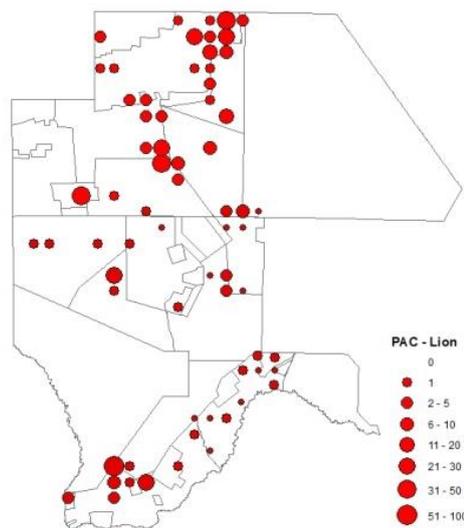
**Figure One:** Part of our project are of KD1 and KD2 in SW Botswana adjacent to the KTP. There are only four small communities there each with between 250 to 800 residents. The villages are a mixture of indigenous San people and Bakgalagadi.

The locations of these new cattle posts mean that they function as a platform to enable more poaching in the area and the illegal killing of lions. Our plans for this project are briefly described below.

- 1) To develop a sustainable economic incentive program for lion, large carnivores and other wildlife conservation that significantly reduces livestock encroachment into our core wildlife project areas and the associated threats. This program will also breed tolerance towards carnivores in the area. We hope that this incentive scheme will become sustainable through income generated in the future by a combination of ecotourism and other revenues and may be scalable across other part of lion range across Africa.
- 2) To reduce the ease at which lions in our area can be killed for the lion bone and body part trade and determine more accurately the threat of the lion bone trade to lions in the region.

- 3) Increase future lion conservation efforts in Botswana through a high level of local capacity development by supporting a local student to do their masters or PhD on lions and the CPP scheme.

More communities need direct outcomes or benefits showing that wildlife is worth more alive than dead. Over 2021 and 2022, we will develop, implement, and test a Conservation Performance Payment (CPP) approach in two communities in our lion priority areas of KD1 and KD2. The most effective CPP projects link a conservation payment to a community in situations where the community's behaviour directly effects the activity the payment is made for. We will conduct a second CPP project by placing between four to eight camera traps in the vicinity of each target community in locations where chances are maximized of photographing lions, cheetah, or wild dogs. We will initially test the camera traps to get a benchmark for the frequency individual carnivores are photographed. Based on this data a conservation payment will be made per individual photographed, into the community of an appropriate amount negotiated with the community.



**Figure Two:** 1 PAC reports of lion conflict and lion range across the Ghanzi and Kgalagadi districts. Red points show locations of conflict and the relative number by size of the point.

A fast emerging and very concerning threat identified in our project area is the killing of lions for the trade of their bones and body parts. Several independent sources indicate that lions in the region are increasingly being harvested for their body parts. The SW lion population is in particular vulnerable, as it borders both South Africa and Namibia, there is a transboundary peace park (KTP) there, and much of the large and remote area is minimally patrolled by anyone, meaning culprits who kill lions for their body parts are unlikely to get challenged. The presence of privately owned game and cattle farms (some of which are very close to the international borders) on which lions frequently move into, also provide opportunities for this

illegal activity. Initially, five lion groups that range in areas where they will be vulnerable to being killed for body parts will have two group members satellite collared and monitored regularly. Vulnerable groups will include those that range into areas where there is already known or suspected to be the killing of lions for body parts. We will work with local communities to directly involve them in this project, so they have investment and understand the design thereby reducing their likelihood to be involved in the killing. All group members will be identified and monitored and any individuals that go missing (including cubs) will be noticed. When circumstances are unknown or suspicious, further investigations will be initiated with information being passed onto the relevant authorities. As we increase our funding base a total of ten lion groups will have members collared and monitored. If judged necessary, more than two group members will be collared. The lions will be collared as part of either a PhD for a local student studying at a South African or overseas university. Information gathered during the monitoring will be used as part of this study. The exact information needed and questions to be answered are yet to be determined for the PhD. We will explore the option of implementing Earth Ranger so that the lions can be easily monitored through Vulcan apps. We are also communicating with Endangered Wildlife Trust (EWT) to see if technologies that they are developing for lions for an early warning system can be used by us.



**Figure Three:** Sadly, male lions like these two in the Kalahari are being increasingly targets for lion bones and other body parts. There is “big” money is this trade so sadly the problem will only get worse.

As part of the “project” a young woman from Botswana Kutlwano Makwatse will be doing her PHD. As yet there is not a single person from Botswana with a PhD in a carnivore species and we are hoping that she will be the first. We are now trying to raise funds that would go towards satellite collars to go onto vulnerable lions, field costs for the student such as fuel and vehicle maintenance, university fees and capacity training for the student.



**Figure 4:** Kutlwano Makwatse, is from Francistown in eastern Botswana and is 27 years of age. She completed her Environmental Science Degree at the University of Botswana (UB) in 2015. She then went onto pass a Masters of Science and a teaching qualification at UB. Kutlwano is passionate about wildlife conservation and science and join our KRC team in February this year to start her PhD journey.

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**Figure 4:** Lions like this beautiful female in the Kgalagadi are increasingly under threat and we need to do more to protect them.



The Ngwale and Zutshwa communities and the Adult Conservation Groups are our Partners in this Project.