

### ANNUAL REPORT



2021

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a note from our director

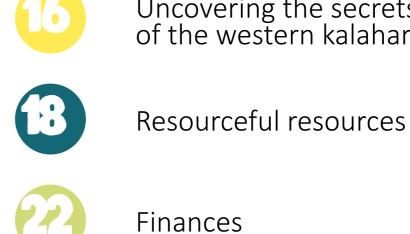
year at a glance

200 guarding dogs

How CCB has changed one life



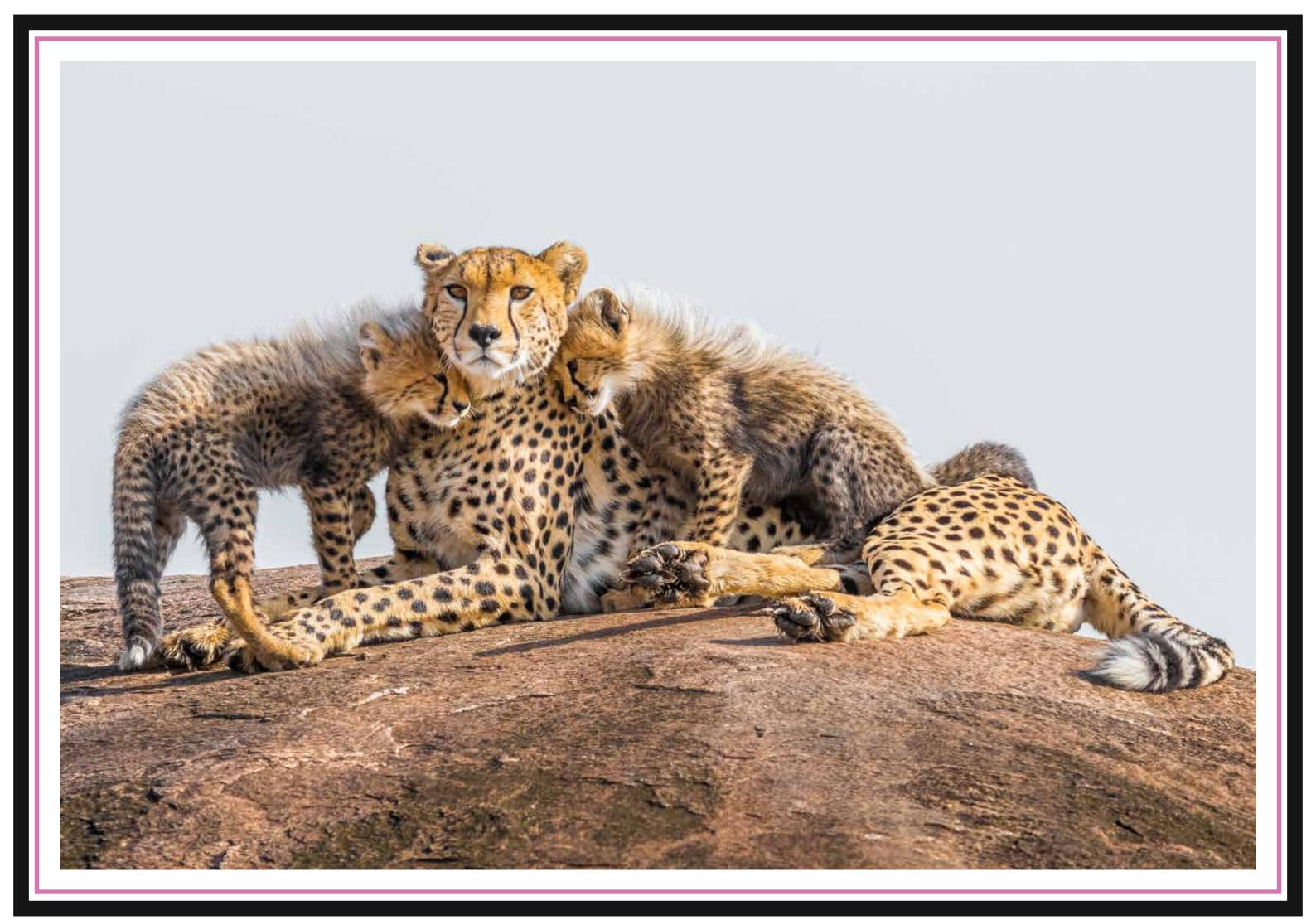
The unsung hero of the western Kalahari





Thank you

### Uncovering the secrets of the western kalahari



### FROM OUR DIRECTOR

What a year it has been at CCB! Our amazing team, with the help from our supporters and stakeholders, have weathered the storms of the COVID-19 era, navigated the many obstacles and have come out stronger and more resilient than ever. We are so proud at what we have been able to achieve this year despite complex conservation and life challenges. But through the adversity, we have accomplished some of our greatest work! I am truly inspired about the future of cheetah conservation!

This year we saw the growth of our Communities for Conservation programme, supporting settlements living in key cheetah areas. Through this, our newest programme, livelihood diversification through natural and cultural resource utilisation is becoming a cornerstone of our work, just as critical as the Farming for Conservation programme that CCB was built upon almost 20 years ago. Our education activities have adapted to the ongoing COVID-19 challenges and through restrictions we have found inspiration for new and exciting initiatives. Our scientific research efforts have continued strong, with cheetahs collared this year as part of our goal to understand cheetah biology and

behaviour outside of the protected areas of our beautiful country. There is almost too much going on to fit into one Annual Report!

> Read on to discover how 2021 has seen our programmes expand and grow! Such exciting times cannot be achieved without the inspiring support of our stakeholders and supporters.

> > Re a leboga! Thank you!

Klen

Rebecca Klein Executive Director

### "I AM TRULY INSPIRED ABOUT THE FUTURE OF CHEETAH CONSERVATION."



### THE YEAR AT A GLANCE

CCB's 2nd scientific journal article on our livestock guarding dog (LGD) research is published. The research showed that LGDs trained and placed by farmers themselves can reduce predation to 0 in 47% of cases, whereas LGDs from CCB reduce depredations by 85%

CCB's

Ghanzi

camp floods after >400mm

of rain (a year's worth) falls in a

few weeks

We adapt our school lessons for small groups so that we can deliver 9 covid-safe school talks to 235 students in March

23-

trackers, CCB staff and Department of Wildlife and National Parks staff learn the ancient art of spoor (wildlife footprint) tracking from the Kalahari San master trackers

12

attende

Team members attend the Botswana National Wildlife Poisoning Committee meeting on how to reduce risk of and respond to incidences of wildlife poisoning 43 farmers were engaged through mobile workshops, including one at Gatabojang cattlepost

After many months of COVID-related delays we started our 4-day craft workshops in Bere, where 20 community members where 20 artisans honed various skills related to craft production

38 kids continue their environmentallythemed curriculum in our Learn to Play community playgroup

CCB's first local PhD position is awarded to Otshabile Bahetoleng in partnership with Texas A&M University

> 43 armers angaged

20 communi members trained

children

The last of 1.5 million camera trap images were collected in November as part of our research into wildlife populations

In December we placed our 200th LGD since the programme began in 2013

Rapid Response: 2 LGDs placed at Witvlei farms in response to cheetahs killing 4 goats and 5 sheep; reducing livestock loss to 0. This was one of five emergency cheetah conflict cases our teams attended this year



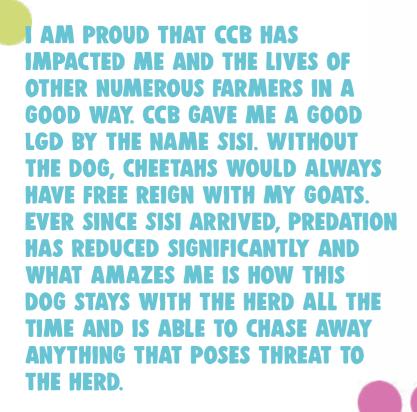
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### 200 GUARDING DOGS

In December 2021, after nine years of LGD training and placements, CCB placed its 200th dog with farmers in Botswana. Pioneering the use of local "Tswana" dogs, CCB have proven through both research and implementation that these underrated mixed breeds are incredibly effective at deterring predators, protecting livestock and improving farmers' tolerance and acceptance of wildlife, including cheetahs. Placement of the dogs trained at our demonstration farm has changed lives. Farmers on the brink of ruin have developed successful farming enterprises, and families have thrived thanks to these LGDs. With farmers' perceptions of carnivores improved and lethal control significantly diminished, these dogs truly are promoting coexistence between livestock farmers and cheetahs.



Mr Itumeleng Max Lesesere



CCB GAVE ME TWO DOGS THAT I USE TO PROTECT MY HERD OF GOATS FROM PREDATORS. I AM HAPPY TO TELL YOU THAT SINCE THESE TWO DOGS WERE INTRODUCED, CHEETAHS ARE NOT A THREAT TO MY GOATS ANYMORE. I AM HAPPY TO LIVE ALONGSIDE THEM. MY GOATS ARE MULTIPLYING AND THAT MEANS MORE PROFIT IN MY POCKET.

Mr Andrew Molatole

### HIGHLIGHTS

- **2013** the first six dogs trained at CCB are placed in a pilot study. Some of these LGDs eventually had to be rehomed when their farmers moved, but all these LGDs adapted well to their new herds.
- **2014** CCB's completes our portion of the Northern Botswana Human Wildlife Coexistence Project in partnership with Botswana's Department of Wildlife and National Parks placing 36 LGDs.
- **2015** CCB's first study on LGDs in Botswana is accepted as a completed Master thesis.
- **2020** CCB trains three LGDs that are placed with the President of Botswana to reduce his livestock losses.
- **2021** CCB's publishes two scientific journals about LGDs, finding that CCB's LGDs reduced livestock loss completely in at least 85% of cases.







## HOW CCB HAS CHANGED ONE LIFE

### LEARN TO PLAY COMMUNITY PLAYGROUP HEAD MAMA **VERIPI TJITJOO**

When CCB joined forces with earlychildhood development specialists "Learn to Play" to create a community-led playgroup in Kacgae in 2020, Veripi Tjitjoo quickly settled into the group as their leader.

At 44 years of age, Veripi has spent most of her life in the small rural settlement of Kacgae. Nestled between two protected areas, her village is surrounded by wildlife, but opportunities and resources are thin on the ground.

Since the inception of the Learn to Play community playgroup in Kacgae, Veripi has undergone a series of trainings to help her lead the team of local "mamapreneurs" who run the playgroup. Not only does she receive training each year on curriculum development, but has also undergone first aid training, computer training and craft skills training.

The playgroup not only provides her and the other mamas with ongoing, regular work and income, but helps them to grow a variety of skills so that they are capacitated to develop future endeavours, diversify their livelihoods and build a more productive village.

One of the biggest game-changers came at the height of COVID in 2020 when CCB contracted Veripi to make 635 reusable cotton masks - enough for every man, women and child in Kacgae. The money she received from this work, contributed to her children's higher education and paid for her to get water connected to her plot in the village. Prior to this, Veripi had to fill buckets and carry water to their property for drinking, cooking, bathing and cleaning. She had applied for the water connection in 2017 but after three years of waiting, still had not been able to afford the connection fee. Now, Veripi has running water on her plot and is developing her tuck shop to ensure a steady income for her family.

2021 saw another exciting development for the the playgroup, with donations coming in to provide food for the children who attend. Veripi and the other mamas are set to receive catering training in 2022 which will mean they can not only prepare food for the playgroup children, but will also be qualified to conduct catering for local meetings and workshops conducted in the area.

"CCB is very valuable to us as the Kacgae community and we will be together for a very long time and we pray to God to sustain it and that they (CCB) keep on remembering us people from remote areas" Veripi says.





Photo credits: Wildside Consultin

## THE UNSUNG HERO OF THE WESTERN KALAHARI

### WE PAY TRIBUTE TO MASTER TRACKER **RRE HOREKHWE PRO "KAROHA" LANGWANE**

On the 11th April 2021, the Kalahari lost one of its greatest icons. Master tracker Horekhwe Pro Langwane (also known as "Karoha") was not only an expert tracker, traditional doctor and one of Botswana's last "runners", but a valued wildlife expert who we worked with on numerous occasions at CCB. As one of only three remaining "Master Trackers" in Botswana — a title given only to the most exceptional trackers — he provided incredible knowledge and skill when it came to our work in tracking carnivores through the Kalahari landscape. Most recently, his intensive work surveying the Western Kalahari Conservation Corridor with our PhD candidate, Marie-Charlotte Gielen, has helped build the science of how wildlife and communities share the land in Botswana's Wildlife Management Areas. In 2017, Karoha came on board

with CCB's Education team to lead tracking workshops with students attending mobile bush camps in

the village of Kacgae, teaching them how to track spoor (footprints) in the thick Kalahari sand, how to age tracks and how to identify edible foods in the bush.

As one of the first San trackers to ever use Cybertracker software, he was able to gather countless data for wildlife surveys, and with this work, co-authored several scientific papers.

One disappearing tradition of the Kalahari San is the "persistence hunting" that the San used to hunt food for their families. This unbelievable technique saw "runners" spend hours at a time running down antelope until the animal would collapse with exhaustion. Karoha can be seen using this traditional technique in David Attenborough's Life of Mammals series in 2002.

We have long worried that the unfathomable traditional knowledge of

the Kalahari San is disappearing with modernization and the loss of their nomadic lifestyle. Now that one of the last Master Trackers of Botswana is gone, we will mourn both the loss of Karoha with his everpresent smile, and also the incredible knowledge, stories and skills that he takes with him. We are so thankful for his joyful spirit, his hard work, his passion for the bush and his people and for having worked with us to pass on his invaluable knowledge on to the next generation of conservationists. Our thoughts and prayers go out to his friends, family and loved ones, both far and wide.

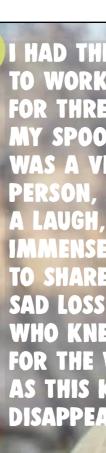


Photo credits: Wildside Consulting













HAD THE GREAT HONOR CyberTracker TO WORK WITH KAROHA FOR THREE YEARS DURING MY SPOOR SURVEYS. HE WAS A VERY CHEERFU **ALWAYS UP FO** AND HAD AN **MENSE KNOWLEDGE** TO SHARE. IT IS A VERY SAD LOSS FOR ALL OF US WHO KNEW HI**M**, AND FOR THE WORLD AS WELL, AS THIS KNOWLEDGE IS DISAPPEARING WITH HIM. **Colleague Marie Gielen** 

### UNCOVERING THE SECRETS OF THE WESTERN KALAHARI

### PHD CANDIDATE MS. MARIE CHARLOTTE GIELEN

When Marie Gielen travelled from Belgium in 2015 to conduct four months of work on her masters as an intern with CCB, she didn't realise that the trip would change her life forever. Marie fall in love with Botswana and its wildlife, and in 2016 she returned in a more permanent role with CCB. In 2018, Marie began her PhD which looks in depth at the complex dynamics between people, wildlife, livestock and artificial water points through the wildlife management areas between Botswana's two largest game reserves the Central Kalahari Game Reserve and the Kgalagadi Transfrontier Park. If that area sounds familiar – it should! This is the connected landscape that CCB has been working intensely in for the last several years – working to minimize human wildlife conflict in that area and promote wildlife conservation. Marie's PhD highlights hotspots for wildlife and how livestock, wildlife and people share

large landscapes. These data are critical to our understanding of the dynamics in the region; knowing what areas are critical for connectivity and how these interactions need to be adjusted to enable coexistence.

As part of Marie's PhD, she has been working closely with a group of skilled and experienced Kalahari San trackers. These trackers practice the ancient skill of following livestock and wildlife using only their bushcraft and ability to read tracks and signs in the Kalahari bush. By counting spoor (footprints) and using species-specific calculations developed in consideration of mean daily distances travelled, one can calculate the densities of both domestic and wild species. Marie is working at improving these calculations to ensure the most accurate data across a range of species. These data not only helps us calculate wildlife hotspots and highways, but it also provides baseline data for which we can gauge trends over

time.

Marie's work with the San bushmen trackers has resulted in long-lasting friendships and a profound appreciation for the trackers. The tracking skills that used to help sustain the San and their communities when they lived their traditional nomadic lifestyles are now in danger of disappearing in modern society. Wildlife research provides a reliable and consistent source of income for trackers, if their skills are developed and nurtured. This year, Marie facilitated two tracker training workshops, where

driven and tracked

certified master trackers, worked together with members of the community, professionals from the Department of Wildlife and National Parks and CCB staff, to refresh their tracking skills and to teach them some of the more subtle intricacies of tracking, in order to further develop their craft. These sessions not only foster greater tracking skills in those community members we engage in our research work, but it also helps preserve this indigenous knowledge for these communities – a priority goal highlighted by these communities.

nights camped under the stars







In 2021, Marie expertly navigated her gruelling field work schedule in one of the world's most remote places with her "falling apart" field vehicle - a 1997 Toyota Hilux Surf. Her work was made even more impressive considering her navigated of the rough roads and long field days while pregnant with her daughter, Luna, who was born in July.

You are an inspiration to us all Marie! Thank you for your incredible hard work and good luck for your PhD submission.







### RESOURCEFUL RESOURCES

CCB has a suite of resources that we use to engage with a variety of different audiences. Whether it be a poster to increase awareness about cheetahs that sits proudly on a classroom wall, or a leaflet about how to identify different carnivore species that fades over the years on the dashboard of farmers' Land Cruisers - each of our resources are purposefully designed considering the information needs of key stakeholder groups. Below we feature some of the resources we have produced in the last few years and the specific objectives they have to further cheetah conservation efforts.

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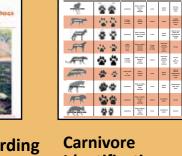
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### Livestock Guarding Dogs - an introduction to training, placement and care

This leaflet acts as a guide detailing how livestock guarding dogs work, how to train them, what veterinary medicine they need, how much to feed them and what behavioural problems farmers need to keep an eye on. The aim is to empower farmers to train their own livestock guarding dogs effectively and keep them healthy.



### Identification

CCB's carnivore ID sheet lists carnivore species found in Botswana and shows what their spoor (footprints) look like. It provides tips on tracks and signs you might find on livestock carcasses that suggest which species may have eaten your livestock (location of scratches, parts eaten etc.). Knowing what species is responsible for livestock attacks helps farmers apply the most appropriate mitigation methods, improves tolerance of carnivores and reduces unneccessary killings of cheetahs.



### Spot the Difference -**Cheetah or Leopard?**

Over a third of farmers are unable to accurately distinguish between cheetahs and leopards - an important distinction when one is more dangerous to both livestock and people. Cheetahs sometimes get killed because of this mistaken identity. Our "Spot the Difference" education campaign helps farmers, students, the media and the general public understand the important differences between the two species. This helps facilitate conservation and coexistence.



**Farmer's Calendar** 

Conflict between farmers and cheetahs can be exacerbated by dwindling livestock health. This Farmers Calendar was adapted from the the Department of **Veterinary Sciences** (DVS)'s farmers calendar to combine veterinary health recommendations from DVS and private vets into one concise and comprehensive calendar for livestock health. By promoting healthier livestock, we help minimise disease and promote coexistence.



### Cheetah -Adaptations for Survival

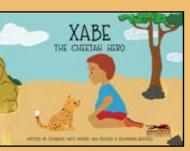
Tolerance for wildlife can be driven by several factors but the more people appreciate an animal, the more inclined they are to empathise with them (a key driver of coexistence). Our Cheetah Adaptations poster, targeted primarily at students, showcases some of a cheetah's most fascinating physical adaptations for speed and survival, from the tips of their nose, to their tail.



### **Bush Camp** Workbook

Our bush camps are one of our most successful activities, and this Bush Camp Workbook helps students continue to learn even after their stay at CCB's education centre. Filled to the brim with exciting facts about wildlife and conservation, the entire workbook is printed in black and white so it doubles as a colouring book. Adapted from our friends at Giraffe Conservation Fund, this 44-page resource is a great way for us to promote conservation with students.





### Xabe - The Cheetah Hero

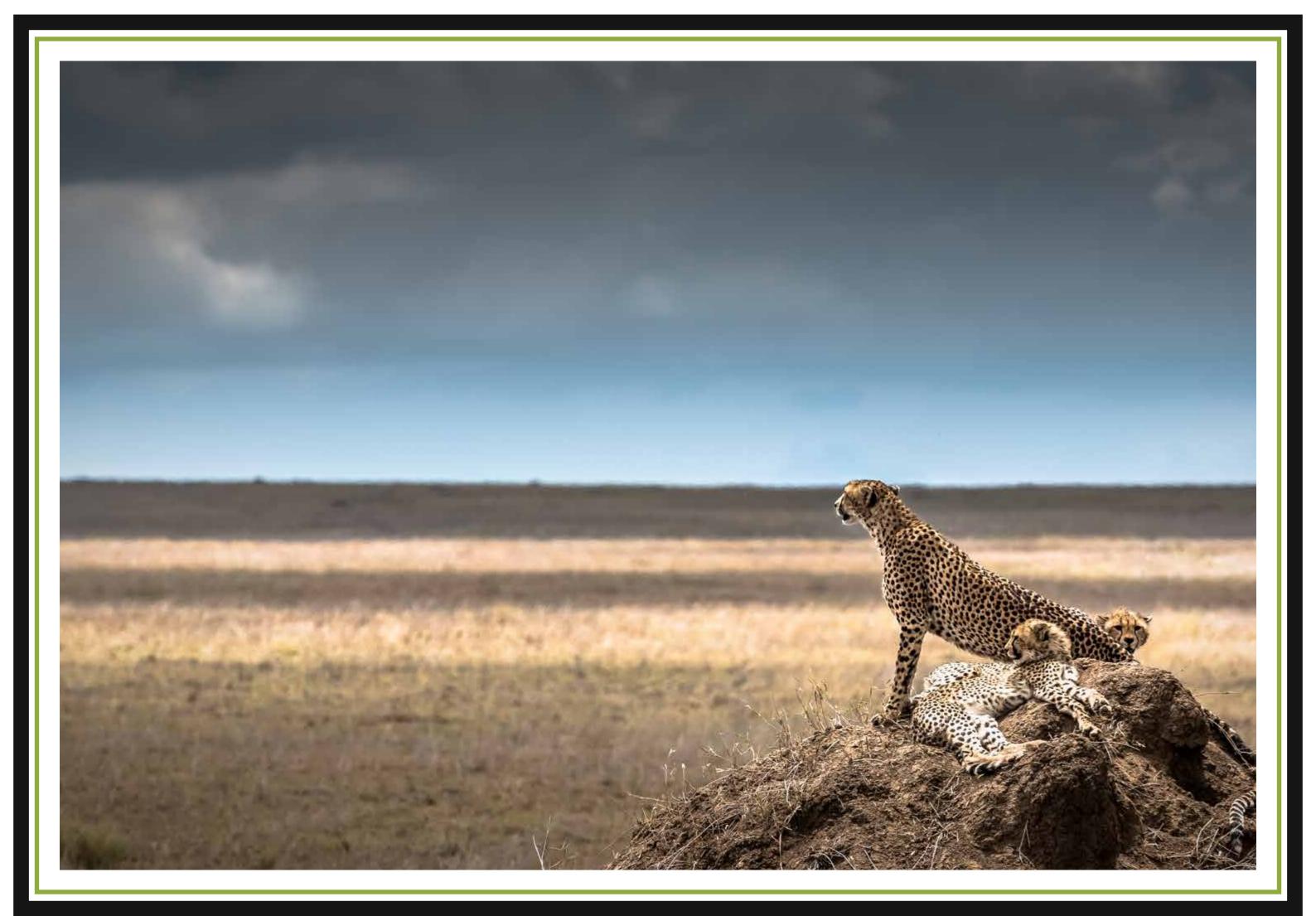
We all remember our favourite books from our childhood, and the emotional attachment that comes with a good story is what inspired us to create CCB's first children's book. "Xabe: the cheetah hero" is an inspiring story of a disabled San child who stands up for a lost cheetah cub that has been caught in a poachers' snare. Approved by the Department of Curriculum and distributed in every primary school in the country, we hope this story will inspire the next generation of Batswana.

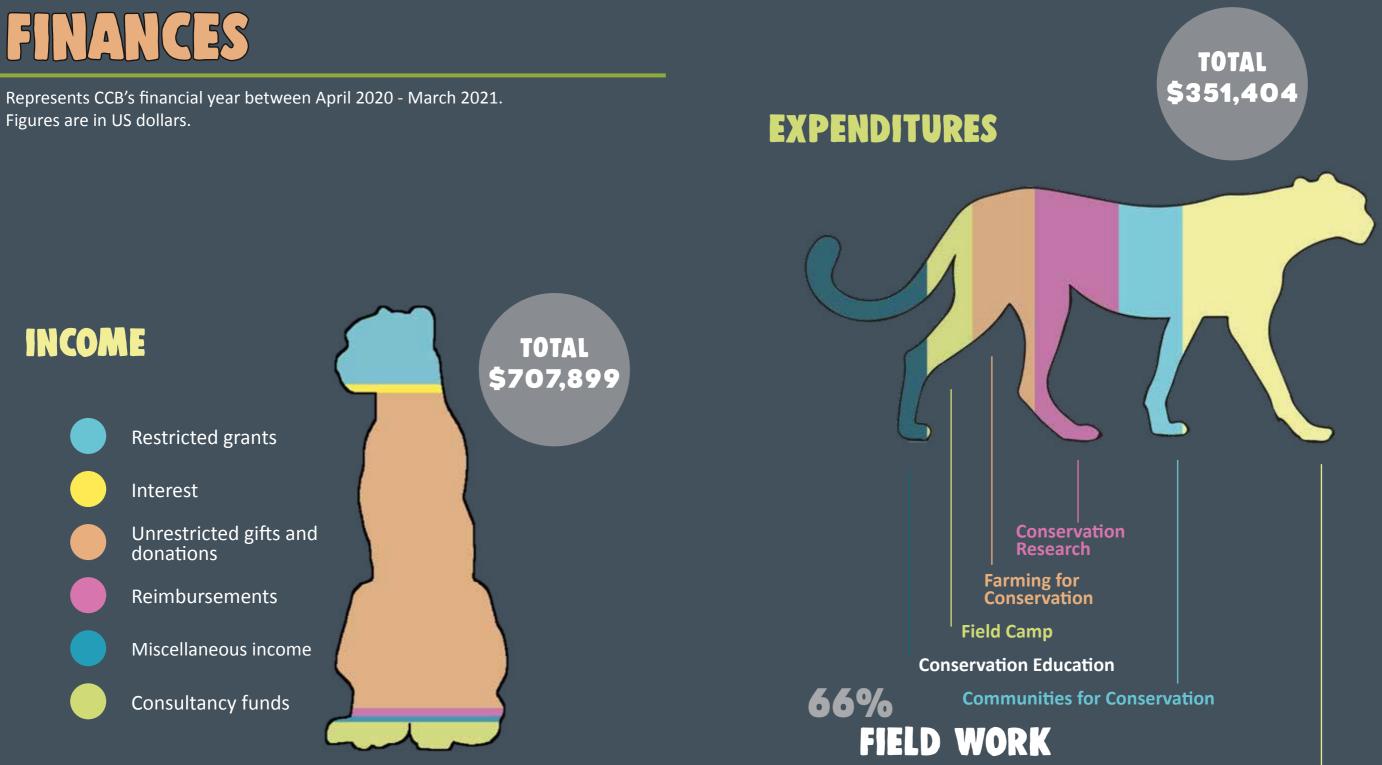


### **Masakeng - farmers** newsletter

Things change and develop rapidly in the farming world, so our annual farmers newsletter helps keep farmers up to date with new and developing information relating to the farming industry and environment. Distributed to rural farming communities throughout western Botswana, this resource includes developments in carnivore coexistence and up to date prices for cattle from the Botswana Meat Commission.













## THANK YOU

To our supporters, near and far, thank you for everything you do for cheetah conservation.

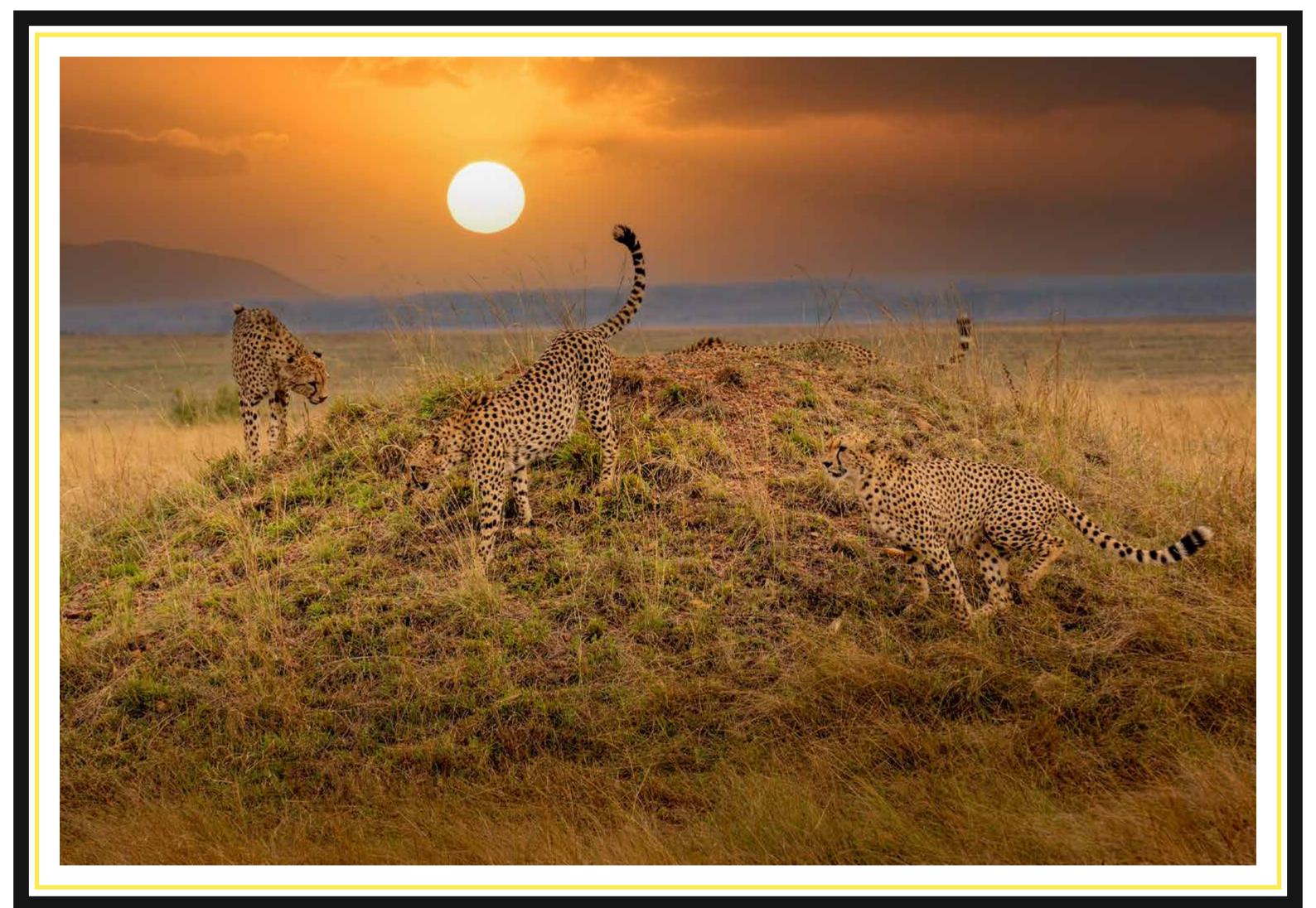
### Organisations

Wildlife Conservation Network, Lion Recovery Fund, Disney Conservation Fund, IUCN/European Union Save Our Species Fund, Remembering Wildlife, Saint Louis Zoo, US Embassy Ambassador Self-Help Fund, Stichting Wildlife, The Tapeats Fund, Earth Ltd, PISCCA French Embassy, Botswana Unified Revenue Service COVID support fund, United Nations Development Programme Kgalagadi Ghanzi Drylands Ecosystem Project, Oklahoma City Zoo & Botanical Gardens, CGMK Foundation, Jacksonville Zoo, Living Desert Zoo and Garden, Wild Cat Education and Conservation Fund, Loci Environmental Mapping, Zoological Association of America, Wildlife Safari, Wildlife Tree, Metro Richmond Zoo, Caufield Family Foundation, Virginia Safari Park, The Winnick Family Foundation, Kids4Cheetahs, Qualcomm Inc, Hilker Family Giving Fund, Milwaukee Zoo, Thornhill School, San Diego Wildlife Alliance, Animal Ark, Gordon and Betty Moore Foundation, See Fund.

### Individuals

Kenneth and Gabrielle Adelman, Kathryn and Robert Vizas, Elaine Olson, Jan Hatzius and Linda Eling Lee, Alan and Victoria Peacock, Cori Bargmann, Lise Buyer, Madeleine Delman Cohen and Jerry Cohen, Sudie Rakusin, Gloria and Kent Marshall, Jon and Laura Mellberg, Coco Piuze Wilson, David Rickey, Donna Howe and Juan Loaiza, Rick McKenna, Shani Corbière, Meryt and Peter Harding, Steven and Florence Goldby, David Farrell, Margaret McCarthy and Bob Worth, Lance Williams and Grant Kretchik, Mark and Rita Sinreich, Stephen and Lisa Roberston, Walli Finch, Dave Cortright, Howe Ng and Aaron Hyland, Michael Hackett, Susan Carey, Alice Cizmar, Brett Blumenthal and David Wax, Chris and Tim Davis, David Conrad, David Luckham, Geoffrey Rankin, John Loewy, Judy and Chuck Wheatley, Linda Tabor-Beck, Lori and Bruce Laitman-Rosenblum, Lynn Kilbourne, Robert Fulton, Terilynn Langsev, Cathryn Gabor and Rob Fuller.









### WWW.CHEETAHCONSERVATIONBOTSWANA.ORG

