



## What is Cheetah Conservation Fund?

The Cheetah Conservation Fund (CCF) is the global leader in research and conservation of cheetahs. Founded in Namibia in 1990, CCF is a registered charitable organization in Namibia and Somaliland with affiliates in the United States, Canada, the United Kingdom, Belgium, the Netherlands, France, Italy, Japan and Australia. In addition, CCF has a partner fundraising organization in Germany.

CCF is dedicated to saving the cheetah in the wild. Cheetahs used to thrive in numbers of over one-hundred thousand over a range that stretched across most of Africa through Asia; today there are less than seven thousand five hundred remaining, occupying only nine percent of their natural range. The cheetah is Africa's most endangered big cat. Namibia, with an estimated one thousand five hundred wild adult and adolescent cheetahs, has approximately a fifth of the remaining cheetahs. Otjiwarongo, the town where CCF is headquartered, recognized as "The Cheetah Capital of the World."

Dr. Laurie Marker, CCF's Founder and Executive Director, has grown CCF into an international center that specializes in human-predator conflict mitigation strategies and business initiatives that allow cheetahs and people to co-exist. CCF's International Research and Education Centre houses a research facility; a veterinary clinic and laboratories; a visitor center; lecture hall; an interactive education center and museum, and an overnight camping facility accommodating Namibian and international groups participating in CCF programs. CCF also maintains a cheetah sanctuary to care for orphan or injured cheetahs; a fifty-four-thousand-hectare integrated Model Farm and Wildlife Reserve, a goat creamery for training agricultural workers; and a four-thousand hectare wildlife holding area, the Bellebeno Game Camp, used for soft-releasing cheetahs before re-introducing them to the wild. In addition, CCF houses the only cheetah genetics laboratory in Africa and a Genome Resource Bank. CCF holds the world's largest wild cheetah database of biological material.

**CCF Vision:** *To see a world in which cheetahs live and flourish in coexistence with people within a sustainable system that is protective of the environment, socially responsible, and economically viable.*

**CCF Mission:** *To be the internationally recognized center of excellence in the conservation of cheetahs and their ecosystems. CCF will work with all stakeholders to develop best practices in research, education, and land use to benefit all species, including people.*

The three main threats to cheetah populations across the species range **human-wildlife conflict, habitat loss,** and the **illegal pet trade.**

To overcome the threats to the cheetah and conserve the species in the wild, CCF uses a three-pillared strategy based on **Research, Education** and **Conservation.**

## Research

CCF serves as the global leader on cheetah research from its headquarters in Otjiwarongo, Namibia, and its field posts in Gobabis, Namibia and Hargeisa, Somaliland.

Scientific research informs CCF's education and conservation activities beginning with long-term studies to understand and monitor the factors affecting the cheetah's survival. CCF's scientific research on cheetahs focuses on aspects of the cheetah's life cycle, biology and genetics. Research projects also include ecology, human-wildlife conflict, agriculture, and biomass energy.

Understanding the cheetah's biology, ecology, and interactions with people is essential to conserve the cheetah in the wild. The results of scientific studies are used to develop conservation policies and education programs. CCF works directly with local, national and international institutions of higher learning to further scientific research on the cheetah and its ecosystem.

## *In-Situ* and *Ex-Situ* Cheetah Research

CCF conducts intensive scientific research and publishes papers on findings in areas such as cheetah genetics; biology; ecology; health and reproduction; human impact; and species survival. CCF's conservation science programs include combinations of *in situ* and *ex situ* research efforts. Current and past projects focus on the biomedical, morphological, reproductive and genetic status of cheetah in Namibia; cheetah habitat use; home range and demographic rate; census techniques, rewilding and reintroduction; and the ecological monitoring of game species through game counts.

Dr. Marker is internationally recognized as one of the foremost experts in cheetah biology, genetics, ecology and breeding. She is the Chair of the Large Carnivore Association of Namibia (LCMAN) and sits on the Executive Committee of the Cat Specialist Group of the IUCN/SSC, is a Research Fellow with the Smithsonian Institution, and maintains the **International Cheetah Studbook**, which is a registry that catalogues the world's captive cheetah population.

## The Life Technologies Conservation Genetics Laboratory and The Haas Family Veterinary Clinic

CCF is home to a world class research facility that is unique in Africa. **The Life Technologies Conservation Genetics Laboratory** is the only fully equipped genetics lab in situ at a conservation facility in Africa. From this facility, CCF collaborates with scientists around the globe. Research not only benefits the cheetah and its ecosystem, but other big cats and predators as well.

**The Haas Family Veterinary Clinic** is used, in part, to collect samples from the injured or orphaned cheetahs taken into its facility. The clinic is an ideal space to give prompt veterinary care to non-releasable cheetahs, dogs, goats and other animals that live at CCF's centre.

## Genome Resource Bank

CCF uses best-practice techniques for storing sperm, tissues and blood samples in its **Genome Resource Bank** (GRB). These materials provide 'insurance' for the cheetah's survival. As a result, CCF maintains one of the largest GRB's for an endangered species.

Cryopreservation methods continue to be studied and refined in collaboration with the Smithsonian Institution in Washington DC, USA.

## Education

In Namibia, CCF developed the **Future Conservationists of Africa (FCA)**. Each year, CCF educators present FCA education programs for an estimated twenty-five thousand school children throughout the country. This initiative is of critical importance as it exposes the nation's youth to the significance of maintaining healthy ecosystems, thus creating a strong foundation for the future. More than seven hundred thousand students

have been impacted by CCF's outreach programs since 1994. At the Centre, CCF has hosted more than thirty thousand young professionals for environmental coursework, and fifteen thousand plus farmers have participated in CCF training courses, workshops, and team building exercises through its **Future Farmers of Africa (FFA)** program and several hundred interns, volunteers and students at CCF.

With cheetah populations dwindling through most cheetah-range countries, their survival depends on people using an informed, integrated approach to conservation that incorporates humans, wildlife, and habitat. In 2008, CCF began conducting month-long **international training courses** to bring together conservation managers, scientists, and community representatives from cheetah-range countries in Africa and Iran. More than four hundred fifty conservation professionals have participated in these courses and many are now leaders managing cheetah conservation programs in their respective countries. The courses build capacity, with a goal of stabilizing and increasing cheetah populations.

In addition to serving as a focal point for local farmers and visiting school groups, **CCF's Field Research and Education Centre** promotes **eco-tourism** by welcoming members of the public to learn more about the plight of the cheetah in the wild, current programs to assist them, and how individuals can help make a difference. In 2019, CCF welcomed over sixteen thousand Namibian and international tourists.

## Ecotourism

CCF operates an open to the public-field conservation research and education centre based on a fifty-four-thousand-hectare wildlife reserve and model farm just north-east of Otjiwarongo and offers overnight lodging at one of its two accommodations. **Cheetah View Lodge** has five private, modern chalets with amazing views of the Waterberg Plateau. The Lodge also hosts the Cheetah View Restaurant catering to the overnight visitors. In addition, CCF offers the **Babson House**, for luxury and exclusive accommodations. The Babson House has three bedrooms, a living room, stunning furnishings and an entertaining balcony that overlooks cheetah enclosures and the **Waterberg Plateau** and offers the service of a private host and chef.

CCF's Education Centre has a **Cheetah Museum** that provides visitors an opportunity to learn more about the cheetah. The museum shares the challenges the species faces for its survival in today's world, as well as the solutions that are needed to help save the species for future generations. In addition, CCF offers ethical and educational cheetah activities which includes both walking and driving tours to learn about CCF's non-releasable cheetahs. CCF's specially trained guides drive visitors into its expansive enclosures to learn more about the resident cheetahs living at the Centre. The non-releasable cheetahs living at CCF were orphaned at a very young age and lack the skills necessary to live in the wild. Visitors also see and learn about CCF's **Livestock Guarding Dogs (LGD)**.

CCF's **Cheetah Café** offers breakfast, lunches and homemade pastries as well special lunches for groups. In addition, there is the **Dancing Goat Creamery** and make a variety of award-winning cheeses, ice cream and fudge with milk from the dairy goats at its **Model Farm** which are guarded by our Livestock Guarding Dogs. CCF serves as a training facility for national and international university students and a model for farmers to learn more about human-predator coexistence.

## Integrated Livestock and Wildlife Management Systems

Ninety percent of Namibia's cheetahs live on livestock and game farmland in central Namibia, which also supports over eighty percent of the country's wildlife species that provide the cheetah's natural diet. Living on farmland puts cheetahs in contact with farmers' livestock and game farming enterprises. To maintain

ecosystem balance, it is critical that conservation strategies are put in place to encourage sustainable land use while accommodating the coexistence with native predator species. To this effect, CCF developed **Future Farmers of Africa (FFA)** to teach integrated conservation through livestock, wildlife and rangeland management techniques to current and future land users and managers.

CCF runs a **Model Farm** which includes cattle, goats and sheep to demonstrate how farmers can make a living without removing cheetahs and other predators from the landscape. FFA builds practical skills, enabling farmers to engage in sustainable livestock farming that provides direct and indirect economic benefits. Week-long training courses have been conducted at CCF's Centre as well as day courses (One Health) in rural farming communities covering topics that include livestock health and veterinary care; livestock husbandry; livestock valuation; predator spoor identification; differentiating predator kill techniques; best practices to reduce livestock losses; and methods for non-lethal predator control.

To support non-lethal predator control, CCF has developed **predator-proof fencing** with swing gates to prevent predators, including cheetahs, from entering farms through holes made by digging animals such as warthogs or porcupines. CCF also makes recommendations to increase productivity through proper **livestock management techniques** such as cattle calving camps, instituting calving seasons, and the practice of rotating livestock through camp to allow for recovery of vegetation. CCF's predator-friendly techniques carry weight with farmers, in large part because CCF practices what it preaches on its own Model Farm and transfers information using a peer-to-peer model of education.

CCF's successful track record in finding solutions to **Human-Wildlife Conflict (HWC)** is the result of over twenty-five years of research, including scores of interviews with local populations. Consequently, CCF developed non-lethal predator control methods such as its **Livestock Guarding Dog Program (LGD)**, which places Turkish Anatolian shepherd and Kangal dogs with local livestock farmers, at little or no cost, to reduce the perceived threat to their flocks and livelihoods, and simultaneously reduce the killing and capture of cheetah by landowners. Since 1994, the LGD program has placed nearly seven hundred dogs throughout Namibia and has helped launch similar programs in South Africa, in Botswana, and in Tanzania.

Farmers who use LGDs to guard their herds report an eighty to one hundred percent decrease in predation rates, and the program is credited with reducing the killing of cheetahs and other predators that in the past were killed or captured by farmers.

## Livelihood Development and Sustainable Economic Incentives

The **CCF Model Farm** is a commercial venture that supports its integrated livestock and wildlife farmlands and includes a private wildlife reserve. CCF raises cattle, goats, and sheep. Its **Dancing Goat Creamery** produces artisan cheese, ice cream, and fudge made from milk supplied by CCF's Saanen and French Alpine dairy goats that are farmed under the protection of Livestock Guarding Dogs. Profits generated from its farming operations support CCF's programs and provide data to develop business models for value-added farmer benefits. In 2005, CCF planted grapevines on the property with an eye towards helping to develop a Namibian wine industry that could diversify livelihood prospects for rural residents and was a founding member of the Namibian Grapegrowers Association. In 2013, CCF initiated a beekeeping program. In pioneering and testing these types of small enterprises, CCF provides practical, hands-on training for community members and university students studying agriculture and food sciences. At the same time, CCF is demonstrating how supplemental income streams that complement livestock farming can be created.

**Conservancies** were created in Namibia as a systematic approach to managing the nation's wildlife. Namibian conservancies have effectively curbed domestic poaching of endangered wildlife species and are now

considered a model in Africa. Namibia's conservancy system is successful because it joins the fate of the people to the fate of the local wildlife, enabling humans and animals to thrive together. CCF has been involved in the Waterberg Conservancy since its inception and is a founding member of the **Greater Waterberg Landscape (GWL)**, a large landscape initiative, and sits on its steering committee. The GWL is one of five large landscapes in Namibia. CCF has helped develop projects that benefit the community, meet the needs of individuals, and assist in the development of the region.

Increasingly, today's consumers are willing to pay a premium price for products that focus on social and environmental responsibility. In 2000, CCF conceptualized the **Cheetah Country - Eco-Labeling Program** to highlight to consumers its predator-friendly farming techniques in producing beef, goat cheese, crafts, honey and wine. Under the brand *Cheetah Country*, CCF hopes to make cheetah conservation marketable in a new way and promote its efforts to save the species to new audiences. CCF is always looking for new and novel ways to present the cheetah and other African predators as precious natural resources. The eco-label certifies a product meets or exceeds a set of consistent standards for environmental protection or social responsibility.

CCF is also a co-founder of **Wildlife Friendly Enterprise Network (WFEN)**, an American organization that promotes conservation through facilitation and certification of responsibly produced agricultural products. CCF's Bushblok and Dancing Goat Creamery products now bear the Certified Wildlife Friendly label indicating they have met WFEN's standards for certification.

## Conservation

### Habitat Restoration

Cheetahs hunt using bursts of speed in open or semi-open savannah, however, because of unpredictable droughts, climate change, and certain livestock farming practices, native thorn bush species are encroaching on Namibian farmlands. Bush encroachment changes the habitat and the mix of prey species that can survive in lands it dominates, and the presence of this thick bush thwarts the cheetah's hunting, and in many cases, causes injuries to the cheetah, particularly to its eyes. Bush encroachment is also hurting Namibia's economy by reducing the amount of grassland for herding. A 2016 study by the Namibia Nature Foundation estimated livestock production losses to be twenty million US dollars per year.

CCF's Centre includes a **Biomass Technology Centre (BTC)** to test, develop and produce clean-burning energy products made from sustainably harvested thorn bush. The objectives of having this facility are to catalyze a biomass industry while restoring encroached habitat and farmlands for wildlife and livestock grazing. Research encompasses a wide range of biomass technologies, including pyrolysis-based electrical generation and the manufacturing of briquette logs, charcoal hex logs and lump charcoal.

In 2001, with the help of a USAID grant, **CCF Bush Project** was developed to encourage habitat restoration and to create a viable market for biomass products harvested in an environmentally and socially appropriate way. CCF Bush project has since selectively harvested thousands of hectares of bush to produce **Bushblok**, an award-winning low-emission, high-heat fuel log, from the harvested biomass. In 2008 CCF won the Tech Museum's Intel Prize for the Environment for the Bushblok innovation. CCF is developing ecological standards for ramping up bush harvesting with the goal of restoring landscape-scale tracts of cheetah habitat throughout Namibia. In 2006, CCF obtained certification from the Forest Stewardship Council (FSC), confirming that it manages forest resources responsibly and sustainably. The BTDC and the production of Bushblok provides forty jobs for Namibians, with the potential to provide many more.

Bushblok is an opportunity not only to restore wildlife and grazing land, but also to address two of Namibia's and Africa's biggest issues: electrification and poverty. In 2015, Namibia was expected to run a power generation deficit of four hundred thirty Megawatts. Its aging coal-fired units require hundreds of millions of dollars to refurbish. Namibia also faces an unemployment rate of twenty-eight percent. Expanding Bushblok's thorn bush harvesting and processing efforts to make fuel to fire power plants could significantly reduce Namibia's power deficit and provide employment for hundreds of Namibians. The CCF Bush Project goal is to stimulate development of a Namibian biomass industry, thereby protecting the bush/veld ecosystem, creating jobs, and providing clean, renewable energy. This model is designed to be replicated and exported to other arid countries threatened by bush encroachment. CCF is a founding member of N-Big (Namibia Biomass Industry Group), and industry group working to develop Namibia's biomass industry sustainably.

## Illegal Wildlife Trafficking

Although trade in wildlife species products is regulated by both international and national laws, the illegal wildlife trade is estimated to be worth between fifty to one-hundred fifty billion US dollars annually. Cheetahs, listed as an Appendix 1 species under CITES, are often removed from the wild for their body parts or, more so, the illegal pet trade.

CCF first became actively involved with issues involving the illegal taking of live cheetahs in November 2005. Since then, CCF has been monitoring illegal cheetah trafficking and organizing confiscations through the proper authorities whenever possible. CCF collects genetic samples for analysis and trains staff at cheetah-holding facilities to ensure the proper care for confiscated animals.

CCF also works to educate the public about illegal trade. Even though the intrinsic nature of illegal wildlife trafficking makes it difficult to collect full or reliable information, CCF has recorded hundreds of cases involving nearly two thousand cheetahs. CCF holds the most extensive database for illegal cheetah trafficking worldwide. CCF takes every opportunity at national and international forums to ensure that the problem is not ignored and was a founding member of the Coalition Against Wildlife Trafficking. CCF participates in the CITES inter-sessional working group on the illegal trade in cheetah and was instrumental in making recommendations unanimously adopted by CITES at CoP17.

In 2018, CCF assisted the government of Somaliland through the Ministry of Environment and Rural Development (MoERD) in the care of confiscated cheetah. In 2019, the first Safe House was developed to care for these confiscated cubs, along with a veterinary clinic and staff to care for these cubs. In 2020, a second Safe House was developed and now CCF is caring for thirty-three orphaned cheetah cubs confiscated from the Illegal Wildlife Trade. CCF works closely with the Horn of Africa governments to stop this illegal pet trade.