



**HIROLA CONSERVATION PROGRAMME
2022 ANNUAL REPORT**



THE HIROLA ANTELOPE

With a global population of less than 500 individuals left on the planet, hirola is classified by the IUCN as Critically Endangered (CR) and listed as one among 10-top focal species at risk of imminent extinction by the Zoological Society of London.

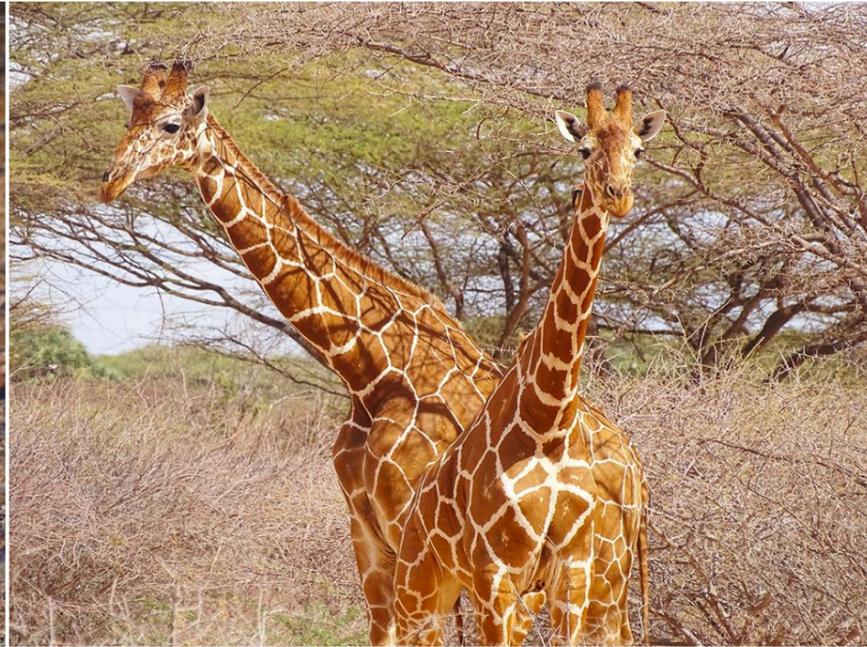
HIROLA CONSERVATION PROGRAM

The Hirola Conservation Program (HCP) is a community-based organization (CBO) that promotes the conservation of the critically endangered hirola antelope and other endangered wildlife in eastern Kenya. Some of our key species include the hirola antelope, reticulated giraffe, grevy's zebra and northeast African cheetah.

HCP started as a small CBO in 2008 with specific focus on the hirola antelope (*Beatragus hunteri*). HCP started as a result of the global concern about the declining hirola antelope populations and the lack of local capacity to spearhead conservation in the volatile region along the Kenya-Somalia border and was formally registered as a non-profit in 2014 with our conservation activities targeting endangered wildlife in eastern Kenya.

Our mission is to sustain a conservation program that will make lasting contributions to the future of endangered wildlife and of the local communities within the hirola's geographical range. Our approach to conservation is multi-faceted and involves:

- Research
- Environmental education
- Community engagement
- Protected area establishment
- Anti-poaching efforts



DIRECTOR'S NOTE

The year 2022 posed numerous challenges, testing our resolve to protect and preserve the critically endangered hirola antelope and other endangered wildlife species in eastern Kenya. From battling the lingering effects of the COVID-19 pandemic to grappling with a devastating & prolonged drought and political uncertainties, we stood strong, exemplifying resilience and unwavering dedication to safeguarding wildlife and their habitat.

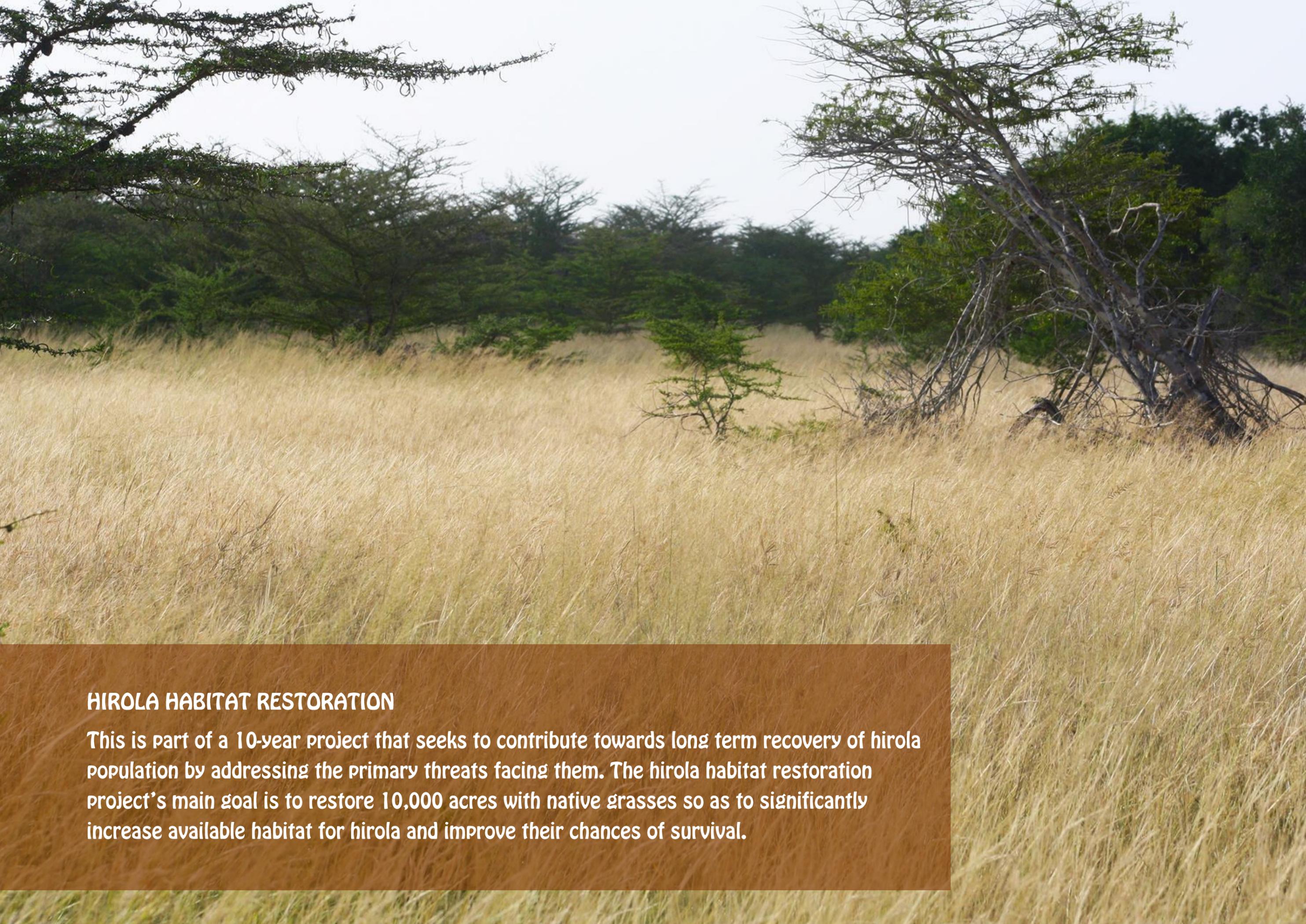
Despite facing reduced resources and funding in 2020 and 2021 due to the pandemic, we expected to hit the ground running in 2022. However, we were faced by the prolonged drought and recognizing the urgency of the situation, we had to divert most of our limited resources towards providing immediate relief. We had to implement drought emergency intervention measures to avert any drought related mortalities.

In the face of all this, we never relented. We continued with some of our conservation activities that include restoring critical hirola habitat, combating poaching and illegal activities within core wildlife areas, research and raising awareness about the importance of conservation among the local communities. Our major triumph of 2022, was the successful collaring of 29 reticulated giraffes along the Kenya-Somalia border. This remarkable accomplishment in 2022 serves as a beacon of hope for the future of giraffe populations in this volatile region.

One of our key pillars is the unwavering support from partners and local communities. Even in the face of adversities, together we made big strides in the right direction. We look forward to strengthening our relations in order to create more impact and ensure hirola and other endangered wildlife species are well protected and conserved.

Abdullahi H. Ali, Ph.D.
Founder & Director





HIROLA HABITAT RESTORATION

This is part of a 10-year project that seeks to contribute towards long term recovery of hirola population by addressing the primary threats facing them. The hirola habitat restoration project's main goal is to restore 10,000 acres with native grasses so as to significantly increase available habitat for hirola and improve their chances of survival.



RANGELAND RESTORATION PROJECT

The hirola antelope is regarded as a refugee species as it has experienced about 95% population decline that is driven by shrinking grasslands (approximately 75% decline) and increasing tree cover (~300% increase). As such, habitat restoration is a prerequisite to hirola recovery.

Habitat loss remains the primary obstacle to hirola recovery. Our major 2022 objective, therefore, was to restore 1,000 acres of hirola habitat. This is in line with our 10-year long-term objective of 10,000 acres. To achieve this, we came to a realization that we needed to mechanize our restoration efforts (increase pace) to both minimize cost and increase efficiency. However, as we worked to mechanize our efforts, we were faced with a greater challenge in 2022.

With three failed consecutive rainy seasons, all our hopes were on the 2022 long rains (March-April-May) so as to sustain the existing grass islands, establish new ones and meet our 1000 acres objective. The restoration islands can establish really quickly i.e., just a favorable rainy season with sufficient precipitation may ensure the presence of grass seeds in the long-term. However, this important rainy season failed. In addition, the following rainy season (October-November-December) also failed.

Despite this drought conditions, we remained committed to restoring and preserving the hirola's natural habitat. While we had to postpone our seeding and re-seeding plans, we were able to manually clear 832 acres of invasive trees. Despite the drought delaying our habitat restoration plans, we remain committed to our long-term habitat restoration goals and will explore innovative ways to adapt and overcome the current climate crisis hindering our habitat restoration goals. This also means that we will have to double our restoration efforts in 2023 to meet our long-term goal of 10,000 acres in 10 years.



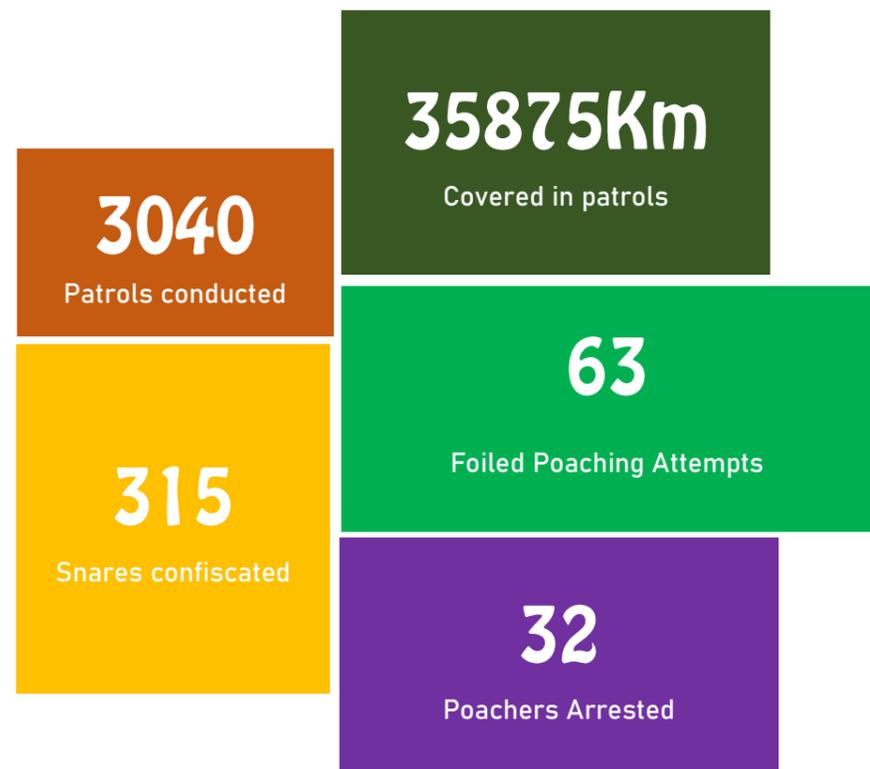
ANTIPOACHING

Hirola rangers arrested 32 poachers, foiled 63 poaching attempts, and confiscated and destroyed 315 snares, making a significant impact on the illegal wildlife trade.

In 2022, our dedicated team of rangers demonstrated unwavering commitment to protecting our wildlife and combating poaching. Over the course of the year, our rangers arrested 32 poachers, foiled 63 poaching attempts, and confiscated and destroyed 315 snares, making a significant impact on the illegal wildlife trade.

To achieve these impressive results, our rangers conducted a total of 3,040 anti-poaching and snare collection patrols. These patrols were conducted on foot, motorcycle, camel, and vehicle, covering 35,875 kilometers. Through joint patrols with the Kenya Wildlife Services Garissa Station, we were able to expand our reach and effectiveness.

To support our rangers, we provided extra fuel for the motorbikes and vehicle patrol teams, ensuring that they were always on the move. Additionally, we equipped our rangers with essential tools such as handheld GPS devices and binoculars, which were vital for bush tracking. HCP is always committed to protecting our wildlife and ensuring that our rangers have the resources and support they need to succeed. By working together, we can continue to make progress in the fight against poaching and safeguard the future of our precious wildlife.





A NEW DAWN: WILDLIFE RECOLONIZE OUR CONSERVATION SITES

Elephants continue to recolonize our conservation sites as a testimony to our successful antipoaching efforts.



A NEW PROTECTED AREA FOR GIRAFFES

In 2022, we proudly founded the Sankuri Community Conservancy in Garissa. The conservancy, which is situated 25 km north of Garissa town, serves as a vital habitat for giraffes and other wildlife species.

ARAWALE NATIONAL RESERVE RANGER'S BASE CAMP MANSABUBU.



A NEW RANGERS POST IN ARAWALE

We took the initiative to rehabilitate the old Mansabubu outpost that was built before the collapse of the Arawale National reserve. The outpost comprises a rangers' dorm, offices, a kitchenette and an amour store.

A NEW RANGERS POST IN ARAWALE

We successfully rehabilitated a forgotten and abandoned rangers' outpost in Mansabubu to bolster our anti-poaching efforts. Mansabubu is situated between Bura East Conservancy and Arawale National Reserve. It has been on the spotlight as being a poaching hotspot and a major source of bush-meat. Mansabubu contributes to 80% of snares collected and 60% of poaching incidents recorded by our rangers. This has further been escalated by the intense drought conditions that is forcing locals to invade core wildlife areas especially in Arawale National Reserve that has no formal protection. As a result, we had to rehabilitate the old Mansabubu outpost that was built before the collapse of the Arawale National reserve. The outpost comprises a rangers' dorm, offices, a kitchenette and an amour store. We renovated all of these facilities and deployed a 15-man anti-poaching unit from Bura East Conservancy. The team will work closely with local police reservists to intensify anti-poaching patrols in the area. The rehabilitation of this outpost will not only solidify our efforts to revive the Arawale National Reserve, but is also timely as it is expected to curb the increasing poaching incidents that are as a result of the prolonged drought.

INVENTING COST FRIENDLY TECHNOLOGY TO CURB HUMAN- WILDLIFE CONFLICT

We have developed a low-cost animal deterrence system to address human-wildlife conflicts, not only within our conservation areas but in other regions as well. The system includes a solar power, a motion detector, sound alarm, and flashing lights. The motion detector has a range of 12 meters and a 180-degree survey field. When a problem animal enters the range, the alarm gets loud, and the random flashing lights startle the animal, deterring it from the targeted farm or property. We call on your support to help us complete the development and have it in use within the conflict hotspots.

ADDRESSING HUMAN-WILDLIFE CONFLICT

A victim of the human-wildlife conflict, having being caught by a snare. After a struggle, the giraffe had to pull the snare attached to a log. In 2022, we desnaired 24 giraffes.



SCIENTIFIC IMPACTS

ASSESSING THE STATUS AND UTILIZATION OF HISTORICAL WATER ACCESS CORRIDORS ALONG THE TANA RIVER

We conducted a questionnaire survey to assess the status and utilization of water access corridors by both wildlife as well as the local community and their livestock along the Tana River. We successfully administered 300 questionnaires in settlements and farms along the Tana River in Garissa County during the survey. Through the survey, we identified and documented 58 historical water access corridors along the river Tana. Out of the 58, only 14 corridors were open while 44 were blocked by vast *prosopis juliflora* bushes and extensive farms.

ADDRESSING HUMAN WILDLIFE CONFLICTS

We identified 58 historical water access corridors along the river Tana, but only 14 are open to wildlife! The rest are the major source of conflict between locals and wildlife.





THE TANA RIVER

A section of the Tana River, in Garissa County, with several farms and invasive trees blocking the historical wildlife water access corridors.



RETICULATED GIRAFFE COLLARING

We are using the recently introduced, innovative tracking system that involves fitting a small, solar powered, tracking device to the giraffe's tail.

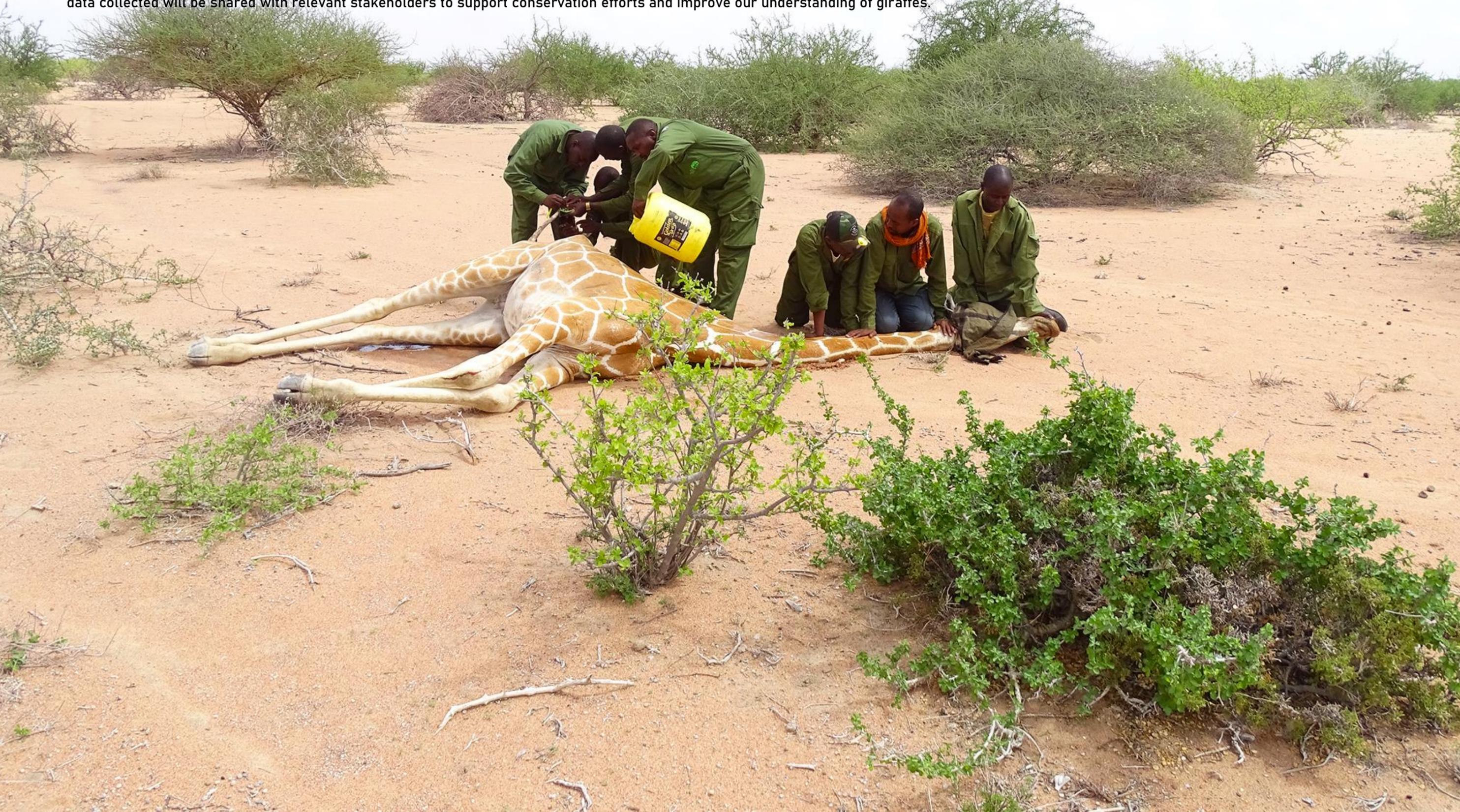
RETICULATED GIRAFFE COLLARING EXERCISE IN AREAS ALONG THE KENYA- SOMALIA BORDER

Through a partnership with the Kenya Wildlife Service (KWS), we embarked on an effort to collar 30 giraffes in the region. The collars will provide us with valuable insights into the ecology and behavior of the reticulated giraffes in this region. This data will help us understand their migration patterns, habitat use, and other ecological interactions. The data collected from the collared giraffes will allow us to monitor changes in population size, distribution, and their health over time. This will enable us to understand the status of giraffe populations in the region and assess the impact of threats such as habitat loss, poaching and predation. Furthermore, data from this collaring exercise will be instrumental in informing and guiding future conservation efforts to save the reticulated giraffe population in the region, including the creation of protected areas and the management of giraffe populations.

We successfully collared 29 out of the targeted 30 giraffes (See video [HERE](#)). These included 16 adult female giraffes and 13 adult male giraffes. We collared 16 giraffes in Garissa County and 14 in Wajir county. Our team covered important giraffe areas in the region which include Ijara, Bura East, Modika, Shimbirey, Shanta Abaq, Sankuri and Balambala in Garissa and; Sabuli, Habaswein, Kumbi, Tulatula and Alidumal in Wajir. We worked with a professional 30-person team from the Somali Giraffe Project, the Hirola Conservation Programme, and the Kenya Wildlife Service (KWS) Vet Unit. Additionally, we worked closely with conservancies' management and local government administrators.

The collaring procedure was carried out in a humane manner while adhering to standard animal immobilization procedures to ensure the safety of the animal. Our vets administered 15mg of Etorphine and 30mg of Azaperone for immobilization while 25 mg Butorphanol was also administered upon reversal of the giraffes. We approached and darted from a vehicle. The giraffes were then physically roped down as soon as immobilization signs set in. The animal's period to go down ranged from 5 to 10 min. After casting down of the giraffe, 4 ml Naltrexone was administered via the jugular vein for reversal. The vital parameters were well monitored and water doused on the giraffe due to the hot weather. The tag was quickly placed at the tip of the tail. Though this is a non-invasive procedure, antibiotics were administered as a prophylactic measure to prevent the animals from coming down with opportunistic diseases. This process lasted for 5-10 minutes after which the animal is released. Initial trials recommended putting the solar powered tags on the giraffes ossicones but this generated controversy and was abandoned hence we settled on placing the tags on giraffe tails as recommended since this has been shown not to harm giraffes. The collared giraffes were given Somali names suggested by conservancy managers or local administrators who accompanied them.

Going forward, the team plans to continue monitoring the collared giraffes as the solar GPS tags relay hourly locations of the collared giraffe and expanding the program to include more individuals. The data collected will be shared with relevant stakeholders to support conservation efforts and improve our understanding of giraffes.





GIRAFFE COLLARING TEAM

This is part of the 30 men team that successfully collared 29 giraffes along the Kenya-Somalia border. They had on several occasions had to risk their lives and spend nights in highly volatile areas.

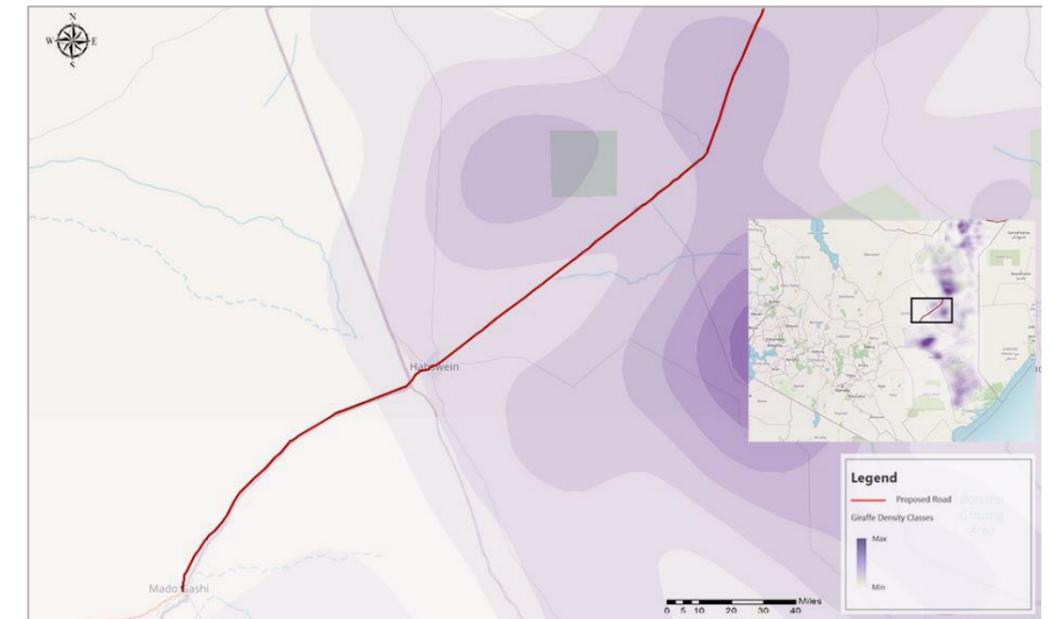


ROAD KILL SURVEY

There is a crucial need to document the impact of infrastructure on wildlife populations. The extent to which these features affect wildlife populations and undermine ecological processes is still unknown.

In the past few years, there have been considerable infrastructure developments in Northeastern Kenya. Despite supporting the socioeconomic development of communities, the developments have also had negative impacts on the region's biodiversity including habitat loss, collisions and loss of corridors.

Major infrastructure projects within the region include the LAPSSET corridor and the Horn of Africa Gateway Development Project. These projects feature highways that are a major source of wildlife road mortalities that threaten wildlife populations.



Modogashe-Samatar Road (part of Horn of Africa Gateway Development Project) going through the endangered Somali Giraffes' Area of Occupancy in Northeastern Kenya.

Our research is based on the Modika-Modogashe highway which is a section of the Lapsset corridor. Using road safety week campaigns, we recruited volunteer road users. They volunteer their phone numbers, which are then added to our Roadkill WhatsApp group platform. When a road user comes across a road kill, he/she sends a photo of the scene and the area's pin location to the WhatsApp group. In addition, we do road transects twice every month to record road kills.

The Lamu Port South Sudan Ethiopia Transport (is a mega infrastructure project consisting of ports, pipelines, roads, and railways. Our study site Modika-Modogashe highway) forms part of the larger LAPSSET. LAPSSET corridor is also set to cross three conservation areas within Garissa County: Rahole National Reserve, Bura East Conservancy and the Garissa Giraffe Sanctuary.

GIVING WILDLIFE A BRAKE

We successfully observed 4 road safety awareness weeks in 2022, where we reached out to 1200 motorists along the Garissa-Modogashe highway among other major roads in Garissa County. Our road safety week were themed “Let’s give wildlife a brake” to sensitize road users on road safety practices to curb increasing road kills along major roads in Garissa County. We partnered with the Kenya Wildlife Service Garissa station to set up roadblocks along major highways in Garissa County. At the roadblocks, motorists were stopped and urged to be careful and to apply all safety measures that would help reduce road kills. We also asked drivers to volunteer in our citizen science roadkill data collection program. 110 commercial vehicles drivers volunteered by giving us their WhatsApp numbers. The drivers were added to our roadkill citizen science WhatsApp group where they will be reporting road kills encountered by sending the pin location of the roadkill as well as a photo of the animal involved.



CAPACITY BUILDING & NETWORKING

COMBATING WILDLIFE CRISIS

We recently partnered with Afri-Vet to rescue, treat and rehabilitate abandoned, orphaned and injured wildlife in northeastern Kenya. We provide special care to the needy wildlife before they are released back to the wild. The partnership goes a long way to bolster our Hirola Wildlife Crisis Fund that provides emergency assistance to wildlife in the volatile region along the Kenya-Somalia border. The crisis fund facilitates rapid responses during prolonged droughts, floods, livestock and wildlife disease outbreaks, cross border bushmeat trade and increased poaching incidences.





AFRICA PROTECTED AREA CONGRESS

We are delighted to have been part of the First IUCN Africa Protected Areas Congress in Kigali, Rwanda which aims to highlight the critical role of protected areas in the continent. Our founder and director Dr. Ali represented HCP at the congress. The congress celebrated community protected areas that hosts a majority of wildlife in Africa.

SOMALI GIRAFFE STRATEGY MEETING

Our Founder, Dr. Ali, on 1st March 2022 attended the reticulated giraffe conservation strategy meeting in Nanyuki, Kenya. The meeting was supported by Giraffe Conservation Foundation and the Kenya Wildlife Service. Dr. Ali shared the plight of giraffes in areas along the Kenya-Somalia border.

HCP FEATURE ON THE CONVERSATION

We were once again featured in 'The Conversation' as we elaborated on the recurrent drought in East Africa. 'The Conversation' is an independent source of news and views from the academic and research community. The article featured our work to save wildlife and the local community from the pangs of the severe drought that has been ravaging the Horn of Africa. You can read the article [HERE](#).

SGP FEATURED ON ENVOY' E SPECIAL

We were featured on the Envoyé Special on France Television on the 5th of May 2022. We were happy to share our work and efforts to secure the future of the Somali giraffes with the world. On our behalf and that of our local communities, we thank the France Television team for visiting us and featuring our work. You can view the video clip [HERE](#).

In addition, they also featured an article and an interview that can be accessed through [HERE](#) and [HERE](#).

WCN WILDLIFE CONSERVATION EXPO

We also participated in the WCN Wildlife expo in the Fall of 2022. You can view the video clip [HERE](#).



IUCN WCPA AWARD

Ali Hassan Ali, a warden at the Bura East Conservancy and the overall head of 30 hirola rangers, emerged among the winners of the 2022 IUCN WCPA awards.

HIROLA CONSERVATION CHAMPION, ALI HASSAN ALI, WINS IUCN WCPA AWARD

In 2022, we celebrated Ali Hassan our ranger who emerged among the winners of the 2022 IUCN WCPA awards at the Africa Protected Areas Congress in Kigali, Rwanda. Ali Hassan Ali is the warden at the Bura East Conservancy and the overall head of 30 hirola rangers. As a warden, he is the chief security officer and the coordinator of rangers' routine activities. These activities include daily anti-poaching patrols, wildlife monitoring patrols, hirola habitat restoration activities, and snare collection patrols. Being a seasoned ranger, as well as an overall conservation champion, Ali played a key role in the protection of the former Arawale National Reserve and founding the Bura East Conservancy. Both are home to the critically endangered Hirola antelope that we work to conserve.

Ali started his career as a community ranger at Arawale National Reserve at a time when the reserve experienced immense poaching. He fought many battles with poachers some of which were near-death experiences. The most targeted animal by poachers in Arawale during Ali's early years as a ranger was the elephant which was primarily targeted by Ivory traders. On one occasion, as Ali tried to apprehend poachers, he was shot on his left thigh by poachers who were targeting elephants. He managed to escape to safety together with his 4 colleagues who accompanied him. He eventually recovered and at the time of his recovery, the Arawale National Reserve had completely collapsed due to increased conflict and insecurity in the area.

He went on and became an untrained teacher at Bura Primary School. However, his passion for conservation would later see him resign and start championing for the reinstatement of the Arawale National Reserve and the formation of a conservancy. This later saw him be part of the founders of the Bura East Community Conservancy and part of the HCP and Garissa County Government taskforce implementing a plan to reinstate the Arawale National Reserve. We are glad that he was eventually awarded for the years of sacrifices that he made throughout his conservation career and we admire his passion and efforts as we work with him to conserve the habitats for the Critically Endangered Hirola Antelope.



EMERGENCY INTERVENTIONS

We have provided 600 bales of hay, 1400kg of acacia pods and 200 bags of nutritious pellets to wildlife at strategic feeding points within the conservancies.



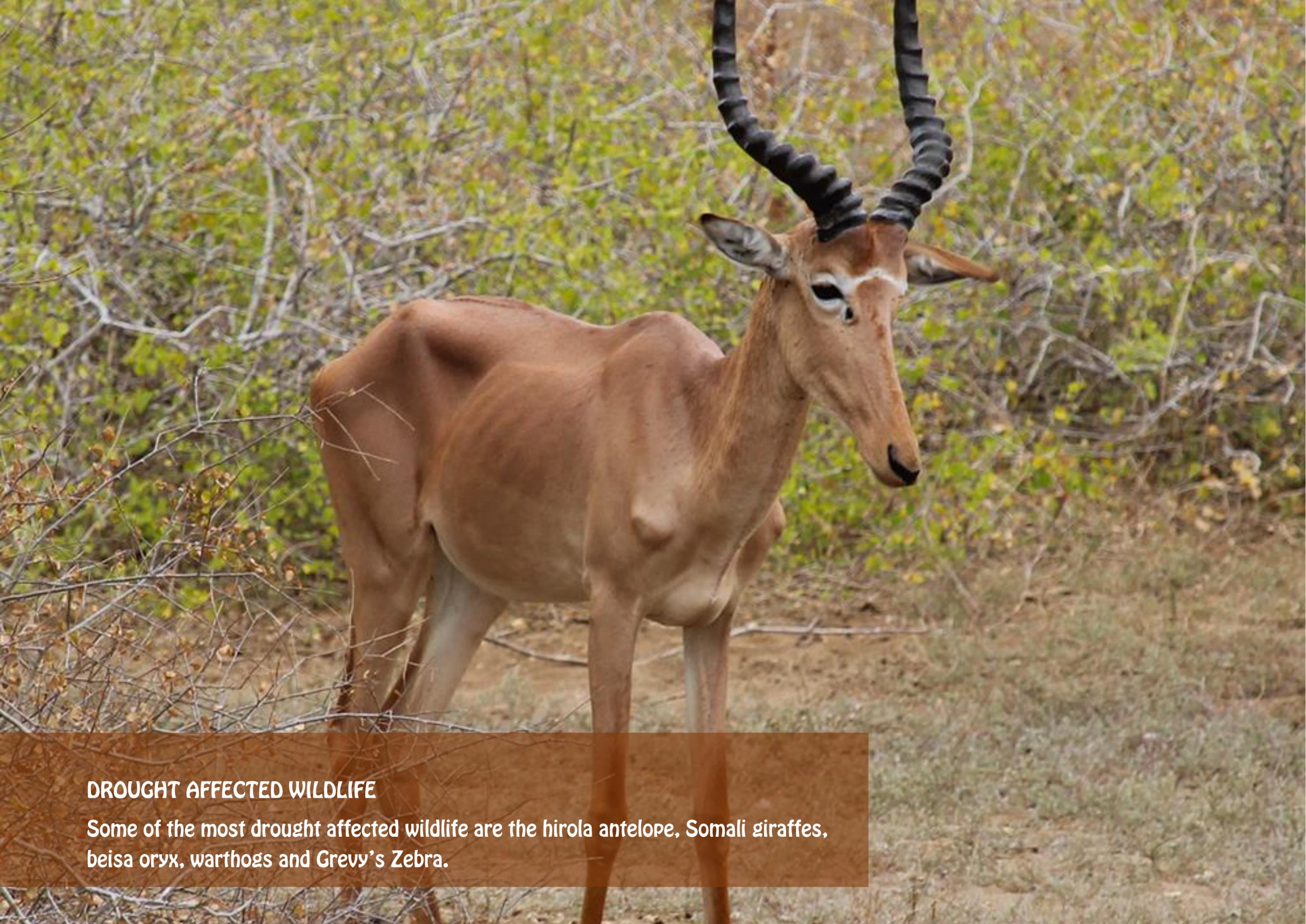
MITIGATING THE IMPACTS OF A CLIMATE CRISIS

The prolonged drought was declared a national disaster by Government of Kenya in September 2021 and a dusk to dawn curfew imposed on 23rd March 2022 in some parts of our region due to the increased resource-based conflicts.

North eastern Kenya faced a prolonged, and severe drought that presented an uncertain future to the wildlife species, livestock and local communities within our region. The drought that started in late 2020, was declared a National Disaster in 2021 and persisted through 2022. Both rainy seasons failed in 2022 and as a result, the multi-year drought has left wildlife and communities in urgent need of assistance.

The two important rainy seasons were defined by late onsets, below average cumulative quantities, and poor distribution both in time and space mostly in northeastern Kenya. This resulted in poor vegetation conditions, increased distances to water sites, worsening wildlife and livestock body conditions, reduced milk production in livestock, increased conflicts (both human-wildlife and inter-clan conflicts), invasions by pastoralists to core wildlife areas and increased poaching incidents. In addition, these conditions make wildlife and livestock susceptible to malnutrition, diseases and even mass mortalities. We therefore, continued our emergency intervention measures throughout 2022 to avert loss of life and livelihoods. This included:

- Sustaining availability and access to water for wildlife, livestock and locals. We carried out Emergency Water Trucking (EWT) to cover the lack of water and provide access to readily available and reasonable quantities of water. Using rented trucks, we supplied water twice a week to both communities and wildlife across all parts of Garissa County especially the northern region due to its long distance from the Tana River. 5000 households and 5 conservancies benefitted from our water trucking program. In both wildlife and community areas, we supplied over 5,000,000 litres of water and offered 100,000 litres of fuel subsidies to communities as well as conservancy boreholes. In addition, we rehabilitated 16 water troughs and constructed 11 water troughs which were replenished with water on a weekly basis.
- Providing high quality feeds to wildlife grazers and livestock. We provided 300 bags of nutritious pellets, 3,600 bales of hay and 36,000kg of acacia pods to wildlife at strategic feeding points within the conservancies. The supplementary feeding program targeted known groups of the most affected wildlife that included critically endangered hirola antelope, Somali giraffes, beisa oryx, warthogs and Grevy's Zebra. In community areas, we supplied 2,450 bales of hay and 220 bags of nutritious pellets to communities as supplementary feeds to livestock.



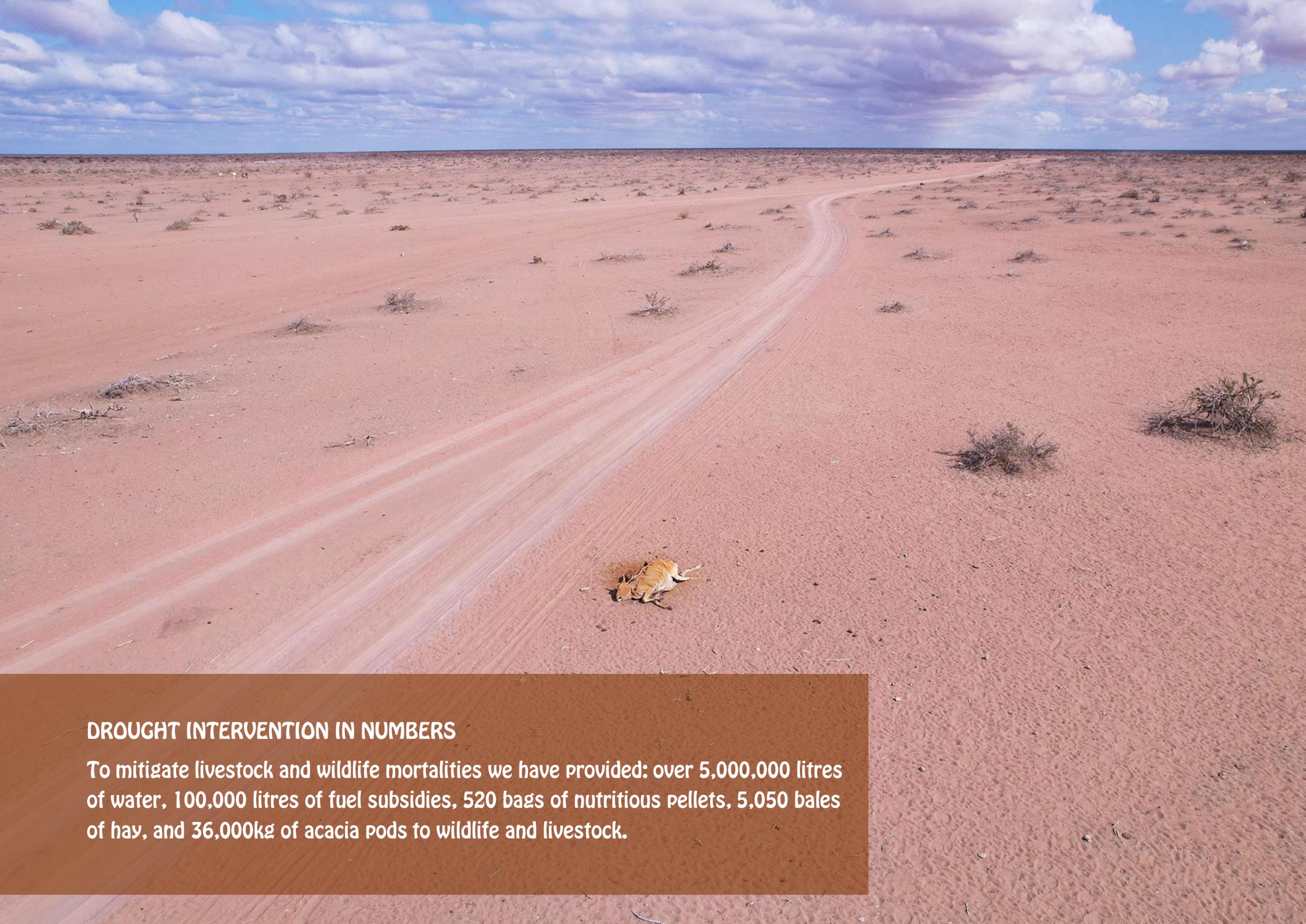
DROUGHT AFFECTED WILDLIFE

Some of the most drought affected wildlife are the hirola antelope, Somali giraffes, beisa oryx, warthogs and Grevy's Zebra.



DROUGHT INTERVENTION MEASURES

We have been providing water and feeds to wildlife and livestock twice a week since the start of the drought in late 2020. This was to ensure that they meet the minimal survival requirements.



DROUGHT INTERVENTION IN NUMBERS

To mitigate livestock and wildlife mortalities we have provided: over 5,000,000 litres of water, 100,000 litres of fuel subsidies, 520 bags of nutritious pellets, 5,050 bales of hay, and 36,000kg of acacia pods to wildlife and livestock.



LIVESTOCK VACCINATION EXERCISE

We partnered with the veterinary department of Garissa County Government to implement a livestock disease monitoring program. Our team vaccinated 31,400 animals, including camels, cattle, and shoats, while also collecting 60 blood samples for laboratory analysis.

GIVING A SECOND CHANCE TO ABANDONED, ORPHANED AND INJURED ANIMALS

Through our animal rescue and re-wilding program we successfully rescued 6 cheetah cubs, 3 gerenuk calves, an injured adult male ostrich, and an injured aardvark.



One of the cheetah cubs we rescued in 2022

We launched this program to provide care to abandoned, orphaned, and injured wildlife in eastern Kenya due to various circumstances such as drought, floods, injuries, and diseases. With pastoralists forced to seek pasture deep into wildlife core areas, large herds of cattle have displaced wildlife, leading to attacks on carnivores and abandonment of young animals. Herders from the Herders for Hirola program help track and rescue injured or abandoned animals, which are then brought to the Garissa Game Sanctuary for care and rehabilitation. The animals are released back into the wild once fully recovered or grown, in consultation with local community conservancies and the Kenya Wildlife Service.



Thank You!



Your overwhelming support and generosity has enabled us to incredibly expand and strengthen our conservation efforts in 2022. We rely on this support to keep our operations running and to help us realize our vision of documenting the struggles of the world's most endangered antelope. We are humbled and very grateful to all the donors, individuals and institutions who support us.



Hirola Conservation Programme

www.hirolaconservation.org

hcp@hirolaconservation.org

 Hirola Conservation Program

 @hirola_program

P.O Box 1774 - 70100,

Nairobi, Kenya.

