DROUGHT & WILDLIFE

Saving Nairobi's Wildlife from Drought

Bridging the Gap: Efforts to counteract the impacts of severe drought on Nairobi's unique wildlife sanctuary.

STORY BY
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PETER MOLL

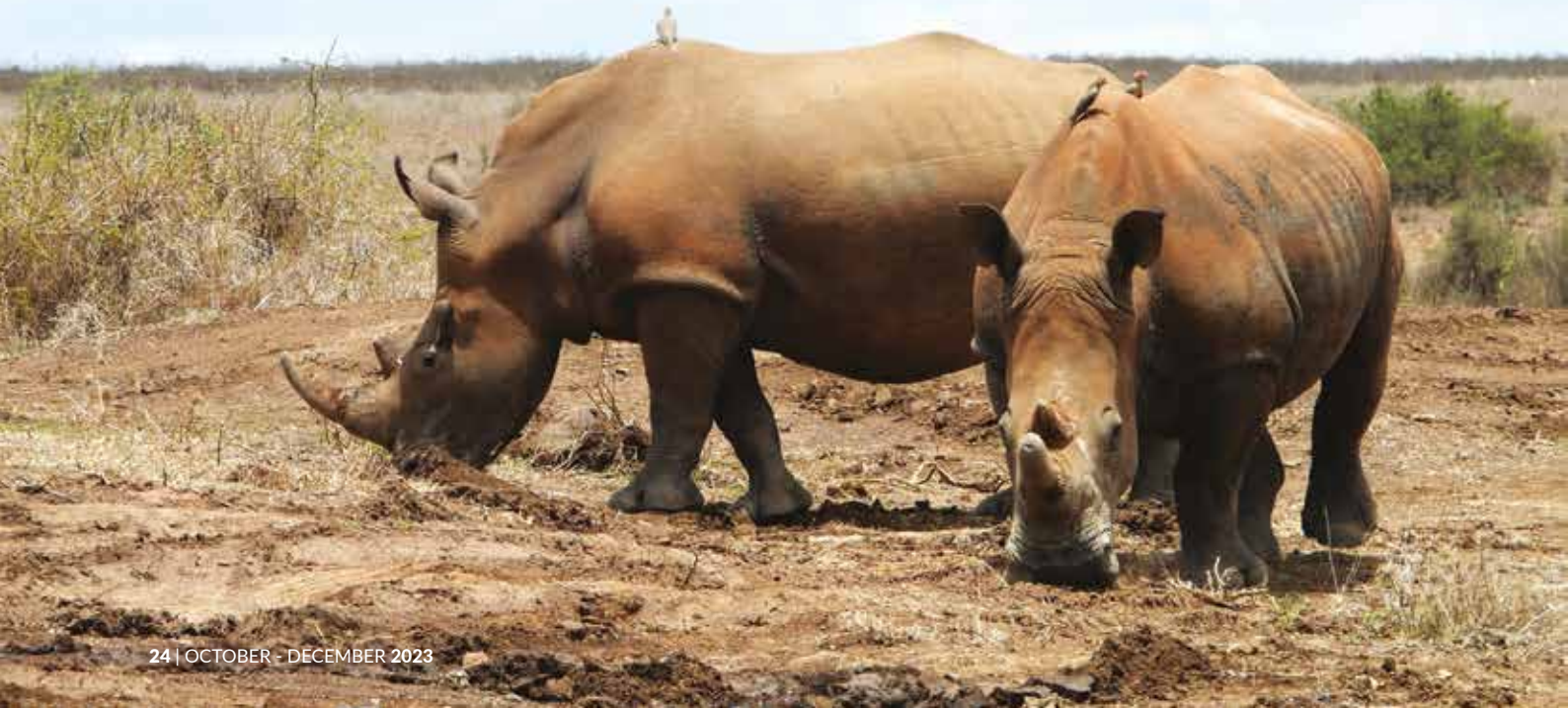
Former United States president Barack Obama said, in a speech in 2015, that "Climate change is no longer some far-off problem. It is happening here. It is happening now." In Kenya, two years of poor rainfall from 2021 to 2023 caused one of the worst droughts in 40 years.

Wildlife in Kenya's parks depend on rain-fed pasture and water systems, making them vulnerable to unusual weather patterns. Nairobi National Park (NNP), the only wildlife zone in the world located within the boundaries of a city, was not exempt from a severe water and pasture shortage. By November 2022, the situation was dire.

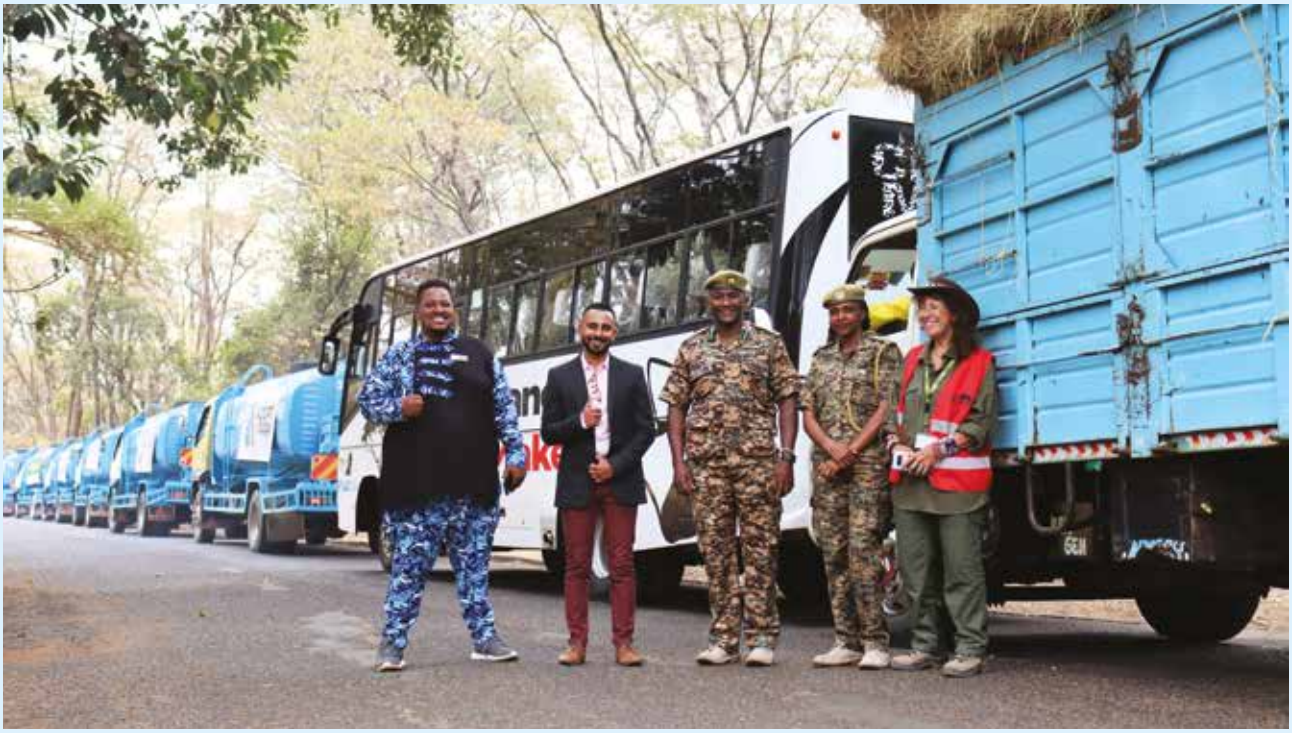
The Park Management Committee (PMC) surveyed dams to identify those requiring desilting and filling. "As this work was going on, we could see an urgent need for hay distribution because the herbivores were very weak and collapsing," said Olga Ercolano, an honorary warden with the Kenya Wildlife Service (KWS) and a member of PMC.

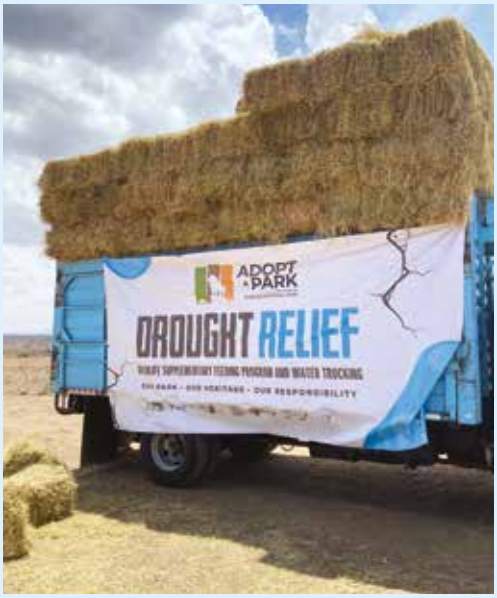
The committee, the senior park warden and KWS management mobilised a drought relief initiative of supplementary feeding and water. Ercolano was appointed to oversee the operations and response by wildlife. "The hay we used was recommended, good quality Rhodes grass or star grass and Lucerne coming from Meru and Naivasha [counties]," said Ercolano.

Before long, all types of herbivores were feeding on fresh hay. Buffaloes, rhinos, hippos, zebra, impalas and other antelopes were spotted eating both day and night. Black



BELOW
White rhinos feeding on hay at Nairobi National Park.





rhinos preferred Lucerne grass more than regular hay, hartebeest usually chose star grass over other types and wildebeest "are set on eating shoots, whether dry or fresh," said Ercolano.

This was not the first supplementary feeding programme in NNP. Kenyan activist Peter Moll is the founder of the Stand Up, Shout Out (SUSO) movement, a key partner of the drought project. Back in 2022, SUSO started distributing bales of hay and Lucerne along with water in the Park. "This year has been more impactful because more people are involved," said Moll, who is also an honorary KWS warden.

Water for the dams was sourced outside the park and bought from dealers drawing it from clean boreholes.

He explained the multi-step approach to wildlife drought relief. To begin with, the team maps out routes in the Park regularly used by animals, ensuring they are just a short distance from water. Water points are assessed to determine their retention ability, "and not just filling any pan then the water disappears, which has happened before," he said.

Hay should not be placed too close to waterholes as the latter attract predators, which makes the herbivores vulnerable. Water for the dams was sourced outside the Park and bought from dealers drawing it from clean boreholes. Starting with empty waterholes, the watering exercise was then extended to dams needing replenishment until the rains fell.

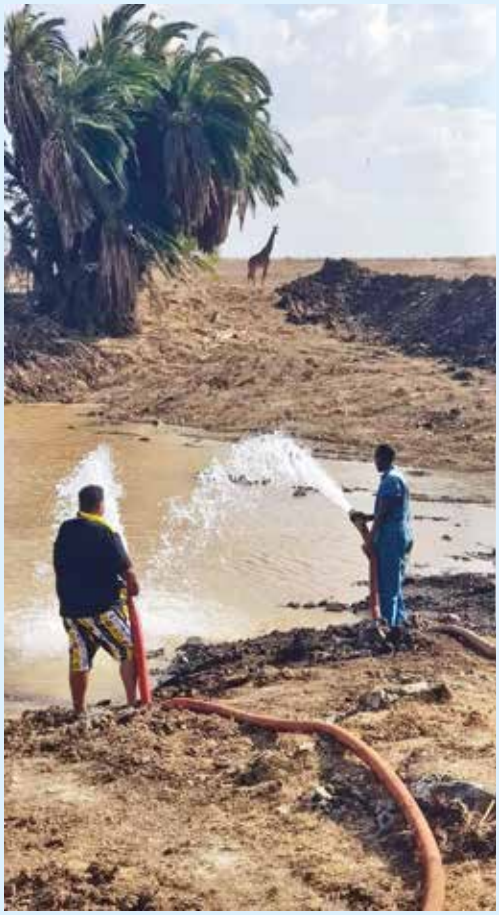
I learned that water from the bowser trucks should be kept from flowing freely into the ground as this churns up the soil around a dam, generating waste and debris. Instead, the hosepipe from the truck is held up "so the water goes into a certain spot and remains in the dam," said Moll.

The drought-relief project at NNP would not have been possible without the financial support of well-wishers. "With contributions from so many generous donors and institutions, we brought over 1.2 million litres of water to desilted dams and waterholes and

TOP
Peter Moll, Vishal Mandaliya, KWS officials and Olga Ercolano.

BELOW
Drought relief hay at Nairobi National Park 2023. In times of severe drought, park authorities and conservation organizations may need to intervene by providing supplementary food sources for wildlife. This is done to prevent a humanitarian and ecological crisis within the Park.

PHOTO BY VISHAL MANDALIYA



TOP LEFT & RIGHT
Filling water pans at Nairobi National Park in 2023. During a drought, one of the most critical concerns is the availability of water for both wildlife and vegetation. Nairobi National Park relies on several rivers and seasonal streams for water, which can dry up or become severely reduced during prolonged drought periods.

BELOW LEFT
Hay delivery in Nairobi National Park.

more than 3,500 bales of hay and Lucerne," said Ercolano. Added to this was the cost of hiring tractors for dam desilting, tipper lorries, water bowsers, fuel for vehicles and paying the workforce.

The Kenya chapter of BAPS Charities was one of the partners in this effort, represented by architect Vishal Mandaliya, who designed the Park's new visitor signage in 2023. BAPS contributed funding towards the purchase of hay and water and participated in distributing it alongside rangers, SUSO volunteers and other donors. "It was interesting all of us working as a unit and how different personalities care about the animals remaining sustainable for the future," said Mandaliya.

"The situation is only going to get worse unless we make a stand and put up systems to combat climate change," he added. "We must utilise what we can in nature and our architecture to keep [the Park] sustainably running."

News reports in 2022 had stories of higher-than-normal elephant losses, rare Grevy's zebra dying, forest fires and other drought-related disasters. Rangelands used by livestock and wildlife were under immense pressure, raising the risk of fatal encounters.

Around the country, different organisations embarked on drought intervention for wildlife beginning in 2022. The Grevy's Zebra Trust, based in Samburu County of northern Kenya, supplied hay enhanced with calcium, molasses and salt. Moll and Mandaliya were involved in a hay distribution programme for elephants in Amboseli National Park.

The government's response to national drought mainly focuses on hunger alleviation for affected communities, a necessary short-term measure. But equally urgent is the need for sustained drought-risk assessment, land planning and workable mitigation strategies for people and wildlife. But on a positive note, the government recognised the toll on wildlife from prolonged drought. The National Treasury allocated 319 million Kenyan

shillings ($2.3 million) in 2023 for drilling boreholes in national parks.

Supplementary feeding is only one step in the long-term plans at NNP. Existing boreholes and tanks are being upgraded to increase the Park's water storage volume. Some of the current tanks, notes Moll, have a mere 5,000-litre capacity yet supply water for wildlife, the ranger posts, and various KWS operations.

More boreholes and dams are needed, strategically located in places where there are none, whilst ensuring that the area's water table is not adversely impacted. The PMC is planning to install a piping system that uses gravity flow to connect boreholes to water tanks. "Once we locate a good dam that serves wildlife well, we get the resources to fuel a tipper truck, remove the silt from the dam and add fresh water," said Moll. "When rains come, they are naturally filled."

Open water reservoirs build up organic material over time because of water run-off, wind, ground erosion and general soil accumulation in empty dams. To maintain good storage volumes, desilting will be carried out regularly.

Another aspect of NNP's long-term strategy is the construction of water troughs near natural water points. Although troughs are not an organic feature of a national park, permanent water channels can help alleviate the effects of water shortages as parks become increasingly susceptible to drought and unpredictable weather patterns.

When above-average rainfall occurred starting in April, the water and foraging situation in the Park improved, ending the drought relief programme. "The last two years have been a great learning cycle and a successful one," said Ercolano. "Should there be another drought, we will be prepared to deal with it."

Kari Mutu is an independent writer for various newspapers and magazines.

BELOW
Hay delivery to Nairobi National Park in 2023. Drought can be extremely challenging for the park's wildlife. Reduced access to food can lead to increased competition among animals. This can result in stress for the animals, migration out of the park in search of water, and sometimes even deaths due to dehydration and lack of food.