

A black and white photograph of two male lions walking towards the camera in a savanna landscape. The lions are in the center of the frame, with their heads slightly turned towards the viewer. The background shows a vast, open plain with distant mountains under a bright sky. The overall mood is serene and majestic.

**AFRICA** YEAR

IN REVIEW **2023**

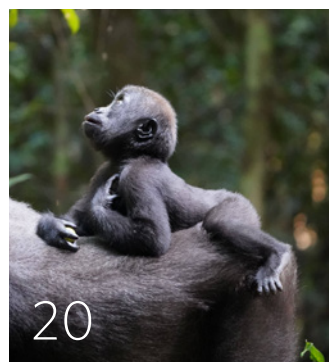
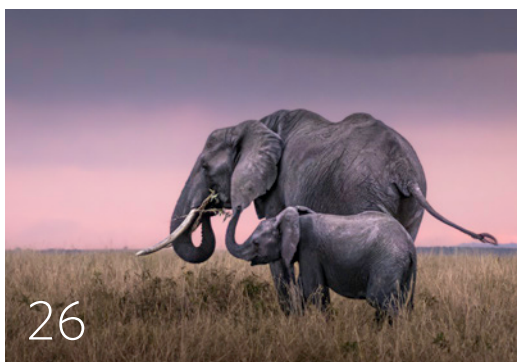
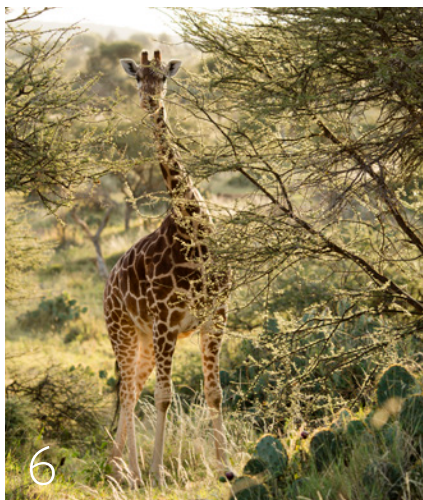
## We

The word “we” appears many times in the following pages. It’s a wonderful word. It encompasses staff who get their boots stuck in mucky peatlands; who sit under acacia trees, listening to the concerns and ideas of community members; who wade into the ocean to help women build better lives.

And, of course, “we” includes you. You are every bit as much a conservationist as any freshwater ecologist, spatial scientist, or intrepid bush pilot.

Thank you for being an essential and cherished member of the TNC Africa team.





**Cover:** Morani (at right), the oldest known lion in Kenya’s Maasai Mara and a member of the “Four Musketeers” coalition, walks with a companion in Maasai Mara, Kenya © Anup Shah/TNC Photo Contest 2022. **Opposite:** Habiba Tadicha, former chair of the Biliqo Bulesa Conservancy, with her niece at home in Kenya © Roshni Lodhia.

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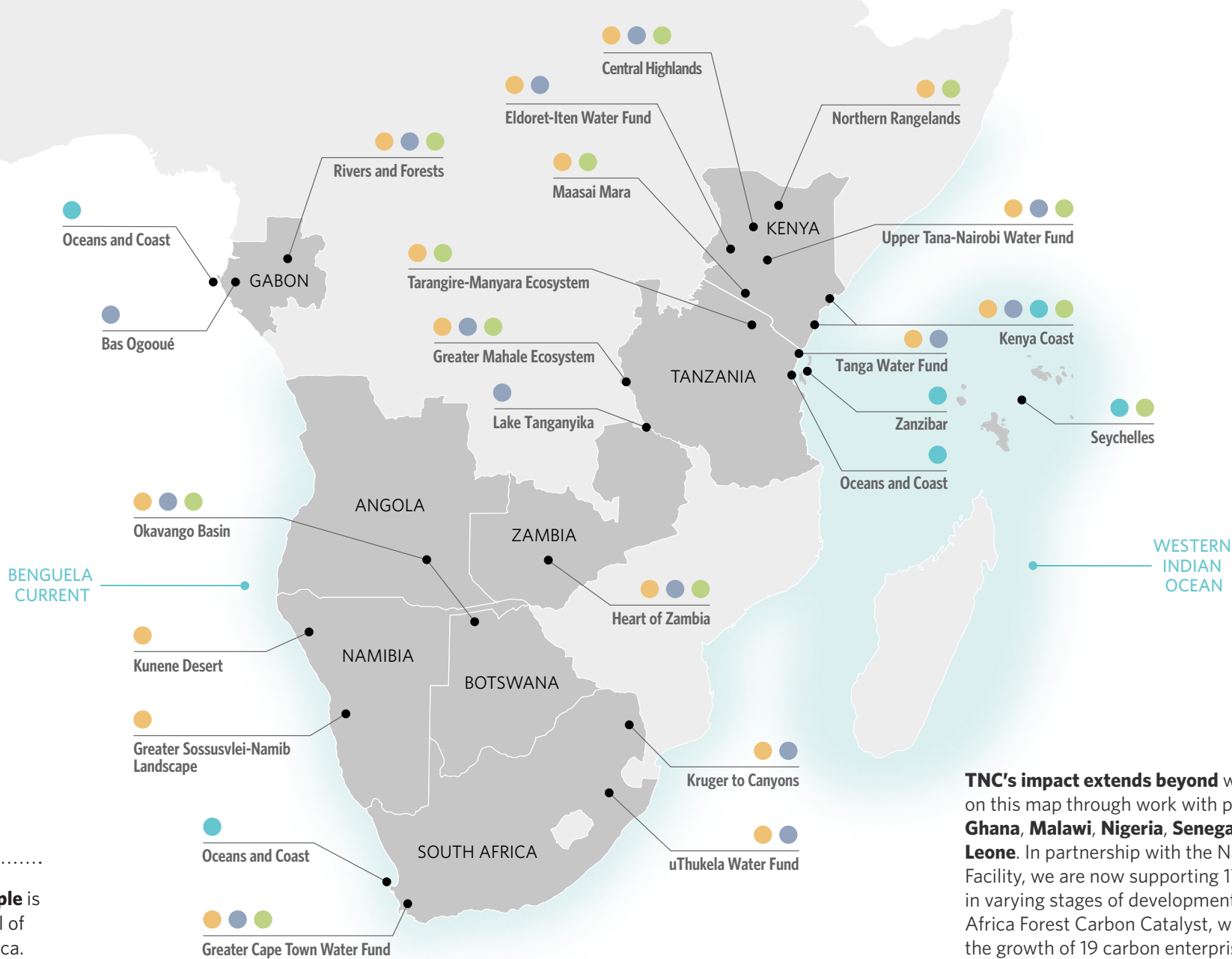
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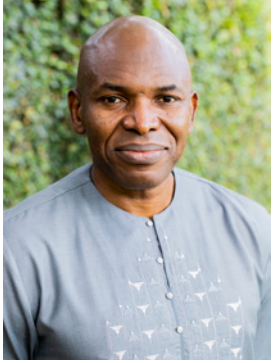
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**Benefiting people** is embedded in all of our work in Africa.

**TNC's impact extends beyond** what is featured on this map through work with partners in **Ghana, Malawi, Nigeria, Senegal, and Sierra Leone**. In partnership with the Nature4Water Facility, we are now supporting 17 water funds in varying stages of development. Through the Africa Forest Carbon Catalyst, we are supporting the growth of 19 carbon enterprise projects.



# Together, We Find a Way

**ON A RECENT TRIP TO NORTHERN KENYA**, I felt mixed emotions as we flew over the vast rangeland. It was very dry due to four cycles of failed rain and depleted by overgrazing. We saw signs of erosion where drought-hardened ground was unable to absorb the gift of recent rains, and only scant tender green grass sprouting. Upon arrival at the TNC-supported Westgate Community Conservancy, the story was different. We met ladies from surrounding communities planting grass seeds to restore their rangeland ecosystem. We saw signs of the seeds breaking ground. The whole story of the rangeland was evident: It's only a matter of time.

The twin crises of biodiversity loss and climate change are ratcheting up the urgency of the task at hand and the narrow window to make enduring and transformational impact in the priority geographies where we work. To rise to these challenges, we are planting new seeds at ever greater scales and prioritizing three strategies that are essential for progress and durability: *partnerships, science, and people*.








While we have always worked with and through partners, this approach is more important than ever before. By investing in training, mentoring, and resourcing strong grassroots organizations, we can work faster, make an impact well beyond our own teams, and build a network of skilled and inspired African conservation leaders.

We've been guided by science from the very beginning, and at this pivotal moment of breathtaking growth, it's rigorous science that will keep us moving in the right direction and enable us to strengthen and focus on areas where we can make a difference.

And, of course, running through everything we do is our commitment to benefiting people, especially local communities. In the following pages, you'll see examples of how these three key strategies are helping us rise to the ambition of our 2030 Goals.

The visit to Westgate reminded me of the importance—and promise—of our work. It's not only about saving what we have, but also about restoring what we seemingly have lost. This would not be possible without you, our supporters, and the grassroots organizations that we partner with across Africa. An African proverb says a single bracelet does not jingle. It takes a group effort to accomplish things. My heartfelt gratitude goes to our supporters and partners. You make us jingle.

**Ademola Ajagbe** | Regional Managing Director, Africa

	 <b>Healthy Oceans</b>	 <b>Healthy Lands</b>	 <b>Lakes &amp; Wetlands</b>	 <b>River Systems</b>	 <b>Climate Adaptation</b>	 <b>Climate Mitigation</b>	 <b>People Benefiting</b>
GLOBAL	4B	650M	30M	1M	100M	3B	45M
<b>2030 GOALS</b>	HECTARES	HECTARES	HECTARES	KILOMETERS	PEOPLE	METRIC TONS CO <sub>2</sub> e/YR	PEOPLE
AFRICA	281,217,840	39,502,650	1,063,638	35,371	8,212,400	112M	15,816,295

# Land MILESTONES

We are working with partners to create strong networks of conserved lands—Indigenous, communal, private, and government; provide habitats for wildlife; and improve local people’s lives through a rights-based approach to conservation.

## AFRICA CONSERVATION LEADERSHIP NETWORK Impacts to Date:



9

COUNTRIES



32

ORGANIZATIONS



63

PARTICIPANTS



37%

OF PARTICIPANTS ARE FEMALE

### ■ MILESTONE | ZAMBIA

TNC recently directed funds from a \$5 million Global Environment Facility grant to the Kasempa Conservation Foundation (KCF), a local grassroots conservation organization. KCF had previously helped local communities outside Kafue National Park create two community forest management areas totaling about 159,850 hectares.

Now, with a portion of TNC’s grant, KCF has trained and deployed a team of 30 community forest scouts in one of them, swiftly improving protection in an area previously ravaged by poaching and other illegal activities. The funding also supports increased resource governance through the creation of community resource boards. This year, signs of elephants were seen in this area for the first time in decades, a promising indication of the benefits of increased management and security.

### ■ MILESTONES | REGIONAL

The Africa Conservation Leadership Network (ACLN)—convened and supported by TNC and Maliasili—works to strengthen and develop a rising generation of African conservation leaders and their organizations. The ACLN comprises two key components: a cohort-based leadership development program based on a tailored curriculum and peer-to-peer learning approach, and a platform for fostering long-term connections, relationships, and collaboration. “ACLN has greatly helped me in building on my leadership skills, including understanding team dynamics,” said Daniel Sopia, CEO, Maasai Mara Wildlife Conservancies Association. *See milestones at left.*

### ■ MILESTONE | TANZANIA

In the remote wild of western Tanzania, a tree sapling is threading new roots into cupped soil and unfurling its first tender leaves. It sits in one of several women-led nurseries at the feet of the Mahale Mountains—home to 90% of the country’s endangered chimpanzees—and will join more than 6.6 million trees that have already been planted as part of the Tuungane Project.

These new trees’ life goals:

- Hold soil on farms in place, preventing erosion from being carried by rivers into Lake Tanganyika, where fish breeding sites lie right offshore
- Sequester carbon
- Provide habitat for wildlife and improve connectivity in fragmented forest landscapes
- Become a source of sustainable timber and wood fuel in the future

Made possible by the UPS Foundation and others, the project has benefited approximately 12,500 local people through nursery employment and seedlings that will help retain soil on their farms. Some trees will even provide food and income by producing crops like avocados. Four tree growers associations led by tree monitoring champions oversee the initiative, helping achieve a survival rate of more than 85%.

More than 10,000 hectares have been reforested, and more than 50 kilometers of river are more protected from erosion. In addition, 100,000 hectares have been improved through assisted natural regeneration in the wildlife corridor that connects Mahale Mountains National Park and Katavi National Park.



Carmine bee-eater  
breeding colonies in South  
Luangwa National Park,  
Zambia © Kenneth K. Coe.

# Ouch

## Healing the Wounded Wild



**ON THE RIGHT SIDE OF THE ROAD**, a herd of Grevy’s zebras gazes unconcerned as you rumble past. On the left, two giraffes periscope up from a cluster of acacias, chewing. In the middle, mounds of cut plants.

The driver weaves, making a point to run over each plopped pile. This real-life video game is part of a desperate bid to rid Loisaba Conservancy of an invading nonnative cactus: the Engelmann prickly pear (*Opuntia engelmannii*).

Loisaba is a 23,471-hectare expanse in northern Kenya that provides essential habitat for lions, wild dogs, and other iconic wildlife. Conserved by generous TNC supporters, this vast wilderness is remarkably healthy—with an alarming exception: An estimated 20% is infested with opuntia, and it’s starting to spread into neighboring community lands.

The prickly pear cactus—most likely introduced by colonialists as an ornamental plant or as “living fences”—crowds out native plants that provide forage for wildlife, and its large thorns harm and even kill wildlife and cattle. Some species are unwitting accomplices in the infestation. Baboons, elephants, guinea fowl, and even tortoises eat the sweet fruit and spread the seeds.

There’s new urgency to defeat the scourge. Loisaba will soon welcome 21 endangered black rhinos from other sanctuaries that have reached their maximum capacity. Solitary and aggressive, the species requires a lot of room to breed and thrive. It’s essential to keep the cactus away from the rhinos.

But this invasive species spreads with the impunity of wildfire, even growing on bare rock. It’s too tough to remove by hand, and there’s no point in burning it. With the first rain, it’ll spring right back to life, bloom, and fruit.

With resources from TNC, teams are using heavy equipment to drag out the cactus, roots and all, move it to designated locations, and bury it in deep pits to avoid carbon emissions as it rots. Currently, they’re clearing out a whopping 15,000 plants a month.

They’re also deploying a tiny warrior: Cochineal insects that feed on the cactus’ moisture and nutrients, thereby killing the plant—and *only* this plant. This method has been rigorously researched to ensure no unintended damage to native species in this landscape. Once prickly pear is gone, the insects will die off.

With enough financial resources to maintain the current pace, Loisaba can be free of opuntia within just five years, and the cochineal will remain on guard for rogue pop-ups. TNC science, including multilayered aerial mapping of plant distribution and trends, will continue to guide how best to get opuntia out and keep it out.

While grinding piles of cut cactus under your tires may not be as effective as the cochineal, for the people fighting this scourge, it certainly *feels* good.

**Clockwise from left:** A close-up of *O. engelmannii*. Reticulated giraffes walk among the invasive cactus at Loisaba. Opuntia removal efforts are providing jobs for people from local communities, like Peter Eloto. Moving and burying the uprooted cactus results in fertile “hot spots” where native plants sprout and flourish. Some of the uprooted opuntia is ground into pulp, which is then converted into biogas and used to fuel stoves at Loisaba. Giraffe photo © Ami Vitale; all others © Roshni Lodhia.



“If you cut it off at the base, the cactus will come back stronger than ever. If you leave one little fragment of cactus, the whole population can rebound.”

—Gustavo Lozada, TNC opuntia mapping project lead



PARTNER SPOTLIGHT: PANTHERA

# A Collar Fit for a King



**Clockwise from left:** A male cheetah in Kafue National Park, Zambia © Sebastian Kennerknecht. Panthera Carnivore Action Team Leader Stephen Ngoma and Panthera Veterinarian Dr. King Chidakwa collar two members of the Nkala cheetah family © Lucky Mulenga. Panthera lion monitors Nathan Brown Zimba and Isaac Kalio track a female in Kafue National Park © Sebastian Kennerknecht.

“By supporting partners to do what they do best, we can make a greater impact and foster a strong conservation community to sustain local action into the future.”

—Rob Munro, TNC Zambia Program Director



**KING THE CHEETAH** was on the move. And Panthera staff were ready. King—an almost 2-year-old male cheetah recently fitted with a tracking collar—was slipping into Sichifulo Game Management Area (GMA), one of nine community areas that ring Kafue National Park (KNP). Panthera quickly deployed its “Halo Protection Approach”: They cleared his path of deadly snares, deployed additional foot patrols, and alerted area communities of his presence.

Although cheetah are known to attack goats and calves, King is an asset to the surrounding communities of KNP. Not only does Panthera have an eye on King’s movements to keep him safe, but a wildlife values program rewards communities for allowing predators to wander unharmed through their homelands. Credits from this program are used to fund the community’s biggest needs, such as school classrooms, solar panels, women’s enterprise schemes, and boreholes.

Panthera focuses on protecting wild cat populations, minimizing human-wildlife conflicts, and securing corridors that enable individual animals to disperse from high-quality habitats where numbers are stable or increasing and find the territory they need to survive.

TNC supports Panthera with vital funding and facilitates collaboration among partners to maximize a landscape-scale management approach in this region. In the Kafue landscape, Panthera provides focused monitoring of three collared cheetah and 11 collared lions. Although King is traveling alone, lions travel in groups, as do most cheetah throughout parts of their life. By collaring one individual per focal group, Panthera provides halo protection for 49 or more big cats.

Over the course of eight months, King traveled about 1,127 kilometers through four GMAs, all across the southern half of KNP, and farther into the vast Kavango Zambezi Transfrontier Conservation Area, which links five countries in southern Africa.

## A Holistic Approach

King’s long journey is not unique. Cheetah naturally have the lowest numbers of any big cat in Africa but range over the largest area. What *is* unique is that he was able to remain protected throughout his journey—whether in the national park, the GMAs, or other community areas.

His story illustrates the enormous potential—and need—to secure a wildlife corridor of staggering proportions, a swathe of connected conserved areas spanning from border to border across the wild heart of Zambia.

TNC’s Zambia Program, which has grown from three to 23 staff members since early 2022, is playing a lead role in achieving this vision by coordinating and working with dozens of partners through intentional collaboration and integration. By providing resources and supporting strong partners like Panthera to play their unique part within a holistic vision for conservation, we can avoid duplication of efforts, scale up quickly, and get the most done—together.

# Freshwater MILESTONES

Freshwater ecosystems are among the most biodiverse on the planet but also the most threatened. We are driving science-guided action at ever-greater scales to protect freshwater biodiversity and the life-sustaining benefits that rivers, lakes, and wetlands provide to people.



## ■ MILESTONE | LAKE TANGANYIKA

Bordered by four nations, Lake Tanganyika is an essential resource for hundreds of thousands of people who live on its shores, and its fisheries provide food for millions more. Despite its staggering size, it is vulnerable to growing threats, including unsustainable fishing and rising temperatures due to climate change. TNC has worked with partners on the lake’s Tanzanian shore for 12 years through the Tuungane Project.

Now we are building new transboundary alliances to replicate promising models in other countries, including community-based fisheries co-management and protection. This year we helped secure a \$14.6 million grant from the Global Environment Facility for a new program to address conservation, sustainable land management, and water security in the basin.

In addition, we completed the mapping of the lake’s Key Biodiversity Areas (KBAs)—22 in all—to guide our effort to conserve 30% of the KBAs by 2030. Once adopted, the map (at left) will help define new protected areas and direct caged aquaculture and other economic activities away from the most sensitive habitats.

## ■ MILESTONE | ANGOLA

“If Angola were to turn off the tap, the Okavango would be no more,” TNC Okavango Program Director Sekgowa Motsumi has said. Yet Angola, the source of 95% of the delta’s water, has received far less conservation investment than the delta itself. A new five-year program called Ecosystems, Communities, and Climate Cubango-Okavango (ECCO) marks a turning point. The program brings

\$7.5 million of funding from the United States Agency for International Development and \$10 million of private sector leveraged funding to strengthen conservation efforts in the upper basin. TNC played a lead role in securing the funding and is now leading ECCO’s implementation through a consortium of partners.

ECCO’s objectives mirror our own overarching goals in the basin—promoting conservation-based livelihoods for biodiversity, forests, fisheries, and climate resilience; supporting community-led governance of water supply and sanitation services; and strengthening cross-sector collaboration. This work, combined with supporting Angola to avoid poorly planned hydropower dams, will improve lives in Angola and keep water flowing to the delta.

## ■ MILESTONE | SOUTH AFRICA

After just five years, the Greater Cape Town Water Fund (GCTWF) has been formally registered as an independent entity, a major step toward transitioning from being a TNC project to an independent, self-sustaining, locally led water fund. To date, the GCTWF has returned nearly 14 billion liters of water to the region, clearing the way for rare fynbos to return thanks to the science-guided removal of invasive plant species from 43,938 hectares. The city of Cape Town now integrates nature-based solutions as part of its municipal water strategy and has contributed \$9 million to the GCTWF.

Building off this tremendous success, TNC has just launched with local partners and the Nature4Water Facility the new Kruger to Canyons Catchment Investment Program, which will safeguard the watershed for globally significant biodiversity, downstream communities, large commercial agriculture, and the Kruger National Park.



An aerial view of Okavango  
Delta wetlands, Botswana  
© Martin Harvey/Getty Images.



Almost 13 years ago on a windy day, a boat carried a group of TNC scientists across Lake Tanganyika for the first time. They splashed ashore at the feet of the Mahale Mountains, home to Tanzania’s largest remaining population of chimpanzees. Craig Leisher was on that expedition, helped design the Tuungane Project, and has played a leading role ever since. Now that we’re expanding our work on this amazing lake, we’ve asked Craig to tell us about it.

**What makes the lake special?**

Lake Tanganyika is a lake of superlatives. It’s the longest in the world at 673 kilometers, and the second-largest by volume. It’s also the world’s oldest and deepest tropical lake. Its walls drop off dramatically: You can be 5 kilometers offshore and the lake bottom is 1,000 meters below you. From a biodiversity standpoint, it’s extraordinary. It has more genus-level aquatic diversity than any other lake in the world. We’re not talking about species-level diversity; we’re talking *genus* level! Most of the species are in the cichlid family—about 250 species of cichlids, in fact—but over the last 10 million years, these have diverged into so many different shapes and colors that they warrant their own genus.



**How can a lake this large, this deep, be vulnerable?**

Many of the fish species breed in the sunlit shallow areas near shore, and this makes them easier to catch. Catching fish before they breed is a sure way to crash a fishery. In fact, it’s in the top 10 meters of water where you find most of the life in the lake—*that we know about*. Who knows what’s in the blue-black depths of this lake!

Pollution in this lake can linger for centuries: The estimated “residence time” for water in Lake Tanganyika is 5,555 years. That’s how long it takes a drop of water that enters from, say, the Malagarasi River, to when that drop leaves by the only exit: the Lukuga River, which flows into the Congo River.

**Why should it be a conservation priority *right now*?**

We know that in terms of species diversity per unit area, freshwater ecosystems have more diversity than marine ecosystems or terrestrial ecosystems. We also know that freshwater fish have the highest extinction rates of any vertebrates. Within freshwater fish, cichlids have the largest number of endangered species, so how could we not prioritize the global bull’s-eye of genus-level cichlid diversity? It is one of the top freshwater conservation priorities in the world.

*See previous page for more news about Lake Tanganyika.*

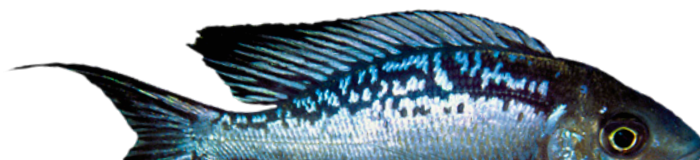
**Clockwise from top left:**

- Neolamprologus mustax,*
  - Tropheus sp. black*
  - Ikola,*
  - Altolamprologus calvus,*
  - Ophthalmotilapia ventralis,*
  - Cunningtonia longiventralis,*
  - Lepidiolamprologus kendalli,*
  - Cyphotilapia frontosa,*
  - Ophthalmotilapia nasuta,*
  - Cyprichromis coloratus,*
  - Tropheus sp. red,*
  - Julidochromis marksmithi,*
  - Cyathopharynx foae,*
  - and *Cyprichromis leptosoma*
- © Ad Konings.



“You stick your head in the water, and it’s like a Dr. Seuss book down there.”

—Craig Leisher, TNC Africa Portfolio Director





# Lake Tanganyika

Saving the World's Largest Tropical Lake





## SPOTLIGHT ON WOMEN

# Maji, Maji, Maji

**FOR GRACE BENDERA**, every drop of water counts. On her land in Tanzania’s East Usambara Mountains, she once planted maize and beans, working her way up and down the steep slopes. Each time it rained, she watched her soil wash away, clogging the river below. Stripped of nutrients, packed and hard, the earth was unable to absorb moisture. Yields shrank. “I used to consider it a desert,” she says.

Today, Grace, 43, teaches others about the terracing and no-till planting that holds her soil in place. She grows cinnamon, cloves, and avocados—tree crops that remain rooted year after year, stabilizing the earth and providing her with income. Working with the TNC-supported Tanga Water Fund, Grace is a leader in her local farmers association, spreading the word about taking care of the river so that everyone benefits.

On the edge of her fields stand the mountains of the Amani Forest Nature Reserve, lush and green and swirling in mist, a towering reminder of the link between land and water. This cloud forest is home to a rich mix of plants and animals, including the



**Empowered women and girls** can lead us to a better future by bringing new perspectives and transforming the landscape. And it's critical to tackling the climate crisis: The Drawdown Project lists girls' access to education and reproductive healthcare as the third-biggest opportunity to reduce CO<sub>2</sub> emissions worldwide. Our vision is better health and education and improved leadership opportunities and livelihoods for women that will support them and their commitment to a sustainable Africa.



Contact Cori at [cmessinger@tnc.org](mailto:cmessinger@tnc.org) to learn more.



**Clockwise from far left:** Grace Bendera picks cardamom on her farm. Women use water from a single tap near their home in Tanga for cooking, washing, and daily needs. An aerial view of contour farming in Kwemwewe Village in the East Usambara Mountains. © Roshni Lodhia

Nduk eagle owl and the Usambara giant two-horned chameleon, both found nowhere else on earth.

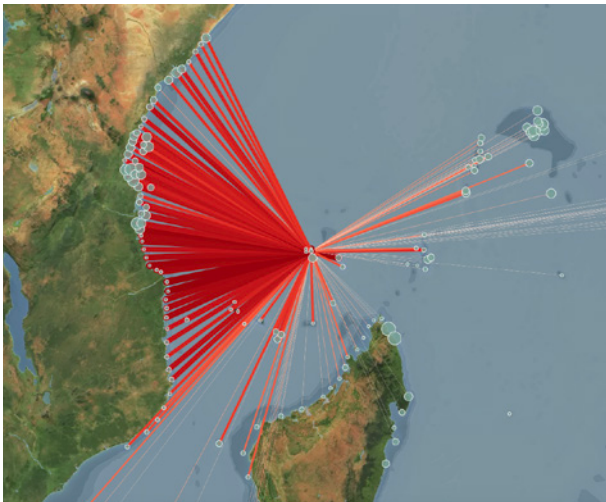
The people here—more than 600,000 of them—also depend on this forest, which is where the Zigi River begins its 100-kilometer journey to the city of Tanga. Grace and her neighbors no longer cut trees from the forest. They know that it's up to them to protect this place and the water that flows from it. The elders tell stories of what's already been lost, of the elephants and leopards that roamed here in the days before logging decimated 80% of the forest.

Grace is proud to be working with others—550 farmers have been trained so far—to protect the landscape she loves and that so many depend on. She likes to quote a Swahili saying: *“Maji, maji, maji!”* Water, water, water! When they gather for meetings, the farmers of the Tanga Water Fund always begin with this chant, their voices ringing out in unison, a reminder that water is life. Water is everything. For Grace—for all of us—every drop counts.



# Ocean MILESTONES

Competing uses, such as artisanal fishing and oil extraction, are depleting fisheries and destroying ocean habitats. We are working at all levels—from supporting community-led coastal and ocean protection efforts to helping nations build sustainable “blue economies.”



## ■ MILESTONE | WESTERN INDIAN OCEAN

Seychelles’ abundant reefs send out coral larvae on ocean currents to new destinations—gifts to other nations. Where do the baby corals go? Answering this question is important to predict the potential of coral reefs to recover from bleaching events and adapt to a warmer ocean. For the first time, a new app—Coral Connectivity—makes their journeys visible. With just a click, one can see that larvae from Seychelles disperse to reefs across much of the east African coastline.

The app (see image at left) was built for a new coral reef connectivity study in Seychelles and the southwest Indian Ocean. University of Oxford researchers used high-resolution ocean surface current predictions to simulate the dispersal of coral larvae between all coral reefs in the region. Oxford scientist Noam Vogt-Vincent explains that “the connectivity modeling was compared to population genetics and species distributions to tease apart the physical and biological drivers of larval dispersal and connectivity.”

The data and tool will help support reef management and restoration in Seychelles, the implementation of the Seychelles Marine Spatial Plan (MSP), and local and regional policy.

The project was conducted in partnership with the Seychelles Island Foundation, and with funding from the Natural Environment Research Council and Seychelles Conservation and Climate Adaptation Trust, an independent trust established in 2016 for the world’s first ocean debt conversion. A partnership between Seychelles and TNC for a 30% ocean protection goal and an MSP, the debt conversion generates approximately \$430,000 per year to help secure ocean biodiversity and support a thriving blue economy.

## ■ MILESTONE | TANZANIA

In a huge step toward conservation efforts in the Western Indian Ocean, the government of Tanzania has declared its intention to develop an MSP for its marine territory. The MSP will encompass all marine activities and will ensure that Tanzania gains the environmental, social, and economic benefits of a more sustainable blue economy.

The MSP Scoping Study, undertaken jointly by the government, TNC, and the Commonwealth Scientific and Industrial Research Organisation, reviewed the status of the country’s existing marine spatial planning and policy, legal, and administrative frameworks and proposes a road map for developing the plan. TNC Tanzania Country Director Lucy Magembe said that MSPs have proven to engage communities, stakeholders, and governments to both meet conservation goals and improve the sustainability of economic and noncommercial activities.

## ■ MILESTONE | KENYA

A new program launched by the Kiunga Community Wildlife Association, with support from TNC, Northern Rangelands Trust, and other partners will provide fishers in this coastal area with free sustainable fishing gear in exchange for destructive equipment, such as seine nets. Beach seines consist of long nets made of nylon fiber that have floats along the top and weights at the bottom. They are usually placed in shallow waters and dragged by crews to herd fish into a small area. The seines are known to catch everything they encounter, including high volumes of juvenile fish, and they damage coral reefs and seagrass habitats. This project reduces fishing pressure around the Kiunga Marine National Reserve, a hotbed of marine biodiversity, including dugongs and nesting sea birds.



A green turtle in Mayotte,  
Western Indian Ocean  
© Pacific Blue Production.

# Surprises in Zanzibar

25,000

PEOPLE ARE EMPLOYED IN ZANZIBAR'S SEAWEED FARMS



70%

OF SEAWEED FARMERS IN ZANZIBAR ARE WOMEN



SEAWEED IS DRIED AND USED AS A THICKENING AGENT IN A SURPRISING ARRAY OF PRODUCTS, SUCH AS:



TOOTHPASTE



ICE CREAM

**DURING HIGH TIDE**, when the azure waters of the Western Indian Ocean steal closer to the beaches of Zanzibar, thousands of seaweed farms take flight. Ropes hung with frilly pompoms rise and sway above constellations of starfish on the white sand below. The wild ocean lays claim. Green sea turtles arrive, rowing their stubby flippers in slow motion. Blue rabbitfish with gold coin eyes slip out of seagrass meadows.

When the tide goes out, farmers wade in among the bobbing pompoms, plucking ready branches from main stems.

But today, pollution and warming water due to climate change are reducing yields and harming marine life. Some traditional farming methods compound these problems. Mangroves are sometimes used for stakes to keep seaweed lines from floating out to sea, and farms are frequently sited too close to seagrass meadows.

TNC is working with local partner Mwambao on a pilot project to train farmers in the archipelago on how best to site, design, and manage their farms to reduce impacts. One strategy, the use of “double-made loops” (see photo at left), has been demonstrated elsewhere in the world to double harvest without using additional lines or farming area. So far, 383 farmers have been trained.

Early results are mixed—some promising, some confounding. As part of our rigorous monitoring protocols, the team has conducted follow-up surveys with pilot farmers.

**Encouraging numbers include:**

- The number of farmers cutting mangroves for stakes reduced by 20%.
- The survey found a 44% reduction in farmers disposing plastic ropes at sea.

**Challenging findings include:**

- More participants report that their farms are sited near coral reefs and seagrass than when the pilot began—but this could be the result of increased awareness of these important habitats among the farmers, as information about these habitats was included in the training curriculum.
- Some farmers reported that creating double-made loops can be too time-consuming.

The team is tackling these conundrums and strategizing solutions. It’s still early days, and this is, after all, the point of pilot projects: Partner with local people to try new things based on what’s worked elsewhere, rigorously track impacts, learn, refine the approach, and scale it up.

“The good news is that 95% of participating farmers reported being very happy with the training,” says Ayubu Singoye, project lead. “This means we have buy-in to keep learning and get it right. By really listening to farmers, we’ll find solutions that work for them and for conservation.”



**From far left:** Champion seaweed farmer Sada Hemedi Suleiman creates double-made loops, which can hold two seedlings in one spot; examines seaweed progress with former TNC seaweed trainer Mondy Muhando; and hauls her harvest to waiting boats.

**Top right:** Siti Ali Saidi is also a champion seaweed farmer who now mentors other farmers in the area.  
© Roshni Lodhia



# Climate MILESTONES

We are racing to harness the power of nature to sequester carbon and to implement natural climate solutions that will help buffer people and wildlife from worsening drought, fire, and other devastating impacts of climate change.

## AFRICA FOREST CARBON CATALYST In the Pipeline:

19 IN 9  
PROJECTS COUNTRIES

WITH POTENTIAL  
TO REDUCE  
EMISSIONS BY

21M



TONS PER  
YEAR OF  
CO<sub>2</sub>e

BENEFITING

24.6M

HECTARES OF FOREST AND GRASSLAND

AND

6M

PEOPLE



### MILESTONES | REGIONAL

The Africa Forest Carbon Catalyst (AFCC) is a TNC initiative inspired by “accelerators,” or “incubators,” that have helped launch many successful tech startups. Similar to these, the AFCC finds promising projects with smart ideas and the potential to expand natural climate solutions, and it pairs them with teams of experts to accelerate or catalyze their growth. *See milestones at left.*

### MILESTONE | GABON

The Central African Forest Initiative (CAFI) is a trust fund for central African countries to achieve their national climate goals, preserve their forests, and fight poverty. Last year, TNC was chosen by Gabon to act as fund manager and to implement the country’s first disbursement of \$12.4 million over the next three years from Gabon’s \$36.4 million CAFI program. TNC aims to bring the best science and policy expertise to advance key progressive forestry reforms and may be asked to continue acting as fund manager.

The CAFI program has four main goals: reduce greenhouse gas (GHG) emissions; increase GHG sequestration through sustainable forest management; strengthen forestry law and enforcement; and improve forestry science and infrastructure.

While deforestation rates in Gabon are low, only one-fourth of current timber concessions are certified, risking an increase in deforestation. Therefore, the CAFI program includes the establishment of a national certification system, a forest law enforcement unit, and a formal public network of science and research stations across Gabon. The government plans to

reform the timber sector to value, protect, and restore forests.

The program is also an opportunity to curb GHG emissions from the forestry sector by more than 50%, which would be more than Gabon’s reduction commitment under the Paris Climate Agreement.

### MILESTONE | ANGOLA

The Kalahari Sands extend from the equator to South Africa. Within this vast sea of sand, there are precious islands of green, such as the highlands of eastern Angola, from which flow nine large river systems, including the Congo, and the sole sources of water for the Okavango Delta.

The sandy soil of the highlands acts as a massive sponge, readily soaking up rainfall, filtering it, and slowly releasing it into a sprawling network of wetlands. This gradual flow keeps the river valleys saturated year-round, resulting in veins of deep peaty soils composed of spongy layers of partially decomposed organic matter.

Peatlands store vast amounts of carbon—twice as much carbon as all the world’s forests—so with support from the Bezos Earth Fund, The Jeremy and Hannelore Grantham Environmental Trust, and TNC’s new global Natural Climate Solutions Prototyping Network, and in partnership with National Geographic, we are conducting groundbreaking research on Angola’s uncharted peatlands.

“We’ve completed mapping the extent of peat in the highlands, which no one had ever done before,” said TNC Landscape Monitoring Scientist Nathaniel Robinson. “Now we’re taking core samples and analyzing them to determine actual carbon volume. This data will determine whether there’s potential for carbon enterprises in the future.”

Western lowland gorillas  
in Loango National Park,  
Gabon © Sean Bellon/  
TNC Photo Contest 2023.



# Digging for Answers

**This page:** Soil health assessments in Simanjiro District, Tanzania. **Opposite:** Sung'aret Leudoya herds his livestock in Randilen Wildlife Management Area, Tanzania. © Roshni Lodhia



**IN THE VAST SAVANNA** of northern Tanzania, a pastoralist walks his cattle in the footsteps of his ancestors. His herd mingles with zebras and wildebeest. Here, grass is gold. His livestock mine it for him—grazing and growing until they're ready to be traded at a Saturday market.

Now, thanks to increasing global demand for carbon offsets, there's "gold" in the soil of these grasslands, too.

The science of soil carbon is still rapidly evolving, and in Africa, TNC is at the fore, working to strengthen processes for measuring and modeling the carbon that is held in soil and to quantify the impact of improved land management strategies such as sustainable livestock grazing.

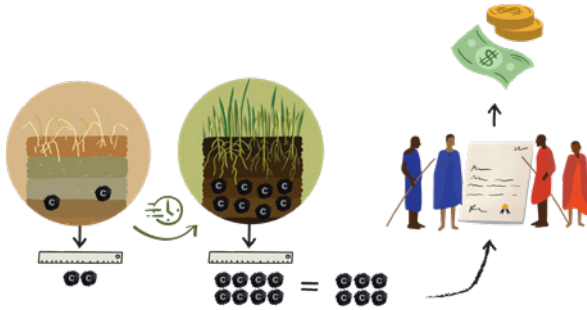
In northern Tanzania, we are conducting research with local partner International Centre for Research in Agroforestry (ICRAF) to lay a strong scientific foundation for a new soil carbon project being developed with funding from the Darwin Initiative

and other supporters. The project aims to support pastoralists to restore the stock of carbon in their communally owned grasslands in exchange for revenue.

We have been working with partners in this landscape for more than a decade to support Indigenous communities to secure stronger rights to their lands, strengthen their governance and natural resource management capacity and, crucially, derive more benefit from conservation. Together, we have stitched together nearly 1.5 million hectares of community-conserved areas that keep movement corridors open for wildlife and livestock. Improved land use practices are also resulting in healthier grasslands that can better withstand drought driven by climate change.

With some key corridors connecting Tarangire National Park to seasonal habitats at urgent risk of being blocked for good, we are racing to expand our options. The answer may be in the soil.





## Show and Tell (and Listen)

For the soil carbon project to succeed, it must be built on shared understanding and community support. TNC requires that carbon projects that receive our sustained support follow a globally recognized process called Free, Prior, and Informed Consent (FPIC), which ensures that community engagement is conducted at the highest ethical standards.

FPIC comprises three stages:

- **Sensitization:** Building understanding of the problems the project aims to address, the objectives, the required changes to resource use practices, and the potential effects on communities.
- **Co-design:** Providing community members with full opportunity to provide input and feedback.
- **Agreement:** Formalizing transparent rules, roles, and expectations of how a project will work so that all parties truly understand it and approve of its implementation.

This process requires clear and consistent information. To overcome any language and literacy barriers that might exist in this landscape, we turned to Tanzanian artists for help. The result is a series of illustrations explaining the concepts, objectives, and expected benefits of the project. This visual aid will help facilitate conversation and listening sessions with community members and other stakeholders.



# Wind & Wings

**IN THE SOUTHERN FOOTHILLS** of Kenya's Great Rift Valley, the village of Esilanke looks as if it were built in the clouds. A light breeze begins to clear the fog, revealing the striking ridges popping out of the vast savanna grassland. Tall towers come into view—the slowly spinning blades of the country's second-largest wind power plant, the Kipeto Wind Power Project.

Every day, Joseph Mureesi leaves his house in Enarau and walks to Kipeto to watch over the birds that share this landscape. When Mureesi spots these birds, his order over a walkie-talkie can shut down individual turbines in less than a minute, keeping the giant blades still until the sky is clear.

“We are here because of the wind,” says Mureesi. “It is the wind that brings us fortune, and it is the same wind that soaring birds use to aid their flight along these terrains.”

Local vulture populations had been declining for years before the Kipeto wind farm was made operational in 2021. Poisoning was a major culprit: Local herders sometimes leave poisoned animal carcasses in open areas to kill the predators that hunted their goats and cattle. But vultures often descend on these lethal traps.



**Clockwise from far left:** The Kipeto Wind Power Project hosts 60 turbines that power tens of thousands of homes. TNC has been providing technical support to the project, such as by training on-the-ground teams in a new system for collecting real-time, electronic data on birds and carcasses © Bobby Neptune. Rüppell’s griffon vultures roost on tall vertical cliffs © Bobby Neptune. Jane Naishorua works to mitigate any potential bird strikes before they happen © Sarah Waiswa. Young lion cubs at the Ol Kinyei Conservancy, Kenya © Andrew Lilyquist/TNC Photo Contest 2019.

As development plans for the wind farm moved forward in the late 2010s, conservation groups became alarmed about its placement within flying range of vulture colonies. Organizations like Nature Kenya, The Peregrine Fund, and Kenya Bird of Prey Trust partnered to engage with the energy company about the risks posed by the wind farm. In response to the conservationists’ concerns, Actis—Kipeto Wind Power Project’s main investor—agreed to work with the bird organizations.

TNC and private impact investors provided a \$10 million fixed-rate loan to the wind farm, creating an annual funding stream of \$500,000 to local nonprofit organizations working to implement the wind farm’s Biodiversity Action Plan over the next 10 years. Projects in that plan include tagging and radio-tracking vultures to analyze their movements, initiating awareness

programs within local communities, and constructing predator-proof livestock enclosures.

For Jane Naishorua, a wind farm bird monitor just like Mureesi, the birds have created a livelihood and a passion she says she would not trade for anything. “Perceptions on vultures are fast-changing, just as the knowledge on birds is increasing,” she said.

People working around this wind farm hope it stands as a model of how the country can upsize wind energy as it races to achieve its aggressive renewable-energy goals.

*Excerpted from “Winds of Change” by Caroline Chebet in the Fall 2023 issue of Nature Conservancy magazine.*

Read the full story and watch a mini-documentary at [nature.org/Kipeto](https://nature.org/Kipeto).

When communities get support to prevent human-wildlife conflict, it’s a win for the pastoralist, a win for vultures, and a win for predators like lions.



# Enduring Impact *for* People and Nature

## Enduring Earth Organizations

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The Nature Conservancy  
The Pew Charitable Trusts  
World Wildlife Fund  
ZOMALAB

## Enduring Earth Partners

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Bezos Earth Fund  
Global Environment Facility  
Margaret A. Cargill  
Philanthropies  
Gordon and Betty Moore  
Foundation  
The Wyss Foundation



African elephant and calf grazing in the Maasai Mara National Reserve, Kenya © Peter Derrington/TNC Photo Contest 2023.

**Opposite:** Crabs move along the shoreline at sunset, Gabon © Roshni Lodhia.

**MORE THAN 100 COUNTRIES** have pledged to conserve 30% of their lands and ocean territories by 2030—also known as “30 by 30.” Four organizations, including TNC, founded an initiative called Enduring Earth to support nations in turning that ambition into reality. Central to our approach is a model known as Project Finance for Permanence (PFP) that secures long-term investment to achieve tangible, measurable goals that encompass both social and environmental benefits. Projects are collaboratively designed, locally led, nationally supported, sustainably funded, highly accountable, and guided by a commitment to uphold the rights of communities. Enduring Earth has already supported six countries globally to develop PFPs, conserving more than 120 million hectares. TNC is now working toward PFPs with two African nations.

## Gabon

With much of its land and waters still wild and remote, Gabon stands out as an extraordinary conservation opportunity. Already 22% of the nation’s land is under some form of conservation, including 13 national parks; 20 marine protected areas span nearly 26% of its ocean territory; and it was the first nation in the world to commit to also conserving 30% of its freshwater resources.

The government pledged to work with TNC on a PFP to generate funding for managing protected areas effectively, create millions of hectares of new protected areas, mitigate at least 15 million metric tons of carbon annually, and improve the livelihoods of an estimated 200,000 people.

## Kenya

According to most recent reports, 21.6% of Kenya’s land is protected or conserved, inclusive of more than 160 community conservancies. Yet 68% of the country’s wildlife have been lost in the last 30 years and more than 200 species are endangered. National investment in conservation management continually falls far short of the need.

A PFP would support the government to bring another 2 million hectares under conservation management for a total of nearly 18 million, and by mobilizing significant, sustainable funding for implementing a national conservation plan, a PFP would help ensure that conserved lands effectively support wildlife while also strengthening resource rights for approximately 12 million people living in community conservancies.

### COMPONENTS OF A PFP

PARTNERS	›	BLUEPRINT	›	BUDGET	›	INVESTORS	›	CONDITIONS	›	TRUST
The support of funders, local communities, and the national government where a PFP takes place		A multiyear conservation and community development plan		A financial plan, including sustainable financing mechanisms		The leveraged commitments from public and private donors that support a transition to permanent funding, payable only when full financing is guaranteed		A set of closing conditions and milestones required for funding disbursement		An independent Conservation Trust Fund that governs the finances



# A Big Win for Gabon’s Oceans

**IN AUGUST**, TNC and the Government of Gabon announced a Blue Bonds for Ocean Conservation project, which refinanced \$500 million of Gabon’s national debt and is expected to generate \$163 million for a new Conservation Trust Fund to manage and protect the country’s ocean. This became TNC’s fourth Blue Bonds project and the first in mainland Africa.

This project, which will complement the PFP, will help finance a marine spatial plan with the aim to increase the area of ocean under protection, improve management in existing and new protected areas, and support Gabon’s sustainable blue economy. The project will also help Gabon strengthen and enforce regulations in its fishing industry where, by some estimates, \$610 million is lost annually to illegal, unreported, and unregulated fishing.

While specifics regarding the project will be ongoing with the evolving situation in Gabon, leaders have reiterated that they will respect all of Gabon’s international agreements and commitments.

Visit [nature.org/BlueBonds](https://nature.org/BlueBonds) to learn more about how they work.

## The Keepers of the Keys



“TNC will be here long after we’re gone. I love the idea that we can help to continue this important work.”

—Teresa Beck

**TERESA BECK WILL NEVER FORGET** the little metal box—the one with three locks. She was in Tanzania visiting a women’s microfinance group when the box was carried into their meeting. Three women followed, one after the other, each holding a different key, each responsible for opening a single lock, each proud of her role in upholding the integrity of this local lending system. These were women helping women—starting business ventures, supporting their communities, strengthening conservation.

“It was such a touching moment for me,” says Teresa, who knows a thing or two about careful accounting, having spent most of her career in finance before retiring as president of American Stores in 1999. “These women, who take their jobs and the management of their money so seriously, are committed to their children, their families, their future. By helping them, we help the environment.”

In her many roles as a TNC volunteer—on the board of her state chapter in Utah, on TNC’s Global Board of Directors, and on the Africa Council—commitment to the future, to the environment, has been a constant. During TNC’s global campaign, Teresa helped raise \$1 billion in legacy gifts, and she remains a tireless ambassador for deferred giving.

Inspired by Africa since her first visit in 1981, Teresa helped launch TNC’s work on the continent in 2007, and then, in 2017, she co-founded the Africa Affinity Group (AAG) for Women and Girls with friend and fellow Africa Council member Wendy Bennett to help focus attention and resources on the critical link between women and conservation progress. From microfinance groups to school scholarships, leadership training to improved healthcare access, today the AAG is making a difference across the landscapes where TNC works.

For Teresa, every trip to Africa, every volunteer opportunity, every conversation about giving shares the same thread: It’s always about caring for each other and our world. And it takes all of us—supporters, staff, partners, and local people at work on the ground, including the women in Tanzania who collect and distribute payments from a little metal box, carefully secured. Together, we can unlock a more promising future for the planet we share.

**Everyone holds a key to the future.**

**Join the Legacy Club:** Contact Cori at [cmessinger@tnc.org](mailto:cmessinger@tnc.org) to learn more about the Legacy Club and other ways to make a lasting difference in Africa.

## Africa Council

Teresa Beck	Phillip Ihenacho	James Mworira
Wendy Bennett	Elsie Kanza	Mary Anne Rogers
Joanna Brown	Dennis Keller	Karim Shariff
Shona Brown	Edwin Macharia	Fred Wakeman

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Often known as a DAZZLE, a group of zebras does just that—they dazzle the eye and stir the heart, making this beautiful photo a fitting homage to our Africa Council members. Many of them have pledged legacy gifts that will forever change the future for the better. Their generosity is dazzling.



**Opposite (l-r):** Teresa Beck © Ademola Ajagbe. A young woman receives a loan through the Tuungane Project for her business in the village of Katumbi on Lake Tanganyika, Tanzania © Ami Vitale. **This page:** Zebras in the Okavango Delta, Botswana © Esteban Soto/TNC Photo Contest 2019. **Back cover:** Children play while their families collect water at a communal tap in Biliqo Bulesa Conservancy, Kenya © Roshni Lodhia.



## Africa Impact 2008-2023

HECTARES UNDER CONSERVATION MANAGEMENT:

12.7M	34,600	41.6 M	227	2.1M
Land	Freshwater	Ocean	Partners	People Benefiting

@nature\_africa   @nature\_africa   @tncafrica   nature.org/africa

*The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.*