



FRANKFURT  
ZOOLOGICAL  
SOCIETY

# FZS ZAMBIA

# 2023

# ANNUAL REPORT



**NORTH LUANGWA**



**NSUMBU TANGANYIKA**



MAKING CONSERVATION COUNT 



# CONSERVING WILDLIFE AND ECOSYSTEMS

## FOCUSING ON PROTECTED AREAS

## AND OUTSTANDING WILD PLACES



Image credit: Cover by Elise Brazier (Icon Tribe Designs) | Opposite by JRS Photographer Justin Blake



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**RHINO POACHED  
IN THE NORTH LUANGWA  
LANDSCAPE**

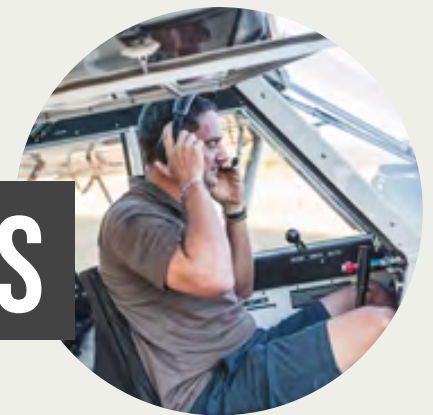
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**ELEPHANTS POACHED  
IN THE NSUMBU  
LANDSCAPE**



Image credit: Mana Meadows Photography

# REFLECTIONS AND HORIZONS



**ED SAYER**  
CONSERVATION DIRECTOR  
FRANKFURT ZOOLOGICAL SOCIETY  
ZAMBIA

2023 has flown by with another year of non-stop activities and engagement between our teams and partners, and the year ended with the inaugural North Luangwa Landscape Forum. This was a pivotal and important opportunity to bring together all the landscape stakeholders to discuss ideas, challenges and find workable solutions.

2023 marked 20 years of black rhinos being back in the Luangwa Valley after they were poached to extinction in the 1980s. We are very proud to have achieved this milestone, as the wider impacts of political, institutional and donor recognition have helped us to develop the resilience needed to protect such a special species. There must be few areas where an errant wandering rhino spotted by community members are reported and monitored for the authorities until security and a rescue mission can be rolled out. This is a huge testament to the positive relationships FZS has built between communities and conservation and a solid backstop for North Luangwa to maintain a zero poached rhino status. To augment the Zambian black rhino population, FZS is taking its first steps to establish a founder population in Nsumbu National Park. To this end a feasibility assessment was conducted for Nsumbu which resulted in a positive report on our progress and lays out the preparations needed for this ultimate milestone in landscape management capacity recognition.

Carbon developers entered both North Luangwa and Nsumbu landscapes in 2023 and had its challenges as we tried to support communities to understand the process and objectives from these commercial companies. Holding them to account through FPIC processes and to properly explain their commercial intentions and ambitions were paramount. We do hope that the ultimate revenue will be of benefit to these communities and support the ongoing and increasing costs of living alongside wildlife.

Our Landscape Integration Unit (LIU; previously known as the CBNRM unit) has developed constructively under new and inspiring leadership, as well as the first appointment of an LIU

Manager in Nsumbu. New and much needed Project Managers at both sites are also supporting operations and the performance of teams and departments. The establishment of the Gender, Diversity and Inclusion department in 2023 was a significant and welcome initiative in North Luangwa. There are many challenges around this with traditional and cultural norms to overcome but our teams are able to address these head on setting a benchmark for others to follow.

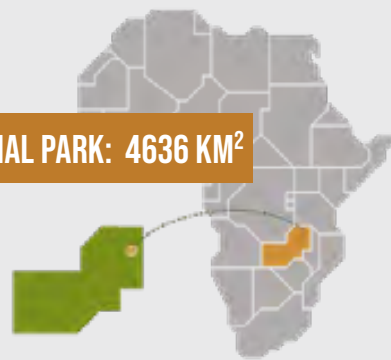
2024 is equally action packed with the exciting re-establishment of lions in the Nsumbu landscape, where we also hope to sign a new collaborative management partnership for Nsumbu NP as well as to work further into the wider landscape incorporating Mweru Wantipa and Lusenga Plain National Parks. Equally, expansion is on the horizon in North Luangwa where we will see our role expand across the wider Musulangu GMA, Makutu Mountains and Nyika National Park – all important areas to target to secure the upper Luangwa River catchment.

Potentially the biggest challenge of 2024 will be securing the future of the GMAs, where the threat is greatest with human wildlife co-existence, land conversion, illegal natural resource extraction and weak partnerships with concession holders that do not bring about the necessary investment in long term protection. We have proposed a collaborative management partnership approach to the government for these GMAs to slow down unsustainable land use, to support viable human wildlife coexistence measures and to better attract conservation compatible investment and partnerships that improve the livelihoods and socio-economic opportunities for the communities living within them.

Kind regards,  
*Ed Sayer*







**NORTH LUANGWA NATIONAL PARK: 4636 KM<sup>2</sup>**

**TOTAL OPERATIONAL AREA: 22,000 KM<sup>2</sup>**

**PROGRAMME COMMENCED: 1986**

**A PARTNERSHIP BETWEEN DNPW & FZS**

# NORTH LUANGWA CONSERVATION PROGRAMME

Pan across satellite imagery of Zambia, and the Luangwa Valley will surely catch your attention – a vast swath of green down the east of the country. Securing this landscape is key for Zambia to meet its national and international biodiversity conservation commitments - for people and planet. The ecosystem secures the hydrology of the Luangwa River, and harbours impressive intact habitat and wildlife. Twenty years on, North Luangwa remains the country’s first and only black rhino stronghold – pride and commitment is engrained, stemming from this keystone species with far-reaching impact.

## SECURE

### Law Enforcement

Since 1998, NLCP’s mandate has been to support the security of North Luangwa National Park. Over this time NLCP has produced the best law enforcement units in the country through effective recruitment; ongoing upskilling; capacity building; identifying and building leaders; and setting the benchmark to guard the country’s only black rhino population and wider landscape.

Poaching remains an ever-present threat, particularly the illegal offtake of wildlife in the surrounding Game Management Areas.

The emphasis in 2023 was on training, designed and intended to uphold NLCP’s high standards of professionalism; maintain proficiency in all activities. This training supported the successful execution of target operations to deter, detect and deflect illegal activities in the North Luangwa landscape.

### Information networks

Alert to the ever-changing threat of the illegal wildlife and timber trades, NLCP has invested heavily in the last 22 years in DNPW’s Investigations and Intelligence Units (IIU), covering an area from the Tanzania border to Serenje, and the Malawi border to Kasama. 2023 was no exception with continued support to and collaboration with the IIUs in the landscape. In May 2023, this

hard work paid off with a significant bust by the Chama IIU of an international illegal timber smuggling operation. The team made eight arrests, confiscating various timber harvesting and processing equipment, and 2,005 illegal planks bound for Tunduma in Tanzania via Malawi. Of the eight suspects arrested, seven were from Tanzania and one from Malawi, highlighting the cross-border nature of the illicit timber trade and the importance of protecting Zambia’s natural resources against well organised, multinational syndicates.

### Canine Unit

The North Luangwa Canine Unit has four working dogs, Tango, Gypsy, Mukwa and Icke, and two in training, Nikita and Shakira. The dogs are cared for and managed by 13 highly skilled, predominantly female handlers under the leadership of Joyce Chiluba, Canine Unit Commander.

In July 2023, the American Society for Canine Trainers conducted the annual certification assessment with the NLCP Canine Unit at Rhino and Elephant Protection Unit (REPU) base and all members of the unit qualified in vehicle detection, building detection and open area searches. It is important to note that unless the handlers meet the grade they are not certified or can be downgraded. In addition, the canine unit received an A-rating for its dogs and facilities.



Foot Patrols

Image credit: Mana Meadows Photography



Joyce Chiluba - Canine Unit Commander

### Aerial Surveillance

Aerial surveillance forms a key part of the fight against the illegal wildlife trade by providing capacity to visually confirm locations of resource protection patrol teams; to monitor wildlife movements and specifically locate collared / VHF transmitter / geo-tagged animals; to monitor fires (controlled and wild); to check on standing water and vegetation; to assess the impact of human encroachment on boundaries; and to detect signs of illegal activity and unsustainable land-use practices across the vast, remote and largely road-less landscape.

NLCP operates a Cessna 206 and an Aviat Husky fixed-wing aircraft in support of protected area management. Helicopters have also been used intermittently in NLNP to provide capacity for rhino immobilisation operations and intensive operations in poaching hotspot areas, where focused surveillance with pre- and post-positioned reaction teams combine to survey an area, and to support rapid deployment capabilities in reaction situations.



### Patrol Rations

Without proper provisioning, the foot patrols that form the main thrust of NLCP's anti poaching efforts would not be possible. However, logistical challenges of supplying the needs of anti-poaching patrols across a vast landscape are formidable. In 2023 patrol rations were procured and distributed to all 34 NLCP-supported DNPW bases and units for operations. For areas that become inaccessible during the rainy season, bulk distributions of rations were made at the end of the dry season to ensure continuous law enforcement patrols throughout the entire landscape, independent of weather and accessibility. As a result, we managed to conduct almost 2,000-foot patrols within the landscape. We procure as much as possible from local sources and in 2023, more than 4,200 kg of rice and 15,900 kg of maize were procured directly from local farmers within the North Luangwa landscape, equivalent to ZMW317,000 injected locally, directly benefitting farmers and contributing to communities' economy.



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BLACK RHINOS POACHED

5%

RHINO POPULATION

GROWTH RATE

33

IVORY SEIZURES

154

FIREARMS CONFISCATED

## IMPACT

3

RHINOS  
RESCUED

416

PIECES AMMUNITION  
SEIZED

359

PIECES BUSHMEAT  
SEIZED

352

ARRESTS ACROSS  
THE LANDSCAPE

394

INCIDENTS  
REPORTED

1,978

PATROLS  
>59,939 KMS; 35,383 MAN DAYS

354

HOURS FLOWN BY THE AVIAT HUSKY  
COVERING 14,267 NAUTICAL MILES

118

HOURS  
FLOWN BY HELICOPTER

117

ARRESTS BY  
CANINE UNIT

73

VILLAGE OPERATIONS BY CANINE UNIT  
[662 HOUSES AND BUILDINGS]

163

ROAD BLOCKS BY CANINE UNIT  
[30,00 VEHICLES]



# SAFEGUARD

A professional geospatial technology company was contracted to develop land cover and wildfire history maps for the North Luangwa landscape, up to the source of the Luangwa River in the Mafinga Hills Forest Reserve. Land cover maps are expected in 2024 and will be used to understand the patterns and drivers of land cover change, providing valuable information for land use planning and the allocation of resources for improved landscape management. Wildfire history maps will be used to understand the distribution and timing of fires across the landscape. The maps will be combined with an analysis of when, where, and why local communities use fire to inform the development of fire management plans and to guide discussions around changing the fire regime to reduce the perceived overuse of fire and its negative impacts.

Understanding what rhinos eat is critical for management, and the list of browse species is constantly being updated. Seasonally abundant forbs have been identified as a major component of rhino diets in the wet season, and a better understanding of their diversity, distribution, and abundance in different habitats will help us to understand the nutritional value and carrying capacity of each habitat type. In March 2023, the Rhino Monitoring Unit conducted a forb survey with the assistance of Dr Paul Smith from Botanic Gardens Conservation International. A total of 102 species of forb were collected, 15 of which were new records for the NLNP, six were new to the Luangwa Valley, and one species (*Barleria lugardii*) was a new record for Zambia. The skills developed within the RMU include not only tracking rhinos, but also collecting valuable ecological data about the habitat that supports them.



The rivers of the North Luangwa landscape rank highly in terms of their aquatic ecological importance, sensitivity to impact, and priority for protection. At the end of the dry season, water level loggers were deployed in the Mwaleshi and Lufila rivers, among the most important perennial tributaries of the Luangwa, to collect baseline data on their hydrological regimes. These data are the foundation of environmental flow models and will be used to determine limits on water abstraction, as well as to understand and mitigate against the effects of land conversion and climate change.



OUT OF 102 FORB SPECIES COLLECTED

15 WERE NEW RECORDS

FOR THE NLNP, SIX WERE NEW

TO THE LUANGWA VALLEY



Image credit: Mana Meadows Photography

# SUSTAIN

In 2023, an Ecology and Conservation Science Department was established to serve both NLCP and NTCP. In North Luangwa, the Ecology and Conservation Science Managers developed a comprehensive Ecological Monitoring Strategy, the objectives of which are to 1) measure changes in ecological integrity at the landscape level, including the status of and trends in key species populations; 2) to evaluate the outcomes and impacts of conservation actions; and 3) inform adaptive management and decision making for conservation and livelihood resilience.

Understanding ecosystem drivers, including climate, hydrology, and land cover change were identified as immediate priorities because of the accelerating rate of climate change and growing human footprint across the landscape. Collaboration with the Zambia Meteorological Department has been established to share existing data, identify gaps in the national weather monitoring network, and to develop plans for a comprehensive network of weather stations that will enable monitoring of the temporal and spatial variation in weather patterns in the Luangwa River catchment.



Vultures are iconic, wide-ranging species that have a crucial role in the ecosystem and can act as indicators of ecosystem health. Most species are in rapid decline and are recognised as Critically Endangered or Endangered according to the IUCN Red List. In October 2023, six vultures (one white headed and five white backed) were tagged in North Luangwa with satellite units in collaboration with North Carolina Zoo. The tags will help us to understand their movement and behaviour and inform landscape-scale conservation planning to ensure the survival of vulture populations.

Plans to reintroduce lions to Nsumbu National Park are at an advanced stage. North Luangwa National Park was identified as the source, and a lion monitoring programme initiated to identify the most suitable individuals/groups for translocation while minimising disruption to the source population. Two lionesses were collared in partnership with the Zambia Carnivore Programme. The prides have been monitored by ground and aerial surveillance to understand pride dynamics and movement patterns ahead of the planned translocation in 2024.



**STRIVING TO LEAD THE WAY ON  
GENDER EMPOWERMENT &  
EQUITY ISSUES**

# LANDSCAPE INTEGRATION

The Landscape Integration Unit is focused on six main areas of the Growth and Development Plan, communicate, connect and change; and educate, empower and enterprise. The approach promotes an integrated landscape management framework and partnership between all sectors to strengthen collaboration between community, public, private sector and civil society structures and sustainably manage natural resources for improved livelihood outcomes.

## EDUCATE

In 2023, 27 conservation education clubs from primary schools across the landscape were taught by the Community Conservation Educators. A range of modules from the Lolesha Luangwa (LL; meaning 'Look after Luangwa') curriculum were covered, from an introduction to conservation to eco-business and governance of natural resources.

13 adult Mini Change Groups with 220 members were mentored as a part of LL. The groups tackle important topics like responsible fire management, sustainable fisheries, deforestation, dangers of early marriages and gender-based violence, teenage pregnancy and illegal mining. The roles of NLCP, DNPW and Community Resource Boards (CRBs) are explored and explained throughout the programme.



Lolesha Luangwa Programme



## EMPOWER

NLCP has taken a significant step towards creating a more equitable and fair civil society by developing its first-ever Gender Mainstreaming Strategy. This strategy is not just aimed at ensuring gender-responsive interventions but also at creating transformative impact that will empower individuals and communities alike. The spouses of NLCP staff visited the North Luangwa National Park to discuss important topics like nutrition, financial management, and self-awareness and acceptance. The women were encouraged to view themselves beyond their roles as caregivers for their families and to explore opportunities to start something on their own. The discussion emphasised the importance of self-recognition as a crucial foundation for building meaningful connections with others.

NLCP's law enforcement refresher training now includes gender training, which takes place throughout the year. In 2023, the training focused on examining perceptions, attitudes, and practices that hinder women's participation in natural resource management. The aim was to understand social relations and power dynamics and reflect on the negative effects of misuse of power on women. Officers also considered their domestic environments and how their parenting choices impact their children and whether they are preparing them to face challenges in the world.

NLCP organised discussions with 177 traditional leaders (156 men and 21 women) from various Village Action Groups (VAG). The discussions aimed to address gender and social inequalities that hinder the progress of men, women, and societies highlighting various activities in traditional village life and the different roles held by men and women that impact issues like land ownership, leadership roles or positions in natural resource management (NRM) and encouraged current leadership to explore concepts of



Penelope Konkola conducts a gender training session for NLCP

Image credit: Mana Meadows Photography

equal opportunity in NRM and decision-making at the household level.

An FZS partner, i4Life, worked on advancing maternal and child health in the communities. They trained 50 Community Health Workers to form Safe Motherhood Action Groups (SMAG) with the focus on sustaining this training and growing the SMAG network.

NLCP strives to lead the way on issues of gender empowerment and equity. In March 2023, NLCP launched its Breastfeeding and Nannies At Work Policy which has allowed for young mothers to continue their employment and to continue progressing their career in the remote location while nursing their infant children. The policy allows for young mothers to have their babies with them at work and accommodates a child minder to care for the babies while the mothers are occupied with their duties. Progressive policies ensure that all officers are given opportunities to progress in their careers while maintaining a fair balance between life and work.

One such mother is Joan Kasabula, a Rhino Monitoring Unit (RMU) officer, who had her first child, Raphael, in January 2023. Temporarily unable to perform her usual RMU duties, she transitioned to a control room operator role at the REPU base, developing her SMART capacity and communication skills. By the end of 2023, Joan returned to her RMU duties. Her progress was recognised within the RMU ranking structure, and despite her maternity leave Joan progressed from an "Intern Tracker" to a "Junior Tracker", demonstrating her improved technical skills and leadership development. Introduced in 2019, the RMU ranks promote leadership development and performance, with officers advancing based on their competency, application, and responsibility.



Joan and Raphael



## ENTERPRISE

In 2023, significant strides were made in climate-smart agricultural development and community empowerment. Partnering with COMACO, NLCP worked with cooperative leaders, principal lead farmers, and senior lead farmers who were trained in a range of essential skills as a Training of Trainers package. A community seed bank was established and access to markets for community-grown crops was facilitated. These initiatives not only aimed to enhance conservation climate-smart agricultural productivity and promote sustainable farming practices but also sought to improve the livelihoods of small-scale farmers while contributing to broader community development and conservation efforts in the North Luangwa landscape.

WeForest, another NLCP partner, implemented a beekeeping project in Mukungule Chiefdom VAGs. They conducted a market systems diagnosis to determine the status of the honey value chain and co-developed a beekeeping intervention model with the community. WeForest mobilized VAGs to establish Community Forestry Management Groups where Beekeeping Society Groups were founded. Carpenters, bee-mentors and Honorary Forest Officers were recruited and trained in beehive repair and assembly, general beekeeping practices and sustainable forest management respectively.



Beekeepers in Mukungule GMA



810

STUDENTS ENGAGED IN

27

CONSERVATION CLUBS

IMPACT

13 | ADULT MINI CHANGE GROUPS WITH 220 MEMBERS

34,050 | KG OF CERTIFIED LEGUME SEEDS DISTRIBUTED TO 3,570 FARMERS

400 | FARMERS TRAINED  
223 MEN & 177 WOMEN

200 | BEE HIVES DISTRIBUTED

ACCESS TO MARKETS FOR

28,091 KG SOYBEANS

8,739 KG RICE

3,488 KG OF SHELLED GROUNDNUTS

21,019 KG OF UNSHELLED GROUNDNUTS



# LINKING LIVELIHOODS AND LANDSCAPE

## COMMUNICATE ————— CONNECT

NLCP works to maintain, build and strengthen close relationships with all relevant conservation and local community stakeholders. Specifically, in 2023 a major focus was implementing the first North Luangwa Landscape Forum, 12 December 2023 in Mpika, bringing together Chiefs, CRBs, other NGOs, District and Provincial authorities, various public and private sectors, and donors to discuss issues affecting natural resource management. Presentations and facilitated group discussions explored eight thematic areas: landscape vision, governance, stakeholder engagement, natural capital, socio-economics, safety and security, land use and sector integration, and knowledge and information management. The discussions resulted in several action points that informed Annual Operations Planning for 2024, most notably: resource mobilisation, improved communication and collaboration, resource economy, and improved stakeholder engagement.

NLCP works closely with local North Luangwa landscape institutions for effective implementation of community-based natural resources management. This has built trust with communities in taking ownership of managing their natural resources. A key component of this is ensuring that communities not only take ownership of their resources but are also supported through effective planning for their use. In 2023, NLCP collaborated with traditional leadership in Chikwa and Chifunda Chiefdoms to facilitate the development and distribution of approximately ~2,000 customary certificates, ensuring secure land tenure, especially for women and promoting enhanced conservation practices in the protected area.

The signing of the Munyamadzi General Management Plan (GMP) was a key milestone that will help the zonation, coordination, and management of natural resources within the landscape. NLCP also participated in the formation of the Musulangu GMP to extend protection across the broader landscape.

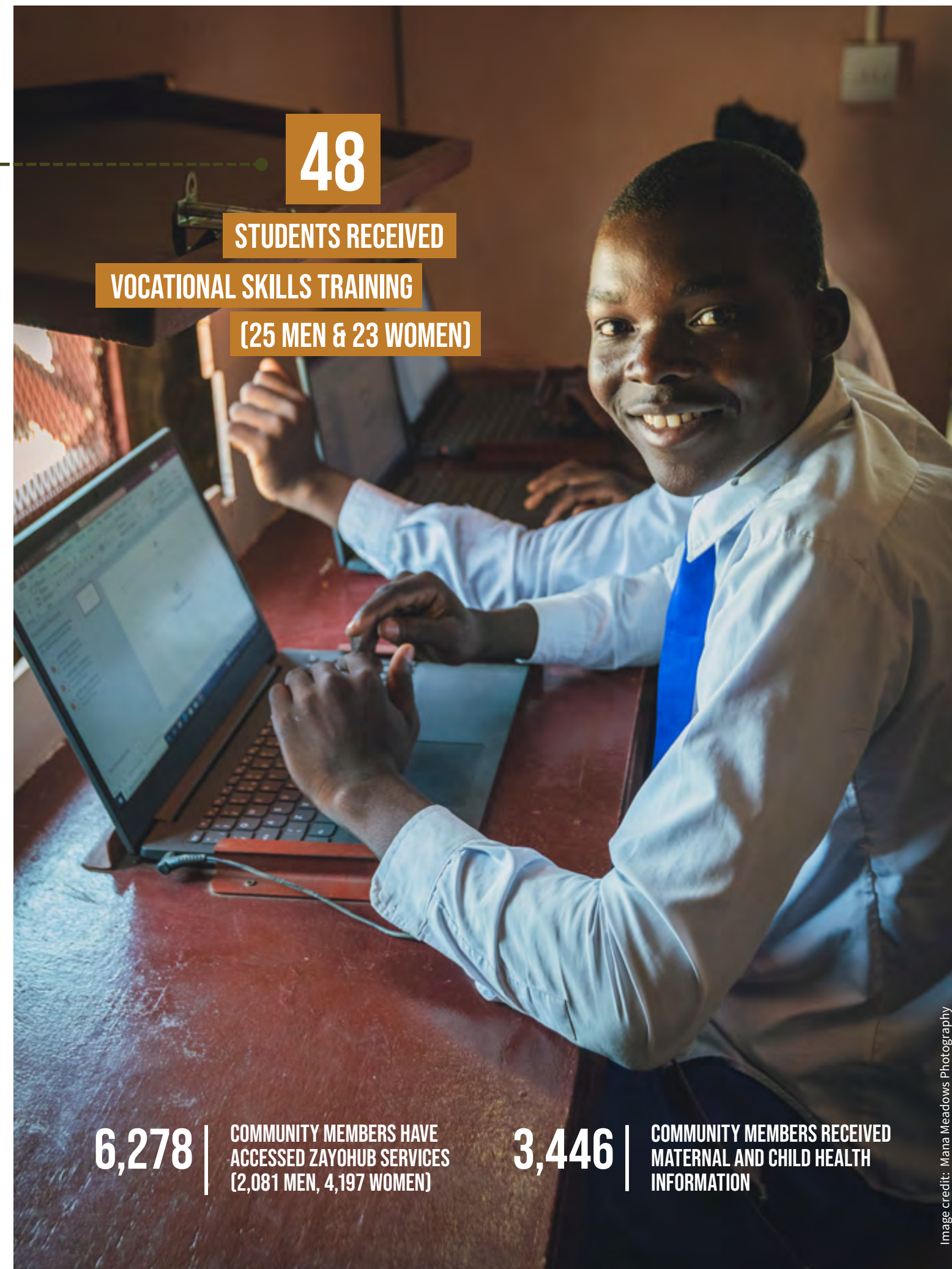
For successful implementation of governance activities across the landscape, NLCP supports and facilitates various partnerships in the GMAs.

In 2023, in partnership with ZayoHub, three hubs were set up in Chifunda, Chikwa and Nabwalya, serving as centres for internet connectivity, education and enterprise development within their respective communities. ZayoHub also conducted a TEVETA Level 3 training: six courses were offered, including food production, fashion design and textile technology, automotive engineering, bricklaying and plastering, and carpentry and joinery.

## CHANGE

In 2023 we collaborated with DNPW in support of Community Resource Board (CRB) and Village Action Group (VAG) elections in all the five chiefdoms across the landscape. In readiness for CRB elections, women leadership and empowerment capacity building trainings were conducted to equip women with skills for leadership positions. Chikwa Chiefdom was a successful example where 25 of the 50 women who were trained were elected for VAG committees and five went onto to be selected for CRB committee positions.

North Luangwa Conservation Programme supported the validation of the National CBNRM Policy, which is due to be launched in Q1 of 2024 in an effort to build capacity in governance of natural resources in Zambia.



48

STUDENTS RECEIVED VOCATIONAL SKILLS TRAINING (25 MEN & 23 WOMEN)

6,278 | COMMUNITY MEMBERS HAVE ACCESSED ZAYOHUB SERVICES (2,081 MEN, 4,197 WOMEN)

3,446 | COMMUNITY MEMBERS RECEIVED MATERNAL AND CHILD HEALTH INFORMATION





Image credit: Mana Meadows Photography

**>30,000**

**AVG. KM COVERED PER YEAR**

**PER VEHICLE**

Kapilingo takes the helm at the busy NLCP workshop

**EVIDENCE BASED**

**DECISION MAKING &**

**ADAPTIVE MANAGEMENT**

**125** | VEHICLES / MOTORISED EQUIPMENT IN USE

**1,300** | KM OF ROADS MAINTAINED

**188,878** | LITRES DIESEL USED & 18,000 OF PETROL

**35** | KM OF ROAD UPGRADED TO ALL WEATHER SURFACE



**SYSTEMS**

NLCP is committed to using evidence-based decision making and adaptive management and utilises SMART, EarthRanger and Tableau to collect, collate and analyse data. Data reviews are integrated into work culture and used to promote reflection and activity modification.

Conservation technology is a fast-moving space, and it is essential to stay up to date with advances and developments. The Earth Ranger User Conference (ERUC) is an annual event where conservation practitioners from across the globe converge in one location to exchange knowledge in conservation practices. In 2023, ERUC was held in Cape Town where 484 attendees from six continents and 44 countries congregated to learn from each other. A wide range of key topics were presented and discussed from how to develop an effective fire management strategy to shifting paradigms to unite site-level human-elephant conflict. NLCP was also able to share our experiences in using SMART, EarthRanger and Tableau in our Rhino Monitoring Unit for effective endangered species monitoring.

In 2023 we developed a monthly Human Resources report detailing employment statistics and resulting impact. It's always heartening to know 98% of our staff are recruited from the North Luangwa landscape and almost 30% are women. On average \$50,000 is paid monthly in salaries by NLCP into the North Luangwa landscape which has wider household, dependent and socio-economic benefits.

**STRUCTURE**

With a new Collaborative Management Partnership (CMP) agreement signed in July 2023, the organisational structure and mechanisms for the delivery of the objectives of NLCP was a focus in the latter half of the year. The project is in a phase of consolidating systems and structures while also examining ways to incorporate those of the partner organisation, DNPW. This process will be concluded in 2024 when the terms of the conditions precedent set out in the CMP will be met.

In 2023, significant progress was made toward relocating the NLCP headquarters to the western escarpment Park gate at Mano. The new workshop, offices, stores, and houses for staff are well underway with the move to the new premises anticipated in mid-2024.

External contractors were selected to build the workshop and storage shed which had structural steel erected by Q4 of 2023. Eight houses for wildlife police officers, four ranger houses, one office block and three senior staff houses as well as water reticulation for the new development and existing houses around Mano are near to completion. These contractors operated under strict environmental impact parameters and targets for local employment.

The in-house construction team built 10 senior staff houses, two pickets for rhino fence monitoring and maintenance, several bed level drifts to support the permanent access in the rainy season and refurbished many existing houses and structures.

**SUPPORT**

Underpinning so much of NLCP's success is its support services and gets its people to effectively bring about positive conservation outcomes. Reliable transport is critical to ensuring that NLCP is mobile, able to respond and proactively initiate activities to get the job done, and the size and scale of NL landscape and its remoteness only compounds this. Land Cruisers are the backbone of the NLCP's operations. In 2023, we bid farewell to Kaj Shenton who managed the workshop and roads network, handing the baton of fleet management to Kapilingo Mukanachitanga, who has taken on the role with motivation and commitment.

Regular exercise and team events significantly boost morale, team relationships, wellbeing, and fitness. NLCP competes regularly in local and international events. The participants – covering the full spectrum of team members from scouts to mechanics, project accountants and managers – train at least twice weekly in the lead up to different events, cultivating a motivated, inspired, and healthy mindset within the team.

The London Marathon, provided an opportunity for six of our runners to bond, practice discipline, and raise conservation awareness. The event was a huge motivator for the runners and is a big morale booster as the whole team supports and get behind them. The team, comprising of six runners, comprising a welder, driver, rhino carer, two mechanics and a manager travelled to London in 2023 and all finished in sub-four hours with the quickest time 3hr09min.



For the third year running NLCP claimed the trophy in the 22km Solomon Chidunuka Memorial Challenge team event against a dozen other conservation organisations from across Zambia, who compete annually at the Tangila Trails event series. NLCP also competed in the continent-wide Wildlife Ranger Challenge.





# BLACK RHINO

## CHIBESA MWILEKA AND SQUARRE

### RESCUE MISSION



Mwileka and Chibesa in February 2024

In 2023, NLCP completed two black rhino re-captures, requiring extensive collaboration and cooperation.

Chibesa was rescued in July 2023. This involved two aerial teams and a large ground team to safely load and transport her 70+ km in a specialised rhino crate to the rhino bomas in central North Luangwa National Park.

A month later in August 2023, a more complicated recapture took place involving two black rhinos. They needed to be immobilised, fitted with transmitters, and returned to the rhino bomas together. The rescue went well with both rhinos successfully recaptured and safely transported over 140 km by road. Sadly, Squarre died shortly after the rescue. A post-mortem determined that she died from severe underlying chronic conditions that were impossible to foresee. The loss of an animal illustrates the difficulty and dangers of rhino conservation operations. However, Mwileka was successfully notched, fitted with trackers, and released a few days later. More happily, Mwileka and Chibesa linked up at the end of 2023 and are now keeping each other company closer to home..



30% OCCUPANCY BY ZAMBIAN CITIZENS

# TOURISM

Development of community-led tourism in the Mukungule and Chifunda Game Management Areas has continued welcoming visitors throughout 2023. The third site (Mandalena) in Nabwalya GMA received some upgrades after completion with the intention of making it available to guests throughout the rainy season (Nov – May). The Amatololo Experience, a series of self-drive campsites in the National Park, was open for campers throughout 2023 dry season and proved to be very popular. This initiative is intended to create revenue, promote conservation, develop skills and job opportunities, and bring more economic traffic to the North Luangwa landscape. Tourism plans for 2024 are to continue to generate income from the existing camps as well as develop additional opportunities to promote tourism in North Luangwa. A particular focus will be the promotion of North Luangwa as a destination for Zambian citizens by providing an affordable opportunity to access a landscape that is more usually priced for the international market. In 2023, the community camps reported over 30% of occupancies were by Zambian citizens.



Image credit: Matt Blair

## COLLABORATIVE MANAGEMENT PARTNERSHIP AGREEMENT

In July 2023, the agreement for the management of North Luangwa National Park was signed between FZS and the Zambian Department of National Parks and Wildlife (DNPW). The agreement called for a special purpose vehicle to be established that would manage resources, activities and teams required for the achievement of the objectives of the NLNP General Management Plan. As a result, North Luangwa Management Ltd. was established with a board of six members with equal representation from DNPW and FZS. For continuity, North Luangwa Management Ltd will continue operating as NLCP in the landscape. The board met for their inaugural meeting in December 2023 and will receive regular updates and feedback from the Executive Management Team charged with the implementation of the terms of the agreement throughout 2024, as we work toward achievement of the conditions precedent outlined in the agreement and build on the unity and spirit of partnership that has seen major success for many years in the North Luangwa landscape.





# LOOKING AHEAD TO 2024

2024 will see significant changes at NLCP as we grow into new structures and facilities. Much of the effort in 2023 has been working towards developing the infrastructure and mechanisms for NLCP to forge ahead in a stronger partnership with DNPW and continue to better fulfil the project mission of Linking Landscape and Livelihoods in the North Luangwa Landscape.

Key to this was the signing of the collaborative management partnership agreement between FZS and DNPW to formally ratify and cement an already long-standing working relationship into a more detailed partnership for the next 20 years.

On the ground there are some operational changes as the project moves their base of operations to Mano, the gateway to North Luangwa National Park. This will allow for more streamlined operations and while still supporting the Rhino and Elephant Protection Unit in the heart of the park. This move has been supported by a significant investment with the construction of new offices and housing for key project and DNPW staff, a new purpose-built workshop, and large storage facilities to better manage our extensive fleet and protected area logistics. In 2024 we plan to build new kennels and control room at Mano to support operations across the landscape.

2024 also sees a change in leadership as Sven and Paula Vrdoljak join NLCP as Programme Manager and Project Manager, taking over these roles from Ed Sayer and Claire Lewis who retain their ties with the project, from the FZS country office.

Sven and Paula bring with them significant combined experience and expertise in conservation and project management, with more than a decade of experience in Zambia in diverse fields such as environmental education, fisheries conservation, sustainable tourism, and conservation assessment. The leadership transition promises to bring fresh perspectives and expertise to NLCP, building upon a strong legacy of 38 years of conservation.

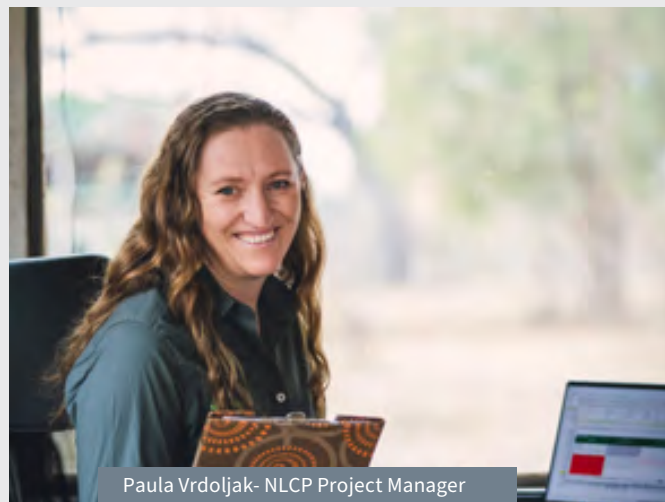
This evolution is a testament to the commitment of the Zambian Government and Frankfurt Zoological Society to secure natural resources for the benefit of the Zambian people, as NLCP continues to link landscape and livelihoods.



NLCP office construction at Mano



Sven Vrdoljak- NLCP Programme Manager



Paula Vrdoljak- NLCP Project Manager



Tigwilizane Committee, Mukungule Mano

Image credit: Mana Meadows Photography





Image credit: Mana Meadows Photography

# EXTRA INFO

## CURRENT STATUS AND THREATS

The expanding communities of the North Luangwa landscape are extremely poor (poverty levels are >30% higher than the national average) and hard to reach. Poverty is driven by scarce rural employment; few livelihood and market opportunities due to limited access to infrastructure such as roads, mobile networks, or power; poor agricultural practices in rain-fed monoculture systems; and a depletion of the rich natural capital due to land conversion to agriculture. GMA-resident communities are additionally disadvantaged by restricted land-use practices and the significant direct and indirect impact of co-existence with wildlife.

Inadequate nutrition, health, and education levels, inextricably linked with subsistence agricultural production, render households even more vulnerable and food insecure, resulting in globally high stunting rates (40% of under-5s), which inhibits individual and community development by negatively impacting health, productivity, and economic potential.

Unsustainable, especially commercial, offtake of the area's flora and fauna likely has the biggest potential to impact the ecosystem as it includes some of Zambia's prime wildlife areas. Pressure from offtake levels of e.g., illegal extraction of natural resources, unsustainable agricultural practices, unplanned land conversion, etc. at the fringe areas of the NLL leads to negative conversion rates in some areas and poses a permanent threat to human and wildlife populations throughout the landscape due to potentially unsustainable edge effects in an ecological source-sink scenario. Just because ecosystem damaging practices may be permissible, they should be preventable through appropriate engagement, driven first and foremost by adherence to site-specific General Management Plans and Village Land Use Plans.

Other threats such as illegal mining / deforestation in the GMAs lead to pollution / sedimentation of drinking water resulting in considerable knock-on effects as they impact ecosystem function.

## BACKGROUND

North Luangwa National Park (NLNP), together with its four surrounding Game Management Areas (GMA), comprises the North Luangwa Landscape (NLL): a 22,000km<sup>2</sup> rural human and wildlife conservation landscape, which boasts breathtaking topography and serves as a haven for iconic species. The ecosystem is of international conservation importance, is the only area in Zambia with a full historical species complement and is the only section of the Luangwa Valley that has protected area status across the entire valley floor. It is home to Zambia's largest elephant population (vulnerable); its only population of black rhino (critically endangered); one of Africa's last ten strongholds of African lions (vulnerable); represents resident range for African wild dogs (endangered); and supports significant populations of African buffalo, hippopotamus (vulnerable), and leopard (vulnerable); as well as home to the endemic subspecies Cookson's wildebeest.

It has a high diversity in birds and is important to migratory species. It is home to several Marabou stork colonies and one of only two Yellow-billed stork colonies in the Luangwa ecosystem. The Luangwa Valley is listed among the world's centres of global plant diversity. The NLL represents the northern limit of southern Africa's *Colophospermum mopane* belt and eastern limit of the Central Zambezi miombo woodlands (dominated by high

trees of the *Brachystegia*, *Julbernardia*, and *Isoberlinia spp.* With shrub and grassland underneath). Mopane and miombo woodlands are important habitats counteracting climate change on an Africa-wide scale, and the NLL is in the unique position of being at the transition zone of both these habitats.

The Muchinga Escarpment (to the west) hosts the most important freshwater catchment for the mid-Luangwa River. Four of the Luangwa River's six perennial tributaries originate here, making it vital for the health and status of the Luangwa River, which has recently been proposed as a gazetted Water Resource Protection Area and therefore recognized as a critical habitat in the landscape and a lifeline for a large variety of unique and endangered wildlife species, its downstream users, and one of the major tributaries of the mighty Zambezi River.

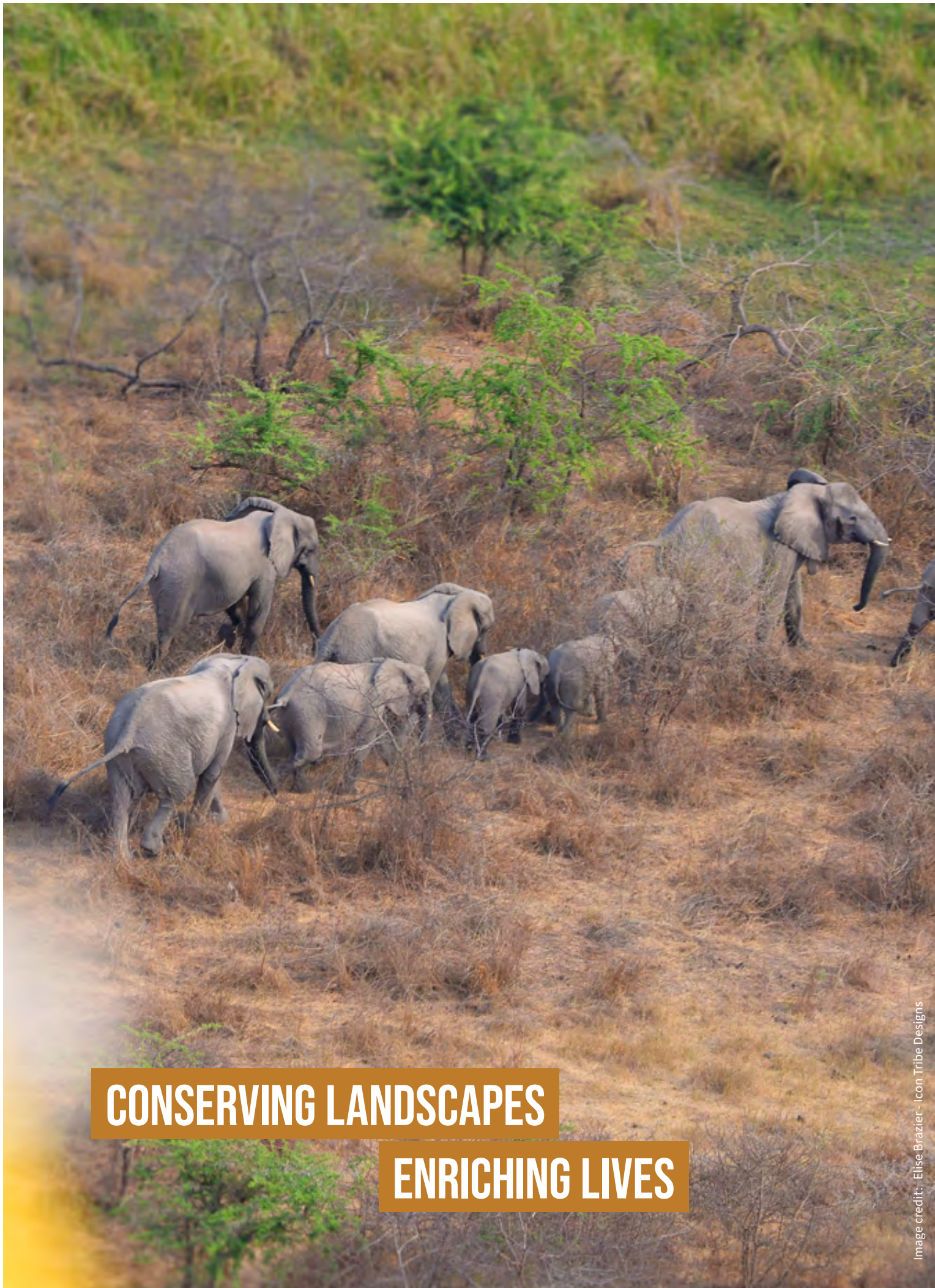
The Park was first established in 1972, and Frankfurt Zoological Society has been an implementing partner with the Zambian Government Department of National Parks and Wildlife (DNPW) since 1986 through its North Luangwa Conservation Programme. FZS-Zambia (FZS-ZM) is a registered NGO and operates in collaboration with DNPW.

## THE NLCP APPROACH

NLCP employs 321 full-time positions, across its multi-disciplinary departments, to address the key challenges facing the North Luangwa Landscape by taking an holistic approach through its mission *Linking Livelihoods with Landscape* for a more resilient socio-ecological ecosystem. This theory of change aims to address the challenges of **POVERTY, LIMITED SOCIAL + ECONOMIC BENEFITS AND OPPORTUNITIES, EXTERNAL / POLITICAL INTERFERENCE, NATURAL RESOURCE THREATS AND DEGRADATION** by deploying a variety of tactics underneath its four strategic goals:

- 1 **SECURE - SAFEGUARD - SUSTAIN**  
Robust and adaptive large landscape management of natural assets to **secure, safeguard and sustain** wildlife, habitats and ecological services in NLNP and neighbouring communities.
- 2 **EDUCATE-EMPOWER-ENTERPRISE**  
Positively engage in creative and beneficial initiatives to **empower, educate** and deliver **enterprise** opportunities for neighbouring communities and wider Zambian civil society.
- 3 **COMMUNICATE-CONNECT-CHANGE**  
Focused messaging to **communicate and connect** with stakeholders and partners for effective and positive **change**.
- 4 **SYSTEMS-STRUCTURE-SUPPORT**  
Transparent, effective and enduring organisational and financial **structure** according to NLCP's core values with efficient **systems** to **support** a mentally and physically healthy team.





**CONSERVING LANDSCAPES**

**ENRICHING LIVES**

Image credit: Elise Brazier - Icon Tribe Designs

NSUMBU NATIONAL PARK: 2,026 KM<sup>2</sup>

TOTAL OPERATIONAL AREA: 7,000 KM<sup>2</sup>

PROGRAMME COMMENCED: 2017

A PARTNERSHIP BETWEEN DNPW & FZS



# NSUMBU TANGANYIKA CONSERVATION PROGRAMME

## NSUMBU NATIONAL PARK: RECOVERY AMONGST THE GREAT LAKES

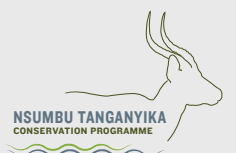
Approaching Nsumbu National Park by air one passes over miles of rolling hills covered in dense thicket and miombo forest, dissected by the winding artery of the Lufubu River. Rocky escarpments glow in the evening light, and waterfalls cut through gullies in the ridge line. To the west, large wetlands are dotted along the valley floor, criss-crossed by sitatunga and hippo trails – a patchwork of deep green bullrushes and amber grasses. And then, the grand finale as the aircraft banks over deep blue and turquoise coastline – the southern extent of Lake Tanganyika, the world’s longest freshwater lake, and second by volume and depth.

The Nsumbu-Mweru ecosystem in north-western Zambia holds the largest remaining tracts of rare Itigi-Sumbu forests, rich biodiversity in its lakes and rivers, and expansive intact habitat far beyond the boundaries of protected areas. Our knowledge of the Itigi remains limited however it is known to be sensitive to fire, does not recover well once degraded and is composed of up to 100 floristic species, many of which are endemic. Nsumbu’s small elephant population that survived heavy poaching at the turn of the century is now geographically isolated. With the increased protection provided through the Nsumbu Tanganyika Conservation Programme, recovering wildlife populations are now ranging further and further beyond the 2026 km<sup>2</sup> Nsumbu National Park – a sure sign of effectiveness. Nevertheless, this unique ecosystem continues to face multiple threats.

Over the past century illegal hunting pushed wildlife populations to critical lows and lion, leopard, black rhino, cheetah, wild dog and hartebeest have disappeared. The landscape still holds large tracts of pristine habitat – now as wildlife numbers recover, and species are returned, there is a narrow window of opportunity to maintain connectivity across the wider integrated landscape.

Nsumbu National Park remains the anchor of the much larger Nsumbu-Mweru ecosystem that connects two of the great lakes of Africa – Tanganyika in the east and Mweru in the west. Land conversion, and development along access routes threatens this connectivity and could soon cut off corridors between protected areas with an opportunity lost that may never come again.

A 2015 study estimated that 64% of the Itigi-Sumbu thicket around Lake Mweru Wantipa had been cleared over the past 50 years, while an earlier study suggests 50% of Tanzania’s Itigi thickets have been lost. Assuming the deforestation rate has either been maintained or increased since these assessments, rates of deforestation of greater than 80% would elevate this ecosystem’s conservation status to the Critically Endangered category of the IUCN Red List.





# SECURING THE ECOSYSTEM



## Operations Base

2023 was the first year of full operations from the integrated operations base, including aerial surveillance by the park's Aviat Husky aircraft.

## EFFECTIVE PROTECTION

The Nsumbu National Park has seen a transformation over the past decade.

Zero elephants have been detected as illegally killed since 2018 with snaring and illegal hunting much reduced. Robust and adaptive resource protection has been fundamental in this turnaround. 2023 marked the first full year of use of the newly constructed integrated operations base – including aerial surveillance, a canine unit, and quick reaction capability. This base is the hub of real-time monitoring and coordination of field teams using data streams from the digital radio network, Garmin InReach and the Spatial Monitoring and Reporting Tool (SMART) – all visualised in EarthRanger as the primary oversight and awareness platform. Capability to capitalise on this technology was enhanced with control room training and the roll out of an operator roster, alongside an overhaul of EarthRanger use and SMART incidents integration. Intelligence and Investigations Units continue to provide capability to disrupt wildlife crime before incidents occur and the necessary follow up in cases where they do occur, working closely with the canine unit at roadblocks.

NTCP's two canine's, India and Iris, continued to play an important role in detection and deterrence of illegal activities, with all four NTCP handlers certified by the American Society for Canine Trainers in July 2023, and a high standard of dog welfare, care and operational practice in place.



Dinah and India

Image credit: Zanne Labuschagne



Scouts recruited from Chitimbwa Chiefdom in the eastern periphery during the 2023 pass-out ceremony

Twenty-eight additional Community Scouts were recruited, trained, and equipped in 2023 taking the park's resource protection team to a total of 125. Community scouts are supported with training, equipment, incentives and salaries, providing much needed employment opportunities. This team is guided by a new generation of leadership – many of whom were recruited from the communities surrounding the park in the early years of the project and are now coming of age, empowered by ongoing training and leadership mentoring. In rural Zambia the family breadwinner is estimated to support an additional 10 people.

Nority Mutungu, who was recruited in 2015 and recently promoted, encourages other women from her community to join this work.

"I am able to support my parents, I am able to support my kids, I can even send my younger sisters to school; the benefits this job brings are very good"- Nority Mutungu.



Nority Mutungu

## HABITAT INTEGRITY

With the addition of regular aerial surveillance, some illegal agricultural fields were detected just inside the park along the remote south-eastern boundary. With no natural landmark or road along this edge of the park, a sensitisation campaign was launched and improved boundary demarcation was subsequently added in this area. Farmers were allowed to

harvest the crops from existing fields with the agreement that upon harvest no more farming within the park boundaries would be conducted. Aerial monitoring also helped to deter and detect illegal timber harvesting in the park periphery – after a 2022 clamp-down on illegal logging and the added layer of security with eyes in the sky no major incidents were recorded in 2023.



0

ELEPHANTS POACHED

742

WIRE SNARES REMOVED

67.7

KGS OF BUSH MEAT SEIZED

# IMPACT

60 | CONVICTIONS FROM 72 ARRESTS

87 | % CONVICTION RATE

563 | PATROLS 11,317 MAN DAYS

11.7 | KGS OF IVORY SEIZED, FROM IVORY ORIGINATING IN TANZANIA, OUTSIDE OF THE PROJECT AREA

67.7 | KG OF BUSH MEAT SEIZED

61 | FIREARMS CONFISCATED 30 OF WHICH THROUGH AMNESTY OPERATIONS

94 | PIECES AMMUNITION SEIZED

137.5 | HOURS FLOWN BY AVIAT HUSKY

96 | NETS SEIZED FROM ILLEGAL FISHING 31 FISHING BOATS, 360.3 KG FISH, AND 18 BATTERIES FOR LED LIGHTS

40 | PATROLS WITH A ROADBLOCK MANDATE, WITH 582 VEHICLES, 155 MOTORBIKES, AND 94 BICYCLES

2 | GENERAL IN-SERVICE REFRESHER COURSES, QUICK RESPONSE FORCE MENTORSHIP, VISUAL TRACKER, LEADERSHIP AND EMOTIONAL INTELLIGENCE TRAINING WERE CONDUCTED



NSUMBU TANGANYIKA CONSERVATION PROGRAMME

Image credit: Daniel Rosengren

## PROVEN FITNESS

The terrain in Nsumbu is rugged and areas patrolled are remote with limited wet season access. Alongside ensuring that teams are well equipped, and communications networks remain active, physical fitness boosts operations and plays a big part in keeping up morale. Group training and participation in sporting events cultivate an inspired, and healthy mindset in the team – the park’s training officer leads twice-weekly runs, with swimming training added during the run-up to the annual Swim for Nsumbu event. In 2023 the Nsumbu women’s team placed second in the 21km World Ranger Challenge run carrying 22-kilogram packs – and in patrol uniform – to raise funds for conservation. Forty Nsumbu participants took part in the Tangila Trails Series, covering the full spectrum of team members from scouts to mechanics, project accountants and managers. The Nsumbu team placed second after North Luangwa Conservation Programme in the 22-km race in honour of the late Solomon Chidunuka’s commendable conservation impact, and in dedication to all Zambia’s fallen conservation heroes. Duncan Mumba – who grew up near Nsumbu and has risen in the ranks to a Wildlife Police Officer – also completed the London Marathon, to raise awareness for rhino conservation.



Wildlife Ranger Challenge 21km Race

## DE-SNARING BRINGS JOBS FOR WOMEN

Women now make up half of the park’s de-snaring team, following the recruitment and training of six ladies from communities around the park. Sweeping the thick Itigi-Sumbu thickets for snares - both old and some newly set – is tough work. Carried out in the dry season months, this seasonal work gives team members a chance to prove themselves and often those that excel are selected for other permanent roles – like the current storekeeper and several community scouts. Just shy of

8000 snares have been removed from the ecosystem since 2017. White Chansa, involved in the programme since its initiation, recounts his early experiences in the job, “we saw few animals when we started, sometimes we found them trapped in snares – it was difficult to see.” Today White and his team are seeing larger herds, and – despite ongoing and expanding coverage – they find fewer snares.



De-Snaring Team



# TRACKING TRENDS

An ecological and threat monitoring review was conducted together with the Department of National Parks and Wildlife's (DNPW) head ecologist. Although extensive ecological monitoring has been conducted since the project's early days, this review marked the first step in the development of a holistic monitoring plan for the park. Environmental DNA (eDNA) was also added as a new monitoring tool with 192 freshwater samples filtered and sent for analysis, adding to ongoing monitoring using camera traps and transects. Lake Tanganyika is one of the most biodiverse freshwater systems on the planet: all but two of the lake's 240 cichlid species are endemic, with 60% endemism in the non-cichlid species. In contrast to the lake, the aquatic diversity of surrounding river systems is poorly documented and remains critically understudied. This is best exemplified by the Lufubu River, where a 2023 study found that 25 of the 37 species sampled are thought to be undescribed and endemic to the system. These results are supported by the NTCP's eDNA work on the Lufubu where just 27% of the 77 fish taxa returned by eDNA analysis were identified to species level. Seven more satellite collars were fitted on sable, buffalo, eland and elephant to better understand wildlife movement patterns. Early analysis and observations indicate an upward trend in the relevant abundance of wildlife species in the Nsumbu National Park, although the timeframe and data available is still not rich enough for detailed trend assessment.



eDNA Sampling



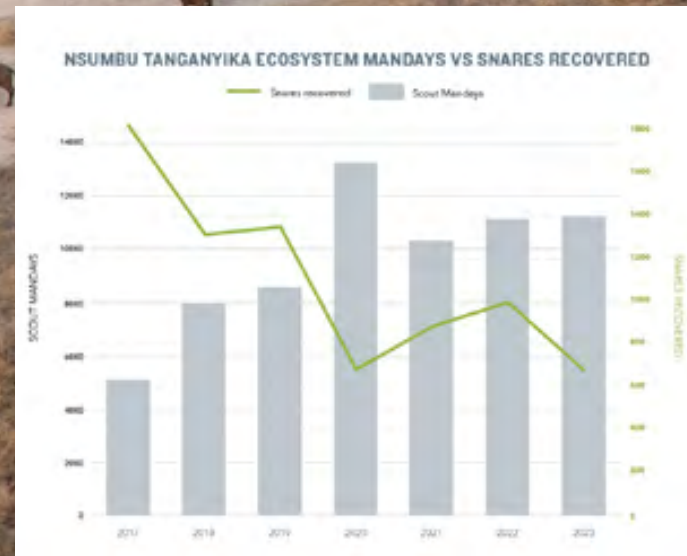
# ECOLOGICAL MONITORING NUMBERS

**44+** CAMERAS SET OVER 3 GRIDS PLUS 10 CAMERAS DEPLOYED IN OPPORTUNISTIC AREAS

**42** DISTANCE TRANSECTS CONDUCTED, AN AVERAGE OF 5KM IN LENGTH

**7** SATELLITE COLLARS FITTED FOR TRACKING WILDLIFE

**192** EDNA SAMPLES COLLECTED ON THE LAKE AND THE ECOSYSTEM'S REMOTE INLAND WETLANDS AND RIVERS



Graph showing the decline in snare recovery since 2017 despite an increasing number of scout man-days across the landscape. Nearly 8000 snares have been recovered in and around Nsumbu National Park since 2017 and 382 firearms and 765 rounds of ammunition removed from the system.

Surveillance Flight



Camera Trap Images 2:51PM C37537



9/30/2023 2:55 PM C47817



11/5/2023 5:56 PM C42828

Image credit: Zanne Labuschagne

# CONSERVE KEY SPECIES

With improvements in security of the Nsumbu landscape and the slow but steady recovery of wildlife, the reintroduction of lions is scheduled for mid-2024 and rhino to follow. Nsumbu National Park is committed to follow internationally defined best practice in the planning and implementation of these species reintroductions. A committee of experts was established that includes representation from DNPW's Wildlife's veterinary and ecology departments, Zambia Carnivore Project, and community representation from the Nsama Chieftdom and Community Resource Board, to ensure that lion reintroduction plans have taken on board all opinions and considered various outcomes. A black rhino reintroduction assessment was conducted at the end of the dry season by a group of experts, with initial findings concluding a positive recommendation for the return of rhinos in the coming years. The report's road map outlines the necessary steps to be taken for the park to be rhino ready. Wet and dry season browse assessments will be conducted in 2024 to add further recommendations and guidance.



# TABU PROTECTS LAKE WATERS

With 109km<sup>2</sup> of Tanganyika's waters – Nsumbu National Park holds the largest and best protected tract of the lake. Fishing is a way of life for many lakeshore households – the wider lake continues to provide, but the protected waters within the park offer greater yields. One night of illegal fishing within the protected heart of the park can fetch far more than the rewards from a poached elephant. The illegal harvest of endemic cichlids for the aquarium trade has been largely reduced due to targeted protection, but still poses a threat evidenced by a 2023 arrest of illegal fishermen using diving equipment to target live fish capture for export to the international market. Operating on the water poses operational hazards – more so at night and when facing multiple loaded fishing vessels, often with fishers from far beyond the park surrounds. With the Democratic Republic of Congo and Tanzania both in line of sight across the lake, Illegal Wildlife Trade routes remain an issue. The Tanganyika Boat Unit (TABU) was established to counter these threats and has played a significant role in securing fish breeding areas within the park as well as the Northern boundary of the

terrestrial part of the ecosystem. The teams receive specialised training and are well equipped with two fully operational boats on the water, and a third to be added in 2024



Image credit: Zanne Labuschagne



## CONSERVATION ENABLERS

# EMPOWERMENT & ENGAGEMENT



Image credit: Justin Blake

7

GOVERNANCE TRAININGS

CONDUCTED

5 | CFMZs WITH DEMOCRATICALLY ELECTED CFMCS

60 | 60 COMMUNITY-LED PATROLS  
30 JOINT PATROLS

400 | ILLEGAL FISHING GEARS SEIZED, 3 FISHING UNITS CONFISCATED

800 | FISHERS SENSITIZED ON FISHING LEGISLATION

4 | AGMS AND CFMC ELECTIONS CONDUCTED (69% MEN AND 31% WOMEN STOOD FOR ELECTIONS)

5 | MEETINGS HELD ON RESOURCE MONITORING AND GOVERNANCE OF CHISANSE TEMPORARY FISHING VILLAGE

# COMMUNITY- BASED FISHERIES MANAGEMENT

Five Community Fisheries Management Zones (CFMZ) have been created – one added in 2023, with boundaries and fishing rules co-designed with the local communities. Joint patrols between democratically elected Community Fisheries Management Committees (CFMC) and Department of Fisheries were fully rolled out in all five CFMZs around Nsumbu National Park – extending the protected waters in and around the park to a total of nearly 140 km<sup>2</sup>. The five CFMCs have received ongoing support to improve the management of their fishing grounds and to better protect the Fish Breeding Areas that they established. In 2023 the 30 joint patrols and 60 community-led patrols detected multiple infractions of fishing legislation: 400 illegal fishing gears were seized and disposed of, 3 fishing units were confiscated and over 800 fishers were sensitized on fishing legislation. Twelve of the CFMC members were trained in electronic Catch Assessment Surveys (eCAS) and started data collection at landing sites. Some issues with the scale and design of the eCAS were registered and a review of the use of this tool to assess the impact of interventions is now underway.

A recent value chain analysis of the Nsumbu fisheries identified improved access to market and improved fish processing as two achievable mechanisms for local fishers to sustainably increase income from their fishing yields. Fish drying, which is the most common processing technique in this area, is generally done on bare or sandy ground leading to reduced quality. The project and community members

jointly constructed 12 free-to-use raised fish drying racks. As part of a trial, the racks are available for anyone from local communities to use to reduce post-harvest losses and improve product quality. Two fisheries specific cooperatives, the first of their kind in Zambia, have also been formed to enhance access to local and national markets, share costs and risks, exchange knowledge and enhance social support for fishers.

2023 was the first year of enforcement of the Lake Tanganyika Charter's lake-wide fishing ban running from mid-May to mid-August. Near complete compliance was observed in the Zambian waters around Nsumbu, with mixed success in other neighbouring lake states. Although anecdotal evidence from fishers suggest that greater yields were experience post-ban, the long-term effects of the ban need to be carefully reviewed, including the pressure it might pose on other lakes like Mweru Wantipa and on wildlife populations when fishing can no longer meet protein needs. The ban offered an opportunity to collectively review the rules and regulations for Chisanse – a temporary traditional fishing village within a clearly defined zone in the national park – during a series of stakeholder workshops. With these improvements to the Chisanse management framework, The NTCP believes that – if properly implemented and managed – cultural access can meet sustainable conservation.

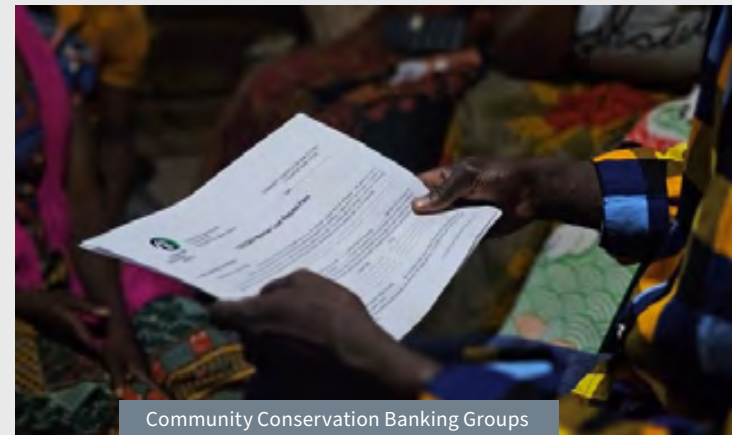


# COMMUNITY OUTREACH

## LIVELIHOODS

Communities in this remote and underserved corner of the country face poverty, limited livelihood opportunities and poor governance. The average per capita income lies well below the national average, with many people living below the poverty line. Community buy-in is integral to ensuring long-term, sustainable protection strategies, and thus, the NTCP works with communities to develop conservation-compatible livelihood opportunities and support Human-Wildlife Coexistence. Livelihood opportunities enable communities to benefit from and see the value of the conserved landscape.

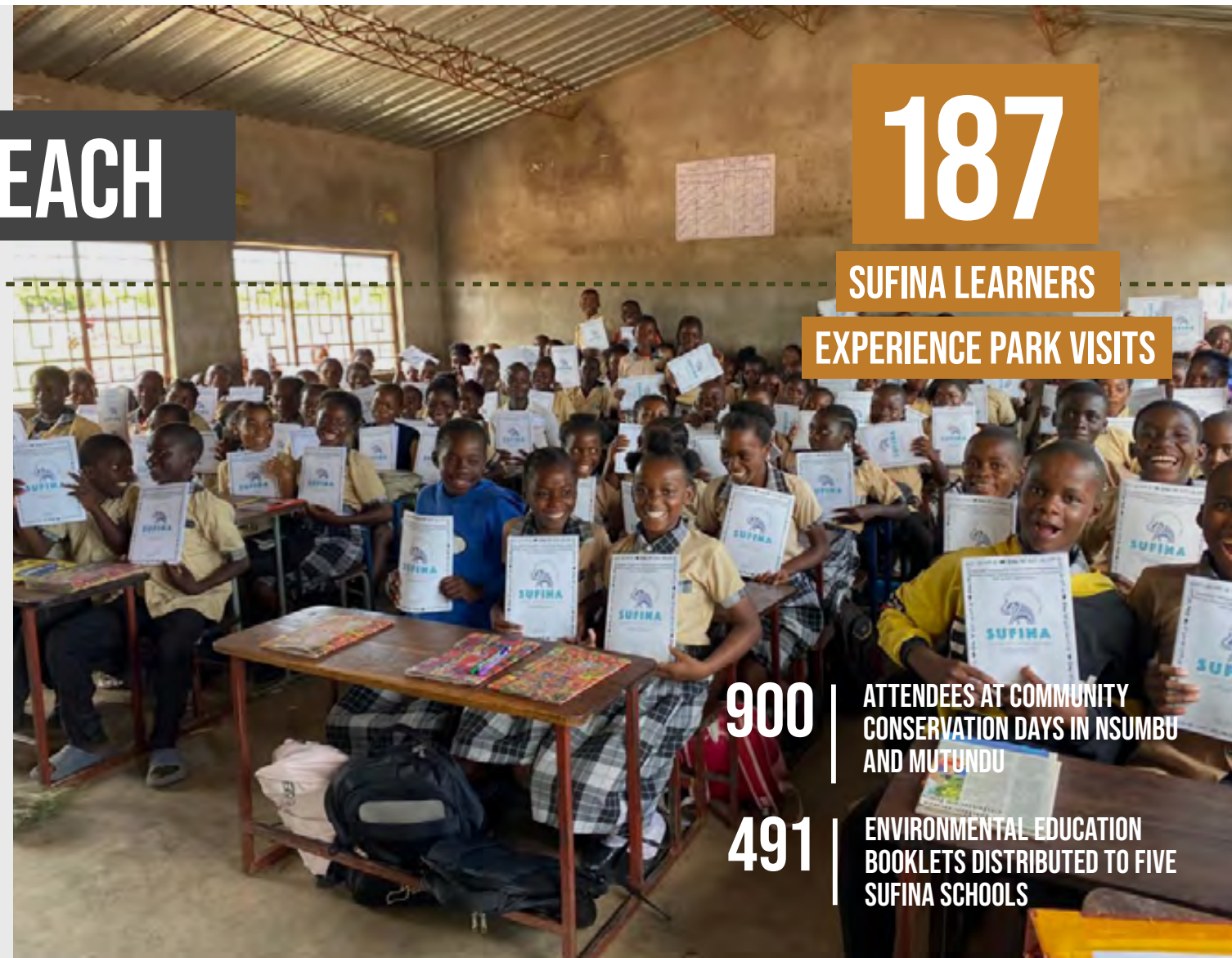
With support from experts from the North Luangwa Conservation Programme, the project provided training and support for the establishment of five Community Conservation Banks (CoCoBas) – village level micro-finance or saving banks that enable community members to set up conservation compatible businesses. Positive feedback from the 115 group members, 83% of which are women, confirms the initiative as a quick way to access funds and improve livelihoods at the household level.



Community Conservation Banking Groups



NSUMBU TANGANYIKA  
CONSERVATION PROGRAMME



187

SUFINA LEARNERS

EXPERIENCE PARK VISITS

900

ATTENDEES AT COMMUNITY  
CONSERVATION DAYS IN NSUMBU  
AND MUTUNDU

491

ENVIRONMENTAL EDUCATION  
BOOKLETS DISTRIBUTED TO FIVE  
SUFINA SCHOOLS

## CONSERVATION EDUCATION

The NTCP SUFINA conservation education programme has been running since 2021– teaching learners about the value of nature and wildlife through carefully planned lessons and themed conservation days, giving students an opportunity to experience the scenic beauty on their doorstep through annual park visits. In 2023 inter school quizzes took place for learners to battle out their conservation knowledge, and two conservation days were held providing a platform for learners to raise conservation awareness through drama, poetry and art presentations. Near two hundred passionate SUFINA learners from these schools embarked on thrilling visits to Nsumbu National Park, to connect with the very landscape they are dedicated to protecting. Educating young learners about conservation in the school room teaches the basic techniques and ideals but giving them an opportunity to see this flora and fauna and appreciate its beauty and importance helps to win over hearts and minds.

Through the SUFINA Education Programme, students are empowered with knowledge, encouraging a sense of responsibility and inspiring them to become champions of conservation in their communities.

5 | COCOBAS ESTABLISHED WITH  
115 GROUP MEMBERS, 83% OF  
WHICH ARE WOMEN

14 | MEETINGS TO MOBILISE, TRAIN  
AND MONITOR GROUPS

20 | VAG FINANCIAL CHECKS  
AND 10 AGMS

2 | CRB ANNUAL  
BOARD MEETINGS

## WELL-GOVERNED NATURAL RESOURCE MANAGEMENT

Natural Resource Management and the benefits gained from these resources are governed by the Nsama Community Resource Board (CRB) within the Game Management Areas to the west of Nsumbu National Park. Since 2017, close support has been provided to the CRB and its constituent Village Action Groups, facilitating financial and human resource training and quarterly checks to ensure sound financial management. In 2023 a CRB bookkeeper was recruited, jointly funded by NTCP and Tondwa Conservation Limited. This has greatly improved financial management and reporting.



Image credit: Roshi Lochia



# CONSERVING LANDSCAPES ENRICHING LIVES

## OPPORTUNITY

For a new conservancy model to the east of Nsumbu

The Iyendwe Valley runs along the South-East border of Nsumbu National Park, and unlike many areas bordering a national park in Zambia, Iyendwe is not part of a Game Management Area (GMA), nor has a Community Resource Board (CRB) that manages the area. Much of the illegal incidence in Nsumbu National Park originate from this underserved and rural area to its east. In 2020, the project and the community living around a proposed conservation area in Iyendwe committed to collaborate on the development of the Chitimbwa Iyendwe Conservation Project (CICP), to provide the community with a means of self-determination. A constitution for the project was developed in collaboration with all stakeholders and approved in public forums with 237 community members, which guides governance and financial controls and policies to support the constitution. A series of engagements were conducted in late 2023 to update stakeholders on the project planning and initiation steps to date and the upcoming plans, including a site visit to Nsumbu HQ and Nsama Chiefdom to see first-hand the benefits that Community Based Natural Resource Management can bring.

A tragic road traffic accident affected two key people recruited in 2023: Bonaventure Kanyanta, the Community Conservation Officer recruited to lead the Chitimbwa Iyendwe Conservation Project tragically passed in the accident. Moses Mwamba, the Community Conservation Educator, was in the same public transport bus that had an accident and sustained injuries that delayed his arrival on site, however he is now recovered and has actively taken on the new role. A new candidate for the CICP coordinator arrived in September 2023.

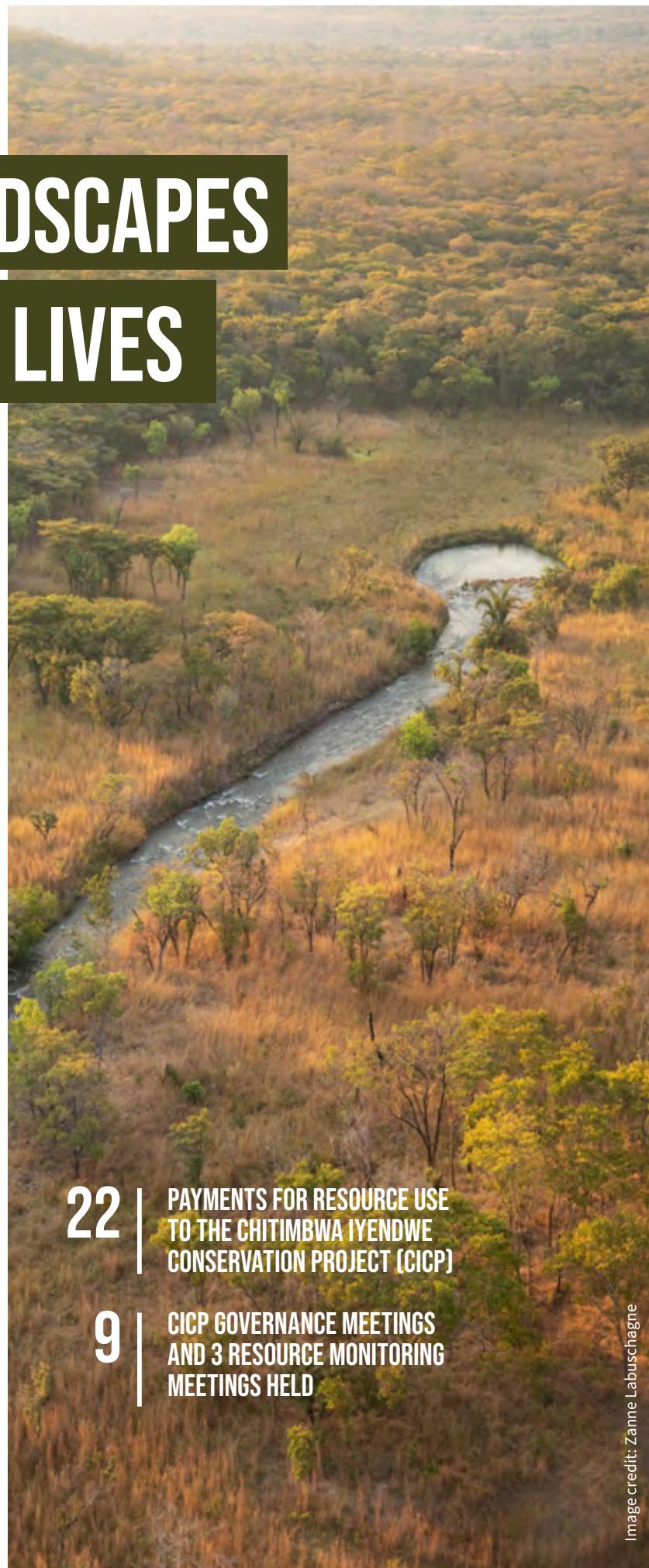


Image credit: Zanne Labuschagne

**22** | PAYMENTS FOR RESOURCE USE TO THE CHITIMBWA IYENDWE CONSERVATION PROJECT (CICP)

**9** | CICP GOVERNANCE MEETINGS AND 3 RESOURCE MONITORING MEETINGS HELD



**1734**

COMMUNITY MEMBERS  
DIRECTLY ENGAGED  
DURING 66 MEETINGS

**3** | LION REINTRODUCTION REVIEW AND PLANNING MEETINGS

## FOSTERING COEXISTENCE

### EXTENSIVE ENGAGEMENT

Rapidly recovering wildlife and better security has contributed positively to wildlife population increases, range expansion and changed animal behaviour. A lack of land use planning to identify wildlife corridors and maintain connectivity across the wider landscape has contributed to rising Human Wildlife Conflict incidents involving hippo and elephants and bushpigs, particularly crossing the boundary into the densely settled Nsumbu township. Community members are not used to living with Wildlife after the long absence and this influences negative perceptions around the recovery. At the request of the local communities, funds were raised and the necessary planning permissions obtained to build a 15 kilometre partial boundary fence along a densely populated edge of the park where the majority of the area's Human Wildlife Conflicts are currently registered. This fence runs from the lake south-westwards and will not cut off wildlife connectivity to the wider landscape but will protect the lives and livelihoods of people living along the park boundary.

Extensive engagement in the run up to the return of lions to Nsumbu

Strong community ownership from the outset forms the building blocks of successful human-wildlife coexistence. Intensive community sensitisation was conducted in the run up to the return of lions to the Nsumbu National Park, including the establishment of a locally-led Lion Committee to share messaging and receive feedback from their communities. The project facilitated a trip to South Luangwa National Park by a team of community leaders to exchange and learn lessons from communities living with lions. As part of the conservation education programme, standalone lessons on lions have been introduced to increase knowledge of the species to learners in the area.

### TELLING OUR STORIES

To put the Nsumbu National Park and NTCP's work on the map, 2023 saw the first steps in the creation of a feature documentary on the return of lions to the landscape. The trailer is to be released in early 2024 and the full-length documentary in 2025. An underwater photographer was engaged to capture the incredible diversity hidden in the landscape's lakes, rivers, wetlands, and streams. The team also received training in basic photography and social media content development, with key achievements from each department presented and shared each month – building engagement and social media audience.







Image credit: Zanne Labuschagne

# EFFECTIVENESS

## AT SCALE

2023 saw the start of a phase of consolidation alongside sustained growth for the NTCP. Additional staffing was added to ensure that the programme has the requisite systems, structures, staffing and resources in place to uphold effectiveness and efficiency at scale as the NTCP prepares for species reintroductions and expansion across the wider Nsumbu-Mweru Ecosystem. The NTCP moved into a new joint office, with the Area Wildlife Warden and Programme Manager now in the same

workspace. This also enabled much needed recruitments with seven new staff members onboarded in 2023 – bolstering admin and finance, field operations, and Community Based Natural Resource Management teams, and the addition an Integrated Landscape and Custodianship Manager. A target driven cycle of monthly meetings and soft skills training is ongoing to build a strong and cohesive team to drive forward the NTCP’s ambitious programmes.

## FIELD OPERATIONS

Ongoing maintenance to the growing park vehicle and boat fleet and the road network was conducted in 2023. The team moved into a new joint FZS-DNPW office closer at the park headquarters, facilitating close collaboration. Improved solar power was installed at the integrated Law Enforcement base and ranger housing was renovated to improve living standards and boost morale in the workplace. Seven out of ten DNPW houses in Nsumbu township have been fully renovated with work underway on the final three. The access road to the Lufubu river crossing was improved with a two-strip concrete section completed to reduce the wet season access route of 600km to a more direct 40km dry season access route.



Renovated Scout Houses

## NEW NTCP OFFICE COMPLETED



New NTCP meeting room in use



Image credit: Daniel Rosengren

# 7

## SCOUT HOUSES RENOVATED

- 7 | NEW MID TO SENIOR MANAGEMENT STAFF ONBOARDED
- 1 | NEW VHF-RADIO TOWER ERECTED NEAR CHIKA FALLS
- 18 | VEHICLES, 2 TRACTORS, 3 BOATS, 13 MOTORCYCLES MAINTAINED AND MANAGED

Tondwa GMA

## BUILDING A COHERENT CAPABLE TEAM

The NTCP has had significant impact since 2017. In order to maintain this momentum while at the same time ensuring that the programme and staffing are sustainable and fit for purpose, a phase of consolidation aligned to sustained growth and development has been undertaken. A new target driven cycle of monthly meetings was rolled out providing an important check point for the team and fostering accountability across the programme.

In 2023 the NTCP onboarded seven new team members, bolstering the Community Based Natural Resource Management department as well as project management and coordination functions, admin and finance, and critically, a field operations manager. An Integrated Landscape Manager was engaged – who will be responsible for coordinating the planning and prioritisation of the programme’s expansion across the landscape. Ensuring that the organisational structure of the NTCP is fit for purpose and that team members are empowered to grow within the organisation remains a priority. In late 2023 the team took part in a communications and emotional intelligence training followed by individual leadership coaching for the senior management team.

## TONDWA CONSERVATION LIMITED

NTCP facilitated the entry of Conserve Global into the landscape, with the local entity Tondwa Conservation Limited now on the ground in Tondwa Game Management Area. By taking up some of the needed technical and financial support in Nsama Chiefdom, this new conservation actor in the landscape has enabled NTCP to reassign resources to the core area of Nsumbu National Park and to the eastern periphery of the park. The addition of an Integrated Landscape Manager to the NTCP team in 2024 will support future work to profile the landscape and stakeholders, to ensure that resources are used efficiently and partnerships are designed for additionality.





# THE NEXT CHAPTER

## FOR NSUMBU AND BEYOND

### GROWTH OPPORTUNITY

As we face climate change and a rapidly changing socio-ecological situation, conservation at a landscape scale is critical. The NTCP faces an opportunity to coordinate and implement a clear plan to prioritize action across a 20,000 kilometres square complex of open areas, community land, and protected areas of the Nsumbu-Mweru Ecosystem – to define the roles and responsibilities of various actors, oversee best practice and standards, and ensure that strong partnerships with accountability are fostered, with ecosystem recovery anchored in protected areas.

### CONSOLIDATION

In preparation for this growth opportunity the NTCP needs to reinforce its foundations within the Nsumbu Tanganyika Ecosystem – ensuring the funding, systems, structures and strategies, and a strong and cohesive team is in place to successfully enact this growth. These plans pose exciting prospects for a primarily Zambian team – for personal growth and development in their career paths, opening space for them to move into senior positions within the organization. This consolidation in the NTCP is in line with the groundwork needed to prepare the park for the return of black rhino and the step change that this requires in terms of protected area management capacity: fine tuning programme management, resource protection, field operations, engagement and human wildlife coexistence.

### CONTEXT

The Government of the Republic of Zambia instated a state of emergency in early 2024 around the unprecedented drought in the south and reiterated the importance of protecting the country’s remaining forests, recovering degraded areas, and securing river catchments to help buffer the impacts of climate change on the country and its people. These growing challenges reinforce the importance of securing the remaining areas like the Nsumbu-Mweru landscape – getting conservation right for people and wildlife, creating the needed social and ecological resilience.

## THE NTCP APPROACH

The Nsumbu Tanganyika Conservation Programme (NTCP) is a long-term partnership between the Frankfurt Zoological Society and Zambia’s Department of National Parks and Wildlife. The NTCP is a field-based programme, working to secure the integrity of the Nsumbu-Mweru-Tanganyika landscape for social and economic benefit for present and future generations, with our mission: conserving landscapes, enriching lives.

- 1 ECOSYSTEM**  
Implement enforcement, monitoring, and management to protect the landscape, and promote thriving biodiversity, for sustainable resource use.
- 2 EMPOWERMENT**  
Activate a holistic approach to empowering and uplifting communities and create equitable access to natural resource benefits.
- 3 ENGAGEMENT**  
Design and deliver effective communications for stakeholders to be fully engaged and informed, supporting positive attitudes and actions that contribute to conservation.
- 4 EFFECTIVENESS**  
Build transparent, accountable, and efficient partnerships with clear structures, sufficient resources, and organisational capability for delivering effective and positive conservation impact



## PARTNERS

African Parks Network  
 Biocarbon Partners  
 Botanic Gardens Conservation International  
 Chipembe Wildlife Education Trust  
 Chitimbwa Community Resources Trust  
 Chitimbwa Iyendwe Conservation Project  
 Community Markets for Conservation  
 Community Resource Board Association  
 Community Resource Boards: Chifunda, Chikwa, Lundu, Mukungule, Nabwalya, Nsama  
 Conserve Global  
 Conservation South Luangwa Department of Fisheries  
 Department of Forestry  
 Department of National Parks and Wildlife  
 District Governments: Mpika, Shiwa, Chama, Chipata, Chinsali, Isoka, Nsama and Mpulungu  
 German Embassy, Lusaka

i4Life  
 Lowveld Rhino Trust  
 Dr Markus Hofmeyr  
 Mukonikoni Helicopters  
 Mutinondo Wilderness  
 Nature Metrics  
 Niner Juliet Logistics  
 North Swaka Trust  
 Parsons Aviation  
 Remote Africa Safaris  
 Rhino Recovery Fund  
 Save the Elephants  
 Tangila Trails Series  
 Tetra Tech  
 The Nature Conservancy  
 WeForest  
 Wildlife Conservation Research Unit, University of Oxford  
 Wildlife Crime Prevention  
 Zambian Carnivore Programme  
 ZayoHub

## FUNDERS

Anna Merz Rhino Trust  
 Conservation Nation  
 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)  
 Elephant Crisis Fund  
 For Rangers  
 International Rhino Foundation  
 International Union for Conservation of Nature  
 JRS Biodiversity Foundation  
 Kreditanstalt für Wiederaufbau (KfW) Entwicklungsbank  
 Legacy Landscapes Fund  
 Lion Recovery Fund  
 Oak Foundation  
 Paul Tudor Jones Family Foundation  
 Peter Lawrence

Rhino Recovery Fund  
 Save the Rhino International  
 Save the Rhino Inc  
 Sheldon & Audrey Katz Foundation  
 The Nature Conservancy  
 The Wyss Foundation  
 Tusk Trust  
 University of Kentucky  
 U.S. Agency for International Development  
 U.S. Department of State International Narcotics and Law Enforcement Agency  
 U.S. Fish and Wildlife Service  
 Wildcat Foundation  
 Walton Family Foundation

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what3words: proposals.vibrantly.commenting

Frankfurt.Zoological.Society  
 Frankfurt.Zoological.Society



**NORTH LUANGWA  
 CONSERVATION PROGRAMME**

LINKING LIVELIHOODS AND LANDSCAPE

North Luangwa Conservation Programme  
 Marula Puku, North Luangwa National Park

what3words: healthfully.modifies.habitats

northluangwa  
 north\_luangwa



**NSUMBU TANGANYIKA  
 CONSERVATION PROGRAMME**

CONSERVING LANDSCAPES, ENRICHING LIVES

Nsumbu Conservation Programme  
 Nsumbu, Nsumbu National Park

what3words: projecting.juggling.truthfully

nsumbutanganyika  
 nsumbu\_tanganyika

Visit [www.fzs.org/en/projects/zambia](http://www.fzs.org/en/projects/zambia) for more information