



# Parque Nacional da **Gorongosa**













2 0 2 2

[www.gorongosa.org](http://www.gorongosa.org)

**Our Gorongosa - Together we are more resilient**



# Contents

	Values and Mission of the Gorongosa Project Employees .....	3
	Message from Gorongosa Park Warden .....	4
	In Focus .....	6
	Map of Gorongosa Project and our Area of Influence .....	8
	Our Goals .....	10
	Our Partners .....	11
	Gorongosa – a Park for the People .....	12
	Gorongosa Programs .....	14
	Profiles .....	38
	How to Engage .....	40

## Values and Mission of the Gorongosa Project

**Gorongosa National Park employs 1,207 full-time staff and an additional 422 seasonal / part-time workers.**

- 1

We revere the Earth and the miracle of the evolution of life. We seek to protect all native species and to maintain all ecological functions within an intact greater Gorongosa ecosystem.
- 2

We believe all people have the right to a decent livelihood and to the preservation of their culture in order to live dignified lives.
- 3

We seek to catalyze a green economy through sustainable development that will simultaneously protect the greater Gorongosa ecosystem and assist families to increase their income.
- 4

We believe in gender equality and we work to empower all women and girls to enjoy full participation in society.
- 5

We support inclusive, quality education, and promote lifelong learning opportunities for all.
- 6

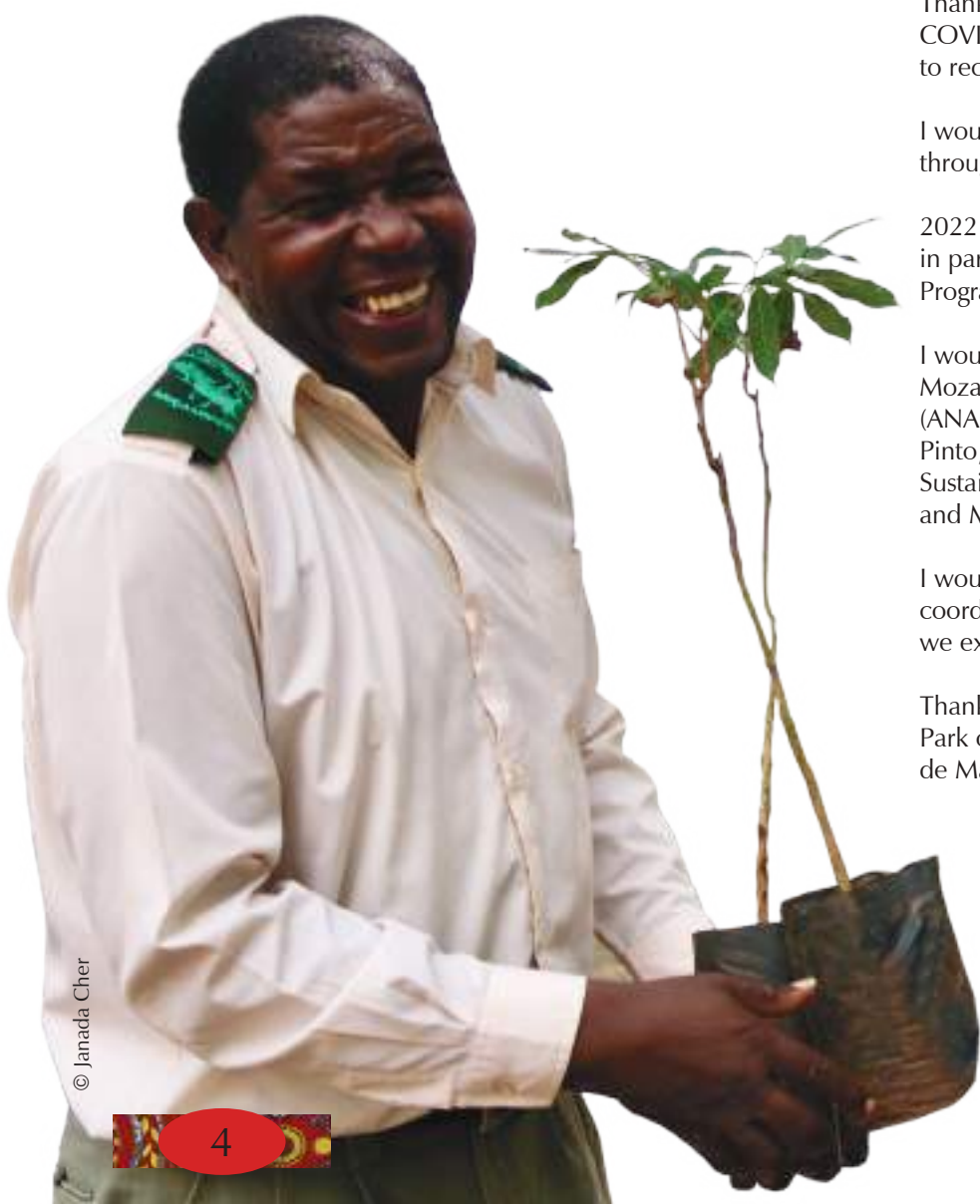
We align our Project objectives with local government plans, Mozambican national policy and the United Nations Sustainable Development goals.
- 7

To achieve these goals, we the employees of the Gorongosa Project pledge 100% honesty in the work place. We promise to work each day with efficiency and to the best of our ability, and to help our colleagues to do the same.



# Message from Gorongosa Park Warden

## Pedro Muagura



Thank you for reading our Gorongosa 2022 Highlights report. This has been a very interesting year after the COVID-19 pandemic. We have had many successes, but we also had some tragic losses that we would like to recognize.

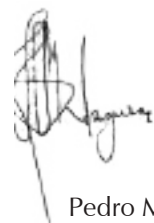
I would like to take a moment to express our shared sorrow with the families who have lost someone through human-wildlife conflict; to all who are directly affected I offer my deepest condolences.

2022 included several remarkable events. We are working hard to increase project sustainability. This year, in partnership with the Kingdom of the Netherlands, we launched the Sustainable Livelihoods Development Program to help lift people living in or near Gorongosa Park out of poverty.

I would like to express our gratitude to all our partners with a special emphasis on the following: the Mozambican National Government represented by the National Administration of Conservation Areas (ANAC); the Provincial Government of Sofala represented by the Secretary of State in Sofala, Stella Zeca Pinto; the Governor of Sofala Province, Ferreira Bulha; and the six district governments of the Park's Sustainable Development Zone which include Gorongosa, Nhamatanda, Dondo, Muanza, Cheringoma and Maringué.

I would also like to thank the people and government of the District of Nhamatanda for the great level of coordination and sacrifices they made in the face of the human-wildlife conflict and coexistence challenges we experienced in 2022.

Thank you to our local teaching institutions at all levels for their commitment to working with Gorongosa Park on biodiversity education and conservation. Special thanks to the ISPM-Instituto Superior Politécnico de Manica for the financial support for travel by lecturers and students into the field.



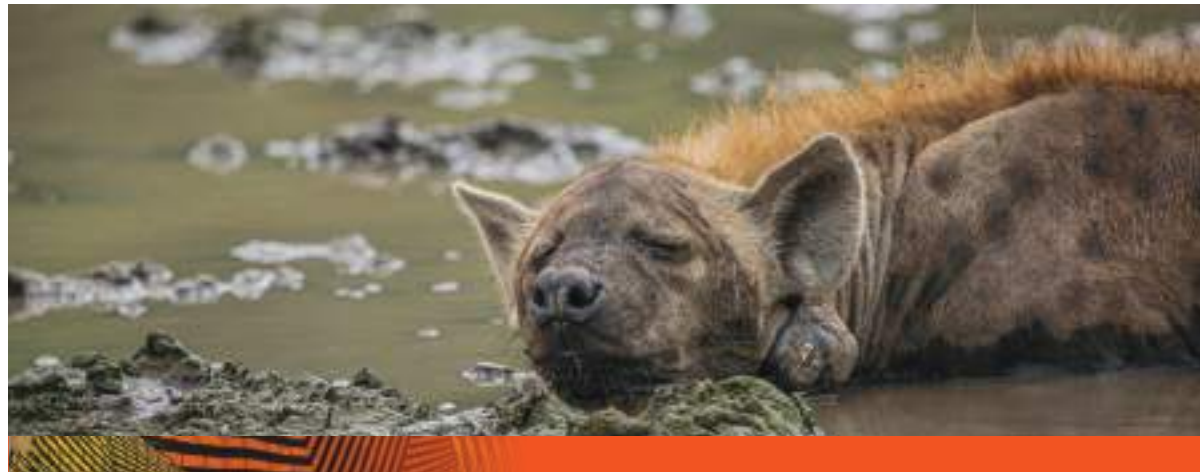
Pedro Muagura



“For me, what is really special about Gorongosa is the incredible diversity of flora and wildlife... I am also inspired by the motivation of the whole Gorongosa team and the cooperation among the departments”.

Pedro Muagura





© Augusta Bila

## In Focus Notable events

### Several important events took place during the year:

- CBS 60 Minutes, 'the most successful television broadcast in history' returned to Gorongosa after visiting us 14 years ago;
- After an absence of many years, six spotted hyenas were reintroduced to the Park;
- The ever popular Maratona na Selva (Forest Marathon), bringing communities together, took place once more;
- The year saw the first preschool graduation;
- Park aircraft C9-UGN renewed its paperwork including the outstanding Certificate of Airworthiness (CoA) and its principal pilot managed to convert his South Africa NPL to a Mozambican Private Pilot's License with the support of the authorities;
- A stronger Sustainable Development Program (SLDP) was launched on 23rd of November. This enhanced program will run for five years in the Sustainable Development Zone as a Netherlands and local institutions project; and
- Park Warden Pedro Muagura was recognized at the IUCN African Protected Areas Congress for his contribution to innovation in sustainability.



© Augusta Bila



© Miguel Lajas



© Larissa Sousa

© Joao Fernandes





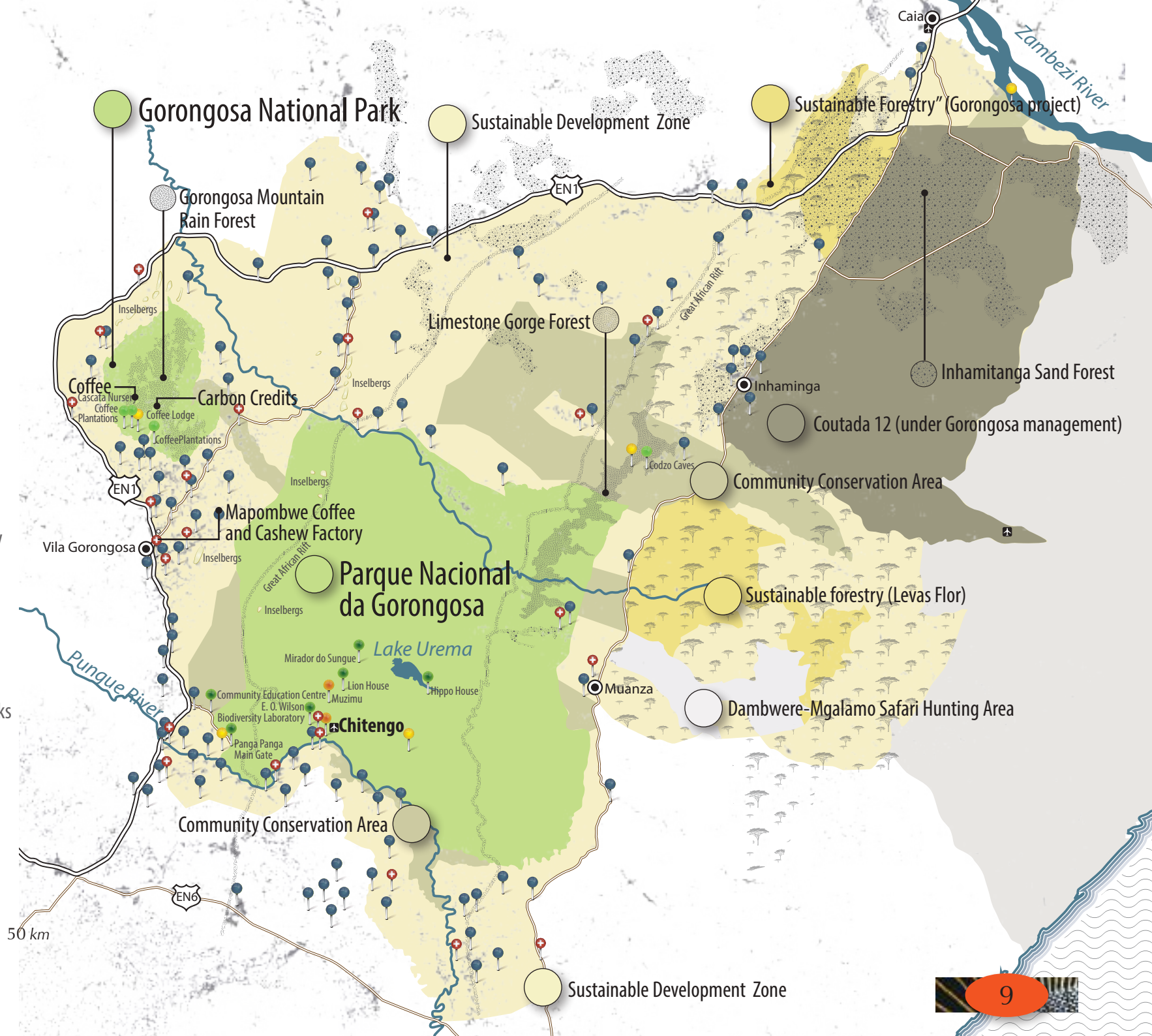
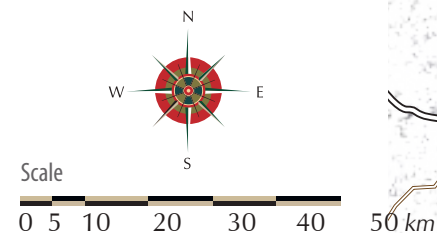
Parque Nacional da  
**Gorongosa**

## Map of Gorongosa Project and our Area of Influence

How we are restoring Gorongosa National Park (GNP) perhaps  
Africa's greatest wildlife restoration story.



- Legend**
- Clinic
  - Point of interest
  - Proposed tourism facility
  - Tourism facility
  - School
  - District capital
  - Forestry concession blocks
  - Settlement







## Our Goals

The Gorongosa Project recognizes environmental conservation, especially in Africa, is possible only through socio-economic community development leading to a way out of poverty. To this end the Project has formulated a series of goals:

- Improve the capacity of the Gorongosa Project to preserve, protect and manage the diverse ecosystems within the Park. Biologists acknowledge that the greater Gorongosa region is one of the most biodiverse areas in the world;
- Increase the scientific understanding and management decision-making of the greater Gorongosa region's diverse ecosystems — freshwater catchments, terrestrial and marine biomes, sustainable agricultural areas and sustainably harvested forests — to maximize both long-term biodiversity and sustainable land use in order to create a green economy that lifts the region's communities out of poverty;

- Provide improved delivery and access to health care services and improved education, both in-class and after-school; and, support civic education for local participation in community planning and disaster resilience in collaboration with the respective Mozambican ministries. We have a strong focus on expanding girls' and women's participation and leadership opportunities in all areas;
- Support balanced urban growth in the towns surrounding the Park's boundaries by constructing/ rehabilitating safe haven schools, health clinics and public libraries. We encourage and empower our employees to be community members and to work with local authorities on local planning. Traditional knowledge practices are also considered in the whole process. All of these initiatives are aligned with the priorities of district governments. In addition, the Gorongosa Project and the Mayor of Vila Gorongosa signed a MOU where these initiatives will be piloted. Together the Gorongosa Project and Vila Gorongosa will build and put into practice the concept of a Model Village for Mozambique;
- Drive sustainable economic development for the women and men who live in Gorongosa Park's 600,000 hectare Sustainable Development Zone. We support small-scale farming, commercial agriculture, employment in agricultural processing factories, ecotourism and employment in construction. A variety of Park employment opportunities exist in forestry, science, administration and conservation;
- Become a data-led organization providing operational, technical service, and financial oversight and controls to all Project departments. All projects implement program monitoring, evaluation, learning processes and provide feedback to Project management, the Government of Mozambique, and all stakeholders; and

- Create local, national and international education and advocacy for the United Nations' Sustainable Development Goals, and in particular, the Gorongosa model of integrated conservation and development, which addresses all 17 goals. Contributing to these goals are the creation of films, television programs, short videos, websites and social media in multiple languages as a means of widely disseminating Project knowledge.

## Our Partners

The Gorongosa Project works with the Government of Mozambique ministries of Land and Environment; Health, Education and Human Development; Agriculture and Rural Development; Culture and Tourism; and the Sofala provincial and district directorates for each ministry. We work with traditional leaders in community "regulados" (a traditional governance structure) through natural resource committees. Project scientists also engage in investigations with more than 30 universities around the world, including Eduardo Mondlane University, UniLúrio, Unizambeze, ISPM, University of Lisbon, Oxford University, Princeton University and many more.

Our programs are also supported by technology and advice from National Geographic, from ESRI — the foremost GIS company, and from Vulcan Inc., a privately held philanthropy company with a strong focus on global environmental issues.

The Gorongosa Project receives support and advice from partners such as Irish Aid, USAID, the Kingdom of the Netherlands, Norwegian Embassy, Canada, European Union, Howard Hughes Medical Institute, OAK Foundation, Global Environment Facility, United Nations Development Programme, Rainforest Trust, UK Aid, The Food and Agriculture Organization of the United Nations, Camões I.P., Schweizerische Eidgenossenschaft, The Wildcat Foundation, National Geographic, Zoo Boise, EarthRanger and the Gorongosa Business Club members (for a full list, please see page 43).





## Gorongosa – a Park for the People

The goal of the Gorongosa Project is to ensure that by 2030 women constitute 50% of our workforce.

Women perform most of the unpaid domestic labor in Sofala Province. Unconscious biases shape our understanding of who deserves to be hired, trained and promoted. Therefore, we make an extra effort to hire women. In recent years we hired and trained the first ever female rangers and tourism safari guides in the Park. Already half our scientists and science students are women.

In the Sustainable Development Zone, as described in the Human Development section, we work with the Government of Mozambique to improve access to health care for women by conducting after-school Girls' Clubs. These clubs help keep teenage girls in school and out of child marriage. In rural Mozambique, nearly half of all women have their first child before age 18. Only one in 10 young women graduate from secondary school. We are making progress in improving these statistics, in favor of healthier lives and greater opportunities for women.

*“To deny people their human rights is to challenge their very humanity.”*  
Nelson Mandela



## Gender equality and respect for traditional communities

To quote the worldwide campaign of “Girls’ Rising”: “When girls are valued and educated, they become women who are healthier, have fewer children, earn more, stand up for their rights and educate their sons and daughters equally. Families thrive and communities, nations and the world are healthier, safer, and more prosperous”. It is the best investment we can make.

Historically, national parks did not respect the rights and needs of the traditional communities that share the ecosystem. Local communities often bore the lost opportunity costs of not being able to use land for their farms.

We have created a new program “Men for Equality” with the objective of promoting respect, diversity and inclusion towards gender equality and human rights among men and women in Gorongosa National Park and the Sustainable Development Zone.

*“There can be no sustainable development without gender equality.”*  
UNECE — Sustainable Development goals



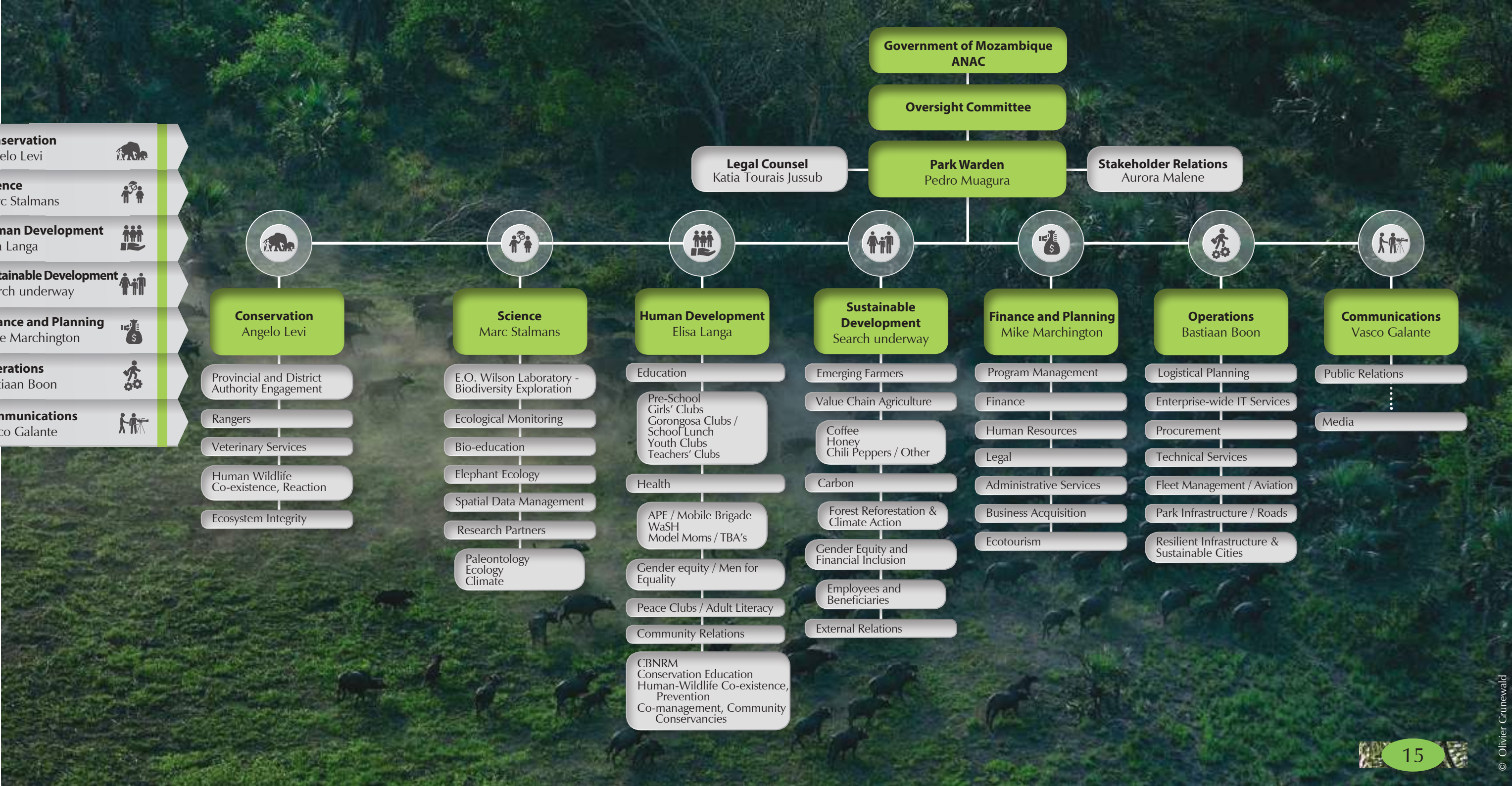
# Gorongosa Programs

The Gorongosa Project achieves its mission through 50 programs that fall within seven departments. Each program is led by a manager and has a mission, budget, activities, outputs, outcomes and impacts. The mission of each program aligns with the policy of the Government of Mozambique at the national, provincial, district and local levels. The Park Warden’s position is defined in Mozambican Law. The Warden connects the Project to the National Administration of Conservation Areas, attends their meetings and aligns the Park’s efforts with the policy of the Ministry of Land and Environment. At all levels of government, we liaise with other ministries, including Education, Health and Agriculture as appropriate. The Project organigram shows a Stakeholder Relations Support sector that supports the Park Warden, as he or she facilitates the alignment of provincial, district and local government policies with the Gorongosa Project objectives. We are in a co-management contract with the Government of Mozambique.



# Gorongosa Trust

When you visit the Park as a tourist, or purchase any of our products, you become part of our self-sustaining system that helps to restore and protect the Park, creates jobs and provides healthcare, training and education for its people.







## Conservation

The Conservation Department oversees implementation of data-driven management actions across the protected wildlands and areas surrounding the Park. All programs in the department — Law Enforcement, Wildlife Management, and Ecosystem Integrity — are focused on strong, measurable outcomes that ensure the continued protection of Gorongosa Park's precious biodiversity.

This sector continues to use various tools such as: EarthRanger, Hytera, Radio Digital and GPS Garmin and Inreach.

Our core programs include:

- Law enforcement — a 300-strong team of male and female wildlife rangers who serve across more than 12,000 km<sup>2</sup> of the greater Gorongosa landscape;
- Wildlife management – this team is responsible for protected species monitoring and overseeing reintroductions of painted wolves, pangolins, leopards and other species;
- Training wildlife veterinarians, wildlife rangers, and engaging in conservation law training with attorneys, prosecutors and members of the judiciary;
- Ecosystem Integrity and Human-Wildlife Coexistence teams oversee community partnerships and projects that use strategies such as beehive fences, elephant-proof silos and predator-proof bomas to contribute to a healthy coexistence between humans and wildlife; and
- Conservation technology includes field testing cutting-edge tools, and integrating multiple datasets across all our programs for real-time Park management using Vulcan's EarthRanger, and Tableau analytics.

## Rangers

Our team of Gorongosa Rangers includes a total of 284 rangers, of which 12 (4%) are women. Ongoing training ensures all rangers are up-to-date on the new technologies and leadership skills. The 2022 training program included:

- Two refresher courses for 60 rangers;
- A patrol leader's course for 12 rangers;
- A course for rangers on monitoring the behavior of dangerous animals;
- A refresher course on standard operating procedures; and
- An interpretation of the code of conduct to most rangers by Park jurists.

Additional training was provided by the Mozambique Wildlife Alliance to the Gorongosa Rangers and the Police for the Protection of Natural Resources and the Environment, District of Nhamatanda.

Rangers proved their effectiveness when the year's 1,163 patrols led to the arrest of eight illegal fishermen. Fourteen guns, 119 gin traps, 1,909 fishing nets, and one vehicle were confiscated. Forty-four traffickers were arrested for offences composed of: 12 for possession of ivory and 25 for possession of live pangolins. During the year, a total of 17 elephant tusks weighing 62.84kg were confiscated, and 20 live pangolins, 184 pangolin scales, one lion skin, 12 lion teeth, 33 lion claws, and five leopard teeth were recovered. Of the arrested suspects, 96 received sentences. The most severe was 16 years in prison, the most lenient was one year in prison and a one-month fine.







## Veterinary services

There are three veterinarians, with full-time support from nine rangers and four security guards. During 2022, a wildlife management technician was hired for the sector. During the year, two leopard, six hyena, 16 lions and 19 painted wolf collars were replaced. Nine wound treatments were administered to lion, elephant and painted wolves.

- Veterinarian Dr. António Paulo participated in a course on anesthesia for wild animals in South Africa; and
- Dr. Paulo and Dr. Mércia Ângela participated in a conference for users of EarthRanger in Nairobi. Dr. Ângela was one of the speakers and spoke about the challenges facing women in conservation.

## Growth of Gorongosa's large mammal populations

The number of large carnivores continues to grow. The monitoring team tallied 193 lions; five leopards, one of which has lived in Coutada 9 since June 2022; and 166 painted wolves (mabecos). A total of six spotted hyenas were re-introduced.

## Pangolin project

Pangolins are one of the most illegally traded mammals globally. During 2022, 21 pangolins were rescued from traffickers and nine were surrendered by the community. Once the team receives these pangolins they are secured under guard by trained rangers, closely monitored 24/7, and treated daily by skilled vets and keepers. After the pangolins are healthy, they are released in a secure location to live out their lives in the wild. During this period, the pangolin project received a total of 309 visitors of which 213 were foreigners and 96 Mozambican nationals.

## Painted wolves

These animals have done well since their introduction to the Park. Intensive monitoring of various aspects such as population, movements, behavior, activities and diet of all packs is continuous. Camera traps set up in all dens showed 64 painted wolf pups born in 2022, of which nine died. There were five adult deaths, one of which died in a snare outside of the Park Sustainable Development Zone.

## Coexistence

The growth in human and wildlife populations constitutes a major challenge for protected areas. In response, the Park has developed several strategies that aim to facilitate the coexistence between humans and wildlife. The unit currently employs 23 staff.

## Saving elephants' lives

Elephant behavior is the principal cause of human-wildlife conflict in the Sustainable Development Zone. Driving elephants away from crops reduces the probability of these animals being shot and killed or badly wounded. A variety of harmless repelling equipment purchased and distributed in 2022 included 28 lanterns, 11,000 units of fireworks and 14 gas horns. To mitigate human-wildlife conflict in Nhamatanda, fourteen elephants were translocated to the Marromeu National Reserve. These elephants had been living in the Sustainable Development Zone since Cyclone Idai landed in 2019. The Park provided technical support to several districts in Sofala and Manica, including the Marromeu National Reserve. Methods suggested for scaring away elephants include firing rockets, and smearing strings of chili peppers with grease, burnt oil and more ground chili peppers.

## Land use changes

Whereas Gorongosa National Park has no policy of resettling people, we strive to improve living conditions in the Sustainable Development Zone, and to entice people to leave areas where environmental conditions are unsuitable or where levels of human-wildlife conflict are intractable. During 2022, a total of 22 families representing 237 people chose to relocate out of the Park.

“Conservation is a state of harmony between man and land.”

Aldo Leopold





## Science

Science generates the information required for the long-term conservation of the greater Gorongosa landscape and its Sustainable Development Zone. Science per se does not immediately address threats to, and changes in, the landscape. However, without the right information and evaluation, interventions by the other Project departments may not be properly defined or properly targeted, and their outcome and effectiveness will be unknown. Assumption-driven research and monitoring enable the Gorongosa Project to adjust its actions.

Prior to the commencement of the Project's science activities in 2006, little was known about Gorongosa's biodiversity with the exception of the larger charismatic wildlife and birds. What was known about its ecological functioning was based on Ken Tinley's excellent landscape ecological study from the 1970's. Since then however, much has changed in this dynamic environment.

Land use changes in the Sustainable Development Zone are profound, and new scientific tools, techniques and theories are now available and accessible.

The three main spheres of science activities in the Gorongosa Project are:

- Gathering knowledge;
- Monitoring change; and
- Building Mozambican scientific capacity.

These spheres are implemented through seven interlinked and mutually supportive science programs. Each program is realized through our own staff in partnership with a wide range of external researchers and institutions.

“Science is a way of thinking much more than  
it is a body of knowledge”

Carl Sagan

### Biodiversity survey

The annual Biodiversity Survey took place between May 2nd and 12th. This was the first biodiversity survey of Serra da Gorongosa in 11 years. The survey team consisted of 10 scientists, both Mozambican and invited international experts. A total of 45 local people were employed to help with the transportation of supplies and equipment, maintenance of the camp, and the preparation of meals for the team. The basecamp was located at an elevation of 1,715m asl., in sub-montane meadows in the southern part of the open plateau, near the highest peak, Gogogo. Despite the on-going loss of forest habitat, multiple endemic insect and bird species — such as the green-headed oriole, the miombo double-collared sunbird and the endemic pygmy chameleon — were all observed during the year. An unexpectedly high richness and abundance of new small mammal species were also recorded, including a shrew species (*Myosorex*) and a small leaf litter frog (*Arthroleptis*). Both may be new to science.

### Elephant ecology program

During the month of April, 18 elephants were collared in Gorongosa National Park and its Sustainable Development Zone. A further six elephants were collared during September. There is now a total of 37 collared elephants which is enormous in the context of managing human-wildlife coexistence.

### Master's in Conservation Biology

The second cohort of 12 students in the Master's in Conservation Biology graduated from their 24 months-long course in February. Alumni of this Master's program are now working in five of Mozambique's National parks as well as ANAC's head office in Maputo. In March, a third group of 12 students began their course. They will be living and studying in the Park until graduating in 2024.







### Paleontological exploration and excavation

Following a hiatus of two years due to the COVID pandemic, the field work for this project was resumed under the leadership of Dr. Susana Carvalho of Oxford University. A large group of senior researchers, nine students from UEM and three supervisors from UEM (together with Gorongosa support staff) re-opened and expanded the excavation site close to Mt. Menguere (2nd – 14th August 2022). A substantial number of mammal and other fossils from the Miocene period were excavated and transferred to the Paleontological Laboratory in Chitengo for further analysis.

### Aerial wildlife count

An aerial wildlife count was conducted in October. The focus was on the Rift Valley in the southern and central sector of the Park. Sixty percent of the Park was fully surveyed by helicopter.

The core area of the newly proclaimed Community Conservation Areas was also surveyed. This represents the first baseline count of wildlife in these new areas. More than 102,000 animals were counted. Highlights include a strong growth in mammals. Wildebeest, now number more than 1,500. Buffalo numbers are also increasing with more than 1,400 counted, whilst more than 900 hippo were recorded in Lake Urema and in various rivers and pans.

### Women in conservation workshop

A Women in Conservation Workshop was held between 13 and 18 May, led by Dr. Tara Massad, Dr. Meredith Palmer, and Dr. Kaitlyn Gaynor, with invited role models Nícia Giva, Isilda Nhantumbo, Mércia da Conceição Angela, and Tomázia Veterano. The event was made possible through the Gorongosa Project, HHMI and Fauna and Flora International. Twelve early career female conservationists from around Mozambique expanded their skills and built relationships to support each other on their conservation journeys.

“Science reveals that all life is one.”

Neil deGrasse Tyson



## Operations

2022 has been a year of restructuring and systems design for the Operations Department after it was reorganized into Operations and Finance, and Planning.

Operations was split into two sectors (led by senior managers), namely Technical Services and Logistics & Procurement. These include the following divisions (led by middle managers):

- Logistics;
- Procurement;
- IT;
- Fleet;
- Workshop;
- Infrastructure;
- Engineering; and
- Aviation.

Several new colleagues have joined the team and include:

- A senior manager to head up the Logistics and Procurement Sector;
- Several procurement and warehouse officers;
- A database administrator;
- A facility manager for Chitengo; and
- A civil engineer and technician.

Internal construction projects:

- A new operations office at Chitengo;
- Completion of an eight-room middle-management housing unit;
- A director's house;
- Nine senior manager's houses; and
- A nurse's house next to the clinic.







© Olivier Grunewald



© Janada Cher

The civil engineers supported internal construction and monitored the performance of external contractors building:

- Ranger outposts;
- Schools;
- Activity rooms; and
- Inhaminga Community Conservation Center and Muanza district headquarters.

A focus on building capacity within the roads and groundskeeping teams in Gorongosa and Chitengo created new opportunities for employee growth and will benefit maintenance of our road infrastructure.

The introduction of a Fleet Division is providing logistical support for the vehicle workshop. Remote satellite vehicle tracking has improved vehicle care and reduced fuel consumption, after-hours usage and accidents.

Through interdepartmental procurement training, combined with hands-on management and increasing capacity, the efficiency and effectiveness of the supply chain (both local and abroad) continues to improve.

Consolidation of the Chikalango and Chitengo staff canteens into a central dining area has boosted staff morale. All department staff and all ranks enjoy improved and healthier meals together. We hope to expand this effort to all campuses.

Our small but effective Information Technology team ensures that the communications backbone throughout the Park is well-maintained. We are looking forward to the introduction of Starlink next year.

The Park's primary monitoring aircraft has received a new Certificate of Airworthiness and is fully operational, and Mozambican validation has been issued for the main Gorongosa pilot. The Aviation Sector also supports other departments with their charter needs.

**“It is individual efforts, collectively, that make a noticeable difference—all the difference in the world!”**

Dr. Jane Goodall

## Human Development

### Community relations

#### Community management of natural resources and governance program

The Human Development Department began the process of establishing the Community Conservation Area (ACC) of Piro, Community of Djutchenje, District of Gorongosa, following an economic feasibility study that identified four value chains:

- Tourism;
- Agriculture;
- Beekeeping; and
- Expansion of goat and cattle husbandry.

The Natural Resources and Land Use Management Plan was prepared, through public community consultation and the active involvement of:

- Communities and their respective leaders;
- District Government of Gorongosa;
- Academia;
- Civil society; and
- Representatives of state services from the Province of Sofala.

The Piro ACC covers an area of 63,000 hectares, of which 58,000 are georeferenced and demarcated. With the establishment of the Piro ACC, there are now six ACCs in the Park's Sustainable Development Zone.

The Gorongosa Project planted 53,439 seeds of native species as a way of reforesting degraded areas in 261,850 hectares. Forty-one natural resource management plans were developed and implemented at the village level. These 41 plans represent 28% of the total number of villages to be covered. These communities carried out patrols that resulted in the seizure of:

- 20 units of harmful fishing equipment;
- 24 fishing traps;
- 14 steel cables; and
- Six mechanical traps.





© Olivier Goenavald



© Miguel Lajas

A short course on illegal and unreported fishing, trafficking in wildlife products and illegal logging and associated trade was presented to 2,627 community members. Eleven Women's Development Committees made up of 209 women, serve as a mechanism for women's empowerment in:

- Social sectors including education and health;
- Economic sectors such as honey, cashew, credit and savings, and handcrafted items; and
- Decision-making processes.

### Human-wildlife coexistence program

Our human-wildlife coexistence team constructed 74 mixed fences, covering a length of 44.53km, and built 786 improved beehives on the fences, of which bees colonized 610.

This same team improved the livestock corrals of 156 households and built elephant-proof silos for another 140 households.

Together, these projects support and help protect the agricultural efforts of 2,625 people living along the Pungué River Corridor.

### Conservation education program

- 571 primary teachers (202 women) representing 81 primary schools in the Sustainable Development Zone, were trained in the production of teaching material related to the conservation of biodiversity;
- 430 people (144 women), representing teachers, students, Eco Clubs, community leaders and other members of the Sustainable Development Zone enjoyed safaris;
- Lectures were held for 1,597 Eco Club members (792 girls) and other primary school students on the importance of Serra da Gorongosa and biodiversity; and
- Eleven new Eco Clubs with 330 student members were established in 10 primary schools (EPCs). Currently, there are 70 Eco Clubs in a corresponding number of primary schools located in six nearby districts.

### Health

#### APEs (Community Health Worker) and mobile brigades program

Globally, one in 10 children under five years of age dies of diarrhea. Most of these children live in southern Africa and Southeast Asia. Vaccines have reduced measles deaths globally by 73% and the hepatitis vaccine is expected to save 38 million lives of children born between 2000 and 2030.

A major thrust of our health program in the Sustainable Development Zone includes diarrhea post-treatment, measles and hepatitis vaccinations, and taking Vitamin A supplements.

In 2022:

- 7,097 children under age five were vaccinated against measles and hepatitis B, of which 4,031 were female (56.7%);
- 7,607 children under five years of age with diarrhea were treated, of which 4,000 were female (52.5%); and
- Over 6,000 children under five years of age with pneumonia were treated, of which 3,124 were female (52%).

A total of 22,616 children under age five, of which 10,938 were female (48.3%), received Vitamin A supplements. These supplements are important for a child's growth and development, including improving

vision and reproductive health, and immunity against illnesses and infections. Although the data show slightly less than 50% of children who received vitamin A supplements were female, the other interventions reached more than 50% of female children. This is an important gender sensitivity issue. Social behaviour in the Sustainable Development Zone continues to neglect girls' rights and allows them only limited opportunities to access either basic or health education.

The program also delivered family planning to 4,227 couples within the Gorongosa National Park Sustainable Development Zone. The sessions promote modern contraception and birth - advising parents to have children at two to three-year intervals - reducing the current average family size to five. This shift in birth rates will have a positive effect on child growth and the health of mothers and children. The program began with seven Community Health Committees (CHCs) in the district of Gorongosa, four in Cheringoma, and four in Muanza. Each committee is made up of trusted and respected community members, selected democratically from within the community. The CHCs' main role is to promote best





practices for disease prevention, sanitation and hygiene within the community. Committee members are supported by training and working materials such as uniforms to facilitate their identification during home visits where they introduce gardening, goats and chicken husbandry. Such practices aim to increase access to a variety of foods within the household, encourage water source management, and reduce open defecation and waterborn diseases.

#### Maternal and child health and nutrition program

Nine hundred and ninety-six (996) pregnant women within the Sustainable Development Zone were referred by local Traditional Birth Attendants (TBAs) for prenatal and nutrition consultations at nearby health facilities. The TBAs are supported by training, equipment and uniforms for easy identification. They focus on the importance of child delivery assisted by a health professional, and best nutrition practices for pregnant women and their babies' health. Of the 996 pregnant women reported to have given birth in 2022, a total of 861 were institutional births (86.4%). This means the community is slowly adhering to best health practices in general, as well as, accepting change to traditions that often put women and children under high health risks.

#### Water, sanitation and hygiene program

Six water wells and 14 boreholes were constructed in schools and health centres in the program area. These boreholes provide access to drinking water to 15,600 people, of which 9,808 are women (62.8%).

Each borehole is managed by 12 members of the community, observing a gender balance of 50% female, which means that six women are able to repair the borehole in case of breakage. Program managers have learned women are the most interested in water, since traditionally it is their daily duty to fetch water for general domestic use.

Thirteen (13) School Hygiene and Sanitation Centers (SHSCs) were established in 2022 within the Sustainable Development Zone. SHSCs' are made up of a responsible teacher who serves as a program focal point in each school, and 25 school children, of which 50% must be girls. These SHSCs ensure schoolyards are kept clean, with water and safe toilets for all children, especially for girls, who need separate toilets for privacy. The program intervention has the potential to encourage girls to stay at school longer.

Promoting best household hygiene and sanitation practices allowed four communities (254 households) to be declared free of open defecation. As a result, these households will see a considerable reduction in cases of diarrhea and overall poor health, such as stunted growth and malnutrition, and will reduce girls' and young women's vulnerability to sexual violence.

#### Digital health program

The digital health program began sending (SMS) text messages through the mHealth platform, a Commcare-based app designed to address malnutrition in the community of Nhampoca in Nhamatanda District, and reaching more than 4,000 households. Women of reproductive age (15 to 49 years old), pregnant, lactating and with children from six to 23 months of age are the focus of this pilot program. The mHealth SMS messages are delivered to local Mozambican women in partnership with the Gorongosa Restoration Project and GiveDirectly, which delivers unconditional cash transfers to participants around the world. The program ensures that funds of about \$40 per month cover a diverse range of needs, such as applying for identity cards, improving housing conditions, extending agricultural fields, and buying food products not locally produced, such as oil, sugar and salt.

The mHealth SMS texts are delivered at least twice to each household, and used to inform recipients of dietary diversity and encourage nutritional health among the program participants. The success of this pilot will allow the program to be introduced into other communities in the future.

#### Education

##### Teachers' Club program

Thirty nine percent of boys and 21% of girls are proficient in reading and numeracy in the GRP intervention schools against 12% and 4% respectively in other schools, and compared to the national average of 4%.

Six hundred primary teachers were trained in the use of active, participatory and gender-sensitive teaching methods; 54% demonstrated proficiency in the application of these methods. Some 42,727 students (19,207 girls) were reached in primary schools.

Seventy-three primary teachers, including 28 women, attended a course on inclusive education; how to deal with mixed classes and multi-class management. The course was facilitated by ADPP/Escola de Professores do Futuro. The goal is to equip teachers with basic concepts of inclusive education which includes sign language. Four hundred and sixty-eight teachers (168 women) were trained in the design and use of teaching materials and 157 teachers (32 women) were trained in the use of games to teach reading and mathematics.





© Janada Cher



© Janada Cher



© Brett Kuxhausen

### School feeding program

A pilot initiative distributing school lunches in five primary schools was launched; 1,658 school lunches were distributed. This program will improve the quality of nutrition and education (especially for girls), by reducing absenteeism and dropouts.

### Preschool — comprehensive development program for preschool age children (IPE)

One hundred and sixty-eight children in three pre-schools graduated and were able to demonstrate basic communication skills in Portuguese. This showed educational readiness and may lead to more success in school.

Three children's centers were established for pre-school education. These centers benefit 300, five-year-old children with play and educational sessions, guided by two promoters in each center.

### PeaceClubs program

As a result of our input, 159 ex-combatants and their families acquired reading and calculation skills. Of these, 38.1% (31.1% women), in the program implementation centers, can write and spell aloud, their own full name, and write short sentences and texts. In the control centers, only 21%, of which 15% are women, are able to do the same.

Thirteen Youth and Adult Literacy Centers (CAJA) were established for a total of 525 literacy students, 307 of whom are women. Interaction is promoted in these centers between ex-combatants and the rest of the community, through the teaching and learning process, health promotion (nutrition, family planning, environmental sanitation) and cultural and sports activities.

Four Local Peace Committees (CLPs) were established. These committees are composed of 232 people, 81 are female. Committee members are coached on topics such as peace and reconciliation, human rights, democracy and citizenship, gender, empowerment of women and men for peace and reconciliation, and biodiversity conservation.

Income generating activities, such as fish farming, goat breeding, credit and savings groups, and agriculture were promoted in the existing CAJAs in Cheringoma and Gorongosa districts. In 2022, CAJA members saved 16,800Mt in 2022, compared to 8,225Mt in 2021. Income generating activities allow the social and economic reintegration of ex-combatants, as well as promoting community well-being.

## Sustainable Development

### Coffee

The Gorongosa coffee project has grown into a large commercial operation. Gorongosa Coffee is distributed in Europe, the USA and wider afield. The people involved in the highly successful agroforestry project — aimed at forest restoration and socio-economic development — planted more than 250,000 indigenous tree seedlings and harvested 150 tons of cherry coffee.

As part of the trilateral cooperation between Mozambique, Portugal and Brazil, product research was conducted in an area of 0.5 hectare, using new coffee genotypes, based on their adaptability to the climate and soil of the Gorongosa mountain massif, productivity, and resistance to disease. The experimental plot was set up with seven new varieties (Acauá, Red Catuai IAC 44, Yellow Catuai 25L, Red Catuai 285/15, Red Catuai Japi 19/08, Red Catuai IAC 81, Yellow Catuai IAC 39) and two already existing (Catmor Costa Rica 95 and Catmor 128).

### Cashew

Cashews are a high value crop, and although the trees take three years to produce a harvest, they produce good yields for 20 years. A survey of the cashew program identified 166,059 cashew trees grown by 3,881 (1,161 women) producers. This year, 92,023 cashew seedlings equivalent to 920 hectares were distributed by the project team.

A new nursery was built in Dondo with the capacity to produce 70,000 seedlings as well as 20 community nurseries with the ability to produce 5,000 seedlings each. The community nurseries are managed by the Farmers' Clubs and are located in Gorongosa, Cheringoma, Muanza, Maringue and Nhamatanda.

A partnership with the Mozambique Almond Institute made it possible to train our technicians in cashew production practices, identification of parent plants and pest management. This same partnership also trained eight women from the District of Cheringoma in the production of cashew seedlings.





#### Livestock promotion

As part of the National Program for Disarmament, Demobilization and Reintegration, 54 ex-combatants from Gorongosa received 162 goats as a way of increasing their income and family food. The process is expected to benefit families in the districts of Cheringoma, Gorongosa and Muanza.

#### Pisciculture/ Aquaculture

Three fish production ponds produced one ton of tilapia which was sold at the Gorongosa village market. For the sake of continuity, fish farmers were trained in the management of a fish unit. With a view to reducing illegal fishing in the Púngue River basin, training in sustainable fishing was given to 86 fishermen from the Nhampoca locality. Training topics covered good and bad fishing gear, the consequences of overfishing and the role of the fisherman in reducing overfishing.

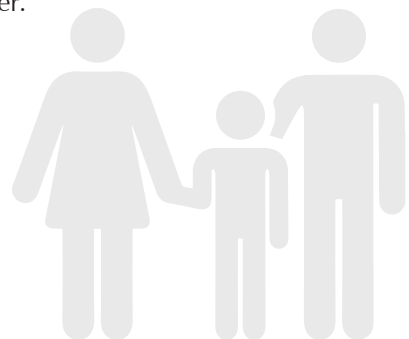
#### Honey

The honey project has distributed over 1,500 improved hives to beekeepers in the Gorongosa Sustainable Development Zone. Forty-one new women were integrated and trained in the construction and populating of beehives, honey production and processing, and native plants, Today the project supports over 450 beekeepers.

#### Arts and craft

During 2022, 10 women from Casa Banana sold 42 pots and six baskets of xindzala to Gorongosa's Productos Naturais.

Eleven community members (10 women) from the district of Cheringoma were also trained in recycling bottle caps, weaving in xindzala format, and ring and dye dilution. As a result of the training, one of the participants from the community of Nhafisse, district of Cheringoma, is training 10 women in basketry made of micheu fiber.



#### Social entrepreneurship

"Minha Gorongosa" is an initiative of the Gorongosa National Park Sustainable Development Department. Working in partnership with the MUVA Association, the initiative is designed to unite the men and women participating in the coffee value chain on the impact of social norms on coffee production, environmental conservation and biodiversity.

Thirteen sessions created an opportunity for producers to express themselves regarding social norms in the communities of Nhanguco and Nhamu. In this context, the process allowed for active community participation in planning and biodiversity conservation.

#### Productos Naturais da Gorongosa

"A Nossa Gorongosa", was registered as our brand name to promote and market Gorongosa's natural products aimed at the Mozambican market. The launch also marked the beginning of commercialization of handcrafted products.

- In December 2022 we started promoting Gorongosa Coffee to all the Nando franchisees in South Africa; and
- In 2022, Productos Naturais purchased almost 100 tons of cherry coffee from more than 250 small coffee producers and 3.5 tons of honey from local beekeepers.

"Sustainable development is 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs'..."  
Monash Sustainable Development Institute





# GORONGOSA PARADISE REBORN

GET DISNEY+

Gorongosa National Park was known as Africa's Eden, but war almost destroyed it.



© Elizabeth Shire

## Communications

The Gorongosa Media and Communications Department had another busy year filming and sharing the Gorongosa story with local, national and global audiences.

2022 highlights include:

- “Gorongosa: Paradise Reborn” — a one-hour TV special we made with National Geographic — reached millions of new fans when it aired on Nat Geo TV on Earth Day and on the Disney+ channel;
- The Gorongosa Project has a new contract with National Geographic for a TV special about the group dynamics of the Park lions and several newly-introduced predators — hyenas and painted wolves. Augusto Bila (Ago) is the principal cameraperson, perhaps the first Mozambican to ever have the honor of lensing a National Geographic TV special. The film will air in 2023;
- “Our Gorongosa” received a special screening at the African Protected Areas Congress in Rwanda. The Congress was attended by the Mozambican Ambassador to Rwanda, the Director-General of ANAC, and many other VIPs and influential conservation leaders;
- Augusto Bila, our staff cameraperson, was selected out of over 300 candidates to be one of only 16 Jackson Wild Media Lab Fellows. Ago traveled to Austria in September for a week-long masterclass with film industry mentors;

- We collaborated with Wild Elements on a new episode for season two of their series “Wild Innovators” to be streamed on the Waterbear Network. The film, called “Wild Potential”, features Gorongosa Elephant Ecology Manager Dominique Goncalves and her innovative new program to inspire local schoolgirls by engaging them with female role models from the Park;
- We continued our partnership with Terra Mater Studios on a short-film series for their popular You Tube channel and produced three episodes: “Return of the Predator”; “How Angry Bees Save Elephant Lives”; “How not Growing Tusks Saved Elephants Lives”. More shorts are in the works;
- “Nature’s Fear Factor” a film about Gorongosa’s painted wolves created with HHMI Tangled Bank Studios was selected for the prestigious World Wildlife Day film showcase at the United Nations and other locations worldwide;
- We hosted and supported many external producers in 2022 including CBS for a segment on their legendary program 60 Minutes; a paleo-primate movie (“Baboons and Bones”)

- broadcast on SABC 2 reaching millions of viewers; Part 2 Pictures for an episode about Gorongosa Coffee for a new series called “Wild Hope”; Day’s Edge Productions for a segment about Gorongosa’s tuskless elephants for new series on PBS; and
- The Gorongosa Media Team supported numerous internal and external partners with their film or archive footage needs.



“People have forgotten they are a part of nature too.”

Diane Doniole-Valcroze

### Journalist visits for articles, documentaries and short films in 2022:

- Mozambique: Refinaldo Chilengue – Revista Prestígio / Redactor; Chabane Falume – Jornal Autarca; Luisa Bonjesse – Jornal Profundus; TVM, STV and TV Miramar; Luís Fonseca (LUSA – News agency of Portugal);
- Portugal: Paula Borges (RDP África)
- South Africa: Kim Harrisberg – Reuters Foundation; Sisipho Skweyiya Reuters Journal and TV;
- USA: Scott Pelley – CBS 60 Minutes; Filming crew of “Wild Hope”;
- United Kingdom: Simon Parker - The Telegraph; Elton Pila “The Independent” correspondent;
- France: Bernadette & Olivier Grunewald – Revista Le Figaro and Ushua France TV;
- Camille Laffont and Alfredo - AFP (Agence France Press); Jean Barere and Mathis Lescanne (France Info);
- Germany: Simone Spohr and Ralf Krueger – Deutsche Presse; and
- Brazil: Ronaldo Lemos – TV Expresso Futuro.



# Finance and Planning

2022 was a productive year for the Finance and Planning Department that has continued to strengthen the Gorongosa Restoration Project’s financial and management capacity. There has been a sustained emphasis on the improvement of financial and administrative systems and the adoption of business intelligence solutions has had a positive management impact with the ability to report and analyse real time financial and administrative data.

A senior Human Resources manager and three additional staff members joined the H.R. team in 2022, thus improving the department’s ability to provide H.R. support to the organization. Significant improvements have been made in areas of health, safety and training. The continued expansion of our H.R. department is a high priority in order to ensure that adequate support and career development opportunities are available to all staff.

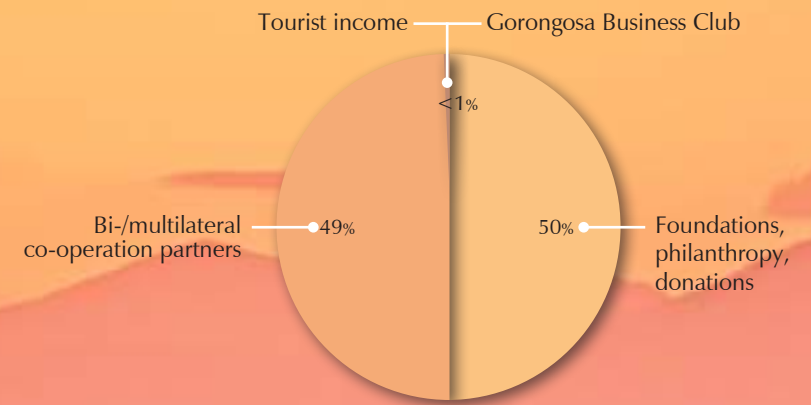
There has been substantial growth in the program office with the appointment of Simiao Mahumana as Program Director in January 2022. The recruitment of six team members throughout the year has enhanced the Project’s grants and impact management capacity and improved systematic and professional management of the organisation. The objective of the program team is to provide a framework that will support all stakeholders and project teams to improve the probability of successful delivery of all interventions. Through its monitoring and evaluation, technical guidance and project management activities the program office ensures that projects:

- Remain relevant to the organization’s mission and vision;
- Capture the interest of donors and grant organizations;
- Maintain partnerships;
- Create a sustainable impact on biodiversity and on the socio-economic development of communities around Gorongosa National Park; and
- Foster learning and institutional growth (as a park, as a research and teaching institution, as a facilitator of sustainable development, and as a model of local development).

The Finance and Planning Department facilitates the annual strategic planning process, consolidates quarterly project reports and facilitates the risk management process. The department is a hub for advice on the management of grants, budgets, contracts and general financial, planning and administrative matters. The overriding objective of the department is to support the implementation of the Project’s 2030 strategy.

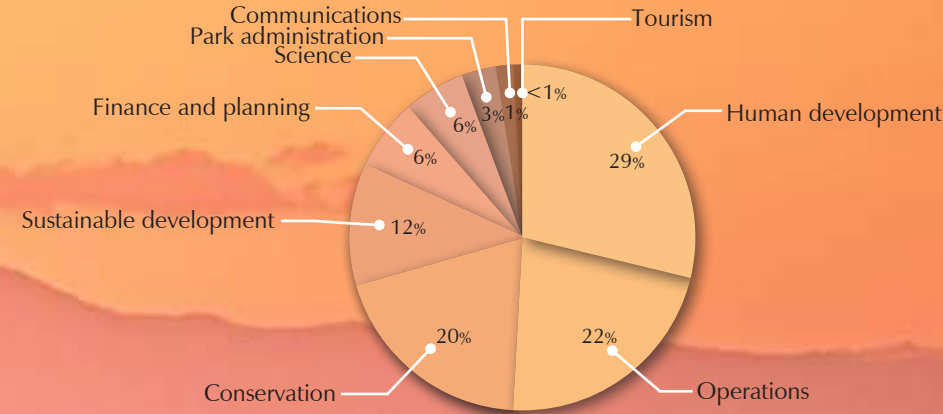
A list of project donors and funding organizations can be found on page 43.

## 2022 Income



INCOME 2022	%	USD
Foundations, philanthropy, donations	50	8,432,104
Bi-/multilateral cooperation partners	49	8,302,899
Tourist income	>1	177,294
Gorongosa Business Club	<1	93,480
TOTAL	100%	17,005,777

## 2022 Expenses



EXPENSES 2022	%	USD
Human development	29	4,880,808
Operations	22	3,718,913
Conservation	20	3,343,125
Sustainable development	12	1,965,050
Finance and planning	6	1,098,529
Science	6	952,171
Park administration	3	588,110
Communications	>1	231,879
Tourism	<1	156,418
TOTAL	100%	16,935,003



# Profiles

**Edna Catondo**  
Quality Coordinator  
Sustainable Development



My name is Edna Berta Inácio Fogueiro Catondo, I'm 27 years old. I was born and raised in the city of Beira. I have a degree in Agricultural and Environmental Engineering from the Zambeze University – Chimoio.

I joined Gorongosa National Park in August 2021 as a coffee intern, and in January 2022 I joined the team as a data assistant for the coffee sector, being responsible for managing the producer database of coffee, and simultaneously performed the functions of Nespresso Technician to guarantee the quality of the coffee during production. As a Nespresso Technician, I went through the coffee tasting and roasting training.

I am currently Traceability and Quality Coordinator for Coffee at Produtos Naturais da Gorongosa and I am responsible for tracking and tasting the coffee that is exported and served across borders.

I feel honored by the trust placed in me by the Gorongosa National Park – Gorongosa Natural Products, these were two years of learning, and professional as well as personal growth.

**Janado Cher**  
Communications Officer  
Communications



My name is Janado Nazaré Lubrino Cher, I'm 27 years old, I'm from Beira, in Sofala Province. I have worked in Gorongosa National Park as a journalist since 2018.

While attending secondary school I had the opportunity to participate in some radio programs and that helped me a lot, I came to know many communication professionals, with them I learned to write as a journalist.

I have a degree in journalism and had the opportunity to join the work team in the Department of Communication at Gorongosa National Park.

My activities focus on the collection, processing and dissemination of information about different themes related to the community and the conservation area in which I work. I also make small videos to tell stories about different activities carried out by the Park, by different sectors such as: health, education, tourism, agriculture.

**Tembo José Singano**  
Ranger – Chief of Operations  
Conservation



My name is Tembo José Singano, I was born on December 1st, 1996 in Metuchira, Nhamatanda district, Sofala province. I currently live in Gorongosa village. I attended primary school in Metuchira and later, secondary school in Cheringoma district. I finished general high school (Grade 12) in Gorongosa village. I had to stop studying to help my parents with expenses but luckily, on December the 5th, 2015 at just 19 years old I was hired by the Park as a ranger. My father's dream was for me to be a policeman and, although I'm a ranger, I'm still involved with law enforcement, I am doing the work I like most - combating the trafficking of endangered wild species, and my family is very proud of me.

Due to my good performance, in 2017 I began to carry out patrol leader's responsibilities. At the end of 2018 I transferred to the trafficking control unit, coordinated by ANAC combatting trafficking in the central region of the country.

During August and September 2022, the team rescued 8 live pangolins, confiscated various wildlife products and arrested 25 traffickers. As a result of this success, in October 2022 I was promoted to the position of Chief of Operations of the unit. There are risks but we are not intimidated.

My dream is to go back to school and finish my studies to better serve the Park because I believe that the park's future depends on all of our contributions to achieving conservation goals.

**Margarida Victor**  
GPS Technician  
Science



My name is Margarida Pedro Victor. I was born and raised in Nampula, in the north of Mozambique. I have a degree in Biological Science from Universidade Lúrio. In 2018, I began working in Gorongosa National Park as a GIS Technician and Database Processor. I develop integrated processes for data management, preparation of maps, and geospatial analysis to support decision-making in the context of biodiversity management and community development. This work includes app design for biodiversity surveys and mapping areas using UAVs (unmanned aerial vehicles).

In 2020, I won an award from SCGIS that gave me access to ArcGIS software and training materials. SCGIS is The Society for Conservation GIS, a U.S. based non-profit organization committed to advancing conservation GIS globally by building and supporting a vibrant community of conservation GIS practitioners.

In 2022 I was awarded a fully funded fellowship through the Irish Fellowship Programme for Africa for a master's degree in GIS and Remote Sensing at Maynooth University, Ireland.

**Naisse Mutaca**  
Logistic and Procurement officer  
Operations



My name is Naisse Mutaca, I am 28 years old and have been living in Beira for more than 20 years. I hold a master's degree in Business Administration (MBA) and a bachelor's degree in economics and management courses taught by the Catholic University of Mozambique, where I developed an interest in human development.

My professional Career started in 2015, following completion of my bachelor's degree. I worked as logistics assistant in Maputo based Ziva Consulting, a company dedicated to finance, administration and supply chains. It was my very first experience, and a great learning opportunity.

During this period, I discovered the necessity to improve my English due to the nature of the job. I applied for a scholarship and took part in an eight-month intensive professional English course at the British Council.

In 2017 I received a job offer to be a Logistic & Process Officer in a maritime material supplier company in Beira and I decided to return to the city that saw me growing to occupy the position and start the MBA.

Now I am working in the Logistic and Procurement on the Operations Department of Gorongosa National Park where I am focused on the for-profit companies – Gorongosa Tourism (TDG) and Gorongosa Natural Products (PNG).

**Osvaldo Darare**  
Driver  
Human development



My name is Osvaldo da Conceição Jemusse Darare, I was born in Chimoio, in Manica Province, in 1976. I completed my primary and secondary school in Chimoio. I have three daughters, 16, 12 and 4 years old. My wife and I are raising them to be strong women.

I worked at Access World in the city of Beira as a machine operator but when I had the opportunity to be a driver for the Gorongosa National Park in April 2018, I took the chance. Today, I am part of the drivers team for the Department of Human Development working in the buffer zone where we learn so much and help contribute to community development.

I am assigned to the Community Relations sector in the Education for Conservation program (CONSED). However, because Gorongosa is so big, I have also worked in other sectors, such as Health and Education as necessary. I am happy to be part of the PNG team, and to work in the area of conservation of biodiversity.



# How to engage

© Joao Fernandes



There are many ways in which you can support the work of the Gorongosa team.  
Please contact us if you are willing to contribute.

[contact@gorongosa.net](mailto:contact@gorongosa.net)



© Miguel Lajas





© Olivier Groenavald

## OUR PARTNERS



Parque Nacional da  
**Gorongosa**



and supported by many more – THANK YOU!





Parque Nacional da  
**Gorongosa**

## Contacts

Gorongosa Project

Av. Mártires da Revolução Nº 1452, Edifício CPMZ – 1º Andar

Bairro do Macuti | PO Box 1983 | Beira – Moçambique

<https://www.facebook.com/gorongosa>

Vasco Galante, Director of Communications: [vasco@gorongosa.net](mailto:vasco@gorongosa.net)

## Follow us on social media

<https://www.facebook.com/gorongosa/>

<https://twitter.com/GorongosaPark>

<https://www.instagram.com/gorongosapark/>

YouTube <https://www.youtube.com/user/gorongosa/videos>



[www.gorongosa.org](http://www.gorongosa.org)

**Our Gorongosa** - Together we are more resilient