

PROJECT #1 – SUMMARY**PROJECT TITLE:**

"Saving White and Black Rhinos (SAFE species) in Zimbabwe" – The International Rhino Foundation

GOALS OF THE PROJECT:

The International Rhino Foundation (IRF) works with local partner, the Lowveld Rhino Trust (LRT), to protect and grow Zimbabwe's largest population of black rhinos through monitoring and anti-poaching efforts, combined with treating, rehabilitating and translocating rhinos as needed. Protection efforts extend to over 300 white rhinos representing 85% of the Zimbabwean rhino population.

PROJECT OUTLINE:

Zimbabwe is home to the world's fourth largest black rhino population after South Africa, Namibia and Kenya. Organized groups of poachers slaughtered nearly one-quarter of the country's rhinos between 2007 and 2009, and poaching remains the greatest threat today driven primarily by demand from Asian markets, particularly Vietnam and China.

Formerly degraded land that was converted from cattle ranges to wildlife management areas, Zimbabwe's Lowveld region is now home to nearly 90% of the country's rhino population. These large land tracts operate as wildlife-based businesses that help safeguard a variety of threatened species. The area with rhinos in the Lowveld region of southern Zimbabwe is over 1.3 million acres (500,000 hectares) and presently holds over 470 black rhinos (*Diceros bicornis minor*) and 300 white rhinos (*Ceratotherium simum simum*). This rhino range extends from Buby Valley Conservancy in the west through Save Valley Conservancy to the Chipinge Safari Area near the Mozambique border, 200 miles (320 kilometres) to the east of Buby.

Rhinos as umbrella species translates to the survival of many other species sharing the same ecosystem. Some examples include:

▼ Statistics

TOTAL AREA OF KEY BIODIVERSITY SIGNIFICANCE
31,801 km² (8.1%)

NUMBER OF ENDANGERED SPECIES
35

	TOTAL	ENDANGERED
Mammals	270	9
Breeding Birds	229	14
Reptiles	180	3
Amphibians	31	6
Fish	122	3
Higher Plants	4,440	16

LRT implements a comprehensive conservation program that tracks and monitors rhinos, treats injured rhinos, rehabilitates and returns injured young rhinos to the wild, provides specialized support for various rhino security and law-enforcement needs as these arise, translocates rhinos from high-risk areas to safer locations, and works with local communities to build support for rhino conservation.

African rhinos can benefit from greater collaboration to combat poaching across borders. LRT is working with TRAFFIC, a leading non-profit organization combating illegal wildlife trade, to manage wildlife crime data. Partnerships like these will provide long term solutions to protecting white and black rhinos in Zimbabwe.

BACKGROUND:

The International Rhino Foundation operates in-situ programs in Asia and Africa targeting the rhino populations most in need of and most appropriate for intensive protection and management. These programs also provide significant benefits for numerous other threatened species and for the entire ecosystems in which the animals live. In all its field programs, IRF works closely with local communities to ensure that people living in closest proximity to rhinos, many of whom are also struggling as a result of poverty and environmental degradation, serve as active partners in wildlife protection and reap direct benefits from conservation efforts.

IRF currently funds rhino research and conservation in the following countries: South Africa, eSwatini, Zimbabwe, Namibia, Zambia, Botswana, Democratic Republic of Congo, India (Manas National Park, Pobitora Wildlife Reserve, Rajiv Gandhi Orang National Park, and Kaziranga National Park), Nepal (Chitwan National Park), Indonesia (Bukit Barisan Selatan, Gunung Leuser and Way Kambas National Park and Ujung Kulon National Park on the island of Java), and Vietnam.

METHODOLOGY:

IRF partners are currently unavailable for detailed project information as they are in Sumatra for Board Meetings. They will be reached to collaborate on the best fit for the funds in Zimbabwe based on current needs. An update to Methodology and Budget allocation for \$15,000 CAD will be made available ASAP.

Anticipated date of completion: 2024

BUDGET:

The total budget from the Endangered Species Reserve Fund for this larger project is \$15,000 CAD.

FUNDING:

Endangered Species Reserve Fund

\$15,000 CAD

PROJECT #2 – SUMMARY

PROJECT TITLE:

Mabula Ground Hornbill Project

GOALS OF THE PROJECT:

To slow, then reverse the decline of the Southern Ground Hornbill (*Bucorvus leadbeateri*) in Africa.

PROJECT OUTLINE:

The Mabula Ground Hornbill Project has several medium- and long-term goals to achieve that will help preserve the SGH (Southern Ground Hornbill) in both South Africa as well as Africa as a whole. These goals include:

Medium term goals

- Monitor: monitoring the long-term status of the SGH and their threats to assess trends in populations and come up with interventions. This includes:
 - Identifying thresholds of potential concern;
 - Working with the community to collect SGH sightings;
 - Screening the health of all captive and wild birds;
 - Genetic testing of all wild birds caught;
 - Carrying out annual nest productivity surveys.
- Restore: Reintroducing sufficient numbers of viable founder groups of SGH to build sustainable sub-populations, while ensuring existing populations maintain genetic diversity. This includes:
 - Improving nest check and harvesting protocols;
 - Completing the IUCN reintroduction plan for SGH;
 - Improve releases site assessments to recognize likely threats for mitigation;
 - Ensuring adequate monitoring and release site management;
 - Increasing and maintaining stakeholder engagement and relationships.
- Mitigate: Reducing direct human impacts (i.e. abusive use of pesticides, lead poisoning, electrocution, etc.) and conflicts (SGH persecution due to window-breaking behaviour) by developing and implementing sustainable solutions in collaboration with impacted communities and conservation bodies. This includes:
 - Working to reduce the use of lead ammunition in the landscape;
 - Insulating transformer boxes to prevent electrocutions;
 - Reducing the abuse of pesticides;
 - Working with communities and traditional healers to curb the trade of SGH and their body parts;
 - Investigating mitigation strategies for SGH window-breaking behaviour (i.e. reinforced glass, glass that breaks up bird reflections).
- Research: Leading, supporting and collaborating with research into aspects of SGH ecology and conservation management. This includes:

- Vaccine development for ailments common to SGH;
 - Artificial nest development;
 - Analysis of hand-rearing techniques and their success;
 - Study of novel threats to SGH;
 - Research on SGH critical habitat.
- Educate: Ensure an effective education program aimed at communities in release zones and areas where SGH wild population remains to reduce human-wildlife conflict and promote citizen science. This includes:
 - Developing a national curriculum based program;
 - Visiting all schools annually within 50 km of release sites;
 - Continuing to expand outreach program to all areas where wild populations still exist;
 - Using the SGH as a flagship species to introduce wider conservation ethics to communities;
 - Providing locally relevant conservation material.
- Be Better: Improving and retaining the capacity of the Mabula Southern Ground Hornbill Project to continue making strides in the conservation of the SGH both in South Africa and across the continent. This includes:
 - Increasing the awareness of the Mabula Ground Hornbill Project both nationally and internationally;
 - Securing long-term funding;
 - Mentoring, guiding and training conservationists and staff and continuing to encourage participation in the project;
 - Providing internships for capacity building requirements;
 - Maintaining the highest code of conservation ethics.

In addition to these medium-term goals, the Mabula Southern Ground Hornbill Project has three long-term goals, which they hope to achieve in the next 25 years:

Goal A: To secure current ecologically stable SGH population in South Africa, with no concomitant increase in persecution for window-breaking. This will require reducing all current threats – poison, persecution, electrocution, trade and increasing community engagement.

Goal B: To rebuild, through a trans-disciplinary reintroduction program based on best-practice and sound peer-reviewed research, SGH populations in areas where they have become locally extinct. These populations will need to rely on natural dispersal rather than being formed as isolated populations needing meta-population management. Focus will be on numerical targets that take into account the species complex social requirements in addition to being physiologically and genetically well chosen. An offshoot of this program is enhanced awareness about the species' plight.

Goal C: To use the SGH as flagship species for all savanna species. Any successful threat mitigations will thus be beneficial for species such as vultures and Secretary Birds. In addition, a locally relevant, sustainable environmental education and skills training program will enhance local landowner participation in conservation and continue to nurture conservation as a career option in these communities, ensuring

MGHP is able to help grow conservation capacity in Africa.

BACKGROUND:

The Southern Ground Hornbill, the largest hornbill species in the world, has been found historically in 16 African countries. It is, however, listed as threatened by the IUCN due to threats including habitat loss, secondary poisoning from lead ammunition and carcasses laced with poison to drive off other carnivores, and direct persecution due to its habit of breaking windows to drive off the “other hornbill” it sees – its reflection.

The Mabula Ground Hornbill Project was founded in 1999, and since then has been working to increase the population of SGH in South Africa and Namibia, whose populations are both currently listed as Endangered nationally, as well as Africa as a whole. Through head start and reintroduction programs, artificial nest building and habitat monitoring, the program has helped countless SGH groups return to the wild in areas that the SGH had been declared locally extinct. Their integrated approach to conservation, including research, threat mitigation, reintroductions, outreach and education, ensures that the groups that are released into the wild have the very best chance for survival.

METHODOLOGY:**Reintroductions**

The Mabula Ground Hornbill Project can harvest second-hatched chicks from wild SGH nests, as those chicks are only hatched by the parents to ensure that they have a spare in case the first chick dies and will die of dehydration within a few days of hatching unless the project intervenes. These chicks are brought to a specialized rearing center called the Baobab, which is designed to mimic the natural environment a chick would normally be reared in. There, the chick has access to an aviary of older SGHs that eventually begin to care for the hatchling, ensuring minimal human intervention. As the chick grows, they are placed within reintroduction groups and mentored by wild SGHs to ensure that they have the skills needed to survive in the wild. Once they’ve reached maturity and have demonstrated their ability to survive in the wild, the Mabula Ground Hornbill Project uses collapsible aviaries to place them in their reintroduction territory along with an artificial nest to ensure they have a safe place to breed, giving them time to get used to their surroundings before removing the aviary and allowing them to live in the wild for good.

Research

As the Mabula Ground Hornbill Project strives to ensure that their conservation decisions are based upon scientific research, they strive to conduct studies on habitat use, the effectiveness of artificial nest materials, population dynamics, and many other topics as often as possible. They welcome many university students to conduct research on the topic of SGHs, and are happy to support other agencies’ research into the topic as well. Some examples of topics they have researched include the histopathology of captive SGH chicks (published September 2023), time-activity

budgets in captive SGH (published in 2015), nest temperature fluctuations in wild SGH (published in 2017) and many more.

Threat Mitigation

Through the use of research identifying threats to the SGH, the Mabula Ground Hornbill Project is able to come up with solutions and ways to mitigate these threats through a number of methods, including:

- The creation of artificial nests to mitigate the loss of natural breeding sites;
- The education of local communities on the habit of SGH window-breaking and providing tools to stop it (i.e. shade cloth, safety glass);
- The creation of a custodianship program with local communities for the SGH in their areas, which has guidelines for safe land-use practices that are intended to curb the intentional poisoning of carcasses to get rid of predators and the use of lead-based ammunition;
- Working with local companies to ensure all electrical transformer boxes in SGH territory are insulated to prevent electrocutions.

Education

The Mabula Ground Hornbill Project has an extensive education and outreach program, travelling across South Africa and beyond to speak about SGH at schools and encourage a love of the natural world in order to foster a sense of stewardship and responsibility in the next generation. The project intends to educate people of all ages on the threats faced by the SGH and what they can do to help mitigate them. They use a wide variety of age-specific educational materials, activities and media, many of which have been translated into one of the many local languages and as best to communicate to the audiences within each environment. In addition to this, the Mabula Ground Hornbill Project is active on several social media sites, including Facebook and Instagram, to educate people worldwide on this bird and its conservation.

Anticipated date of completion: N/A; this is an ongoing conservation project and will continue until the SGH has a stable, thriving population across Africa once again. However, the Mabula Ground Hornbill Project hopes to achieve their long-term goals in 25 years' time.

BUDGET:

The total budget from the Endangered Species Reserve Fund for this larger project is \$15,000 CAD.

FUNDING:

Endangered Species Reserve Fund

\$15,000 CAD

PROJECT #3 – SUMMARY

PROJECT TITLE:

Community, Conservation, and Communication: Creating Sustainable Forest Communities Through a One Health Approach

GOALS OF THE PROJECT:

Planet Madagascar's goal is to create sustainable forest communities for people and wildlife in Madagascar, focusing on lemur conservation, education, and community development. This project will help protect lemurs through monitoring, habitat through fire management and forest restoration, and help people through sustainable enterprise and health initiatives.

PROJECT OUTLINE:

This project will do the following within Ambanajabe, an 8,000-hectare management zone:

- 1) Monitor groups of Coquerel's sifakas, mongoose lemurs, and brown lemurs adjacent to 2 of 3 villages;
- 2) Provide health-care services (reproductive and maternal health) to women in 3 communities;
- 3) Contribute to lemur monitoring;
- 4) Contribute to fire management;
- 5) Contribute to restoration of lemur habitat.

BACKGROUND:

Planet Madagascar is a conservation, education, and community development non-profit organization. Planet Madagascar's purpose is to build sustainable forest communities by conserving Madagascar's unique biodiversity while improving the livelihood of people living in Madagascar.

Within their management zone, there are 8 lemur species with 7 threatened with extinction including two critically endangered species (Coquerel's sifaka and mongoose lemurs). These lemurs are threatened with extinction because of habitat loss and hunting. Meanwhile people in Madagascar are suffering through a chronic humanitarian crisis. The conservation issues affecting lemurs and the humanitarian crisis affecting people are linked together. Both live forests and people share these landscapes – relying on similar resources for survival. As forests disappear, their removal and degradation affect both lemurs and people. Thus, integrated One Health approaches that consider the shared needs of people, lemurs and their shared landscapes are needed to solve these crises.

METHODOLOGY:

1) Planet Madagascar will monitor mongoose lemurs adjacent to two communities. They have two residents that have been trained on lemur surveys, basic behavioural data collection, and have been monitoring these groups for over two years. They follow one group for half a day switching to a new group each day. They monitor 5 days a week and record the location of the group, their movement and basic behaviour at regular intervals.

2) The women's cooperative runs 3 tree nurseries, a dynamic agro-forestry plot, and a small citrus plantation. Planet Madagascar would like to provide blanket support to the cooperative through a donation and to facilitate the visit of a medical professional to each of three communities.

3) Planet Madagascar employs residents from three local communities to conduct 12 patrols per week within their 8,000-hectare management zone where residents monitor the forest for lemurs. When the patrol teams see a group of lemurs, they mark the location with a GPS and note the species and group size.

4) Members of patrol teams also monitor the region and document evidence of fire. Using GPS and phone-based data collection, patrol teams will conduct hundreds of forest patrols where they note evidence of fire.

5) Their teams will contribute to planting 60,000 seedlings per year within a 150-hectare forest restoration zone.

Anticipated date of completion: December 2024

BUDGET

Medical site visit	\$2,000 CAD
Purchase of seedlings from women's cooperative	\$1,500 CAD
Lemur monitoring (GPS, supplies, salaries for two assistants)	\$3,500 CAD
Malagasy staff salaries	\$8,000 CAD
TOTAL	\$15,000 CAD

The total budget from the Endangered Species Reserve Fund for this larger project is \$15,000 CAD.

FUNDING:

Endangered Species Reserve Fund	\$15,000 CAD
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