

PROJECT SUMMARY

PROJECT TITLE: Plant A Red Panda Home

PURPOSE: To support important *in situ* conservation work for the endangered red panda.

GOALS OF THE PROJECT:

1. Increase participation of the local community in the management and protection of red panda habitat outside protected areas.
2. Reforest and restore degraded habitat through plantation of red panda food and shelter species, along with other high-value Non-Timber Forest Products (NTFPs) suitable for respective areas.

Short-term Goals:

- Purchase private and degraded forest located within core red panda habitat.
- Trees planted and land fenced off.
- Nurseries will produce saplings of local species to plant in the restoration areas.

Long-term Goals:

- Reduce forest fragmentation and create habitat connectivity in important red panda habitat areas in Nepal.

PROJECT OUTLINE:

The Red Panda Network is endorsed by the Red Panda SSP and AZA Small Carnivore TAG.

BACKGROUND:

The red panda is listed as ‘Endangered’ in the IUCN Red List of Threatened Species and an Appendix I species in the CITES. The global red panda population has declined by 50% over the last 20 years; estimates have them at less than 10,000 and as few as 2,500 remaining in the wild.

Habitat loss is the primary threat to red pandas. As a tree dwelling species, red pandas struggle to survive when forests are fragmented and populations become susceptible to genetic bottlenecks. In Nepal, forests are disappearing. A total of 33,800 hectares of the nation’s forest cover was lost between 2001 and 2016 (Shrestha S, Shrestha UB, Bawa K. 2018). Among some of the causes of deforestation and forest degradation are unsustainable harvest of forest resources, overgrazing, conversion to agriculture and settlement, unplanned development activities (expansion of roads and infrastructure, etc.), and forest fires.

Red pandas live in remote, high altitude, montane forests of Nepal. Here, there is a high

rate of dependence on forest products to sustain daily life. Field studies conducted by Red Panda Network (RPN) reveals deforestation rates at 3.2 percent along Eastern Nepal's Panchthar-Ilam-Taplejung (PIT) corridor—an important network of forests that contains approximately 25% of Nepal's red panda population.

With forest loss at such alarming rates in Nepal, restoration and reforestation activities are critical to the survival of this endangered species. The proposed project will restore more than 32 hectares of core red panda habitat. Over 30,000 native trees will be planted that have been identified as red panda food and shelter species—as well as high value NTFPs—and help create habitat connectivity that can support viable red panda populations.

METHODOLOGY:

Activities will include the plantation of native trees (red panda food/shelter species, and NTFPs); installation of fencing to protect tree saplings; and purchase of land for restoration (Eastern Nepal only).

Saplings will be obtained from nurseries in the region and Forest Guardians will be employed to carry out plantation and fencing, as well as habitat monitoring and protection after restoration activities are completed.

Long-term monitoring of the area will take place. RPN Forest Guardians conduct ongoing monitoring of red panda populations and habitat. Camera traps will be used to record mammalian species (including red panda) in the PIT corridor. Data from pre-restoration will be compared to post-restoration to measure the impact of the project.

Short-term goals will be tracked by photos of planting and fencing, as well as field reports. Proof of purchase of the land will be obtained through the Division Forest Office. RPN will then work with Community Forest Users Groups in taking over the management, protection and utilization of the land.

Anticipated date of completion: (ongoing)

BUDGET:

- **\$5,000 USD** per hectare for planting trees, land purchase and salary of a local land steward. This will also cover the price of transport, and green manuring.
- Planting one hectare of land would create two days of employment for approximately 50 people a year. Restoration of one hectare of land would create around seven days of employment for 50 people a year.

FUNDING:

Endangered Species Reserve Fund Grant	\$15,000 CDN
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PROJECT SUMMARY

PROJECT TITLE: Protecting Greater One-Horned and White Rhinos Through Habitat Restoration and Anti-Poaching Efforts

GOALS OF THE PROJECT:

The International Rhino Foundation (IRF) ensures the survival of all five species of rhinos through strategic partnerships, targeted protection, and scientifically sound interventions.

PROJECT OUTLINE:

With the support of the Toronto Zoo, IRF will maintain 66 hectares of grassland alongside Chitwan National Park in Nepal. Maintenance involves the routine cutting of grass to ensure invasive plant species do not grow back. Other species that benefit from this habitat management include the Bengal tiger, Bengal florican (*Houbaropsis bengalensis*), Hispid hare (*Caprolagus hispidus*), Gaur (*Bos gaurus*), Asian Elephant (*Elephas maximus*), Sloth bear (*Melursus ursinus*) and five deer species (Chital, Sambar, Hog deer, Barking deer and Swamp deer).

The additional support from the Toronto Zoo will allow IRF and our on the ground partners in South Africa to purchase 12 months of connectivity and license fees for 12 license plate recognition locations at Welgevonden Game Reserve. In the last 3 months this technology has led to the apprehension of 5 poaching suspects. The license plate recognition technology enables rangers to monitor and deter poaching activities by identifying suspicious activities and connecting those individuals/activities across reserves. Other species that benefit include the "big 5", zebra, eland, porcupine, cheetah, brown hyena, caracal, aardwolf, armadillo, Nile crocodile, puff adder and over 300 species of birds.

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.

The greater one-horned rhino has recovered from fewer than 100 individuals in northern India and the lowlands of Nepal to roughly 4,014 animals today, thanks to strict protection and conservation measures. In India and Nepal, regional and national-level government agencies have worked together with local communities and NGOs to prioritize rhino conservation and to ensure that conservation brings benefits to local people. This species' recovery provides a blueprint - and hope - for other rhino species.

Though the greater one-horned rhino population is growing, the species is still classified as vulnerable. Poaching remains a significant threat, and the species has been driven from many of the areas where it used to be common. Its full recovery depends not only on protecting rhinos where they have managed to survive, but also reintroducing them to places from which they've disappeared. IRF works to protect greater one-horned rhinos through habitat restoration, anti-poaching, translocating animals and building capacity in local staff.

In Africa, poaching remains the greatest threat to rhinos. Since 2017, there have been 2,707 recorded rhino poaching incidents in Africa, 90% of which took place in South Africa. White rhinos are decreasing primarily due to poaching losses. The population has decreased by almost 12% in the last four years, from an estimated 18,067 to fewer than 16,000 today.

South Africa is home to the world's largest population of white rhinos. Currently, 12,968 white rhinos are estimated to remain; however, a staggering 259 rhinos have been poached for their horns in the first six months of 2022. This is 10 more than the 249 poached countrywide in the first six months of 2021. Kruger National Park, home to the largest population of rhinos in the world, reported that 82 rhinos were poached during this period. IRF works with several local organizations in South Africa to increase security, deter poaching and build capacity in wildlife rangers.

METHODOLOGY

One of the most significant landscape-level threats to greater one-horned rhinos is the prevalence of invasive species, which choke out native rhino food plants and limit the amount of habitat available for rhinos and other species. IRF collaborates with the National Trust for Nature Conservation to remove these plants from Chitwan National Park in Nepal, home to the second largest population of greater one-horned rhinos in the world. Grasslands in Chitwan's alluvial floodplains provide excellent habitat for rhinos, but this prime habitat is gradually shrinking due to alien invasive plant species. This invasion has led to the decline of native grasses and has forced herbivores like rhinos to feed on invasive species. A recent study of the greater one-horned rhino's diet in Chitwan demonstrated that up to 20% of food consumed now consists of *Mikania*, the primary invasive species in the park which is believed to possess less essential

nutrients needed for rhinos to maintain optimum health. Over the next year, we will maintain 66 hectares of grasslands, creating safe grazing lawns for rhinos. The use of

these grazing lawns by rhinos and other herbivores will be monitored throughout the year by camera traps and direct observations. Local community members are hired to manually uproot invasive species and monitor wildlife activity across the project sites.

In the Welgevonden Game Reserve in South Africa, funding will support 12 months of connectivity and license fees to power 12 license plate recognition cameras. These cameras record all vehicles that pass below them and data is then sent to an operation center where the data can be monitored and analyzed. Any suspect vehicles are flagged and that information is relayed to appropriate staff.

Anticipated date of completion: December 2023

BUDGET

- a) Maintain 66 hectares of grasslands in Chitwan National Park - \$7,500 CDN
- b) 12 months of license fees and connectivity for 12 LPR's - \$7,500 CDN

The total budget from the Endangered Species Reserve Fund for this larger project is 15,000 CDN

FUNDING

Endangered Species Reserve Fund	\$15,000 CDN
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PROJECT 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 ha 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 and 5) contribute to restoration of lemur habitat.

BACKGROUND

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

Within our 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. We 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) We employ residents from three local communities to conduct 12 patrols per week within our 8000 ha management zone where they 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 our patrol teams also monitor the region and document evidence of fire. Using GPS and phone-based data collection, our teams will conduct hundreds of forest patrols where they note evidence of fire.

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

Anticipated date of completion: December, 2023

BUDGET

Medical site visit:	\$2,000
Purchase of seedlings from women's cooperative:	\$1,500
Lemur monitoring (GPS, supplies, salaries for two assistant):	\$3,500
Malagasy Staff Salaries:	\$8,000

Total = \$15,000 CDN

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

FUNDING

Endangered Species Reserve Fund	\$15,000 CDN
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