

Masterplan 2014 - 2019

The Leo Foundation, formally called Foundation Panthera Leo Leo, was founded on April 24, 2008. Our vision is to secure viable large carnivore populations by reversing the decline of large carnivores (leopard, hyaena, tiger and painted dog), in particular lions (Panthera leo).

We have ongoing projects in Benin, Cameroon, Senegal and Kenya, where we work together with local partners, such as research institutes, governmental organisations, local NGO's and park management. Leo Foundation provides these projects with expertise, knowledge and financial support through fund raising.

Our objectives

We have the following objectives:

1. The promotion of the protection of the lion in Africa (*Panthera leo leo*) and India (*Panthera leo persica*).
2. The promotion of responsible management of lion populations in Africa and India, with special attention to responsible tourism, local income generation and mitigation of conflicts.
3. The promotion of responsible management of other large carnivores.
4. The stimulation of the exchange of knowledge and knowledge gathering on the subjects mentioned above.
5. To inform and create awareness among target groups in the Netherlands on the threats faced by lions and by other large carnivores and on conservation action needed to protect them.

We intend to achieve our objectives through the formulation, funding and implementation of projects which stimulate a responsible management and protection of lions and associated large carnivores. We provide advisory services, if required and also intend to achieve our objectives by preparing and distributing both scientific and popular publications and articles, as well as contribute to radio and television programmes.

Our approach

We have formulated three main themes and objectives to help achieve our goals. We strive to achieve these objectives by actively creating new partnerships and maintaining existing partnerships.

1. Human-carnivore conflict: to reduce the frequency of large carnivore predation on humans and livestock, and (subsequent) retaliatory killing of carnivores, thereby promoting human-carnivore coexistence.
2. Monitoring, research and information gathering and provisioning: to improve knowledge of status and ranging of large carnivores to guide conservation action.
3. Capacity building: to strengthen capacity to conserve large carnivores in key areas.

Each theme is worked out in targets and activities. All activities are prioritized high, medium or low, where high priority activities are our primary focus and low priority activities are picked up when an opportunity arises.

Theme 1: Human-carnivore conflict

This theme is divided in three targets to be implemented in and around designated key carnivore conservation areas: 1) Support communities to mitigate loss of human lives or livestock, 2) Initiate and develop community development programmes to promote tolerance to carnivores and 3) Support anti-poaching effort to prevent loss of prey and illegal killing of carnivores. Our highest priorities are with targets 1 and 3.

For each target the following activities are defined:

- Target 1:
- a) Identify key areas where important carnivore populations are threatened by significant level of human-carnivore conflict.
 - b) Identify circumstances that contribute to losses.
 - c) Develop and disseminate effective strategies for reducing losses.
 - d) Work with local communities to implement mitigation techniques, such as bomas and/or consolation schemes
- Target 2:
- a) Identify key areas where economic benefits and carnivore tourism could benefit local communities around important areas for carnivore conservation.
 - b) Encourage appropriate distribution of revenues around hotspots to local communities.
 - c) Examine alternatives where tourism is unlikely to provide sufficient incentive for conservation, such as 'snare handicraft', bee keeping and vegetable gardening.
- Target 3:
- a) Identify key areas where carnivores are threatened by significant level of poaching and/or illegal intrusion into protected areas.
 - b) Implement and support activities that reduce poaching and intrusion into protected areas.

Theme 2: Monitoring, research and information

Two targets have been defined: 1) Survey carnivore distribution and status and monitor movements and behaviour to identify threats and status and 2) Awareness raising programmes developed around key areas and the general public. Our highest priority is with target 1.

- Target 1:
- a) Within key areas, monitor population trends and threats of large carnivores and lions, including poaching and professional hunting.
 - b) Establish and maintain an internet platform (website, facebook) to collate information to facilitate data sharing.
 - c) Conduct or support monitoring for carnivore presence, movements, behaviour and threats in potential key areas.
- Target 2:
- a) Identify government and community stakeholders best placed to influence carnivore conservation.
 - b) Dialogue with government stakeholders to improve carnivore conservation measures, science-based hunting quota and anti-poaching support.
 - c) Create awareness for the projects among the general public in the Netherlands.
 - d) Support education programmes at elementary and secondary school level in target countries.

Theme 3: Capacity building

For capacity building, including education, we define two target levels: 1) a national and regional level and 2) a national park level.

Target 1:

- a) Appoint a National Carnivore Coordinator in selected focal countries with key carnivore populations.
- b) Initiate and maintain a regional large carnivore network in West and Central Africa to support and maintain capacity for conservation efforts around key areas.
- c) Support the development and implementation of regional and national carnivore conservation strategies.

Target 2:

- a) Strengthening conservation skills of park wardens through workshops, courses and knowledge sharing.
- b) Support equipment and skills of conservation staff (wardens, village-guards and eco-guards) for effective conservation of key carnivore populations.
- c) Large carnivore conservation education incorporated into curricula and training courses.
- d) Train community and conservation guards in monitoring techniques and anti-poaching tools

Our projects

Our ongoing projects mainly focus on lion and/or large carnivore conservation in key areas in West- and Central Africa, and to a lesser extent in East-Africa. So far, we have not been able to successfully support large carnivore projects in Asia.

For lion conservation, we follow the policy guidelines and the conservation and management strategies as outlined in the regional Lion Conservation Strategies for West and Central Africa and for East and Southern Africa, both published in 2007. Within the framework of these guidelines, the Leo Foundation has adopted the following projects since 2008.

Lion projects in West- and Central Africa

Lions in West-Africa are regionally endangered, living in small fragmented populations in protected areas only. The main threat is human-lion conflict: pastoralists killing lions in retaliation for livestock depredation. Livestock depredation can have serious impacts on local development: around protected areas, damage to cattle is generally between 2 and 10 percent per year. These can amount to extensive financial losses to communities living around parks.

Retaliatory or pre-emptive lion killing threatens lion populations and, in the case of poisoning, the entire carnivore guild in addition to other regionally threatened species (e.g. vultures). The lion is a keystone and umbrella species: while local extinction would be beneficial for livestock it would be detrimental in terms of biodiversity, tourism and ecosystem integrity.

Conflict mitigation is feasible and ultimately more effective for environment and development. The sustainability of our projects is guaranteed through the financial benefits derived from both lion conservation and mitigation measures. Local communities in particular will benefit through reduced livestock losses as a result of improved livestock guarding techniques, which will contribute substantially to poverty alleviation throughout the project area.

North Cameroon-North Nigeria lion projects

The Bénoué-Gumti area is an extensive conservation complex, consisting of four national parks (NP) connected by hunting zones (HZ) or conservation areas, with a total surface area of approximately 30,000 km². The parks are, from West to East: Faro NP, Bénoué NP and Bouba-Ndjidda NP in Cameroon and Gashaki-Gumti in Nigeria. Research showed a significant difference between lion densities in parks and hunting zones, with lower densities inside hunting zones. The isolated population in Waza NP, in the extreme North of Cameroon and interactions with Nigerian lion populations, will also be included in this project.

This ecosystem can be characterized as Sudan-Guinea Savannah, the transition area between the dry Sahel Savannah to the North and the rainforest ecosystems to the South. It consists of relatively thick woodland with pockets of grassland, floodplains and highland. The lion population in this area is estimated at 200 individuals, a guesstimate derived from intensive surveys in Bénoué NP (40 lions) and Bouba-Ndjidda NP (60 lions). An update of population numbers is urgently needed.

In the past, our main focus has been Human wildlife conflict (Theme 1) and Monitoring, research and information (Theme 2). In the future our focus shifts to Capacity building (Theme 3) and to a policy lobby towards Ministers relevant for lion conservation, organisation of workshops, training of lion guards and park staff, conflict mitigation, monitoring of GPS collared lions and an awareness campaign for local people.

Pendjari and Niokolo-Koba lion projects

Lion populations in Benin and Senegal have declined from a few thousand in the 18th century to just a few hundred now. Lions inhabiting the Pendjari NP in Benin and Niokolo-Koba NP in Senegal regularly kill livestock outside the national park leading to retaliatory lion killings by the local people. The projects aim to 1) enhance the implementation of the national lion conservation strategies and action plans, 2) raise awareness among local people, 3) training of lion guards and park staff and 4) monitor lion movement and analyse movement patterns of lions, so that adequate measures can be taken to mitigate loss of livestock due to lion predation.

The scope is widened from lions to other large carnivores, such as cheetah, leopard, painted dog and spotted hyaena. The Niokola-Koba NP (9,130 km²) is located in the Sudano-Guinean zone. Watered by large waterways (the Gambia, Sereko, Niokolo and Koulountou), it comprises a wide range of ecosystems, such as gallery forests, herbaceous savannah floodplains, ponds, dry forests and rocky slopes and hills. Lions occur, as well as the Derby Eland, and painted dogs. Recent surveys showed that a population of some 20 adult lions may survive inside Niokolo Koba NP and evidence suggests the presence of a population of painted dogs.

In the North of Benin is the Pendjari Biosphere Reserve (4,711 km²) situated, consisting of a strictly protected park (2,660 km²) and two hunting zone (2,051 km²), which allow safari hunting during the dry season. Latest estimates suggest that some 30 adult lions survive in the whole complex of W, Arly and Pendjari (WAP), with only 80-90 lions in Pendjari NP and adjacent hunting zones.

The park is surrounded by agricultural areas owned by local communities. During the wet season wild herbivores are dispersed throughout the region, while in the dry season animals concentrate in the park for its permanent water points. Lions inhabiting Pendjari NP regularly kill livestock outside the national park, leading to retaliatory killing of lions by local people.

In the new phase of these projects our scope is widened from lions to other large carnivores, covering case studies for conflict mitigation and the monitoring of GPS collared lions. Local communities will be assisted with the construction of small boma's for the safekeeping of livestock during the night.

Lion projects in East-Africa

Our lion projects in Kenya concern Amboseli NP and Nairobi NP. Lion populations in Kenya are suspected to have decreased considerably over the last two decades, mainly due to habitat loss and conflict with people and their livestock. In 2004 the number of free ranging lions in Kenya was estimated at 2,000 individuals.

Amboseli lion project

Amboseli NP covers 392 km² and forms part of the Amboseli ecosystem (3,000 km²). The park is surrounded by group ranches owned by local Maasai communities. During the wet season, wild herbivores disperse throughout much of the Amboseli ecosystem, while in the dry season animals concentrate in the park as it has permanent springs originating from melt water from nearby Mt. Kilimanjaro. In the dry season Maasai are allowed to enter the park with their livestock for access to water. Consequently, lions are confronted with livestock both inside and outside the park, in addition to their natural prey species. Between 2001 and 2006 retaliatory killing of lions increased from 21 to 44 lions in the Amboseli area. Kenya Wildlife Services initiated the Amboseli lion project to gain insight if livestock was habitually killed by the same lions, or occasionally killed by several lions.

Nairobi lion project

Nairobi NP (117 km²) is south of the Athi-Kaputiei plains and is situated in the urban area of Nairobi. The park protects just about 5% of the Athi-Kaputiei ecosystem, but is fundamental for herbivores during the dry season owing to the abundant richness of water. The grassland is enriched by the soil containing phonolitic lava, which provides high quality forage. This excellent grazing territory explains the large occurrence of large mammals, but attracts also pastoralists. Human-lion conflicts occur increasingly with the urban community. KWS has reports on lions attacking giraffes in a captive-breeding facility, lions crossing through the protective fences and lions threatening domestic dogs in urban environments. The latest estimates show that around 35 lions remain in Nairobi NP.

Main activities for these continuing projects are the monitoring of GPS collared lions, support research on lion-livestock conflicts, training of KWS staff and an awareness campaign for local people.

Table 1 gives an overview of the implementation of targets and activities per theme for each of our projects in 2014.

Table 1: Overview of the implementation of activities in 2014.




Priority	Theme Target Activity	W&C Africa	Benin	Cameroon	Senegal	Kenya
1	Human-carnivore conflict					
1.1	Support communities to mitigate loss of human lives or livestock around designated key carnivore conservation areas					
1.1.a	Identify key areas where important carnivore populations are threatened by significant level of human-carnivore conflict		(✓)	✓		✓
1.1.b	Identify circumstances that contribute to losses		(✓)	(✓)		✓
1.1.c	Develop and disseminate effective strategies for reducing losses		(✓)	(✓)		✓
1.1.d	Work with communities to implement mitigation techniques		(✓)	(✓)		✓

Priority	Theme Target Activity	W&C Africa	Benin	Cameroon	Senegal	Kenya
1.2	<i>Imitate and develop community development programmes around designated key carnivore conservation areas to promote tolerance to carnivores</i>					
1.2.a	Identify key areas where economic benefits and carnivore tourism could benefit local communities around important areas for carnivore conservation			✓		
1.2.b	Encourage appropriate distribution of revenues around hotspots to local communities					
1.2.c	Examine alternatives where tourism is unlikely to provide sufficient incentive for conservation					
1.3	<i>Support anti-poaching effort in key carnivore conservation areas to prevent loss of prey and illegal killing of carnivores</i>					
1.3.a	Identify key areas where carnivores are threatened by significant level of poaching and/or illegal intrusion into protected areas	(✓)	✓			✓
1.3.b	Implement and support activities that reduce poaching and intrusion into protected areas	(✓)	✓			✓
2	Monitoring, research and information gathering and provisioning					
2.1	Survey carnivore distribution and status and monitor movements to identify threats and status					
2.1.a	Within key areas, monitor population trends and threats of lions and large carnivores, including poaching, human-lion conflict and professional hunting	(✓)	(✓)			✓
2.1.b	Establish and maintain an internet platform to collate information to facilitate data sharing	See note 1				
2.1.c	Conduct or support monitoring for carnivore presence, movements, behaviour and threats in potential key areas	(✓)	✓			✓
2.2	Awareness creation programmes developed around key areas and the general public					
2.2.a	Identify government and community stakeholders best placed to influence carnivore conservation			✓		✓
2.2.b	Dialogue with government stakeholders to improve carnivore conservation measures, science-based hunting quota and anti-poaching support			(✓)		✓
2.2.c	Create awareness among general public in The Netherlands and elsewhere to aid fundraising, through media campaigns	See note 2				
3	Capacity building					
3.1	<i>Capacity building/education at the national and regional level</i>					
3.1.a	Appoint a National Carnivore Coordinator in selected focal countries with key carnivore populations			(✓)		
3.1.b	Initiate and maintain a regional large carnivore network in West and Central Africa to support and maintain capacity for conservation efforts around key areas	✓				
3.1.c	Support the development and implementation of regional and national carnivore conservation strategies		✓	✓	✓	

Priority	Theme Target Activity	W&C Africa	Benin	Cameroon	Senegal	Kenya
3.2	<i>Capacity building at the NP level</i>					
3.2.a	Strengthening conservation skills of park wardens through workshops, courses and knowledge sharing		(✓)	✓		✓
3.2.b	Support equipment and skills of conservation staff for effective conservation of key carnivore populations			✓		✓
3.2.c	Large carnivore conservation education incorporated into curricula of training institutes (EFG) and training courses			✓		
3.2.d	Train community and conservation guards in monitoring techniques and anti-poaching tools			✓		✓

Legend:

(✓) = past project, ✓ = current/ongoing project

 High priority: included in ≥75% of projects
  Medium priority: included in ≥50% of projects
  Low priority: included in ≥25% of projects

Note 1: Target 2.1.b is an ongoing project. For the Project Large Carnivore Initiative we launched the website www.largecarnivoresafrica.com, which we currently maintain.

Note 2: Target 2.2.c concerns the Dutch public. Leo Foundation joins activities by organisations that provide a platform for nature conservation.

Partners

In 2014 we work together with various partners. The Leo Foundation is strongly affiliated with the Institute of Environmental Sciences of Leiden University in The Netherlands. In Africa, we have partners in all our project areas, mainly research institutes and park management, but also local stakeholders. Our main partners are the Université of Abomey (Benin), Ecole de Faune (Cameroon), Centre for Environmental and Developmental Studies (Cameroon), Ministry of Environment, department Nature Conservation (Senegal), park management of Niokola Koba NP (Senegal) and Kenyan Wildlife Services (Kenya).

These African partnerships provide regional support for our projects. In addition, we are connected with other lion conservation organisations and researchers through the African Lion Working Group (www.african-lion.org) and our Large Carnivore Initiative (www.largecarnivoresafrica.com). We envisage enlarging the extent partnership base and increase the strength of the current.

Financial situation

Leo Foundation is fully dependent on funding from third parties. A maximum of 10 % overhead cost per fund is used for the Leo Foundation itself, often including project visits. We are very grateful for the financial support of IUCN NL, Mohamed Bin Zayed Species Conservation Fund, National Geographic and National Geographic Big Cat Initiative, US Fish and Wildlife Services, WWF-INNO, Prins Bernhard Natuur Fonds, SOS Rapid Action Grant, SOS Emergency Fund, Dutch Zoos Conservation Fund and Federatie Internationale Natuurbescherming.