USING TRADITIONAL GOVERNANCE SYSTEMS TO MANAGE COMPETITION OVER NATURAL RESOURCES
INTRODUCTION

In the Gourma region of Mali, south of Timbuktu, a small population of approximately 350 “desert-adapted” African elephants *Loxodonta africana* undertake an annual migration circuit spanning over 32,000 km² driven by the widely dispersed natural resources in the region. Their migration primarily responds to the availability of water, food and refuge throughout the year, while avoiding areas of high human activity.

INCREASING HUMAN ACTIVITY IS ENCROACHING UPON ELEPHANT HABITAT, JEOPARDIZING THEIR MIGRATORY ROUTE, DEGRADING THEIR HABITAT, THREATENING THE POPULATION’S SURVIVAL, AND HEIGHTENING HUMAN-ELEPHANT CONFLICT.
Started in 2006, following three years of scientific studies the Mali Elephant Project (hereafter “project”) sought to understand the threats to the elephants as arising from the multiple relationships within the social-ecological system, and then try to shift key factors affecting those relationships so the net result would be a reduction in threat for both humans and wildlife. This case study outlines how this approach translated into action. It describes an iterative, adaptive approach of deepening understanding (ecological and socio-economic surveys), coupled with community engagement and action.

**THIS RESULTED IN THE EMERGENCE OF COMMUNITY-LED ENVIRONMENTAL GOVERNANCE SYSTEMS, BASED ON TRADITIONAL MODELS, TO ADDRESS THE CHALLENGES, THAT ALSO MADE SPACE FOR ELEPHANTS.**

**SETTING THE SCENE**

In the northern part of the Gourma region, a series of small semi-permanent lakes were fed by local rainfall. Only two of these lakes retained water throughout the dry season, serving as vital resources for both humans and elephants. Notably, Lake Gossi was heavily settled by humans, leaving Lake Banzena as the sole accessible water source for elephants at the end of the nine-month dry season. Conversely, in the southern part of the region, the rains started earlier, and food was more abundant, but surface water did not survive into the dry season.

With the onset of rains, the elephants moved southward, where their movement was no longer restricted by access to water and where the forage proved to be of higher quality and abundance. Towards the conclusion of the wet season, as the surface water began to dry, the elephants moved north again to their dry season range.

**GPS DATA COLLECTED BY SAVE THE ELEPHANTS FROM COLLARED ELEPHANTS HAD SHOWN THAT ELEPHANTS PREDOMINANTLY OCCUPIED THE NORTHERN PART OF THE REGION DURING THE DRY SEASON, MOVING BETWEEN THE WATERHOLES UNTIL THEY SENSED IT HAD RAINED FURTHER SOUTH.**
The region contains diverse ethnicities, whose subsistence livelihoods rely on the availability of natural resources. These include traditional pastoral, agropastoral and agricultural communities, together with migratory herders undertaking seasonal movements.

Increasing and intensifying human activity had led to overexploitation, and habitat fragmentation and degradation. Herds of cattle, for example, were increasing in size, leading to heightened competition with elephants for access to water, particularly at Lake Banzena. Increasing human settlement and cultivation in the passes through the hills dividing their wet and dry season ranges were restricting elephant migration.

IN THE GOURMA REGION, ALL THESE FACTORS MEANT THAT THE ELEPHANTS WERE COMING CLOSER TO PEOPLE AND THEIR SETTLEMENTS, RAISING THE LIKELIHOOD OF CONFLICT.

Determining a course of action for the vast, populated, open landscape was a significant challenge, given the lack of funds, and the lack of resources and capacity within government. It meant that the local people had to be at the heart of any solution, and so it was important to understand their perspectives.
An idea was sparked by a casual conversation with a local villager who said that he didn’t want to lose the elephants because “if elephants disappear it means the environment is no longer good for us”. How prevalent was this opinion? To find out the project conducted an attitude survey across the elephant range, with 351 participants that were as representative of the population as possible. It was found that most participants (78 percent) would mind if elephants disappeared, 18 percent wouldn’t mind, and 4 percent didn’t know.

Furthermore, responses supported the idea that people understood elephant presence, and biodiversity more widely, as indicative of a healthy ecosystem on which they were totally reliant, and in which they were deeply embedded in a way that was fundamental to their identity. They also understood that human activity must be conducted within ecosystem limits.

These findings inspired the idea of launching an outreach programme to foster a shared vision for elephant conservation throughout Mali.

In 2007, the project convened a series of workshops with different groups of stakeholders using the results of the elephant migration studies to stimulate further discussion on the elephants, and what might be needed to enable peaceful coexistence.

It then used the results of these workshops to create a variety of outreach materials tailored to these groups. These included informational leaflets and posters; a school’s program about coexisting with elephants that was integrated into the school curriculum; a Tourist Code of Conduct; and many other outputs.
While all these initiatives were important in raising awareness of the elephants and their needs, despite the supportive attitudes, the environment was still being overexploited and degraded. What tangible actions were required to translate awareness into elephant conservation?

The opportunity came in 2009. Lake Banzena was at risk of drying up before the onset of rains, besieged by huge numbers of cows. To better understand the situation, the project undertook a socio-economic survey of all households living around the lake, including key individuals, migratory herders, local authorities, traditional chiefs, elected representatives, clan heads, household heads, women, youth and experts.

The survey findings revealed three main insights. Firstly, 96 percent of the cattle accessing Lake Banzena belonged to wealthy individuals mostly from urban centres. Secondly, each ethnicity and clan possessed systems for resource management, but were reluctant to obey each other’s systems. Lastly, over 50 percent of the population were afflicted by chronic waterborne disease due to drinking contaminated water.
The project facilitated community meetings that assembled all the interested groups to discuss the socio-economic survey results in the context of their daily lives and challenges (such as feeding their families and finding forage and water for their livestock). The discussions enabled a shared understanding of the situation to develop, and this fostered a sense of unity among the participants. They could then together decide what needed to be done.

In response, the local communities decided they would be willing to relocate from the lake’s vicinity and leave it for elephant use if they could find an area with good pasture and access to clean water.

The project worked with them to identify a new location with pasture, that was outside the elephant range, and raised money to install solar-powered boreholes. Given the three different ethnic groupings representation, it was decided that three separate boreholes needed to be installed, even though one borehole would have been suitable based on the population size.
Having discussed the problems in the context of their daily challenges, they also recognised the need for systems of water and natural resource management that were inclusive of all clans and ethnicities, consensual, equitable and transparent.

They used traditional natural resource governance systems as their model, but which were representative of all clans.

**A MANAGEMENT COMMITTEE OF ELDERS KNOWN TO BE EXPERTS IN RESOURCE MANAGEMENT WAS ELECTED AND ESTABLISHED THE RULES OF RESOURCE MANAGEMENT (INCLUDING SANCTIONS).**

These included the protection of elephant habitat and the migration route. After agreeing upon the individual qualities required, they selected teams of young, local ecoguards, tasked with patrolling to ensure compliance. These ecoguards also conducted natural resource protection and regeneration activities, such as building firebreaks, planting trees and providing the manual labour for women’s enterprises.
The outcome was improved pasture and forest product availability. In the first year, 90,000 hectares of pasture were protected from a big fire, which sparked keen interest among adjacent communities. Not only did they have adjacent pasture at the end of the long dry season, but they could sell forage and access rights to the migratory herders.

THE REVENUE GENERATED WAS SHARED AMONG THE MANAGEMENT COMMITTEE, THE ECOGUARDS AND WOMEN.

Improved natural resource availability provided the opportunity for women’s associations to successfully create small income-generating enterprises, such as selling hay, forage and non-timber forest products (NTFPs), handicrafts, fattening very few heads of livestock at home and selling them instead of keeping large free-range herds and flocks.

This model of “elephant-centred” community-led natural resource management was developed between 2009 and 2011 and now extends over 17 communes. Since 2012 the lawlessness, conflict and insecurity make everything much more difficult, but the project has worked continuously throughout. It has engaged the commune Mayors to develop commune-level natural resource management plans; spread the approach to the communities of their communes; and to include the community agreements in the commune’s social and economic development plans.
This particular model was possible because of Mali’s decentralized legislation, which places natural resources under the control of local communities. However, to enable government foresters to provide support in enforcement, when necessary, the project worked with the Ministry of the Environment in the creation of a new 42,000 km² protected area, covering the whole of the elephant range, using a biosphere reserve model. This entered law in December 2021 and now allows for the community resource management agreements to manage the multi-use areas while respecting the buffer zone and core areas.

THE GOURMA BIOSPHERE RESERVE HAS HIGH LOCAL SUPPORT SINCE IT PROVIDES LOCAL COMMUNITIES WITH A WAY TO PREVENT OVER-EXPLOITATION AND DESTRUCTION BY OUTSIDERS.

ARMED CONFLICT, LAWLESSNESS AND INSURGENCY

As communities across the 42,000 km² elephant range were requesting that the project help them implement these management systems, a new crisis arose in Mali. In 2012, a separatist rebellion, extremist insurgency and a coup d'état led to the elephant range, already astride trafficking routes, becoming lawless and flooded with firearms, which in turn led to elephant poaching. A four-day meeting was convened by the project to discuss the situation and the new challenges it posed. During the meeting, the stakeholders highlighted concerns about the hijacking of grain lorries; and the recruitment of youth by armed groups. The project agreed to distribute grain by donkey carts, while community elders issued edicts that established a social norm equating poachers to thieves, as they were stealing that which belonged to the community. The project recruited additional ecoguards to form an information network that monitored elephant locations, poaching incidents and identified poachers. Despite only receiving “recognition” payments, none joined the armed groups (who were paying USD 30 - USD 50 per day), as being an ecoguard carried significant local status and reduced risks. These local systems proved effective for the next three years. However, in 2015, poaching escalated as security plummeted, leading to the decision to establish an anti-poaching unit. The anti-poaching unit adopted a robust community-based approach, becoming fully operational in February 2017 and from that point onwards, poaching was reduced to very low levels, thanks to the support of local people who provide crucial information on poaching.
01 | UNDERSTANDING THE CONSERVATION PROBLEM IN ITS WIDER SOCIO-POLITICAL CONTEXT
This enables the identification of actions that try to approach as closely to root causes as possible, rather than deal with the more proximate symptoms. Recognizing and embracing the complexity of the wider system meant that solutions to one problem - elephant conservation - also helped others such as food security, livelihoods, youth unemployment, and social cohesion.

02 | EMBRACING UNCERTAINTY
Discerning feasible courses of action often proved challenging due to the magnitude of the problems. When the project started, for example, no immediate actions were taken until the situation was adequately understood. The project sought more information, usually through a study or survey, and used the findings to engage locally and co-determine a course of action. This would be tested and refined before implementing more widely. The result generally meant that a previously unforeseen way to address the problem was unveiled.

03 | LISTEN FIRST AND USE DIALOGUE TO CO-CREATE A SHARED VISION
The project team dedicated time to listen to local communities, understand their values, perspectives and daily challenges and concerns. Through facilitated inclusive dialogue, local solutions emerged, fostering an organic development of practical ideas that address the specific issues at hand.

04 | NEUTRAL FACILITATION
The project acted as a neutral facilitator in convening the discussions between the multiple diverse groups, clans and ethnicities.

05 | RESPECT WHAT EXISTS, IDENTIFY EXISTING ASSETS AND BUILD FROM THESE
The project identified aspects of the local context that could support the vision. It refrained from bringing in external ideas and “solutions” to community-identified issues. Problems were identified and solutions involved activities that were already known but corrected the failure in governance.

06 | LOCAL GOVERNANCE THROUGH OWNERSHIP IS CRITICAL
The local communities retained the ultimate decision-making power. This gave them ownership and meant that the actions taken were their solutions, as the implementation of problem-solving strategies had been identified by them. This made advance planning difficult. Although this approach can make donor reporting highly complex, it ensured that support was aligned with evolving needs, adapted to the local physical and social environment, and therefore more likely to be sustained.

07 | TRUST AND LOCAL BUY-IN
The project’s approach built trust with the communities, who could see that it was genuinely working equitably with them to find solutions of mutual benefit, based on existing values. As a result elephant conservation has been reinforced as a part of local identity, something that has been fundamental to elephant protection throughout the ongoing conflict and insecurity.

08 | ENABLING LEGISLATION THAT FOSTERS LOCALLY ADAPTIVE SOLUTIONS — WORKING ACROSS SPATIAL SCALES
National decentralization legislation gave communes and local communities control of their natural resources and provided the legal mechanism. The project was then able to support them in the drafting of the required documents and their implementation.

09 | APPROPRIATE MANAGEMENT STRUCTURE
For the Mali Elephant Project the team executing the community engagement activities on the ground are all locally based-staff from the local community itself, who understood local mindsets and were able to work with them in appropriate ways. Simultaneously, the international team focuses on the interface with donors and the international community, providing a bridge and support to overall project management. This approach fosters a two-way flow of knowledge and resources, enhancing project implementation.

10 | INTRA-TEAM TRUST
A strong trust exists between the international director and the field manager, tested and cultivated over years of collaboration. This culture of trust is mirrored throughout the team, where staff members are granted authority, encouraged to excel, and entrusted to perform their roles effectively.

11 | FLEXIBLE DONORS
Given the necessity for the field team to adjust activities based on community decisions, specific activities and plans often shifted (although the ultimate goals remained the same), which required a great deal of donor engagement and was facilitated by understanding donors.
FURTHER INFORMATION

• Making space for nature: elephant conservation in Mali as a case study in sustainability. Environment: Science and Policy for Sustainable Development. 2021

• The Mali Elephant Project: protecting elephants amidst conflict and poverty. International Zoo Yearbook. 2019

• Mali’s elephants show how people and nature can share space in a complex world. The Conversation. 2021

ACKNOWLEDGEMENTS

With thanks to Susan Canney for their vital contributions to this case study, and to James Stevens (Programme Officer, IUCN SSC Human-Wildlife Conflict & Coexistence Specialist Group) for writing the case study. The author would also like to acknowledge the valuable and constructive feedback provided by Alexandra Zimmermann (Chair, IUCN SSC Human-Wildlife Conflict & Coexistence Specialist Group) and Kristina Rodina de Carvalho (Forestry Officer, FAO). PRVRT Creative Studio took care of the graphic design and layout.

ABOUT THE CASE STUDIES

The Food and Agriculture Organisation of the United Nations (FAO) and the IUCN SSC Human-Wildlife Conflict & Coexistence Specialist Group (HWCCSG) have jointly developed a set of case studies with the aim of covering the process projects have taken to manage various aspects of a human-wildlife conflict & coexistence situation. This case study is one of many that will be used to illustrate key components of the IUCN SSC Guidelines on Human-Wildlife Conflict & Coexistence. The published case studies can be found in the Human-Wildlife Conflict & Coexistence Library.

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Required citation: FAO and IUCN SSC HWCCSG. 2023. Using traditional governance systems to manage competition over natural resources. Rome

https://doi.org/10.4060/cc9052en