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Tanzania
Natural
Resource
Forum

COMMUNITY-BASED APPROACHES TO TACKLING POACHING AND ILLEGAL WILDLIFE TRADE

**Five case studies of community-based approaches in Tanzania from
the People Not Poaching Initiative**



1. The Ruvuma Elephant Project

PAMS Foundation

Find and share this case study online:

<https://www.peoplenotpoaching.org/ruvuma-elephant-project>



Game guards from the Ruvuma Elephant Project. Credit: 2016 PAMS Foundation

Summary

Since 2011, the PAMS Foundation has supported over 200 Village Game Scouts and rangers to undertake regular patrols. Together they have arrested many poachers and seized ivory, illegal timber, weapons, snares, poison and other poaching related tools. Thanks to the dedication of these scouts, their community leaders and the assistance of the government, these areas are becoming a safer place for elephants. In addition, PAMS supports local farmers to erect chili fences, which is a non-aggressive method to dissuade elephants from entering populated and cultivated areas, and is developing alternative income opportunities for local communities.

Location

The Ruvuma Elephant Project covers a 2,500,000 ha area of Tanzania between two protected areas: the Selous Game Reserve, in the south of the country and the Niassa National Reserve, just across the border, in Mozambique. It includes an important wildlife corridor, dominated by miombo woodland, supporting a range of different land uses and rubbing up against an international border; factors which have contributed to it being one of the most notorious areas for elephant poaching in Africa.

The area in question is a mosaic of administrative zones, falling within three local government districts, and including five Wildlife Management Areas (WMA) – managed by community-based organisations that have Authorised Association status to protect and sustainably manage the natural resources. There are also five forest reserves, managed by District Forest Officers; a game reserve managed by the Wildlife Division; and village land managed by local village governments and the Districts.

The poaching problem

Species affected: Elephants

Products in trade: Ivory

The area has extremely high levels of elephant poaching. Poachers are mostly local, with operations financed and organised by outsiders.

The anti-poaching initiative

The Ruvuma Elephant Project was established in 2011, organised by the not for profit organisation PAMS Foundation. Its goals are to establish a reliable picture of elephant status and threat in the area, to understand seasonal movements, control poaching, to ensure law enforcement and prosecution is a real deterrent, and to reduce elephant mortality due to human-elephant conflict.

In essence, community engagement in combating ivory poaching boils down to three types of action on the part of local people: they act as informants, they act as guards, and they change their own behaviour.

The project actively facilitates all three. In return, the people get paid for information, and for carrying out tasks. They get help to protect crops and sell the chilli peppers which are used for crop protection. They are also rewarded for good performance in law enforcement.

The strategy

Strengthening disincentives for illegal behaviour

- Paid in money community scouts
- Monetary incentives for community intelligence

Decreasing the costs of living with wildlife

- Preventive measures to deter wildlife

Increasing livelihoods that are not related to wildlife

- (Non-wildlife-based) enterprise development/support

Has the initiative made a difference?

In spite of the recent resurgence in poaching for ivory in Tanzania and Mozambique – and especially in the Niassa area and the Selous ecosystem – results show that the REP has managed to curb elephant poaching in the area. If current anti-poaching activities can be maintained, elephant populations in the REP should remain stable.

In the three and a half years after the project got underway, the impact on poaching was been greater than any other unit or project in Tanzania, with one exception. The Friedkin Conservation Fund (FCF) project, which operates in the north and western parts of the country, and which adopts a very similar approach to REP, has comparable levels of effectiveness.

REP project patrols and aerial surveillance showed a substantial drop in elephant carcasses seen during the first three years of operations (216 were spotted in year one compared to only 68 in year two and less than half of that in year three) – a decline that is not explained by a decline in the elephant population over all. Indeed the population of live elephants has remained stable or marginally increased over the same period. In the last five months of 2014, only one illegally killed elephant carcass was found.

Interventions led to the seizure of 1,582 snares, 25,586 pieces of illegal timber, 175 elephant tusks, 805 firearms, 1,531 rounds of ammunition, 6 vehicles and 15 motorbikes. So far, law enforcement activities have led to the arrest of 562 people

Lessons learned

What works and why?

The REP explains its success by having a strong focus on working closely with communities to achieve reciprocal support and participation, joint patrols and operations, and intelligence-led activities both in and outside the protected areas.

Those involved in the REP believe that the project works because the area is protected by multiple agencies, rather than a single authority. These include community-based organisations, and a nongovernment organisation which is a specialist in protected area management support (PAMS Foundation) assisting them and the relevant government authorities. Multiple agency involvement increases transparency which hinders corruption.

Another key factor is the high levels of community engagement, which is integrated into and supported by formal law enforcement. This aspect of REP strategy is based on the premise that local involvement in commercial poaching is a manifestation of other problems: the need for cash, lack of viable alternatives, lack of understanding of the importance and value of conservation, and lack of good relationships. All these causes need to be recognised and addressed before there can be any long term progress.

Factors affecting success

- Supportive, multi-stakeholder partnerships with a shared vision
- Sufficient time investment in building relationships and trust between the initiative and local communities
- Devolved decision-making power so local communities have a voice in creating or co-creating solutions (as part of the initiative)

What doesn't work and why?

Challenges include:

- The proximity of the project area to a long, porous national boundary.
- Working within funding and capacity constraints.
- The sheer scale of the opposition; the poachers' weaponry and tactics.
- Limited resources and weaponry available for the community scouts.

Lessons learned:

- Don't raise expectations of communities and then be unable to deliver on those expectations. Promising less and delivering more has proved to be an effective approach to win the support of communities.
- It is important to be sincere, reliable and timely (e.g. with payments) in all dealings.
- Sometimes the path of least resistance is not the path that is right. It is critical not to compromise on principles or do anything that could be legally used against you in the future – even when this might provide a short term fix.
- Don't limit your friends and allies to a single source – successful projects require support from a wide variety of sources if they are to be sustainable in the long term.
- While financial resources are essential, an integrated strategy, commitment and determination affect success more than just funding.
- Adaptive management is essential. Projects need to be prepared to change course and change tactics if what was originally planned is not working.

Factors limiting success

- Lack of long-term donor support that is flexible, adaptive and/or based on realistic time goals

2. The Greater Kilimanjaro Landscape

African Wildlife Foundation, Big Life Foundation, Kenya Wildlife Service, Tanzania Wildlife Division and Tanzania National Parks

Find and share this case study online:

<https://www.peoplenotpoaching.org/greater-kilimanjaro-landscape>



Members of the Maasai communities are employed as community scouts. Credit: African Wildlife Foundation

Summary

The Greater Kilimanjaro area – a 25,623 km² transboundary landscape that spans the Kenya–Tanzania border – is a critical region for elephant, lion and other species. Effective collaboration between local communities, NGOs and national wildlife authorities has proven successful in anti-poaching efforts, and more broadly in protecting the region's wildlife.

The project, which brings together communities, the African Wildlife Foundation, Big Life Foundation, Kenya Wildlife Service, Tanzania Wildlife Division and Tanzania National Parks, started in 2001.

Anti-poaching activities are seen as one element in a programme which is also focussed on developing community-based tourism, community capacity building, grazing management, livestock improvement and compensation schemes for loss from wild animal predators. All of contributed to a decrease in poaching.

Location

The Kilimanjaro landscape is a mosaic of ownership and land use. Protected areas include Amboseli, Kilimanjaro, and Chyulu Hills National Parks; there are community lands, such as group ranches and Wildlife Management Areas (WMA); private land includes former group ranches that have been subdivided and are held in title by

Maasai. The whole area is home to around 1,930 elephants, as well as other animals, such as lions, cheetah and black rhino.

The poaching problem

Species affected: Elephants

Products in trade: Ivory

Strong wildlife protection laws exist in both Kenya and Tanzania, but there remains a growing threat of elephant poaching in the area. This is driven by the rising consumer demand for ivory – mostly in Asia – and the presence of corruption in the region. Poachers are mainly outsiders, with local Maasai rarely involved.

The anti-poaching initiative

Throughout the area, community engagement in wildlife protection is integral to formal anti-poaching programmes. The Big Life Foundation, with support from the African Wildlife Foundation (AWF), and working closely with Kenya Wildlife Service and the Tanzania Wildlife Division, oversees anti-poaching in the region.

The strategy

Strengthening disincentives for illegal behaviour

- Paid in money community scouts
- Monetary incentives for community intelligence

Increasing incentives for wildlife stewardship

- Tourism
- Trophy hunting

Increasing livelihoods that are not related to wildlife

- (Non-wildlife-based) enterprise development/support

Has the initiative made a difference?

Joint transborder patrolling, increased coordination amongst all parties, mobile units and sharing of intelligence has resulted in a poaching decline. Between 2013 and 2014 the Kenyan side recorded a 54 per cent decrease in elephant poaching, while there has been no known elephant poaching on the Tanzanian side since 2012.

Lessons learned

What works and why?

The key to the project's success lies in its collaborative partnership and a holistic approach to conservation. The parties have succeeded in leveraging each other's skills and resources, while recognising specific roles and responsibilities.

Anti-poaching activities are seen as one element in a programme which is also focussed on developing community-based tourism, community capacity building, grazing management, livestock improvement and compensation schemes for loss from wild animal predators.

The integration of these varied activities results in protection of wildlife and land in a way that directly engages and benefits local communities.

Conservation jobs are highly popular. Working as a wildlife scout, as a guide or in a tourism facility all confer prestige, as well as offering training and an income. There are risks involved in anti-poaching activities – notably from possible encounters with armed poachers – but also from dealing with the difficult community relations that arise if a local person is killed by elephants. Generally speaking, such risks are balanced by the benefits of community engagement in wildlife protection. They receive training, revenue from tourism, revenue from hunting (in Tanzania), management engagement and leadership roles (on Group Ranch and WMA committees), ownership of tourism facilities, and social benefits such as water services, schools, bursaries and medical facilities. Another significant factor is that the region is mainly inhabited by Maasai pastoralists whose traditional way of life depends on open rangelands. Conservation activities help to maintain these rangelands, as well as creating additional jobs and revenue through tourism.

What doesn't work and why?

- The benefits from wildlife-based revenues do not impact every member of local communities; a single community poacher can have a negative impact.
- Population increases in the area means more pressure on wildlife, and more opportunities for human-wildlife conflict, with resulting animosity towards wildlife.
- Opportunity costs increase as agriculture expands into the area's wetlands, floodplains and rivers, with resulting sub-division of land for crop production.
- The increase in demand and rising price of ivory creates a significant incentive for community members to poach.
- The Tanzanian Wildlife Division is slow to release funds that are collected in WMAs and due back to the communities

3. Matumizi Bora ya Malihai Idodi na Pawaga (MBOMIPA) Wildlife Management Area

An association of 21 villages

Find and share this case study online:

<https://www.peoplenotpoaching.org/matumizi-bora-ya-malihai-idodi-na-pawaga-mbomipa-wildlife-management-area>



MGOMIPA Wildlife Management Area welcome sign. Credit: UNDP (2015)

Summary

Matumizi Bora ya Malihal Idodi na Pawage (MBOMIPA), Swahili for “Sustainable Use of Wildlife Resources in Idodi and Pawaga,” is an association of 21 villages in the Pawaga and Idodi Divisions of Iringa District in central Tanzania. MBOMIPA works with over 50,000 people on sustainable natural resource management and anti-poaching. The association established a community-run wildlife management area (WMA) in 2007 and promotes wildlife-based livelihoods as a means to ensure biodiversity conservation. Revenue generated from the WMA is split among member villages and is invested in healthcare, education, and infrastructure.

Location

MBOMIPA is Tanzania's biggest community-based wildlife management association. The WMA comprises 777 hectares of land along the southern border of Ruaha National Park, with many of the charismatic African mammals found in the Park and WMA. The WMA also includes hot springs, waterfalls, and caves that are tourist attractions.

The villages within Pawaga and Idodi are made up of different tribal groups, including the Hehe, Gogo, Bena, Kinga Kosisamba, Maasai, Barabaig, Mang'ati, and Sukuma. Agriculture and livestock are the primary sources of livelihood and subsistence crops include maize, millet, sorghum, and rice.

The poaching problem

Species affected: Elephants, Lions

Products in trade: Ivory, Lion bone and other products

In the late 1980s and early 1990s, Tanzania lost half its elephants and nearly all of its population of black rhino from poaching, and other species were similarly affected. Poaching continues today throughout Tanzania although at a reduced level.

The anti-poaching initiative

In response to large-scale poaching, the Ministry of Natural Resources and Tourism amended its wildlife policy to allow community participation in wildlife management, including through the establishment of community-based WMAs.

The assumptions underpinning WMAs are as follows:

1. Devolved control over wildlife will allow communities to retain benefits from activities such as ecotourism and trophy hunting
2. Improved livelihoods from these benefits will generate greater community support for conservation
3. Improved management practices and community support for wildlife will lead to reduced illegal activities
4. Wildlife populations will recover, providing communities with long-term and sustainable benefits

MBOMIPA was legally recognised as a community-based organisation 2002, becoming the first indigenous conservation and development organisation of its kind in Tanzania.

It is governed by a general assembly, who appoint four committees to oversee planning and finance, discipline and tourism, law enforcement and infrastructure. Members from these committees form the executive committee, which is responsible for implementing the association's day-to-day activities and decision-making.

The objectives of the association and the WMA are:

- To conserve and use the natural resources, particularly wildlife, forests, and fisheries, in the WMA and the 21 villages
- To provide awareness and education on the environment, natural resources and on vital issues such as disease
- To provide amenities such as schools, hospitals, dispensaries, water, and other social services
- To market products produced from the WMA

Between 2010-2012, USAID also funded a program that created more than 100 full-time and temporary jobs in the villages. The program upgraded the infrastructure of the WMA and included the construction of village game scout posts, the installation of boundary markers and gates, the creation of visitor centers and improvements to roads.

The strategy

Strengthening disincentives for illegal behaviour

- Paid in money community scouts
- Paid in-kind community scouts
- Raising community awareness about wildlife crime penalties and sanctions

Increasing incentives for wildlife stewardship

- Tourism
- Trophy hunting
- Subsistence resource access/use
- Policy/regulatory change to enable communities to benefit

Decreasing the costs of living with wildlife

- Preventive measures to deter wildlife
- Physical separation of people/livestock and wildlife

Increasing livelihoods that are not related to wildlife

- (Non-wildlife-based) enterprise development/support
- Provision of community-level benefits

Build/and or support sense of community ownership or stewardship

Improving education and awareness

Has the initiative made a difference?

The WMA has generated income and jobs from hunting and tourism, with surplus income invested in local infrastructure, which has improved community wellbeing.

As a result, farmers now have better access to markets for their crops, and wells have provided villagers with potable water. Profits have also been used to fund dispensaries and towards the construction of a health centre, which has increased access to basic health services and resulted in reduced mortality among pregnant women and newborn babies.

A secondary school was built in the village of Idodi, significantly increasing the number of children receiving education at this level and between 2008-2011, the MBOMIPA was able to support the education of over 40 orphans.

The establishment of agricultural and livestock use zones has reduced human-wildlife conflict and provided an example of how to integrate communities and communal land in landscape-level approaches to protecting biodiversity.

The benefits received by the villagers are gradually changing attitudes towards conservation and wildlife as members see the impact of wildlife profits being invested in community projects. Villagers have also changed land management practices in an effort to avoid further human-wildlife conflict, for example, have begun to plant chilli peppers for fences to protect from crop raiding by elephants.

Lessons learned

What works and why?

MBOMIPA's constitution highlights the importance of including women in leadership and decision-making positions. Ecotourism has provided women with greater income-generating opportunities, specifically in the production of handicrafts. Their ability to produce their own sources of income is empowering because it increases confidence, independence, skills, and social status.

One of the goals of the MBOMIPA Project logical framework, formulated in 1996, was that a new wildlife policy is implemented effectively during the project period and this goal was met within two years.

MBOMIPA is a legally-recognised WMA working in collaboration with the Tanzania Wildlife Division and the Tanzania National Parks Authority and this legal framework provides the association with legitimacy. This is a crucial building block for its future sustainability. MBOMIPA's partnerships with local government authorities and local NGOs have furthermore enhanced its ability to sustain itself.

Factors affecting success

- Supportive national policy/legislation for devolved governance of natural resources
- Coordinated and coherent sectoral policies/legislation (For example, land use planning, agricultural etc...)
- Supportive, multi-stakeholder partnerships with a shared vision
- Devolved decision-making power so local communities have a voice in creating or co-creating solutions (as part of the initiative)

4. Singita Grumeti Fund

Grumeti Fund, Singita

Find and share this case study online:

<https://www.peoplenotpoaching.org/singita-grumeti-fund>

Summary

Working in partnership with Singita, the Fund's mission is to contribute to the conservation of the Serengeti ecosystem, its natural landscape, and its wildlife. Active conservation management, collaboration with local communities, technological innovations and the deployment of hands-on conservation and law enforcement professionals allows the Fund to achieve tangible change and sustainable results.

Location

Singita Grumeti concessions are found in the western corridor of the Serengeti ecosystem (350,000 acres of land that forms a critical buffer zone for the iconic Serengeti National Park).

The concession is managed jointly by private (Singita Grumeti Fund) and government (TAWA, WMA authorities) partners. The area consists of Grumeti and Ikorongo Game Reserves, the Ikona WMA, Makundusi village grazing land, and the Sasakwa concession.

The poaching problem

Species affected: Elephants, Black Rhino

Products in trade: Ivory, rhino horn

The vast majority of poaching incidents at Grumeti involves commercial and subsistence bush-meat poaching (a cultural tradition), however, elephant poaching for ivory is a constant and increasing concern.

Retaliation in response to human-wildlife conflict is also present, exacerbated by the reliance of the local communities on small-scale agricultural enterprise, which makes them vulnerable to any losses sustained by wildlife. Killing and funnelling animal products into IWT can compensate for these losses.

The anti-poaching initiative

Anti-poaching

The Grumeti Fund combines cutting-edge technology with well-trained boots on the ground to combat this dual-poaching threat. We have established 12 permanent scout patrol camps and a network of high-lying Observation Posts which are manned 24/7. Furthermore, a state-of-the-art digital radio network and accompanying law enforcement database ensure Grumeti's limited resources are deployed efficiently and effectively.

A team of 100 game scouts have been employed. All of these men come from the local communities bordering the concessions, and the vast majority have a history of poaching involvement. Scouts undergo continuous training to maintain high standards of efficiency and safety. This includes following a strict fitness schedule, weapons training, self-defense courses, trauma medical training, and radio communication protocols.

Stationed across the 350,000-acre reserve - at camps or in Observation Posts, as a free-ranging Mobile Patrol Unit or as part of the Special Operations Group - these scouts are responsible for protecting the fauna and flora that has rebounded over the past 15 years in this critical area of the western Serengeti.

The Joint Intelligence Unit is a collaboration between the Grumeti Fund Law Enforcement Department and the Tanzanian Wildlife Management Authority (TAWA). This small clandestine unit relies upon on a network of informers from the surrounding villages and communities to provide us with invaluable intelligence on poacher movements. This is of critical importance to ensuring our anti-poaching work is proactive rather than reactive. We strive to apprehend poachers entering the concessions rather than engaging and arresting them after wildlife has already been killed.

Within the game scout force, there is an elite special operations unit comprising 18 high-performing scouts that have proven themselves to be the best of the best: game scouts with unquestionable integrity and the highest work ethic. They are provided with ongoing advanced training and high-tech equipment, as they are tasked with confronting the most serious security threats to the Grumeti concessions. They are

The strategy

Strengthening disincentives for illegal behaviour

- Paid in money community scouts
- Paid in-kind community scouts
- Non-monetary, in-kind incentives for community intelligence

Increasing incentives for wildlife stewardship

- Tourism
- Lease payments
- Other

Decreasing the costs of living with wildlife

- Preventive measures to deter wildlife

Increasing livelihoods that are not related to wildlife

- (Non-wildlife-based) enterprise development/support
- Provision of community-level benefits

Improving education and awareness

deployed as rapid reaction units to engage active poaching threats as well as safeguard the Critically Endangered black rhino.

Community Development and Education

Community members, village leaders, and government representatives participated in a large survey to understand the local community's pressing needs and concerns. The community outreach program, which is focused on improving livelihoods through education, enterprise development, and environmental awareness, was designed to address these.

The Grumeti Fund developed and launched UPLIFT (Unlocking Prosperous Livelihoods for Tomorrow). This is a community outreach program designed to enhance the livelihoods of individuals living along the boundary of the concessions. In a corner of Tanzania where 99% of wage earners are farmers – an occupation that is extremely vulnerable to external threats such as climate change and crop-raiding elephants – the Grumeti Fund is giving individuals the knowledge, tools and resources needed to provide for themselves, their families and their communities as a whole. UPLIFT employs a three-pronged approach to enhance livelihood security: assisting youth to achieve higher levels of education; increasing income generation opportunities; and promoting the peaceful coexistence of wildlife and humans.

The Grumeti Fund is enhancing the quality of education provided to youth from local communities to equip them with the knowledge and skills needed to pursue rewarding and successful careers. Support is provided in the form of scholarships for secondary school, vocational studies and education within the conservation and tourism sectors. For a hands-on experience, scholarship recipients are paired with a mentor from Grumeti Fund and provided with life skills training and internship opportunities within the organization.

Across all of the Grumeti Fund educational programs, girls empowerment is a key focus. Events for girls addressing empowerment, health, confidence, body image and career development are held several times a year.

The Fund's focus on education extends to the environment and the critical role each individual plays in minimizing their impact on the earth's limited resources. At the Environmental Education Center, 12 students accompanied by their teacher are exposed to critical environmental issues such as deforestation, soil erosion and water conservation that affects each and every one of them.

At the same time that the Grumeti Fund's law enforcement operations work to eliminate wildlife poaching, alternative options for income generation need to be developed to help households that rely on poaching make ends meet. The Grumeti Fund has partnered with Raizcorp – a business incubator that has a proven track-record of success in business development.

The enterprise development program consists of two key components: Guiding and Village Learning. Guiding is a high-touch entrepreneurial development approach providing intensive one-on-one business support to entrepreneurs to help them

enhance business development skills, whereas Village Learning consists of weekly sessions for budding entrepreneurs on business skills and personal development.

Has the initiative made a difference?

Anti-poaching - Key Accomplishments and key indicators of success include:

A fourfold increase in the elephant population despite the Africa-wide poaching pandemic

- 120 former poachers have been converted to wildlife protectors
- 7237 arrests have been made for poaching and illegal resource extraction
- In 2017, 475 arrests were made, 1,197 snares were removed, 331 traditional weapons were seized (e.g. snares, pangas, bows and arrows, spears).

Community Development and Education - Key Accomplishments and key indicators of success include:

- 330 students through the language development villages
- 92 entrepreneurs trained
- 582 girls engaged in empowerment event in 2017
- 100+ scholarships awarded each year

We hope to achieve changes in community attitudes following engagement with the environmental education program, job creation, and other economic incentives but have not evaluated attitudinal outcomes.

Lessons learned

What works and why?

Long-term donor agreements have been instrumental in maintaining program initiatives.

The Fund manages the concession in collaboration with local protected area authorities (TAWA, Ikona WMA) and works with district authorities to respond to conflict and develop intelligence. Supportive relationships have contributed to positive conservation outcomes, but can also be complex to navigate.

Investing time in building relationships has been critical for the development of intelligence networks.

In general, protected area boundaries are clearly demarcated and designations / allowable uses are well established, which supports the implementation of conservation management and law enforcement activities.

Factors affecting success

- Long-term donor support that is flexible, adaptive and/or based on realistic time goals
- Supportive, multi-stakeholder partnerships with a shared vision
- Sufficient time investment in building relationships and trust between the initiative and local communities
- Clearly defined tenure or resource use rights

What doesn't work and why?

Supportive national policy on sustainable use of natural resources - National policy dictates what uses are allowable within protected areas, and would limit any local efforts to allow for subsistence use/access to natural resources among community members, even if deemed locally desirable.

Clear and tangible benefits to communities from wildlife - improving direct links between benefits received and wildlife presence is highly desirable.

A large number of local households benefit from employment opportunities and development programs. Linking these benefits to the presence of wildlife, however, is a major challenge.

Basic land use planning policies are in place (e.g. prescribed buffer zones to minimize HWC, dedicated grazing areas with rules for access) but are largely unenforced and not monitored.

Factors limiting success

- Lack of supportive national policy/legislation on sustainable use of natural resources
- Lack of coordinated and coherent sectoral policies/legislation (For example, land use planning, agricultural etc...)
- Unclear and intangible benefits to local communities from wildlife (These may be financial and/or non-financial)

5. Increasing Capacity for Anti-Poaching and Enhancing Human-Elephant Coexistence

Southern Tanzania Elephant Program

Find and share this case study online:

<https://www.peoplenotpoaching.org/increasing-capacity-anti-poaching-and-enhancing-human-elephant-coexistence>



Young Tembo Cup attendees in Kintanula Village read STEP's human-elephant coexistence booklet. Credit: STEP

Summary

This is a three year project which aims to strengthen the capacity of wildlife authorities in Rungwa-Kizigo-Muhesi Game Reserves (RKM GRs) to combat wildlife poaching through support of aerial surveillance, ground patrols and increasing ranger capacity through trainings on the use of GPS and GIS in data analysis. It also aims to enhance human elephant coexistence in the villages surrounding RKM GRs via building community-run beehive fences, establishing Village Savings and Loan Associations to facilitate access to loans and credit, initiating community-led elephant monitoring networks and conducting awareness days. Southern Tanzania Elephant Program (STEP) works with the Protection Departments of the RKM GR to expand aerial surveillance operations and to increase capacity for integrating patrol and surveillance data into intelligence-led ranger mobilizations.

This project aims to increase food security, provide additional sources of income and eliminate human and elephant deaths, leading to increased tolerance of elephants among the communities in the Ruaha-Rungwa Landscape, thereby facilitating a reduction of poaching.

Location

The project takes place in and around the Rungwa-Kizigo-Muhesi Game Reserve (15,200km²), part of the larger Ruaha-Rungwa ecosystem (45,000 km²) in southern Tanzania. Rungwa Game Reserve was established in 1951, Kizigo in 1982 and Muhesi in 1994. The Game Reserves are characterized by miombo woodland, open grassland plains, rocky outcroppings and riverine valleys. The RKM GRs are managed by the Tanzanian Wildlife Authority (TAWA), a National agency operating under the Ministry of Natural Resources and Tourism.

The poaching problem

Species affected: Elephants

Products in trade: Ivory

Villagers around the protected areas are involved directly and indirectly in poaching. Around RKM GRs, people living in villages close to the protected areas illegally collect meat, honey, timber and/or fish in order to sustain their daily needs.

Due to the difficult nature of accessing this data from Protected Area staff, we have not been able to conduct detailed research on the primary drivers of poaching. From our extensive ground experience, we have observed that there is sometimes collusion with poachers from other regions, especially where ivory is involved. Members of local communities are often involved as trackers, skimmers and couriers of ivory. We have also observed that most of the poachers apprehended claim to be pastoralists and/or farmers, although other occupations are also mentioned. Agriculture is fairly basic in the villages around RKM GRs; lack of inputs, low soil fertility and erratic rainfall (due in part to climate change), crop yields are inconsistent. Livestock disease and depredation affect pastoralists. Due also to the remoteness of the area, market access is extremely limited. This further limits employment opportunities, presenting poaching as a source of income.

The anti-poaching initiative

The main strategy is to enhance anti-poaching capacity by supporting rangers and Village Game Scouts from both air and ground with data optimization, training and facilitating community involvement in key protected areas in Southern Tanzania.

Specifics include:

1. Improving ground and air patrols in terms of coverage and data collection: regular aerial surveillance is conducted in a minimum of 4000km² of Rungwa-Kizigo Muhesi Game Reserves. This includes coordinated ground-air response patrols and analysis of trends from aerial data which is shared with protected area management.
2. Improving data collection for quality reporting and decision making: STEP previously provided analysis of ground patrol data but now this is done within SMART (by GR staff)
3. STEP provides training in GPS and GIS to map patrol results which contributes to intelligence-led patrol planning.

4. Improving the ability to enforce laws related to illegal wildlife trade through increasing capacity for rangers to apprehend culprits by regular vehicle and foot patrols, training and donation of remote surveillance equipment (i.e. camera traps).

Human Elephant Coexistence strategies and approach

1. Livelihood protection and enhancement through beehive fences (crop protection and household income diversification): By improving livelihoods, STEP hopes that tolerance for the presence of elephants will increase. Beehive fences have been trialled to reduce crop loss by elephants (and to produce honey).
2. Livelihood protection and enhancement through Village Savings and Loans Associations (VSLA). These are small-scale, community-organized systems which enable people without access to formal financial services to save, invest and access loans. Members buy shares on a weekly basis, which provide the capital for loans. Loans are typically issued to members for three-month periods and are repaid with small interest. Members also contribute an agreed amount in a social fund that is available to members experiencing emergencies without interest. This credit can be used to directly respond to incidents of crop damage, offsetting costs born by households. It is also used to diversify household incomes, investing in agricultural production or in other businesses. By making households more resilient, the impacts of human-elephant conflict are less damaging.
3. Awareness raising events aim to provide fundamental education about elephant behaviour, the drivers of human-elephant conflict and how to stay safe around elephants. An increased understanding will hopefully reduce interactions and increase tolerance.
4. Monitoring of human elephant interactions through collection of data about crop, tree and food store damage incidences as well as elephant use of village water sources around and in the village land. This data is analysed to understand more about the movements of elephant populations in the region and to inform interventions (beehive fence locations, advice about water point locations).

Improving the data collected by rangers on patrols and by STEP's Local Elephant Monitors will lead to improvements in our program and can increase coexistence in the ecosystem. If well collected and thoroughly analysed, this data can provide a picture of the human pressures the ecosystem faces and can inform how to address them.

In order to reduce risks associated with living with elephants, our program supports farmers to protect their farms and food stores. It also works to enhance livelihoods through beekeeping and involvement in Village Savings and Loan Associations. We hope this approach will improve the level of tolerance of communities towards elephants.

Our programs are designed based on Free Prior and Informed Consent (FPIC). Before designing our program, STEP conducted ground and household surveys to

characterize land features, vegetation distribution, water sources, elephant movement patterns, frequency and seasonality and communities' experience (perceived benefit and risks) about human elephant interaction. This information was analysed and informed our interventions, including the design of our 2019 Community Leaders' Workshops, education and awareness-raising events (The Tembo Cup Football tournament with football matches, film nights and trainings in primary and secondary schools) and the content delivered at them. As much as possible, content generation and event planning (including scheduling, match rules and regulations) were reviewed and developed with the community.

Through these interventions, community members, their leaders and government authorities share their views, listen to others and engage in discussion on how best to protect their farms, food stores and how to improve human safety around elephants

The strategy

Strengthening disincentives for illegal behaviour

- Raising community awareness about wildlife crime penalties and sanctions

Increasing incentives for wildlife stewardship

- Other

Decreasing the costs of living with wildlife

- Preventive measures to deter wildlife

Increasing livelihoods that are not related to wildlife

- (Non-wildlife-based) enterprise development/support

Build/and or support sense of community ownership or stewardship

Improving education and awareness

Has the initiative made a difference?

We are currently not certain whether the project has contributed to a decrease in the rate of poaching in the area. We believe the program has somewhat decreased the number of poaching incidents during wet season when the rangers can not access remote areas (due to bad road network and flooding of rivers in the reserve). Recent aerial patrol data has shown a decrease in mining pit- encounters when compared with data collected at the beginning of the program. Access to remote surveillance technology has contributed to an increase in the number of arrests made per year because rangers can now arrest poachers without physical encounter in the reserve.

However these data are inconclusive as to whether there has been a decrease in poaching rates.

However, through monitoring indicators relating to human-elephant coexistence, we have observed that incidents of both crop and food stores' damage have decreased. This may suggest a concurrent improvement of tolerance among members of the communities living with elephants (assuming that crop damage is a driver of low levels of tolerance). Through close monitoring of elephant movement in the community, we have recorded 84 crop damage incidences in 2019, a 30% decline relative to 2017 in our two primary areas of data collection. For food store damage, we recorded only five incidents in 2019, compared to 12 incidents in 2018 (>50% decrease).

With our Village Savings and Loan Associations (which are intended to help diversify household incomes, making them more resilient to the impacts of human-wildlife conflict, thereby increasing tolerance), we monitor the number of loans that members are able to access and basic information about how they are used. In 2019, 19 farmers accessed loans that supported business establishment and agricultural activities.

As discussed above, through facilitation of a large education and awareness raising campaign centred around a football tournament, Tembo Week exposed more than 10,000 people to information about elephant behaviour and how to stay safe around elephants. STEP also achieved this through distribution of specially-designed booklets and fliers that directly address the challenges of human-elephant conflict in Rungwa. We intended for our program to build a more positive association with elephants through football tournaments. In addition to football matches, the film nights, community trainings and trainings at schools that we conducted reached more than 10,000 people. When we conducted simple knowledge retention surveys, an average of 79% of respondents retained knowledge regarding several key aspects of elephant behaviour and safety around elephants.

Lessons learned

What works and why?

Opportunities through education and awareness-raising: In areas with low population density, events that bring a large number of people together have potential to amplify important messages. STEP reached over 10,000 people through events conducted as part of The Tembo Cup 2019. During these events, STEP distributed 900 specially-designed booklets and leaflets to build community understanding of their interaction with elephants.

Using local community members to support with monitoring of elephant activities: STEP enrolled 3 residents to monitor elephant movements within community land. The monitors collect data on crop and food stores damage incidences, use of village water sources and tree damage by elephants. These were achieved between January and December 2019 and collected data are analysed and used to inform our future planning.

In combating poaching, aerial surveillance has proven to be an effective method of detecting and deterring poachers, especially in protected areas with poor road networks in wet seasons. Our aerial missions have resulted in several arrests, removed poacher's camps, apprehended illegal timber and other contrabands. The aircraft has widened the perspective of the rangers on the ground, helping them to patrol areas that were previously not accessible during rainy season.

Factors affecting success

- Supportive, multi-stakeholder partnerships with a shared vision
- Sufficient time investment in building relationships and trust between the initiative and local communities

What doesn't work and why?

Several of the human-elephant conflict mitigation methods that we have trialled have not worked due to climatic and market factors. A considerable challenge has been that very little donor funding is available for trying things. It is available for scaling things that work. However, different contexts require different interventions and new contexts require trialling interventions before they can be scaled. We have run into this challenge several times, proposing mitigation techniques as solutions when we are unsure of their viability. For example:

Trialling of chilli briquettes and Purdue Improved Crop Storage (PICS) did not work within our context. STEP did not conduct a thorough viability study on the value that these two mitigation strategies would add to farmers in protecting their crops in their farms or crop storage facilities.

Generally, failure of chilli briquettes was due to the initial trial design which required farmers to grow hot peppers for production of chilli briquettes (instead of using locally available varieties). There may still be an opportunity to test the viability of this method but cultivated hot peppers do not have a sufficient return on investment to justify labour.

With PICS bags (three layer plastic storage bags), STEP observed that PICS were not seen as providing sufficient return on investment due to large land sizes and subsequently large harvest quantities which complicate the investment in individual storage units.

Beehive fences faced the challenge of low occupancy due to prolonged dry periods and short bursts of heavy rain (with an especially heavy 2019-2020 rainy season), limiting the flowering of key tree species and reducing water availability to support bee activities. Low occupancy limits honey production, complicating the value proposition of the fence.

We have struggled with low participation, mistrust and a lack of transparency among members and their leaders in our Village Savings and Loan Associations, due in part to not frequent enough follow up. Low participation resulted in a lower amount of

money available for lending, limiting the perceived value of VSLAs. In general, frequent and dynamic monitoring and evaluating (of operational indicators, not just impact-indicators) is critical for any field-facing project.

From the Protection side, we introduced a remote real time satellite linked surveillance system to combat poaching in Rungwa. The system consisted of cameras, magnetic sensors as well as a Graphic User Interface (GUI) to monitor the system. The system initially performed well but there was a challenge of reliable internet connectivity for the operation of the GUI. This caused rangers to miss most of the triggers sent by the system. Not only that, the system required close monitoring for 24 hours and a standby team to respond to triggers as they arrived on the computer in the control room. We decided to replace the system with conventional camera traps which needed less manpower and resources to operate. Conventional camera traps have been a success, helping rangers to apprehend poachers in collaboration with their confidential Informants.

Factors limiting success

- Lack of coordinated and coherent sectoral policies/legislation (For example, land use planning, agricultural etc...)
- Lack of long-term donor support that is flexible, adaptive and/or based on realistic time goals
- Ineffective and/or untrustworthy community leaders

This booklet was produced by the People Not Poaching Initiative and TNRF for National Elephant and Rhino Awareness Day in Tanzania 2020.

The People Not Poaching Initiative is led by the International Institute for Environment and Development (IIED). The initiative aims to support and showcase community-based approaches to tackling poaching and illegal wildlife trade. The initiative is part of a project working in Tanzania called 'Learning and action for community engagement against wildlife crime. For more information, visit:

<https://www.iied.org/learning-action-for-community-engagement-against-wildlife-crime>

This initiative is supported by UK Aid through the IWT Challenge Fund project

<https://www.gov.uk/government/collections/illegal-wildlife-trade-iwt-challenge-fund>

Do you know a relevant initiative involving community-based approaches to tackle poaching and illegal wildlife trade?

Get in touch with us at peoplenotpoaching@gmail.com and we'll showcase the initiative on the People Not Poaching Website and through our social media and webinars.

For more information on People not Poaching please go to our website:

peoplenotpoaching.org



Case studies

We have 107 case studies, here are some highlights



Crocodilian management in Lake Cuniã reserve



Tackling Illegal Logging in Ulu Masen, Aceh



Community-Based Ecotourism as a tool to reduce poaching in Malaysia



CATCRAFTS: Crafting a shared future for Andean cats and local communities

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