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## INTERVENTIONS TO IMPROVE THE FOOD SECURITY OF COMMUNITIES IN WILDLIFE-DOMINATED LANDSCAPES IN NORTHERN BOTSWANA

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SDGs:



Countries:

Botswana

Project Code:

TCP/BOT/3601

FAO Contribution:

USD 496 000

Duration:

3 March 2017 – 31 December 2019

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### Implementing Partner

Ministry of Environment, Wildlife and Tourism, Department of Wildlife and National Parks (DWNP); Botswana Predator Conservation Trust (BPCT); Panthera.

### Beneficiaries

Local communities, Botswana Defense Force, Botswana Police,, district government officials and private tourism companies.

### Country Programming Framework (CPF) Outputs

CPF 2017-2021. Priority Area 1: Supporting the development and review of inclusive policies, regulatory frameworks and strategies; Priority Area 2: Supporting increased agricultural production and productivity through environmentally friendly and climate smart practices; Priority Area 3: Supporting nutritious, safe and trade-oriented livestock, crops and food systems.



## BACKGROUND

Wildlife-based tourism plays an integral part in the economy of Botswana. In 2015, tourism was estimated to have represented 12 percent of Botswana's gross domestic product and to have generated 32 000 direct and 69 500 indirect jobs. The tourism industry and associated livelihoods are dependent on the effective management and protection of the country's wildlife resources. The Okavango Delta, a World Heritage Site, is the focus of Botswana's tourism industry and hosts a large number of tourism facilities. However, there is concern that wildlife populations in the Delta are declining; recent research indicates that the poaching of animals for bushmeat is potentially a major contributing factor. Poaching for bushmeat provides relatively limited livelihood benefits for the individuals involved, but places the livelihoods of much larger numbers of local people at risk by jeopardizing the tourism industry and its thousands of associated jobs, as well as by exacerbating wildlife conflict issues for local livestock farmers. Bushmeat poaching results in the destruction of significant quantities of wildlife but captures a tiny fraction of the value of the wildlife killed. Two key drivers for bushmeat poaching in the Okavango Delta are a lack of opportunity for some communities to access legal benefits from wildlife and the high costs imposed on communities in the form of human-wildlife conflict. Poaching is facilitated in some parts of the Delta by the vastness of the ecosystem combined with various logistical and financial limitations confronting the authorities commissioned with protection of the resources. The aim of the project was to address these issues.

## IMPACT

The project improved livelihoods and food security by reducing human-wildlife conflict, raising awareness of the need for wildlife management and discouraging poaching. The community now has a sense of ownership and is in the process of initiating community-based ecotourism not only to strengthen and improve conservation of the environment and wildlife resources, but also as a source of income.



## ACHIEVEMENT OF RESULTS

A comprehensive review of existing policy and statutory instruments regulating wildlife-based land uses, including on communal lands, was carried out and interviews with key stakeholders were conducted to collect data and information at central, district and community levels. Following two validation workshops, a comprehensive legal gap analysis on the applicable legal framework including a specific set of concrete recommendations was produced and shared with the Government to inform future legal review processes.

The incidence of human-wildlife conflict was reduced through the patrol activities of recruited and trained Community Scouts, the fortification of 56 traditional kraals and awareness-building activities at community level. As a result of the increased awareness among community members in Habu village, it was decided to initiate community-based ecotourism as a source of income, as well as a way to strengthen and improve the conservation of the environment and wildlife resources. Training in rangeland management and environmental issues was organized in schools, and numerous community stakeholder meetings were held, empowering communities and strengthening the sense of ownership of the environment and wildlife resources.

## IMPLEMENTATION OF WORK PLAN

Constraints were faced throughout the project, starting at the design and approval phase, and including the approval of Letters of Agreement (LoAs) with implementing partners, the recruitment of a national legal consultant and procurement activities. Taking into consideration the delayed onset of the project, a no-cost extension was granted to December 2019. Further delays in receiving final reports and financial statements also contributed to the need for a project extension.

Envisaged risks included the failure to respond to recommendations for policy and legislation reform, and community resistance to the livestock guardian programme. These risks were successfully managed through inclusive consultative processes with community members, and the conduct of awareness-raising events and meetings. Environmental and social risks were managed by finding solutions to the challenges faced, and by including the various stakeholders at all stages.

## FOLLOW-UP FOR GOVERNMENT ATTENTION

It is recommended that the Government consider changes in the current policy and legal framework related to the development of wildlife-based land uses and to the production and marketing of game meat in line with the set of regulation documents produced by the project.

## SUSTAINABILITY

### 1. Capacity development

The legal recommendations developed by the project aim at supporting the Government and policy-makers' informed review of the existing policy and legal framework to ensure a more sustainable use of wildlife resources. Although gaps remain, the project triggered discussion and brought stakeholders together to discuss the recommendations. The project also acted as a catalyst to mobilize more resources to continue to conduct discussions around the legal framework with the Government of Botswana, which agreed to fund a project, scheduled to start in mid-2020, that includes a section to follow up on legal recommendations. The project also gained strong support and enthusiasm at local district level; this is expected to be strengthened by the new project, which will take advantage of the lessons learned and scale up activities with the aim of addressing the gaps identified during this project.

Strong collaboration and partnerships were developed with Community Scout members, the police, the Botswana Defence Force (BDF), DWNP, anti-poaching units and district government officials, with regard to issues of poaching and suspected poaching. These partnerships benefited both the Community Scouts and BDF soldiers encamped in the Habu project area, where the Scouts were able to support the BDF with transportation and information while BDF provided the requisite authority, expertise and security in the field.

### 2. Gender equality

Equal opportunities were provided for women and men in the recruitment of Community Scouts, and all the community meetings and environmental education programmes held under the project were open to and attended by both women and men in the community. Both women and men benefited from the fortification of kraals to protect their livestock from predation during the night.



### 3. Environmental sustainability

Given the effects of climate change on community members, wildlife and livestock in recent years, strong emphasis was placed on environmental sustainability and adaptation measures to improve the livelihoods of the community. Diversification of livelihoods was also encouraged in the forms of sustainable livestock production and community-based wildlife tourism. The project demonstrated that when community members are equipped with knowledge and empowered with control over their resources, the community as a whole can plan for and adopt new and more sustainable alternative livelihoods that benefit a broader range of local residents. The value of the Habu community's grassroots initiative to set aside over a third of its communal grazing lands for a community wildlife conservancy is best reflected in recent recorded increases in resident wildlife numbers taking advantage of the community's investment in providing water for wildlife.

### 4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The project was initiated on the demand of the Habu community respecting its free, prior and informed consent. As a result it provided employment opportunities by recruiting community members as Community Scouts, building their capacities and skills to the benefit of the whole community. The plan to develop ecotourism as a source of income generation will provide further employment for the community. In addition, the non-confrontational and non-aggressive approaches and negotiation skills acquired by the Scouts minimize their risk when encountering poachers in the field; this is particularly important as the Scouts are not armed.

### 5. Technological sustainability

The project procured solar-powered energy sources for use where the mobile network is weak or unavailable, and Spatial Monitoring and Reporting Tool (SMART) devices to supplement the erratic or non-existent electricity supply, providing a real-time means of communication with base camp, BDF, BWNP and the police to report suspected cases of poaching, and to enable data collection and the recording of patrols conducted by the Scouts. This will make it easier to analyse and advise on the wildlife situation in the field.

The project made numerous contributions towards the development of local knowledge, capacity, resources and good practices.

Community members were empowered through workshops, awareness-raising activities, the implementation of such activities as building and fortifying kraals, and good livestock husbandry practices to adapt to the changing climate. They also learned how to research and document customary rights related to the use and conservation of wildlife resources.

### 6. Economic sustainability

The project mobilized additional resources to implement the new project on sustainable wildlife management, scheduled to start in mid-2020. The fortification of kraals made use of locally available resources and can be replicated by other households in the community without the need to procure materials from vendors. The skills acquired by the Community Scouts in wildlife management, scouting and administration are invaluable and can be passed on to others in the community. Ecotourism plans are also in progress and will help to generate additional income and employment for the community



### DOCUMENTS AND OUTREACH PRODUCTS

- ❑ Panthera LoA Progress Report 1. P. Funston and D. Jooste. October 2018. 8 pp.
- ❑ BPCT LoA Progress Report 1. J.W. McNutt and B. Heermans. November 2018. 9 pp.
- ❑ Two articles reporting on the Habu project were published in the Ngami Times (December 2018 and May 2019).
- ❑ BPCT LoA Final Report. J.W. McNutt. February 2019. 26 pp.
- ❑ Panthera LoA Progress Report 2. P. Funston and D. Jooste. March 2019. 11 pp.
- ❑ BPCT LoA Progress Report 2. B. Heermans. May 2019. 10 pp.
- ❑ A three-part public radio series was aired on the National Broadcasting Station Radio One in July and August 2019. The series featured interviews with Habu farmers, Community Scouts and project partners including BPCT, DWNP and FAO staff.
- ❑ Report of the National Legal Framework on Sustainable Wildlife Management in Botswana -Country Profile. E. Chitsove, G. Lekgowe and T. Madebwe. January 2020. 85 pp.
- ❑ Panthera LoA Final Report. P. Funston. April 2020. 29 pp.

## ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

<b>Expected Impact</b>	<b>The overall impact of the project was to improve livelihoods and food security by minimizing the costs associated with living with wildlife, and maximizing scope for the derivation of legal benefits</b>		
<b>Outcome</b>	Providing policy recommendations for the participation of communities in wildlife-based land uses in northern Botswana		
	<b>Indicator</b>	<ol style="list-style-type: none"> <li>1. Legal gap analysis including a set of recommendations produced and validated.</li> <li>2. Reduced costs related to human-wildlife conflict incurred by communities.</li> <li>3. Raised awareness of the value of wildlife and good animal husbandry among local people.</li> <li>4. Community participation in wildlife management.</li> </ol>	
	<b>Baseline</b>	0	
	<b>End Target</b>	100%	
	<b>Comments and follow-up action to be taken</b>	<ol style="list-style-type: none"> <li>1. Comprehensive legal gap analysis including a set of concrete recommendations was produced, validation workshop were conducted and comments were incorporated. Some gaps were identified and the proceeding project on sustainable wildlife management will attend to filling these as well as to covering other sectors such as animal production and food safety.</li> <li>2. Human-wildlife conflict has decreased as a result of the patrolling of the Community Scouts, the fortification of kraals and the conduct of awareness training.</li> <li>3. Awareness has been increased and, as a result of the project, community members have decided to start community-based ecotourism as a source of income, as well as a way of strengthening and improving conservation of the environment and wildlife resources.</li> <li>4. Numerous community stakeholder meetings were held during project implementation, empowering the communities and strengthening the sense of ownership of the environment and wildlife resources.</li> </ol>	
<b>Output 1</b>	A set of recommendations for policy and legislative reform that outline the changes needed to empower communities to benefit legally from wildlife in the Okavango Delta and surrounding areas, which allow for the development of community-owned and -run wildlife ranches/conservancies, and for the legal and sustainable production of wild meat as an alternative to that sourced from illegal hunting		
	<b>Indicators</b>	<b>Target</b>	<b>Achieved</b>
			Yes
<b>Baseline</b>	0		
<b>Comments</b>	Comprehensive legal gap analysis including a set of concrete recommendations was produced, two validation workshops conducted and comments incorporated into the documents. Some gaps were identified, to be filled by the proceeding project on sustainable wildlife management which will also further analyse the statutory instruments regulating animal productions and food safety.		
<b>Activity 1.1</b>	Evaluate the current policy and legislative framework related to the development of wildlife-based land uses (wildlife ranches/conservancies) and to the production and marketing of game meat on communal land in Botswana. This activity will involve a review of existing policy and legislation and interviews with key stakeholders (e.g. communities, wildlife industry players, government officials). In addition, a workshop will be held to discuss and debate changes needed to enable wildlife-based land uses on communal lands to become a viable land use option		
	<b>Achieved</b>	Yes	
	<b>Comments</b>	A review of existing policy and legislation and interviews with key stakeholders were conducted to collect data and information at both central government level and district/community levels.	
<b>Activity 1.2</b>	Develop concrete proposals for policy and legislative amendments for consideration by the Government		
	<b>Achieved</b>	Yes	
	<b>Comments</b>	A set of concrete recommendations was developed and shared with the Government for consideration.	
<b>Activity 1.3</b>	Disseminate findings of the policy and legislation review and present recommendations at a workshop involving key government officials, including DWNP, the Ministry of Environment, Wildlife and Tourism, and the Ministry of Defence, Justice and Security		
	<b>Achieved</b>	Partially	
	<b>Comments</b>	Two stakeholder validation workshops were conducted; the first, at district level, informed the final presentation at the second workshop, held at national level. Owing to uncontrollable circumstances, the Ministry of Defence, Justice and Security was not represented at the workshop. However, the workshop brought together the legal department in the Ministry of Environment as well as non-governmental organizations actively engaged near Habu village.	

<b>Output 2</b>	Reduce the costs incurred by communities through human-wildlife conflict on the boundary of the Okavango Delta		
	Indicators	Target	Achieved
			Yes
<b>Baseline</b>	0		
<b>Comments</b>	<p>Human-wildlife conflict decreased as a result of the patrolling of the Community Scouts, the fortification of kraals and the awareness training conducted. During patrols, the Scouts recovered 29 snares, while the awareness training led to an increased appreciation of the role played by predators that used to be hunted in keeping livestock from being attacked. According to the community survey, individual farmers reported an average annual loss to predators of three cattle. The average loss of cattle to predators inside the traditional kraals constructed under the project was calculated at less than one per year (average = 0.61). Only one predation event involving large carnivores was reported in a project survey of the 55 fortified kraals, the cause of which was identified as an overhanging tree above the kraal that allowed easy access by a leopard. Including this event, the fortification strategy reduced livestock lost inside a kraal from .61 to .01 per annum, a reduction that could save a farmer an average of BWP1 500/year if the fortified kraals are used and maintained (calculated at a conservative estimate of BWP2 500/cattle).</p>		
<b>Activity 2.1</b>	Hold community meetings to introduce the livestock guardian and predator-proof kraal concepts to communities in order to gain their buy-in, and as the basis for selecting prospective community participants		
	Achieved	Yes	
	Comments	<p>Kgotla (community/village-level) meetings and workshops were convened throughout project implementation to disseminate information on details of the project and progress updates, to present results of Community Scout activities, and to implement project focal objectives: training in human wildlife conflict mitigation strategies, rangeland management and the Herding for Health initiative. The meetings included three main kgotla workshops involving all of Habu village and more than 15 'sub-kgotla' focal group meetings focused on addressing the issues with targeted participants. From lessons learned in the planning and attendance of the larger village-wide kgotla assemblies, a strategy evolved of holding smaller meetings at sub-kgotla level to increase attendance and participation specifically from household heads.</p>	
<b>Activity 2.2</b>	Establish a 'Livestock Guardian' programme involving eight former illegal hunters selected from the villages living along the western delta		
	Achieved	Yes	
	Comments	<p>The Community Scouts programme began in September 2019 with 16 community members employed from Habu village. This included five women (women applicants were few at the outset, but interest among Habu community women increased over time). The number of scouts was increased from the original ten to 16 in order to distribute the benefits of employment to a larger portion of the community.</p> <p>The 16 Community Scouts were trained intensively in the use of SMART (Spatial Monitoring Assessment and Reporting Tool) by the service providers (Panthera and Peace Parks Foundation in collaboration with BPCT). The SMART training entailed recording observation to generate data on wildlife monitoring, livestock and rangeland assessments, human-wildlife conflict and community surveys on Blackview smartphones using Cybertracker software. Scouts were also provided with training in the field and wildlife-related safety procedures for situations that could arise while working in the field, including wildlife behaviour, field manoeuvre tactics, firearm safety and basic first aid. Additional training was provided in a week-long planned grazing course by facilitators of the African Centre for Holistic Management from Zimbabwe. Two Scouts were sent as delegates to the Southern African Wildlife College in South Africa for a one-month eco-ranger training course.</p>	
<b>Activity 2.3</b>	Embark on a programme to assist communities in the construction of mobile predator-proof kraals to reduce incidences of livestock depredation at night		
	Achieved	Yes	
	Comments	<p>Traditional kraal designs were analysed, based on cost and effectiveness in protecting livestock from predators, before choosing an appropriate method for Habu. Following an assessment of kraal designs in the Okavango panhandle, the traditional method used in Habu was adopted and the kraals were 'fortified' using local materials (thorn bushes), making them higher, denser and wider. This was a cost-effective method for Habu farmers and relatively easy to implement with assistance provided by the Community Scouts. By December 2019, the Community Scout team had fortified 56 traditional kraals. A team of four scouts required up to four days to complete a kraal, depending on size and the proximity of thorn bushes. In September 2019, following requests by Habu farmers stressed by severe drought conditions, focus switched to borehole fortification and protection by hand-dug trenches to protect from elephant damage. This was a labour-intensive endeavour for scout teams, requiring from two to four weeks to complete. Farmer participation in digging the trenches was high and protection for five boreholes was completed by December 2019.</p>	

<b>Output 3</b>	Raise awareness among communities of the value of wildlife and of how to improve livestock husbandry		
	Indicators	Target	Achieved
			Yes
<b>Baseline</b>	0		
<b>Comments</b>	<p>Awareness has been increased and, as a result of this project, community members have decided to start community-based ecotourism as a source of income, as well as a way of strengthening and improving conservation of the environment and wildlife resources. During kgotla and sub-kgotla meetings, effort was put into educating the community on the importance of planned grazing and rangeland management, including over ten sub-kgotla workshops. In addition, an Environmental Education (EE) Programme begun at the local school along with government school programmes in the 1980s-90s was re-initiated by the Community Scouts. The EE Programme included practical environmental lessons on how the provision of ground cover vegetation assists with water retention in the soil for improved farming, and the inverse, on the costs of overharvest and overstocking.</p>		
<b>Activity 3.1</b>	Hold meetings involving the guardian team and local communities to discuss issues pertaining to wildlife conservation, the need to conserve wildlife to protect livelihood benefits associated with tourism and to reduce human-wildlife conflict, and on how to improve livestock husbandry		
	Achieved	Yes	
	Comments	<p>Kgotla meetings and workshops were held throughout the project to provide training in human-wildlife conflict mitigation strategies, rangeland management, and the Herding for Health initiative. The meetings included three main kgotla workshops involving all of Habu village and more than 15 sub-kgotla focal group meetings focused on addressing the issues with targeted participants. From lessons learned in the planning and attendance of the larger village-wide kgotla assemblies, a strategy evolved of holding smaller meetings at sub-kgotla level to increase attendance and participation specifically from household heads.</p>	
<b>Activity 3.2</b>	The livestock/wildlife guardians will give presentations on issues pertaining to wildlife conservation and livestock husbandry at local schools		
	Achieved	Yes	
	Comments	<p>After the Scouts had been certified in a week-long training course for rangeland management, they conducted an afternoon of interactive lessons for every student at Habu Primary School (around 300 students). The lessons included PowerPoint presentations on the value of wildlife and the role of a Community Scout, tag games on predator-prey relations and population dynamics, and a field experiment on rangeland management. The afternoon visits lasted an average of three hours. Three school visits were made to reach every student in the school.</p>	
<b>Activity 3.3</b>	The livestock/wildlife guardians will give interviews on local radio and television stations in the local Setswana language to discuss wildlife conservation, illegal hunting and livestock husbandry		
	Achieved	Yes	
	Comments	<p>Two articles on the Habu project were published in the regional newspaper, the Ngami Times (December 2018 and May 2019). The high costs incurred resulted in the replacement of local publishing by a three-part public radio series aired on the National Broadcasting Station Radio One in July and August 2019. The series featured interviews with Habu farmers, Community Scouts and project partners including BPCT, DWNP and FAO staff. On a monitoring mission to the project site, the National Project Coordinator (NPC) also arranged for DWNP journalists to document and interview Scouts and community members for national radio broadcasting.</p>	



<b>Output 4</b>	Achieve community participation in wildlife management		
	Indicators	Target	Achieved
			Yes
<b>Baseline</b>	0		
<b>Comments</b>	<p>Support from the NPC to liaise and discuss with community members and the kgosi (village chief), in particular at the onset of the project, had a great impact in terms of gaining the community's enthusiasm, understanding and engagement with regard to project activities.</p> <p>Numerous community stakeholder meetings were held during implementation, empowering communities and strengthening the sense of ownership of the environment and wildlife resources.</p>		
<b>Activity 4.1</b>	Hold meetings involving the guardian team, DWNP and local tourism industry stakeholders to develop a framework for the participation of community guardians in playing a role in anti-poaching and law enforcement		
	Achieved	Yes	
	Comments	<p>In April 2019, a meeting was held involving FAO staff, BPCT, the Habu Elephant Development Trust, BDF, DWNP and the Habu police to discuss the role that the Scouts could play in assisting with anti-poaching. Law enforcement was examined and recommendations developed for strengthening collaboration. It was agreed that the Scouts would report information concerning illegal activity to the appropriate agents and consign confiscated ivory to DWNP or the local police. In addition, it was agreed that BDF could assist Scouts with dual patrols in the field. As local BDF squadrons are on a three-month rotation, it was essential for the Scouts to work constantly to build working relations with BDF. Over time the communication and working linkages between the Community Scouts and the BDF soldiers encamped in the Habu area were strengthened as the Community Trust and the Scouts supported BDF with transportation and information, while BDF provided the requisite authority, expertise and security in the field.</p>	
<b>Activity 4.2</b>	The livestock guardians would also act as 'Wildlife Guardians' and would play a number of roles related to wildlife management		
	Achieved	Yes	
	Comments	<p>A large part of the Scouts' duties entailed wildlife monitoring patrols on foot in three or four-person teams covering an average of 15 km/day while recording all wildlife and human activity observed and attempting to interview any persons encountered in the field. Another core duty was assisting area farmers when any issue pertaining to human-wildlife conflict was reported. This included assisting farmers to submit Problem Animal Control Reports (required for compensation eligibility) to the Government, chasing away predators from cattle posts or grazing livestock, and reporting stray cattle or depredation events. All Scout patrol activities were compiled in monthly SMART reports.</p>	



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