

CEPF Final Project Completion Report

Organization Legal Name:	Wildlife Conservation Society
Project Title:	Reducing External Pressure and Improving Management of Nyungwe National Park, Rwanda
Grant Number:	CEPF-109075
CEPF Region:	Eastern Afromontane
Strategic Direction:	2 Improve the protection and management of the KBA network throughout the hotspot.
Grant Amount:	\$99,976.24
Project Dates:	July 01, 2018 - October 31, 2019
Date of Report:	December 30, 2019

IMPLEMENTATION PARTNERS

List each partner and explain how they were involved with the project.

The main WCS partner in the implementation of this project is Rwanda Development Board, a government institution that manages Rwanda's national parks. RDB oversaw implementation of this project toward meeting its needs and objectives. NNP management team was involved in project activities planning, implementation and evaluation. Nyamasheke district, a decentralized local government with a mandate of developing communities, mobilized communities to form and join VSLAs, training and disbursement of grants. District and sector authorities participated in community awareness meetings and other meetings to discuss the progress and challenges of this project activities. Réseau interdiocésain de Microfinance (RIM), a local microfinance organization, facilitated financial literacy and training Cyato VSLAs members in small scale project management, facilitated and evaluated VSLAs applications for financial support to expand their livelihood activities.

CONSERVATION IMPACTS

Summarize the overall impact of your project, describing how your project has contributed to the implementation of the CEPF ecosystem profile.

- **Park staff improved their capacity and adopted new conservation tools that help them to manage Ranger-Based Monitoring (RBM) data and to effectively plan and carry out patrols covering the entire park: 60 (25 ToT) park rangers were trained in RBM/SMART and animal population data**

collection in addition to their mandate of park protection patrols. Furthermore, 15 (14 park staff & 1 RDB/HQ staff) were trained in the use of SMART system to enter, analyze, build and run queries and reports from SMART system. Last but not least, 13 park staff were trained in the use RStudio and Presence software to analyze camera trap data.

- SMART system was established and adopted to support law enforcement in Nyungwe National Park. WCS successfully tried SMART system in Nyungwe National Park and at the end of the project RDB is planning to extend SMART in other parks in near future starting with Gishwati-Mukura National park. SMART users received various training sessions on the use of SMART, user documents were developed or updated to the Nyungwe context.
- Animal population monitoring was established and strengthened in Nyungwe National Park – 60 rangers trained in methodologies used to monitor animal populations, 13 people trained in camera trap analysis, provided basic equipment (camera traps) for data collection, and developed supporting documents including animal identification tool. Using camera trap data, ever first checklist of mammals was produced for Cyamudongo KBA.
- Livelihood alternatives to park resources were provided to poor communities in Cyato sector, Nyamasheke district with limited access to financial services. 34 VSLAs (504 members) were formed and 374 VSLAs members were trained in financial literacy and small scale project development. Facilitated by RIM, WCS provided financial support to 163 (63 Females & 100 Males) to start livelihood alternatives activities to park resources use: off-farm income generating projects, agriculture inputs and livestock.

Planned Long-term Impacts – 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
The long-term impact of this project is improved management of NNP. The entire park (1019km ²) will be better managed because of improved law enforcement activities and threats reduction	The adoption of SMART to support law enforcement in Nyungwe National Park has showed a difference after just one year. Strategic law enforcement patrol planning, along with quick and flexible data analysis and report generation in SMART allows rangers to strategically carry out their law enforcement patrols. Data collection, analysis and report production on key animal species (those of species targeted by poachers, conservation concern) helps to provide information for evaluation if law enforcement objectives are met. The results from SMART were used in various meetings to discuss and plan for quick intervention and propose adaptive management activities within RDB/NNP departments for better management of Nyungwe-Cyamudongo KBA. However, there is still a lot to do for SMART to be used at its full capability for improved management of Nyungwe. For instance, Rangers use hand-held GPS and papers to collect RBM/SMART data resulting in a potential errors (during data transfer) and data missing (rainy weather conditions). There a need to move to the next step (use cyber tracker) and explore intelligence component which was not covered in this project period.
Animal population, including chimpanzee, in the park shows 0% decline from 2019 to 2024	Wildlife Conservation Society purchased 14 camera traps and their accessories, and trained 60 park staff in two major methodologies (camera trapping and reconnaissance) to monitor animal populations. With matching funding from National Geographic Society, 13 RDB and WCS staff received 5-day training session in analysis of camera trap data using RStudio and Presence software. Rangers collected animal population data through SMART in Nyungwe main forest

	whereas camera traps were deployed in Cyamudongo forest for two seasons. Collected animal population data form a baseline data and will serve to assess and monitor patterns of animal population in subsequent years.
RBM-SMART is adopted for use in at least two other national parks	Wildlife Conservation Society emphasized on establishment and adoption Spatial Monitoring and Reporting Tool (SMART) in Nyungwe National Park. SMART data model was developed, trained park staff, developed report format, and developed or made available supporting documents (data collection manual and SMART user manual). During the debriefing meeting with RDB, the progress and achievement of SMART use was appreciated and a plan to extend SMART in other national park (Gishwati-Mukura) was recommended as next step in near future.
200 new members join VSLAs in Cyato region	Wildlife Conservation Society in collaboration with the management of Nyungwe National park organized and worked with Nyamasheke district and Cyato sector leaders to mobilize communities about the value conservation of Nyungwe and how human activities compromises conservation objectives. Communities were mobilized to join VSLAs as strategy to work with micro-finance institutions and access finance to develop livelihood alternatives. As results, 34 VSLAs were formed with 504 (>200% of expected target) new members in Cyato sector. Each VSLA formed was provided with basic equipment: Member's Booklet, saving box, recording books, stamp among others necessary to start VSLA management function.
50% of successful VSLA participants (approximately 70 out of 140) have graduated to formal financial access mechanisms	163 members of VSLA of which 38.65% are Females have graduated to formal financial access mechanisms and are able to work directly with microfinance innstitutions with little WCS's interventions.

Planned Short-term Impacts – 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
34 park staff personnel have improved capacity in SMART patrol and animal monitoring	Wildlife Conservation Society organized and facilitated participative training in SMART data collection. We trained 60 (176% of target) park staff personnel of which 30 staff trained as ToT in SMART data collection. Furthermore, 15 RDB and WCS (13% female) staff received a 5-day training session in the use of SMART (data entry, build and run queries and reports for park staff, and SMART system management. SMART data collection protocol was developed and data collection form reviewed and updated to match with SMART data. SMART user manual (developed by SMART developer group) were made available to SMART users. In addition, WCS and RDB conducted on-site training to make sure each park ranger is aware of SMART and able to use a revised SMART data collection form.
Patrol area increases from 90% of park to 95% of park by October 2019	Wildlife Conservation Society organized and held five quarterly meeting with RDB/NNP management team, and SMART training to strategically organize and plan patrols in areas prone to poaching within the Nyungwe-Cyamudongo KBA. Park rangers carried out at least 2309 law enforcement patrols (3545 patrol days) covering a distance of 11,036 kilometers. The SMART results for year 2018 suggest that patrol coverage increase at about 3% from 90% to 93% of the Nyungwe-Cyamudongo area.
Illegal activities decrease by 30% from 2017 baseline to December 2019 endline, as measured by SMART indicators (e.g., snares)	RDB park rangers carried out law enforcement patrols and collect RBM data in Nyungwe-Cyamudongo KBA. Data were entered, analyzed and report produced into SMART system to provide indicator indices for human activities and animal abundance in patrolled areas. The results suggest that snare indicator index reduced from 0.91/km (9421 snares) in 2017 to 0.239 snares/km walked (2522 snares) in 2018 with a decrease of about 26%. These results can be associated with

	strategic patrol planning (increased patrols in prone to poaching activities), increased patrol effort by park rangers and community support to park protection as a result of community development projects around Nyungwe and awareness efforts.
70% of VSLA participants (approximately 140 out of 200 households) show improved livelihoods based on Basic Necessity Survey	Given the challenges we faced with Cyato community that required to train and follow up closely created VSLAs, access to financial support was only possible in the last quarter of the project. Only baseline data were collected, WCS will assess the improvement of livelihoods one year after beneficiaries access to the loans which will be when the project is closed.

Describe the successes or challenges of the project toward achieving its short-term and long-term impact objectives.

SMART system is well established, adopted and implemented to support law enforcement in Nyungwe National Park and there is a plan to extend it to other Rwandan national parks in near future. Along with monitoring threats to biodiversity, RDB has capacity of collecting basic data on animal populations necessary to evaluate efforts of law enforcement and other conservation efforts. Using camera trap data, we provided a comprehensive first ever a checklist of large-bodied mammal species Cyamudongo forest. The checklist extended from 4 previously known species to 19 species with 15 species added to the list. Major challenge encountered during the implementation of this project was large amount of data stored in MIST needed to be transferred into SMART system. Data in MIST was not fully transferred into SMART due to limited budget. There was a need to write a script to facilitate data transfer MIST data to SMART requiring more funding. Consequently, we manually transferred one year data from MIST to SMART system which slowed anticipated results. For the animal monitoring, WCS could not deploy camera trap in all sites of the park due to security constraints. For this reason, camera traps were deployed only in Cyamudongo forest. Due to limited time, we were not able to explore further SMART capability of what it can be used for. For instance, rangers are still using hand held GPS and paper to collect data. Hand-held GPS and paper data collection forms can be replaced by cyber tracker and/or SMART connect (uploading data remotely) technology to easier data collection. Intelligence component in SMART was not exploited due to limited time and budget. As for alternative livelihoods component in Cyato sector, more communities than expected adopted VSLAs (504 instead of 200 planned), started saving and lending activities to support their livelihoods. By the end of the project 163 members of the formed VSLAs applied to and successfully received financial support to expand their projects. However, to achieve this, it required us more effort and time compared to other sectors where the revolving fund is implemented. The challenges have been that communities in Cyato sector are used to donations and the Village Umurenge Program (VUP) model on which our program is built failed due to fund embezzlement by groups leaders and this forced other group members pay back stolen funds. VSLAs members were reluctant to adopt this program and we had to organize more awareness meetings, trainings and field visits. This has delayed applications to financial support to expand livelihoods activities and started in the last quarter of the project. As a consequence of this delay we could only conduct Basic Necessity Survey baseline as the evaluation of livelihoods improvement happens at least a year after beneficiaries receive financial support.

Were there any unexpected impacts (positive or negative)?

There are no unexpected impacts from this project

PROJECT COMPONENTS AND PRODUCTS/DELIVERABLES

Describe the results from each product/deliverable:

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
1	SMART system training and use	1.1	RBM/SMART data collection protocol. Data collection protocol will describe step-by-step RBM data collection, SMART data entry, data analysis and a summary of information to be generated from RBM-SMART.	Wildlife Conservation Society worked with RDB/NNP to review RBM/SMART data collection form and included all data required in SMART with losing information that was being collected in MIST. The reviewed data collection form was tested at field and SMART data model system to ensure that no information is being unnecessarily collected. Furthermore, WCS developed RBM/SMART data collection protocol which contains step-by-step RBM/SMART data collection planning, use of equipment to collect RBM/SMART data.
1	SMART system training and use	1.2	SMART training manual developed by SMART developers. We will adapt this training manual to the local context and make it available for use.	SMART developer team developed various supporting documents including SMART training Handbook, SMART Reporting tutorial, SMART advance Reporting Handbook and made them freely available to SMART users (https://smartconservationtools.org/smart-forum/). WCS used these documents during training sessions so that park staff are familiar and able to use them.
1	SMART system training and use	1.3	2 ranger training reports, including agenda, date, location, and names of participants (with	Two ranger training reports (RBM/SMART ranger training report & SMART user training report were compiled indicating major topic covered and participant list.

			gender)	
1	SMART system training and use	1.4	Annual RBM SMART report including threat encounters, patrol coverage, number of patrols, and # planned patrols	Wildlife Conservation Society designed various standardized report formats and made them available to RDB/NNP staff for use. Law enforcement annual report was generated from SMART for year 2018, and details patrol efforts, the results associated with various patrol efforts and teams, and maps illustrating spatial distribution of patrol coverage and human activities.
2	Animal population monitoring	2.1	Animal population monitoring design and data collection protocol. We will develop a monitoring protocol describing objectives, step-by-step data collection, data entry and data analysis. This will include both SMART and camera trap images/data.	Wildlife Conservation Society developed animal population protocol for park rangers (incorporated into RBM/SMART data collection protocol) listing species for monitoring. In regards with camera trapping, WCS is still working on camera trap design and deployment protocol document in order to effectively use camera trap to collect animal populations without compromising law patrol objective. The protocol was tested in Cyamudongo forest and we still need to know what would be the cost and feasibility/implication of systematic camera trap deployment in main Nyungwe main forest. WCS will make camera trap design/protocol available to park staff once it is completed.
2	Animal population monitoring	2.2	Training of Trainers (ToT) manual. We will develop a ToT training manual describing topics covered and a training agenda so that the manual can	RBM/SMART data collection was compiled in the way that it will serve as data collection manual by rangers and training manual by ToT.

			be used after the project.	
2	Animal population monitoring	2.3	2 training reports (data collection; data analysis/reporting) including agenda, date, location, participants by gender	Wildlife Conservation Society compiled 3 training reports: (1) RBM/SMART ranger training report, SMART user training report, and camera trapping data analysis training report. The report detail major topic covered, results of pre-and post training evaluation, and a list of participants.
2	Animal population monitoring	2.4	Animal population monitoring report. Two reports will be compiled (at 12 & 16 months) listing species encountered, abundance and spatial distribution of species of concern (threatened, rare and shy), and management recommendations.	Wildlife Conservation Society compiled two report on wildlife: Firstly, RBM/SMART report comprises wildlife abundance index and spatial distribution of wildlife sighted by rangers while they are on LE patrols. Secondly, camera trap report provides species richness and rates of photograph captures for species in Cyamudongo forest. Camera trap report shows species list of large-bodied mammal species recorded in Cyamudongo forest and management recommendations.
2	Animal population monitoring	2.5	Animal identification tool kit. To include images of animals likely to be encountered, emphasizing rare and shy species, and make them available at ranger posts. Will contain	Most of park rangers were newly recruited by RDB and were not familiar with many animal species in Nyungwe National Park. Wildlife Conservation Society developed animal identification tool containing most of animal species that rangers are likely to encounter (live or died) when on LE patrols. Park rangers were trained how to use this tool to identify animal species morphological. Three copies were printed and made available for rangers at three ranger stations. RDB agreed that it will multiply (print more copies) this tool and make it available to the remaining ranger stations for use.

			information necessary for animal identification (pelage, size, habitat, etc.)	
3	Alternative livelihoods promotion	3.1	Updated MoU between RIM and WCS to include Cyato Sector	MOU Between WCS and RIM completed in August 2018
3	Alternative livelihoods promotion	3.2	List of VSLAs created (approximately 10) and names/locations/genders of members (approximately 20)	34 VSLAs created with 231 females and 273 males.
3	Alternative livelihoods promotion	3.3	Financial literacy training report for 200 VSLA members, including agenda, date, location, and participants by gender	374 VSLAs members followed financial literacy training, 201 males and 173 females
3	Alternative livelihoods promotion	3.4	Report on functionality of 10 VLSAs: loan agreements, members, basic project type, purchases, amounts, disbursements, disposition/hand-over of items	163 VSLAs members of which 63 are women received loans to expand their livelihood activities worth FRW17,115,000. By the end of the project Frw 2,629,340 have been repaid and will be accessed by other trained VSLA members
3	Alternative livelihoods promotion	3.5	Basic Necessity Survey report	only baseline completed. BNS to assess impact will be carried out in October 2020

			documenting impact of VSLAs on livelihoods	
4	Compliance with CEPF safeguards	4.1	Semi-annual Report on Process Framework will be produced	All completed
5	Strengthening of WCS Rwanda	5.1	Completion of baseline and endline CEPF Gender Tracking tool	Both baseline and endline Gender tool completed
5	Strengthening of WCS Rwanda	5.2	Completion of baseline and endline CEPF CS Tracking tool	Both baseline and endline CST completed
5	Strengthening of WCS Rwanda	5.3	Article submitted to RIT	one article
1	SMART system training and use	1.5	METT completed prior to October 2019	METT completed. Total score is 80
6	Sub-grant to RIM	6.1	Signed sub-grant agreement between WCS and RIM	Service Agreement between WCS and RIM signed
6	Sub-grant to RIM	6.2	Final technical and financial report on RIM activities	RIM provides monthly reports on the overall revolving fund program in Nyungwe. In Cyato, by the end of the project 163 VSLAs members have received financial support to their livelihood projects worth RWF 17,115,000 of which 65.6% are invested in agriculture activities.

Describe and submit any tools, products or methodologies that resulted from this project or contributed to the results.

LESSONS LEARNED

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building.

Consider lessons that would inform:

- Project design process (aspects of the project design that contributed to its success/shortcomings)
- Project implementation (aspects of the project execution that contributed to its success/shortcomings)
- Any other lessons learned relevant to the conservation community

SUSTAINABILITY/REPLICATION

Summarize the successes or challenges in ensuring the project will be sustained or replicated, including any unplanned activities that are likely to result in increased sustainability or replicability.

WCS helped to build the capacity of park management through training and mentorship, producing personnel capable of continuing this work after the project has completed. Our “training of trainers” approach is going to ensure that park staff will be able to provide refresher trainings with a minimum of WCS involvement. WCS will maintain close collaboration with RDB to make sure that the SMART system will continue to run smoothly in Nyungwe and will support its plan to replicate it to other parks. The RBM data collection protocol is clear enough to allow repeated and reliable data collection after the project. RDB park staff have now capacity to collect and analyze data on animal populations and use information from RBM data in management actions (patrol planning and management decisions). WCS will continue to train and mentor RDB staff through other on going programs to strengthen their capacity. The revolving fund program is designed to help the program continue with the same financial support to new individuals as initial beneficiaries contribute to it by paying back the loans they received. RIM will continue to work in the Cyato sector and provide microfinance services to more beneficiaries after the end of the project. The project beneficiaries will continue to be partners in park conservation as they benefit from it.

SAFEGUARDS

If not listed as a separate project component and described above, summarize the implementation of any required action related to social, environmental or pest management safeguards.

ADDITIONAL COMMENTS/RECOMMENDATIONS

Use this space to provide any further comments or recommendations in relation to your project or CEPF.

ADDITIONAL FUNDING

Provide details of any additional funding that supported this project and any funding secured for the project, organization or region as a result of CEPF investment.

Total additional funding (US\$)

Type of funding

Provide a breakdown of additional funding (counterpart funding and in-kind) by source, categorizing each contribution into one of the following categories:

- A. Project co-financing (other donors or your organization contribute to the direct costs of this project)
- B. Grantee and partner leveraging (other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF-funded project)
- C. Regional/portfolio leveraging (other donors make large investments in a region because of CEPF investment or successes related to this project)

INFORMATION SHARING AND CEPF POLICY

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. Final project completion reports are made available on our website, www.cepf.net, and may be publicized in our e-newsletter and other communications.

1. Please include your full contact details (name, organization, mailing address, telephone number, email address) below.