Loma Mountains National Park Conservation Project
An approach to protect the largest populations of Western Chimpanzee in Sierra Leone

Grant Award Number: # F18AP00943
Organization: Tacugama Chimpanzee Sanctuary (TCS)
Project officer name: Mavinga K. Laurent
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Longitude and Latitude Coordinates: 9.1721° N, 11.1391° W

Critically endangered Western Chimpanzee

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Species of **touraco** are only a few samples of the rich **bird life** of the LMNP, which constitutes a major birdwatcher spot in **Sierra Leone**.
Executive summary: project purpose, results and achievements.

Background

Sierra Leone is a critical biodiversity hotspot in the western African region, with some of the remaining wild populations of forest elephants and Western chimpanzees. Due to the diversity of landscapes, wildlife and cultures, the country has a high eco-tourism potential. However, unless urgent action is taken to address poaching, illegal wildlife trade, deforestation and encroachment, the survival of natural ecosystems and wildlife is compromised. In absence of an effective strategy, the pressure on wildlife such as forest elephants and Western chimpanzees, as well as the red colobus, pangolins, turtles and many other endangered emblematic species will irremediably increase and these species will disappear. Sierra Leone must, therefore, protect wildlife within and outside of the national protected areas, review policies and legislation, and empower the field officers to enforce the law and sensitize the communities.

Project Overview

In partnership with the National Protected Area Authority (NPPA), TCS was granted funds from the U.S. Fish and Wildlife Service (USFWS) to implement a 1-year project. The project is a precursor to wider scale conservation mission which aims to protect the Critically Endangered Western Chimpanzee (Pan troglodytes verus) in Loma Mountains National Park (LMNP). The park is home to 20% of Sierra Leone’s chimpanzee population (approximately 1,000 - as estimated by the National Census of 2010) and one of the highest chimpanzee densities in Africa.

Before the project started, the LMNP operations were in standby due to lack of accountability, management and financial resources. The high levels of poaching and land degradation had been posing a massive threat to the survival of wildlife and urgent action was required.

Goals and objectives

Tacugama Chimpanzee Sanctuary (TCS) proposed to implement a proven conservation management programme in the Loma Mountains National Park to protect the Western chimpanzee and other key endangered wildlife species occurring within.

The project’s outlined objectives were to:

1) conduct a replication of the 2010 Chimpanzee National Census;
2) improve surveillance and wildlife law enforcement in collaboration with the NPAA;
3) promote community participation in planned initiatives such as reforestation;
4) implement livelihood solutions and heighten sensitization concerning wildlife conservation;
5) and develop sustainable revenue-generating channels by establishing Tacugama’s proven ecotourism program.
**MAIN ACHIEVEMENTS**

### 2018

**November**  
Introduction of the Tacugama Community Outreach Programme (TCOP) and the Project to the Communities neighbouring the Loma Mountains National Park. The TCOP team conducted recce and assessed the status of NPAA personnel and infrastructures.

**December**  
Visit to all the 16 communities in an around the LMNP. Selection of the Community Ecoguards process was initiated. First training with Blackviews and Cybertracker software to collect bio-monitoring data in Konombaia axis. Data collection started.

### 2019

**January**  
Second training for Blackview devices with the Tacugama Community Ecoguards in Mansonia axis. Data collection continued.

**February**  
Stakeholder meeting with all the communities. Started to identify reforestation sites, and established tree nursery.

**March**  

**April**  
Groundnuts seed distribution. Refresher training for the tree nursery.

**May**  
5 additional transects for the Loma National Park Chimpanzee Survey. Continued seed distribution in both Konombaia axis and Mansonia Axis.

**June**  
On-going Data collection activities and patrols.

**July**  
Farmers groups Registration under the Ministry of Agriculture Forestry and Food Security (MAFFS). Monitoring of farms.

**August**  
Data collection activities and patrols are ongoing.

**September**  
Awareness-raising campaign "The Importance of Loma Mountains National Park" in 16 communities and 3 towns near Loma Mountains National Park. Posters displayed in prominent locations.

**October**  
Tacugama Community Ecoguards received new uniforms. Refresher training on patrolling and data collection. Workshop meeting with 80 stakeholders from 16 different communities from Konombaia, Banda-Karifaia, Mansonia and Bumbukoro.

**November**  
Organised a 12-day Field Ranger Refresher Assessment. Selection of 20 participants selected in collaboration with partners, of which 50% of the participants are NPAA Rangers and Tacugama Community Ecoguards from Loma Mountains.

**December**  
Tacugama Chimpanzee Sanctuary and Mellivora Systems conducted a refresher training and capability assessment for NPAA rangers, Republic of Sierra Leone Armed Forces (RSLAF) soldiers and Sierra Leone Police (SLP) officers to increase the capacity of wildlife law enforcement in the National Parks of Sierra Leone.
# SUMMARY OF OUTCOMES

<table>
<thead>
<tr>
<th>Objective and activities</th>
<th>Expected outcomes</th>
<th>%</th>
<th>Comments</th>
<th>Desired status</th>
<th>Actual Status</th>
<th>Recommendation and future plans</th>
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<tbody>
<tr>
<td>Research and wildlife monitoring</td>
<td>- Interviews in 14 villages</td>
<td>100%</td>
<td>Resulted in the selection and employment of 14 community members as Community Ecoguard representing their respective community</td>
<td>- Identification of resources use and major threats</td>
<td>LMNP is remote, with poor road conditions and therefore vehicle access is difficult, preventing large commercial illegal activities such as logging and hunting. However, extensive wildfires are caused by humans for cattle ranching and the brushing of new farms within the park’s boundaries. Hunting evidence was also frequently observed.</td>
<td>Identify mitigation measures to reduce pressure on wildlife and encroachment into the park. Organize further discussions with communities to help address the root cause of the threats and to promote new alternatives.</td>
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<td></td>
<td>- Biodiversity survey: 31 transects</td>
<td>113%</td>
<td>The quality of the data collection still needs improvement with retraining.</td>
<td>Number of chimpanzees in LMNP updated.</td>
<td>The estimated chimpanzee density for the LMNP is 4.81 chimpanzee/km² and harbours a population of 1,390 chimpanzees [range: 819-2361]</td>
<td>Update the number of chimpanzees and other emblematic wildlife in 5 years.</td>
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<td></td>
<td>- Daily wildlife data collection, as well as recordings of signs of anthropogenic activities</td>
<td>70%</td>
<td>The quality of the data collection still needs improvement with retraining.</td>
<td>Regular monitoring data on wildlife and anthropogenic pressures</td>
<td>Data are collected from Community Ecoguards every month. The quality of the data still needs improvement.</td>
<td>Organize refresher training, assess the use of the tools and assess the understanding the monitoring protocol and purpose. A new selection of Community Ecoguards and training process will be an asset.</td>
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<td></td>
<td>- Community involvement</td>
<td>- The community has been involved from the beginning and their role in the decision-making process of activities was pivotal, as well as for the selection of the Community Ecoguards</td>
<td>-</td>
<td>Review performance and communicate strength and weaknesses to the traditional rulers and involve them in the proposed solutions to improve the functioning of the community monitoring project.</td>
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<td>Law enforcement in collaboration with NPAA</td>
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<td>-4 teams patrolling</td>
<td>25%</td>
<td>The lack of basic training in surveillance and anti-poaching, as well as lack of material is a major limitation to implementing adequate patrolling strategy</td>
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<td>-Regular patrols</td>
<td>-</td>
<td>The quality of the patrols does not meet our standards and expectations due to limited capabilities of the NPAA rangers. For this reason, TCOP organized a refresher training for both NPAA Rangers and Community Ecoguards to provide them with the basics knowledge and skills to conduct sound patrols.</td>
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<td>-</td>
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<td>The training organized in December 2019 is the first step towards more thorough assessments of the NPAA rangers capabilities and capacity building. Further training, in partnership with various organizations committed to conserve wildlife and lands, must be organized and mentorship should occur with the aim to constantly train and supervise the team on the ground, and train a Local Head of Surveillance and Antipoaching.</td>
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<td>-14 people trained on digital data collection and wildlife conservation</td>
<td>70%</td>
<td>The quality of the data collection still needs improvement.</td>
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<td>-Qualified guards</td>
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<td>NPAA Rangers were trained efficiently to collect data.</td>
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<td>-</td>
<td>-</td>
<td>Improve patrol strategy to make data collection sound and useful for field operations. In the near future, the most capable rangers will be trained to progress the data using SMART and use it as a management tool to plan the surveillance and anti-poaching strategy within the LMNP.</td>
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<td>Community participation in the NP activities</td>
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<td>-25,000 seedlings grown to reforest</td>
<td>100%</td>
<td>10,000 trees were effectively nursed on the 25,000 seedling planted (40% yield) and planted reforesting the edge of the park</td>
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<td>-</td>
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<td>To involve the communities in conservation activities and enhance park benefits</td>
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<td>-</td>
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<td>The community took part in the activities of the park and appreciated to be consulted and involved form the beginning of the project.</td>
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<td>-launch of 4 hiking trails</td>
<td>100%</td>
<td>The forest hikes were effectively maintained by the communities</td>
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<td>-</td>
<td>-</td>
<td>There is still a need for constant sensitization and relationship building in order to sustain and develop further their involvement.</td>
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<td>Community outreach</td>
<td>-facilitation of 5 community workshops.</td>
<td>100%</td>
<td>Workshops were organized in Nov 18, Feb 19, April, Sep and Oct. <strong>Workshop meetings</strong> were organized in each of the 4 following communities Konombaia, Banda-Karifaia, Mansonia and Bumbukoro, reaching a total of <strong>80 stakeholders</strong> from <strong>16 different communities</strong></td>
<td>-Create environmental awareness</td>
<td>The community is more aware of the wildlife living around them and the fragility of the ecosystems, of what is legal and illegal as regards wildlife hunting and encroachment, and of the benefit that the Park could bring to remote communities, in terms of job opportunities, support to alternatives activities and ecotourism.</td>
<td>Environmental awareness still needs to be converted into more practical conservation actions to be accepted and led by the community in order to grante the safeguarding of the natural resources and its sustainable use for ensure economically growth and stability within communities</td>
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<td>-Poster distribution campaigns in the 14 surrounding villages and the closest largest settlements (Kabala, Koidu and Alikalia).</td>
<td>100%</td>
<td>3 different posters (<strong>&quot;Say No to Bushmeat, it is illegal to eat chimpanzee meat&quot;</strong>, &quot;<strong>Stop Eating Bushmeat</strong>&quot; and &quot;<strong>Please help us protect the environment for you and for us</strong>&quot; were displayed in the 3 settlements</td>
<td>-Improve the livelihoods of local communities</td>
<td>The level of poverty in the community has been reduced thanks to the support provided to the community through seeds distribution and registration at the Ministry of Agriculture Forestry and Food Security (MAFFS). <strong>27 farmer groups</strong> in <strong>16 communities</strong> were formed.</td>
<td>Conduct further socio-economic surveys and meetings with community to measure the benefit of the measure taken and receive feedbacks on how to improve the functioning of the existing activities. Identify new alternative and require investment from the community to encourage entrepreneurship, while providing support in the form of training and material.</td>
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<td>-Implementation of 1 livelihood activity per community</td>
<td>200%</td>
<td>Each community benefited from <strong>1 crop production</strong> (rice or groundnut) farming of their choice and also receive <strong>livestock</strong> (3 goats per community members)</td>
<td>-Emergence of qualified guides</td>
<td>The guides have built a good ecotourism appeal, but more regular, and organized ecotourism activities must be developed and supervised to improve products and services.</td>
<td>Organize further selection and training, and develop a larger ecotourism demand to increase the experience of the guides. A combination of various touristic activities in the country would help develop a local and international market.</td>
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<td>Eco-tourism</td>
<td>-14 Ecoguard trained and operational for forest hikes</td>
<td>100%</td>
<td>N/A</td>
<td>- Emergence of qualified guides</td>
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</tbody>
</table>
NARRATIVE

Description of activities undertaken to achieve each objective in the project proposal.

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Mount Bintumani (1,945 m), Loma Mountains National Park
1. Wildlife Research and Monitoring

Fresh *chimp nest* recorded during the chimpanzee and wildlife survey
1. **Wildlife Research and Monitoring**

<table>
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<tr>
<th>Objectives</th>
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<tr>
<td>1. Wildlife/ human activity data collection</td>
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<tr>
<td>2. Local resource use assessment</td>
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<tr>
<td>3. Replication of chimpanzee and wildlife survey</td>
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### a. Wildlife survey

**Preliminary work**

In November 2018, the team, composed of the TCOP team members, NPAA rangers and community Ecoguards did **5 recces**, totalling **55 km**, across the park and buffer area. This activity was used to further evaluate the knowledge and working methods of the NPAA rangers and to start **training** both them and the community Ecoguards in data collection, GPS and cyber tracker methods.

The recces provided interesting insights concerning the state of the park, served to better understand the various habitats of the park and delivered a preliminary estimate of the encounter rates of chimpanzees and other species, to help plan and prepare the thorough and scientifically robust chimpanzee census. Fewer chimpanzee nests than expected were found, and only far from the boundaries. It appeared that poaching and other illegal activities were exerting a greater impact on the wildlife in the Loma Mountain National Park. Nevertheless, the presence of several species of conservation interest were identified: chimpanzees, bongo, buffalo, golden cat, western black-and-white colobus and Diana monkey.

**Fieldwork: transect survey**

Between the 7th and 20th of March, 4 teams of 6 members each (1 TCOP officer, 2 Ecoguards, 1 NPAA, 1 cutter and 1 camp keeper) carried out the chimpanzee survey in LMNP. The teams collectively concluded **35 transects of 2-km each across the whole park**. LMNP is characterized by a mountainous landscape and has the highest peak in Sierra Leone, Mount Bintumani (1,945 m). The predominant habitats of the areas are comprised of close moist forests and woodland savannahs. LMNP is home to 20% of Sierra Leone’s entire subspecies population and one of the highest chimpanzee densities in Africa. This survey aims to evaluate the chimpanzee population trend. We found abundant chimpanzee signs mostly at high altitudes with difficult access. Unfortunately, we also encountered an abundant presence of active hunting, such as traps, gun-shells and farming encroachment in the park boundaries. Another worrying issue was the constant presence of wildfires. Between February and April, the farmers burnt their fields to prepare the land for farming in line with the traditional slash and burn agricultural practices. Consequently, the triggered fires spread into the park burning large protected forest areas.
The **final report of the Chimpanzee Nest Survey in Loma Mountains National Park (LMNP)** was published in October 2019 and shared with USFWS shortly thereafter. The report produced by Tacugama’s scientific consultant Dr Rosa Garriga, summarised the methods and findings of the chimpanzee nest count survey done in the park in early 2019. The results of the survey confirm the **high density of the wild population of western chimpanzees** in the LMNP, making it **one of the last strongholds** of this critically endangered species. The estimated chimpanzee density for the LMNP is 4.81 chimpanzee/km² and harbours a population of 1,390 chimpanzees [range: 819-2361] a 79% higher as compared to 2010 survey (2.69 chimpanzee/km²) but 19.5% lower than the 2008 survey (5.75 chimpanzee/km²). Therefore, these findings confirm that LMNP holds the highest density of chimpanzees recorded in West Africa. (see full report of Loma Mountains National Park Chimpanzee Nest Survey in March 2019).

**Image 1.** Placement of the 35 transects made within the Loma Mountains National Park to survey the population of wild critically endangered western chimpanzees

**Image 2.** The study revealed a high density of chimpanzee with 3 core areas within the National Park and that will require thorough monitoring and protection.
b. Training community ecoguards

In December 2018, in collaboration with the NPAA officers and the traditional rulers of the local communities, TCOP recruited the 14 community Ecoguards required for the wildlife monitoring project from 14 different communities. Once selected, they were mentored and trained to 1) identify local wildlife along with their scientific names 2) detect signs and record data as requested for the upcoming chimpanzee census planned and 3) operate field equipment (Blackview).

Image 3. Training session with NPAA rangers on how to collect data using Cybertrackers software on Blackview devices.

Image 4. The training also included basic navigation teaching using compass. The compass also serve to locate the exact position of the sign (distance and direction from detection points).

In January 2019, the TCOP team conducted another similar training for the 7 additional Ecoguards recruited from the communities located in the east of the park. They patrolled different areas of the park to test the devices and the newly acquired knowledge. In total, the project has hired 14 Ecoguards one from each community surrounding the park. Each of them signed the Term of Reference (TOR) for their position.

Since their recruitment, the community Ecoguards’ duties included regular patrols, maintenance of the hiking trails, establishment and nursing of the tree nurseries and ecotourism related activities. TCOP team continued to provide them with regular training during the course of the year - covering biodiversity and conservation actions as well as best practices of guiding tourists visiting the park.

In May, TCOP designed and implemented an onsite CyberTracker Training for 6 Tacugama Community Ecoguards and 5 NPAA Rangers. The training consisted of three stages to ensure the minimum standard of data collection is reached:

<table>
<thead>
<tr>
<th>3-stage CyberTracker Training</th>
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<tr>
<td><strong>Stage 1</strong></td>
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<tr>
<td>• 1-hour group explanations of the BlackView, CyberTracker and SMART;</td>
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<tr>
<td>• Questions and answers;</td>
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</table>
Stage 2
- 4-hour patrol;
- Each ranger, on rotation, entered each observation during the patrol;
- Every ranger was encouraged to observe the entering of the data when it wasn’t their turn;
- When problems entering the data arose, rangers were encouraged to assist each other before intervention by the trainer.

Stage 3
- Hypothetical scenarios to test the rangers’ understanding of the device;
  - E.g. “We are patrolling, and we come across one Maxwell’s duiker nest used last night…”
  - Rangers proceeded to go through the steps in CyberTracker to enter the information
- Group discussions were held for the trainer to understand where to give further explanation.

At every stage of the training, advices were given to the rangers on how to conduct patrols more effectively, for example, “Part of patrolling can include small breaks where you stay quiet and listen for vocalizations.” This hands-on, interactive, capacity building training will serve as a model to conduct CyberTracker pieces of training within other TCOP areas in the future.

Two months later, in July, all Biomonitoring Technicians were visited to receive an update on their work. During that time, TCOP officers Joseph and Konkofa downloaded human and wildlife observations from the Blackview digital devices. Fourteen Biomonitoring Technicians collected data using CyberTracker from May through July in and around Loma Mountains National Park. TCOP Officers also participated in the confiscation of a juvenile chimpanzee who is now receiving care at Tacugama.

In October, TCOP officers met with all the fourteen Tacugama Community Ecoguards. They ran a refresher training on patrolling and data collection and provided them with their new uniform at the park headquarter in Konombaia. It was an opportunity for these Ecoguards to share ideas and for the TCOP officers to emphasise the importance to collect data in the field following strict scientifically sound protocol and to keep the BlackView devices operating safely. Joseph and Konkofa also remunerated all bio-monitoring technicians for their work done patrolling and collecting data in September.
Image 5. Tacugama Community Ecoguards and NPAA Rangers during training at LMNP. From L to R: Alusine Sesay, Mohammed Kamara, Sio Marah, Kallie Mansarey and Kallie Turey (May 2019)

Image 6. Community ecoguards were equipped with uniforms (Oct 19)

Image 7. The best 5 Tacugama Community Ecoguards from LMNP were selected to participate in the training organised in December 2019 in the Western Area Peninsula National Park, Freetown.

Image 8. Mixing Tacugama Community Ecoguards with armed force soldiers, police officer and NPAA rangers was a great recognition of the importance of the community to safeguard the ecosystems of the LMNP and enhance collaboration between all stakeholders.
Image 9. TCOP Officer Konkofa Marah identified and rescued the 8-month old chimp while NPAA officers proceed to the investigation and legal procedures.

Image 10. The chimpanzee, named Solo Jr, integrated the National Rehabilitation Programme and received the specialized care from Ma Poseh.

ANALYSES OF DATA COLLECTED BY THE ECOGARDS AND COMMENTS

These patrols constitute the first phase of the Ecoguard Law Enforcement Program inside the LMNP. It was conducted by two teams composed of NPAA rangers, local community members and supervised by staff of the Tacugama. To effectively patrol LMNP - a square grid sampling plan (with a random start) was established to ensure systematic patrols. This design now facilitates the intensification of patrols in the buffer zone, such as areas subject to high pressure from resource extraction (non-woody and hunting). As such, the same grid design will be used each year, but the patrol areas may differ, depending on management and conservation needs.

For each cell, two different patrol protocols were used: 1) 2 km Recces, followed by 2) 2 km of Human Path Mapping (HPM). During Recce, the eco-guard teams followed one direction from one of the four sides of the cells to the centre point of the cell (known as the centroid). Once 2km of Recce were completed, an additional 2km patrol along human paths encountered in the target cell was done, if time permitted and if enough human paths were present. As such, a total of 4km was targeted per grid.

All patrol missions included at least 10 days of effective patrolling per mission with one grid surveyed per day (= 2 km recce + 2km human path patrolled) as a minimum rule. Other days were spent travelling to and from different camps and entering and exiting the forest, followed by 2-3 days of raising awareness in the local communities. This amounts to a minimum of 13 days to a maximum of 21 days of eco-guard work per team. In total, during 2019 - 9 missions were completed by the two teams.

February and July 2019. Each team consisted of 4 local community members and were supervised by 1 TCS staff member and led by 1 NPAA ranger. In February and March 2019, team members were trained in patrol protocol and data collection during two workshops conducted by TCS.
During patrols, on both recces and human paths, data was collected on the presence of chimpanzees (i.e.: nests, feeding sites or vocalizations), monkeys, elephants and other large mammals (i.e.: footprints, boli, etc...). If people were met during patrols, they were interviewed regarding who they were, where they came from and their purpose in the LMNP. They were then informed about the restrictions on human activities linked to the presence of the park, such as farming, hunting, mining and extraction of non-timber forest products, would be strictly regulated.

As mentioned above, since this was the first time an eco-guard program has occurred within the park, different patrol protocols were tested (Recce and HPM). Encounter rates of species or anthropogenic activities were calculated by dividing the number of observations of a certain type, by the distance walked during the patrols in each grid, for both RECCE and HPM sessions. A global encounter rate was then calculated by compiling all observations made during the two patrol protocols, and by dividing the total by the total patrol distance. Encounter rates were then mapped using QGIS per Grid to identify grids under most threat or having a greater abundance of large mammals.

To evaluate the level of deforestation inside LMNP, plots of particular interest were mapped using QGIS. The total hectares degraded per grid, and the % of degraded land per grid, was calculated for each grid and in terms of type of habitat disturbance (farms, mines, etc.).
2. Law Enforcement
2. Law Enforcement

To ensure the survival and functioning of the natural ecosystems, legislation and judiciary system needs to be deterrent and adapted to the national and regional contexts, but it is also critical that the law enforcers are equipped with all the necessary skills and knowledge to face the challenges professionally and ethically, and that they effectively enforce the law. The National Protected Area Authority (NPAA) has the mandate to enforce wildlife law in the field, and the Rangers are the NPAA’s feet on the ground. Tacugama Chimpanzee Sanctuary (TCS), through Tacugama Community Outreach Programme (TCOP), is committed to supporting the NPAA’s mission to ensure the protection of natural ecosystems and threatened biodiversity in Sierra Leone and to conducting capacity building to enhance the NPAA rangers and Tacugama Community Ecoguards safeguarding the Loma Mountains National Park.

Image 11a&b. Support to the NPAA culminated in December 2019 when TCS, in partnership with International Security Advisory Team (ISAT), Sierra Leone Armed Forces (RSLAF), Sierra Leone Police (SLP), the Royal Society for the Protection of Birds (RSPB), the Gola Rainforest NP, the Western Area Peninsula NP and Loma Mountains NP organised a 12-day Field Ranger Refresher Assessment, led by 2 anti-poaching and law enforcement experts from Mellivora Systems (www.mellivorasystems.com). During the training, the NPAA Executive Director (left) and the Project Coordinator (right) visited and encouraged the trainees to pursue their efforts.

Infrastructure Rehabilitation

In November 2018, the TCOP team visited NPAA’s infrastructures in the LMNP and met with personnel and park rangers. The state of all the facilities was assessed, and a list of all needs for repairs, refurbishment and equipment in both the NPAA permanent facilities in Kononbaia and the rented house in Kaniawads were made. The first assessment on the 14 park rangers revealed that they lack most of the basic training and equipment and that NPAA, as a whole, needs significant administrative, technical, logistical and material improvement.

A specific work plan was drawn collaboratively and agreed upon, with the evaluation to be made internally with the Project Coordinator, Mr Babar Turay, NPAA Senior Officer. For the duration of the project, USFWS, through TCS, supported the logistics of the NPAA mission to enforce wildlife law in and around the park. Similarly to Community Ecoguards, NPAA rangers also received pieces of training to collect scientifically sound bio-monitoring.
data and to report those following standard procedures. They were equipped with Blackview devices and used Cybertrackers software.

**DATA ANALYSIS OF PATROLS**

**Measurable outcomes** concerning the fight against poaching and illegal wildlife trade were limited. The impact of our direct support (through logistics, infrastructures and bio-monitoring) to NPAA rangers to enhance wildlife protection within and around the LMNP was limited. Since their skills and knowledge on basics patrolling were very limited, we deemed appropriate to make an assessment of what they know, and identified priority areas of improvement.

As a result, from November to December 2019, in order to further support the NPAA’s mission to ensure the protection of natural ecosystems and threatened biodiversity in Sierra Leone, TCOP, in partnership with the International Security Advisory Team (ISAT), the Republic of Sierra Leone Armed Forces (RSLAF), the Sierra Leone Police (SLP) and the NPAA joint efforts to organise a **12-day Field Ranger Refresher Assessment**. The training took place within the Tacugama Chimpanzee Sanctuary Forest Reserve, in the Western Area Peninsula National Park (WAPNP), between the 1st and 12th December 2019.

The training aimed:

- To assess NPAA rangers skills and capacities and equip them with the basic knowledge and skills to safely and efficiently carry out patrols in the Loma Mountains National Parks;
- To harmonise the expertise of the NPAA rangers amongst 3 National Parks (Loma Mountains, Western Area Peninsula and Gola Rainforest NPs);
- To consolidate the involvement of law enforcement units and armed forces in the national efforts to protect wildlife and tackle poaching and trafficking;
- To assess a model of mixed patrols in Sierra Leone including NPAA rangers, community scouts, paramilitary police officers and soldiers;
- To further sensitise and engage the local communities and build a local constituency for conservation around National Parks;
- To draw out the participant personal qualities and suitable attributes required to carry out their wildlife protection activities with and around protected areas and leave each successful participant in state of irreversible momentum and progression.

The training programme was run by 2 Law enforcement and Anti-poaching experts from Mellivora Systems with the assistance of an RSLAF instructor, and tailored for 20 participants: 10 NPAA rangers of 3 different National Parks (Loma Mountains National Park, Western Area Peninsula National Park and Gola Rainforest National Park, respectively in the NE, SW and SE of the Republic of Sierra Leone), 2 RSLAF soldiers, 1 SLP Officer, 5 Community Ecoguards from Loma and 2 Tacugama outreach team members, therefore involving all the prominent conservation organisations, law enforcement units and armed forces of Sierra Leone.

A series of modules were specifically designed to respond to the urgent need to protect wildlife in the Republic of Sierra Leone. The programme focused on the core skills of a conservation law enforcement unit, including combat first aid, navigation, fieldcraft, minor tactics, bushcraft, hand-to-hand combative and arresting techniques amongst other subjects. These were taught and assessed through reality-based training scenarios in an adult
learning environment, enabling each element to input their experiences while learning from the instructors and other units involved. During the duration of the training, the presence of law enforcers with the WAPNP for 13 consecutive days was a deterrent on itself, and 5 delinquents entering the National Park without authorization were apprehended and transferred to the police station.

This training marks the extension of the TCOP activities towards a holistic approach to conservation in Sierra Leone through livelihood, education, research and wildlife law enforcement. This first training brought in extremely important insights to draw the lines of the future conservation strategy in the LMNP, and at the national level.

**For more information** on the training program, Mellivora Systems can be contacted through their web site: www.mellivorasystems.com or follow them via Facebook @mellivora.systems or Instagram @mellivorasystems.

**Image 12.** Bala Amarsekaran, founder and programme director of the Tacugama Chimpanzee Sanctuary, welcomed the participants of the training on the first day.

**Image 13.** During his visit to the field, Executive Director Joseph Ranto Musa (NPAA) was delighted and extremely impressed by the level of the courses given to the participants.

Image 15. Combat first aid training.

Image 16. Theoretical class and preparation of reality-based training scenarios in the field.

Image 17. Reality-based training scenario: basic patrol tactics.

Image 18. Checking the logbook of night observation posts.

Image 19. Teamwork was encouraged to facilitate the learning process and encourage all participants to feel supported. Here: the use of GPS for navigation.
Image 20. Weapons training were kept to an absolute minimum, only training the candidates in the basic safe handling of a rifle, giving them the capacity to safely handle and unload a weapon through the conduct of normal safety precautions.

Image 21. Fieldcraft: subjects include hand signals, patrol formations, patrol and admin bases. These techniques are practised at every opportunity in order to make the drills instinctive on patrol.

Image 22. Tactics: subjects include essential field tactics for effective law enforcement operations such as reactive patrols and covert observation posts.

Image 23. During the course of arrest, ethics and legal were an important part of the exercises. Human rights principles are taught as they apply to arrest and detainment of suspects as well as the search of suspects and their property.
Image 24. During the certificate ceremony, Babar Turay, USFWS project coordinator and NPAA official insisted on the importance of such training to build Sierra Leone’s capabilities to protect wildlife.

Image 25. Lt Colonel Travers from the International Security Advisory Team (ISAT) rewarding one of the participants for his engagement in the training.

Image 26. Alfred E. Demby, Force Reconnaissance Unit of the RSLAF, assisting instructor, was key to the success of the training.

Image 27. Instructors and participants during the ceremony.
3. Community Engagement

Bonkokoro women helping to carry the trees for replanting the edge of the park

Loma Mountains National Park
3. Community Engagement

Tacugama’s efforts, alongside the Government of Sierra Leone, to engage the communities to **actively protect the LMNP** is pivotal to guarantee the survival of the western chimpanzee, declared in 2019 Sierra Leone’s National Animal by presidential decree.

In November 2018, meetings were held in **5 communities**: Kononbaia, Kania, Sinikoro, Banda-Karafaia and Mansonia. All the communities were welcoming and eager to collaborate with the project. Communities especially acknowledge the initiative of getting them involved from the beginning. Communities were involved in recommending Ecoguards to be employed by the project so they would select people they trusted. Involving them in the selection process also guaranteed excellent relationship is built, which would be a great asset to prevent later conflicts. All the stakeholders were then informed about the intensive training throughout the month of December, with both NPAA rangers and Tacugama Community Ecoguards, covering aspects such as ecotourism, organization, surveillance, monitoring and census techniques.

**a. Tree nursery and reforestation**

Between February and March, the Tacugama Community Ecoguards located three sites to establish the tree nurseries and grow seedlings for future reforestation activities in degraded areas of the park. After several months of nursing by the fourteen Tacugama Community Ecoguards, over **10,000 trees** were planted in October. The planting exercises in the edge of the park were coordinated by the Tacugama Community Ecoguards while community members of all age and gender participated in these activities.

**Image 28.** Seeds collected by community Ecoguards for planting in the Bandakarifa Village tree nursery (April 2019)  

**Image 29.** Seedlings in the tree nursery in Konombaia Village (Apr 19)
b. Hiking trails

Ecotourism is an opportunity for local development around the LMNP. Tacugama has carried out a study, the results of which are being analysed and will make it possible to create a varied, high-quality and secure network of hiking and mountain biking circuits, accessible to all (several levels, families, tourists, walkers seasoned, seniors ...) and balanced throughout the territory, while promoting the wealth of the territory (heritage, landscape, vineyard ...).

This work is based in particular on the work carried out internally (proposed trails on maps and descriptive sheets) with local chiefdoms. It will be necessary to study and propose a network matching the intrinsic qualities of the territory and the requirements of users, considering that the LMNP has both a social dimension, dedicated to the inhabitants of the territory, as well as a touristic dimension.
4. Community Outreach Programme
4. Community Outreach Programme

**INTRODUCTION**

**a. Sensitization**

In February, TCOP officers, Konkofa & Joseph, and NPAA coordinator for the USFWS funded project, Turay Babar, travelled to Loma and conducted 2 workshops, one in Konombaia and one in Mansonia, with 4 representatives of the 16 communities participating in the Loma conservation project. The workshops served to introduce the project in detail, raise awareness on the protection of the national park, introduce the work that Tacugama is doing across the country, and explain about the mutual collaboration between TCS and the NPPA rangers to enhance the protection of the park. The participants were able to ask questions and clarify doubts about the project.

In September, two TCOP Field Officers led an awareness-raising campaign in 16 communities and 3 towns near Loma Mountains National Park. The theme of the campaign was "The Importance of Loma Mountains National Park". Community meetings were carried out in which community members were engaged in a discussion about why Loma Mountains is a National Park and a symbol of honour for Sierra Leone and West Africa. The field officers also reminded community members of the benefits that the forest brings to people, including clean air and drinking water, protection from heavy winds, research, and ecotourism.

**Image 30.** TCOP Officer Konkofa Marah shows a poster with the message “Say No to Bushmeat” during sensitization meeting with Kania community members (Sep 19).

**Image 31.** Both youth and adults attended the wildlife sensitization meeting in Konombaia Community Center (Sep 19).

Workshops were organised to assess knowledge on wildlife and on protection status by the community members, and the most knowledgeable were used to teach the others. They talked about the laws in place to protect chimpanzees and introduced community members to the chimpanzee’s new status as Sierra Leone’s national animal. Posters with the messages “Say No to Bushmeat, it is illegal to eat chimpanzee meat”, “Stop Eating Bushmeat,” and “Please help us protect the environment for you and for us” were discussed in the meetings and later displayed in prominent locations within the communities.
In October, two TCOP Field Officers spent another three-weeks in the communities around Loma Mountains National Park. They organised a workshop meeting in each of the 4 following communities Konombaia, Banda-Karifaia, Mansonia and Bumbukoro, putting a total of **80 stakeholders** from 16 different communities. These workshops served to assess the success of the past year of activities run by Tacugama with the support of the USFWS around Loma Mountains National Park: farmers were formed and registered under Ministry of Agriculture, Forestry and Food Security (MAFFS), agricultural tools and seeds were supplied to 27 farmers groups, 14 community members were employed as Tacugama Community Ecoguards in 14 communities, and tree nursery sites were established.

**b. Livelihoods**

In April, the TCOP team in Loma Mountains National Park (LMNP) focused on sustainable livelihoods development in local communities for their project activities. In addition to ongoing monitoring of the tree nurseries, they facilitated the formation of **27 farmer groups in 16 communities** near the boundary of LMNP. Farmers received introductory training in sustainable agriculture.

In May, Tacugama supplied **rice** and **groundnuts for planting** and a variety of **agricultural tools** to **27 farmer groups in 16 project communities** surrounding Loma Mountains National Park. The TCOP team visited most of the planting sites and encouraged farmers to depend more on lowland instead of upland farming. TCOP also formed a new **research station office** in Konombaia at the headquarters for the national park.

Few months later in July, thanks to the assistance of the TCOP Field Officers, 22 farmer groups were registered in Falaba District and 5 groups in Koinadugu District, both with the MAFFS and the respective District Councils for a total of **27 registered farmer groups**. The TCOP Field Officers placed **two project signboards** during this trip, one in Mansonia and the other in Konombaia, the park centre. They also measured the farmland planted with **groundnuts or rice** by 22 farmer groups.

In September, groundnut evaluations were conducted with some of the farmer groups and presented to them their **certificates of registration** with the Ministry of Agriculture, Forestry and Food Security and their respective district councils.

In October, **81 goats** were distributed to **27 farmer groups**, 3 goats per group (two females and one male). Beforehand, they inspected the **goat houses** built by the community members were inspected in order to verify compliance with the **minimum standards of animal welfare** for the livestock provided by Tacugama. The goat was purchased after thorough health assessment following a protocol designed by the resident veterinarian of the Tacugama Chimpanzee Sanctuary, to ensure all donated goats are in good conditions. A certificate was delivered to each farmer.

The livestock’s serve as an **alternative livelihood** to the communities living around the edge of the National Park to reduce their dependence on wildlife. During the delivery of the goats, TCOP officers encouraged farmers to depend more on domestic animals like goat, chicken and sheep rather than bushmeat.
Image 32. Seed and tools provided to Gbenikoro farmer group outside LMNP (May 19)

Image 33. Rice planted by Tanyareh Farmer Group in Kania Village (Jul 19).

Image 34. Harvesting and packing of groundnuts from two farmer groups in Senikoro (Sep 19)

Image 35. Bonkokoro farmers receiving their goats supply from TCOP field officers.
5. Ecotourism Development

The landscape of the region is breathtaking and is of great ecotouristic interest.
5. Ecotourism Development

**INTROD:** TCS, lodge, main destination in the country, NG report on SL, potential, diversity

**QUESTION:** FOREST HIKES TO MT. BINTUMANI FROM 4 DIFFERENT LOCATIONS

In October 2019, TCOP supplied women with seeds of tomato, pepper, squash hybrid, lettuce, leek, African eggplant. This initiative aims to introduce a new type of agricultural method in their communities that could later benefit ecotourism development.

**Image 36.** The three group leaders for the vegetable women receiving the seeds from TCOP (Oct 19)

**Image 37.** A Kamaia woman shows their previous eggplant in field to TCOP (Oct 19)
OVERVIEW OF FINANCE
# FINANCIAL REPORT

## Summary

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>FULL ITEM</th>
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<tr>
<td><strong>1 – PERSONNEL</strong></td>
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<tr>
<td>1A_Project Coordinator</td>
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<td>1B_Instructor Game Guards</td>
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<td>1C_Instructor Ecoguards</td>
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</tr>
</tbody>
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| 2 - INFRASTRUCTURE REHABILITATION | |
| 2A_Solar Panels Management | 1,400.00 |
| 2B_HQ Furniture | 2,750.00 |
| 2C_HQ Office Furniture | 1,840.00 |
| 2D_Field Camp Solar Panel | 300.00 |
| **Subtotal INFRASTRUCTURE REHABILITATION** | **6,290.00** |

| 3 - LOGISTICS | |
| 3A_Park Vehicle | 1,625.00 |
| 3B_Fuel at LMNP for Patrol Operations | 17,520.00 |
| 3C_Fuel for Logistics, Research and Monitoring | 6,760.00 |
| 3D_Vehicle Maintenance | 3,456.00 |
| 3E_Vehicle for Logistics/Monitoring/Research | 30,000.00 |
| 3F_Motorcycle Logistics/Monitoring/Research | 3,000.00 |
| **Subtotal LOGISTICS** | **62,361.00** |

| 4 – EQUIPMENT | |
| 4A_Game Guards Equipment | 3,645.00 |
| 4B_Uniforms | 3,780.00 |
| 4C_Ecoguard Equipment | 3,710.00 |
| 4D_Basic Research Census Equipment | 3,630.00 |
| 4E_Eco-Tourism Camping Equipment | 446.38 |
| 4F_Signs/Boards | 392.51 |
| 4G_Stationery | 1,300.00 |
| 4H_Laptops | 2,000.00 |
| 4I_Printer | 500.00 |
| **Subtotal EQUIPMENT** | **19,403.89** |

| 5 - RESEARCH | |
| 5A_Chimp Survey Field Team Perdiem | 3,430.00 |
### Tacugama Chimpanzee Sanctuary
TCS, Regent/Bathurst Highway, Freetown, Sierra Leone

| 5B | Interviews Field Team Perdiem | 600.00 |
| 5C | Monitoring Perdiem            | 1,874.00 |
| 5D | Research Coordinator Salary/TCS Conservation Manager | 3,600.00 |
| 5E | Research Assistants TCS Officers | 2,880.00 |
| 5F | External Research Consultant  | 6,000.00 |
| **Subtotal RESEARCH** |  | **18,384.00** |

| 6  | COMMUNITY OUTREACH |
| 6A | Sensitisation Material | 5,000.00 |
| 6B | Agriculture           | 16,800.00 |
| **Subtotal COMMUNITY OUTREACH** |  | **21,800.00** |

| 7  | CONTINGENCY |
| 7A | Contingency  | 4,230.00 |
| **Subtotal CONTINGENCY** |  | **4,230.00** |

**TOTAL U.S. FISH AND WILDLIFE SERVICE** | 148,468.89 |