ENARAU CONSERVANCY QUARTER TWO OF 2023 REPORT

APRIL-JUNE 2023

EXECUTIVE SUMMARY

Enarau Conservancy has achieved significant progress in the security sector through the dedicated efforts of our ranger team. Through regular patrols, they have successfully prevented illegal activities within the conservancy, ensuring its safety and integrity.

The ranger team demonstrated their commitment to technology in conservation through dedicated efforts, conducting regular patrols on foot, and using motorcycles. Real-time trackers were installed in handheld gadgets and motorcycles, enabling the relay of movement data to the Earth Ranger software for processing and visualization. These patrols have deterred illegal activities within the conservancy, safeguarding wildlife safety. Motorcycles have enhanced ranger mobility and enabled access to previously unreachable areas. Furthermore, they assist in monitoring the well-being of vital habitats within the conservancy

The implementation of restoration efforts is being demonstrated by establishing a tree nursery on-site, with a capacity to accommodate a maximum of 15,000 seedlings. Currently, 4,129 seedlings have been cultivated from a diverse range of tree species that are native to the Maasai Mara ecosystem. The main purpose of this savanna nursery is to produce seedlings for use within the site itself, as well as for distribution to other restoration projects within the Mara ecosystem. This initiative aims to support restoration programs across the entire landscape.

Enarau Conservancy has launched a research program. Research interns from the Maasai Mara wildlife conservancies association (MMWCA) and IMARA, and the Centre for ecosystem restoration in Kenya (CERK) have already begun conducting baseline surveys on vegetation, which encompass grasses, herbs, shrubs, and trees. The monitoring of large mammals has been an ongoing effort, and the next step in the plan is to conduct baseline studies on birds, insects, and herpetofauna. While the data on vegetation can be accessed upon request, the ultimate goal is to share the research findings through scientific journals and public platforms like Google Scholar and ResearchGate, covering various aspects of the research.

Enarau Conservancy prioritizes community well-being and will continue to involve the community to maximize conservation benefits. This is accomplished through collaborative partnerships, such as Water4Wildlife Maasai Mara. The rangers recently took part in a program called "Football Conservation" at Laila Primary School. The initiative provided knowledge to the children and increased community awareness.

Enarau Conservancy has received noteworthy donations and in-kind training from our partners (MMWCA/IMARA). These contributions include a solar-powered system, water storage tanks, and the construction of a fence around the conservancy headquarters. The training provided encompasses various areas such as rangelands monitoring, ranger training, human resources, tax compliance, and among others.

Enarau Conservancy's accomplishments across the four strategic points/thematic pillars serve as a testament to our unwavering dedication to conservation and community engagement. Our ongoing endeavors and collaborative partnerships allow us to consistently make valuable contributions towards environmental conservation and enhance community awareness.

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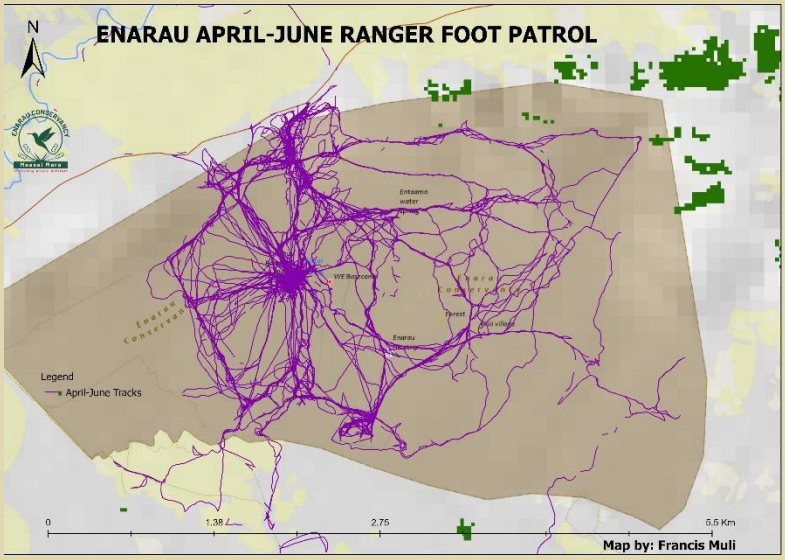
1.0 CONSERVATION

Enarau Conservancy's management is actively utilizing cutting-edge technologies to optimize its conservation efforts. These technologies encompass a range of tools, such as Earth Ranger for tracking ranger and wildlife movements, Ecoscope for data analysis and visualization, Terrachart for mapping features within the conservancy, Wildform for monitoring wildlife trends, and drones are employed for real-time monitoring. Furthermore, upcoming technologies set to be implemented include camera traps for monitoring purposes and soundscapes for detecting the sounds and calls.

1.1 Ranger Operations and Technology Use

The team of rangers is diligently working to maintain a secure environment within the conservancy by preventing any illegal activities. Throughout this Quarter, the rangers conducted multiple patrols by foot, covering an impressive distance of 933 kilometers within the conservancy. These patrols targeted areas that were previously identified as hotspots for poaching, illegal logging, and illegal charcoal burning. We are pleased to report that there were no instances of illegal activities detected within the conservancy during this Quarter.



***Pic 1**: Ranger team patrol tracks from April to June covering 933kms*

The availability of motorcycles has greatly enhanced ranger mobility within the conservancy, enabling them to reach previously challenging or inaccessible areas and respond promptly to illegal activities. This improvement in patrol efficiency is evident in the increased distance covered during Quarter 2, which amounted to 933 kilometers, compared to the 823 kilometers covered in Quarter 1.

2.0 RESTORATION PROGRAM

2.1 Tree Nursery

The tree nursery will provide essential planting materials for restoring the site and other restoration programs in the Mara landscape. The nursery team aims to accomplish the following objectives:

By the end of the year, produce a total of 10,000 seedlings.

Increase the diversity of tree species in the nursery to 30 species diversity.

Improve production capacity by implementing effective seed pre-sowing treatment methods.

Set up various collection sites within the conservancy to gather wildlings.

The tree species diversity and quantity data from April to the present is indicated in the table 1 below:

Month	Total number of tree species at the nursery	Total number of seedlings at the nursery
April	11	3119
May	12	3369
June	16	4129

The nursery team has improved its management practices by attending training sessions and capacity-building workshops. These opportunities provided valuable knowledge on preparing seedbeds, pricking seedlings, and preparing the soil. Furthermore, they adopted new techniques for seed pre-treatment and soil mixing ratios, resulting in increased productivity of the seedlings. This progress is evident through the increase in species composition, which has risen from 11 to 16, and the rise in seedling quantities from 3,119 to 4,129 between April and the present month.

Table 2 provides a catalog of species diversity and species quantities at Enarau conservancy indigenous tree nursery.

No.	Scientific Name	Common Name	Maasai Name	Species Number
1	Elaeodendron buchanii	Elaeodendren buchanii	Osoket	172
2	Ficus sycomorus	Sycamore fig	Olng'aboli	29
3	Bosia angustifolia	Leopard tree	Olerudoi	600
4	Cordia ovalis	Sand paper tree	Oseki	850
5	Warbugia ugadensis	African greenhart tree	Osokonoi	600
6	Rhus natalensis	Red carrent	Olmisigiyioi	320
7	Grewia bicolor	Grewia	Ositeti	140
8	Teclea nobolis	Small fruited teclea	Orgilai	300
9	Ximenia americana	Wild plum	Olamai	100
10	Acacia xanthopholea	Fever tree	Olerai-oibor	400
11	Ziziphus micronata	Buffalo thorn	Oloilalei	48
12	Tanconuthus camphoratus	Leleshwa bush	Oleleshwa	400
13	Climbers			650

14	Scutia myrtina	Cat thorn	Osanankurrurri	30
15	Terrena graveollens		Olmasei	213
16	Dumbeya burgessae	Dumbeya	Osupukiyei	400
Total				**4129**

However, the advancement of the nursery did not unfold as anticipated due to several factors. These include herbivory by animals during the dry season, pest and disease attacks, predominantly impacting Acacia species, unpredictable climatic conditions that adversely affected seedling growth and a significant mortality rate observed among certain tree species struggling to adapt to their surroundings.

3.0 RESEARCH PROGRAM

3.1 Baseline Data Collection

A baseline study was conducted on the vegetation in the abandoned farmland, which spans 336 acres and was used for intensive agriculture for more than 20 years. The collection of baseline data has yielded significant insights into the grass and herbaceous plant species found in the Enarau Conservancy farmland. The study successfully identified dominant and less dominant species, both native and invasive, as well as wildflowers. Comprehensive documentation of herbaceous and grass species was also accomplished.

The findings of the study revealed several noteworthy observations. These included the presence of dominant invasive species, the positive impact of restoration efforts on grass cover, the natural germination of native trees, the presence of avian species and their nesting habitats, as well as indirect signs of carnivores. However, the study also identified challenges related to trespassing and illegal livestock incursion.

A total of 43 herbaceous plant species were identified, out of which 23 (53%) were native and 20 (47%) were invasive. Additionally, 11 grass species were recorded, indicating lower grass diversity compared to other areas in the Mara. This could be attributed to the previous cultivation that took place in a segment of the conservancy for 20 years before the land was set aside for restoration and conservation purposes. The data collected in this study will serve as valuable reference points for future assessments and will inform the planning and design of restoration interventions.

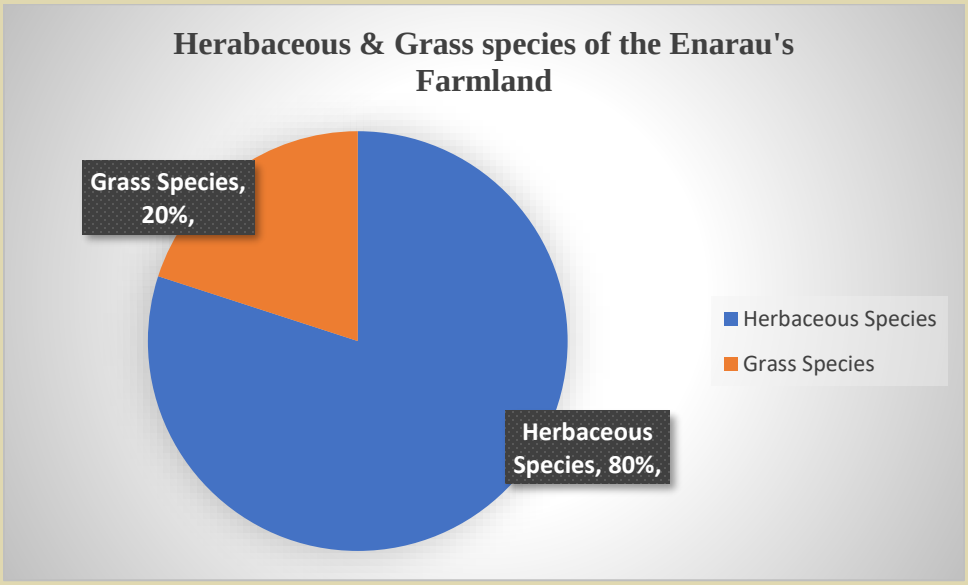


Figure 1. Indicates the number of herbaceous and grass species found in the Enarau's abandoned farmland

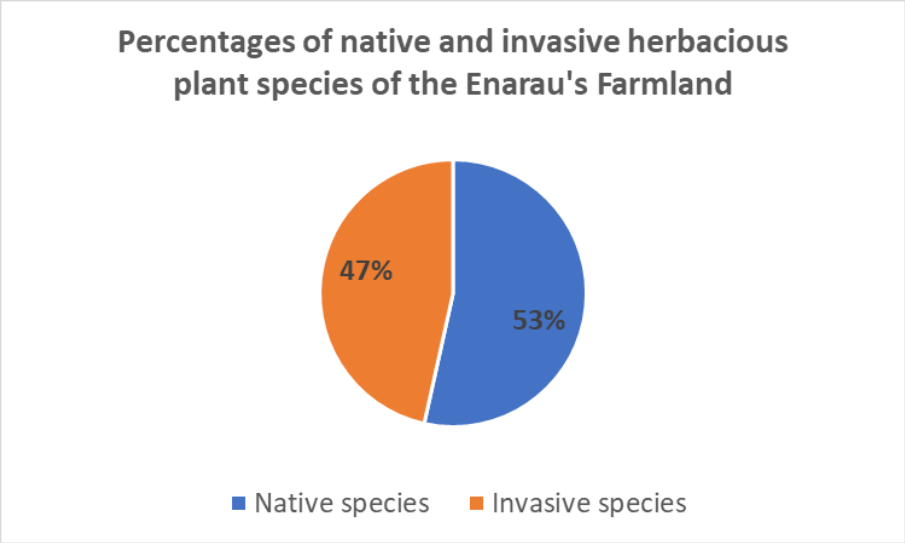


Figure 2. Indicates the percentages of invasive and native species found in the Enarau's abandoned farmland

Pic 2: Enarau vegetation baseline data collection team in the field

4.0 COMMUNITY WELLBEING

We continued involving the local community, seeking to achieve conservation benefits by implementing sustainable livelihood programs, conducting awareness campaigns, and undertaking community development initiatives.

4.1 Football for Conservation Program at Laila Primary School

The Enarau Conservancy partnered with Water4Wildlife to launch the "Football for Conservation" initiative at Laila Primary School. The program aimed to educate children on wildlife and environmental conservation while also inspiring them through positive role models, encouraging active participation, and raising community awareness. This collaborative effort is striving to cultivate a generation committed to protecting our natural heritage and promoting environmental consciousness. The program provided valuable knowledge to the children and instilled in them a love for the environment.

***Pic 3**: Enarau Conservancy Ranger with Laila primary school.*

4.2 Community Awareness Meeting

The Enarau Conservancy and Nature Kenya collaborated to educate the local community on the importance of coexisting with wildlife and the benefits that come with it. The meeting aimed to address the concerns of community members who primarily engage in farming and often face challenges with wildlife damaging their crops.

During the meeting, community members were informed about the ecological significance of maintaining a balanced ecosystem and the importance of wildlife in promoting biodiversity. The conservation organization emphasized the need for sustainable agricultural practices and provided potential solutions to mitigate human-wildlife conflicts, including the use of deterrent measures, proper fencing, and crop diversification. The meeting provided an opportunity for community members to share their experiences with wildlife encounters and voice their concerns. The conservation organization listened attentively and engaged in dialogue to find practical solutions that would minimize conflicts while ensuring the conservation of wildlife.

Pic 4: *Community awareness meeting in Chemorut Village*

5.0 COLLABORATIVE PROJECTS

Here, we highlight various projects that aimed to improve the site and its operations. These initiatives were made possible through partnerships with organizations and individuals who are committed to conservation.

5.1 Solar system donation

Enarau Conservancy has received a generous donation of a 2kv solar system from MMWCA. This equipment is crucial for the organization's day-to-day operations. The solar system has already been installed in the Conservancy's offices, and it is expected to significantly reduce energy costs. This donation is in line with MMWCA's commitment to promoting sustainable energy solutions and reducing the carbon footprints of the organizations it supports.

***Pic 5**: 2Kv Solar system donated to Enarau Conservancy by MMWCA*

5.2 Camp Fencing

Enarau has received a generous donation from IMARA through Maasai Mara Wildlife Conservancies Association (MMWCA) to construct a fence around the conservancy headquarters. This camp fencing project aims to establish a secure perimeter around the headquarters, providing a physical barrier against unauthorized entry and potential threats. It will fortify the conservancy's security infrastructure, enabling rangers to carry out their duties with enhanced confidence and efficiency.

5.3 Research Unit Building

A founding member of Enarau Conservancy has generously donated funds to construct a research-based accommodation facility. This new facility is intended to house researchers, students, and guests who wish to conduct research or learn about Enarau's work. It is expected that the research accommodation will attract researchers and students from diverse fields, all keen on studying the local flora and fauna in the ecosystems. Their work will provide valuable knowledge and data, which will inform conservation strategies and help preserve the conservancy's unique biodiversity. The construction of the research accommodation is currently underway, with a focus on creating a sustainable and eco-friendly structure. Once completed, this facility will become a central hub for researchers, encouraging collaboration and knowledge exchange among individuals deeply passionate about wildlife conservation.

5.4 Research Interns

Enarau Conservancy has been included in the MMWCA/IMARA Internship Program, which provides internship opportunities to students in the area. The program spans three years, with each group of interns spending three months. These interns have helped with data collection, specifically studying vegetation such as herbaceous plants and grasses, which has enhanced the understanding of the ecosystem and its dynamics. Enarau Conservancy's participation in the program demonstrates its commitment to fostering young talent and promoting conservation efforts.

5.5 Motorbikes for Conservation

Enarau Conservancy has two motorcycles, generously provided by one of its founding members and the Maasai Mara Wildlife Conservancies Association (MMWCA). These motorcycles are used by the rangers as a means of transportation, making it easier for them to reach previously inaccessible areas within the conservancy and respond quickly to illegal activities. In addition, it allowed our rangers to monitor the health of the plant species in the area while on patrol.

***Pic 6**: MMWCA senior management handing over a Motorbike to Enarau Conservancy Manager.*

5.6 Rain water harvesting tanks

As part of the IMARA program, MMWCA generously donated two tanks with a capacity of 10000 liters. These tanks will be utilized for rainwater harvesting to irrigate the seedlings in the tree nursery. Unfortunately, the seedlings in the nursery have not been thriving due to the use of saline water which has had a negative impact on their growth. Rainwater harvesting is an efficient method of collecting and storing water that can then be used to nurture the seedlings, improving their growth and ultimately enhancing their chances of survival.

***Pic 7**: Tanks donated to Enarau by MMWCA to help harvest rainwater*

5.7 Visit by Seedballs-Kenya & Survival International on Restoration

Recently, Seedballs-Kenya and Survival International conducted a visit to assess the impact of seedball on restoring degraded zones within the conservancy. The visit highlighted key factors such as seedball distribution, positive community engagement, and promising seed germination. However, environmental factors and the need for long-term monitoring were identified as challenges. Recommendations were made to continue support, strengthen community engagement, practice adaptive management, and collaborate with stakeholders.

Pic 8: Animal survival international and seedballs Kenya teams at Enarau Conservancy.

6.0 CAPACITY BUILDING MEETINGS AND TRAININGS

The conservancy team, including rangers, nursery attendant, manager, and liaison officer, participated in organized training sessions to enhance their abilities. The goal was to equip them with the necessary skills to improve their effectiveness in carrying out their designated responsibilities.

6.1 Rangers' Refresher Course

With support from GIZ, the rangers participated in an extensive three-week refresher program that addressed various aspects of their roles and obligations. The training encompassed the following topics:

- Mitigation and Management of Human-Wildlife Conflict
- Overview of Wildlife Law and Relevant Policies
- Customer Care, Conflict Resolution, and Public Relations
- Standard Operating Procedures and General Discipline for Rangers
- Gender and Gender-Based Harassment Awareness
- Human Rights and Gender in Conservation
- Drug and Substance Abuse, Stress Management, and Personal Financial Management

During this comprehensive course, the rangers received valuable insights and knowledge to enhance their performance and effectiveness in their duties.

6.2 Workshop on accounting and human resource management

The Maasai Mara Wildlife Conservancies Association recently organized a week-long workshop focusing on accounting and human resource management. The aim of the workshop was to enhance the knowledge and skills of accountants and human resource managers to effectively handle financial matters and human resources practices within conservancies. The workshop included various key highlights such as financial management tailored for conservancies, human resource management practices in conservancies, engaging interactive sessions with real-life case studies, expert presentations, and opportunities for networking and knowledge exchange among the participants

***Pic 9**: Conservancy Manager addressing a congregation on the use of technology for conservation.*

6.3 Training on seed collection

Our nursery attendants learned about proper seed-handling techniques such as processing, cleaning, drying, and extraction. Pre-sowing treatments to break seed dormancy, including nipping, swinging, cracking, soaking, and scarification, were discussed.

The training concluded with recommendations for continued training to enhance seedling growth at the nursery. Participants expressed gratitude to Enarau's Conservancy management team for organizing the training and looked forward to applying the knowledge gained

6.4 Rangelands monitoring and assessment workshop

On April 21st, 2023, the MMWCA hosted a workshop focused on monitoring and assessing rangelands. The workshop provided insights into topics such as plant growth, data collection, analysis, and storage. Participants gained knowledge of various tools and techniques for data collection and analysis, as well as the significance of data storage and sharing in rangeland management.

6.5 Certificate Presentation

Enarau Conservancy received recognition in 2022 for becoming a member of MMWCA. The conservancy received a membership certificate.

***Pic 9**: Enarau Conservancy chairman receiving a certificate of membership with MMWCA for the year 2022/2023*

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7.0 CHALLENGES

7.1 Bushmeat Hunting

The killing of a hippo by several people in the Emorijoi area is a serious breach of wildlife conservation laws. Despite being outnumbered and unable to handle the armed group, the conservancy rangers acted quickly by apprehending the suspect and seizing the bushmeat. The suspect has been charged with poaching and illegal possession of wildlife products by the local Kenya Wildlife Service (KWS) office, which is currently investigating to find the other individuals involved in the incident.

7.2 Illegal Grazing

Livestock trespassing into restricted areas within the conservancy has been observed, but the consistent and diligent 24-hour surveillance conducted by the conservancy rangers has resulted in multiple arrests to tackle this problem. Each month, the following number of livestock have been apprehended, reflecting the continuous endeavors to curb illegal grazing activities.

April: 41 livestock arrested
May: 25 livestock arrested
June: 26 livestock arrested

The aim of taking these actions is to enforce regulations and restrictions that protect the habitats of the conservancy and prevent the degradation of natural resources caused by unauthorized grazing.

7.3 Habitat destruction

Although the conservancy rangers have successfully reduced illegal activities, a few individuals were caught collecting firewood at night. This suggests that continuous vigilance is necessary to prevent habitat destruction despite the overall improvement in controlling illicit actions.

8.0 FUTURE PLANS

1. Complete the first Research Unit & upgrade ranger posts, and build conservancy offices.
2. Renovate the Airstrip for improved accessibility.
3. Register "Enarau Conservancy Trust" as a legal entity.
4. Conduct an ecological assessment to understand habitat, wildlife, and vegetation.
5. Lease more land for a wildlife corridor to connect Mbokishi to Enarau.
6. Improve roads and install proper signage.
7. Enhance security with more rangers for 24/7 patrols.
8. Register with KWS to gazette Enarau Conservancy as a wildlife-free-roaming zone and wildlife-protected area.