

ENARAU CONSERVANCY

QUARTER 3
REPORT

2024



Maasai Mara

Protecting unique habitats

www.enaurustrust.org

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INTRODUCTION

Enarau Conservancy has achieved significant progress across its four strategic pillars: Research, Conservation and Restoration, Technology, and Community Wellbeing.

Research Activities

Enarau Conservancy's research team has conducted comprehensive biodiversity and environmental health assessments through various activities. These include mammal surveys, camera trap monitoring, soil infiltration studies, a baseline survey for the One Mara Carbon initiative, woodland surveys, and the development of a bird species checklist.

Conservation Efforts:

The ranger team undertakes daily patrols to detect and prevent illegal activities such as unauthorized grazing, logging, and poaching, while also recording wildlife sightings. Patrols are tracked in real-time using Earth Ranger software, enabling effective conservation monitoring.

Technology Integration:

Technology supports Enarau Conservancy's strategic pillars through tools such as camera traps, Earth Ranger, GIS mapping, and a digital weather station, which have streamlined operational processes and enhanced monitoring capabilities.

Community Wellbeing and Engagement:

Community wellbeing is promoted through regular sensitization forums, providing a platform for information sharing on conservation issues, community rights, and relevant policies



RESEARCH

Enarau Conservancy has achieved significant progress across its four strategic pillars: Research, Conservation and Restoration, Technology, and Community Wellbeing.

1.0 Mammal Survey

The survey aims to assess mammalian diversity and species populations within the conservancy, as well as potential threats to wildlife within their habitats. Techniques employed during this survey included camera trapping, line transects and visual observation. Camera trapping is significant in identifying the presence of nocturnal and elusive mammal species that are rarely seen during the day.

2.0 Camera Traps

The camera traps were deployed across various locations in the conservancy to monitor mammal activity. Utilizing a grid system, the traps were strategically placed to maximize the likelihood of capturing mammal species. From our recent deployment, we successfully captured several nocturnal species, including leopards, caracals, hyenas, bushbucks, porcupines, and dik-diks. This was essential in establishing species diversity within Enarau Conservancy.



Fig 1: Up (left) Research team setting up a camera trap at the core area, (Right) Caracal, Down (left) Spotted hyena (Right) Kirk's dikdik, all these captured by camera traps

1.3 Photographic Evidence

For diurnal species, taking photos is possible even within a very close range, due to the friendly coexistence created by conservation and protection of wildlife. Our dedicated research team on their daily monitoring activities capture these beautiful wildlife grazing peacefully at our conservancy landscape. The wild animals commonly encountered include Plain zebras (*Equus quagga*), implala, bushbuck amongst others. These images of different species will help in development of a mammal checklist within Enarau Conservation area.



Fig 2: (a) the plain zebras (b) Notable increase in the number of impalas

1.4 Soil Infiltration

Soil infiltration is the current ongoing activity being conducted by the research team across area with visible soil erosion across the conservancy. Seven prone areas are under the assessment using the Land Degradation Surveillance Framework (LDSF). Land Degradation Surveillance Framework is a comprehensive method that provides a science-based protocol for measuring land and soil characteristics as well as vegetation composition. The infiltration process is conducted using a single ring. The primary objective of this exercise was to assess soil infiltration rates to understand water absorption and erosion potential.



Fig 3: Research team collecting soil samples for testing at Enarau Conservancy

1.5 Woodland Survey

The team conducted a visual assessment of the Jackson's and Kileyia's woodland areas, where the team identified a diverse range of tree species. The Jackson woodland, in particular, was found to be free of invasive species and rich in indigenous tree species, making it a suitable site for seed collection for our tree nursery. This research done on the woodland informs on species type, density and structure for a proposed upcoming restoration project in Enarau conservancy.



Fig 4: Victor Simiren getting ready for an observation in the woodland

1.6. Mara Carbon Baseline Data Collection

One Mara Carbon Project team led by Rebekah Karimi visited Enarau Conservancy on 21st September and assessed 10 plots randomly selected based on habitat types. This data collection exercise is being conducted in the Greater Mara ecosystem focusing on the Mara conservancies. The team collected baseline soil and vegetation data which will be used to track improvements over the course of the project. The One Mara Carbon Project team was accompanied by our research team led by Victor Simiren, our team learned more about the Land Degradation Surveillance Framework, the methodology used to verify the carbon project across the Greater Mara Ecosystem.

1.7. Bird Survey

Enarau Conservancy is home to a great diversity of avian species found within Maasai Mara Ecosystem. Our research team conducted bird surveys and were able to identify 25 bird species, this yielded significant photographic evidence of diverse bird species. Birds photography are part of our plans of establishing Enarau Conservancy Birds database, this will determine avian diversity in Enarau Conservancy.



Fig 5: (a) Green winged pytilia (b) Black headed heron are among the commonly spotted birds at Enarau Conservancy

1.8 Indigenous seeds viability Tests

The ongoing seed viability tests will play a big role in finding better solution for improving the output from the seed beds hence improving productivity. These tests are significant in helping us determine what species to plant or which species are favorable to plant. In this tests we conducted two different tests one of which is conducted on a petri dish and the other test is conducted on a sand seed bed



Fig 6: (a)(b) Antonio, Steewart, Andrew and our Enarau research team undertaking seed nursery activities (c) indigenous seeds viability tests.

PARTNERSHIP WITH CER-KENYA

The progress on activities related to the Research Pillar would not have been possible without the strong partnership between Enarau Conservancy and the Centre for Ecosystem Research Kenya (CERK). These sentiments are echoed by the comments made by CERK's Director, as outlined below:

“After a recent visit to Enarau, I was again filled with the feeling that fuels my passion for the Centre for Ecosystem Restoration: hope. When I first visited the conservancy in 2022, it was in its earliest stages, but what has happened since then has been nothing short of remarkable. The natural vegetation is returning rapidly, and the landscape responds in ways that affirm our collective efforts. The "Conserving Unique Habitats" motto couldn't be more fitting.

As we walked through the terrain, the interconnectedness of the landscape was striking, a web of wetlands and forests that once thrived and will thrive again. Enarau, in many ways, is a microcosm of Kenya, a place where diverse habitats meet. The broader awareness of the importance of these habitats is still growing, and this intricate web provides immense resilience in the face of future climate changes, underscoring the urgency of our conservation efforts. Mammals are starting to return, slowly increasing in number and diversity, and we expect that as restoration efforts continue, more will migrate from the south, filling the space we are actively working to restore. CER-K is committed to deepening our connection with this landscape by creating a field station enabling accessible research facilities and equipment. We hope that this will encourage people to come to learn, engage, and participate in the process of research and restoration.

Over the coming years, we aim to build on the ecological uniqueness of Enarau by adopting a distinctive approach to conservation. Through partnerships and the use of cutting-edge technologies, we hope to facilitate effective monitoring and management. This is not just about restoring a landscape; it's about fostering a deeper understanding of how we can showcase a mixed-use conservancy, a space for people and wildlife to thrive in harmony.

I want to thank the conservancy staff, our partners, funders and fellow practitioners for all of your efforts in supporting such a beautiful landscape. I want to thank the conservancy staff for making our stay so welcoming, but also all the researchers, funders and supporters who made this possible”
-Jonathan Jenkins



Fig 7: Jono's visit to Enarau Conservancy



CONSERVATION AND RESTORATION

2.1 Daily Patrols

Our rangers form a dedicated team that is at the center of conservation and protection of wildlife. To ensure conclusive protection of wildlife, our rangers make regular patrols within and outside the conservancy to monitor and report illegal activities such as illegal logging, charcoal burning, bush meat hunting, illegal grazing and conservancy trespass.

They conduct both foot and motorbike patrols across the conservancy and our corridor area. During this quarter, our rangers manage to cover a distance of 1297km on their patrols. These regular patrols help to curb any illegal activity from happening within and outside Enarau Conservancy. Patrols additionally include monitoring and guarding of wild animals such as elephants and cape buffalos which may pose human wildlife conflict especially during the day at the conservancy corridor.



Fig 8: (a) Enarau Conservancy rangers mounting a quarter guard (b) Rangers posing for a photo with their manager

2.2 Wildlife monitoring

By the help of Earth-ranger software, we are able to report on wildlife movement, illegal grazing, illegal logging, injured wildlife, and human wildlife conflicts. This software helps in assessing new species available, new animal sightings, assessment of wildlife health and habitat conditions.

Wildlife monitoring and reporting has been made easier through collaborative efforts between Enarau Conservancy rangers and Kenya Wildlife Service officers deployed to our conservancy. The KWS officers are really invaluable to our conservation efforts through joint patrols, undertaking regular security drills and engaging our security team to regular physical and combat trainings.



Fig 9: KWS officers from Nairobi headquarters, community and enterprise department with Enarau staff.

2.3 Restoration using Seedballs from Seedballs Kenya

Seedballs Kenya and The Enarau Conservancy expresses deepest gratitude to Animal Survival International for their generous donation of indigenous acacia tree seed balls. This invaluable contribution significantly aids the ongoing woodland rehabilitation efforts, allowing us to restore the natural landscape and create a thriving habitat for wildlife. The acacia tree seedballs have been strategically planted throughout the conservancy, providing vital shade, food, and shelter for numerous wildlife species.



Fig 10: Broadcasting of acacia seedballs at Enarau Conservancy

2.4 Conservation Area

We have had conversations with community members and other stakeholders on the possibility of expanding our conservation area in the year 2025. This conversation focused on expanding our conservancy to the Eastern side by 2000 acres (809.372 ha) and making our wildlife corridor 1900 acres (768.9 ha). Our wildlife corridor is key as it connects Enarau Conservancy to Mbokishi Conservation area, thus the Greater Maasai Mara ecosystem. This a critical historical path used by wildlife downwards to the main salt lick at the core of Enarau Conservancy. Opening up this corridor by removing fences will immensely boost wildlife free movement, hence increasing their numbers at the core of the conservancy.



Fig 11: Our supporters touring Enarau conservancy wildlife corridor, and a map showing phase 1 of our conservancy corridor.

2.5 Tree Seedling Nursery Attendance

Maintaining tree seedlings is critical for their successful growth, some of the activities involved in maintenance of the tree seedlings include regular watering to ensure optimal moisture levels, monitoring for pests and diseases, pruning and thinning to prevent overcrowding, and regular weeding.



Fig 12: (a) *Eleodendron buchananii* (b) *Warbugia ugandensis*, tree species in our tree nursery

TECHNOLOGY

Technology is another important pillar in our conservancy, we employ use of cutting edge technology to collect, analyze and visualize data. Technology is essentially used in reporting of various events both in the field and at the headquarter premises.

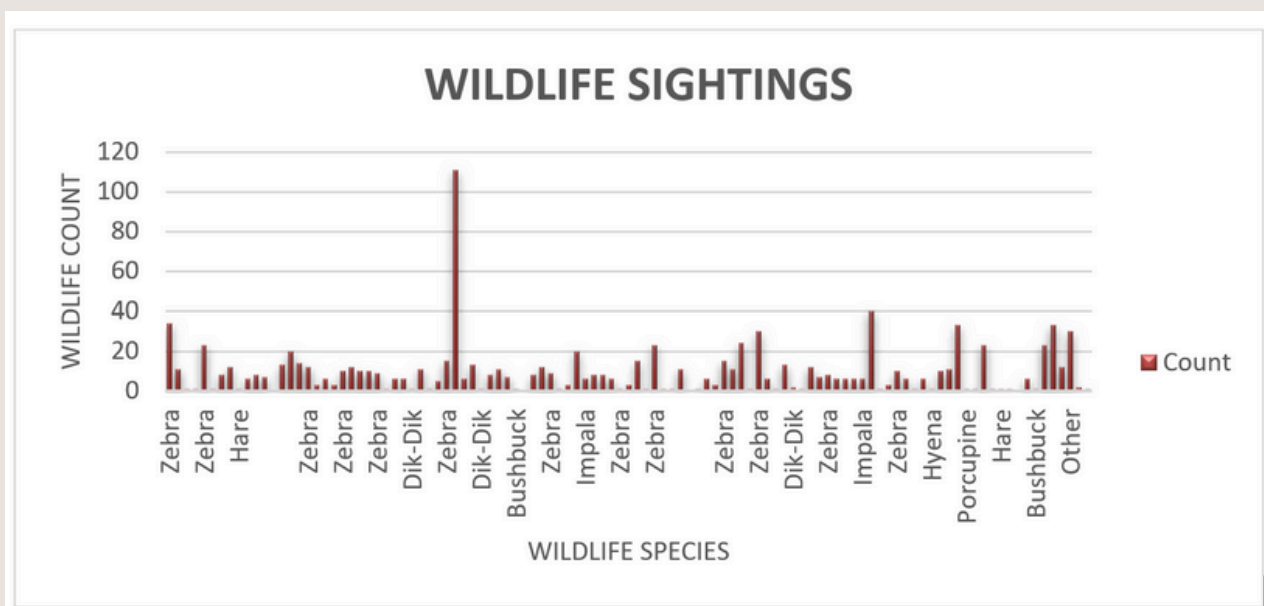
3.1 Earthranger (ER)

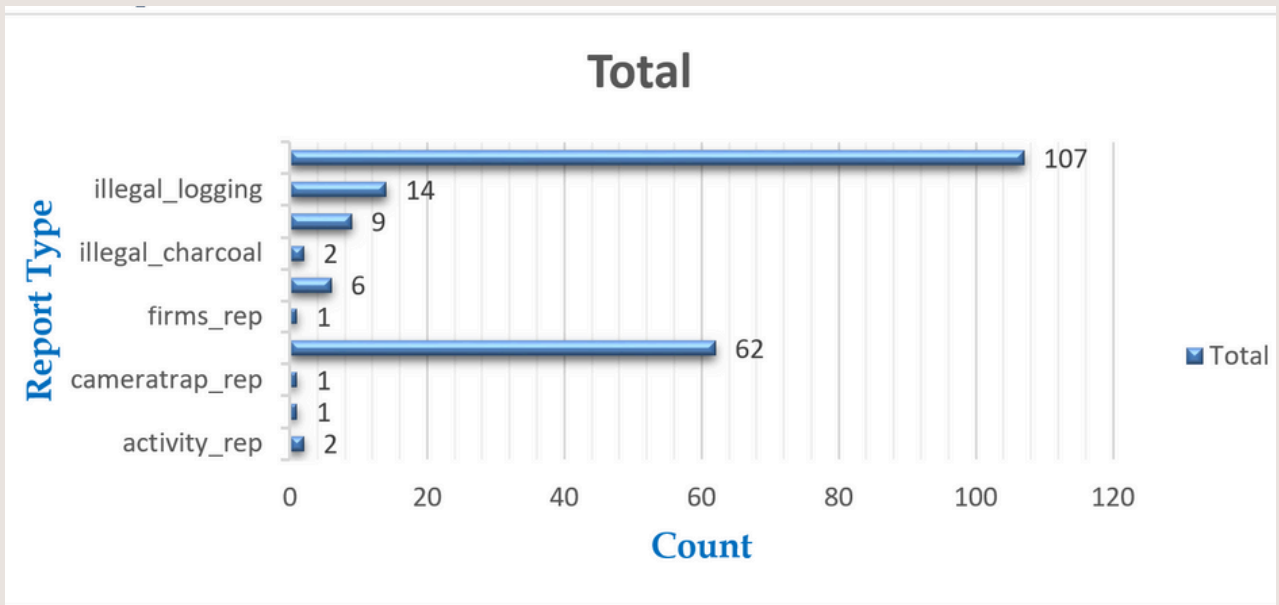
Earth-ranger is a software that help us with tracking and monitoring the ranger's movement in the field. This system of monitoring has proved not only to be efficient, but also reliable in transferring data from the field to the station administrations' back-end with great accuracy.

Earth Ranger reports incidents happening on the field such as; wildlife sightings, illegal grazing, illegal logging, charcoal burning, wildlife traps, fire incidents, ranger real-time patrols and ranger tracks. Ranger real-time patrols and ranger tracks is very key in monitoring the movement of our rangers as they go about their daily activities and patrols within the conservancy.

Over this quarter, we have been able to come up with several improvements on the Earthranger and its use. We have launched a continuous training of our rangers on how they are expected to do reporting of events and patrols on Earthranger while minimizing errors. This have improved the quality of data being reported on daily basis. We have also increased the reporting sources to increase the amount of data while at the same time expanding our reporting base. We now have two ranger stations including; Enarau Bravo & Enarau Alpha stations. We were also able to configure our reporting sources to include even the camera traps that have been deployed within the conservancy. Currently we are in the process of configuring and loading the trackers on the livestock to our ER instance. Once this is achieved, we shall be able to monitor the movement of the livestock within the conservancy in real-time.

Events reports and wildlife sightings have been outlined below;





Reporting Sources

Reported By	Reporter frequency
Enarau Camera_Traps	34
Jesse Odongo	7
Kooruti Ranger Station	164

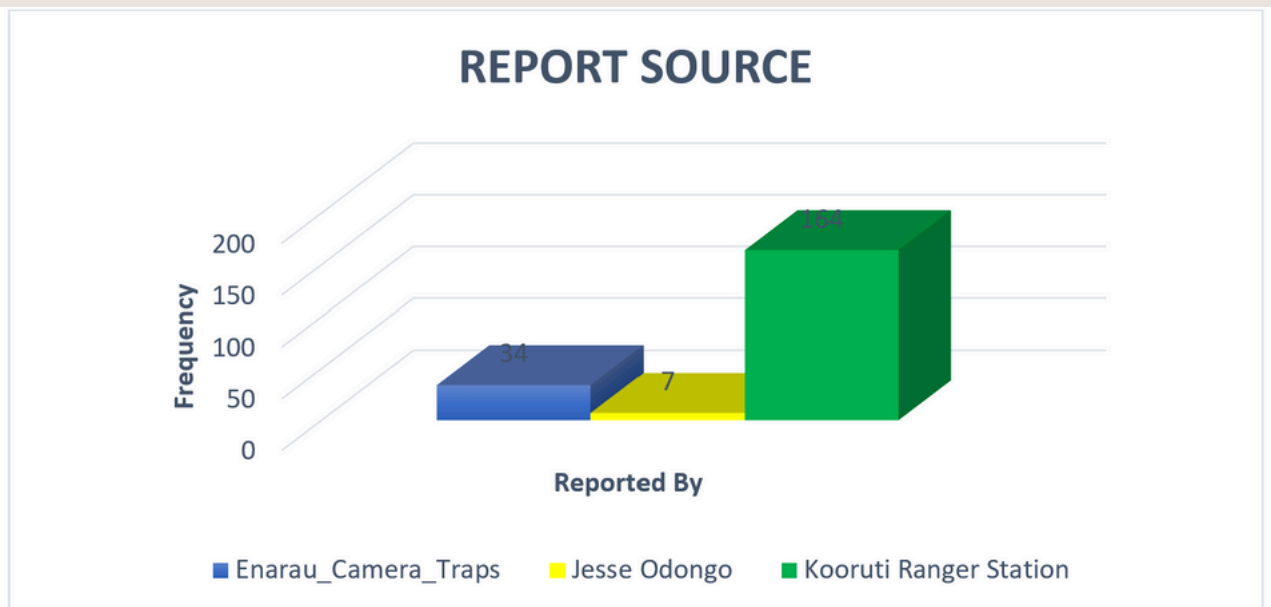


Fig 13: Showing summary of (a) Wildlife sightings(b)Events reported and (c) Reporting source

Patrols

The patrols of our rangers are tracked and reported through the Earthranger (ER) system. This makes it easier to plan for patrols and act as per the needs arising. During the past three months, over 99 patrols were reported to the Earthranger via the mobile ER instances, out of which 89 patrols were by the rangers and 10 by device Jesse. The total track distance covered by the rangers over this period as reported translated to 1210.13 kilometers.

The patrols are mainly carried out within the conservancy and the wildlife corridor areas bordering the conservancy. The ranger patrol trails/tracks are shown below.

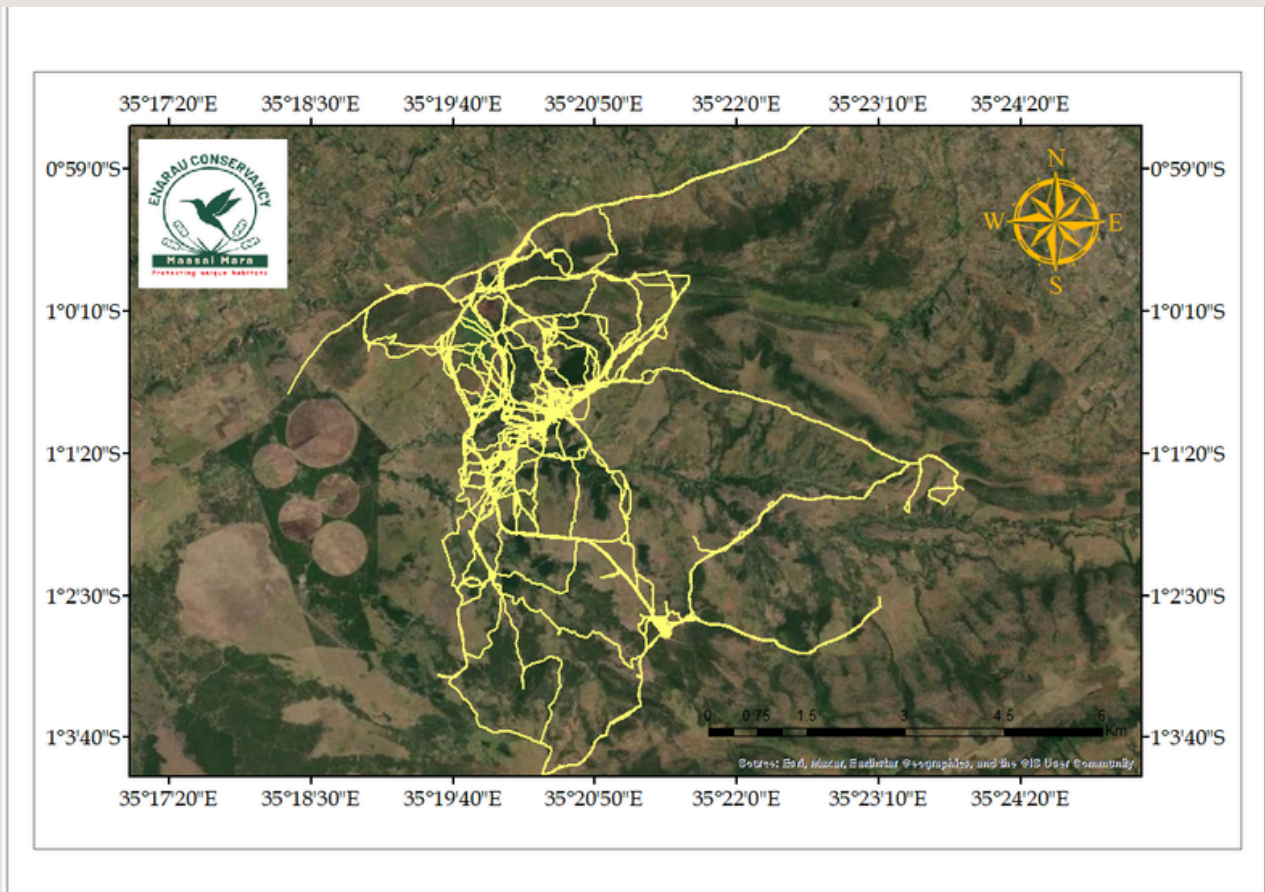


Fig 14: Track for the rangers within and outside Enarau conservancy

3.2 Geographic information system (GIS)

Geographic information system popularly known as GIS is a computer system that analyzes and displays geographically referenced information. It utilizes data that is attached to a unique location. GIS technology have helped us in achieving our fundamental pillars as a conservancy. Some of the areas that GIS technology is used in research include development of research designs, mapping research and study areas, use of satellite imageries, GPS locations and transects design and development.

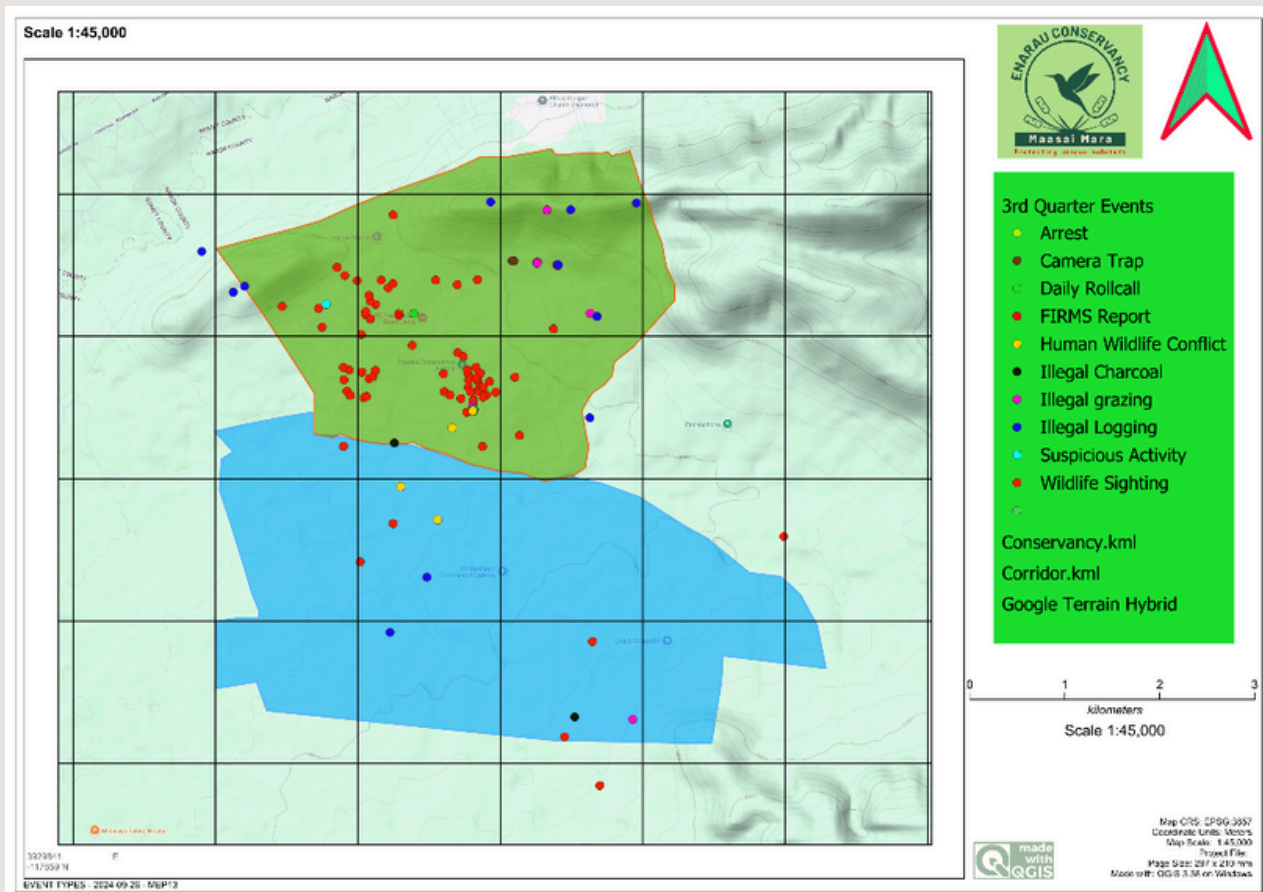


Fig 15: Showing specific locations for different activities reported.

3.3 Weather station

Enarau Conservancy is fitted to an installed digital weather station by the TAHMO. This digital weather station records atmospheric pressure, precipitation, soil and surface air temperature, soil moisture content, relative humidity amongst others. This data is available and can be retrieved from the TAHMO digital portal where we have access to view and export it.

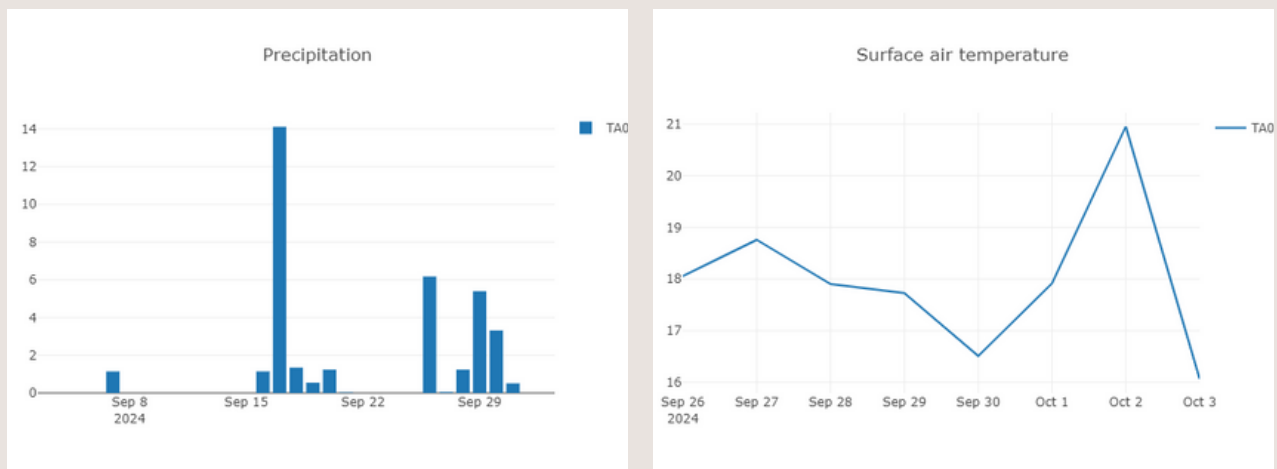


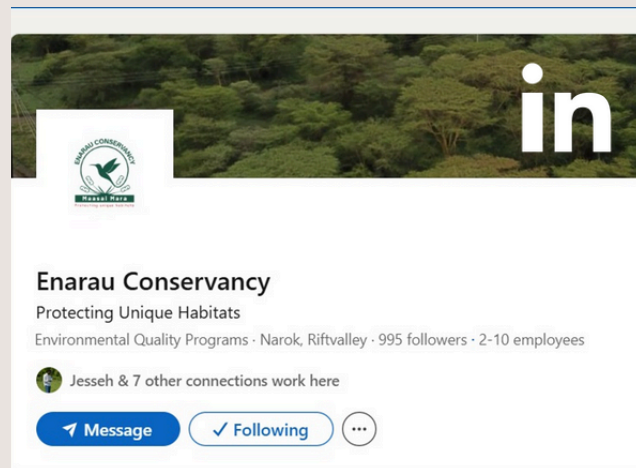
Fig 16: Data on weather conditions obtained from the digital weather station

3.4 Information communication technology (ICT)

Enarau Conservancy have embraced the use of technology in its daily duties and in the wider conservation efforts. The technology-based approach has seen significant improvement in most of the areas and activities done in the conservancy.

It is important to note that all our office staffs and the head ranger have been issued with computer laptops to help them carry out their duties efficiently. The conservancy is connected to an internet WIFI which is the primary source of network connection for communication within the conservancy. Internet availability has made most of the work easier, especially resources search and online meetings.

We are proud to report that our social media platforms have grown immensely and have improved, attracting a lot of attention and putting the conservancy on the world radar. The social media platforms, LinkedIn and Facebook accounts are playing a marketing role by showcasing Enarau conservancy's conservation activities to the public domain. This has seen several impressions, likes, reactions and even comments, which informs on positive or negative feedbacks that lays ground for decision making. Currently the Enarau Conservancy LinkedIn platform have 968 followers while the Facebook page stands at 887 followers.



4. COMMUNITY DEVELOPMENT

4.1 Community Sensitization Forums

In this department, we have managed to hold two successful community sensitization forums at Chemorut village and Laila village respectively. The two forums were intended to educate community members on the importance of conserving, protecting and coexisting with wild animals. Community members from both sides were also able to get information on the processes to be followed for compensation of their livestock and crops when destroyed by wild animals.



Fig 17: Laila community members during a community sensitization forum organized by Enarau Conservancy and KWS officers.

4.2 External Workshops

Two members from the conservancy staff, Elizabeth and Jack Kauria had a chance to represent Enarau Conservancy at two different workshops, one at Talek and another one at Mbokishi Conservancy. The symposium at Talek, which was organized by the Smithsonian Conservation Biology Institute focused on Gender Mainstreaming. Our team acquired knowledge on climate change and the safe integration of women into conservation.

Another workshop at Mbokishi organized by Indigenous Livelihoods Enhancement Partners –ILEPA, focused on educating local communities on their rights and the policies safeguarding the rights of the landowners, which includes Free Prior Informed Consent.



Fig 18: ILEPA meeting at Enookishu Conservancy

4.3 Predator Lights

With the support of Nature Kenya, we were able to acquire a few predator lights distributed to some to our landowners. Elizabeth Kuel (Community Liaison), Jack Kauria (Head Ranger) and Jesseh Odongo (IT officer) installed these lights in the bomas. Predator lights are very essential in deterring human wildlife conflicts caused by nocturnal predators such as leopards, lions, and hyenas.



Fig 19: Enarau Conservancy Corporal installing predator proof lights at the wildlife corridor

TREE SEEDLING SALES

The tree seedlings nursery is one of our alternative sources of income, these seedlings are outsourced to individuals, communities and organizations involved in reforestation activities. Our tree nursery sales during the third quarter was 190 different species.

5: PRIORITY NEEDS

- Conservation Land Expansion: Corridor, from 1000 Acres to 1900 acres, and 1500 acres on the Eastern side.
- Ranger Accommodation and other staff accommodation.
- Water Infrastructure Development
- Drone technology/equipment
- Decent Research facility and staff working space.
- Improving our lease fee to outcompete agricultural activities.

CONCLUSION

In a nutshell, Enarau conservancy has made big strides in achieving its mission and vision as outlined in the strategic plan. As reported as by our four pillars; research achieved its objectives by setting line transects set to monitor birds and mammals, conducting woodland survey as well as soil infiltration and soil test. Under conservation, plans to have more land leased are ongoing majorly on the Eastern side of Enarau conservancy as well as the wildlife corridor. Daily patrols, regular trainings and drills put our conservancy rangers in the best shape to monitor any unaccepted activities within the conservancy.

Use of GIS, camera traps, earth ranger software and photo filming are the technological forms playing key roles in conservation at Enarau Conservancy. Use of technology has made conservation easier as well as giving the best ways of monitoring conservation and restoration progress.

Community input is important in conservation and restoration, therefore engaging the surrounding community boosts conservation efforts. Community sensitization forums in collaboration with KWS has been a major community engagement on the third quarter, these forums educate community members on the importance as well as their roles and rights in conservation.