

Grevy's Zebra Conservation in Kenya 2024/25

Report & funding proposal prepared for
supporters & members of the
Grevy's zebra EEP conservation projects

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Introduction

Dear supporters and friends of the Grevy's zebra, another year has passed, and I am relieved and pleased to say it has been a reasonably quiet one without droughts, floods and other disasters, giving our teams and the wildlife a chance to recover from the previous difficult times. No doubt, there will be more challenges to come but our teams are ready. Work did carry on, of course, and here you can read all about the conservation activities for Grevy's zebra in Kenya during the last year. Collaborations with in-country partners have been strengthened and new members of our team have shown themselves to be excellent choices for the work they do.

Costs for almost everything have remained high though we received some relief by benefitting from a more favourable exchange rate with the Kenyan Shilling in 2025, making funds go a little bit further. We would like to thank you, our funders, for your steadfast and generous support and for staying with us year after year.

Your funds and personal encouragement make our work possible and give it the security to continue, even if things, at times, turn difficult. Thank you!!

In this document you will find more information on progress made, new initiatives in the making, and the wonderful people who work so hard to protect the Grevy's zebra. For the first time in 13 years, I had the opportunity to travel to Kenya and at long last, I met all our scouts as well as our field assistants. It was great to see them all in person. To see the dedication, enthusiasm and resourcefulness of our whole team was inspirational and humbling.

Section A. Summary of Activities in 2024/25

In this section we provide an overview of the work we have carried out towards Grevy's zebra conservation over the last year. Together with our partners from the Grevy's Zebra Technical Committee (GZTC) and with your financial support we have provided crucial monitoring, cooperation with communities, emergency interventions, and support for the Kenya Wildlife Service (KWS) and the national conservation strategy.

In **Section B** we are presenting our proposed activities for 2025/26 together with their associated costs and I hope you will find time to read it.

Groups and organisations mentioned in this report are:

GZT = Grevy's zebra Trust www.grevyszebratrust.org

GZTC = Grevy's zebra Technical Committee

KWS = Kenya Wildlife Service www.kws.org

Lewa or LWC = Lewa Wildlife Conservancy www.lewa.org

MT = Milgis Trust www.milgistrust.com

MW / Marwell = Marwell Wildlife www.marwell.org.uk/conservation

NRT = Northern Rangelands Trust www.nrt-kenya.org

PU/Princeton = University of Princeton www.princeton.edu/~equids/people.html

WRTI= Wildlife Research and Training Institute www.wrti.go.ke



National developments

National Recovery and Action Plan for Grevy's zebra in Kenya

All our work is in support of the Grevy's Zebra Recovery and Action Plan (2017-2026) (KWS, 2017). Marwell Wildlife Project Manager Lizbeth Mate and David Kimiti, Director of Research and Impact at Grevy's Zebra Trust (GZT), have collated updates from all parties involved and are currently consolidating data for a review report which will be shared with the GZTC. Feedback workshops will then be undertaken with all stakeholders. The next step will then be to write a new strategy ready for it to be released at the end of 2027. This will also include the strategy for Ethiopian Grevy's zebra.

Grevy's Zebra Technical Committee (GZTC)

In April 2025, the Technical Committee not only met for the first time in person since the Covid pandemic but members from Marwell UK (Prof Philip Riordan and Tanya Langenhorst) also participated. Further participants were Dr Isaac Lekool and Linus Kariuki, both KWS; Prof Daniel Rubenstein, Princeton University and Grevy's zebra coordinator for the IUCN Equid Specialist Group, Dr David Kimiti, GZT, Lizbeth Mate, Marwell, and Timothy Kaaria, Lewa. The meeting had two guest participants: Rachael Clark from the University of Aberdeen, who is working on analysis of the collaring data, and Stephen Gachagua from the Mount Kenya Wildlife Conservancy. Subjects discussed were the analysis of GGR data (2020 and 2024 are still outstanding); feedback on the collaring data so far and next steps as well as the national strategy/ recovery & action plan that is coming to an end in 2026. More information on all these points can be found in the relevant sections of this report.

Updates on the individual organisations followed and, finally, it was decided to invite Peter Lalampaa, the new CEO of GZT, to sit on the Committee.

Drought Relief

The landscape has continued to recover from the effects of the prolonged drought and at the end of 2024, while it was dry, reports indicated that there had been pasture throughout the year. Water has started to reduce again in 2025 with some communities like Kargi having a challenge with sharing this scarce resource with wildlife. Increased wildlife observations this year indicate some stability; however, with water being scarce, close monitoring is required to mitigate any negative effect, where possible. Close collaboration with the communities living alongside the wildlife remains crucial and the team continues to involve them in our conservation efforts through community meetings, outreach with morans (new), herders and school going children.

At the time of writing this, we are still hoping that no drought relief will be required this year and that the many foals that have been reported since 2024, will grow strong enough before another challenge is thrown at wildlife and people.



Pics 01 & 02: Anderi area in June 2025 © Marwell

Monitoring of Grevy's zebra

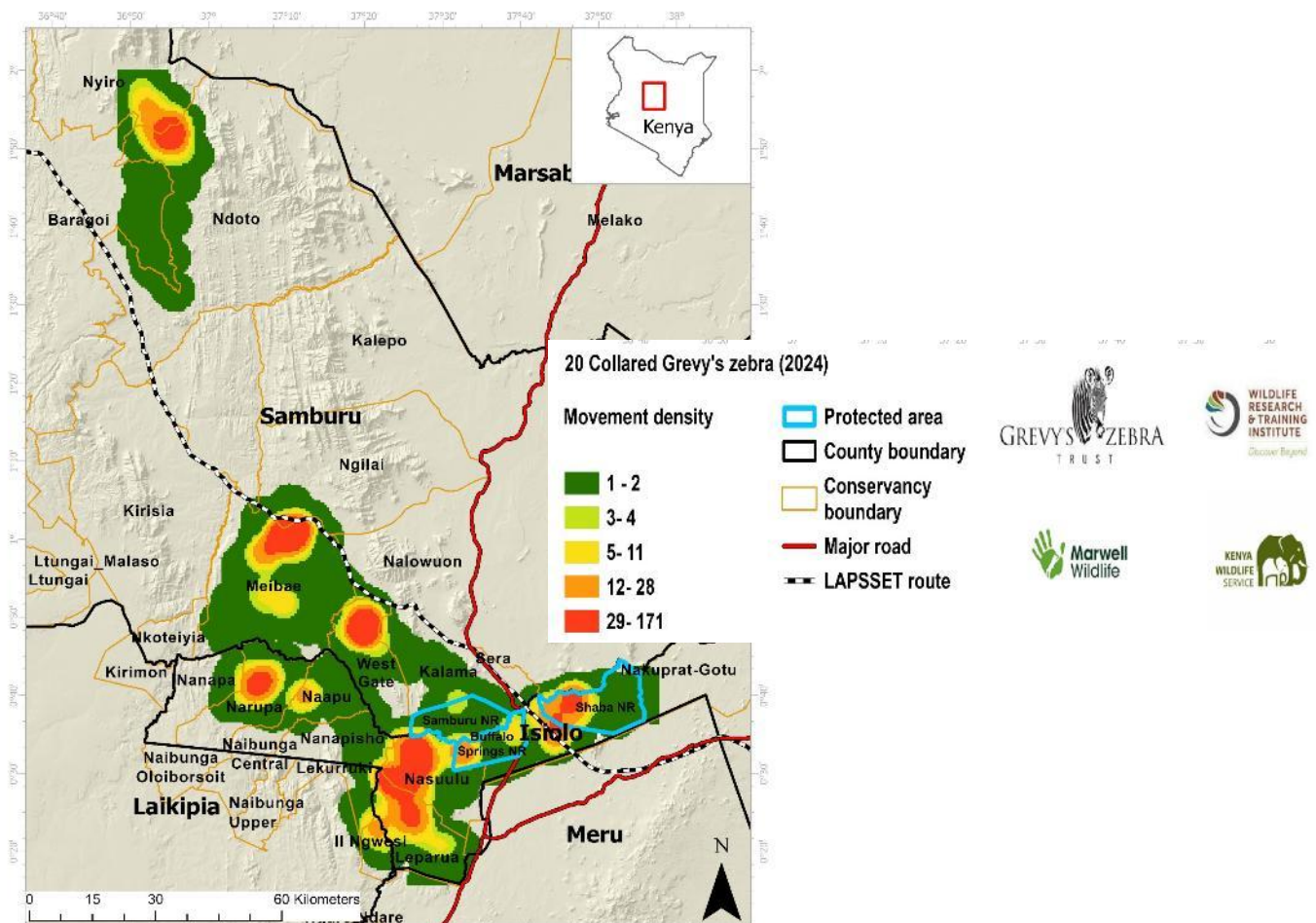
National Survey of Grevy's zebra/Great Grevy Rally (GGR)

As reported in the 23/24 donor report (Langenhorst et al. 2024) the 2024 national survey was reduced due to lack of funding, as well as flooding and insecurity in some areas. The data have still not been fully analysed. However, GZT has now secured a grant to establish the systems and capacity required to undertake this analysis. Terms of Reference with clear deliverables will be developed.

Since the analysis for both the 2020 and 2024 GGR data has still not been completed, we expect there to be (quite rightly) less support to undertake a GGR in 2026. It was therefore proposed that the next GGR to be undertaken in January 2027.

GZ collaring

We also reported in 2024, that large scale linear infrastructure projects (known as the LAPSET Corridor*) forming part of Kenya's growth and development blueprint, are in the design phase, and will cut directly through Grevy's zebra habitat in northern Kenya (Maps 01 & 02). Recognised as one of the greatest emerging threats to the Grevy's zebra population in Kenya, these infrastructure projects demand close monitoring and to do so we have collared 20 Grevy's zebra in the planned corridor areas (Langenhorst et al., 2024). By now, tracking of the collared animals clearly shows their proximity to the planned corridor and the existing major roads (Fig.xx)



In addition to the collars, a group called the Northern Kenya Road Watch (NKRW) is monitoring wildlife crossings on the A2 highway (part of the proposed corridor and the main road leading from Nairobi to the north). They are reporting their findings to the Kenya National Highway Authority (KeNHA). Between Sept 2023 and Nov 2024, they counted 24 cases of wildlife and five domestic animals in vehicle collisions on the A2. Out of those, 26 were killed and three injured. Amongst others killed were two Grevy's zebra, two cheetahs from one family, a striped hyena and a jackal (Pics.03 & 04)



Pics.03 & 04: wildlife death on A2 highway © NKRW

Recommendations

Combining year-one findings of the collars and the records collected by the Northern Kenya Road Watch team have led to the following recommendations: installation of over- and under-passes in the crucial areas identified for wildlife crossings (this will require meetings with all stakeholders); warning signage and rumble strips across the A2 highway to warn drivers and slow down traffic, as well as additional collars to potentially find more crossing areas of the proposed corridor.

Since first deployment, several collars have stopped transmitting (batteries expired or technical issues), some of them within just a few months of collaring. The company producing the collars (Savannah Tracking Ltd) therefore agreed to provide us with three more collars as a replacement. We also still have two collars left from the previous effort, and the GZTC has decided to deploy these five collars opportunistically over the coming months. The objective remains the same: to monitor Grevy's zebra movement along the proposed LAPSETT Corridor by filling identified gaps connecting Meibae and El Barta area (3 collars) and Laisamis (2 collars).

Further research

While this happens on the ground, we have two scientists (Rachael Clark, Aberdeen University, and Dr Anne Trainor, The Nature Conservancy) developing a step selection model with the collar data to understand which environments the Grevy's zebra prefer or avoid. The insights from this model will then inform a connectivity analysis across the Grevy range in northern Kenya that will help us to identify key areas where the animals are likely to move between suitable habitats and which areas they prefer for grazing, water and distance to roads for better management.

Digital Stripe Pattern Identification Project

Photos of the uniquely identifiable stripe patterns of Grevy's zebra allow us to get exact numbers of animals seen in any area and avoiding double counting individuals.

Future of national stripe ID database

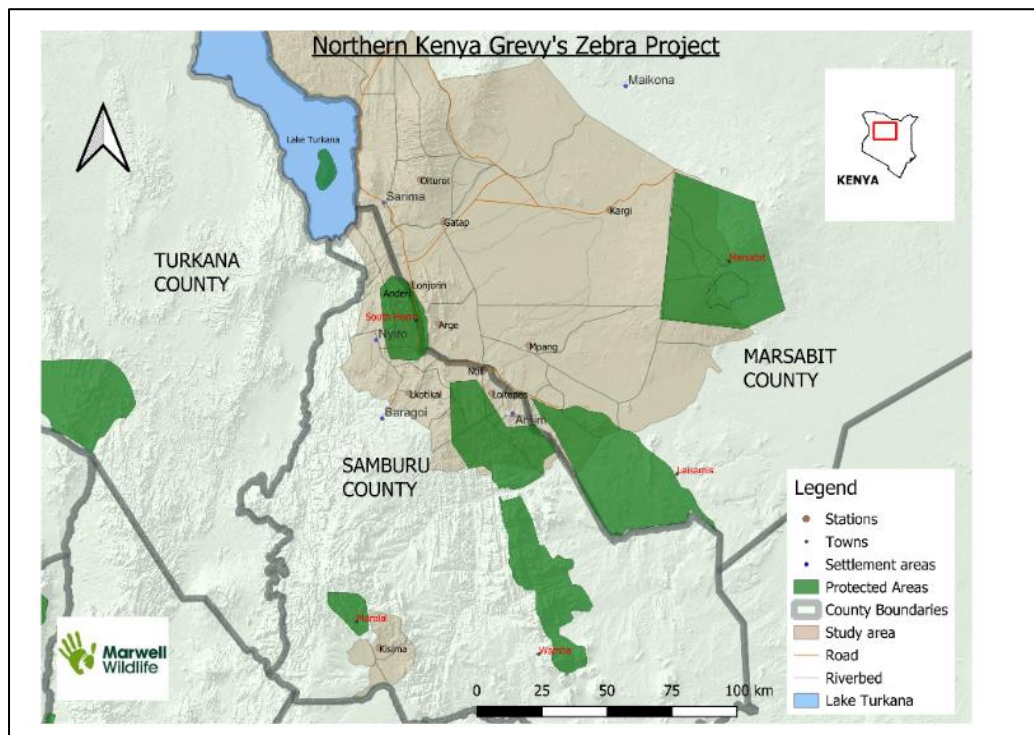
As reported before, the stripe ID database has been in a suboptimal state for several years now. Lewa and Marwell are all still collecting images and storing them in the old Access Database ExtractCompare (Conservation Research Ltd., Hiby, 2010). While GZTC continues to search for a workable and affordable alternative we will continue with what we have got.

Lizbeth conducted a stripe ID training for the field assistants (refresher for Sakimba and new for Joshua) so as to restart entering of usable camera trap data into the national database.

Sakimba, who is currently studying in Nairobi, continues to add images (backlog and new) to the stripe ID database as this needs support and discussion with Lizbeth who is also in Nairobi. In addition, he has a lot more desk time than Joshua who is mostly in the field. Joshua does collect images from camera traps

and hand-held cameras in Lkotikal and Kisima and selects those that are suitable for the stripe ID software and sends them to Nairobi.

The Northern Kenya Grevy's Zebra Project (NKGZP)



Map 02: Map of the NKGZP area in the north of Kenya © Marwell

Community-based monitoring, using SMART technology.*

Over the last 12 months, 22 scouts have conducted foot patrols across eleven stations, collecting information on wildlife sightings, livestock sightings and predation, carcass sightings and water sources using their GPS-enabled phones with SMART* software. They have also set up camera traps in various areas. Their commitment to monitoring the landscape despite various challenges has provided vital information to better understand the status of the landscape.

The scouts patrolled 18,749.34 km on 2,728 patrols which was once again an increase on the previous year. 13% more distance covered, and 18% more patrols compared to 2023.

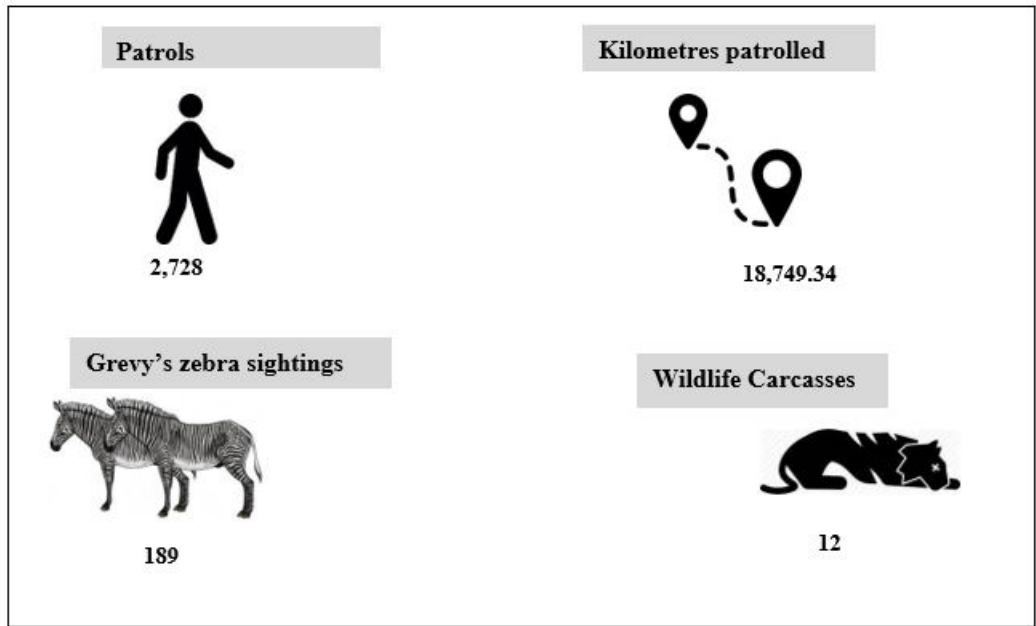
Individual teams performed better this year which we think is down to very close monitoring by our new field assistant, Joshua, but we also replaced several old phones and camera traps improving data collection. Joshua has shown himself to be a very good communicator. He actively engages with the scouts when he goes to the field to collect their data, guiding them through each step with patience and enthusiasm. He encourages them to ask questions, share observations, and take ownership of the process, turning the activity into an interactive learning experience. His approachable nature and clear explanations not only boost the scouts' confidence but also deepens their understanding of how accurate data supports conservation work.

Lizbeth, our Project Manager, updated the data model to include recording of livestock predation, additional wildlife and better recording of group sizes. Livestock predation is a new category that was included in the data model after a request from the scouts. For the community to get compensation for their loss from KWS, they need to make a report within 24 hours, but many times the community does not have the forms needed to make the request. The scouts are therefore assisting them by providing this information to the area Chief who can then liaise with KWS. There were seven observations made with the highest loss at one incident being that of five sheep attacked by a striped hyaena in Anderi.

*SMART (Spatial Monitoring and Reporting Tool, <https://smartconservationtools.org>) is an open source and freely available software application. This software makes it possible to collect, store, communicate and analyse scout-collected data on wildlife, illegal activities, patrol routes, and management actions to understand where efforts should focus, and evaluate scout performance.

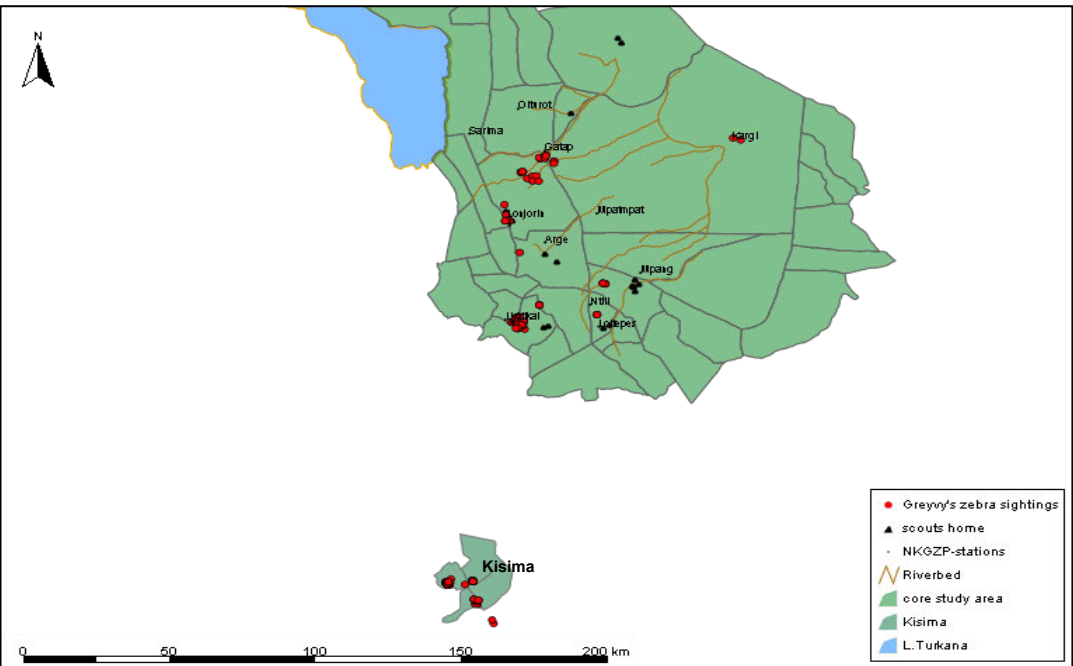
Throughout the year, Joshua, our Field Assistant, provided monthly feedback to the scouts on data collected, showing them their results and where or how they can improve data collection.

The following infographic (Graph 01) and maps show a pictorial summary of the 2024 patrol efforts:



Graph 01: Infographic on SMART data results for 2024 © Marwell

Grevy's zebra sightings



Map 03: Grevy's zebra sightings in 2024 © Marwell

One hundred and eighty-nine (189) encounters with Grevy's zebra were recorded with a total of 613 animals seen. A breakdown of this can be seen in Figure 01. Some of the individuals were observed multiple times in the year, hence the total number does not reflect exact numbers of Grevys seen. A change was made regarding how the group size is recorded by reverting to a former practise of recording the actual numbers (and not ranges) and only the large size for groups with more than twenty individuals remains. The number of encounters has significantly increased in 2024 compared with 2023, by 312%.

	Count of observations	Sum of individuals recorded
Adult female	32	112 and four small groups (more than 5 and less than 20)
Adult male	70	182, six small groups and one large group (of more than 20)
Foals	32	137
Juvenile	15	37 and one small group
Lactating female	40	145, two small groups and seven large groups
Total	189	≥613

Fig.01: breakdown of how the total of Grevy's zebra were recorded © Marwell

Grevy's zebra observations have been on the increase since the end of 2022 (Fig.02) and the contributing factors for this have been a combination of an end to the prolonged drought period and its effects on both wildlife and the community (including the scouts), better coverage by scouts that increased detectability and extending operations to areas previously not covered like Kisima and Gatap, where there is a high presence of wildlife. The Grevy's zebra images taken alongside the recordings verify their presence in these areas.

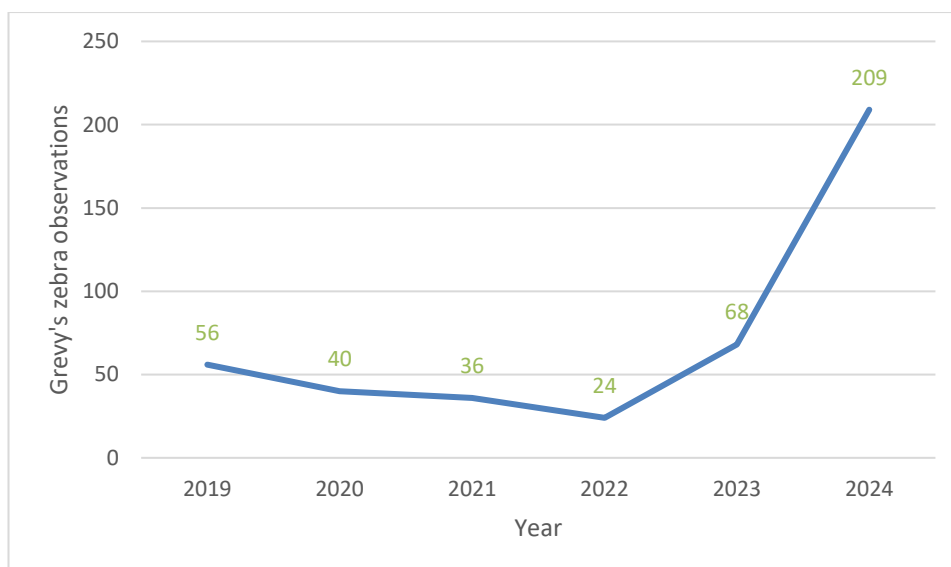


Fig.02: Grevy's zebra observations 2019-2024 © Marwell

Other Wildlife sightings

A total of 23 species were recorded in 2024. The data model includes for the first time the greater kudu and klipspringer. There were more animals observed in 2024 than in 2023 mostly attributed to expanding the patrol coverage to Kisima and recruiting a new scout in Olturot to replace the former scout whose performance was poor. However, there has also been pasture and water available throughout the year which could be a contributing factor to the increased wildlife presence. Among the carnivores, the black-backed jackal, spotted hyaena and striped hyaena had a noticeable increase in observation while aardwolf, armadillo and leopard had a noticeable decrease. There was an increase in the count of observations of all the herbivores. The most sighted carnivore was the black-backed jackal while the most sighted herbivore remained the dik dik (Fig.03).

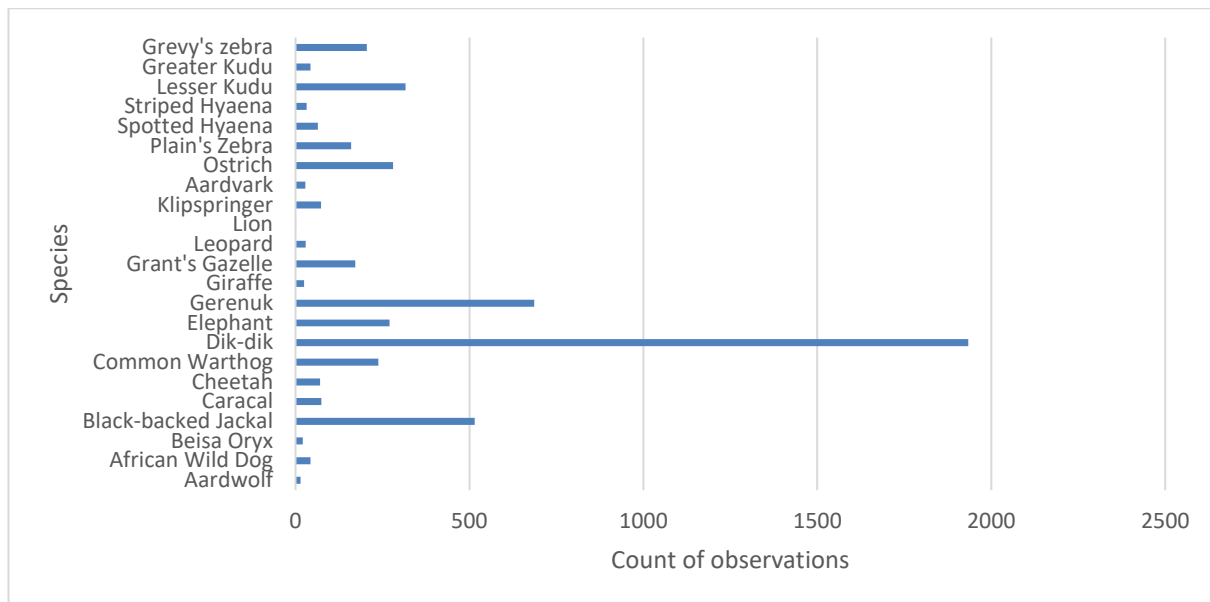


Fig.03: Other wildlife observations 2024 © Marwell

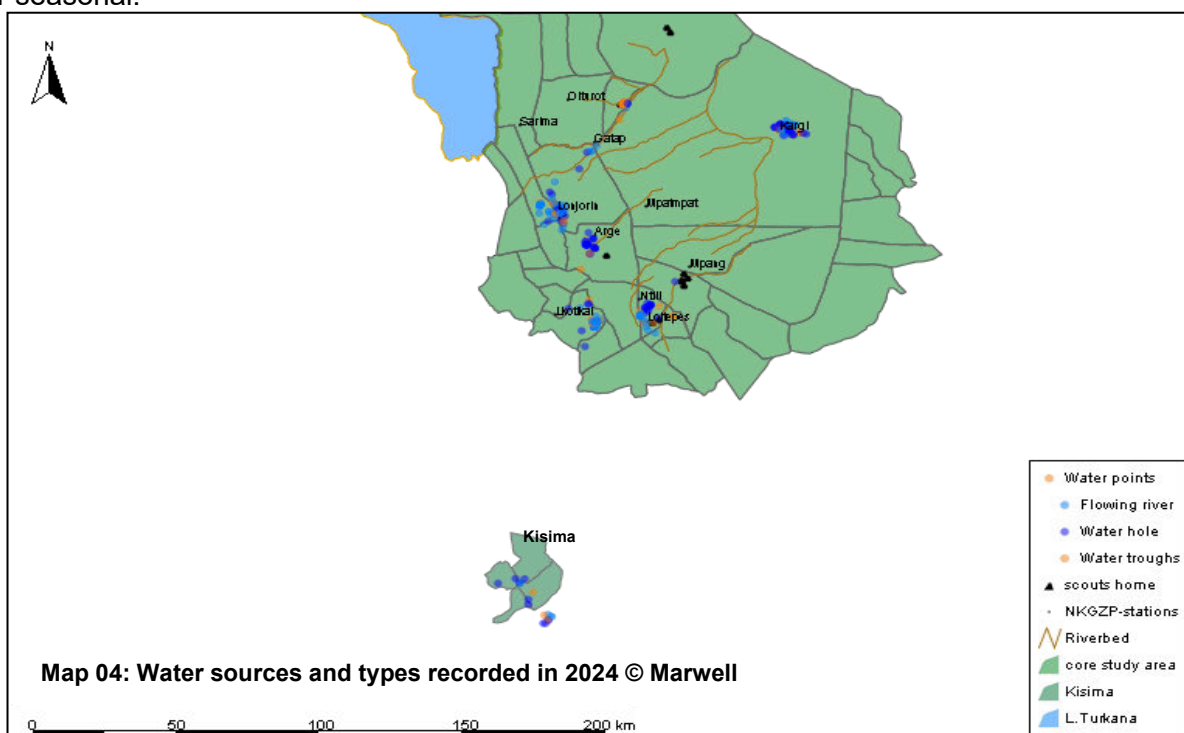
Over the six years we have been recording wildlife, the number of observations has continued to rise with a significant increase between 2023 and 2024. While there are several factors that have contributed to this, the general indication is that wildlife is doing well.

Carcasses

Our scouts record fresh carcasses when they find them. These recordings are accompanied by a photo, so we can assess if the recording is correct. Five of the carcasses in 2024 were recorded in Lkotikal with the rest spread across some of the stations. Most of the carcasses were of dik-dik and black-backed jackal (3 each). One adult male Grevy's zebra carcass was recorded in Gatap in July 2024. It succumbed due to injuries despite treatment by a Kenya Wildlife Service (KWS) veterinarian.

Water

The scouts continue to collect the data on water locations (Map 04) and types with an aim of establishing a map of the wet and dry water sources. Last year they mostly recorded water holes and flowing rivers. A repeat recording year on year helps to ascertain accuracy and tells us which sources are more permanent or seasonal.



Community meetings & Scout barazas (meetings)

In April 2025, the scouts gathered for their baraza - a quarterly meeting that often invites community elders as well - in South Horr. For the first few days, the scouts underwent discipline training by KWS.

They were instructed in 1. Bushcraft and survival skills - Techniques for navigating and surviving in the wild, including shelter building, fire making, and sourcing water; 2. Skills in community engagement, negotiation, communication, and mobilization in conflict resolution; 3. Drill and paramilitary training on discipline and teamwork through structured drills. This was to enhance coordination and readiness among scouts. The training was completed and very much appreciated by all scouts.

Following this, the scouts, Enrita and field assistants were joined by the Marwell UK team: new CEO Laura Read; Director of conservation, Dr Phil Riordan; and Grevy's zebra Programme Lead and EEP coordinator Tanya Langenhorst. This was an opportunity for all to meet and get to know each other, in some cases for the first time ever. The scouts and UK team were equally delighted over this personal encounter. The meeting started with the scouts welcoming us warmly and proudly demonstrating their new parading skills (Pic.05). This was followed by reports on Grevy's zebra presence and movements, other wildlife, human-wildlife conflict, security situation, and water and grazing availability team by team 9 (Pic 06)



Pics 05 & 06: Laura and Tanya greeting scouts



Scouts delivering their reports © Marwell

To close the meeting, several team photos were taken (Pic 07)



Pic.07: scout team, field assistants, UK Kenta team and KWS officers © Marwell

The following day, some of the scouts took the UK team to visit an area near Anderi where the community has asked Marwell so support a water trough for wildlife. This would then also allow them to direct water to their village for livestock.

Enrita is now getting quotes to install a trough which includes several kilometres of pipework (Pic.08).



Pic.08: Enrita, Stephen and scouts debating the best place for a wildlife water trough © Marwell



Pic.09: Amoki demonstrating GZ behaviour

While in the field, one of our female scouts, Amoki Lekenit gave us a vivid presentation of Grevy's zebra behaviour during the drought emergency in 2022/23 (Pic.09). Joshua translated for us this insightful performance.

Before the end of the day, we visited a water trough in the far east of the Anderi area (Pis 10 & 11) where a solar powered pump provides the trough with water from a tank. The old set up now needs renewing as the panels do no longer work on cloudy days. We are looking into installation of more modern solar cells.



Pics 10 & 11: water trough for wildlife, livestock & people east of Anderi area © Marwell

From here, we travelled south to Samburu to meet with Grevy's Zebra Trust and see the work they are doing in their communities, especially with women. At long last we also got to see Grevy's zebra which are a rare sight up north where our project is located (Pics 12-15).



Pics 12-15: Samburu and Grevy's zebra at their best © Marwell



Pic.16 GZT lady scout

We were greeted by one of the GZT lady scouts (Pic.16) who told us about how her standing in the community has vastly improved because she is a Grevy scout and can provide for her family and send her children to school despite being a widow.

We are always trying to have more women scouts for Marwell but can only chose from those people that the elders in our communities put forward.

The GZT scout also showed us how she collects data (on her SMART phone) which is the same system we use and therefore all data collected -if in the south by GZT or in the north by Marwell- are compatible and can be combined and compared.



Pic.17 showing her data collection © Marwell

We visited two GZT projects managed by women for women and for habitat restoration. You can read more on these under Restoring Grasslands and Future plans

The Marwell scouts held their June baraza at Loltepes bringing together scouts and community representatives for a collaborative discussion on wildlife conservation and community issues (Pics 18-21).

Several areas reported an increase in human-wildlife conflict, mostly due to predation of livestock but one community reported two men being injured by elephants in two separate incidents.

Key issues raised across the regions included water scarcity, human-wildlife conflict, health outbreaks like malaria, poaching, and the need for livelihood support such as market access and power solutions. We are looking into installing or renewing solar panels to pump water into troughs where the dams have dried up and to provide access to electricity for scouts and community members.

In Ntill area, the community requested support in linking local honey and gum harvesters to reliable markets to help boost their livelihoods. Enrita is now looking into that.

In Kisima area, scouts reported a noticeable decrease in cases of injured zebras, which is a positive development, and the scouts think it is to do with changed attitudes of the community and especially the morans since we started regular outreach sessions with them.



Pictures 18-21: Scouts at baraza in Loltepes © Marwell

During the baraza the scouts hosted a group of MRes (Master of Research) students (Southampton, UK) who joined them as part of their research project evaluating community-based conservation. The students interacted closely with our scouts and elders, asking questions and learning firsthand about the role of local knowledge in wildlife protection. The students also participated in herders' outreach in Loltepes.

Veterinary support & Anti-poaching efforts

When our scouts receive reports from either morans or community members about injured Grevy's zebra or other wildlife, they report this to Enrita who will contact KWS right away to get a vet to the animal. Occasionally, vets from GZT or Ewaso lions will also help. We reported on several cases last year. While it still happens, numbers seem to have reduced. We think that in part this is down to educating the morans

who were the main poaching group since the drought. We will certainly continue monthly outreach sessions with these young men in our community areas.

However, one area, Kisima, seems to be the exception to this. Number of injuries and deaths is on the increase here, and the vet has to attend almost on a weekly basis. A patrol to the area and community meeting with the leaders, should shed some more light on the cause of injuries (suspected to be mostly caused by people). People in this area are mostly farmers and therefore put up fences to protect their crop, causing issues for wildlife. The vet has also taken blood samples to investigate if there any disease outbreak might be the cause. We will report more on this next year. DO WE KNOW ANY MORE ON THIS by now?

Healthy Rangelands

Last year, one of the elders suggested that we roll out tree planting every time we hold a baraza in a community. This was supposed to start this August. However, to give the seedlings the best chance of survival, we are now planning to make the planting a separate activity during the rainy season at previously identified locations. Seedlings will be a mix of neem, acacia and croton species. An officer from the Kenya Forest Service (KFS) will train community members on the importance of trees and how to plant and nurture them. In some communities the seedlings will be planted in the school grounds due to fencing issues in the area and to engage students in taking care of the trees. This should further improve their survival chances. A suitable site will be chosen and then fenced to protect the tree seedlings from grazing animals. Following this, we will organize tree planting events, teaching tree care and maintenance. Enrita is going to create a tree champion volunteer group in each school to look after the trees (Mulching, watering and replacing any dead seedlings). We have already booked 100 seedlings from the KFS nursery.

The KFS Officer will also investigate which sites might be suitable for a tree nursery that can then supply seedlings for more communities. We will use SMART phones to geo reference all the planting sites for our mapping, then collect data on species planted and periodically monitor survival and growth rate by measuring the length of the trees as they grow. All this to show the outcome and impact of planting the trees.

Restoring Grasslands

We visited a GZT team of 12 Grassland Champion women in the Wamba region and 10 Grassland Champion elders in the Laisamis region who all play a key role in grassland restoration efforts by constructing semi-circular bunds (Pic.22), planting and harvesting indigenous grass seeds, and leading community outreach.

These efforts have led to improved livestock grazing conditions and increased wildlife activity, with a particularly notable rise in the presence of GZ in grazing blocks.



Pics.22 & 23: GZT team explaining bund method and location of habitat restoration © Marwell



Pics.24 & 25: Two grassland champions looking at picture of restoration and resulting habitat in same location © Marwell

We are now planning to take women from our northern communities to see these efforts in Samburu. Our hope is that they will feel inspired and encouraged to do a similar thing back home. More in our funding proposal.

Conservation Outreach

School Outreach

Stephen who only started working with us last year has found his feet and is doing a fantastic job teaching in schools and groups of herders. We have received many positive and complimentary messages from Head teachers following his session at their school.

In February 25, an outreach session was conducted in a new location in Kisima, Samburu Central; Baawa Primary School is teaching Grade 5, 6, and 7 students. The total number of participants was 162 pupils, that is 86 girls and 76 boys. Here, as in so many other schools, Stephen explored with the children various types of living things, including plants and animals, and discussed their natural habitats. To emphasize the interconnectedness within ecosystems, he highlighted the significance of conservation and the crucial role humans play in protecting biodiversity. Throughout the year he attended many other schools with similar lessons.

To ensure the training is engaging and effective, he likes to incorporate multiple teaching strategies: *Lectures* to cover fundamental concepts of biodiversity and conservation; *Visual Aids* like animal toys, pictures, and diagrams to enhance understanding; *Hands-on Activities* where pupils are encouraged to identify and categorize wild animals and local plant species within their environment; and lastly, Stephen provides a platform for pupils to ask questions, share experiences, and deepen their understanding through active participation.

These sessions are well received, with strong participation from both students and staff.



Pics. 26 & 27: Stephen (left) teaching class in Anderi © Marwell



Pic.28-29: Students in various schools © Marwell

World Environment Day 2025

We were very honoured to attend World Environment Day 2025 at Hadad Primary School in Kargi. The celebration was elevated by the presence of several senior government officials, including the Ward Administrator, Senior Chiefs, Assistant Chiefs, District Commissioner (DC), and District Officer (DO). Their involvement emphasized the importance of joint efforts between government institutions, local communities, and conservation partners in promoting environmental sustainability. The day began with a community clean-up activity, where residents participated in collecting and burning litter around Kargi town, promoting cleanliness and environmental responsibility. Later, a tree planting exercise was carried out, where we introduced and planted drought-resistant seedlings, including *Commiphora africana* – a hardy species well suited to hot and dry areas, and an ideal alternative to the commonly planted *Acacia*.



Pic.30-33: Children bearing banners, picking litter, and KWS planting seedlings at Hadad School © Marwell

The school community was particularly excited and grateful to welcome us back. The team visited the school farm, where Marwell had previously planted seedlings during World Environment Day 2023. It was a moment of pride to see that almost all the seedlings had survived and had now grown into mature, thriving trees. In honour of this success, the school has named the area “Marwell Forest.” This living forest stands as a testament to the long-term impact of environmental education and action, and it serves as a model for other schools and communities in arid regions.



Pics.34 & 35 Government officials & children, Officials and Marwell team in “Marwell Forest” © Marwell

The trip demonstrated how consistent, collaborative efforts can bring real change. Our presence not only strengthened community relationships but also inspired young people to take pride in their environment and become ambassadors for its protection.

During the Kenya trip of the Marwell UK team, we were lucky enough to visit Anderi school where we have delivered outreach sessions for many years. The school is always very engaged and sets an example to others through their environmental engagement. For example, they installed a green house last year which is cared for by the children. They grow fruit and vegetables as well as herbs in here. A year on and the head teacher as well as the children were proud to show us how things have not only survived the heat and dry times thanks due to their care but are still growing and being harvested.



Pics.36 & 37: Anderi school children showing off their green house to the UK team © Marwell

Moran Outreach

We told you last year (Langenhorst et al. 2024) that we have begun outreach sessions with morans. Morans, also called warriors, are teenage herders who have to leave their community at a certain age and live in satellite camps with other peers and their livestock. As part of their culture, they have to eat within their group and so they poach wildlife for meat but also for target practise.

We are employing two scouts, Mr Lengewa and Mr Lekenit, who visit different groups of warriors every month. On average they engage between 15 and 30 morans per session. These young men are usually very welcoming, enthusiastic, and actively participate in the learning process. The sessions focus on conservation awareness, encouraging Morans to take an active role in protecting the environment and local wildlife as future leaders and stewards of their land

There has been a notable improvement in Moran attendance compared to earlier sessions. They are increasingly showing a deep concern for matters related to wildlife. Many Morans are now actively calling to report wildlife sightings or incidents. Their growing responsiveness is a clear indication that the outreach sessions are yielding positive results, empowering young Morans to become vigilant conservation allies.



Pic.38: group of morans in Lkotikal © Marwell

Lchekutis / Herders Outreach (children who look after their families' livestock and cannot attend regular school sessions)

Over the last year we increased sessions for herders in various communities. Group sizes can be as little as 17 children or as many as 56. The main Topic at all those sessions was: "Living Things Around Us." This aims to promote awareness and appreciation of biodiversity among young herders who interact closely with nature. Many of them display prior knowledge of their environment and express deep interest in the subject matter. The children learn to identify and name local wildlife species, such as Grevy's zebras,

gerenuks, ostriches, oryx, and dik-diks, and to differentiate between domestic animals and wild animals, understanding their roles in the ecosystem.

Stephen also held discussions on why conservation matters and how young people - like the herders - can contribute by protecting local wildlife and their habitats. They learn how their daily practices can influence environmental outcomes, and how they can contribute to a sustainable future through informed action.

The teaching was done through open dialogue and storytelling, which encouraged the herders to share their own knowledge and experiences.

For September this year we have planned an exposure tour to Lewa Wildlife Conservancy for the herders, similar to that of the school children.



Pic.39-42: Stephen showing pictures on laptop and discussing with herders during outreach session; attracting some parents too © Marwell

Exposure Tours & Conservation Clubs

Keleswa Primary (Samburu North) was one of the schools to benefit from this summer's educational exposure tour. In July 2025 Stephen and Joshua led them and Farakoren Primary (Laisamis, Marsabit County), a total of 40 students and 5 teachers to Lewa Wildlife Conservancy.

The journey to Lewa was exciting and eye-opening, especially for many pupils who had never travelled outside their home areas. As they moved from the dry, arid plains of Samburu and Marsabit towards Isiolo, the pupils witnessed a significant change in geographical features — from flat, dusty landscapes to lush greenery, hills, scattered woodlands, and cultivated fields. This sparked curiosity and numerous questions among the students, making the trip educational even before arrival.

On arrival at Lewa, the pupils were taken through a short orientation, where they were shown key facilities such as the kitchen, bathrooms, dormitories, and how to spread and maintain their beds neatly. This practical life-skill session instilled a sense of discipline and responsibility in the young learners.

The next day, the children visited Lewa conservancy farm and green house (Pics.43 & 44) where they learned about the role and use of many plants like Aloe Vera – used for medicinal purposes; Sisal – used in making ropes, baskets, and mats; and Acacia Trees – which play a vital role in soil fertility and provide shelter and food for wildlife. The students learned how these plants contribute to livelihoods, conservation, and ecological balance.



Pics.43 & 44: Pupils exploring Lewa's greenhouse and farm section

They also found out about the importance of a greenhouse to ensure year-round food production; protection from pests and diseases; efficient water usage through drip irrigation and this leads to sustainable and modern agricultural practices.

This session helped the pupils understand the importance of agriculture in conservation

A game drive, the highlight of the trip, offered a rare opportunity to witness iconic and endangered species, deepening the pupil's appreciation for wildlife conservation and the need to protect these species for future generations. A rare treat was viewing three of Kenya's Big Five, iconic symbols of the country's natural heritage including elephant, buffalo and rhino but also the endangered Grevy's zebra, the latter easily distinguished from the common zebra by its narrow stripes and larger ears—an exciting first for many children (Pics.45 & 46).



Pics. 45&46: Grevy's zebra and common zebra observed during game drive © Marwell

Last but not least, the pupils had the rare and insightful opportunity to visit the Lewa Airstrip (Pics.47 & 48). This stop offered them a behind-the-scenes understanding of the vital role aviation plays in wildlife conservation; With aerial patrols frequently deployed to monitor wildlife and detect potential threats across the conservancy's expansive terrain or for anti-poaching operations. The guides explained how these aircraft enable conservation teams to cover vast areas swiftly, ensuring rapid response to emerging incidents. The visit also highlighted the importance of effective communication and seamless

coordination between air and ground teams, underscoring the efficiency required in protecting wildlife and their habitats.



Pics.47 & 48: Pupils at the Lewa airfield and during game drive © Marwell

The educational tour to Lewa Conservancy was a transformative experience for many of the pupils of Keleswa and Farakoren Primary Schools. From the geographical diversity observed during the journey, the warm reception, hands-on learning at the farm and greenhouse, to the inspiring game drive with its diversity of large and endangered wildlife, the visit was rich in knowledge and exposure.

People and capacity building

In April this year, the whole Kenya team attended the International Wild Equid Conference (IWEC) which took place in Nanyuki, Kenya. It was a great opportunity for them to meet other likeminded equid conservationists at this global forum, organised by the IUCN Equid Specialist Group and GZT. Lizbeth presented on our work to collar the Grevy's zebra in 2023 and observations made so far (Pic.49). This conference was also the first (and probably last) opportunity to bring together the whole Marwell Grevy's zebra conservation team as Tanya Langenhorst, Marwell's Grevy's zebra Programme Lead, and Dr Phil Riordon, Marwell's Director of Conservation, were also attending.

The conference was closed with a traditional performance of GZT's Grevy's zebra scouts and staff members as well as women from their communities where they are based. With song and dance they told the story of how the conservation work for Grevy's zebra and the inclusion of the communities has changed people's attitudes towards Grevy's zebra and even wildlife in general (Pic.50).



Pics.49: IWEC, Lizbeth presenting © Marwell



Pic.50: Closing ceremony © Marwell

Team building trip

In October last year, the Marwell scout team undertook their annual team building trip which took the form of an outreach tour to Lewa Conservancy,



Pic.51: Scouts stop to snap photos of the majestic Ololokwe mountain on the way to Lewa



Pic.52: Scouts in Education centre © Marwell)

Lewa delivered an informative session on the history of the wildlife conservancy. Joshua acted as a translator, making the session accessible and engaging.

The scouts learned about the importance of wildlife corridors, and how camera traps placed here help with a whole range of conservation issues. Similarly, they learnt about collaring wildlife and these sessions equipped the scouts with a deeper understanding of wildlife conservation efforts and the role technology can play in protecting vulnerable species.

In the afternoon a drive across Lewa showcased a community water project and its crucial role in supporting both the daily water needs of the local residents and their livestock, ensuring sustainable access to this essential resource. This is something all our communities up north will be very interested in. Further exploration of the surrounding areas also underscored the need for continued protection efforts to maintain the integrity of springs and rivers, safeguarding them for future generations.



Pics.53-56: Marwell scouts during team outing & game drive at Lewa Conservancy © Marwell.

The highlight of the trip was the game drive (Pics.53-56) on which the scouts were lucky enough to encounter some of Kenya's most endangered wildlife, especially the Grevy's zebra, which many of our group had never seen up close before despite working for their conservation for many years. The scouts were thrilled to observe Grevys at such close proximity and comparing them to plains zebra, a species they rarely encounter back home.

The scouts said the trip had inspired them to carry forward the message of conservation in their own communities and to continue supporting efforts to protect Kenya's rich natural heritage.

This experience has strengthened their commitment to the principles of environmental stewardship and responsible leadership. They left Lewa not only with memories of a wonderful trip but also with a renewed sense of duty towards safeguarding the environment for future generations.



Obituary

It is with great sadness, that we learned of the death of our Literacy & Numeracy teacher, Joseph Lenaula who died in a motorcycle accident (Pic.57). Joseph, 48 years old, was an Early Childhood teacher. He was married with six children, two girls in high school and the others in primary school. Our scouts very much liked being taught by him as he always had a smile on his face and seemed to enjoy teaching very much. He will always be remembered for his unusual teaching methods, e.g. using song and dance (Pics.58-61).

Joseph will be greatly missed.

Below see photos of some of his teaching sessions

Enrita has begun the hard job of finding another teacher as Joseph has left some big shoes to fill.

Pic.57 © Marwell



Pictures 58-61: Joseph Lenaula teaching scouts in classrooms and field © Marwell

Collaboration and partnerships

In April this year, Marwell signed a Memorandum of Understanding (MoU) with the Grevy's Zebra Trust. The two organisations have worked together since GZT was formed in 2007 and a lot of our work is similar but covering different areas to make sure Grevy's zebra get support throughout their whole range in Kenya. Both organizations are committed to the principles of conserving biological diversity, building local capabilities, and enacting robust conservation planning and evaluation, in particular for Grevy's zebra (*Equus grevyi*) as a flagship species for Northern Kenya.

The MoU document was signed by Marwell's new CEO Laura Read and GZT's new CEO Peter Lalampaa at the end of the IWEK conference.



Pics.62 & 63: Peter Lalampaa, GZT, and Laura Read, Marwell after signing MoU © Marwell

The Marwell team also visited our partners in the Lewa Wildlife Conservancy (an MoU was signed in October 2024) and had a brief in-person catch up with Kenya Wildlife Service while in Kenya earlier this year. Both organisations welcomed our efforts and assured their support for future collaborations.

Lizbeth Mate, Marwell's Kenya Project Manager, and Dr David Kimiti, Director of Research and Impact at GZT, have continued their working meetings regarding the GGR results, collaring data and mid-term review of the national Grevy's zebra strategy.

A collaboration of a different nature was the support by some EEP zoos for a project on biomarkers of male reproductive state in equids. Holders of both Grevy's zebra and Hartmann's Mountain zebra EEPs provided faecal samples. Carried out by Manchester University over several years, a paper has now been published supporting *ex* and *in situ* equid conservation. All those who contributed, should have received the paper and you can find it here: <https://doi.org/10.1016/j.therwi.2025.100132>

Infrastructure

We are very pleased to say that the Kenya team will receive a brand-new vehicle for their field work. A black and white Gala Dinner at Marwell Zoo and other fundraising events throughout the year have raised enough funds to make this long-anticipated purchase possible. A favourable exchange rate meant that we could afford a new vehicle rather than a used one. Our old Landcruiser will remain as a back-up or as a second vehicle when needed. Improved safety aside, having a second vehicle will allow us to increase trips to schools and communities.

We supplied Hadad Primary School with a water tank to support their tree plantation and kitchen garden. The head teacher recorded a video clip to thank Enrita and Marwell (and therefore the EEP donors) for the ongoing help of providing tree saplings, an exposure tour, teaching classes and installing water tank.



Pic.64: water tank at Hadad Primary school



Pic.65“Marwell Forest” © Marwell

We offered Civicon a drum of 100 litres of diesel to pump water for the Grevy's zebra. The team took the fuel to the scout during their trip to the field on 13 July

KWS had asked Marwell if we could support them with plastic chairs for their Education outreach team in Maralal. Since we are partnering closely with them and they often attend our community meetings and provide security for our outreach trips, we agreed to provide 100 chairs. KWS is more than happy for these to be used by Marwell for other activities as well.

Future Plans in 2025

While visiting our partners from GZT in Samburu, we visited an all-women- project. Firstly, we were welcomed by the women of the community with song and dance and heard about the group they have set up for women only. Here, they can share their daily experiences and challenges, such as cases of domestic violence, losing livestock to hyenas or discussing how to find solutions to day-to day issues. We then got to see the GZT lady scouts who are working for the Nkirreten Project. Many girls have to miss time at school every month due to their menstrual period. Until now, they had no way of dealing with this. Together with the women liaison from GZT they have begun this project where two women at a time are producing reusable sanitary towels. These are then put in packages of four and distributed for free to all the girls in communities around. The towels show the stripe pattern of Grevy's zebra and with every pack that is handed out, the girls and their mothers also learn about Grevy's zebra, their conservation status and the importance of Samburu communities to look after them. The scouts who produce the sanitary towels as well as all the materials are paid for by GZT.



Pics.66-68: Nkirreten Project in Samburu © Marwell

This project, so simple and yet with such a huge impact on women, girls and Grevy's zebra, impressed us so much, that we would like to replicate it in the Northern Kenya Grevy's zebra Project. We mentioned under Restoring Grasslands that we are taking women from our northern communities to see these efforts in Samburu. The All-women group and the Nkirreten Project will be part of this trip.

The Status of Grevy's Zebra (*Equus grevyi*)

Wild Population

The most recent assessment of a national survey in Kenya found approximately 2,400 individuals in January 2024 (counted in a smaller area than previously, due to flooding and security alerts; not officially confirmed yet) and it was estimated during the international wild equid conference (IWEC) that 200 individuals might be left in Ethiopia.

The Grevy's zebra has been assessed in 2016 by the IUCN as Endangered A2acd ver 3.1 (Rubenstein, Low Mackey et al. 2016).

International Studbook

The total number of Grevy's zebra in zoological organisations was 166.294.0 (460) in 115 institutions in 24 countries on 31st December 2024 (Langenhorst, 2025). The European *Ex situ* Programme (EEP) and the Species Survival Programme in North America manage the majority of these animals, while Japan coordinates a studbook for eight institutions. Together, these populations provide a genetically and demographically back up to their wild counterparts. For more details see the international studbook here <https://www.marwell.org.uk/wp-content/uploads/2025/06/International-Studbook-for-Grevys-Zebra-2024-Marwell-Wildlife.pdf>

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Please also read the funding proposal (Appendix B) which provides more details on our plans.



The photos in this report have been compressed for distribution by email. If you require higher resolution images, please contact Tanya on TanyaL@marwell.org.uk.

Our Grevy's zebra conservation colleagues and partners

Marwell Wildlife works closely with Kenyan conservation partners with whom it develops joint conservation programmes. Our key partners – listed alphabetically – are described briefly below:

Grevy's Zebra Technical Committee (GZTC)

The Grevy's Zebra Technical Committee is a steering committee with a mandate from KWS to evaluate implications of technical recommendations for Grevy conservation before implementation, develop intervention protocols, set monitoring standards and procedures, and evaluate their implementation and effectiveness, reviewing all Grevy's zebra conservation, management and research proposals.

The GZTC is a collaboration of organisations all committed to conserving Grevy's zebra, including: Grevy's Zebra Trust (GZT), Lewa Wildlife Conservancy, Marwell Wildlife, University of Princeton (PU), Northern Rangelands Trust (NRT), Kenya Wildlife Service (KWS), and Wildlife Training and Research Institute (WRTI).

Grevy's Zebra Trust (GZT) www.grevyszebratrust.org

The Grevy's Zebra Trust (GZT) has been established to address the urgent need to conserve Grevy's zebra in the community rangelands of Ethiopia and Kenya. GZT has become an integral part of the GZTC.

Kenya Wildlife Service (KWS) www.kws.org

The KWS is the country's statutory wildlife body and is ultimately responsible for the conservation of Grevy's zebra. In partnership with KWS, Marwell Wildlife and the EEP have contributed significantly to the development and execution of the national Grevy's Zebra Conservation Strategy.

Lewa Wildlife Conservancy (Lewa or LWC) www.lewa.org

The Lewa Wildlife Conservancy holds some 20 percent of the world's remaining free-ranging Grevy's zebra and hosts a dynamic research programme. Marwell continues to support Grevy's zebra monitoring and research within Lewa, and many of the projects planned by the GZTC will be carried out in collaboration with the Lewa Research Department (LRD).

Milgis Trust www.milgistrust.com

The Milgis Trust is a non-profit organisation founded by wildlife conservationist and safari guide Helen Douglas-Dufresne and her partner Peter Ilsley to sustain the wildlife, habitat and the pastoral peoples' way of life in northern Kenya.

In January 2010 the Trust approached Marwell with a request to establish wildlife monitoring within the Milgis ecosystem and has since become a close partner in our NKGZP.

Northern Rangelands Trust (NRT) www.nrt-kenya.org

NRT supports the development of community conservancies. Marwell has partnered with NRT to implement a programme of training and capacity building to strengthen wildlife management within all member-community conservancies. In addition, it has co-developed a system for wildlife and vegetation monitoring which is being introduced to a selection of conservancies.

University of Princeton (PU) www.princeton.edu/~equids/people.html

University of Princeton have collaborated on a number of Grevy's zebra conservation activities, most notably the Great Grevy's Rally and analysis of the photos collected during the survey. They are also heavily involved in the stripe ID project, which is hosted at Mpala Research Centre in Laikipia thanks to Princeton's close association there.

Wildlife Research and Training Institute (WRTI) www.wrti.go.ke

WRTI was delinked from KWS to address the need to provide coordinated wildlife research and comprehensive data to inform scientific based solutions that inform policy decisions, management approaches, and create innovative wildlife-based products and services in the wildlife section

B. Proposed Activities for 2025-2026

Thankfully, no drought emergency in 2025. We can therefore focus our efforts on conservation education and awareness raising for children, warriors, and community members who are so important to protecting the Grevy's zebra. Other plans are to try to improve the habitat (Point 3) and provide better access to water for Grevy's zebra and for people and their livestock alike (Point 6) as this should help during further droughts and reduces any competition for resources.

We have strengthened our cooperation with the Grevy's Zebra Trust by signing a Memorandum of Understanding (MoU) this year. We will work more closely on technologies, training and research as well as support and actions for communities. Our areas of work complement each other allowing conservation action for Grevy's zebra across their entire Kenyan range. Both organisations are also increasing collaboration with the Kenya Wildlife Trust to assist injured Grevys, reduce poaching and keep the animals safe from threats like drought, lack of resources and, increasingly, fencing in some areas.

The support we receive from the EEP and the wider EAZA community is critical to these efforts, and we hope that you will continue with us in this important conservation work for the beautiful Grevy's zebra.

Northern Kenya Grevy's Zebra Project

1. Grevy's zebra monitoring & SMART technology

Our 24 scouts (6 women and 18 men) continue their monitoring of Grevy's zebra and other wildlife through daily foot patrols on which they collect data using GPS enabled phones and an extensive network of camera traps. Our SMART database allows us to record and analyse a wide variety of parameters which help us to understand the movement & behaviour of Grevy's zebra in the landscape as well as other wildlife. We have added a new region (Kisima) to our project area as we have observed larger numbers of Grevys there and they were so far not monitored. We would like to recruit two more to scouts to station here permanently.

This also means that we need more phones to cover this new area, and power banks for the scouts to charge the phones. Our network of camera traps which feeds photos of stripe patterns into the national database, needs a constant supply of batteries. We are investigating options for solar powered traps or other alternatives as the use of batteries is not sustainable in the long term.

Conservation Impact

Both the Stripe ID database and the SMART data are cost-effective means of monitoring movement, distribution and abundance, as well as behaviour of Grevy's zebra, other wildlife, threats and even the performance of individual teams. Our field assistants provide fast and invaluable feedback to the scouts on their data gathering and performance. Our Database Manager analyses all data for ongoing management as well as timely response to any emergency situation.

1. Grevy's zebra Monitoring & SMART technology	£
Food & transport to cover travel to, from and within field sites (£ 690/month)	8,280
6 x entry level scouts @ £ 46/month, over 12 months	3,312
20 x community scouts (men and women) £ 65/scout/month, over 12 months	15,600
<i>Equipment</i>	
150 x camera trap batteries @ KES 1,400 each	1,350
3 x new phones @ KES 21,000 each	540
2 x powerbanks @ KES 3,500 each	41
2 x binoculars @ KES 16,000 each	184
<i>SMART Connect/Mobile maintenance:</i>	
16 x SMART data bundle & connection @ KES 1000/team, over 12 months	1,104
	30,411

2. Peace and Conservation Education in Northern Kenya

Providing the next generation with Conservation Education is high on the agenda but also in light of increased poaching incidents. Our scouts have a dual function as they serve as conservation and peace ambassadors in their own communities as well as between communities. Providing our scouts with access to learning, banking and bringing funds to the communities supports whole families and shows the communities the value of wildlife and its conservation. This in turn increases their cooperation with us as well as KWS for the benefit of wildlife.

We are therefore increasing our outreach sessions with school children (from 4 to 7), herders (from 3 to 9) and our community work.

Building on the success of exposure tours over the last three years, we are sponsoring several more schools, groups of herders and even selected members of the communities we work with to attend one-to five-day trips to wildlife conservancies as many of them have never left their home area and seen the wildlife their communities share the landscape with. We have found that these experiences raise the children's awareness and enthusiasm for wildlife conservation. Many of them initiating conservation clubs and environmental activities when they return to their homes.

We have dedicated two of our scouts to work with morans (warriors) to educate them on Grevy's zebra conservation and their importance for their community. These young men (teenagers) have to leave home according to their culture and together they live off the land and prepare their own food. The morans hunt wildlife, including Grevy's zebra for food but also just for target practise and fun. During this phase they are quite disconnected from their communities, excluded from meetings, education and awareness raising we try to provide. Our two scouts meet monthly with different groups of morans. In several of our project areas, the scouts and the communities are reporting reduced poaching activities, so our efforts seem to pay off. To increase our reach, we are planning a three-day get together of around 50 morans, so they can exchange experiences but also to encourage them to learn from each other and our scouts.

Conservation Impact

Through community engagement we have already sensitized a large and remote population of pastoral people to the relevance of conservation and the importance of wildlife to their health and welfare. Improved social security and an understanding of the role of wildlife and environment provide clear grounds for coexistence of regional communities. This in turn secures habitat and resources that wildlife and people depend on for survival. Soon we will have a second vehicle and with our field assistants now settled in and here to stay, we need to target those groups that are crucial to our work but easily escape our attention. For example, the herders and morans cannot attend school, so need their own sessions. Exposure of children and warriors to wildlife and its conservation will bring along the conservators of the future.

A very wide audience can be reached and exposed to our work with relatively little money.

Continues on next pages

2. Peace and Conservation Education in Northern Kenya	£
3 x Community meeting (men & women) @ KES 50,000	870
7 x Outreach for schools @ KES 6,000 each	244
9 x Outreach for herders @ KES 5,000 each	261
Baraza (scouts, elders & community members @ KES 165,800/quarter	3,847
	<hr/> 5,222
<i>Wildlife exposure trip for select community members</i>	
Food/goats @ KES 62,000	365
Cook/camp assistant @ KES 10,000	60
transportation return trip @ 150,000	860
Game drive vehicle @30,000	180
water provision @ 10,000	60
Contingency 10%	153
	<hr/> 1,678
<i>Wildlife exposure schools (3 days, 2x schools)</i>	
Bus hire @ KES 150,000	860
Food @ KES 65,000	380
Accommodation dormitories @ KES 82,800 for 46 pupils & teachers	480
Game drive cost @ KES 8,000	50
Teacher stipends @ KES 4,000	25
Contingency 10%	180
	<hr/> 1,975
<i>Herders kids Camp (30 children for 5 days)</i>	
Food (travelling & in camp) @ KES 70,000	401
Transportation cost @ KES 120,000	700
5 x branded kangas @ KES 2,000 each	57
cook assistant @ KES 2,000/day	57
Contingency 10%	110
	<hr/> 1,325
<i>Combined Outreach Morans (50 from different stations) 3 days</i>	
Transport @ KES 120,000	700
Food @ KES 60,000	300
cook @ KES 2,000/day	35
trainer @ KES 10,000	60
Contingency 10%	195
	<hr/> 1,290
Total	<hr/> 11,490 <hr/>

3. Healthy Rangelands

Loss of habitat, especially erosion and lack of grazing, is one of the major threats to Grevy's zebra. The land is dry, the soil compacted, and the majority of any rainfall runs off the land, causing flooding rather than being retained in the ground. Communities are cutting down trees for firewood, exacerbating these

conditions. Since 2023, we have been planting some trees in all our outreach locations. We are encouraging the communities to renature their often-depleted environment as well as teaching them not to cut down trees but to conserve an(d nurture them for future generations. The schools are a good starting point for this as the children learn about the importance of trees in the ecosystem and take on responsibility for looking after the world around them.

For 2025 we had planned a wider roll out of tree planting in our communities, one every quarter. However, the very dry conditions throughout most of the year meant that seedlings would have had a very tough start and would have required exceptional care and quite a bit of water. We therefore have changed our plan. We will plant 100 seedlings (Neem, acacia and croton species and fruits) in five schools (Illaut, Keleswa, Arge, Gatap, Lonjorin) during the wet season. This will vastly increase the chances of survival for the seedlings.

An officer from the Kenya Forest Service (KFS) will train the school head master, some teachers and the children on the importance of trees and how to plant and nurture them.

The KFS Officer will also investigate which sites might be suitable for a tree nursery that can then supply seedlings for more communities. We will use SMART phones to geo reference all the planting sites for our mapping, then collect data on species planted and periodically monitor survival and growth rate by measuring the length of the trees as they grow. All this to show the outcome and impact of planting the trees.

Conservation impact

Over time the communities will grow more and more trees, helping nature's recovery for the benefit of people and wildlife alike. At the same time children will grow up learning and understanding the importance of trees and how to look after them for future generations. Once the tree nurseries are established, this scheme should become independent and be managed by those who live with and benefit from it.

3. Healthy Rangelands	£
<i>Tree planting (in 5 communities)</i>	
500 seedlings @ KES 50,000	290
2 x KFS Officer @ KES 15,000 each	174
Equipment @ KES 35,000	203
fuel & driver @ KES 55,000	319
Contingency 10%	99
Total	1,085

4. Cooperation

A new initiative seeks to extend and increase cooperation. We aim bring all stakeholders around Marwell's area of operation together and to conduct longer vehicle patrols across a vast area for monitoring purposes. It will serve as fact finding but also more robust monitoring of landscape, conditions and potential threats to wildlife with other stakeholders who may not be familiar with the areas we work in but partner closely, like KWS, County rangers and GZT.

Conservation impact

Several situations require involvement and support of other parties. Be it drought or floods, supplementary hay feeding, injured zebra, poaching incidents but also human-wildlife conflict and insecurity to communities or individuals. Bringing stakeholders together will improve their knowledge of

each other and each group's needs. All involved will be more familiar with the lay of the land and the needs of wildlife and people meaning they can respond faster and better during an emergency. Hopefully, this increased cooperation will also make the areas more peaceful and reduce human threats to wildlife and communities.

Cooperation

4. Joint Patrols (KWS,GZT, County Rangers)	£
2 x Car fuel @ KES 40,000 each	348
2 x Food @ KES 30,000 each	464
Contingency	81
Total	893

People and Capacity Building

5. Literacy and Numeracy Learning for the Scouts

Since summer 2022 we have provided two annual formal sessions for literacy and numeracy by hiring a primary school teacher. Very sadly, our brilliant teacher died in an accident this year. Enrita has identified a new primary school teacher, and we are restarting session later this year. To keep time between sessions reasonably short, we would like to provide three sessions per year hoping that this will help the scouts to remember more from one training to the next. All the scouts are very engaged and complete their "homework" between formal sessions to practise their new skills. Driving this development of literacy and numeracy skills not only helps with data collection and quality but does improve the day-to-day life of our scouts. It makes them far more independent people, encourages further learning and allows them to care for their families better in an increasingly modernising world.

People and Capacity Building

5. Literacy/numeracy learning scouts	£
3 x Pre-school teacher stipend @ KES 13,000 each	230
3 x Food for the scouts & teacher over 5 days @ KES 45,000 each	795
2X Teaching and Learning materials during sessions @ KES 20,000 each	230
Total	1,255

Infrastructure

6. Solar panels, tanks and water troughs

During a visit to Gatap community in April this year, we found out that the solar panels pumping water from a tank into a trough every day were so old in technology, that they no longer function properly on cloudy days. For the time being we are providing fuel to drive the pump but we would like to stop that and use the power of the sun instead. The modern solar panels work very well even when there is no direct sun light. In addition, the community have requested a second trough. Currently it takes livestock so long to queue and drink that the period for wildlife to access the water is much diminished. A second trough will resolve this issue.

In Kargi, the community have requested a water tank, so they can last for longer throughout dry or even drought times. Getting this in place before the next rainy and following dry season, is possible with relatively small funds but will make a huge difference.

Conservation impact

Activities like these not only improve the life of people, their livestock and wildlife but it has bought us a lot of goodwill in the communities. The relatively reliable access to water is obviously at times life saving for Grevy's zebra and other wildlife.

6. Water troughs, Solar Panels & Tank		£
<i>Gatap community</i>		
6 x solar panels (545watts) @ KES 15,250 each		531
Trough material & transport @ KES 250,000		1,450
Labour @ KES 75,000		435
Contingency @ KES 41,650		242
Subtotal		2,658
<i>Kargi community</i>		
5000l Water tank @ KES 35,000		203
Transport @ KES 20,000		116
Trough material & transport @ KES 250,000		1,450
Labour @ KES 75,000		435
Contingency @ KES 38,000		221
Subtotal		2,425
Total		5,083

For a summary of the funding proposal see the next pages

Summary of funding proposal Grevy's zebra conservation 2022/265

Northern Kenya Grevy's Zebra Project

1. Grevy's zebra Monitoring & SMART technology	£
Food & transport to cover travel to, from and within field sites (£ 690/month)	8,280
6 x entry level scouts @ £ 46/month, over 12 months	3,312
20 x community scouts (men and women) £ 65/scout/month, over 12 months	15,600
<i>Equipment</i>	
150 x camera trap batteries @ KES 1,400 each	1,350
3 x new phones @ KES 21,000 each	540
2 x powerbanks @ KES 3,500 each	41
2 x binoculars @ KES 16,000 each	184
<i>SMART Connect/Mobile maintenance:</i>	
16 x SMART data bundle & connection @ KES 1000/team, over 12 months	1,104
	30,411
2. Peace and Conservation Education in Northern Kenya	£
3 x Community meeting (men & women) @ KES 50,000	870
7 x Outreach for schools @ KES 6,000 each	244
9 x Outreach for herders @ KES 5,000 each	261
Baraza (scouts, elders & community members @ KES 165,800/quarter	3,847
	5,222
<i>Wildlife exposure trip for select community members</i>	
Food/goats @ KES 62,000	365
Cook/camp assistant @ KES 10,000	60
transportation return trip @ 150,000	860
Game drive vehicle @ 30,000	180
water provision @ 10,000	60
Contingency 10%	153
	1,678
<i>Wildlife exposure schools (3 days, 2x schools)</i>	
Bus hire @ KES 150,000	860
Food @ KES 65,000	380
Accommodation dormitories @ KES 82,800 for 46 pupils & teachers	480
Game drive cost @ KES 8,000	50
Teacher stipends @ KES 4,000	25
Contingency 10%	180
	1,975
<i>Herders kids Camp (30 children for 5 days)</i>	
Food (travelling & in camp) @ KES 70,000	401
Transportation cost @ KES 120,000	700
5 x branded kangas @ KES 2,000 each	57
cook assistant @ KES 2,000/day	57
Contingency 10%	110
	1,325

Combined Outreach Morans (50 from different stations) 3 days

Transport @ KES 120,000	700
Food @ KES 60,000	300
cook @ KES 2,000/day	35
trainer @ KES 10,000	60
Contingency 10%	195
	1,290
Total	11,490

3. Healthy Rangelands	£
<i>Tree planting (in 5 communities)</i>	
500 seedlings @ KES 50,000	290
2 x KFS Officer @ KES 15,000 each	174
Equipment @ KES 35,000	203
fuel & driver @ KES 55,000	319
Contingency 10%	99
Total	1,085

Cooperation

4. Joint Patrols (KWS,GZT, County Rangers)	£
2 x Car fuel @ KES 40,000 each	348
2 x Food @ KES 30,000 each	464
Contingency	81
Total	893

People and Capacity Building

5. Literacy/numeracy learning scouts	£
3 x Pre-school teacher stipend @ KES 13,000 each	230
3 x Food for the scouts & teacher over 5 days @ KES 45,000 each	795
2X Teaching and Learning materials during sessions @ KES 20,000 each	230
Total	1,255

Infrastructure

6. Water troughs, Solar Panels & Tank	£
<i>Gatap community</i>	
6 x solar panels (545watts) @ KES 15,250 each	531
Trough material & transport @ KES 250,000	1,450
Labour @ KES 75,000	435
Contingency @ KES 41,650	242
Subtotal	2,658

Kargi community

5000l Water tank @ KES 35,000	203
Transport @ KES 20,000	116
Trough material & transport @ KES 250,000	1,450
Labour @ KES 75,000	435
Contingency @ KES 38,000	221
Subtotal	2,425
Total	5,083
Overall Total	50,217