PROTECTING ELEPHANTS TO CONSERVE THE GREATER MARA ECOSYSTEM

www.maraelephantproject.org

MEP September 2020 Report

The beautiful Marmanet Forest where collared elephant Vasco resides.

GENERAL

MEP had two trustees visit the campus in September. We welcomed Moses Kamau and Kevin Rodrigues to the Mara to see firsthand the work they are supporting back in Nairobi.

Trustee Kevin Rodrigues in the helicopter alongside Marc.

On September 25, MEP held a ranger recruitment in the Entasekera area of Loita to expand our presence in the Loita Forest. The recruitment was successful, and 10 people were selected to start their basic training at the MEP campus on the 1st of October.

Marc addressing the recruits.

On September 3, Kenya Wildlife Service (KWS) arrested two suspects in possession of 95 kg of ivory based on Mara Elephant Project intelligence. The suspects were intercepted north of Karatina near the Mt. Kenya Forest boundary. The MEP intelligence unit continues their hard work in 2020.

The ivory seized on September 3.

SECURITY, ANTI-POACHING & CONFLICT

MEP's Mau Forest De-Snaring Unit sponsored by the Sheldrick Wildlife Trust (SWT) continues to make an impact in protecting the critically important Mau Forest. In September, the "Charlie" SWT Mau De-Snaring Unit was busy and in one week alone removed over 60 snares in their area of operation. Additionally, MEP's "Alpha" ranger team stationed in the Nyakweri Forest arrested one suspect with over 60 snares and ½ kilogram of bushmeat in a joint operation with KWS, Mara North Conservancy and Olosukut Conservancy rangers. The suspect was operating with five others and after some interrogation MEP found out they had set additional snares the previous evening, which informed MEP and KWS patrols the next day to retrieve them. The intelligence unit is also tracking down the five additional suspects that were involved.

The harmful snares continue to be removed by MEP rangers.

In total, in September, one suspect was arrested for bushmeat poaching and 147 snares were removed.

Snares being removed in the Mau Forest.

In total, in September, MEP alongside government partners arrested 35 people for habitat destruction activities, destroyed 21 kilns, 69 sacks of charcoal and confiscated three power saws, 21 trees that were cutdown, 1,652 posts and 1,089 timbers.

A kiln destroyed by MEP rangers on September 1 while on patrol.

On September 26, the Mara Elephant Project SWT "Echo" ranger unit stationed in the Chepsir Forest in the Kericho area of the Mau destroyed a total of 56 bags of charcoal in two separate operations. During the first operation, they discovered logs that had been illegally chopped down to make charcoal and arrested two suspects alongside our government partners. In the second operation, they discovered 17 donkeys transporting 49 sacks of charcoal out of the forest. They were able to arrest two suspects as a result of this bust.

Donkeys carting charcoal out of the forest.

400 posts recovered on September 17 in the Transmara area.

In September, MEP rangers covered a distance of 1,128 km on foot, patrolled 8,498 km by vehicle and 1,478 km on motorbike.

HELICOPTER

On September 13, KWS and MEP collared a female elephant “Harriet” in the Sand River area that connects Loita to the Maasai Mara National Reserve. The river flows through unprotected land that is often the center of conflict between wildlife and communities. MEP along with partners KWS and Olderekesi Conservancy are eager to learn more about conflict in this area and how elephants are using a corridor that connects Loita to the Reserve. The Sand River is an important source of surface water for elephants and all wildlife and provides a critical corridor for them to move into the Loita Forest during times of drought. The river is also key for the surrounding communities who use it as a source of water and who farm tomatoes along its banks, which leads to conflict as the people and wildlife are competing for the same resource. A newly collared elephant in this area will help us to both define the corridor and provide an early warning to conflict.

The collaring operation on September 13.

On September 28, elephants were inside community fences in the Olkuroto area of the Mara and rangers were doing their best on the ground to safely move these elephants away from the community. The Karen Blixen Camp Trust helicopter was called in to assist rangers on the ground as a last resort. There were nine total incidents of conflict MEP rangers responded to in September.

Elephants inside fences on September 28.

A small team of scouts managed by Kerry Outram patrol the Marmanet Forest where collared elephant Vasco, supported by the Indianapolis Zoo, resides with his herd. One of the scouts reported an injured elephant in Vasco's herd so MEP deployed the helicopter on September 20 and brought along SWT/KWS Vet Dr. Limo in hopes of locating the injured elephant and treating him. Using the real-time tracked location of Vasco, we located the herd but were unable to spot the injured elephant. We did note that Vasco was in good health. Unfortunately, the next day, one of the scouts reported a dead elephant and it was determined the cause of death was unknown reasons; however, we suspect it may have been the injured elephant reported previously that was involved in conflict.

Vasco's herd seen from the air.

The Karen Blixen Camp Trust helicopter flew a total of 35 hours in September.

COMMUNICATIONS & FUNDRAISING

Mara Elephant Project had the pleasure of hosting Kenyan artist Nyashinski for two days in September alongside MEP Trustee Moses Kamau. He was visiting the Maasai Mara with Uvumbuzi Africa and Sauti Za Conservation to promote youth involvement in the protection of Kenya's iconic wildlife and habitat. This fits well into MEP's approach, as most of our rangers are Kenyan youth that are actively protecting national assets like wildlife, communities and habitat. Nyashinski was able to meet MEP rangers stationed in Nyakweri Forest, an important area of protection for MEP, and visit MEP HQ to learn more about the activities the organization is undertaking to encourage youth involvement in protection of elephants and habitat. Nyashinski initiated many round table discussions with MEP rangers about engaging Kenyan youth in conservation and he plans to stay involved with the work we're doing to promote that. Thank you to Nyashinski, Uvumbuzi Africa and Sauti Za Conservation for making this possible. MEP was featured alongside The Maa Trust in an article from Talk Africa on September 16 about the food distribution we participated in back in April.

Nyashinski photographed with MEP rangers while visiting.

MEP had 30 entries in September in The Greatest Maasai Mara photo competition that benefited us. Thank you to everyone for your extraordinary photos and support of MEP. There are also three active auctions for prints that benefit MEP. Klaus Tiedge Fine Art Photography supported MEP in September with 20% of their sales going back to the organization. Klaus was a world class wildlife photographer and made the very important connection between his craft and the need for supporting the conservation of wildlife and wild places. We very much appreciate their support.

A September entry by Paras Chandaria.

Overall, in September, MEP received a total of $76,198 in donations from over 155 supporters. A special thank you to M.A. Rogers, Amy & Bart Peterson, the Leslie Alexander Foundation, Ginni Keith for their very generous support. Our direct mail campaign in the US continues to perform well and above expectations. We raised $8,889 via PayPal from 127 supporters and are seeing increase in recurring donors on this platform. Thank you to Mustafa for raising money for MEP in celebration of his birthday on Facebook. We raised an additional $40 on Facebook in September.

RESEARCH & CONSERVATION

Director's Update:

On September 13, we deployed a new collar onto a female elephant 'Harriet' in the south-eastern portion of the Mara ecosystem in an area informally known as the 'sand river' corridor. Previous data has shown elephant connectivity from the Mara to the Loita Forest through this area. Our goal is to collect more movement data from more elephants in the area and use the data to help in landscape planning to maintain connectivity along this southern route.

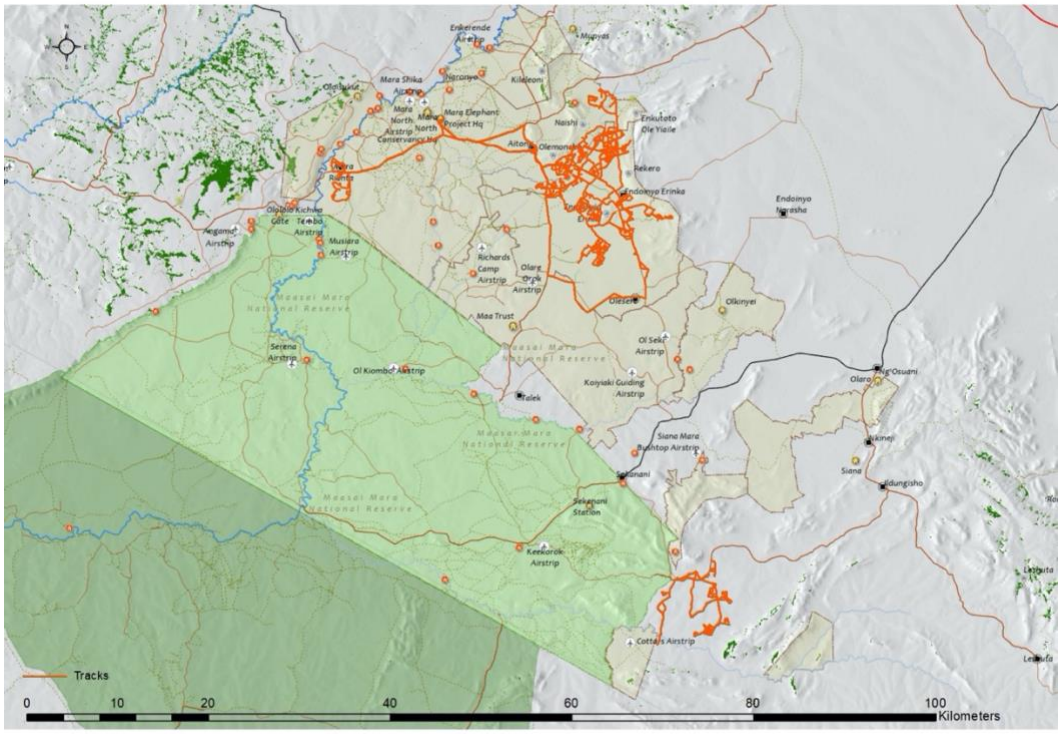
The newly collared elephant Harriet.

We continued with fence mapping in September and added a new field assistant/motorbike to our team. The three mapped a combined 355 km of fences (126.9 electrical, 221.4 wire and 7.1 other) over the course of the month. Knowing where fences are helps us both from an operational standpoint in being able to help mitigate conflict but also in analyzing these data to better understand how elephants are being impacted by the proliferation of new fencing across the Mara.

We were very happy to receive $5,500 of Google Cloud Credits this month from the Google Earth Outreach team. We're using the cloud credits to run analysis code in the Google Cloud to better understand how and why elephants use the space available to them in the Mara. Our analysis approach requires very fast CPUs and lots of computer memory – something Google is very good at, and the cloud platform will help our analysis immensely.

Several months ago, we acquired a 3D printer and have been busy printing objects useful to our operations at MEP. One of the objects is a N95 mask that can be used by staff and passengers while in the MEP helicopter (www.makermask.com). Our next project is to 3D

print a world meteorological organisation approved weather station (https://sites.google.com/ucar.edu/3dpaws) to begin collecting weather data at the MEP Headquarters and are looking for an engineering student interested in leading this project.



Month	Fence Electric	fence Other	Fence Wire	Deffence	Total fence(kms)
January	111.16	4.64	124.71		240.51
February	101.62	1.17	33.99		136.78
March	48.59	0.14	59.76		108.49
April	19.78	0.00	10.38		30.16
May	24.75	1.88	41.18		67.81
June	15.19	1.48	107.88		124.55
July	37.00		52.76		89.76
August	60.12	7.52	40.08		107.72
September	126.95	7.15	221.44	15.18	355.54
Total(kms)	545.16	23.97	692.18	15.18	1261.30

Movements (orange tracks) of MEP's three field assistants during September. All of our field assistants are working on mapping fences, roads and landcover ground-truthing points using motorbikes and our Njia app. They recorded 355 km of fences in September.

Tracking Manager's Update:

Fitz spent the month of September in the Nyakweri Forest and he and his herd have been moving into Pusanki and Kilae farms and coming back to the forest in the morning. He broke the geo-fence set up around the farms and the Alpha team based in Kawai have been responding well by moving the herd back to the forest daily.

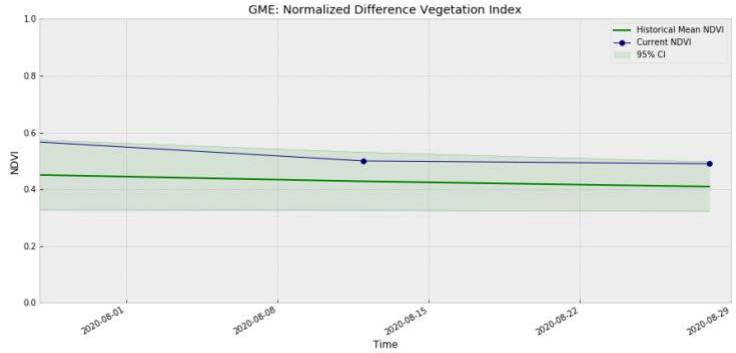
Collared elephant Fitz seen here through thick forest.

Collared elephant Vasco spotted by MEP rangers using binoculars.

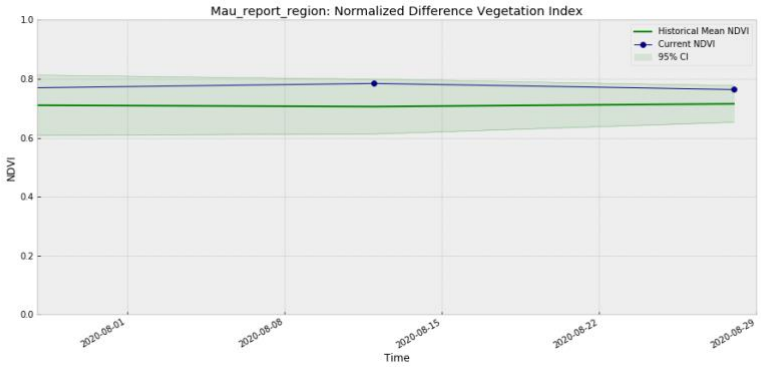
ENVIRONMENT: NDVI

Normalized Difference Vegetation Index (NDVI) is a measure of plant photosynthetic activity. Higher NDVI indicates the plant is greener. The blue trendline shows the current value while the green area shows the 95% distribution of values centered around the green trendline from values measured back to February 2000.

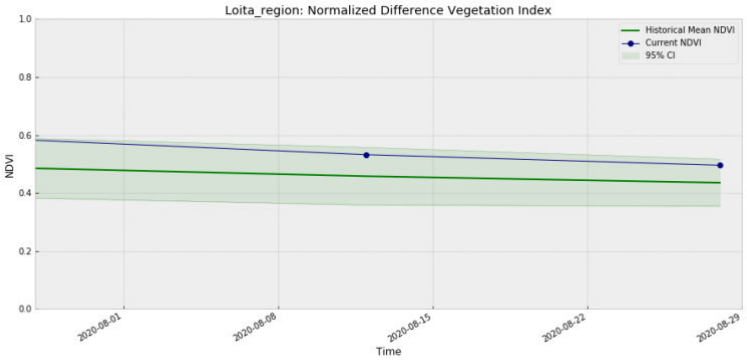
Greater Mara Ecosystem (GME)



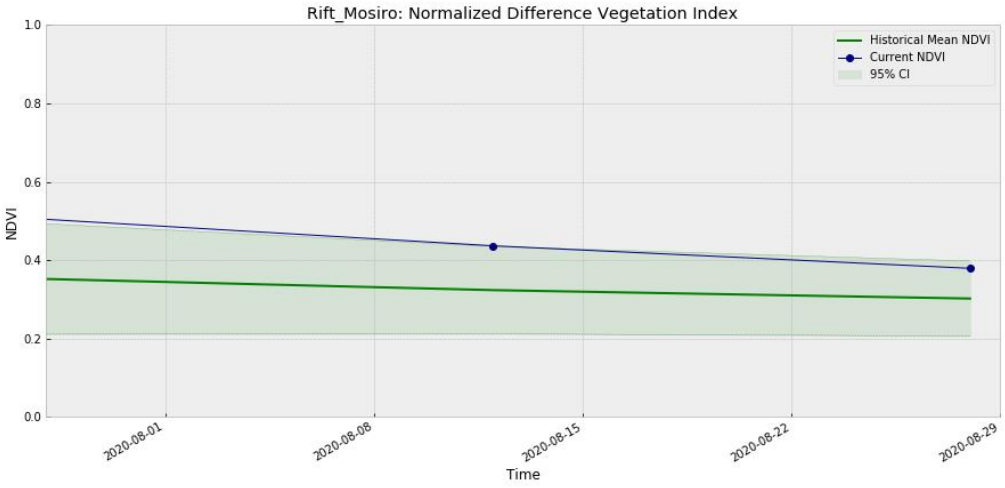
Mau Forest



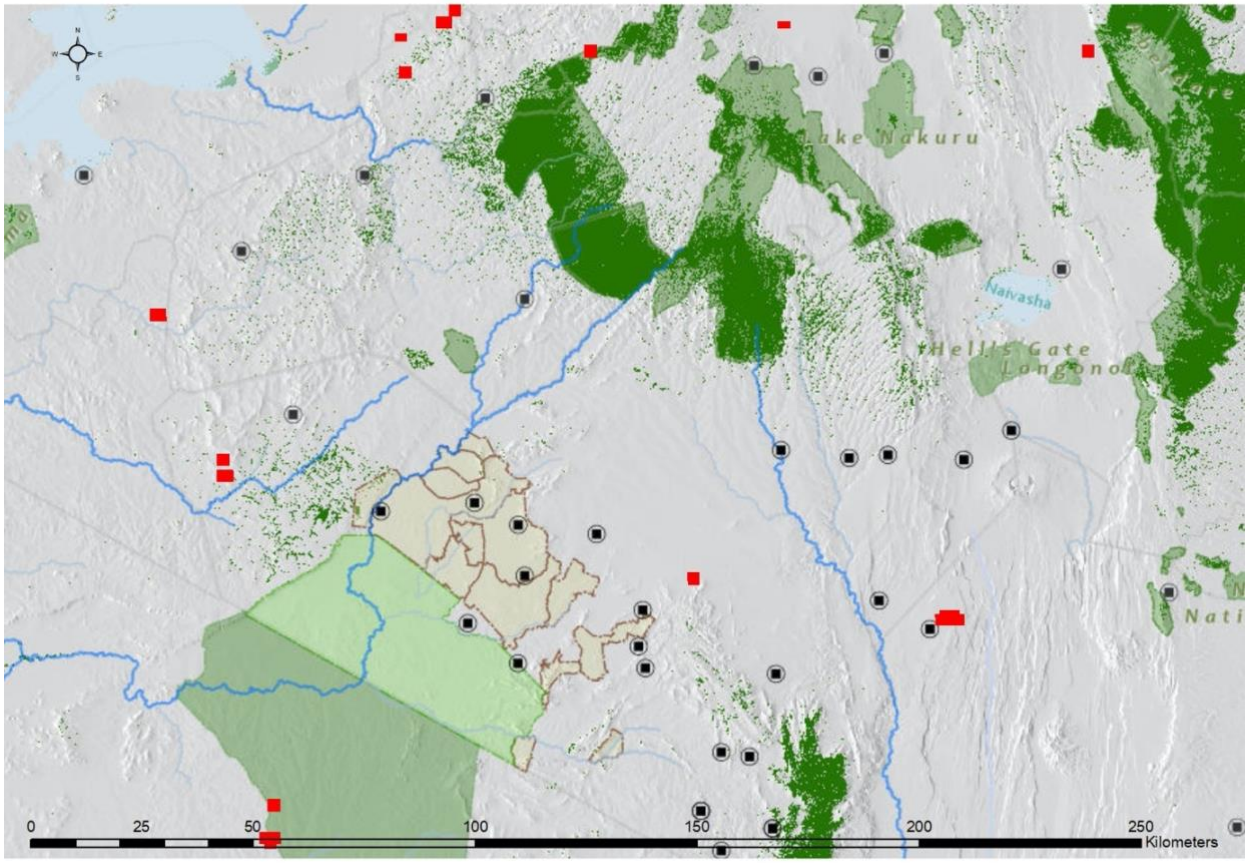
Loita



Rift Valley

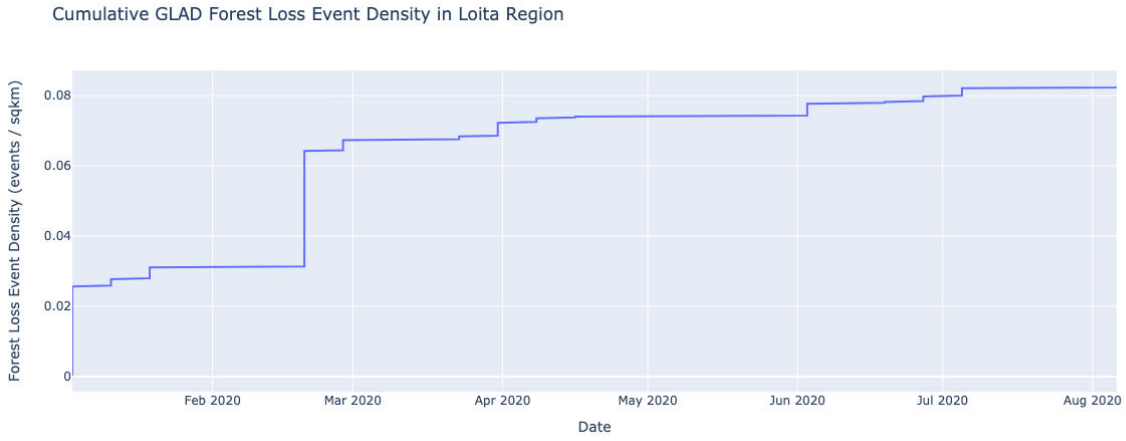


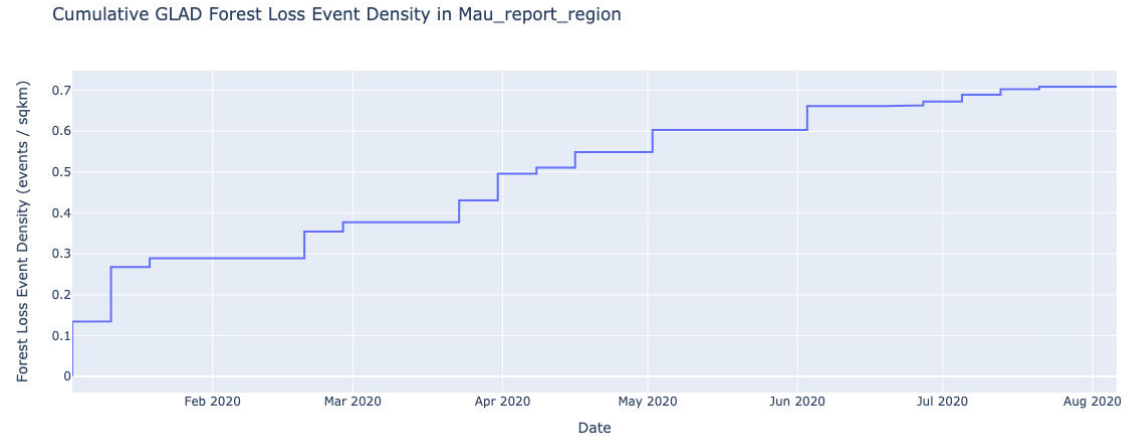
ENVIRONMENT: Burn/Fire Areas

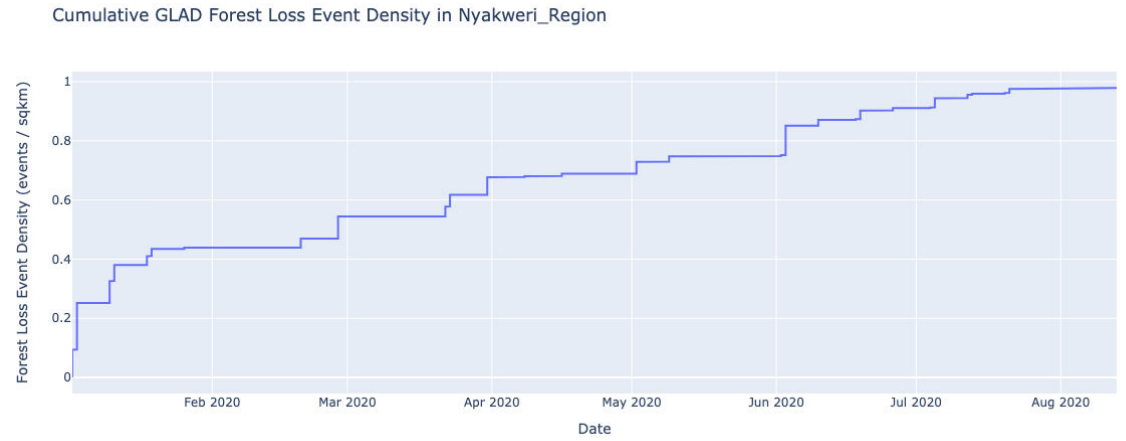


Red blocks indicate burn areas as measured by NASA's FIRMS dataset during the period Aug 1 – Oct. 1, 2020. Accessed through Google Earth Engine.

ENVIRONMENT: Deforestation







Cumulative forest loss events in 2020 in three forested regions MEP is tracking elephants and deploying ranger teams: Loita, Mau and Nyakweri. As of the August, the forest loss rate in Nyakweri is 12x that of Loita with nearly one event recorded per square kilometer in 2020. (Data source: Global Land Analysis & Discovery group at the University of Maryland: https://glad.umd.edu/dataset/glad-forest-alerts).