

Landscape + Ecology

A lifeline for the Taita Apalis

Mark Melita Kantai, Spring 2021

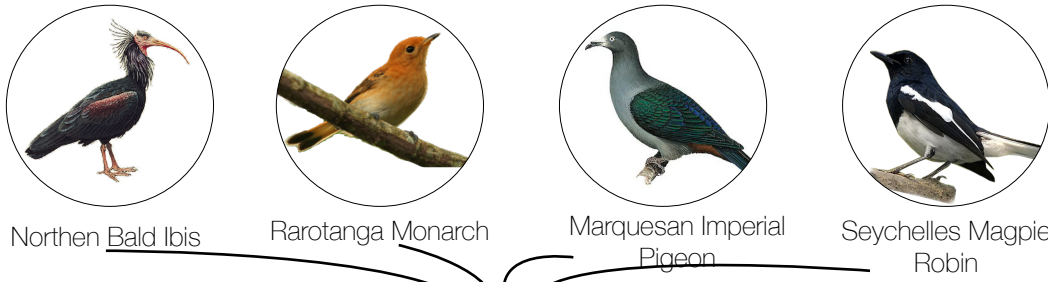
As noted by Bird Life International Organization, biodiversity is fundamental to human well being for it offers multiple opportunities for development and improving livelihoods for instance birds are indicators of the health of our environment alerting us when our ecosystems are out of balance, support and regulate ecosystem services such as pollination among others.

The Taita Apalis also known as *Apalis Fuscigularis* by its scientific name is a bird that exists only in the Taita Hills, Kenya and has been marked as a critically endangered species due to its rapid decline over the past few years. From 2001 to 2017 it was recorded to have significantly dropped from about 1200 species to 300 species and unfortunately continues to decline. It has been identified by Bird Life Kenya Organization and the Kenya Forest Services that among the major reasons for its decline is disturbances from human activities. As noted that the bird only exists in Taita Hills, the lowland area of the region experiences a hot and dry climate and as a result of the climate, increase in population and pursuit for suitable land for farming and irrigation, human migration has been towards the hills. This has also greatly affected the Taita Hills forested areas with about 98% of the original forest being destroyed.

The genesis of this research was on the primary question of mitigation and adaptation processes that can be used to combat the erasure of this species, however upon further research and discussions with local practitioners actively spearheading restoration and conservation efforts within the area, it was discovered that the most integral part of the biodiversity is the forest for its ecological and cultural importance to the local community more so than the birds. This distinction is rather critical as described by Paul Gacheru from Bird Life Kenya, for a complete successful restoration and conservation process of the species, it is important to create awareness of the birds with the forests since the forest is of symbolic, identity and ecological importance to the local community attracting community participation and empowerment.

It is in this consideration that the project takes into account three points of views as mitigation and conservation processes between the birds, the forests and the humans and non humans.

Successful cases

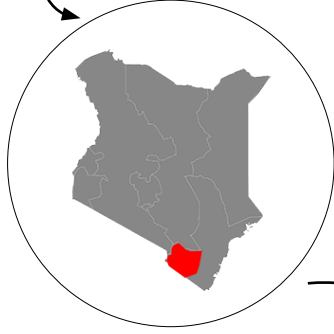


Recommendations.

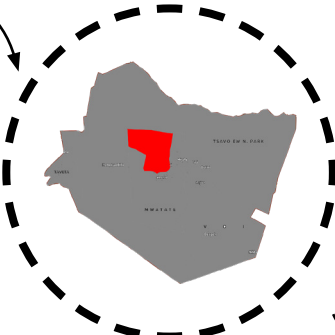
- 1. Investing in conservation.
- 2. Integrating biodiversity into decision making.
- 3. Understanding how people depend on biodiversity.
- 4. Empowering people for positive change.
- 5. Sustaining birds in the wider landscape and beyond national boundaries.

Research Question:

What are some of the adaptation and mitigation measures that can be implemented to reduce or combat erasure of the endangered species?



Taita Apalis



Taita Taveta County



The People-The Taita

The Taita's migrated from Central Africa alongside other Bantu tribes, arriving in present day Kenya from the south through Shungwaya before finally settling in the fertile of Taita hills. The hills provided the Taita with refuge from raids and attacks by the neighboring Maasai tribe. The Taita appear to have settled down to live quite amicably together, evolving a common culture and reserving their aggression for the dangers of the surrounding plains.

Vision:

To design a community based eco-sensitive recourse center with the aim of conserving and restoring the Taita Apalis in Taita Taveta County.

Mission:

Designing an eco-sensitive resource center to give the community a space to educate and empower the locals on conservation and restoration of the endangered species and its the ecosystem through community participation, investment opportunities and empowerment with the aim of achieving environmental sustainability in Taita Taveta.

What is the Way Forward?

Decline:

- 1. Human Activities.
- 2. Reforestation & De-forestation.
- 3. Climate Change
- 4. Habitat Disturbance and Destruction.
- 5. Forest loss.
- 6. Exotic tree plantations.

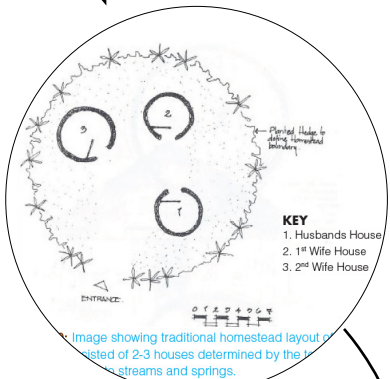


Taita Hills
98% Vegetation Loss
Exotic trees; Pine

Context

Attractions

Historically

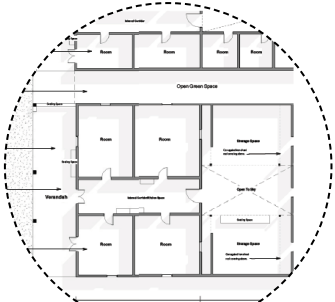


House Layout



Architectural Character
1. Helical Shape
2. Exterior Courtyard
3. Mud walls
4. Wooden Poles Support
5. Roof Thatch

Presently

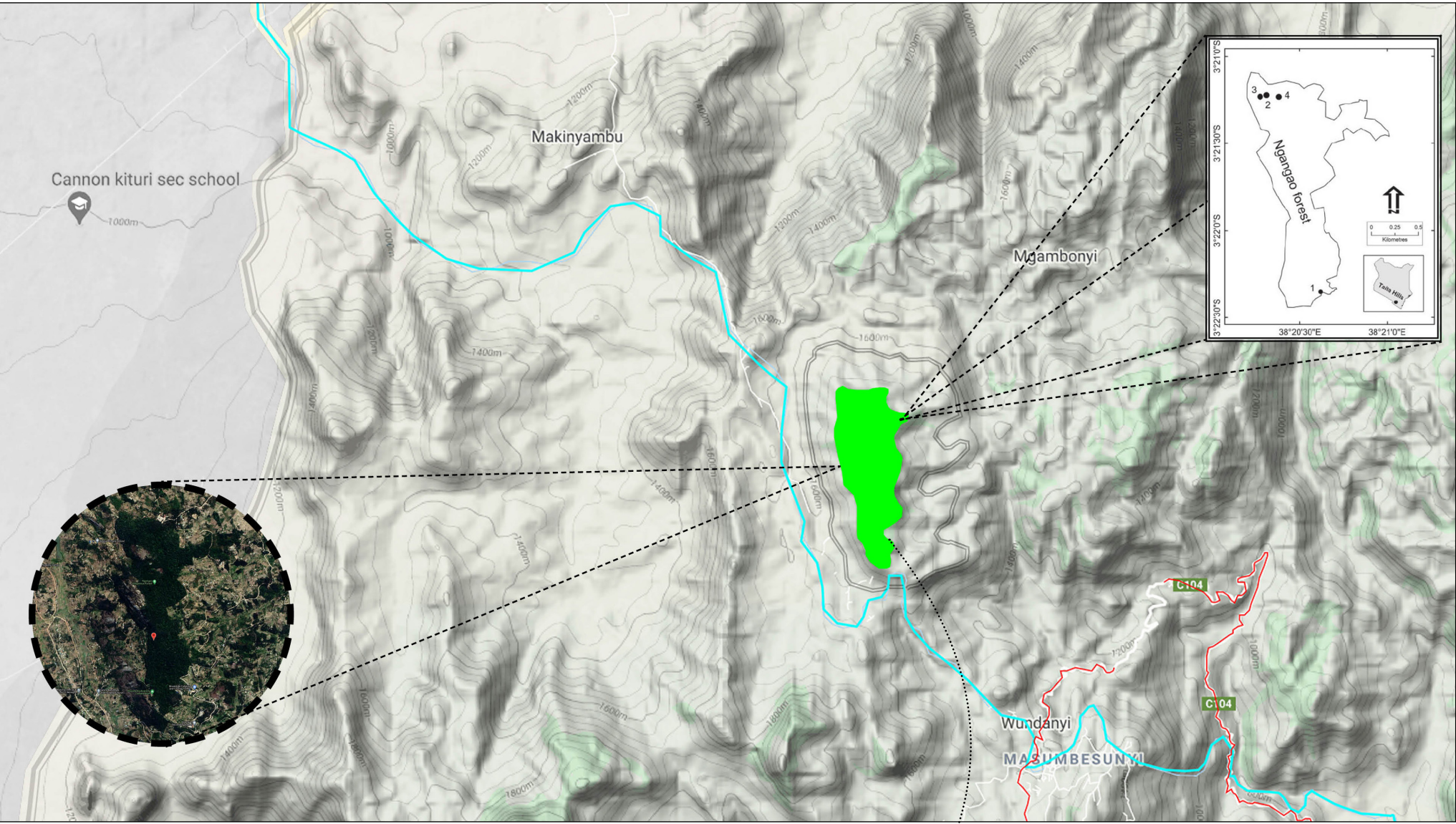


House Layout



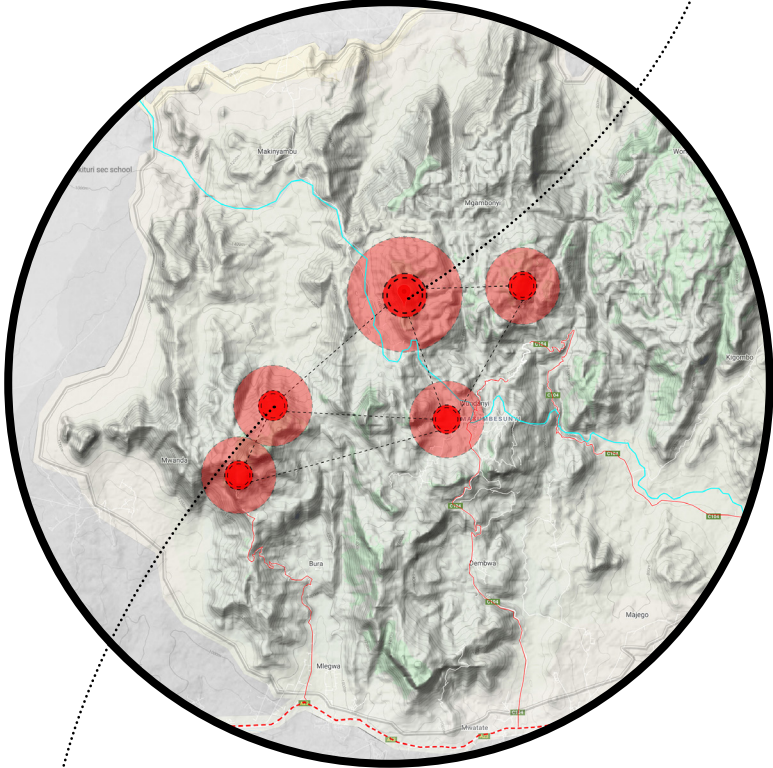
Architectural Character
1. Rectangular plan
2. Internal Courtyard
3. Brick/mud walls
4. Wooden Poles support
5. Iron Sheets Roofing



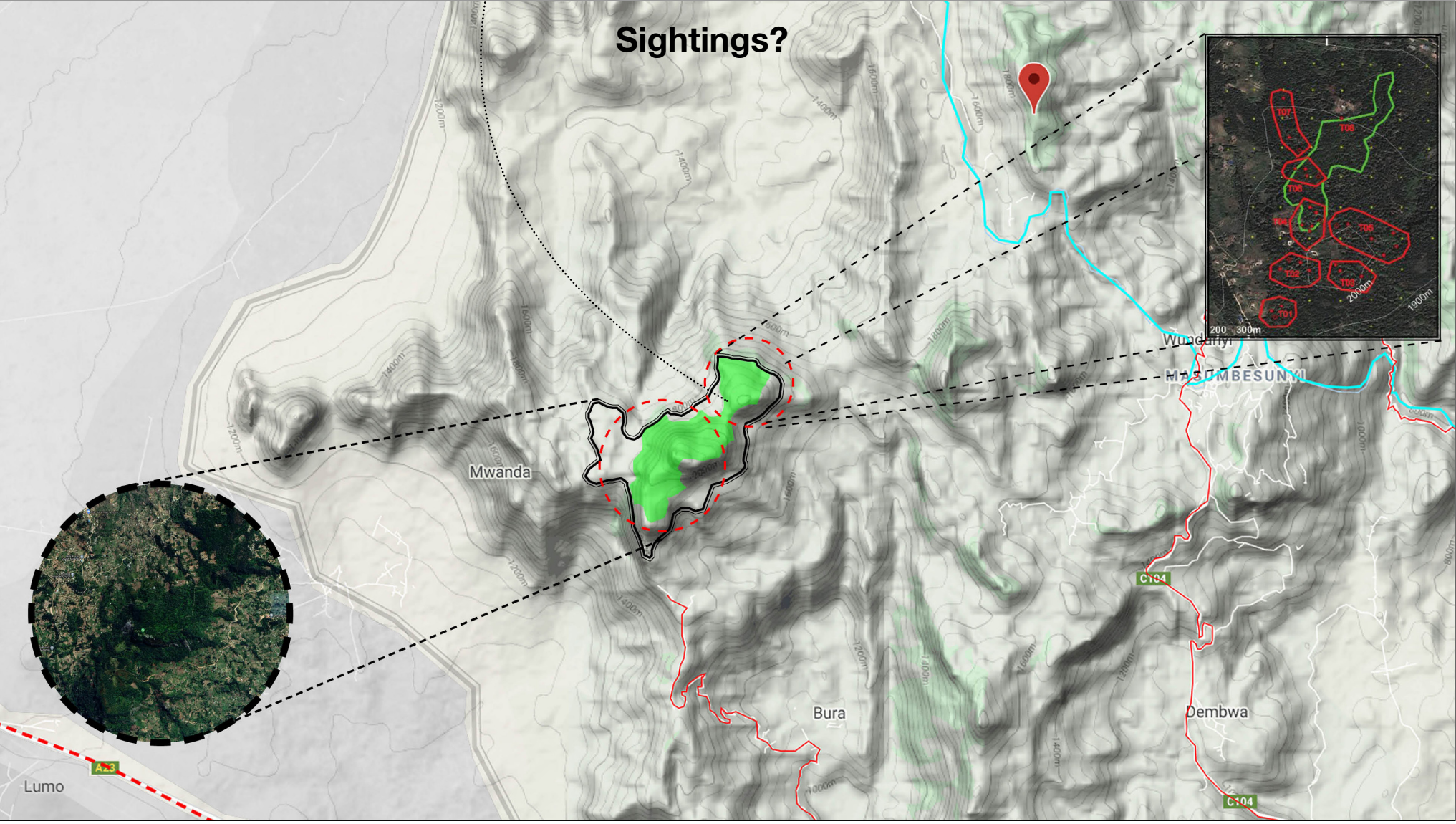


Ngangao Forest is a successful example of the restoration of natural habitat from exotic plants to indigenous plants. One year and a half after the removal of the exotic trees, a dense cover of indigenous vegetation has (re)established itself into the gaps, and both Taita apalis and Taita thrush have been observed in the restoration area.

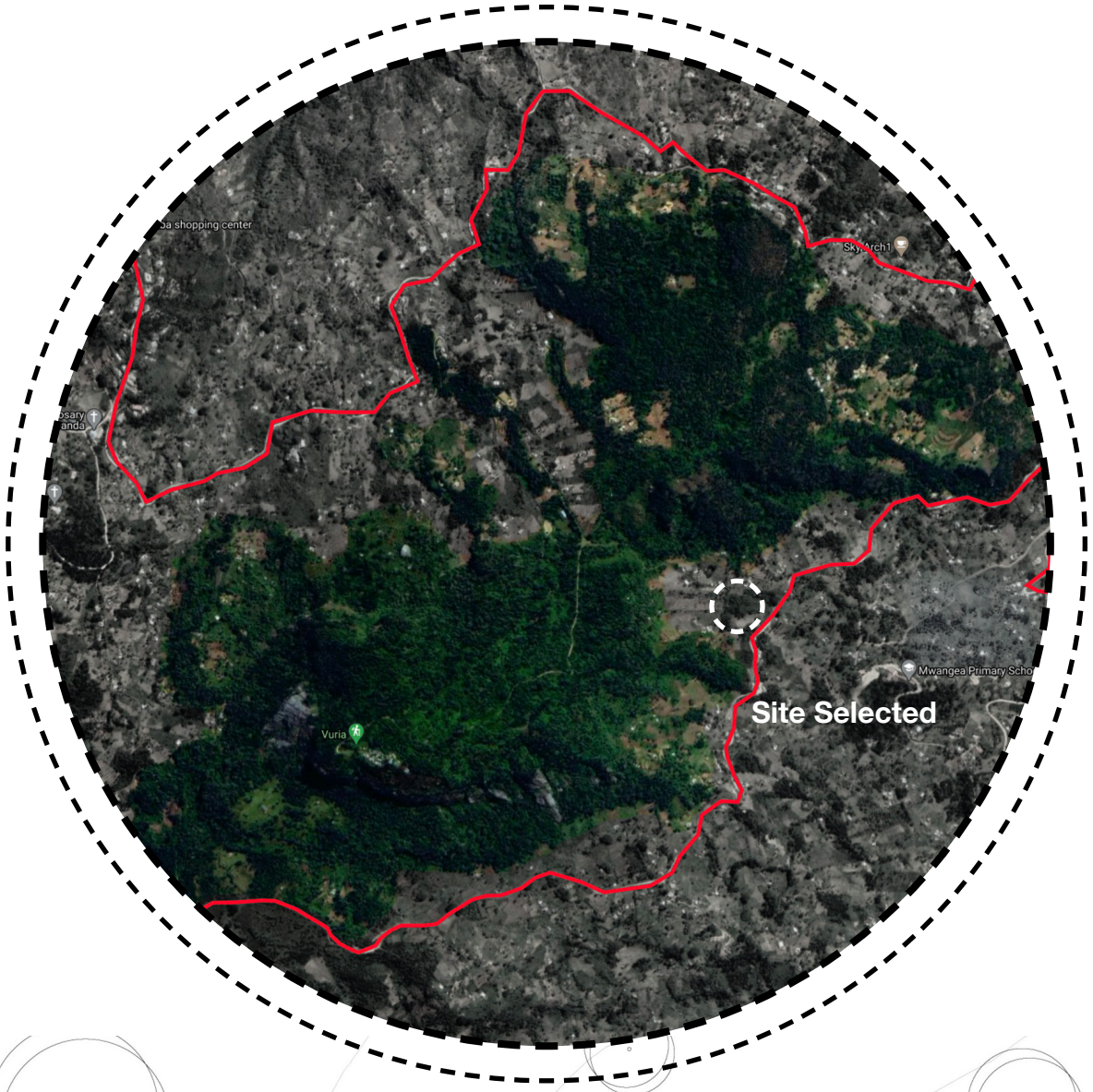
Ngangao Forest has a successful sub-population of the Taita Apalis due to its lower altitudes.



Vuria and Msidunyi forests are the prime habitats for the Taita Apalis and are facing increasing threat due to the high levels of human disturbances. Increase in population density has created the need for higher altitude lands due to demand in farmland. The forests also face increasing threat since they are not gazetted as forest reserves despite being strongholds of the Taita Apalis. Suggestions that 30-50 Taita Apalis live here.



Sightings?



Vuria and Msidunyi forests experience high levels of human disturbances since there are no clear boundaries between the forest and human land. With this in mind, the project was designed within its constraints to propose mediation and clear distinction between the three occupies of the space and propose its use locally.

The resource center is a space for administration, community education and awareness, empowerment and also financial gain by giving the locals opportunities to sell indigenous seeds and agricultural produce.

