

Project Update: January 2018

Field Survey and Inception Workshops Report

1. FIELD SURVEY

A field survey was conducted for 10 days from the 2nd to 12th January 2018, whereby the project team visited the five project villages at the Enduimet wildlife corridor, Longido, Arusha, Tanzania. The five project villages were Irkaswa, Lerangwa, Olmolog, Kitendeni and Elerai. Prior to the field surveys and inception workshops, a courtesy call was conducted at the village government offices whereby the project team and village executive officers planned and agreed on the intended project activities.



Picture 1: Above showing the village leaders in Olmolog village during the project inception

Thereafter, households that are very prone to livestock depredation by wild carnivores were visited, informal discussions with the heads of households were done and GPS coordinates were taken. During these visits it was revealed that households at the village peripheries and adjacent to the Amboseli National Park were more affected by wild carnivore depredation and many incidences have happened as shown in the **Figure 1**. Hyaena and lions were underscored as most dangerous wild carnivores, which attack livestock including goats, sheep and cattle during night. One household revealed to have lost 28 goats on the New Year eve. The incidence was reported to have happened during the night when the household members were at the village center celebrating New Year and living the kraal unguided.

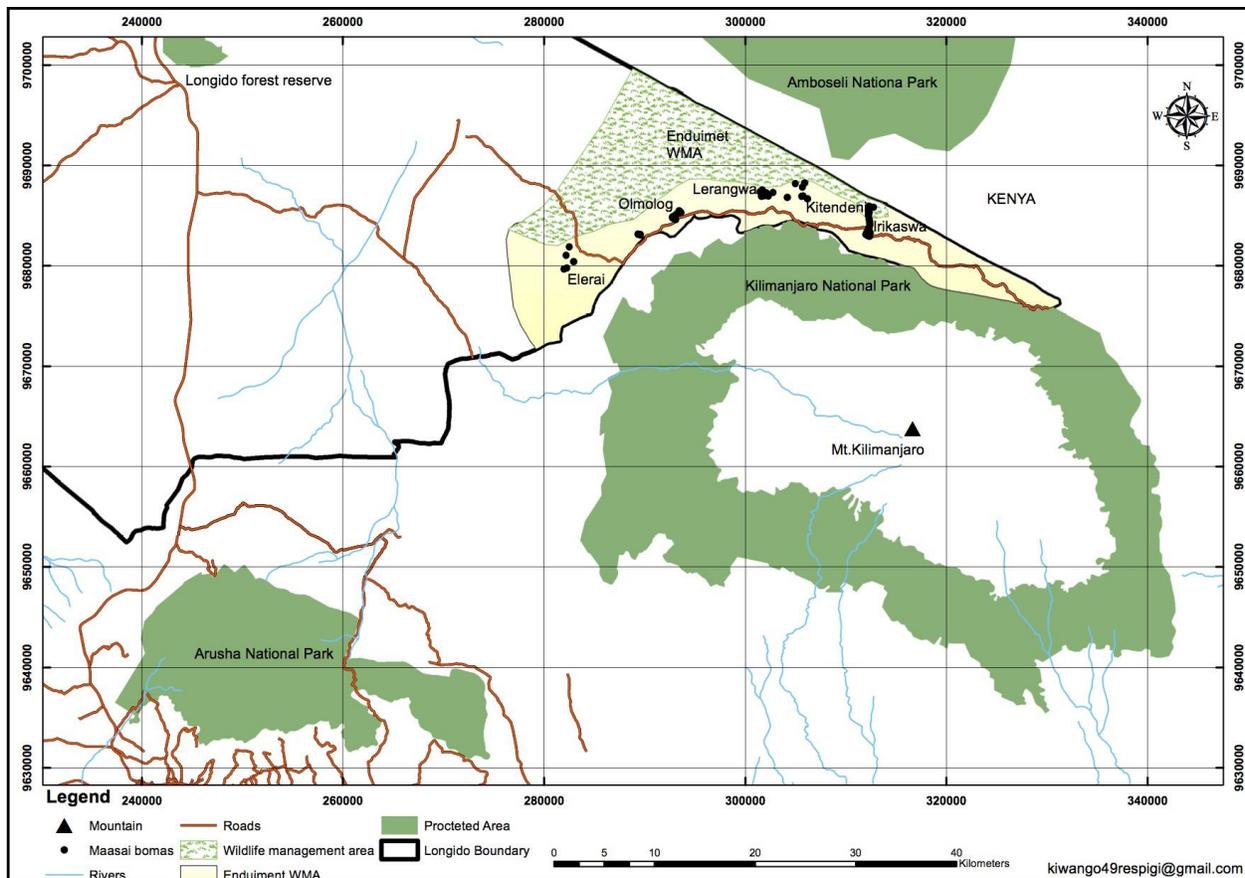


Figure 1. Geographical location of the visited households and project areas

Similarly, the number of household visited and their percentage is as shown in the **Table 1** below.

Table 1: Number of household (H/H) visited in Kitendeni

	Name of village	No. of H/H visited and their (%)	Total H/H in the village	Percentage (%) of H/H visited in each village
1.	Irkaswa	81 (29)	156	52
2.	Leran'gwa	46 (16)	78	59
3.	Elerai	51 (18)	102	50
4.	Olmolog	71 (25)	128	55
5.	Kamwanga	34 (12)	182	19
	Total	283 (100)	646	Average (47%)

During the household visits it was revealed that the livestock keepers are practising a number of methods for protecting livestock against depredation by wild carnivores. The most popular was traditional Maasai boma fences made by heaping up a line of dead branches of thorny trees including *Acacia* and *Commiphora* species around the kraal (**Picture 2**). Also, timber wood remnants sourced from nearby plantation forests namely Rongai and West Kilimanjaro were used to build fences (**Picture 2, middle ground**). Few households were also found to have adopted the *Dovyalis caffra* live fences (**Picture 3**).

Moreover, it was reported that kraals patrolling during night times and use of fires and lights to scare the wild carnivores was amongst other techniques.



Picture 2: Timber wood remnants fences and dead wood thorny fence.



Picture 3: *D. caffra* live fence with wooden door



Picture 4: The maize farm encircled with *D. caffra* to prevent crop raiding in Enduiment



Picture 5: *Commiphora africana* live fence with wire mesh fence. This is a good fence however it is expensive and it costs more than 120Us Dollars.

The visit to the Enduimet Wildlife Management Area (WMA) was made and it was further revealed that livestock depredation is a major challenge at the project area. The WMA has employed full time game scouts who attend cases related to human-wildlife conflicts including crop raiding and depredation. It was reported that techniques such as safe explosives and torches are commonly used by the game scouts to scare away wildlife such as elephants, buffalo and lion deemed dangerous to community in village areas.

This activity was deemed necessary for determining the most vulnerable areas that will be given more emphasis during promotion D. caffra live fences.

2. INCEPTION WORKSHOPS

Inception workshops were held at each project village whereby key stakeholders including the village environmental committees, village leaders and villagers from most prone areas were invited (**Table 1**).

Village	Female	Male	Total
Irkaswa	10	11	21
Olomolog	11	11	22
Kitendeni	5	7	13
Lerang'wa	9	10	19
Elerai	5	6	11
Total	40	45	85



Picture 6: Irkaswa villagers during the project inception

During the inception workshops focused group discussions were undertaken after the project team has introduced the project. In most villages there was a general consensus that *D. caffra* live fences if well managed are effective for reducing night livestock depredation. Also, the advantage of *D. caffra* if grown around farm boundaries was noticed to protect free roaming livestock and even some wildlife such as impala and elands from crop raiding.

Furthermore, livestock keepers declared that *D. caffra* is a native plant, and kids and youth normally eat its fruits in the wild when herding livestock during grazing. Similarly, it was further revealed that *D. caffra* could be easily propagated through seeds extracted from fresh ripe fruits. However, challenges with regard to reliable seed sources of more than 90% germination rates were raised, some pastoralists complained that it takes longer time to germinate, its shelter would increase coldness that might negatively affect livestock during night and even some said that *D. caffra* will attract snakes to their homes. Livestock keepers who has already adopted the *D. caffra* live fences were given a chance to share their experiences and advises to overcome the raised concerns of *D. caffra* was conducted. There was a general consensus that if seeds of good quality, seedlings are well raised at the nursery contrary to the traditional method of direct seeding and if seedlings are planted at the onset of rainy season and the pits/furrows are well prepared including incorporation of decomposed manure will fasten the growth rate. Also, advice on proper training of *D. caffra* saplings as well as pruning will strengthen the fence and make it more effective to achieve the intended objective towards reduction of human-wildlife conflict.



Picture 7: Workshop in Elerai village



Picture 8: Workshop with local leaders in Olmolog village during the project inception



Picture 9: Wildlife/Zebra (middle ground) and domestic animals interphase in Enduiment. Picture taken during the project inception phase.



Picture 10: *D. caffra* live fence with some ripe fruits. The fruits are also being used as food supplement

3. Challenges

- Transhumance practices still do exist amongst the Enduimet livestock keepers thus raising the importance of devising other methods when livestock are away from home for some period
- *D. caffra* need some years before it gets effective to control livestock depredation by wild carnivores. Thus, raising a need to continue other methods such as thorny branch fences, wires and wood fences for some time to allow the permanent *D. caffra* to grow.
- *D. caffra* is effective towards prevention of carnivore predation but not effective against elephant as it was revealed that elephants do browse on it.

4. Opportunities

- High willingness of the village leaders and society in general to establish *D. caffra* around their households
- Existence of strong village environmental committees at Irkaswa and Lerangwa villages will make the nursery establishment activity cheaper and smoother.
- Presence of reliable water supply nearby most households at the village hamlets is a great opportunity for practicing irrigation in case of limited rainfall.

5. Way forward

- Training and distribution of training materials in form of brochures and through use of local forest experts to ensure more livestock keepers are aware of the importance *D. caffra* live fences in reduction of livestock raiding by wild carnivores
- Supporting the village environmental committees to establish *D. caffra* nurseries in Irkaswa and Lerang'wa.
- To select households that will benefit direct from the *D. caffra* project nurseries.
- Feedback provision to key stakeholders on the project progress including devising means to overcome challenges and enhance project success
- To buy 10 kg seeds for *D. caffra* equivalent to >24000 seedlings will be bought from the reliable agro-seed dealers in Arusha. Also equipment supports for the *D. caffra* nurseries caring in Irkaswa and Lerang'wa namely; spatula, wheelbarrow, 24,000 nylon bags for seedlings, 100 m siphon tube for irrigation and storage water tank will be supplied.

6. Conclusion

The project inception was successful and 79% of the people in pastoral community accepted about the idea of promotion of *D. caffra* live fences in deterrence of wild carnivores against domestic animals predation during the night. Because of that, the project now is focused much towards the nursery development in two villages namely Irkaswa and Lerang'wa as the pilot areas in some of the designated 30 households for 15 households in each village. The beneficiary's households will be chosen based on the proximity to the park (higher risk for domestic animal-carnivore predation), vulnerable and marginalized female headed households or elderly headed households and with family members who are eager to adapt.