

Project: Science-based and co-produced transformative Rangeland Management Practices – how to deal with encroachment of unwanted woody species (TRAMAP Kenya)

Field Activities Report on Community Mobilisation, Inception Meeting and Project Site Selection



TRAMAP Field Activities #1 and 2 Report

Prepared by:

Jane Mutune, Staline Kibet, Stephen Mureithi, Nathaniel Tum and Khalif Abbey

March 3, 2022

1. Introduction

The TRAMAP Kenya project is part of the Agriculture for Food Security Program 2030 (AgriFoSe 2030) and is being implemented in Samburu County. Samburu is one of the nine Arid Counties in Kenya and is characterized by erratic rainfall that ranges from 250 mm to 1250 mm per annum. Notable threats on the rangeland of Samburu affecting the food security of the people in the county include: problematic woody plants encroachment of particularly i) *Acacia reficiens*, ii) proliferation of noxious plants such as *Cissus rotundifolia* (a climber) which is a threat to an important fodder tree (*Acacia tortilis*); invasion by iii) alien invasive species (e.g. *Opuntia stricta*, and *Prosopis juliflora*).

The invasive species and bush encroachment have not received adequate attention from policy makers in Kenya. Yet the spread of invasive species poses a major threat to rangeland biodiversity and the food security for the pastoralists and agro-pastoralists in Kenya's dryland. The invasive species affect the livestock sector by lowering forage yields and quality, interfering with grazing, poisoning animals, increasing the costs associated with livestock production and reducing land value. In addition, the invasive plants affect ecosystem services by depleting soil and water resources and reducing biodiversity. The spread of invasive species impedes the provision of ecosystem services and reduces income from livestock; it contributes significantly to food insecurity placing constraints on sustainable development.

The TRAMAP Kenya project aims at transformative way to address land degradation through building capacity for rangeland restoration which will lead to increased productivity and impact positively on the pastoralist and agro-pastoralist's livelihood base and enhance the ecosystems services such as pasture and water availability.

TRAMAP project has partnered with Kenya Camel Association and Samburu County Government's Ministry of Agriculture, Livestock and Fisheries together with Kalama Community Wildlife Conservancy (KCWC) to capacity build the community and other stakeholders through co-learning process on how to sustainably manage invasive species.

A scoping mission that was conducted by project team between December 14th -19th 2021. The scoping exercise helped the project team to appreciate the level of invasion by the invasive woody plant species particularly *Acacia reficiens* and *Proposis juliflora* on the rangeland in Samburu East Sub-County. The team also met and shared the project vision to some members of KCWC board. The board later forwarded the same to annual general meeting in January 2022 where members of the conservancy were informed and approved the partnership with TRAMAP.

The project inception meeting and site identification for project co-learning site with the community, local Administration, Kalama Conservancy and Girgir Group Ranch took place between March 21st and 25th.

During the meeting with the community members, they express their worry with negative impacts brought about by invader species. The community decried of land degradation and the negative impacts of invasive species have affected their livestock sector by lowering forage yields, quality, interfering with grazing, and reducing land value. The *A. reficiens* has an

allelopathic effect which does not allow other form of herbaceous plants including grass to grow under its canopy. The community singled out *A. reficiens* (Fig. 1 and 2) as being particularly problematic in the area. The species has occupied large swathe of grazing land and form closed canopy where nothing grows underneath. In an area where wildlife tourism is being promoted, the species has degraded habitat for open grassland wildlife species, compromise sight-seeing by tourists and significantly reduce grazing capacity for both livestock and wildlife given that nothing grows beneath *A. reficiens* as indicated in the images,.



Fig. 1. *Acacia reficiens* thicket in Kalama Conservancy (left) where no herbaceous cover grows underneath (right) (Photo by S. Mureithi).

The community members present at the inception meeting said that the invasive species is an impediment to livestock production and were willing to cooperate with TRAMAP project and Kalama Conservancy to control the *A. reficiens*. The community also indicated that *A. reficiens* causes surface crusting (cement like surface) resulting to low water infiltration and thus trigger overland flooding and exacerbating water scarcity and in return food insecurity. The community commit to participate in co-learning process from site identification, initiation of demo plots, data collection and dissemination of lessons thereof. The willingness to try and control the spread of the *A. reficiens* was seen by the community initiative in providing labour with Kalama Conservancy in clearing the bushes.



Fig 2. Bare rangeland invaded and ‘grabbed’ by *A. reficiens* (left) and return of livestock after a section of the *A. reficiens* bush have been cut and emergence of herbaceous species (*S. Mureithi*)

2. Objective of the field activities

- i. Inception meeting with the Community, Administration, and Kalama Conservancy Board Members
- ii. Sensitization of stakeholders on project objectives
- iii. Co-learning demo Site identification
- iv. Establishment of “Rich picture” through a participatory process

a) Meeting with Kalama Community Wildlife Conservancy

b) Meeting the community

During the visit, TRAMAP team started with meeting with KCWC Board Members (Fig. 3) where the discussion centered around the continued threats of invasive species in the conservancy and the community land in general. The Board members were receptive of the TRAMAP team and agreed to partner to capacity build the community on invasive species management.

TRAMAP team provided guidelines for selecting appropriate site for co-learning activities and together with KCWC nominated a site not far from Lerata B village. The site was accessible, had patches with more than 80% reficiens cover, supportive community nearby and occur within the buffer zone of the Conservancy.

Community sensitization followed, where the team visited Lerata B community in the company of KCWC staff, and local area administrator. The community was informed of the project

objectives and the reasons why their location was selected as project site (Fig. 4). The project objectives were highlighted as follows:

- ✚ To have scientists co-produce knowledge with pastoralists and agro-pastoralists on rangeland restoration and management approaches
- ✚ Through stakeholder meetings with scientists, advisors and community members, build capacity of pastoralists and agro-pastoralists to reduce invasive species and land degradation and subsequently improve landscape ecosystem functions.
- ✚ To build capacity of pastoralists and agro-pastoralists with science-based knowledge and skills through stakeholder meetings with scientists, advisors and community members to adopt more hardy livestock species, produce supplemental feeds and animal healthcare
- ✚ .
- ✚ Through science-based meetings build connectivity between pastoralists, agro-pastoralists and livestock value chain stakeholders such as Kenya Camel Association, and Northern Rangeland Trust Trading.

The community acknowledged that the *A. reficiens* had extensively invaded their land thus affecting forages availability for livestock and wildlife. After the morning of awareness creation, the TRAMAP team together with the community members searched and identified a site suitable for demonstration of bush encroachment management and pasture production based on guidelines earlier indicated. TRAMAP also reminded the community on camel husbandry as they are the adapted to Samburu East environment and animal health where the County Livestock Department and Kenya Camel Association will be involved.



Fig. 3. TRAMAP team meeting with Kalama Conservancy Board Members (Photo by Nathaniel Tum)

During the meeting with the board members, it was agreed as follows;

- That KCWC is happy with the partnership and would support the project activities
- That KCWC, TRAMAP together with the community to identify suitable site for co-learning
- That KCWC will mobilise the community to rally behind the project.



Fig 4. TRAMAP team sensitizing the community on TRAMAP project and its activities (Photo by N. Tum)

c) Site identification and description.

After meeting the community, the team went ahead with the help of community members, area Chief and Kalama board members and identified the site already covered with invasive species *A. reficiens*. The identified site is within Kalama Conservancy buffer zone at Lerata B as depicted by the pictures below. We marked the area 2km by 0.25km for practical demonstration on the control of *A. reficiens* and fodder production through water harvesting and reseeded and took the GPS coordinates (Fig 5).



Fig. 5. TRAMAP team with Lerata B Chief and community members at the project site (Photo by N. Tum)

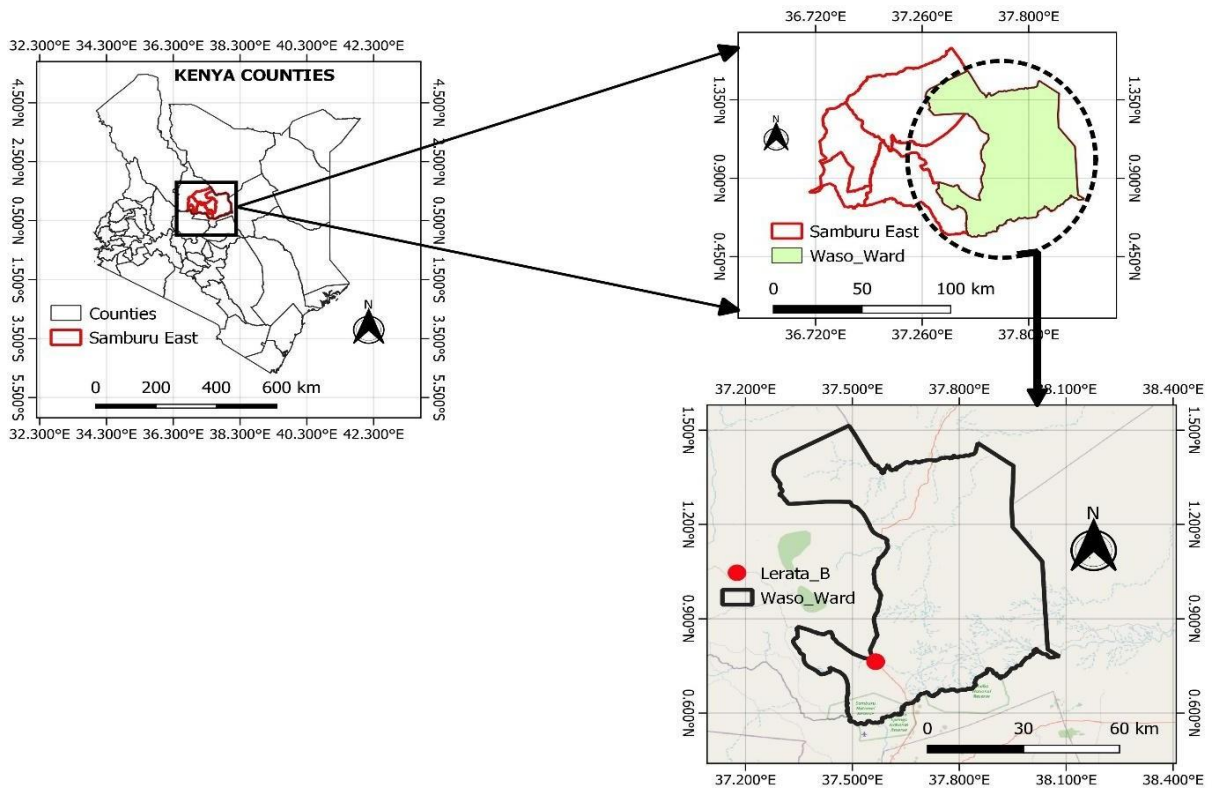


Fig. 6. TRAMAP project site in Lerata B (red dot) in Samburu East Sub-County

d) Rich picture preparation.

Initially the Kalama Board had helped the TRAMAP team invite about 10 community members for the rich picture exercise. The TRAMAP team took the community through the process of the 'Rich picture'. Importantly in the context of the project goal, community was prompted to describe how the past looked like; the current situation and how they'd like the community to be like 10 years from now including what changes will have happen; important stakeholders in the change and their envisaged role. We encouraged the community to use symbols as much as possible. The team co-opted a translator to convey the message to the community in a language they best understood. Participants listened and spoke one after the other. Women were encouraged to speak and participate actively.



Fig. 7. TRAMAP team with community members preparing the rich picture

Narrative of how the past looked like:

- The area experienced reliable rains.
- Human population was low
- Livestock conditions were good
- There were more pastures
- There were no camels
- Goats and sheep population were low
- There were no invasive species
- Enjoyed reasonable security
- Food was reasonably available and accessible

The current situation:

- High human population
- A lot of invasive species
- A lot of livestock movements
- High rate of Livestock deaths
- High population
- Camels population have increased
- A lot of bare land
- recurrent droughts
- Water scarcity
- Livestock population have reduced
- Incidences of drug abuse
- Charcoal burning
- Conflicts of water and pasture
- Difficult plan grazing
- Food insecurity
- Community and family conflicts have increased.
- Predators invasion have increased

How the future will be?

- Invasive species will have been cleared
- A lot of vegetation grass cover
- Livestock population will be high
- There will be no livestock movements
- There will be more schools
- Community and family conflicts will have reduced
- There will be more rains
- There will be more crop farming
- There will be more women enterprises
- There will be more agricultural markets
- Kitchen gardens will be more

3. Findings and observation.

- The Lerata B community, Kalama conservancy, Kenya Camel Association and Ministry of Livestock Samburu county agreed to partner with TRAMAP project.
- The community were willing to assist in clearing the invasive acacia species using locally available tools, fence the area after clearing and prevent livestock from gazing in the identified site.
- The study site (LERATA B) was participatorily identified and marked and GPS coordinates captured.
- The project site is entirely covered with *A. reficiens* and *P. juliflora*

- By time of field visit most livestock had been moved to (Isiolo Nasulu Coservancy) in search of pastures
- All members of the community e.g. men, women and youth attended sensitization meeting but women sat far right as shown from the above picture.
- Wild life also grazes in the area especially elephants.
- Expectedly men dominate meeting discussions

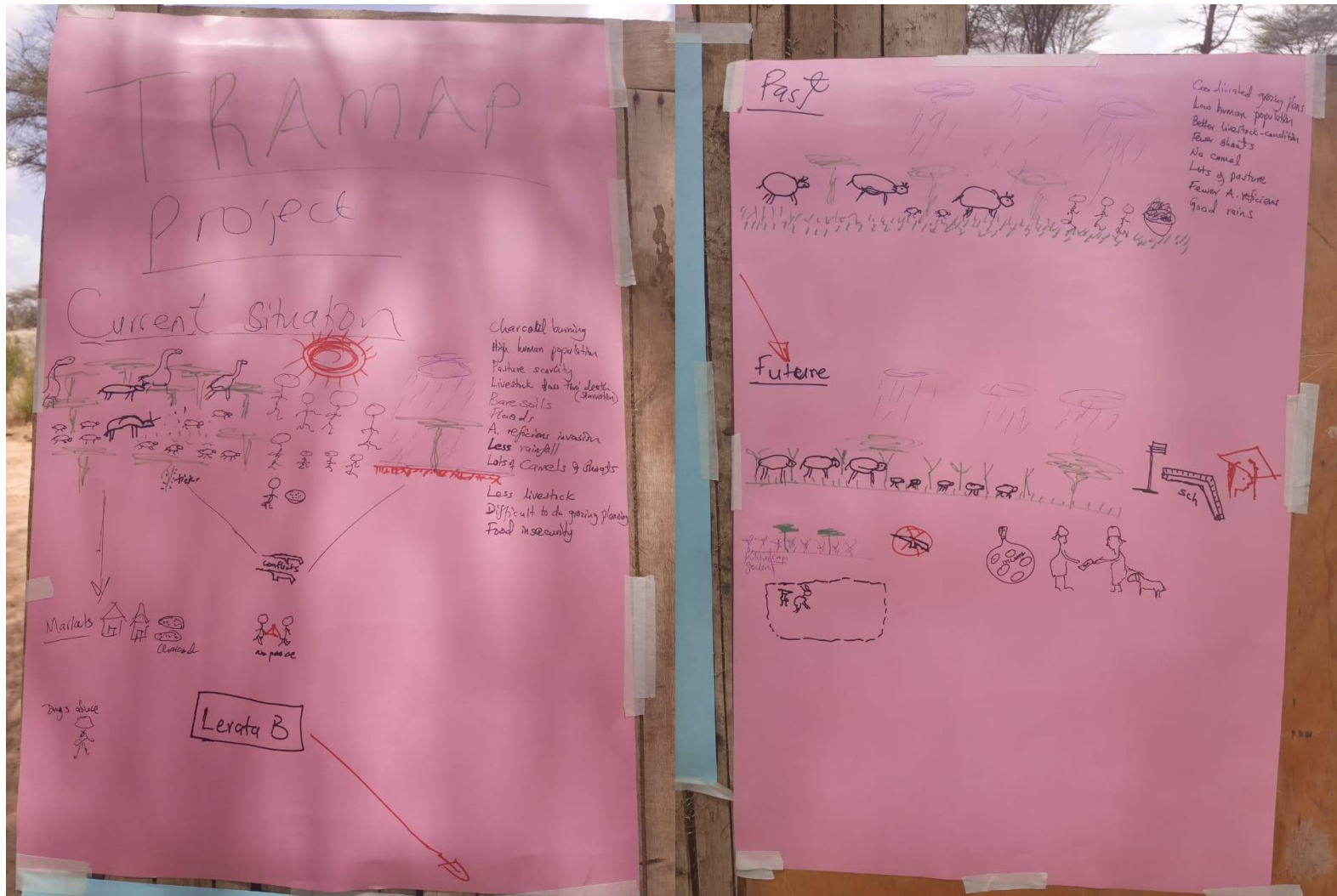
4. List of participants

The members present during the meeting were:

- a) Lerata B community, Samburu East Sub-County
- b) Lerata B administration- Cheif Lareta B
- c) Kalama Conservancy Board Members
- d) TRAMAP team members

-Dr Jane Mutune	WMI, UoN
-Dr Staline Kibet	LARMAT, UoN
-Dr Stephen Mureithi	LARMAT, UoN
-Nathaniel Kipleting	Livestock Officer Samburu East Sub County.
-Khalif Abbey	Kenya Camel Association (KCA)

Appendix 1: Rich Picture for TRAMAP project



TRAMAP Project – Rich picture exercise at Lerata B, Samburur East Sub-County

Appendix 2. Stakeholder analysis for TRAMAP Project

Stakeholder or actor group	Role in rel. to our issue e.g. community member, farmer, entrepreneur, decision making, financing, implementation	Why the issue matter to them - what is their stake?	Current position / capacities in rel. to the issue	Changed attitudes/behaviour/relationships/collective actions needed to support our desired change
Community		The woody plant invasion has grabbed their grazing lands	Desire to eradicate or minimise the invasion	Willingness to learn and co-operation by the community
	Willingness and co-operation	Pasture scarcity leading to livestock mortality during dry season and drought	Desire to clear their grazing lands for more pasture	Self governance (able to respect and follow guidance from the Elders)
	Clearing Ol-churai (<i>A. reficiens</i>)	Predation of livestock Loss of livestock to raiding during migrations Floods (low infiltration)	Can participate in mechanical control activities (cutting and protecting cut areas to allow pasture recovery)	Availability for field activities
Kalama Conservancy/ NRT	Training and technology	They support pastoral and agro-pastoral livelihood in livestock-wildlife interface areas	Leading agency in Community conservation model	Tested models
	Linking conservancies to funding agencies	Wildlife and habitats conservation for wildlife and the people	Training and development grant raising capacities	Already supporting Kalama Conservancy

County Government	Funding community development work	High levels of poverty and illiteracy Un-ending drought emergencies	Has capacity to scale up the proven technologies	Willingness to learn from the Researchers and other actors
Administration/National government	Promoting peace and stability	Resource conflicts if a persistent pain in the ASAL Counties	Support and co-operation to local initiatives	Guidance to the community in development and peace initiatives

Appendix 3. Assumptions

- ✓ Livelihoods transformation
- ✓ There will be an uptake of improved sustainable rangeland management practices including fodder production
- ✓ High community participation
- ✓ Cooperation by target communities
- ✓ Strong ownership by communities
- ✓ High commitment from groups and cooperative members towards the project activities.
- ✓ Favourable security situation allowing proper project activities participation
- ✓ Favourable seasonality allowing onset of fodder production in *A. reficiens* controlled areas