

IMPACT OF DESERT LOCUST ON LIVESTOCK ROUTE MIGRATION

Arid and Semi-Arid Land (ASAL) counties of Kenya

September 2020

INTRODUCTION

Kenya has been experiencing the worst desert locust crisis in 70 years¹ since December 2019. Swarms of locusts continue to spread in Kenya, in spite of the large scale control operations led by the Food and Agriculture Organization of the United Nations (FAO), the Government of Kenya (GoK) and county governments.

The Kenya cash consortium targeted six locust affected counties with emergency cash assistance: Isiolo, Wajir, Turkana, Samburu, Marsabit and Mandera. These have been the epi-centres for the development of the full locust life-cycle. In addition, they have been found to have high proportions of the population in crisis or experiencing food insecurity (Phase 3 or above according to the Integrated Food Security Phase Classification (IPC))². These counties have also suffered considerable damage especially of browse and pasture, which is particularly alarming considering the prevalence of pastoral or agro-pastoral livelihood zones.

In order to understand the impact of desert locust on pastoralist migration routes, IMPACT conducted a participatory livestock route mapping assessment to track the livestock movement routes as well as identify locations in particularly high need and monitor the risk of possible conflict due to disrupted migration routes.

This factsheet shows typical livestock movements in the targeted counties and identifies locations where locusts have affected livestock migration routes.

1. [FAO in emergencies](#)

2. [Kenya: IPC Acute Food Insecurity Analysis ASAL](#)

3. Targeted KIs were Directors, Deputy directors, Managers, Rangeland specialists, Livestock production officers, Drought information officers from the Agriculture, livestock and fisheries ministry, National drought management authority (NDMA), Special programs, Northern rangeland trust (NRT), County commissioner, Pastoralist Community Initiative Development and Assistance (PACIDA), Kenya red cross and Isiolo Livestock market system.

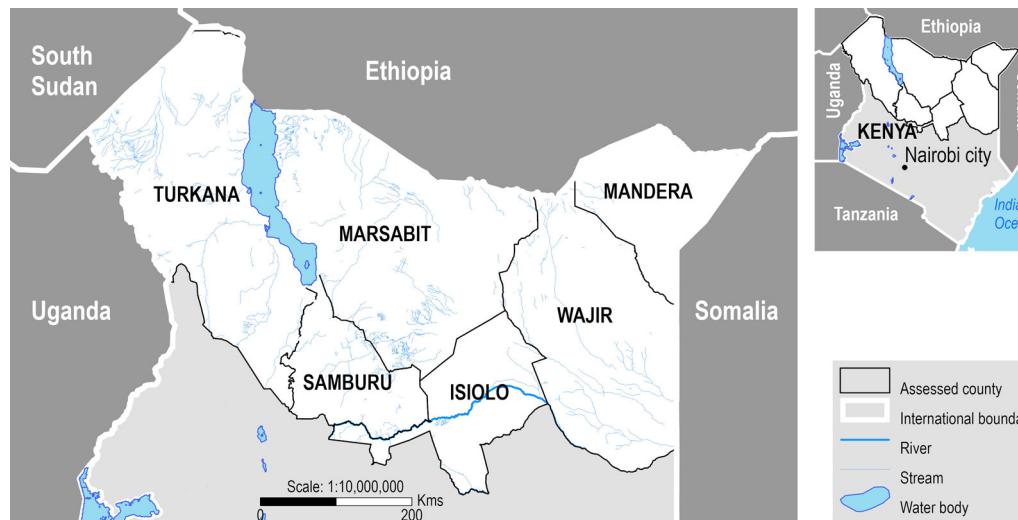
METHODOLOGY

- Key Informant Interviews (KIs) and Focus Group Discussions (FGDs) were conducted face to face between 13 August and 16 September 2020.
- Key Informants (KIs) with advanced knowledge of livestock migration and impact of desert locust³ were selected purposively from their respective counties.
- KIs were interviewed using a semi-structured tool and were provided with topographic maps where they drew the livestock camp locations and migration routes, before and after the locust infestations.
- KIs reported two of the most affected locations in their respective counties where participatory mapping FGDs were conducted.
- Five to eight participants per FGD were selected from the affected nomadic pastoralist

communities by a community mobilizer.

- FGDs involved the use of a combination of a FGD paper tool and a topographic map for hand drawn mapping.
- A total of seventeen FGDs were conducted in the assessed counties; two in each county, apart from Turkana county where three FGDs were conducted.
- FGDs in Isiolo, Samburu and Marsabit counties consisted of male participants only, while in Mandera, Wajir and Turkana counties FGDs included both female and male participants.
- The hand drawn topographic maps from KIs and FGDs were digitized and maps produced.
- All findings presented in this factsheet are indicative only and should be triangulated before use in programming.

ASSESSED COUNTIES



KEY FINDINGS

- KIs in all counties reported that the desert locust invasion disrupted livelihoods, with displacement and fear amongst the main reported reasons.
- KIs and FGD participants in all six counties reported locations impacted by desert locust along migration routes, and typical migration routes disrupted since the desert locust infestation in December 2019.
- FGD participants in the six counties reported that both wet grazing areas and dry/drought grazing reserves were invaded by the desert locust resulting into insufficient pasture for livestock as well as premature rapid movement from the wet to dry grazing areas.
- For the final camp destinations, 15 out of 17 KIs reported insufficient food for livestock and 5 out of 17 KIs reported resource based conflicts.
- FGD participants in all counties reported that when livestock fed on pasture and/or open waters contaminated by desert locust faeces or dead desert locust, they became sick.
- 8 out of 17 KIs reported low quality of livestock products and low market value resulting in reduced yields as a result of reduced pasture and sick livestock.
- FGD participants in 2 counties reported a lost season, citing that the worsened conditions of their livestock had negatively impacted their ability to reproduce.

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TYPICAL MIGRATION ROUTES

KIs reported that traditionally pastoralists have been migrating with their livestock from one place to another in times of drought in search of pasture and water for their livestock. FGD participants reported that the pastoralists migration patterns are however not clearly known outside their communities. Pastoralist communities usually have dedicated grazing areas for both the wet and dry/drought seasons.

The FGD participants and KIs reported and/or hand drew on the map that during the wet season, they graze their livestock around their settlements and move to hilly or riverine areas during the dry season. However, for those living around the large rivers or hilly/mountainous areas, they move away from their settlements during the wet season to avoid water related flies and diseases, as well as cold weather that affect livestock and children, to then move back move back to their settlements during the dry season.

KIs reported that pastoralists encounter difficulties during the dry/drought season such as resource based conflicts, predators and livestock diseases and that these difficulties depend on the frequency of

their movements, direction taken and the timing. As a coping mechanism to these difficulties (resource based conflicts, predators and livestock diseases) pastoralists start moving gradually, as the dry season approaches, to the dry grazing reserves which also have watering points. Pastoralists then migrate to the far end of the migration routes with transitional stops at locations where they can camp. However, despite their resilient social and ecological coping strategies, many pastoralists are struggling to meet their households' needs and sustainably manage the rangeland vegetation resources⁴.

Participants reported that they will continue to need humanitarian assistance as the dry season approaches to mitigate shocks and stresses on livelihoods. The assistance could be in form of cash and/or commercial food supplements and feeds for their livestock. This will help them survive the dry season and prevent the use of negative coping mechanisms such as illegal charcoal burning⁵ and selling of firewood and charcoal to make ends meet.

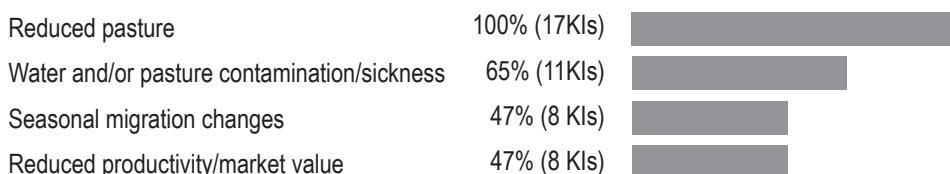
IMPACT OF DESERT LOCUST ALONG MIGRATION

KIs reported locations in their respective counties that have been impacted by the desert locusts along the migration routes.

Top 3 reported locations impacted by desert locust along migration routes by assessed counties

County	Location 1	Location 2	Location 3
Isiolo	Oldonyiro	Kipsing	Kula Mawe
Marsabit	Elboru Magadho	Tirgamo	Ngurunit
Samburu	Remot	Lengusaka	Latakweny
Mandera	Takaba south	Shimbir Fatuma	Banisa
Turkana	Kakwanyang	Lobei	Todonyang
Wajir	Wajir North	Wajir South	Wajir West

Reported impacts of the desert locusts along the migration routes in assessed counties, by # and % of KIs⁶:



CONSEQUENCES OF LIVESTOCK MIGRATION ROUTES DISRUPTIONS

Reported consequences of migration route disruptions on livestock in assessed counties, by # and % of KIs⁶:



Top 3 reported consequences of livestock route disruptions by FGD participants in the assessed counties:

reduced pasture for livestock, water and/or pasture contamination that caused livestock sickness, and seasonal migration pattern changes.

4. [Ecology and society](#)

5. [Kenya's pastoralists face hunger and conflict as locust plague continues](#)

6. Multiple answers could be selected and thus findings might exceed 100%.

FURTHER ANALYSIS OF THE IMPACT OF DESERT LOCUST ON LIVESTOCK MIGRATION ROUTES

Insufficient pasture reported by KIs and FGD participants in the six counties resulted in a reduced productivity of the livestock whose quality and market value have dropped. Indeed, livestock was reported to have died as the duration of the stay in transitional camp locations was reduced or because of insufficient pasture. Moreover, reduced milk production and browse meant for young cattle resulted in stunted growth. As a consequence, pastoralists have reportedly been facing an increased vulnerability in terms of food security and income generation.

A variety of factors were provided by respondents to explain the insufficiency of pasture. For instance, KIs and FGD participants in two counties reported that some rangeland species such as the acacia pods and flowering that provide nutritious pasture for livestock during the dry season were affected by the locusts. In addition, pastoralists are also depleting pasture in the dry grazing reserves by grazing their livestock. FGD participants from one county reported that during the dry season, pastoralists will need to purchase hay to prevent the livestock from running out of food.

Reported sickness in livestock by FGD participants was characterized by increased incidents of diarrhoea, premature births, miscarriage, inability to reproduce and even death of livestock. The increased migration of pastoralists in search of additional pasture areas also led to mixes of diseases during travel and at final destinations.

The sickness reportedly caused by locust faeces contamination is still unknown to the pastoralists. They would reportedly need assistance in identifying the actual cause and treatment for their livestock in order to avoid continued reduced productivity and loss of livestock, hence save their main source of food and income. It is estimated that over 75% of cattle herds in Kenya are kept by pastoralists who supply the bulk of meat consumed in the country⁷. This means that reduced livestock yields might also negatively affect the country's Gross Domestic Product (GDP)⁸.

The unplanned early movement of livestock before drought reportedly resulted in a lack of milk and meat in settlements. FGD participants reported that the lactating, young livestock and a few goats that usually remain in the settlements with enough hay as the rest of the livestock migrates to the dry grazing areas also migrated in search of sufficient pasture due to the diminishing food availability.

The FGD participants reported that they still feared that a new wave of desert locust could occur if the ecological conditions become favorable for hatching. FAO as well is forecasting a possibility of a generation of locusts when the short rains start offering a good environment for breeding⁹.

7. [Pastoralism in Kenya and Tanzania: Challenges and opportunities in animal health and food security](#)

8. GDP is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.

9. [Kenya: Panic As Desert Locusts in Northern Kenya Start Maturing](#)

CONCLUSION

Findings from this mapping assessment indicate that all assessed counties have been adversely impacted by the desert locust since its invasion in December 2019, posing a big threat to their livelihoods and food security.

Desert locusts have adversely impacted pastoralist migration routes and livestock productivity and further research needs to be conducted on the impact of desert locust on the livestock's health and reduced productivity as well as on pastoralists' reduced livelihoods and resource-based conflicts.

Despite the surveillance and control operations in affected counties, FAO forecasts a possibility of a generation of locusts when the short rains start offering a good environment for breeding⁹.

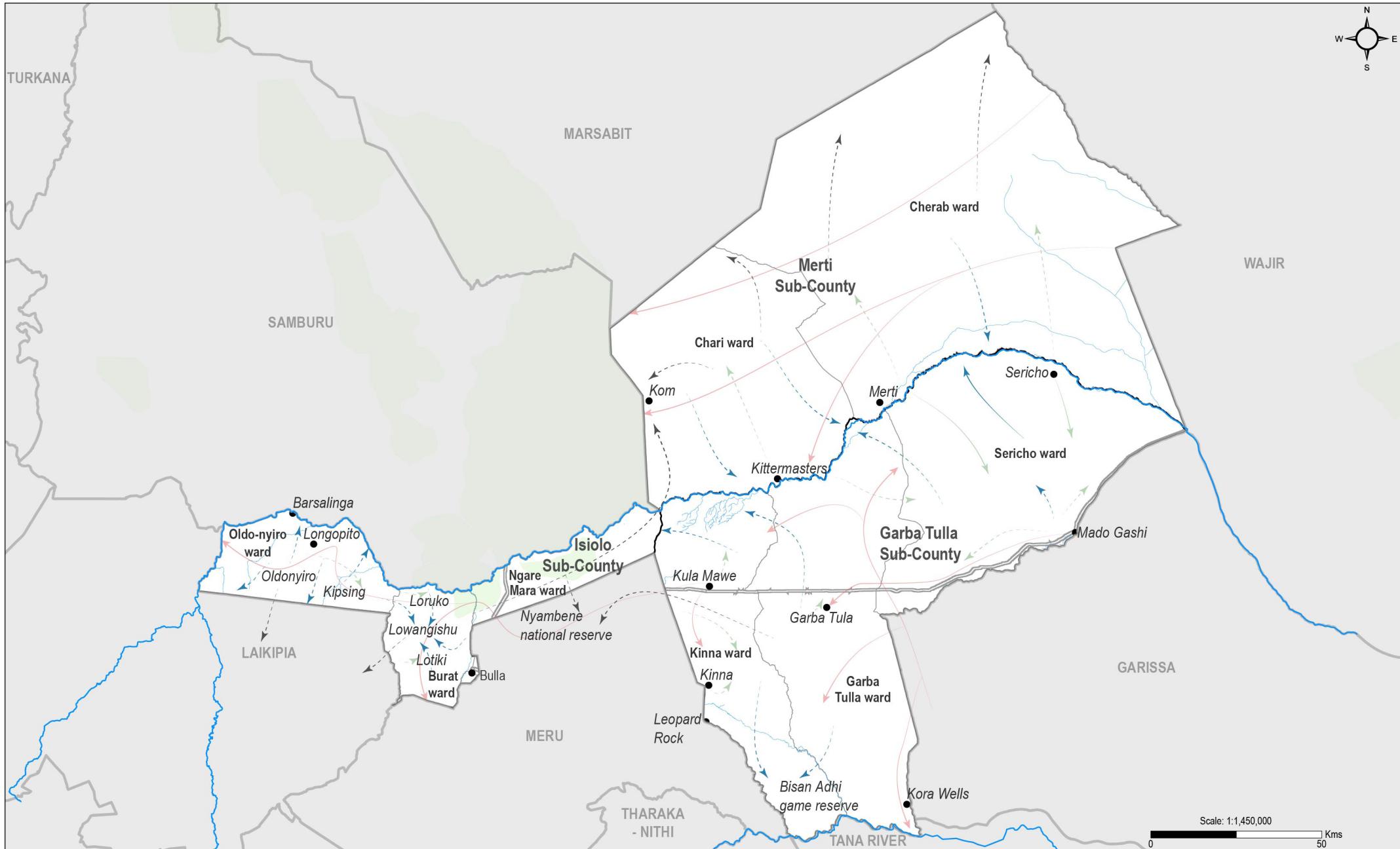
About IMPACT

IMPACT Initiatives is a leading Geneva-based think-and-do tank that shapes humanitarian practices, influences policies and impacts the lives of humanitarian aid beneficiaries through information, partnerships and capacity building programmes. IMPACT's teams are present in over 20 countries across the Middle East, Latin America, Africa, Europe and Asia, and work in contexts ranging from conflict and disasters to regions affected by displacement and migration. The work of IMPACT is carried out through its two initiatives- REACH & AGORA and through the provision of direct support to partners regarding Project Assessments and Appraisals (PANDA).

KENYA - Isiolo County

Map 1 - Impact of desert locust on livestock migration routes

For Humanitarian Purposes Only
Production date : 28 September 2020



- Major settlement
- Primary road
- River
- Stream
- Water body
- Desert locust movement
- Wet season migration route
- Dry season migration route (alternative wet season routes)
- Drought season migration route

- Disrupted wet season migration route
- Disrupted dry season migration (alternative wet season routes)
- Disrupted drought season migration route
- National reserve/Conservancy
- Ward boundary
- Sub-County boundary
- County boundary
- International boundary

Data sources:
Settlements: ILRI (2000), IMPACT (Sept 2020);
Roads, national reserve: ©OpenStreetMap Contributors (Jan 2020);
Migration routes: IMPACT (Sept 2020);
Locust data: IMPACT, FAO PlantVillage (Sept 2020);
Hydrology: Digital Chart of the World, ©OpenStreetMap Contributors (Jan 2020);

Administrative boundaries: IEBC (Jan 2012)
Coordinate System: GCS WGS 1984

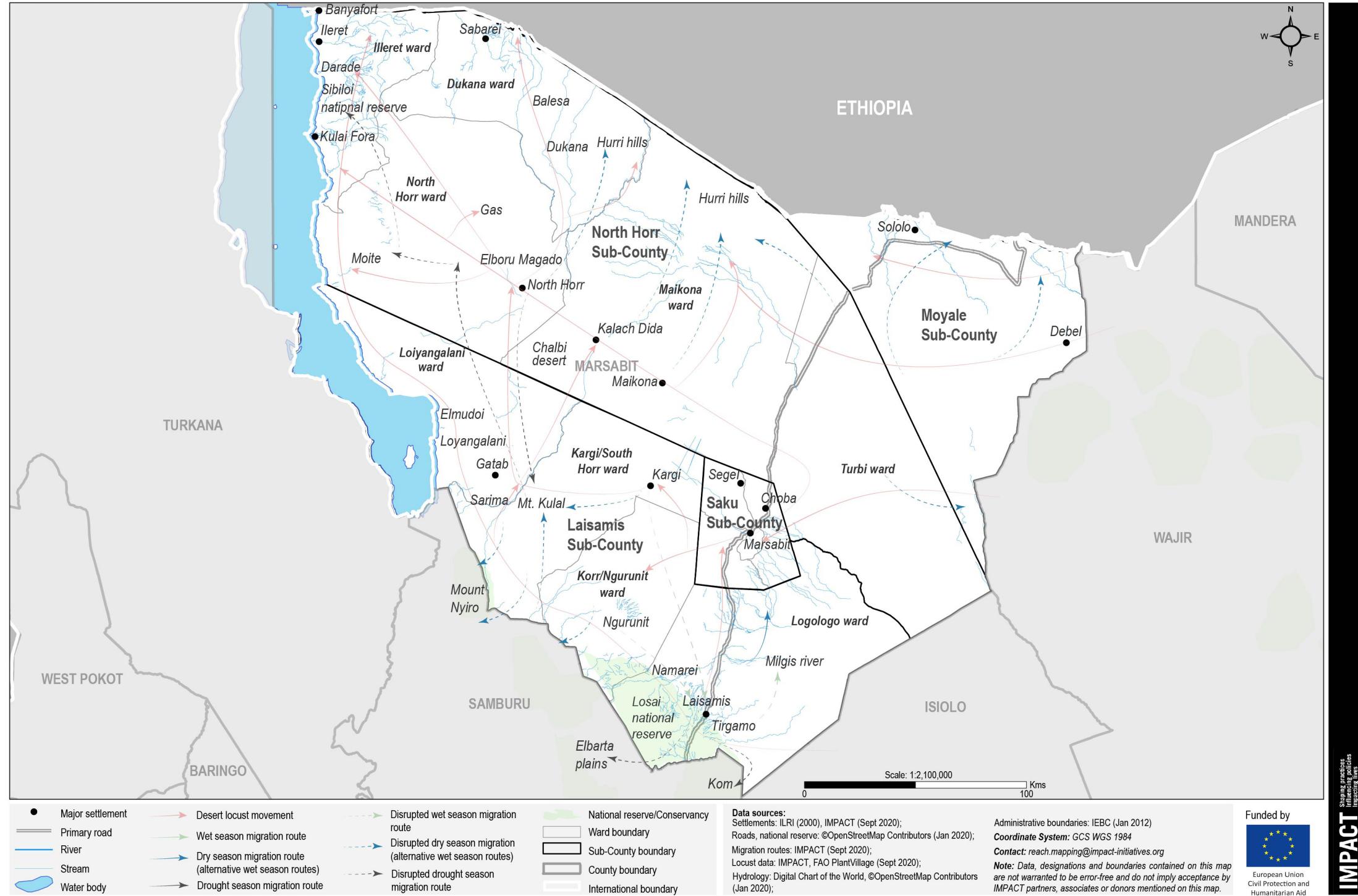
Contact: reach.mapping@impact-initiatives.org

Note: Data, designations and boundaries contained on this map are not warranted to be error-free and do not imply acceptance by IMPACT partners, associates or donors mentioned on this map.

KENYA - Marsabit County

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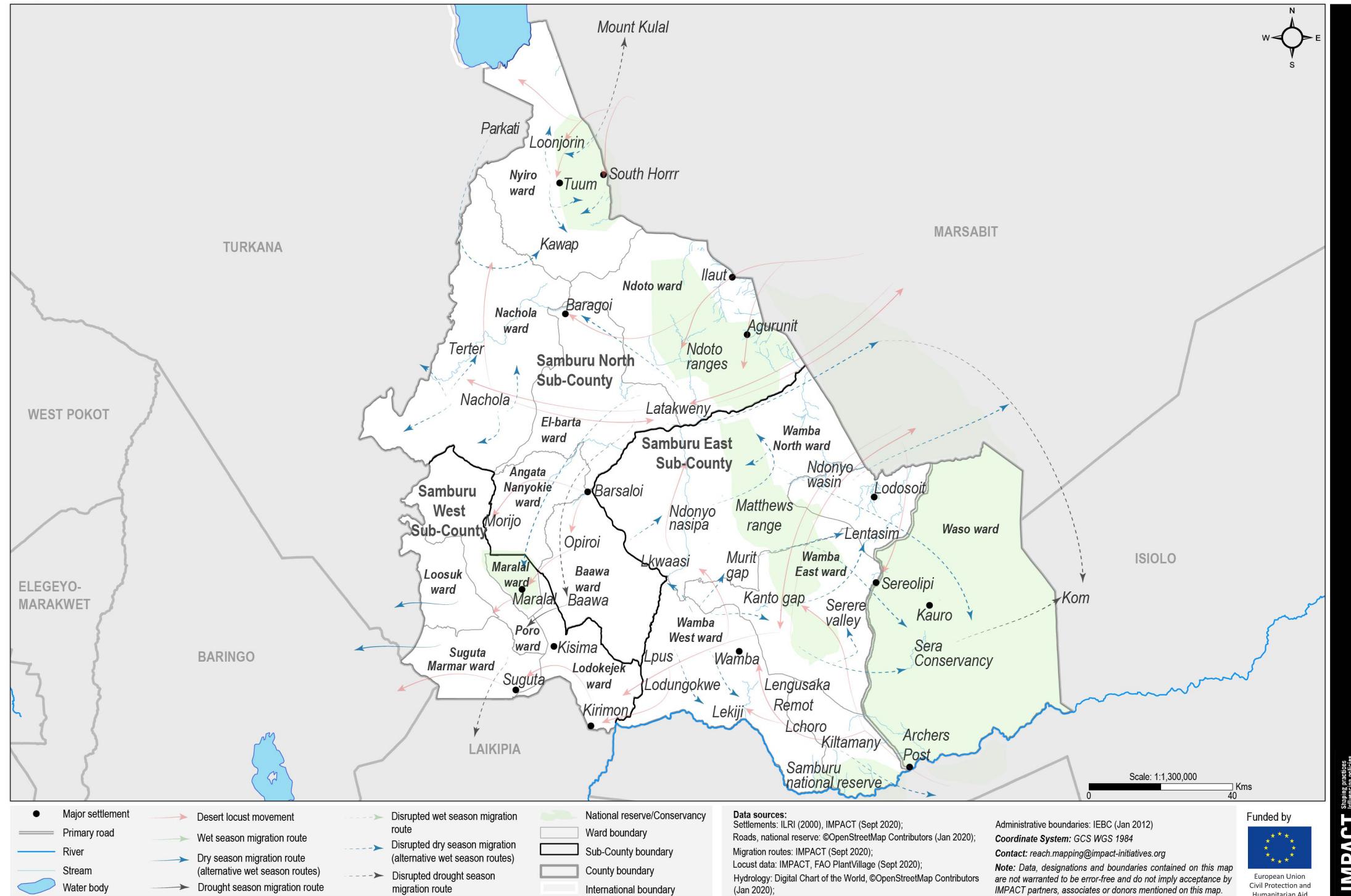
Map 2 - Impact of desert locust on livestock migration routes



KENYA - Samburu County

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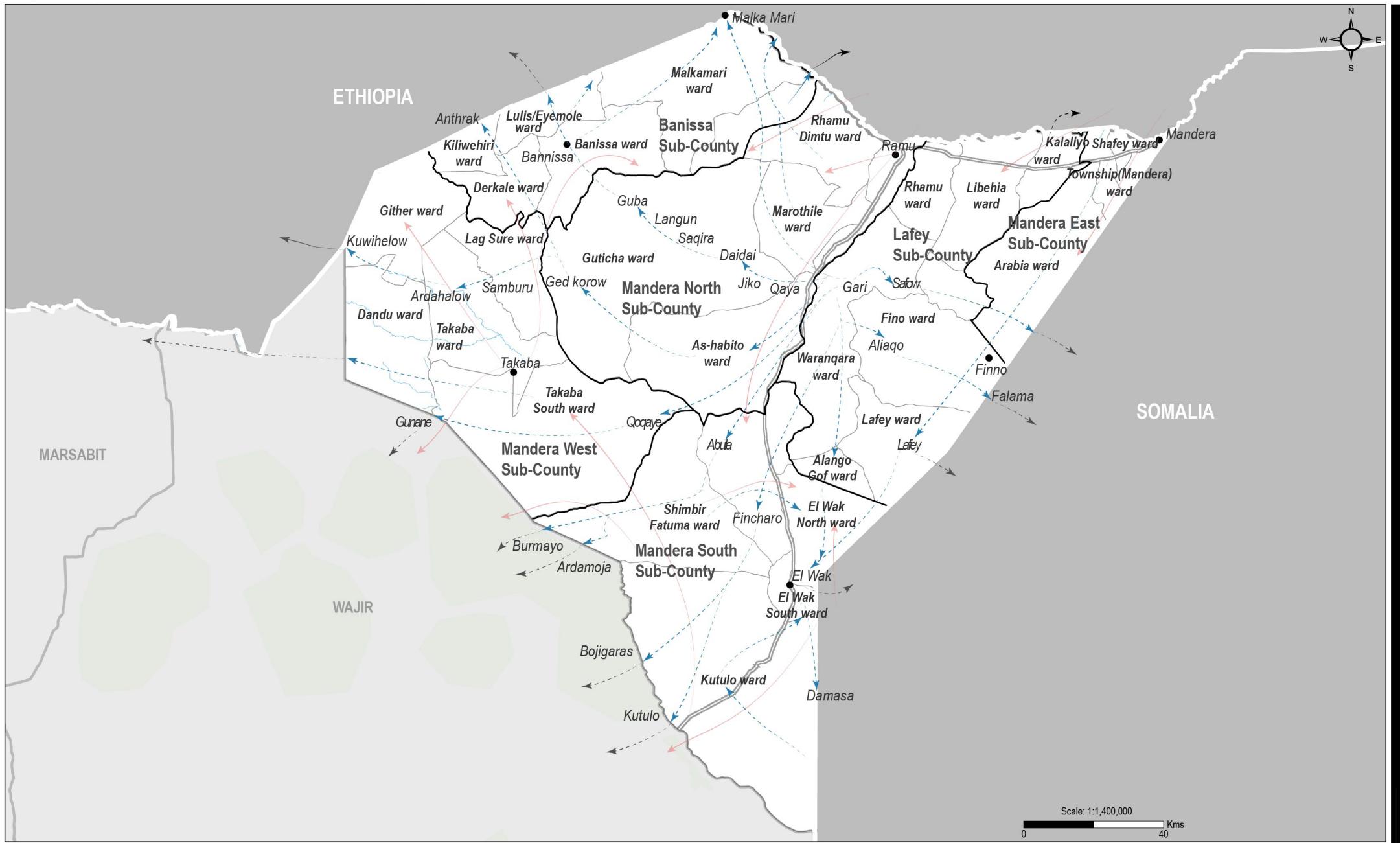
Map 3 - Impact of desert locust on livestock migration routes



KENYA - Mandera County

Map 4 - Impact of desert locust on livestock migration routes

For Humanitarian Purposes Only
Production date : 28 September 2020



- Major settlement
- Primary road
- River
- Stream
- Water body
- Desert locust movement
- Wet season migration route
- Dry season migration route (alternative wet season routes)
- Drought season migration route

- Disrupted wet season migration route
- Disrupted dry season migration (alternative wet season routes)
- Disrupted drought season migration route

- Ward boundary
- Sub-County boundary
- County boundary
- International boundary

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