IMPACT ASSESSMENT OF THE DESERT LOCUST INFESTATION RESPONSE IN SAMBURU NORTH AND EAST SUB-COUNTIES, SAMBURU COUNTY, KENYA

DECEMBER 2020

BACKGROUND

Samburu County is one of the 47 County governments in Kenya and it consists of three sub-counties (Samburu North, Samburu East and Samburu West). It is located in the arid and semi-arid lands (ASALs) of Kenya. According to the 2019 Kenya population and housing census, Samburu County has a population of 310,327 individuals and 65,910 households (HHs).[1]

Since December 2019, **Samburu County among other counties in Kenya has been affected by desert locust invasion** as billions of insects devour crops and grazing lands (browse and pasture), t**hreatening the food security and livelihoods of a population in a region already weakened by extreme-climate events** and armed conflict. HHs in Samburu County primarily rely on sale of livestock and consumption and/or sale of livestock products such as milk. **Kenya is likely to encounter a second wave of the desert locust infestation from mid-December 2020.**[2] The second wave of desert locust infestation could make the vulnerable communities who had not fully recovered from the effects of first wave more susceptible to their effects.

Several actors have been responding to the desert locust invasion in different ways including desert locust surveillances, spraying of the areas invaded by the desert locusts, reseeding of range lands and cash assistance to the affected households. In order to understand the impact of these responses to the affected communities, REACH initiative in close coordination with the National Drought Management Authority (NDMA), Samburu County government and other implementing partners conducted an impact assessment of the desert locust infestation response in Samburu North and Samburu East Sub-counties. Findings from this assessment provide updated information on how affected communities perceive the impact of the desert locust response provided by the government, non-governmental organizations (NGOs) and United Nations agencies that are responding to the desert locust infestation. In addition, findings provide an overview of desert locust control and early warning measures taken in the communities.

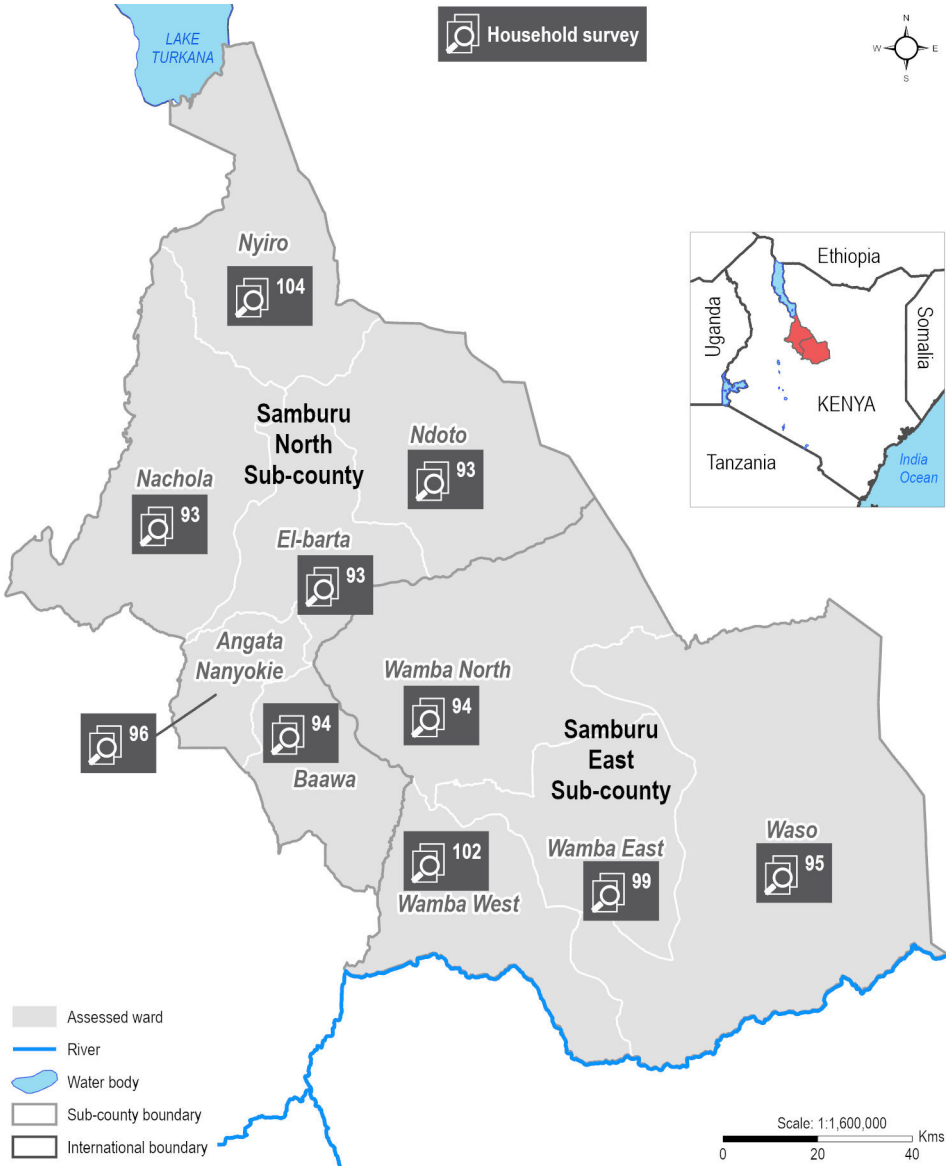
METHODOLOGY

The assessment used a mixed methods approach with both qualitative and quantitative data collection. HH interviews were conducted in the six wards of Samburu North and the four wards of Samburu East between 16 and 23 December 2020. HHs were sampled at ward level, using a stratified random sampling strategy, to reach a 95% confidence level and a 10% margin of error. A total of 573 HHs in Samburu North and 390 HHs in Samburu East were interviewed. The data was weighted to be representative at sub-County level hence attaining a 95% confidence level and a 4% margin of error. This level is guaranteed for all questions that apply to the entire surveyed population while findings relating to a subset of the surveyed population may have a wider margin of error and a lower confidence level.

Eight key informant (KI) interviews were conducted between 16 and 23 December 2020 with representatives of organizations that were involved in the desert locust response in Samburu County to understand the early warning that the organizations provided to the community, the control measures that they undertook and the recovery assistance that they provided to the communities.

Findings from KIs are indicative of the trends at the time of data collection.

ASSESSMENT COVERAGE



[1] Kenya National Bureau of Statistics census report, 2019.

[2] FAO desert locust bulletin, December 2020.

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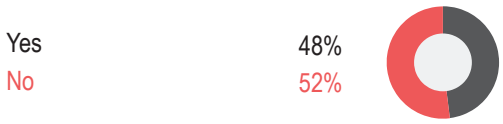
DESERT LOCUST EARLY WARNING INFORMATION

All KIs reported being involved in providing early warning information about the imminent desert locust invasion to the communities in Samburu North and East. The KIs reported that they had disseminated information about desert locust control methods, desert locust movement patterns and invasion trends, potential desert locust breeding grounds and the potential effects of the desert locusts to the community. KIs reported secondary data review and primary data from community members as their main source of early warning information that they provided to the communities. The KIs reportedly passed the early warning information to community members through radios, bulk short messages, community meetings (barazas) and through social media platforms (WhatsApp, Facebook etc.)

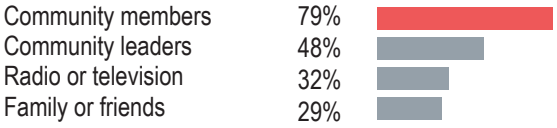
However, 52% of HHs reported that they had not received any desert locust early warning information. Of the 48% HHs that reported having received desert locust early warning information, 78% reported being warned of possible destruction of vegetation cover. In addition, 80% reported having received the information from other community members. Almost all HHs (97%) that had reportedly received desert locust early warning information did not respond to that information in any way.

Most of the KIs reported being involved in the identification of areas infested by desert locusts. A majority of them reported relying on information provided to them by community trained scouts, social media, community surveillance and aerial surveillance to identify the areas infested by the desert locusts. In addition, **a considerable proportion of HHs reported community surveillance (84%) and aerial surveillance (61%) as the main activities carried out to identify areas infested by desert locusts.** HHs reported that community leaders (72%), community members (66%) and government officials (60%) were involved in identifying areas that were infested by desert locusts.

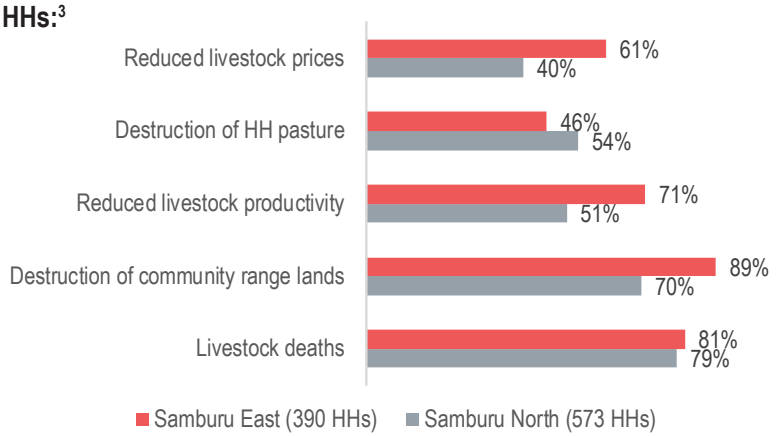
% of HHs that reportedly received desert locust early warning information:



HHs reporting sources of desert locust early warning information:[3]



Top reported desert locust early warning information received by HHs:[3]



IMPACT OF DESERT LOCUST INVASION

All HHs (100%) in Samburu North and East reported to have either heard about or been affected by the desert locust invasion since December 2019. In addition, **all the HHs reported to have incurred some losses due to the desert locust invasion, with the top reported loss incurred being livestock deaths (80%).**

All the interviewed KIs reported that at least one village in all the wards in Samburu North and East had been invaded by the desert locusts since December 2019 and consequently, some community members lost pastures, farm crops and livestock. In addition, there was reported livestock and human migration which led to conflicts within the community and a drop in prices for livestock and livestock products.

Top reported losses incurred by HHs due to the desert locust invasion:[3]

	Samburu North	Samburu East
Livestock deaths	79%	81%
Destruction of community range land	70%	89%
Destruction of HH pasture	54%	46%
Reduced livestock productivity	51%	71%
Reduced price of livestock and livestock products	40%	61%

[3]*HHs could select multiple answers*

Desert locust eating vegetation from community range land in Ngilai, Elbata ward, Samburu North sub-county. Photo credit: Caritus Maralal

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DESERT LOCUST CONTROL MEASURES

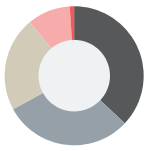
Almost all KIs (7 out of 8) reported that the organizations and/or departments they were working for had been involved in desert locust control operations in Samburu North and East Sub-counties. Most of the KIs reported being involved in ground and aerial spraying of desert locusts. In addition, they reportedly trained some community members on how to monitor the desert locust movement, how to scare away the desert locusts and how to handle pesticides for desert locust control.

All HHs (100%) reported that there were measures being carried out in their communities to control the spread of desert locusts. **Scaring away the desert locusts by chasing and shouting was the most common control measure (92%) undertaken by the community, followed by aerial spraying (59%) then ground spraying (12%)**. About two-thirds of HHs (67%) reported that these control measures were undertaken less than one month after the desert locust invasion in their community which **either stopped or decreased the spread of the desert locusts, as reported by 49% of HHs.**

Of the desert locust control operations reported by KIs, ground and aerial spraying were perceived as the most effective ways of controlling the desert locusts. However, some KIs reported that the pesticides used might have had some side effects especially on livestock feeding on pasture that had been sprayed. The KIs also perceived scaring away desert locusts as the least effective desert locust control measure because after scaring them away from one location, they would be found just a few meters away.

When the desert locust control measures were carried out in the community, as reported by HHs:

Less than one week after desert locust infested my village	37%
More than one week but less than one month after desert locust infested my village	30%
More than one month but less than three months after desert locust affected my village	22%
More than three months but less than six months after desert locust affected my village	10%
More than six months after desert locust affected my village	1%



Reported impact of desert locust control measures carried out in the community:

Spread of desert locust stopped	9%
Spread of desert locust decreased	40%
Spread of desert locust continued but no damage to pasture and crops	9%
Spread of desert locust continued and slight damage to pasture and crops	29%
Spread of desert locust continued and severe damage to pasture and crops	13%

DESERT LOCUST RECOVERY MEASURES

Most KIs (7 out of 8) reported that their organizations or county departments provided at least one type of recovery assistance to desert locust affected HHs. The recovery assistance provided included: distribution of relief food, providing unconditional cash transfers, farm crops seeds, pasture seeds, livestock feeds and veterinary services.

On the contrary, a high proportion of HHs (79%) reportedly did not receive any form of recovery assistance and **most of the KIs reported that the assistance provided did not reach all the desert locust affected HHs.**

Of the HHs that reportedly received cash assistance, 87% had received unconditional cash transfer and 11% had received cash for work. About three-quarters (75%) of those HHs, reportedly received the assistance from non-governmental organizations (NGO). Roughly a quarter of the HHs (26%) that had received assistance reported that the assistance was received one week but less than one month after their HH was affected by desert locust infestation. Ninety-three percent of HHs (93%) reported being satisfied or very satisfied with the assistance received while **4% were either dissatisfied or very dissatisfied with the assistance.**

About three-quarters of HHs (77%) that had received desert locust recovery assistance reported that the assistance had significantly increased their income likely because a higher proportion of them had received unconditional cash transfer. In addition, KIs reported that the assistance they provided cushioned HHs from pronounced effects of desert locust infestation such as loss of livelihoods.

% of HHs that reportedly received desert locust infestation recovery assistance:

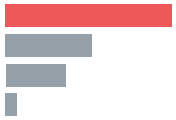
Yes	21%
No	79%

Top reported impact of desert locust recovery assistance, as reported by HHs that received it:[3]

Increased income	77%
Improved animal health	27%

HHs reporting sources of desert locust infestation recovery assistance, as reported by HHs that received it:[3]

NGO officials	75%
Government officials	39%
Community leaders	27%
Community members	5%



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PREPAREDNESS TO RESPOND TO FUTURE DESERT LOCUST INVASION

Kenya is likely to encounter a second wave of the desert locust infestation from mid December 2020.[2] However, **39% of HHs reported that they were not prepared to respond to a future desert locust infestation.** In addition, more than half of the KIs (5 out of 8) reported that their organizations/county departments were not well prepared to respond to future desert locust infestation mainly due to limited resources.

Some KIs reported that their organizations or county departments **had put in place measures to monitor the trend and movement of desert locusts, and others had put in place better surveillance and reporting capacity for effective future response**. Some organizations or county departments were reported to be monitoring areas infested by the desert locust in order to understand the overall effects of desert locust invasion to the environment.

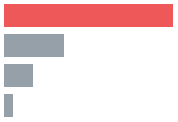
In addition to organizations or county departments being prepared for future desert locust infestation, some HHs (76%) reported that they would report future desert locust invasion in their communities to community leaders, government officials, community members, NGO officials and to family or friends. Seventeen percent (17%) of HHs had reportedly started collecting tins and iron sheets that they would use to scare away desert locust and 8% reported that they would migrate to other areas in case of future desert locust infestation.

% of HHs that were reportedly prepared to respond to future desert locust infestation:

Yes	61%
No	39%

Top reported future coping strategies to desert locust infestation by % of HHs:[3]

Report to community leaders, NGO officials, etc.	76%
Scare away desert locusts using tins	27%
Migrate to other areas	13%
Spray desert locusts	4%



CONCLUSION

The desert locust response provided in Samburu North and Samburu East reduced or stopped the spread of desert locusts, as reported by 49% of HHs. In addition, the HHs that received recovery assistance perceived their income to have increased and the health of livestock to have improved.

Findings indicate that much has been done to control the spread of desert locusts with a majority of the KIs reporting being involved in ground and aerial spraying of desert locusts. However, interventions to assist affected HHs recover from the effects of desert locust infestation have not been effective, as 79% of HHs reportedly did not receive any form of recovery assistance. In addition, most of the KIs **reported that the assistance they provided did not reach all the desert locust affected HHs.**

HHs were reportedly not adequately prepared to face future desert locust infestations with 39% of HHs reporting that they would not do anything to cushion their HHs from the effects of desert locust infestation. Some KIs (5 out of 8) reported that their organizations/county departments were not well prepared to respond to future desert locust infestation mainly due to limited resources.

About REACH:

REACH Initiative facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT).