



Technical Report for the Karamoja Development Partners Group

DROUGHT RISK MANAGEMENT IN KARAMOJA: A REVIEW OF FUNCTIONALITY AND CAPACITY

July 2021

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KARAMOJA RESILIENCE SUPPORT UNIT
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A REVIEW OF FUNCTIONALITY AND CAPACITY

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ACRONYMS AND ABBREVIATIONS

ACTED	Agency for Technical Cooperation and Development
CAO	Chief Administrative Officer
CP	Contingency Plan
CRS	Catholic Relief Services
DDMC	District Disaster Management Committee
DFID	Department for International Development
DINU	Development Initiative for Northern Uganda
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EU	European Union
EW	Early warning
EWS	Early warning system
FAO	Food and Agriculture Organization
FG	Focus group
FMD	Foot and mouth disease
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GoU	Government of Uganda
IF	Indigenous forecast
IGAD	Inter-Governmental Authority on Development
IPC	Integrated Phase Classification
KRSU	Karamoja Resilience Support Unit
KSH	Kenyan shilling
LEGS	Livestock Emergency Guidelines and Standards
LITS	Livestock Identification and Traceability System
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MC	Mercy Corps
NDMA	National Drought Management Authority
NDVI	Normalized difference vegetation index
NECOC	National Emergency Coordination Centre
NGO	Non-governmental organization
NUSAF	Northern Uganda Social Action Fund
OPM	Office of the Prime Minister
PROACT	Pro Resilience Action project
RAC	Resilience Action Committee
RPLRP	Regional Pastoral Livelihood Resilience Project
SF	Scientific forecast
SPI	Standard Precipitation Index

ACRONYMS AND ABBREVIATIONS

SWOT	Strengths, weaknesses, opportunities, and threats
TEWS	Traditional early warning system
UGX	Ugandan shilling
UNICEF	United Nations Children’s Emergency Fund
UNMA	Uganda National Meteorology Authority
UPDF	Uganda People’s Defence Force
USAID	United States Agency for International Development
VCI	Vegetation Condition Index
VDMC	Village Disaster Management Committee
VSLA	Village savings and lending association
WASH	Water, sanitation and hygiene
WFP	World Food Programme

SUMMARY

In the history of Karamoja, drought has been one of the most important types of disaster, with major impacts on livelihoods. For livestock-owning households, drought can push both wealthy and poorer households into destitution, and the recovery of herds, their main form of financial capital, takes many years. Drought also has serious impacts on crop production and can decimate harvests. In the case of livestock interventions, there have been notable developments in effective drought response in many countries in the wider East Africa region, including novel partnerships between government, non-governmental organizations (NGOs) and private sector to provide early and more cost-effective programming. Against this wider process of strengthened capacity and professional interest in livelihoods-based drought preparedness and response across much of East Africa, this report assesses the functional status of drought management in Karamoja. The review includes community capacities, the Government of Uganda's (GoU) Disaster Risk Management (DRM) program and the contributions of donor-funded projects.

Communities in Karamoja apply traditional early warning (EW) practices for disaster preparedness. Some of these practices include indicators that are based on plant/animal behaviors, patterns in planetary bodies, and wind and rainfall occurrences for early detection of imminent droughts and floods. However, the system needs to be assessed further and documented, as a host of external factors are compromising its importance and acceptance. During the review, community informants stressed that their drought coping mechanism has diminished or lost its relevance due to recurring and emerging disasters, coupled with the recent resurgence of cattle raids and the reinstatement of the "protected kraal system."

District Disaster Management Committees (DDMCs) in Karamoja are non-functioning institutions, principally due to a complete lack of resources for disaster preparedness or mitigation. For example, monthly EW bulletins have not been issued since the phasing out of the European Union (EU)-funded project in 2018; the then-contingency plans (CPs) were also left on shelves. Meanwhile, through a new initiative supported by "Strengthening Shock-Responsive Systems in Karamoja" (PROACT Project) from 2021, DRM training sessions were conducted by the World Food Programme (WFP) and the Food and Agriculture Organization (FAO) for DDMCs. These sessions led to the formulation of new CPs, with projected cost estimates for the next five years by all nine districts, in February 2021. FAO reportedly provided additional support by placing EW consultants in each of the districts as of July 2021 to

kick-start EW bulletins. However, all DDMC members, including WFP and FAO staff, concede that the CPs are unlikely to be funded by the Government.

Linkages between DDMCs and the National Emergency Coordination Centre (NECOC) are weakened by coordination gaps. NECOC is a center formulated by a policy document, without an Act and a contingency budget of its own. NECOC relies on funds from the Ministry of Finance when disasters occur. This arrangement has resulted in an uneasy relationship between the DDMCs and NECOC. DDMC members understand the position of NECOC but also take the blame for failing to respond at the front line. DDMC members have reached a point where they consider DDMC tasks additional burdens on top of their other more regular responsibilities. As a result, scheduled DDMC meetings take place only when the situation warrants. NECOC also shares the frustration of DDMCs while acknowledging that it is in no position to change the status quo. In reality, the development of the government DRM system in Karamoja into an effective and functional system depends heavily on political will at the highest levels of government.

Linkages between DDMCs and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) are limited to informing the latter on livestock disease outbreaks and pest infestations. However, responses arrive either too late or not at all. Similarly, the government's Regional Pastoral Livelihood Resilience Project (RPLRP), housed in MAAIF, had no meaningful coordination with DDMCs in the last five years, "since there was no emergency declared at the national level." The project's linkage with DDMCs has only been to provide limited funds for the training of some Village Disaster Management Committees (VDMCs) in the sub-region. The RPLRP's upcoming second phase project (not yet funded) doesn't include DRM at all.

There are various large-scale resilience/development projects under implementation in Karamoja. These include: the Development Initiative in Northern Uganda (DINU); the Northern Uganda Social Action Fund (NUSAF 3); the Pro Resilience Action (PROACT) project; and Apolou and Nuyok projects. NUSAF 3 is a risk financing program with a safety net provision and a grants scheme. As such, a main focus is risk mitigation. DINU is a development program financed mainly by the EU and the GoU. Apolou and Nuyok are United States Agency for International Development (USAID)-funded resilience-focused programs. Other smaller resilience-oriented projects are also operated by some NGOs in Karamoja.

As a risk financing program, NUSAF 3's focus is on providing support to communities ahead of imminent disasters. But, what is obviously missing in the other large-scale resilience/development programs is a risk modifier component. The limited exceptions are Mercy Corps (MC), which has set aside a small contingency fund, and WFP, which has provisions for anticipated cash transfers before a full-blown disaster, although the amount is unknown. More concerning is the non-familiarity of many NGOs with the very concept of DRM itself, despite working in a disaster-prone area that requires risk-modifying interventions from time to time to safeguard the gains made by main program components. Similarly, NGOs appear to be not familiar with the well-established international humanitarian standards that advise on drought management and emergency livestock programming—the Livestock Emergency Guidelines and Standards (LEGS)—in a sub-region that is largely populated by livestock-dependent households. In part, this unfamiliarity could be attributed to donors providing limited options for incorporating risk modifiers in their program designs.

In section 9 the report makes a number of recommendations. Many of these can be put to action through donor-NGO meetings by reaching a common understanding on issues of concern. The recommended livestock traceability system will require the buy-in of the ministries of Karamoja Affairs, Defense and MAAIF. However, the most challenging recommended issue to resolve will be a profound policy change to raise the status of NECOC from a policy-based center to that of a legally-defined structure under an Act, with a dedicated budget and contingency funds. This change obviously requires a political will at the highest level.

INTRODUCTION

This report was commissioned by the Karamoja Resilience Support Unit (KRSU) to assess the functional status of DRM in the Karamoja sub-region. The assessment took place between mid-May and mid-June 2021 in Karamoja, Kampala and Entebbe.

This report begins with a brief account and historical overview of droughts in Karamoja along with predicted future climatic trends. This account and overview is followed by a narrative on the traditional forecast system, including the view of communities on their capacities in coping with droughts and other types of disasters. The third section provides some details on the preparedness and disaster management capacities of DDMCs. This section also looks into the level of coordination (and gaps) between the DDMCs and the NECOC, MAAIF and RPLRP.

The fourth section examines the extent to which substantial resilience/development programs have incorporated disaster mitigation activities, either through contingency funds earmarked for such purposes or from other potential sources. The DRM capacities of DDMCs and NGOs are summarized in the fifth section through a strengths, weaknesses, opportunities, and threats (SWOT) analysis. This analysis is followed by a brief account of the drought management cycle in the sixth section. The seventh section reviews contingency funding systems and current practices in the region. The last two sections provide conclusions and recommendations—pertaining to DRM but also other related issues of concern identified during the assessment.

OBJECTIVE

The overall objective of this assessment was to make recommendations as to how disaster risk management can be effectively integrated into development and resilience programming in the Karamoja sub-region, with an emphasis on drought management. The report also provides recommendations on how linkages and coordination for disaster management can be improved by assessing prevailing issues through primary and secondary sources.

METHODOLOGY

Both primary and secondary sources were used for this assessment. In Karamoja, interviews were conducted with ten community focus groups (FGs): two in Napak District and one each in the other eight districts; with DDMCs in all nine districts; and also with staff of MC, FAO, WFP, Catholic Relief Services (CRS), CARE, Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) and DINU. Further discussions were held with: the

Director and the Project Officer of NUSAF 3; the Assistant Commissioner of Disaster Response (also standing in for Disaster Preparedness and Response Commissioner in the Office of the Prime Minister (OPM)) and focal point for NECOC; and the Coordinator of RPLRP at MAAIF in Kampala and Entebbe. Relevant literature and documents were consulted, as needed.

Limitations: the views expressed by community FGs in this report reflect only the opinions of those interviewed at the time. As such, the findings should not be taken as representing the views of Karamojong communities at large.

I. BRIEF OVERVIEW OF DROUGHT EPISODES IN KARAMOJA

Together with conflict-related shocks, recurrent droughts have contributed to Karamoja being the most food-insecure area of Uganda.¹ As recently as 1980, Karamoja faced a severe drought that caused famine and claimed the lives of an estimated 50,000 people² and persuaded Don Vittorio, an Italian priest-philanthropist, to move his base from Gulu town to Karamoja for a massive relief operation. The priest finally made Moroto his permanent camp and set up the Cooperation & Development³ (C&D) NGO. During the 1980 drought, mortality among Karamojong children aged 1–4 years reached 305/1,000, and across all age groups was 212/1,000. The specific causes of death were starvation (78%) and disease (20%).⁴ Meanwhile, coupled with previous drought episodes, the livestock population was estimated to decline from 700,000 to 100,000⁵ by the end of the 1980 famine.

Depending on various sources, successive drought episodes reportedly took place in 2002, 2004, 2006 and 2009, including a mild one in 2008.⁶ Such recurrences at short intervals invalidated the previously accepted notion that the sub-region experiences drought once in a four-year cycle. In addition to droughts, the population suffered from relentless cattle raids launched by different armed groups after the disarmament campaigns that were meant to end livestock-based conflicts. In common with other pastoralist areas of East Africa, recurrent drought and conflict over decades are associated with pastoralist destitution and a skewed ownership of livestock towards

wealthier herders. According to the Uganda Bureau of Statistics (UBOS),⁷ in 2002, between 32 and 57% of households owned no cattle, 49 and 64% no goats, and 59 and 68% no sheep, although the percentages varied by the district. More recent reports also indicate a drop in livestock holdings but show more specifically which households are affected. Between 2012 and 2014, there was a decrease in livestock holding among very poor and poor households, but with gains made by middle and better-off households.⁸ Surveys in 2015 identified that 40% of the population did not own any livestock.⁹ A KRSU study in 2019 reported that 56.5% of households in Karamoja owned insufficient livestock to function as an agro-pastoral or pastoral household, and the wealthiest 30% of households owned 69.3% of the animals.¹⁰

As recently as January 2016, Integrated Regional Information Networks (IRIN) media reported that at least 640,000 people in Karamoja region—more than half the population—were facing food shortages as a result of a drought-affected harvest that impacted 31 of the 52 sub-counties, which required WFP food assistance for three months.¹¹ In February 2017, NTV Uganda¹² reported that “people in Karamoja are living on the edge of life and death.” In December 2018, more than 700 cattle were reported to have died due to lack of water and pasture shortage, as a major source of water—the Kobebe dam—was drying up. A Kotido District chairperson stated for that year that “by April, Karamoja usually gets some rain

¹ Akwana, D. et al. (2017). Effect of drought early warning system on household food security in Karamoja subregion, Uganda.

² Lind, J. and Sabates-Wheeler, R. (2016). Changes in the drylands of Eastern Africa: Case studies of pastoralist systems in the region. Institute of Development Studies (IDS).

³ Personal communication with Yemane, a former employee of C&D.

⁴ Biellik, R. J. and Henderson, P. L. (1981). Mortality, nutritional status and diet during the famine in Karamoja, Uganda, 1980. *Lancet* (December 12): 1330–1333.

⁵ Sandford, R. H. D. (1988). Proposals for Oxfam’s role in livestock development in Kotido District, Uganda. Oxfam GB, Kampala.

⁶ See Lind, J. et al. Changes in the drylands and Nakalembe, C. (2010). Agricultural land use change in Karamoja, Uganda. *Land Use Policy* 62:2–12.

⁷ Uganda Bureau of Statistics (UBOS). (2002).

⁸ Food and Agriculture Organization (FAO). (2015). Livelihood zones and profile. FAO, Kampala.

⁹ World Food Programme, United Nations Children’s Emergency Fund, Government of Uganda (WFP/UNICEF/GoU). (2014). Food security and nutrition assessment (FSNA) in Karamoja. WFP, Kampala. http://documents.wfp.org/stellent/groups/public/documents/ena/wfp274165.pdf?_ga=1.154703096.1171403768.1460369463.

¹⁰ Catley, A. and Ayele, M. (2018). Livestock and poverty in Karamoja: An analysis of livestock ownership, thresholds, and policy implications. Karamoja Resilience Support Unit (KRSU), United States Agency for International Development (USAID)/Uganda, UK aid, and Irish Aid. Kampala. <https://karamojaresilience.org/publications/livestock-and-poverty-in-karamoja-an-analysis-of-livestock-ownership-thresholds-and-policy-implications/>.

¹¹ <https://www.un.org/africarenewal/news/uganda%E2%80%99s-karamoja-faces-drought-emergency>.

¹² <https://www.youtube.com/watch?v=sJKFWcwgFEY>.

but there was not even a single drop of water during that period.”¹³

The worsening situation is depicted by the Integrated Phase Classification’s (IPC) bleak picture on the food security situation¹⁴ following an assessment of 9 Karamoja districts, 11 refugee hosting districts, 14 refugee settlements and 11 main municipalities.¹⁵ For the period September 2020–January 2021, IPC projected that 17% of the analyzed population (2 million people) were facing high levels of food insecurity (phase 3 or above); 38% of the population were under stressed conditions (phase 2); and 40% were in a minimal acute food insecurity situation (phase 1). A further analysis of acute malnutrition focusing on 9 Karamoja districts, 8 refugee hosting districts and 11 refugee settlements classified Moroto District as being in a critical phase (phase 4), Napak as being in a serious phase (phase 3), and 7 districts were classified to be in an alert phase (phase 2). The projection indicated that around 195,000 children were actually malnourished in 2020, with 25,000 suffering from severe acute malnutrition and 170,000 suffering from moderate acute malnutrition.

Despite these facts, meteorological data on historical trends and future projections provide a different picture. Using various sources, MC¹⁶ summarized historical trends and future meteorological projections, as follows:

Historical trends: 1970–2010 marked a trend of increasing rainfall from October–December over the entire Karamoja region. March–May rainfall has increased over the north and decreased in the south. The start of the rainy season has been highly erratic from 2009–2014. The average annual rainfall varies from one district to another, ranging from 703.93 to 1171.87 mm in Lokok and Lokere sub-catchments (1980–2010).

Future projections: March–May rainfall increases over all Karamoja until 2050. October–December rainfall is projected to go up, with about a 42% increase simulated by the middle emissions scenario. Projections indicate rainfall reduction in the range of 14% to 41% for July–September.

Daily rainfall variation: More days with lower rainfall; a small but increasing fraction...of days might receive more rainfall than ever recorded before.

Temperature: Projections suggest there will be days reaching high temperatures, which were previously rare.

The climate projection predicts more floods in some parts of Karamoja, while there is a possibility of drought in areas on the leeward side. This scenario is already happening in the sub-region. Focus groups in flood-prone areas reported that floods have been major causes of disaster in the last six years (in parts of Moroto, Napak, Nabilatuk and Abim Districts); meanwhile, other areas of the sub-region suffered from drought.

To obtain historical information from communities, the assessment team tasked FGs in Moroto and Napak Districts with providing oral histories, listing events of importance in chronological order. This information on climatic events, good and bad years, and other social highlights is chronicled in Annex I. We hope the information helps in understanding what communities consider to be important highlights in traditional calendars.

¹³ <https://reliefweb.int/report/uganda/700-animals-die-karamoja-drought-persist>.

¹⁴ Note that the study also covers other districts outside Karamoja.

¹⁵ <http://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1152896/?iso3=UGA>.

¹⁶ Mercy Corps (MC). (2016). Karamoja strategic resilience assessment. Final report.

2. COMMUNITY DISASTER MANAGEMENT CAPACITIES

2.1 COMMUNITY EARLY WARNING (EW) CAPACITIES

Managing or mitigating the impacts of disasters necessitate having some kind of early warning system (EWS) in place to forewarn and prepare communities. In parallel to modern weather forecasts, the little-known forecast system used by communities, particularly in pastoral and agro-pastoral settings and to some extent in farming communities, is the traditional early warning system (TEWS). TEWS is a place-based forecast system developed from generational observations of the behavior of animals and birds, plant growth, and the appearance, alignment and movement patterns of planetary bodies. TEWS also makes use of traditionally accepted beliefs embedded in the local system—such as interpreting the dreams of foretellers (seers) and the intestine readings of slaughtered cows and goats. Seers hold considerable influence and power in Karamoja and neighboring countries. In Karamoja they are called *amuron* (female) and *emoron* (male).¹⁷ In common with other pastoral/agro-pastoral peers,¹⁸ the Karamojong possess a well-established TEWS to forecast the weather and presumably other impending fortunate/unfortunate events. See Table 1 for Karamojong traditional indicators and their anticipated implications.

Interpretations of seers' dreams and intestine readings may appear to imply dependence on beliefs within the paranormal realm. Yet this team was told by one FG that drought was predicted as far back in March 2021 by one intestine-reading seer.¹⁹ In fact, the concern of FG members was the death of many seers due to old age, "taking the good Gods (*Ngipian*)" of those days with them. The FG members

stress that present-day *Ngipian* fail to listen to prayers, as the youth have stopped listening to and obeying their elders.

Moving away from such paranormal indicators, forecasts based on the behaviors of animals, plant growth, bird behavior and movements, and celestial bodies (including wind directions and movement patterns) have been proven to be no less effective than formal weather forecasts, which base their predictions on numerical and statistical analysis of sea surface temperature anomalies and rainfall time series analysis. Even sophisticated global and regional assessments reportedly miss the weather dynamics at the micro level for accurate predictions of location-based geographic units.²⁰ A study carried out in northeast Kenya reports that, with proper application, the place-based TEWS system can forecast an imminent drought a month ahead of its onset.²¹

The Karamojong have been guided by TEWS, perhaps for centuries, on what course of action they have to take to manage or mitigate imminent disasters. That forecasting capacity is still there, although for a few farming and evangelized communities, it is becoming "a thing of the past." Yet its importance is also upheld by some of the DDMCs, e.g., in Kotido, Amudat, Abim and Karenga. These DDMCs incorporate the perspectives of community forecasts during EW assessments. For example, pastoral/agro-pastoral households in Amudat associated the recent arrival of locust swarms to be followed by adequate rainfall season, which actually resulted in communities having two harvests in that year, according to the district DDMC. In addition to the DDMCs, MC and GIZ officers in Moroto also include forecasts from TEWS when conducting assessments.²²

Table 1. Some Karamojong traditional indicators and their anticipated implications

Indicators	Forecasts
<i>Trees not blooming in the season (particularly tamarind)</i>	<i>Drought</i>
<i>Wilting of pasture or grass</i>	<i>Drought</i>
<i>Tree leaves fall off in October–January</i>	<i>Bad year</i>

Continued on next page

¹⁷ Akabwai, D. and Carlson, C. (2011). Pastoral seers of East Africa—Karamoja and Toposaland. E6Stock, Fort Collins.

¹⁸ For example, the Borans in Ethiopia and Kenya; Somalis in Ethiopia, Kenya and Somalia; and the Afars in Ethiopia.

¹⁹ Kapei Lok village FG, Kotido.

²⁰ Masinde, M. (2014). An effective drought early warning system for sub-Saharan Africa: Integrating modern and indigenous approaches. SAICSIT2014, September 29–October 01, 2014, Centurion, South Africa. <http://dx.doi.org/10.1145/2664591.2664629>.

²¹ Pratt, C. (2001). Traditional early warning system in Northeast Kenya. Feinstein International Famine Center Working Paper No. 8. <https://reliefweb.int/sites/reliefweb.int/files/resources/B3EBEB9A77707A0AC1256C23003E94CE-fifc-ken-31jan.pdf>.

²² Interview held with the Manager and Technical Director of MC. Moroto, May 20, 2021.

Continued from previous page

<i>Too many rodents</i>	<i>Indicates good year—adequate harvest</i>
<i>Appearance of yellow-colored birds (Ngalibae)</i>	<i>Good rain</i>
<i>Appearance of Ngasurui birds</i>	<i>Bad year; the birds also eat grains</i>
<i>Quill birds coming from the lakes</i>	<i>Good year with rains</i>
<i>Appearance of black birds (Ngaparkitela)</i>	<i>Good year</i>
<i>Appearance of white birds (Ngabongia)</i>	<i>Bad year as it feeds on sorghum; Ekutelek worms that feed on crops also emerge from the feces of these birds; women destroy nests.</i>
<i>Ataparonkitela bird with white front, black back and long thin legs</i>	<i>Its effect is the same as Ngabongia (above). Women destroy the nests of these birds.</i>
<i>Noise of Elele bird</i>	<i>If it makes noise at night or in the evening, it indicates a bad year; if it makes noise in the morning, it implies good rains.</i>
<i>Appearance of green and yellow feathered birds (Ngalibai)</i>	<i>Good harvest</i>
<i>Ekokom bird</i>	<i>Is thought to disturb the clouds as it flies high in the sky. Women destroy the bird nests.</i>
<i>Cows passing urine and dung while resting</i>	<i>Drought (perhaps a late indicator)</i>
<i>Ngankokinei (a cluster of six stars) and Ngatyong (a cluster of eight stars)</i>	<i>Both are used for counting the year and the seasons.</i>
<i>Happening of a Lomoroko star (that leaves a milky path as it moves from east to south)</i>	<i>Extraordinarily dry year. Lomoroko's devastating impacts are legendary in Moroto, Napak, Nakapiripirit, Amudat and Nabilatuk.</i>
<i>A cluster of four stars in upright position</i>	<i>Bad year</i>
<i>If the same stars are slanted to the north</i>	<i>Good year</i>
<i>Ngiramakalu star</i>	<i>Its movement from east to south heralds that rain is coming.</i>
<i>Ngiremetom star</i>	<i>If its movement from east to north is accompanied by lightning, rain will come on time; with no lightening, it will be a bad year.</i>
<i>If a cluster of three stars (Ngakanyer–Ngauni) stay on the horizon</i>	<i>It means that it is time for cultivating sorghum and it will be a good year; when the stars disappear early from the horizon, it means it is time for planting beans and vegetables; if the stars disappear early, it means it will be a bad year.</i>
<i>Clouds below the Moroto mountain</i>	<i>Much rain is coming; if the clouds are high above, it means drought is eminent and raids are anticipated.</i>
<i>Too much early rain</i>	<i>Drought, as this will be followed by a dry spell</i>
<i>The sun (depending on the season)</i>	<i>When it bends to the south, there will be rain; when it bends to the north, it means no rain.</i>
<i>The moon (depending on the season)</i>	<i>When it bends to the north, it is a wet season; when it bends to the south, it is a dry season. If the moon stays blue when ascending, it means a good year with rains; if it stays white, it means a dry season with no rains.</i>

Note: The team was not able to identify the English equivalent names for the stars and birds due to time shortage.

2.2 DISASTER MANAGEMENT CAPACITY OF KARAMOJONG COMMUNITIES

In the last five to six years, continuous flash floods have added another dimension to the plethora of disasters the Karamojong have been facing. What makes this phenomenon intriguing is the same district can simultaneously suffer from drought and floods subject to the locations of the windward and leeward sides of the mountains.²³ Other commonly occurring disasters in Karamoja include human and livestock diseases; conflict and cattle raiding; pests and crop diseases; land use conflict (wild animals vs. humans); and, of late, COVID-19 and the recent locust invasion. In terms of overall importance expressed by FGs, drought is at the top of the list, followed by either human and livestock diseases or conflict and cattle raids. However, priorities vary for the other disasters by district. For example, flood was ranked top by two of the FGs in Napak, while wildlife destruction was considered the major problem by the DDMC in Karenga under the present context. To sum up, the frequent recurrence of disasters such as drought and conflict, the emergence of new hazards such as flash floods, and the impacts of COVID-19 restrictions have greatly reduced the capacity of communities to manage disasters. It is also important to recognize that even in “good” years, levels of food insecurity and malnutrition in Karamoja are alarmingly high.

Looking specifically at recent droughts, the age-old coping mechanism of migrating livestock to Teso, Lango, Acholi and Sebei areas has been hampered from 2018 to 2020 due to government-imposed movement restrictions and the closure of livestock markets following foot and mouth disease (FMD) outbreaks. The tail end of these measures also coincided with the introduction of COVID-19 restrictions,²⁴ many of which remain in place up to June 2021. The combination of dry spells, FMD outbreaks and market closures has caused a long and persistent period of hunger according to FG discussants.²⁵ The resulting impoverishment in turn reignited cattle rustling almost to the level it was before the pre-disarmament campaign. This period marks one of the toughest for the Karamojong. Livestock markets were reopened, providing a brief respite until they were closed again in June 2021.

To treat human diseases, FG discussants reported that they go to the nearest dispensary, clinic or hospital for treatment.

For livestock diseases, herd owners buy medicine from private drug stores, according to the verbal information they provided on disease symptoms. Nearly all FG participants in the nine districts stressed that veterinary medicines are not working and animals are dying despite treatment, except in a few cases. This reflects the limitations of veterinary services in the sub-region, as livestock owners have very limited access to diagnostic services. In addition, available drugs may be fake, expired or adulterated.

Conflicts and raids have been on the rise in recent years. According to some elderly FG discussants, this increase is due to the increasing impoverishment of communities, as cattle raiding provides a temporary coping mechanism for survival, despite the risk of being killed. Informal sources also attribute the rise in raiding to the re-arming of individuals, and as a result, the Uganda People’s Defence Force (UPDF) has reinstated “protected kraals” in some districts. The combined effects of livestock diseases and raids, according to a well-informed source of a DDMC member in Kaabong, have resulted in a loss of some 60% of the livestock in the district. The same source added that raids have become sophisticated in that stolen animals are first taken to Turkana for exchange with Turkana cattle, or they are brought back through different routes to be sold in markets far away from where they were originally raided. Similarly, in Karenga District, DDMC members confirmed that a good proportion of the district livestock population has been decimated by livestock diseases and raids. FG members in Karenga further explained that recent conflicts have gone beyond cattle rustling, as “raiders rob and steal household items, including bed linens, etc.” In Moroto, petty theft is increasing, according to some of the residents.

FG discussants also stated their hapless position, as the security authorities do not respond to their calls when raiding or other similar incidents happen. Security forces instead give orders to communities to bring their livestock to protected kraals for overnight stay. This was confirmed by a local newspaper, which reported the looting of 1,000 cattle and the killing of 17 people in a space of 12 days (May 19–June 1, 2021) between Nabilatuk and Nakapiripirit Districts. The report further added that former UPDF members are fanning the conflict.²⁶ To sum up, this vicious cycle of conflicts and raids is propelling tit-for-tat reactions, as a group that has been victimized at one time waits for an opportune time not only to recover lost livestock but also to

²³ When air runs into a mountain, the side of the mountain that it hits first is called the **windward side**. Air is forced to rise, and this side of the mountain often sees the heaviest precipitation. The opposite side of the mountain is called the **leeward side** and usually sees much less precipitation, as the descending air on the leeward side is warmer and drier.

²⁴ For more details of COVID-19 restrictions and their impacts see Arasio, R. L., Catley, A., Ayele, M. (2020). Rapid assessment of COVID-19 impacts in Karamoja, Uganda. KRSU, USAID/Uganda, Kampala. https://karamojaresilience.org/wp-content/uploads/publications/2020/tufts_2037_krsu_covid_19_v2_online.pdf.

²⁵ The Karamojong use the word “hunger” as a synonym for drought.

²⁶ *Daily Monitor*. (June 3, 2021). 17 shot dead in revenge cattle raids in Karamoja.

avenge the deaths of family members.

According to all FG groups, even in good rainfall years, crop pests and diseases continuously affect food production significantly. Yet the most common remedial actions taken by FGs are limited to spreading ashes and cow urine on crops and vegetables. Some of the FGs stated that they take no action at all. Only one FG in Kanyikwar village (Karenga District) claimed to make use of pesticides in combination with ashes.

Floods have become additional hazards in the last five to six years, destroying houses and farm plots. There has been drownings of children and even adults. Communities stated having no option but to flee to safe areas when the floods occur.

Land use conflict between humans and wild animals happens close to Kidepo National Park, affecting communities in Kaabong and Karenga, and as far away as Abim District. FGs reported that wild animals (elephants and buffaloes, in particular) not only destroy farm crops but also kill humans on occasion. In common with the darker side of African safaris reported elsewhere,²⁷ there is no compensation mechanism for damaged crops or for those killed by wild animals (even providing a simple coffin to the bereaved families is not considered, according to one DDMC member). Conversely, individuals killing wild animals, even in self-defense, end up in prison. FGs stated reporting wildlife incidents to the authorities so far has elicited no relevant action.

Left with no other viable options of their own, communities seem to hang on alternative strategies to manage/mitigate disasters. The first one is engaging in crop production, particularly by women (it is considered to be their domain), but in a context of unreliable rainfall. This strategy is followed by migration to Moroto, Mbale and other towns in search of wage labor,²⁸ in addition to mineral prospecting and charcoal production to raise cash income. The other traditional strategy is the result of the Karamojong warrior mentality—cattle rustling. Rustling is seen as a quick way to acquire assets if one survives the raid; it is also a fast way of losing assets, including precious lives. Violent raiding is a sad fact of life within Karamojong communities from which

they have not been able to extricate themselves for various complex reasons.²⁹ The third strategy involves bridewealth cattle payments. Unlike other pastoral communities where better-off community members contribute foundation stock for reestablishing less-fortunate households, the Karamojong are not used at all to such social practices. The most a better-off household can offer to a close relative is a milk cow on a loan basis. However, even this practice is currently in decline, and better-off herd owners have started resorting to providing a cup of milk only for those with infants.³⁰ In the Karamojong community, destitute families can only reestablish themselves principally through receipt of bridewealth and/or by cattle rustling. In such a case, a good proportion of the bridewealth cattle are kept by the immediate parents. The rest is divided among kin. In rare cases, a close friend of the family may receive a head of cattle. As such, bridewealth payments serve two purposes: they redistribute livestock assets among community members and support poor families to reestablish themselves.

External support for communities to manage disasters:

Some Karamojong communities receive support from the NUSAF³¹ and from the DINU.³² NUSAF uses both risk financing and safety net mechanisms for civil work and environmental protection activities, which it carries out on a selected watershed basis. NUSAF engages household members³³ in labor work for 54 days per year at the rate of Ugandan shillings (UGX) 5,500 (US\$ 1.5) per day. In parallel, NUSAF also provides the same amount of money for up to 10% of community members in such watersheds (consisting of the disabled, the elderly, and lactating and pregnant women who can't engage in heavy labor) as a safety net handout. In total, NUSAF targets some 33,000 households in its risk financing/safety net programs over a period of five years. DINU (involving the GoU, CARE and CRS) also provides labor employment opportunities for various civil work activities it carries out in the sub-district. Unlike NUSAF, employment modalities are based on the labor/man-day requirements of the specific civil work to be completed. On a smaller scale, other NGOs also provide employment opportunities using similar schemes. The income from such sources obviously helps improve the capacity to cope with disasters for participating households.

²⁷ See Stephaine, H. (2017). *White man's game: Saving animals, rebuilding Eden and other myths of conservation in Africa*; and Mbaria, J. and Ogada, M. (2016). *The big conservation lie*.

²⁸ Stites, E., and Akabwai, D. (2012). *Life to town: Migration to Moroto and Mbale*. Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University, Boston.

²⁹ *Daily Monitor*. 17 shot dead.

³⁰ Ajokekipii village FG, Nabilatuk District.

³¹ Financed by the World Bank and in its third phase.

³² Financed by the GoU and the EU.

³³ 1–3 members per household depending on the family size.

3. DISTRICT DISASTER MANAGEMENT COMMITTEE (DDMC) DISASTER MANAGEMENT CAPACITY

3.1 CAPACITIES AND GAPS IN THE EARLY WARNING SYSTEM (EWS)

EW practice in the sub-region has been a stop-and-start process subject to aid project life cycles and leading to the collection of information in a piecemeal fashion. Prior to 2018, the Agency for Technical Cooperation and Development (ACTED), a partner NGO with FAO at the time, spearheaded the EW sector for the then-seven districts (excluding Nabilatuk and Karenga, the new districts). According to all district DDMCs, ACTED trained focal district EW staff and sentinels at parish levels; provided computers and tablets; formulated district CPs; and issued monthly EW bulletins. However, the ACTED/FAO support ended following the phasing out of the Department for International Development (DFID)'s "Enhancing Resilience in Karamoja" project in 2018. Calls by ACTED/FAO in 2016/17 for district offices to allocate dedicated funds for EW went unheeded. The result was that emergency CPs were left on the shelves.³⁴ In the interim, DDMCs relied on WFP, United Nations Children's Emergency Fund (UNICEF) and FAO for rapid assessments, as they had no funds for deploying data collectors of EW.³⁵ Subsequently, DDMC's role was limited to participating in annual IPC assessments in conjunction with MAAIF, OPM, WFP and FAO for their respective districts.

According to informants, the main hindrance to generating EW data is lack of funding. Additional constraints include the non-functionality of critical instruments in some of the weather stations, including the lack of a Global Positioning System (GPS) to identify which specific localities are affected by what. This is particularly pronounced in some districts with distinct and important micro-climatic variations, such as Kotido. Capacity limitations at district and sub-county levels in terms of what and how they should report³⁶ were also mentioned as additional constraints.³⁷ The situation means that DDMCs rely entirely on the Uganda National Meteorology Authority (UNMA) quarterly weather forecasts and on OPM's monthly EW bulletins for informing and preparing communities. But DDMCs are overwhelmed by the cost of delivering such information to communities in different languages, for which they have

no budget. According to some DDMCs, whether communities understand the relevance/implication of EW information is also questionable, except in those sub-counties/parishes where formerly ACTED-trained sentinels can properly inform communities in a way they can understand. District Production and Marketing Officers (DPMOs) are supposed to send EW information to the NECOC each month, but this has not been happening on a regular basis for some time.

Meanwhile, through the current PROACT project, FAO and WFP (once again) are in the process of revamping the EW and CP components of the DDMCs. FAO plans to include provision of necessary equipment for the districts, along with, in some cases, the rehabilitation of weather stations to address the hardware needs of EWS in the sub-region. As of July 2021, FAO's capacity-building effort has reportedly placed one EW consultant in each of the districts to guide and train the EW focal persons assigned by the Chief Administrative Officers (CAOs). This intervention will enable production of draft bulletins, validation by DDMCs, and publication and dissemination of monthly bulletins at local and national level. However, FAO has noted that district focal persons and designated EW staff from line departments consider this assignment an additional load on their regular duties, and this remains a concern. The EW will cover seasonality and amount of rainfall for crops and pasture, pest infestations, surveillance of livestock diseases and so on. FAO was conducting a training session for district focal persons during this assessment mission in Moroto (in May 2021). However, there is no guarantee that EW activities will continue unless a clear exit strategy is in place once the PROACT project is phased out after two years.

Through the same PROACT project, WFP, along with OPM and FAO, organized a capacity-building workshop session (in February 2021) on the concept and formulation of CPs for all Karamoja DDMC members at Soroti. The workshop resulted in the identification and prioritization of disasters and in the formulation of five-year CPs for each district. The CP is considered part of the District Development Plan (DDP). In reinforcing this notion, indicative cost estimates are provided for disaster management and coordination, preparedness and

³⁴ Mr. Michael Lokiru (Coordinator, Karamoja FAO office) and Ms. Patience Akure (Livestock Production Officer), interviewed on May 20, 2021.

³⁵ Moroto, Napak, Nakapiripirit DDMC interviews held on various dates.

³⁶ Kotido is the only district with two functional and one first-class weather stations. Nabilatuk, Karenga and Amudat don't have weather stations. New weather stations delivered by RPLRP to some districts have not yet been installed.

³⁷ Capacity constraints, in part, are caused by transfers of formerly-trained staff from the districts. This was particularly emphasized by the Assistant Commissioner of NECOC.

mitigation, and for adoption and response. By the time this assessment mission had visited the sub-region, the CPs had been approved by most District Commissions.

From the perspective of technical capacity, the Soroti workshop has enabled DDMC members to prepare and update CPs as required, which they confidently confirmed to this assessment team. At the same time, the DDMCs are almost certain that they are not likely to receive funding for the CPs from central government—be it for EW or even in the case of disasters. In one district, a DDPC chairman called the budget in the CP a “wish list,” adding “the people with resources to manage disasters are our neighbors” (referring to Turkana County, Kenya). This assumption has led the CP documents to emphasize the indispensable roles of development partners, NGOs, community-based organizations (CBOs) and civil society organizations in the execution of DRM. The CPs have also mapped out which NGOs operate in the respective districts and the sub-counties for ease of identifying whom they can approach in cases of urgent needs. This notion is also unequivocally shared (with some remorse) by WFP, MC, GIZ, CRS and FAO in the sub-region.

3.2 DISTRICT DISASTER MANAGEMENT COMMITTEE (DDMC) COORDINATION LINKAGES AND GAPS

3.2.1 Functional linkages and gaps with National Emergency Coordination Centre (NECOC)

All the DDMCs expressed having the technical capacity to manage many of the disasters occurring in their respective districts (with the exception of perhaps procuring, transporting and distributing large-scale food aid and emergency items that have to be imported from outside the country). Under the prevailing scenario, however, it appears that the DDMCs’ structure is perceived as a non-functional structure to manage disasters.³⁸ DDMC’s functional linkages with OPM, MAAIF and UNMA are limited to the following activities:

- DDMCs are expected to send EW information to NECOC on a monthly basis, but this has not happened for the last two years due to lack of resources (except in a few cases with no detailed information);
- Receiving monthly bulletins issued by NECOC;
- Receiving quarterly weather forecasts issued by UNMA;
- Participating in NECOC-facilitated training sessions;

- Reporting to NECOC when a disaster of some significance happens to solicit support;
- Participating in the district technical committee with MAAIF, OPM, FAO and WFP to assess the IPC situation once a year (May–June);
- Distributing NECOC’s relief provisions to identifying beneficiaries and distributing NECOC consignments, as and when they happen.

DDMCs make a point that NECOC’s responses are not only always late but also inadequate. Additionally, NECOC doesn’t inform them in advance when a relief consignment is on its way. They only know about it upon the arrival of delivery trucks at district stores. The DDMCs are then burdened with the task of transporting the consignment to the final destination, for which they have no resources. The situation forces them to sell a small proportion of the consignment to cover the cost of delivery of the items to the beneficiaries. DDMC members suggest that this situation could be avoided if NECOC informed them in advance about the consignment, which would enable them to redirect the trucks to the final destination. In the case of minor shocks, DDMCs seek assistance from the Ugandan Red Cross Society³⁹ and long-established NGOs in the sub-region (Caritas, Adventist Development and Relief Agency (ADRA), OXFAM, etc.). In the case of a major disaster, they notify NECOC and wait for responses.

The DDMCs made clear that having been trained by various agencies on DRM, they have the capacity to manage and handle livestock diseases; human epidemics; plant diseases and crop pests; along with the protection of crops from wildlife damage and support for flood-displaced households. They insist that the major bottleneck is having no resources. They added that 11 other cross-cutting issues also share the same funding problem (for example, for HIV/AIDS, gender, child protection, etc.). This fundamental problem has hindered the DDMCs from collecting, analyzing and disseminating EW forecasts and more importantly from implementing responses for even minor disasters. When viewed from the budgetary allocation perspective of some departmental activities in the districts, the DDMCs’ lament about funding constraints becomes loud and clear. The following examples vividly demonstrate these unfortunate realities:

- The monthly budget allocation for livestock disease surveillance in Kaabong District is UGX 500,000 (or US\$143), and UGX 300,000/month (or US\$86) each, respectively, for the entomology and fisheries departments;⁴⁰

³⁸ This perception was also expressed by the Project Officer of DINU following their assessment on DRM in Karamoja.

³⁹ The Ugandan Red Cross Society reportedly responds quickly.

⁴⁰ Kaabong District DDMC meeting.

- In Karamoja District, the budget allocation for livestock disease surveillance is UGX 700,000/month (or US\$200);⁴¹
- The funding problem has also curtailed the translation of NECOC's monthly bulletins into local languages.

Referring to past practices, FAO (Moroto) stated that responses to stresses and shocks often came too late. For example, in the case of a late onset of rains that is known to affect crop production, the common advice given by DDMCs to communities is to use “their previous harvest sparingly,” since they are not certain when and if food aid will come, if at all. Furthermore, the globally-acknowledged LEGS have not been implemented to date in a sub-region composed largely of livestock-dependent populations. In contrast, other countries in the region have been applying LEGS for livestock emergency responses, especially drought responses, for over a decade. LEGS training sessions were conducted by FAO in Karamoja some years ago, but LEGS was never implemented. FAO summarizes the situation by stating that past and current circumstances show not only the limitations in the EWS but also the considerable mismatch between EW and early responses in the sub-region.

Coming back to the DDMCs, the structure is composed of all department heads of line ministries plus the local Ugandan Red Cross Society, NGOs and other partners operating in the region. Structurally, DDMCs are managed by the CAO of the district or their assistant when delegated. Department heads serve as focal points along their lines of responsibilities. DRM activities are generally viewed as an additional burden by DDMC team members; this outlook is often justified, particularly for the CAO and the EW focal point person. The CAOs' hands are full in overseeing the activities of all line departments in the district, never mind the additional management of a complex and demanding sector such as DRM. Disaster management requires a dedicated full-time coordinator operating under the CAO. Similarly, EW activities require continuous data collection, collation and analysis and can't be delegated to someone whose primary task is running another department. By policy the DDMC (i.e., consisting of department heads only) is supposed to meet on a monthly basis. As things are now, meetings actually take place as and when issues happen. Similarly, monthly disaster management coordination meetings with partner NGOs are generally postponed and held only when necessary. This fact underscores the total absence of the “preparedness element” of disaster management in the districts.

In 2008, MAAIF and OPM's Department of Disaster Preparedness and Refugees jointly commissioned a study to review and analyze the existing drought risk reduction policies and programs in Uganda.⁴² The assessment report identified critical shortcomings on policy and legislation; national plans and strategies; coordination platforms; lack of a legal framework for disaster/drought risk reduction and management; and inadequate budgetary and resource allocations, among other issues. With support from the United Nations Development Programme (UNDP), this assessment led to the formulation of the National Policy on Disaster Preparedness and Management in 2011.⁴³ The policy document resulted in the formation of NECOC to operate under OPM in Kampala.

The policy document outlined the upper echelons for disaster management to consist of the President (who declares a national emergency if in excess of 50,000 people are affected); the Cabinet; the Ministerial Policy Committee; the Inter-agency Technical Committee; and the NECOC. The structure under NECOC includes policy and/or disaster management committees for cities, districts, municipal/towns and sub-counties down to village levels. The policy document identifies different types of natural disasters, beginning with drought and famine/food security continuing all the way to wildfires, landslides and earthquakes. It recommends different policy actions to mitigate the impacts of each specific disaster. In addition, some 11 types of human-induced disasters are listed, including cattle rustling, for which policy actions are also recommended. Of interest in this paper is the obvious omission of LEGS from the list of international and regional instruments the policy document recommends to take into account when responding to a disaster. As a result, the policy measure recommended for drought-stricken livestock is limited to the provision of water only. Livestock feed, animal health provisions, destocking, etc. are excluded. Similarly, MAAIF is not included as one of the responsible ministries in the policy measure recommended for cattle rustling. This omission of MAAIF restricts the potential of minimizing cattle rustling through the introduction of a cattle identification system, for example. As it stands in the policy document, the lead role is given to the defense forces to resolve livestock-based conflicts. Regardless, the policy document has helped in the establishment of a national disaster management framework to begin with.

Yet from the outset it appears that the roles and responsibilities of NECOC were taken lightly at the highest level, as it began operation with only four staff

⁴¹ Karamoja District DDMC meeting.

⁴² MAAIF and OPM. (2008). National report on drought risk reduction policies and programs.

⁴³ Department of Disaster Preparedness and Management, OPM. (2011). The national policy for disaster preparedness and management.

members. Staff number was subsequently raised to the current work force of twenty following relentless advocacy. This workforce is responsible for EW, and disaster preparedness and management for all 135 districts in the country. According to the Acting Commissioner,⁴⁴ the major problem with NECOC is that “it was established as a center on a policy document without a legal framework. As a result, it doesn’t have an allocated budget of its own and operates without branch offices or own staff members in the districts. More importantly, NECOC relies on what the Ministry of Finance can provide for the center in times of disaster, which is always less than adequate.”

In a nutshell, NECOC is a center with no committed/contingency budget and with no structural representation in the districts, where it is supposed to strengthen preparedness, and mitigate and manage disasters. NECOC fully understands that district CAOs, assigned to coordinate emergency operations, are too busy with so many tasks and thereby are forced to delegate someone else to the role of overseeing DDMC activities. In addition, NECOC notes that staff turnover and transfer from the districts have continuously depleted the pool of trained DDMC members. NECOC acknowledges these situations but is left with no option but to operate under such circumstances. These anomalies have resulted in an uneasy relationship between NECOC and the DDMCs. DDMCs understand the prevailing position of NECOC, but they are the ones shouldering most of the burden, as they are operating at the front lines. In essence, the limited political will at the highest level is critically undermining the technical, administrative and operational capacities of both NECOC and DDMCs, and the way disasters are prepared for and managed at large.

According to NECOC, a legal framework on disaster management will elevate their position to a legally defined structure. This legal framework will allow them to have their own staff in the districts, along with a dedicated and contingency budget for their operations with sufficient capacity to enforce the legal provisions such an Act describes. Such a move will also enable them to allocate contingency funds for the districts to build local capacities in both preparedness and disaster management, which NECOC aspires to do, according to the Assistant Commissioner. NECOC has been making efforts for the realization of such an Act through parliament. This process has been an ongoing one for some time now; no one is able to specify a time frame for when it will be achieved, although the need for such a legal framework was

recommended thirteen years ago in 2008.⁴⁵

3.2.2 Functional linkages and gaps with Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)

DDMCs report to MAAIF in cases of livestock disease outbreaks and pest infestations of crops. FAO’s comment on the usual response in such cases was that funds for vaccination campaigns become available only after the outbreak of diseases and after considerable mortality has already occurred.⁴⁶ The CAO in Kaabong illustrated this sad state of affairs with some recent examples:

- The invasion by fall armyworm in 2017 couldn’t be acted upon in time since it falls under emergency management. It took two months to respond, after much of the damage had been done;
- The FMD outbreak in the district from September 2019 to the end of 2020 was not acted upon due to lack of funds; the epidemic waned naturally, but future outbreaks are highly likely;
- It is important to note that in many outbreaks, vaccines for FMD are provided by FAO, but delivery takes time due to the fundraising process.

In addition, during the recent locust invasion, the central government deployed UPDF to manage and lead the control effort, sidelining the DDMCs and the district agricultural officers.

3.2.3 Functional linkages and gaps with Regional Pastoral Livelihood Resilience Project (RPLRP)

The RPLRP is implemented through MAAIF. It phased out in December 2020, though some remaining civil work is being completed in Uganda. The project covered eight districts in Karamoja and four in the Teso sub-region. Of RPLRP’s five project components, the most relevant one for this assessment was the pastoral risk management component (Component 4). Component 4 was aimed at setting up and/or achieving the following:

- Pastoral risk EW and response system;
- Drought disaster risk management (training personnel and availing contingency funds for community-managed disaster risk reduction);

⁴⁴ Interview with Ms. Rose Nakabugo, Assistant Commissioner Disaster Response & i/c NECOC on August 6, 202.

⁴⁵ Why Uganda has lagged in doing so pursuant to the Hyogo Framework for Action and the Sendai Framework for Disaster Risk Reduction, of which it is a member, remains a mystery.

⁴⁶ See Abebe, D. (2016). Veterinary services in Karamoja, Uganda: A review. USAID/KRSU; and Aklilu, Y. (2016). Livestock in Karamoja: A review of recent literature. USAID/KRSU.

- Contingency emergency response (reallocation of project funds following an adverse natural event to mitigate, respond, recover and reconstruct).

In relation to other components, the budget allocation for Component 4 (for bullet points 1 and 2 above) was reportedly small (though actual figures were not obtained). According to the RPLRP Uganda Coordinator,⁴⁷ funds were sent to the districts to train some eight communities on pastoral risk EW and response systems. In line with strengthening the EWS, RPLRP also sent ten automatic weather stations to the districts six or seven months ago. The stations are awaiting installment by UNMA. Meanwhile, the DDMCs are not aware where these weather stations came from, since they were sent through UNMA and they were not informed about them. With regards to the contingency emergency response (bullet point 3 above), there was no specific budget allocated to it when the RPLRP was designed, because funds were to be redirected from other components upon the country declaring a national emergency. According to the RPLRP Coordinator, no national emergency was declared during the project life cycle. Hence there was no need to divert funds for emergency activities.

A subsequent five-year proposal has been developed⁴⁸ for the Karamoja Cluster by the Inter-Governmental Authority on Development (IGAD) for a second phase (titled “Enhancing Resilience to Drought and Related Disasters”).⁴⁹ The proposed project consists of five components; DRM is not included in this proposal. The new IGAD proposal provides the following justification for this measure:

There are already significant initiatives in Disaster Risk Reduction (DRR) and Management. This project will concentrate on strengthening capacity to develop disaster response and mitigation plans. This will be through supporting the establishment of cross-border disaster risk reduction platforms, which will become avenues for provision of cross-border dimensions on drought early warning information for harmonizing responses across the different border communities. The project will support the documentation of cross-border disaster risk management best practices to inform regional policy decision making.

In addition, according to the RPLRP Ugandan Coordinator, they were forced to play down this component pending mutual streamlining of mandates by

the inter-ministerial committees. In any case, the functional relationship between IGAD and the DPPCs on disaster management will be restricted to the former documenting EW activities for lessons-sharing in the region. Under the former RPLRP, 8 valley tanks (operational), 4 valley dams (not yet operational) and 12 livestock market yards⁵⁰ were constructed in collaboration with the district agricultural offices in Karamoja.

⁴⁷ Dr. Stephen Kajura, RPLRP Coordinator/Commissioner for Animal Production. Interviewed on September 6, 2020, Entebbe.

⁴⁸ Consisting of Uganda, Kenya, South Sudan and Ethiopia.

⁴⁹ IGAD. 2020. Enhancing resilience to drought and related disasters for communities in the Karamoja cluster. A program proposal (2020–2025).

⁵⁰ Impacts of four sentinel markets are being assessed on changes in numbers of livestock transacted and values.

4. ONGOING PROGRAMS IN KARAMOJA—LINKAGES WITH CONTINGENCY PLANS (CPS) AND DISASTER RISK REDUCTION (DRR)

4.1 NORTHERN UGANDA SOCIAL ACTION FUND (NUSAF)

NUSAF 3 is a five-year social protection and affirmative program implemented under OPM. NUSAF 3 is financed by a World Bank International Development Association (IDA) loan of US\$130 million, which became effective in March 2016. The project development objective (PDO) is “to provide effective income support to and build the resilience of poor and vulnerable households in Northern Uganda. NUSAF 3 builds on the lessons of NUSAF 1 and NUSAF 2 and aims to contribute to the operationalizing of the Uganda Social Protection Policy.”⁵¹

The project has five components:

- i) Labor-Intensive Public Works and Disaster Risk Financing: provides temporary/seasonal employment opportunities for poor and vulnerable households;
- ii) Improved Household Investment Support Program (IHISP) and Sustainable Livelihood Pilot (SLP): provides livelihood support to poor and vulnerable households to enable them to increase their productive assets and incomes;
- iii) Strengthened Transparency, Accountability and Anti-Corruption (TAAC): covers activities implemented by the Inspectorate of Government (IG) to improve transparency, accountability and anti-corruption efforts in Northern Uganda for NUSAF 3 and other services;
- iv) Safety net mechanisms and project management: provides institutional support;
- v) For implementation of the project and to help develop the social protection operational tools that are envisioned in the draft Uganda Social Protection Policy (USPP).

Of interest to this mission are NUSAF’s component i, ii, and iv, consisting of public works, disaster risk financing and the safety net mechanism. In an interview held with the NUSAF 3 Director⁵² and Project Manager⁵³ on June 10, 2021, it was learnt that the main thrust of these three

components is in building the resilience of communities to cope with shocks and disasters.

The project is designed to support over 33, 000 households in Karamoja and Teso sub-regions. Public works, risk financing and safety net activities are carried out on some 76 “watershed” areas based on the national hazard map (developed from 16 years of normalized difference vegetation index (NDVI) data by NECOC). The threshold to trigger NUSAF 3’s response (usually, in August/ September) is guided by NECOC’s 6-month NDVI-based forecast followed by ground truthing missions (pictures, IPC, etc.). NECOC then triggers its actions subject to NDVI variations in the sub-regions before people are affected by the impending disaster. As such, **the focus of NUSAF 3 is in the pre-disaster phase.**

NUSAF’s activities in these sectors include:

- Public works—targets 33,000 households (HHs) to earn income through labor-intensive public works in integrated watershed areas (terraces, bunds, and flood and gully control structures). One individual is allowed to participate from a household with less than 5 members; 2 from households with 5–10 members; and 3 from those with more than 10 family members;
- Daily payment rate is UGX 5,500 for a maximum of 54 working days. This payment is termed “risk financing” and is implemented through the Department of Disaster Preparedness and Management;
- 10% of the daily payment goes to the respective community savings bank;
- About 10% of the disabled, elderly and pregnant/ lactating mothers in NUSAF intervention areas are given the same payment, without participating in labor work, as a form of safety net;
- NUSAF 3 also promotes land clearing for farming, with provisions of improved seeds and better technology for increased crop production;
- The grant sub-component in NUSAF 3 targets 11,700 HHs for livelihood investment support. The process

⁵¹ NUSAF Fact Sheet.

⁵² Dr. Robert Limlim, Director.

⁵³ Ms. Caro Brenda Lorika, Project Officer.

4. ONGOING PROGRAMS IN KARAMOJA—LINKAGES WITH CONTINGENCY PLANS (CPS) AND DISASTER RISK REDUCTION (DRR)

mainly involves distributing cross-bred and zebu cows, as an “asset building” scheme.

The distribution of cross-bred cows is aimed at increasing local milk production (assuming adequate feed is available). However, instead of a zebu cow, restocking with small animals enables households to recover faster (see the LEGS guideline), as they multiply faster. It is also unclear how veterinary care will be provided, given the weak vet services mentioned earlier in the report.

According to the Director and the Project Manager, a longitudinal study carried out by Makerere University has indicated the positive impacts of the project in food security status of households and in facilitating microeconomic activities in the intervention areas.

4.2 DEVELOPMENT INITIATIVE FOR NORTHERN UGANDA (DINU)

DINU is a GoU integrated program implemented in some 40 districts of Acholi, Karamoja, Lango, Teso and West Nile sub-regions for a duration of six years (2017–2023). The overall supervision is by OPM through local governments, in partnership with a wide range of stakeholders (UNICEF, United Nations Commission for Disaster Fund (UNCDF), CARE, CRS, etc.). DINU supports interventions in three specific interlinked sectors: (1) food security, nutrition and livelihoods; (2) transport infrastructures; and (3) good governance. The total project cost is around euros (€) 151 million. The bulk of the contribution comes from the EU (about €133 million) followed by the GoU (close to €12 million).⁵⁴

DINUs’ multi-sectoral components are aimed at increasing food security; good governance; infrastructure development; and improving safety and security. In Karamoja, DINU operates in partnership with a consortium led by CARE (for North Karamoja) and CRS (for the southern districts) to which EU grants are channeled directly. GoU funds are directed through the coordination office, which is OPM. DINU’s infrastructural activities are linked to resilience building, as they provide household income through labor works. These include: rehabilitating existing roads (for improved market access); installment of central logistic hubs (for storing and availing essential goods, inputs and services at close proximity); construction of valley tanks; and, even if

not related to resilience, the commissioning of border police posts for increased security. One interesting initiative taken by DINU in Karamoja is assessing the drought CPs of the districts as part of its “good governance” portfolio. The assessment findings identified major gaps in the functionality of the DRR structures, although DINU’s current mandate does not include EWS and DRR. The point of this assessment is unclear, as no action was taken. At a personal level, however, the Program Officer in Moroto is of the opinion that EWS and DRR are essential elements that need to be incorporated in DINU.⁵⁵ **DINU has no provisions for contingency funds or modifying risks.**

4.3 CARE (LEAD AGENCY FOR DEVELOPMENT INITIATIVE FOR NORTHERN UGANDA (DINU))

In a meeting held with the Program Officer of CARE⁵⁶ in Kotido, the assessment team was informed that DINU’s activities under CARE cover seven result areas under the following components. The first focuses on agricultural production in which 1,773 farmers (those working on 10 acres or more) are to be incorporated in Northern Karamoja through a market-based development approach. Such farmers are trained on best agronomic practices (by the Government’s Production Department), while CARE provides foundation seeds for lead farmers who in turn make F1 generation seeds available. The market-based approach focuses on cotton and sesame production, with the major goal of linking such farmers with commercial processors/traders/exporters in Gulu. At some point in the future, the latter are supposed to provide services such as renting machinery, supplying herbicides, pesticides, etc. to the former. CARE is not involved in facilitating contractual agreements between the two parties except in establishing linkages.

The second approach involves the financial inclusion of village savings and lending associations (VSLAs) in the formal financial sector. So far, some 50 “mature” VSLAs (those operating for more than three years) have been linked to formal banks. Here again CARE is not involved in facilitating preferential interest rates for the VSLAs, leaving the banks to apply commercial rates as per the specific financial product VSLA members are interested in. **At present, CARE has no provision for contingency funds.**

⁵⁴ [https://www.unicef.org/eu/media/816/file/Factsheet-Development Initiative for Northern Uganda %28DINU%29 .pdf](https://www.unicef.org/eu/media/816/file/Factsheet-Development%20Initiative%20for%20Northern%20Uganda%20DINU.pdf) (accessed on June 10, 2021).

⁵⁵ Ms. Mariam Lenah Lorice, the Program Officer in Moroto, previously worked with the International Institute of Rural Reconstruction (IIRI), which is known for promoting community-based DRR.

⁵⁶ Ms. Molly Akao, CARE Programme Officer, Kotido.

4.4 MERCY CORPS (MC) APOLOU PROJECT (US\$46 MILLION)

MC operates in five northern districts of Karamoja consisting of 38 sub-counties, with plans to reach up to 545 villages. MC operates with Resilience Action Committees (RACs) established in the villages whose primary tasks include: advocacy; needs identification; and linkages and finances to inform community members. Coordinated through Community Sensitizing Officers (CSOs), the thrust of this approach is for the RACs to find funders for identified needs by primarily informing and lobbying with the Government that “if they fund these activities, it will pay off.”

The extent to which this approach will influence government decisions remains doubtful. As things are now, MC reckons that the sustainability of disaster management and risk reduction is questionable since the overall capacity for disaster management is dependent on available resources of partner agencies in the sub-region. MC also added they are asked to provide such resources from time to time.

With regard to CPs, MC’s view is that the plans are there but with no resources. MC intends to work closely with UNMA to provide communities with accurate and credible weather information to prepare them on the impending situation in conjunction with the forecasts of community foretellers.⁵⁷ However, this effort has been undermined, as a number of weather stations in its operational districts are non-functional. MC’s natural resource management activities include tree planting along river banks and distribution of seedlings for fruit trees and native trees. Its nutrition program focuses on the distribution of orange flesh sweet potato cuttings (with high Vitamin A content) and high-iron bean seeds. MC also supports crop pest and disease management.⁵⁸

Of interest to this paper, **MC is the only agency this team found in the sub-region that has incorporated a small “crisis modifier”** element into its program design by borrowing lessons from its Ethiopia office. Crisis modifiers were introduced into pastoralist development programs by USAID/Ethiopia in 2009 to better enable

early drought response, especially responses based on LEGS.⁵⁹ Although the MC crisis modifier is small (US\$250,000) compared to the total project budget, the contingency fund enabled the agency to respond to an unforeseen crisis in a timely fashion. The responses include: the distribution of hand wash sanitizers and thermometers; awareness radio messages at the onset of the COVID-19 epidemic; free food distribution for 3,000 households; locust awareness announcements on the radio; distribution of print materials; and organization of field trips and ensuring community reporting on locust presence to district authorities. Its water, sanitation and hygiene (WASH) component also contributed to the restoration of household latrines affected by flash floods. In this regard, MC has led others both in preparedness and in responding early to the COVID-19 epidemic, locust invasion and flash floods. The team was informed that USAID has replaced the contingency fund.

4.5 CATHOLIC RELIEF SERVICES (CRS) (NUYOK PROJECT—US\$35 MILLION)

CRS runs the Nuyok project in four districts of the sub-region⁶⁰ on health, agriculture, nutrition, disaster readiness and civil society. Its DRR sub-component focuses on resilience, EW, natural resource management (NRM), WASH, and maternal and childcare. The agency doesn’t generate EW data but makes use of UNMA’s weather forecast and WFP/FAO’s IPC⁶¹ to inform VDMCs on anticipated situations using its field agents. However, the agency is of the opinion that there is no comprehensiveness in forecasting disasters in advance due to the “weak structures” of EW and DRR in the sub-region.

CRS operates in 500 villages by engaging local government structures (at sub-county levels). Resilience activities are focused on establishing VDMCs in each village; community asset assessment; prioritizing frequent and most-common hazards; building community assets; improving agriculture and livestock productivity; and maternal and child health nutrition plus WASH. These activities are reportedly carried out by enhancing knowledge transfer to community leaders; streamlining community disaster measures against shocks; and training

⁵⁷ MC and GIZ are the only NGOs in the sub-district employing a hybrid EWS consisting of weather data and traditional EW forecasts.

⁵⁸ Interview with Mr. Sagar Pokharel, Technical Coordinator and Ms. Beatrice Okware, Implementation Director on May 20, 2021, Moroto.

⁵⁹ Catley, A. and Charters, R. (2015). Early response to drought in pastoralist areas: Lessons from the USAID crisis modifier in East Africa. Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University, Nairobi. https://pdf.usaid.gov/pdf_docs/PA00M1PX.pdf.

⁶⁰ Abim, Nabilatuk, Nakapiripirit and Napak Districts.

⁶¹ According to Dr. Raphael Lotira, both IPC and Famine Early Warning Systems Network (FEWSNET) assessments do not take into account the impact of COVID-19, viz., the associated mortality, production losses and impacts on livelihoods.

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sub-county staff on DRM such as on flood and bush fire protection, environmental rehabilitation, etc. Measures taken include improving market access by rehabilitating roads; increasing the capacity of ponds; enclosing degraded areas for protection; tree planting; and lobbying with district production departments to allocate resources for disaster management. Its livelihood program provides training on vocational and entrepreneurial skills, including for community animal health workers and producer marketing groups, and mobilizing capital through saving and lending groups, including social capital for members' emergency needs. **CRS has no crisis modifier in its Nuyok provision.** As a result, it had to revert to “other internal resources” for covering the costs it incurred to replace some houses lost to fire in a certain village.⁶²

4.6 PRO RESILIENCE ACTION (PROACT) PROJECT (WORLD FOOD PROGRAMME (WFP) + FOOD AND AGRICULTURE ORGANIZATION (FAO))

A program initiated at the end of 2020 for a period of two years is implemented by WFP and FAO. It consists of four components (FAO implements one component and WFP three components). These include:

- 1) Support to EWS at national level with a special focus on Karamoja to provide effective and timely EW on climatic shocks that affect food security and well-being of people in the Karamoja sub-region (by FAO);
- 2) Small caseload of supporting asset creation and livelihood (mainly public works) to be implemented through local governments (by WFP);
- 3) Anticipatory unconditional cash transfers to beneficiaries before events happen (i.e., before a full-blown disaster) triggered through EW forecasts in replacement of food. This could possibly be based on vulnerability mapping (by WFP);
- 4) Building the capacity of government structures on CP for the districts (by WFP).

Through Component four, technical support was provided by WFP that led to the completion of CPs for the next five years for all the nine districts. WFP recognizes that the current CPs may not receive government funding, making

the whole exercise potentially dependent on aid agencies. Of interest to this assessment is WFP's unconditional cash transfers to vulnerable households. When conditions warrant the release of such funds, it takes place at an early stage before a full-blown disaster. This approach is an experimental one. The amount of cash to be given to a household at the trigger point has not been yet decided upon. Similarly, the alternative use of this fund in case of not reaching the trigger point in a given year or years is also not clear. The main thrust of the “WFP cash transfer” is to induce a parallel government cash transfer early response system to vulnerable households, the commitment and realization of which will only be proven when the need arises. **WFP's cash transfer scheme is a purposely earmarked fund aimed at modifying risks for poor households.**⁶³

FAO's roles in this regard has been discussed in some detail in the EW section.

In addition to EWS strengthening, FAO's other activities in the sub-region are conducted through farmer field schools (FFSs). These include: ecosystem-based literacy; sustainable farming systems; climate-smart agricultural practices; and distribution of bio-fortified⁶⁴ narrow beans, long five maize and other short-maturing crop varieties in collaboration with research centers. Rangeland rehabilitation is also carried out by oversowing denuded areas with Napier grass, *Chloris guayana* and other pasture seeds. **FAO operates without contingency funds for modifying risks.**

4.7 DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT GMBH (GIZ) MOROTO

The GIZ project entitled “Climate Change Adaptation (2012–2016)” established two learning centers and worked on community managed disaster risk reduction (CDMRR) as well as on two pilot micro-catchment management interventions to demonstrate measures in natural resource restoration and water for production infrastructure in order to practice localized solutions for climate change adaptation.

These were followed by the first Water Sector project (2013–2017), which supported the establishment and protection (erosion control with live fences and tree planting; establishing community water user committees)

⁶² Interview with Mr. David Macharia, sub-office Head; Mr. Amsalu Gebresellasi, Deputy Chief of Party (May 17, 2021); and Mr. Joseph Odon, Resilience Program Manager (May 20, 2021), Moroto.

⁶³ Interview with Mr. Isaac Lokwar, Head of sub-office and Ms. Isabelle Lacson, In charge of cash transfer on May 20, 2021, Moroto.

⁶⁴ With tryptophan and lysine amino acids.

of nine valley tanks all over Karamoja, in close cooperation with the governmental Water for Production Department.

Another project (TCF Uganda), focuses on the support of districts in land use planning and collection of data (GPS, geographic information system (GIS)) in order to improve service delivery and implementation of District Plan intervention. TCF Uganda is developing a cross-border Transhumance Corridor development plan in cooperation with GIZ TCF Kenya and IGAD, in the framework of IGAD-Drought Disaster Resilience and Sustainability Initiative (IDDRSI, 2012–2027).

An interesting phenomenon initiated by the steering committees of CDMRR communities is inviting sectoral ministers/permanent secretaries to discuss issues with communities. According to GIZ staff, the ministers or permanent secretaries of water, wildlife, agriculture, land and the meteorological authority accepted the invite and came to Karamoja to discuss issues of concern with the DRR communities. The outcome of these meetings is not clear.

Interviewed GIZ staff⁶⁵ put emphasis on the complexities of DRR in the region. For example, they stated that VDMCs may be selected for a variety of reasons, but they may not represent the most drought-prone communities. Similarly, they commented that the dissemination of EW information in the English language is not achieving its purpose, as most people in the region only speak local languages (different ones), and most can't read and write. The staff are of the opinion that the traditional Karamojong system is capable of providing EW information from a variety of indicators and that a hybrid (traditional/modern) EW system will serve the population better than relying on only one system. They stated their concern that the traditional system could be lost forever due to schooling and modernization, and it needs to be documented before it is too late. The project's main focus has been on **resilience building with no contingency funds for modifying risks.**

⁶⁵ Interview with Mr. Issac Lokwar, Coordinator, North Karamoja; Ms. Esther Loma, Coordinator, South Karamoja, on May 17, 2021, Moroto.

5. STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT) ANALYSIS

5.1 DISTRICT CAPACITIES IN DROUGHT PLANNING, FUNDING AND RESPONSE

Following the phasing out of the FAO/ACTED project in 2018, district capacities in gathering EW information were seriously weakened, and monthly EW bulletins were ceased. The then-CPs were also left on the shelves. However, recent initiatives by WFP and FAO through the PROACT project are revamping district capacities, once again, both in EW information management and in the formulation of CPs covering a period of five years. The SWOT analysis below is based on these initiatives.

Strengths	Weaknesses
<i>DRM structure in place</i>	<i>No guarantee on CP funding; available evidence suggests funding from NECOC is unlikely, which could render the plans unusable</i>
<i>DDMCs' drought planning capacity recently strengthened through WFP + FAO training facilitated by OPM</i>	<i>Districts have no response capacities of their own due to no funding from NECOC; they face difficulties even in covering transport costs for moving NECOC relief items within districts</i>
<i>Contingency response plans with estimated costs formulated for the next five years by all districts</i>	<i>Districts totally rely on seeking support for minor disasters from NGOs operating in the region</i>
<i>EWS strengthened through FAO intervention</i>	<i>LEGS is not constituted in the response plans of the CPs in spite of the livestock-dependent population; inappropriate responses for livestock observed, viz., current restocking practices; no feed provisions ever</i>
	<i>No full-time DDMC coordinator and EW officer, resulting in postponement of scheduled meetings</i>
Opportunities	Threats
<i>DDMC members capacitated to formulate and update CPs and manage responses if NECOC allocates funds</i>	<i>Non-funding of CPs could discourage DDMCs from updating and formulating disaster plans and responses in the future</i>
<i>Placing full-time disaster coordinators and EW officers in the districts to enhance effective coordination of DDMCs</i>	<i>Trained DRM staff transfers could weaken the districts' DRM capacity</i>
<i>Conducting a LEGS training session for DDMCs in the sub-region for subsequent incorporation of LEGS in the response plans; distribution of the LEGS Handbook to the districts</i>	<i>The withdrawal of FAO-assigned EW consultants in the districts (upon the completion of their task) could lead to disruptions in the system unless a full-time EW officer is immediately assigned in each district</i>
<i>Documentation of traditional EW indicators to formulate a hybrid forecast system</i>	

5.2 NON-GOVERNMENTAL ORGANIZATION (NGO) CAPACITIES IN DROUGHT PLANNING, FUNDING AND RESPONSE

NGOs such as MC and CRS are implementing large-scale resilience programs. GIZ’s resilience project will come to an end in December 2021. CARE and CRS are operating substantial development programs through DINU. The resilience programs claim to focus on building the coping capacities of communities through VDMCs they set up and train to manage disasters at the community level. The SWOT analysis below puts emphasis on the level of the agency’s involvement in drought planning, funding and response (excluding DINU).

Strength	Weaknesses
<i>Financial capacity to allocate a proportion of program budget to respond to drought and other disasters</i>	<i>No contingency fund allocated for such events, despite operating in disaster-prone areas (except MC, on a small-scale)</i>
<i>Knowledge of the recurrence of droughts and other disasters in the sub-region</i>	<i>Non-familiarity with the “risk modifier” concept with the exception of MC</i>
<i>Know-how on the types of responses required in such events (except on LEGS)</i>	<i>Total immersion in resilience/development interventions; putting drought responses on the back burner</i>
<i>Capacity in coordination and logistics</i>	<i>Bypassing the common knowledge that resilience/development interventions require sustained long-term efforts to achieve their objectives while droughts recur in between</i>
<i>Ease of access to manage responses through VDMCs</i>	<i>Non-familiarity of NGO staff with the LEGS guideline (in part, this lack of familiarity could be due to non-engagement in drought responses)</i>
<i>Positioned in close proximity for receiving advance information on warning indicators for early response</i>	
Opportunities	Threats
<i>Current programs in Karamoja operate with substantial funding to accommodate risk modifiers if donors/NGOs agree</i>	<i>Progress in resilience/development programs could be severely impacted by drought and other disasters, if not responded to on time</i>
<i>NGOs have intense knowledge of Karamoja’s livelihood systems, types of disasters, weather patterns and the culture</i>	<i>Improvements in household coping capacities may not be achieved as expected</i>
<i>Training on LEGS and distributing the Handbook to NGO communities for the application of the guideline during early drought responses</i>	<i>NGO personnel may lack the experience in emergency operations</i>

6. DROUGHT CYCLE MANAGEMENT

Drought is a slow-onset process, and its cyclical phases are well known and documented. In pastoral and agro-pastoral settings with livestock-dependent populations, the measures and responses for each phase of the cycle are well prescribed in LEGS and in other national guidelines. See Figure 1.

Effective drought preparedness and response entails:

- Having a systematic, evidence-based, transparent and linked EWS in place;
- Classifying specific initiatives based on EWS trigger indicators under each stage of the drought cycle;

- Having prepared comprehensive, multi-sectoral contingency (shelf) plans that can be activated in real time.

Meteorological drought indicator—Standard Precipitation Index (SPI): SPI is a standardized anomaly, equivalent to the statistical z-score, representing the precipitation deficit over a specific time scale.

Remote-sensed drought indicator—Vegetation Condition Index (VCI): VCI is a quantitative drought indicator based on vegetation status as recorded by earth observation (EO) satellites. The VCI is based on the relative NDVI change with respect to minimum and maximum historical NDVI values. See Table 2 for examples of SPI and VCI indicators.

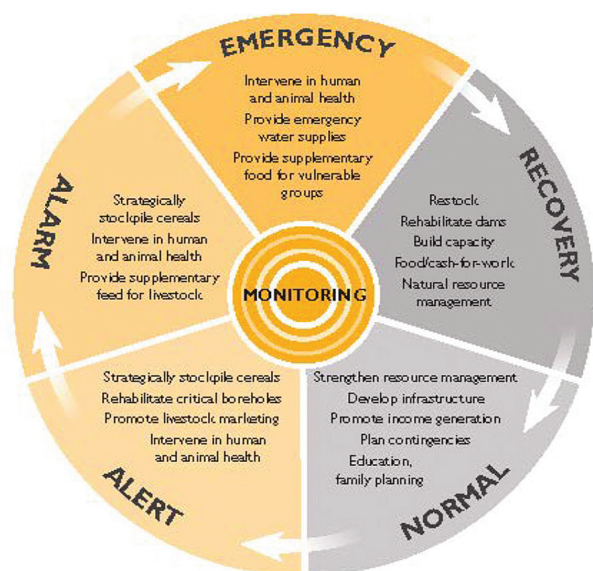


Figure 1. Drought cycle management model.⁶⁶

Table 2. Examples of Standard Precipitation Index (SPI) and Vegetation Condition Index (VCI) indicators

Setting threshold for SPI			Threshold for VCI—3 month and related categories	
Color	SPI values	Rain category	Color	VCI values
				3-monthly average
Green	>1.5 or more	Strongly above normal	Green	≥ 50
Light Green	1 to +1.5	Above normal	Light Green	35–50
Yellow	-1 to 1	Normal	Yellow	21–34
Red	-1.5 to -1	Below normal	Red	10–20
Dark Red	< -1.5	Strongly below normal	Dark Red	< 10

Source: National Drought Management Authority (NDMA), Kenya

⁶⁶ From: The LEGS Project. (2018). LEGS drought tool: A LEGS-based preparedness, planning and response tool for improved resilience in the drylands of the Horn of Africa. Prepared by Adrian Cullis for the LEGS Project/Vetwork UK. Wivenhoe, United Kingdom.

Other additional indicators include:

- **Production indicators:** for example, daily movement of livestock; milk production levels; livestock body condition; livestock deaths; planting date and area planted; quantity harvested, etc.;
- **Access indicators:** price of cereals; livestock terms of trade; food consumption index; availability of water; milk consumption;
- **Utilization indicators:** Mid-upper arm circumference (MUAC); coping strategy index.

A drought risk management cycle consists of two phases:

- **Pro-active phase** (in the normal and alert stages). This period signifies preparing for drought, identifying risk mitigation measures, and conducting vulnerability assessment and continuous monitoring and EW activities;
- **Post-active phase** (in the alarm and emergency stages). This period signifies active relief operations, as illustrated below for the livestock sector. Post-drought measures may include restocking and other activities.

In general, depending on the phase, drought intervention strategies (by herders and aid agencies) could include the following sets of interventions. For detailed information, please refer to the LEGS Handbook or website.⁶⁷

Strategic drought interventions

Human welfare	Herd management
Stock sales	Herd splitting and migration to reserve areas
Use of food reserves	Livestock sales
Food purchases	Supplemental feeding—purchased or subsidized
Slaughter of animals	Commercial destocking
Less frequency of meals	Slaughter destocking
Dependence on relief food	Prophylactic treatment
Money-generating activities (firewood, charcoal production)	Grazing on leased pastures
Casual employment	Longer day grazing
Multi-sector interventions (safety net, cash transfer, etc.)	NRM, etc.

⁶⁷ www.livestock-emergency.net.

7. FLEXIBLE FUNDING AND EARLY DROUGHT RESPONSE

Flexible funding arrangements include crisis modifiers; contingency funding; internal risk facilities; “no regrets” responses; the Start Fund; forecast-based financing; and shock-responsive social protection. Organizations designing or using flexible funding mechanisms include USAID, DFID, International Federation of Red Cross and Red Crescent, and the Start Network, among others.⁶⁸ The key to flexible funding is access to early funding to kick-start drought responses on time ahead of the usual humanitarian interventions. However, the ability to do so depends on how soon or late the approval process occurs for releasing funds. Apart from the political will of donors, the timely release of flexible funding also depends on prior agreements that are linked to specific triggers and activities with donors. Where these are lacking, funds can also be mobilized quickly on the basis of available evidence and shared analysis. There is also a possibility for supplementary funding to core program funding. In this regard, a review on the 2015/16 El Niño response in Ethiopia⁶⁹ provides insights on such arrangements for flexible funding:

In Ethiopia in 2015–2016 there was widespread use of flexible funding and crisis modifiers in development and resilience projects, supported by various donors, especially USAID, EU and DFID. They generally led to timely responses, preceding typical humanitarian projects. In relation to the 2015–16 El Niño crisis, it was agreed that a crisis modifier might be needed if the spring rains failed in 2015, and a crisis modifier was activated in May 2015 (on time). Another crisis modifier was implemented in October 2015 but as the amount available under the crisis modifier had already been used, OFDA [Office of U.S. Foreign Disaster Assistance] shifted funds away from another longer-term resilience program to enable this later crisis modifier. Other programs supported by USAID in Ethiopia also activated their crisis modifiers. In response to earlier experiences with the crisis modifiers in February 2016 USAID had reprogrammed USD 10 million of Feed the Future and water resources to

respond to drought conditions through regular development activities; the model was similar to the OFDA crisis modifier but gave more flexibility to respond quicker and at a larger scale.

While the above review provides a positive example of an “early response” scheme based on prior discussion between an NGO and the donor, a similar review⁷⁰ on other resilience/development programs found that “the majority of the crisis modifiers available (for 2014–16 drought) were not triggered at the early stages of the crisis, and some entailed significant bureaucratic processes that delayed the delivery of early assistance by up to several months...and approval for changes in the use of money by donors took on average three months.” The same review also adds that “even if the deficiencies in implementation of the crisis modifiers are resolved, the scale of resources which they can offer will always remain small relative to the needs in a major crisis,” which suggests their value may be limited to smaller, localized events.

On the other hand, a senior manager at MC RAIN⁷¹ Project in Ethiopia mentioned how the contingency fund was “enormously helpful for immediate response.” Since they had been working in the area and knew the community, they were better able to respond to the emergency without the need to change focus from market development. As a result of such experiences, multiple development and humanitarian agencies who gathered for collective learning on resilience in practice suggest that having contingency funding like crisis modifiers designed into resilience programs in fragile contexts from the outset makes a rapid switch into emergency response mode both possible and efficient.⁷²

In terms of drought early response, Kenya is one country in the region that has long adopted drought cycle management and has made substantial progress both at local government and at the national level. For example, Turkana County—adjacent to Karamoja—sets aside Kenyan shillings (KSH) 1billion (US\$9.2 million) as a

⁶⁸ Rohwerder, B. (2017). Flexibility in funding mechanisms to shocks. IDS.

⁶⁹ Catley, A., Cullis, A., and Abebe, D. (2016). El Niño in Ethiopia, 2015–2016: A real-time review of impacts and responses. USAID. <http://www.agri-learning-ethiopia.org/wp-content/uploads/2016/06/AKLDP-El-Nino-Review-March-2016.pdf>.

⁷⁰ Levine, S., Kusnerek, A., and Sida, L. (2017). The contributions of early emergency response and resilience investments to helping people cope with crisis: A study of the 2014–16 drought in Sitti and West Hararghe Zones, Ethiopia. Draft. Valid Evaluations.

⁷¹ The project was called “Revitalizing Agriculture through New Markets.”

⁷² McQuistan, C. et al. (2017). What does resilience mean in practice? Collective learning from multiple agencies. Learning Paper. BOND. https://www.bond.org.uk/sites/default/files/resource-documents/ppa_learning_paper_resilience_in_practice.pdf.

contingency fund out of the county's total annual budget of KSH10 billion (US\$92 million).⁷³ According to Kenya's National Drought Management Authority (NDMA), local governments and communities were the first line of response during the 2016–18 drought, as soon as indicators signaled declining trends in August 2016. Drought response plans were then activated at the national level in September 2016. Sectoral plans costing KSH 21.6 billion (US\$216 million) for November 2016–December 2017 were shared with the national treasury. The treasury released KSH 18 billion (US\$180 million) for the November 2016–December 2017 response, adding a further KSH 3.8 billion (US\$38 million) for January–March 2018 interventions. The livestock sector received 19.6% of the total relief fund⁷⁴ in this period.

Although the absolute size of flexible funds might be small, the merits of flexible funds are clearly shown through cost-benefit analyses, including asset protection and cash income; household nutrition improvement (through increased milk production); and how beneficiary households are likely to better cope with future shocks compared to control groups. Assessments made so far indicate the overall positive impacts of flexible funding with early interventions. For further reading, please see the sources in the footnote below.⁷⁵

⁷³ Personal communication with Dr. Raphael Lotira, member of the Turkana DRM committee.

⁷⁴ Saiyana, L. (2018). Drought early warning trigger indicators, contingency planning and funding. A NDMA presentation.

⁷⁵ For further details see: 1) Abebe, D., Cullis, A., Catley, A., Aklilu, Y., Mekonnen, G. and Ghebrehirstos, Y. (2008). Livelihoods impact and benefit-cost estimation of a commercial de-stocking relief intervention in Moyale District, southern Ethiopia. *Disasters* 32/2:167–189; 2) Bekele, G. and Abera, T. (2008). Livelihoods-based drought response in Ethiopia: Impact assessment of livestock feed supplementation; 3) Catley et al. El Niño in Ethiopia; 4) Catley and Charters. Early response to drought; 5) Catley, A. (2018). Revisiting the economic impacts of early drought response. *Livestock-emergency.net*; 6) Venton, C. C. (2016). The economic case for early humanitarian response to the Ethiopia 2015/2016 drought; 7) Venton, C. C. and Sida, L. (2017). The value for money of multi-year humanitarian funding: Emerging findings. *Valid Evaluations*.

8. CONCLUSION

Karamoja is a drought-prone area, and recurrent drought has substantial and direct impacts on livelihoods and resilience. Supportive policies and good drought management practices are in place in various East African countries with pastoralist populations, and early livelihoods-based drought response is far more cost effective than late response. Drought pushes households who are already food insecure into destitution and can quickly wipe out the benefits of development programs. However, drought management capacities in Karamoja are extremely weak. The DDMCs operate without contingency budgets and are not positioned at all to be the first line of response. NECOC operates as a center and is not supported by an Act to have its own staff and structure in the districts. It relies on what the Ministry of Finance provides in times of disaster, which is usually inadequate. It is in no position to avail contingency funds to the districts under the prevailing circumstances. What is critically lacking at the highest level is perhaps a thorough understanding of the importance of an effective DRM for Karamoja and for all of Uganda in general.

What makes Karamoja specifically vulnerable is the thinly-veiled assertion that pastoral and agro-pastoral households are not productive enough to require timely and adequate response when disaster strikes. According to IGAD,⁷⁶ “Uganda does not have an approved pastoral development policy with a strategic plan of action to stabilize and increase production and productivity of pastoral activities.” Also, as pointed out in Republic of Uganda (2019, 6),⁷⁷ “they (pastoralists?) are unable to improve food security and incomes of pastoral households in a sustainable and predictable way.” This is despite a 2018 Draft Master Plan for Karamoja Livestock Development, which was aimed at supporting pastoral productivity.⁷⁸ The implication is that pastoral and agro-pastoral communities are regarded to be of less importance to receive the full attention of the Government; even less so in times of disaster. In contrast, the economic value of livestock production in Karamoja is considerable. An economic study in 2019 valued Karamoja livestock production and services at US\$323 million,⁷⁹ yet drought can decimate this production.

A number of NGOs implement resilience and development initiatives with substantial budgets in the Karamoja sub-region. In general, these NGOs seem to run their activities in isolation from emerging initiatives in the regional countries when it comes to containing disasters through flexible funding. Whether they manage resilience or development programs, it appears they have subconsciously assigned DRM to the domain of NECOC and perhaps NUSAF. What is more puzzling is their common knowledge that drought is a recurring disaster in the sub-region. So far, MC is the only NGO in the sub-region that sets aside a small amount of flexible funds and responded to the COVID-19 epidemic and WASH-related activities in some way. Not engaging in DRM activities has also deterred NGOs from familiarizing themselves with LEGS, which is commonly applied in the region. Although NGOs working on resilience have set up a sizable number of VDMCs, this assessment team was not in a position to establish how effective they are in coping with droughts.

To summarize, communities (at least, those FG members this assessment team had discussions with) appear to have exhausted their coping capacity down to the bare minimum level. Similarly, the DDMCs function in a void, with no contingency funds. NUSAF 3 strives to improve resilience through temporary employment (public works) and cash transfers to needy families, including through limited grants to poor households. However, the proportion of households covered under NUSAF 3 in the sub-region remains far short of those in actual need of such support.

⁷⁶ IGAD. Enhancing resilience to drought.

⁷⁷ Republic of Uganda. (2019). Uganda country programming paper: Consolidating the path to resilience and sustainability, 2019–2024. IGAD, Kampala and Djibouti.

⁷⁸ MC. (2018). The Karamoja livestock development master plan, 2018–2040; Moroto and Kampala. Karamoja Livestock Development Forum and MC Uganda.

⁷⁹ Behnke, R. H. and Lotira, R. L. (2019). The productivity and economic value of livestock in Karamoja sub-region, Uganda. KRSU, USAID/ Uganda, Irish Aid and UKaid, Kampala.

9. RECOMMENDATIONS

Setting up a functioning DRM requires the full and unreserved commitment of a national government. It is also common knowledge that donors and bilateral organizations can only support such efforts up to a certain point. The rather weak status of DRM in Karamoja principally emanates from the transient status of NECOC, in terms of having no committed resources of its own, functioning in a legal limbo and trying to operate in the districts without its own structure.

Empowering NECOC for DRM: A fundamental policy change is necessary to empower NECOC as an effective DRM authority similar to those found in Kenya, Ethiopia, Sudan, etc. This change can be achieved if there is the political will of the government, with support provided by development partners.

Safeguarding program gains in Karamoja through flexible funding: Given the anticipated drought in the current year and possible recurrences in the coming years, the inclusion of contingency funding for early drought response in substantial resilience/development programs should be sought to safeguard gains made so far. This inclusion of contingency funding could be achieved by donors and NGOs through a consensus-building workshop.

Assessment of VDMCs: During interviews carried out with NGOs operating in Karamoja, the assessment team learnt about the establishment of hundreds of VDMCs in the sub-region. Due to time shortage, the team was not able to assess the status of VDMCs. However, the team believes that a specific assessment on VDMCs is necessary to measure their effectiveness. The ultimate objective of such an assessment will be to examine the possibility of developing a guideline on the formation and capacitation procedures of VDMCs in different livelihood systems. LEGS was started the same way.

Incorporating LEGS in DRM for Karamoja: LEGS provides systematic guidelines with recommended standards for the livestock sector whether in cases of early response (using contingency funds) or in full-blown emergencies (late response). Given the livestock-dependent communities that make up the majority in Karamoja, the practical application of LEGS is of paramount importance for pastoral/agro-pastoral households, including for

livestock traders. LEGS can be promoted by KRSU in partnership with FAO in the sub-region.

Documentation of TEWS: TEWS in Karamoja is still upheld in some circles (for example, the four district DDMCs that incorporate it into their assessment). However, available evidence from the various respondents indicate the gradual disappearance of this generations-old forecast system among farming communities and in some agro-pastoral ones for various reasons. The documentation of this system is so important not only for preserving it but also for incorporating it into the formal EWS to benefit from a hybrid forecast system. The justifications for this approach are provided below.

Forecasts in the formal system derive from “(a) the analysis of the rainfall time series of a region; (b) the integration of General Circulation Models (GCMs), usually with sea surface temperature (SST) forcing, typically over a period of 50 or more days; (c) the ability to predict seasonal rainfall totals several months in advance is due to the exchanges of energy between the oceans and the atmosphere, which includes the weather systems that produce rainfall. In practice, quantification of the interaction between the ocean and atmosphere in empirical studies typical of those which lead to forecasting schemes is assumed to be represented by sea surface temperature anomalies (SSTAs) alone and (4) by numerical and statistical approaches. Such weather assessments at international/regional level miss out on the weather dynamics at the micro level for accurate location-based predictions. And, this gap can only be sealed by TEWS, as it is a place-based system, necessitating a hybrid approach for effective forecasts.”⁸⁰

The above source also provides examples of how farmers and pastoralists effectively use TEWS in Kenya and Ethiopia for determining planting seasons and seasonal herd movements. Similarly, a comparative study on indigenous forecasts (IF) and scientific forecasts (SF) in the Rwenzori Region of Uganda⁸¹ suggests “the positive relationship between using both IF and SF for estimation of rain onset and cessation dates but negative relationship with IF for arable farmers. There was strong negative

⁸⁰ Masinde. An effective drought early warning system.

⁸¹ Nkuba et al. (2019). Do indigenous forecasts and scientific forecasts influence arable farmers’ and agro-pastoralists’ estimation of onset and cessation of rains? Empirical evidence from Rwenzori region, Western Uganda. *Agricultural and Forest Methodology* 278:107667.

relationship between using both IF and SF and estimation of onset dates for the 2nd season for arable farmers in forested areas, but strong positive relationship with those using IF only season. The coefficients of variation for the rain onsets were high implying climate variability.” The study further suggests that the sparse distribution of weather monitoring stations (as is the case in Karamoja) makes a compelling case for a hybridized forecast system.

NDVI readings also have their shortcomings, as they can be distorted by the greenness of shrubs and trees, necessitating facts on the ground to determine the actual conditions (particularly in wooded areas, such as Karamoja). These facts support the documentation and application of TEWS for hybridization with the formal system. KRSU has the appropriate expertise to undertake this assignment.

Compensation of farmers for wildlife crop damage: The main beneficiaries of national parks are wildlife authorities, lodge owners, tour and travel agencies, and tourist guides. Farmers and/or pastoralists lose in two ways from national parks. They get displaced from gazetted parks to make space for wild animals and associated amenities. They don’t get compensation for livestock lost to predators or crops damaged by wild animals. Serious complaints were made by farmers in Karenga and Abim Districts regarding crop damages incurred by wildlife (and the loss of human lives). It is time to approach and persuade the Ugandan Wildlife Authority to come up with some modalities for compensating farmers for damages incurred by wildlife.

Introducing Livestock Identification and Traceability System (LITS): Cattle raiding is flaring up in Karamoja, leading to the reinstatement of protected kraals. The looting of 1,000 heads of cattle and the killing of 17 persons in a space of 12 days between Nabilatuk and Nakapiripirit Districts is a clear testimony to this mayhem. What is becoming clear is that the protected kraal system is not a lasting solution, although it gave a respite to communities for a few years. It is time to look for an alternative solution that is more secure and long lasting. One way could be introducing the LITS in Karamoja.

A concept note obtained from APRI by this assessment team summarizes the benefits of LITS in three phrases.

**Livelihoods enhanced, if peace can prevail.
Peace can prevail if cattle raiding is reduced.
Cattle raiding can be reduced if cattle traced
to a particular owner.**

The benefits of LITS goes beyond peace. Once an animal has a unique identification, records can be generated for that animal for better health management, breed selection, progeny testing and traceability for end market enhancement.

Through email exchanges with APRI (the promoter of this concept), the assessment team was able to learn that the promoters would like to do a demonstration in Karamoja by establishing LITS for 300 cattle and introducing LITS to some 500 Karamojong livestock keepers and 50 government stakeholders, followed by a rollout project. The total cost for this demonstration project is about US\$6,205. However, the final cost per cattle is estimated to come down to US\$1.50 in the rollout phase. The realization of LITS necessitates working in partnership with MAAIF, the Ministry of Karamoja Affairs and the Ministry of Defense. Of note, MAAIF is the designated custodian of all LITS data records at the national level. The assessment team suggests that this demo project is worth considering in view of the rising levels of cattle raiding in the sub-region.

ANNEX I. CHRONOLOGY OF MAJOR CLIMATIC AND SOCIAL EVENTS AS NARRATED BY COMMUNITIES

Year/years of	Major events
<i>Lorengelaga (1930s)</i>	Prolonged drought; livestock diseases; water shortage; people fed on hides and skins
<i>Lokwakoit</i>	Prolonged drought; no rains, no pasture; people died of hunger
<i>Lotira (early 1950s)</i>	Dry period forcing the Matheniko to migrate to Longor in Teso region; too much hunger
<i>Longel</i>	Good year full of rain and good harvests; peaceful co-existence; locust outbreak
<i>Lokulit (means good growth of sticks from the trees)</i>	Good rains and harvests; healthy livestock
<i>Ekaru Ejota (means FMD)</i>	Livestock suffered from FMD; otherwise, plenty of rain and good harvests
<i>Ekaru Alochuu</i>	Many livestock died due to drought; raiding between the Karamojong and Jie
<i>Ekaru Aloleoo</i>	Rinderpest killed many animals; otherwise, good rains and good harvests
<i>Ekaru Angithiru/Ngisiru</i>	Year of rampant raids despite good rains; year of too many mosquitos
<i>Ekaru Lodupak (around 1960s)</i>	Continuous rain throughout dry and wet seasons; good harvests and healthy livestock
<i>Ekaru Angikawoo</i>	Plenty of rains and harvests more than what women can grind; grains were boiled for first time
<i>Ekaru Alolibakipi</i>	Sorghum germinated from granaries due to too much rain
<i>Ekaru Anamongo</i>	Women wearing jingles, went to river banks and cried for rain; people fed on wild pods, raids among Turkana, Jie and Matheniko
<i>Lomoroko</i>	Prolonged drought; continuous migrations; Asians set up shops in Moroto
<i>Lokit</i>	Livestock including buffaloes died from East Coast fever
<i>Ekaru Angimongo</i>	Prolonged drought; migrations past Nyakwae; people fed on wild pods
<i>Ekaru Achepsekunya</i>	Drought year
<i>Ekaru Angipedur</i>	Prolonged drought and people fed on tamarind and pods; year of hunger
<i>Ekaru Angalurui</i>	Plenty of weaverbirds; helicopter crash at Kakoribong; raids among the Jie, Pokot and Turkana
<i>Ekaru Ka Amin (1970s)</i>	Nawaikorot massacre
<i>Ekaru Akoyo</i>	Livestock and wildlife decimated by rinderpest
<i>Ekaru Ekisil</i>	Lokiriama peace meeting between the Matheniko and Turkana; good harvests; good rain

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<i>Ekaru Ka Amin</i>	Overthrow of Amin; peace, good harvests; healthy livestock and peace
<i>Ekaru ATito Okello</i>	Co-existed with Teso; good harvests
<i>Ekaru Amusevini (1986)</i>	Musevini ascends to power; good year; good harvests
<i>Ekaru Apamulele</i>	Elders went to Apamulele to pray for rain
<i>Ekaru Aribokin</i>	Solar eclipse; good harvests; enough rains
<i>Ekaru Alogulgul</i>	Outbreak of cholera; hunger followed by deaths; many buried at Kasimeri
<i>Ekaru Akowatoto</i>	Plenty of milk and harvest
<i>Ekaru Angakile Angitak</i>	Too much milk resulted in calves having diarrhea
<i>Ekaru Anakwajam</i>	Drought followed by livestock death; migration to Teso; poor harvest
<i>Ekaru Aatopojo</i>	Fighting between the Jie and Turkana around Kobebe area; plenty of harvest
<i>Ekaru Anakingon</i>	Karamojong raided the Acholi
<i>Ekaru Apalosisyel</i>	Many people, considered to be thieves refusing to reform, were killed by the government army
<i>Ekaru Keakoro</i>	Pastures totally depleted. Animals were forced to eat soil; homes were fenced with sisal for the first time
<i>Ekaru Kemogo</i>	Consistent and persistent drought; people migrated to Teso for cassava
<i>Ekaru Ka-apuno</i>	Good year and good harvest
<i>Ekaru Angakeron</i>	Good year and good harvest; people were overjoyed and sacrificed animals
<i>Ekaru Ke-erupe</i>	Good year with two harvests; the latter one from shattered seeds during the first harvest
<i>Ekaru Amonariyan/ Loyakaramoe</i>	Bad year of raids where many Karamojong died; lots of bloodshed in Looya Karamol, next to Khalotharich
<i>Ekaru Kekone Kamiliyo (Camillo)</i>	Bad year of drought; the Karamojong moved to Teso; the kraal leader called “Ekore Kamiliyo” was killed
<i>Ekaru Alonetia</i>	Bad year of thieving, when village thieves stole relief food and mosquito nets
<i>Ekaru Anapak (2010)</i>	The year Napak was opened; very good harvest; people were given free food
<i>Ekaru Kebuta (2011)</i>	Serious drought; many livestock deaths; crops wilted in the field
<i>Ekaru Akoluwo (2012)</i>	Reduction of food prices by Koluno after a previous year of drought
<i>Ekaru Angikolia</i>	Year of too many fish with the floods; good harvest
<i>Ekaru Ke-emase</i>	Too much rain; floods; followed by COVID-19; scabies; and locusts

Note: Compiled from oral chronologies of FGs in Atendewoi village, in Moroto, and Lorikitae and Kamole villages in Napak.

ANNEX II. LIST OF PERSONS MET

Persons met	Date	Organization	Location
Miriam Lonah Lorika	May 17, 2021	DINU, Moroto	Moroto
Gidongo Peter Ayamo Judith Dr. Inangolet Francis Janan Edonu, Dist. Entomologist	May 17, 2021	DDMC, Moroto	Moroto
Amsalu Gebreselassie, D/COP NUYOK David Macharia, Head, sub-office	May 17, 2021	CRS	Moroto
Loma Esther, Coordinator, South Karamoja Isaac Lokwar, Coordinator, North Karamoja	May 17, 2021	GIZ	Moroto
Kennedy Owor, Head, sub-office Isabelle Lacson, In charge cash transfer	May 18, 2021	WFP, Moroto	Moroto Municipality
Koryang Timothy Lomuriya Risa Joshua Jefferson Logiel Loise Lokongo Faustina Longole Ruth Iningo Okinyom John Peter Dr. Lemukol James Akol Millie Margie	May 18, 2021	DDMC, Napak	Napak District Headquarters
Aguma Raphael, Chairperson and 6 FG members	May 19, 2021	Napak District	Lorikitae village, Lokopo Sub- county, Napak
Lokong Michael, Chairperson and 9 FG members	May 19, 2021	Napak District	Kaangole village, Nakichumet Parish, Matany Sub-county
Joseph Udon	May 20, 2021	CRS, Moroto	Moroto Municipality
Lokiru Michel Patience Akurer	May 20, 2021	FAO	Moroto Municipality
Sagar Pokhare L., Technical Coordinator Beatrice Okware, Implementation Director, Apolou	May 20, 2021	MC	Moroto Municipality
Adupa Joseph and 5 FG members	May 21, 2021	Moroto District	Atedoi village, Mogoth, Rupa Sub-county
Iriama Mariko and 5 FG members	May 22, 2021	Nabilatuk District	Nakaala village, Natirae Parish, Lolacat Sub-county

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Longoli Max, LC1 and 11FG members	May 22, 2021	Nakapiripirit District	Ajokekipii village, Loregee Parish, Loregee Sub-county
Sarah Senaita and 13 FG members	May 24, 2021	Amudat District	Achorchor village, Kosike Parish, Loro Sub-county
Ilukol Jobbs Nangiro Helllen Titus Amooti William Iwual Owalinga Loise Odeke	May 25, 2021	DDMC, Nakapiripirit	Nakapiripirit District Headquarters
Robert Kimanai Benton Logira Werikhe Ambrose David Filda Amuron	May 25, 2021	DDMC, Amudat	Amudat District Headquarters
Anyakun P. Jovic Paddy Byekwaso Loput Judith Alinga Helen Okoboi Amos	May 26, 2021	DDMC, Nabilatuk	Nabilatuk District Headquarters
Omara Jack and 6 FG members	May 27, 2021	Abim	Aroo village, Kano Parish, Abim Sub-county
Moses Kintu Adong Lilly Dorothy Ochen Reinhard Okello Akongo Loise Vicky Ogwang Owello Jino Apora Samuel Omara Victor, Research Assistant Ochen Sango Olweny Owiny Charles	May 27, 2021	DDMC, Abim	Abim District Headquarters
Achau Apakoria and 6 FG members	May 28, 2021	Kotido	Kapeelok village, Lokadeli Parish, Rengen Sub-county
Sarah Narem Muria Tadeo Obin Richard	May 28, 2021	DDMC, Kotido	Kotido District Headquarters
Logwoo Lawrence and 7 FG members	May 29, 2021	Kaabong	Todokonathe village, Narengapak Parish, Kathile Sub-county
Komol Achuka and 5 FG members	May 29, 2021	Karenga	Kanyikwar village, Kapedo Parish, Kapedo Sub-County

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Dr. John B. Logwee Patience Ojok Lokol Adelop Dr. Eladu Frederick Achii Christine Lodou Lomongin Emanuel Awilli Evaline Namoe Sara Ilukori Owilli Bob Richard Lomonyang Simon Adingili	May 31, 2021	DDMC, Kaabong	Kaabong District Headquarters
Iteo John Bosco Lochan Alfred Iluko Lobolia John Mike Aballo Grace Akello Betty Loturo Maximillian Mallo P. Lokiru Ocen Raphael Denis Ngole Peter Moris	June 1, 2021	DDMC, Karenga	Karenga District Headquarters
Rose Nakabuyo	June 8, 2021	Kampala	Assistant Commissioner, NECOC
Dr. Stephen Kajura	June 9, 2021	Entebbe	Animal production/RPLRP Coordinator
Dr. Robert Limilim	June 10, 2021	Kampala	Director, NUSAF
Caro Brenda Lorika	June 10, 2021	Kampala	Project Manager, NUSAF

