



Resilience Analysis Unit

Resilience Context Analysis

Resilience to food insecurity
and malnutrition in
Karamoja, Uganda





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Acronyms

ACF	Action Contre la Faim
ADRA	Adventist Development and Relief Agency
CPP	Country programming paper
DFID	Department for International Development (UK)
DRR	Disaster risk reduction
ECHO	European Commission for Humanitarian Aid and Civil Protection Department
FAO	United Nations Food and Agriculture Organization
FCS	Food consumption score
FGD	Focus group discussion
FEWSNET	Famine Early Warning System Network
GAM	Global acute malnutrition
IGAD	Intergovernmental Authority on Development
IDDRSI	IGAD Drought Disaster Resilience and Sustainability Initiative
IPC	Integrated Food Security Phase Classification
IRC	International Rescue Committee
NUSAF	Northern Uganda Social Action Fund
RAU	Resilience Analysis Unit
RCA	Resilience context analysis
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
UNDSS	United Nations Department for Safety and Security
USAID	United States Agency for International Development
WHO	World Health Organization
WFP	United Nations World Food Programme

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Executive Summary

The Resilience Analysis Unit, led by the Intergovernmental Authority on Development (IGAD) and supported by the Food and Agriculture Organization of the United Nations, the United Nations Development Programme, the United Nations Children’s Fund, and the World Food Programme, carried out the present context analysis with the aim of better understanding resilience to food insecurity and malnutrition in Karamoja, Uganda. It is intended to contribute to the operationalization of the IGAD drought disaster resilience and sustainability initiative and to other in-country efforts to strengthen resilience.

The study was undertaken between August and December 2014, by an inter-agency technical team using multiple data sources, including both quantitative and qualitative methods, which was complemented by inputs from the communities concerned and key informants. After the overall conceptual framework and methodology had been developed, an overview of the socioeconomic context of Karamoja, including main livelihood systems and existing programmes and policies, was documented.

The key shocks and stresses which have commonly affected the population in Karamoja in recent years were then analysed and the trends in the shocks and stresses experienced in the region between 2011 and 2014 and those of food security and nutrition were examined. Local households were categorized into two groups, namely resilient and non-resilient households, based on two criteria: (1) food secure – households with an acceptable food consumption score; and (2) no malnourished children – households where no child was wasted, stunted or underweight based on weight-for-height, weight-for-age and height-for-age scores. Analysis was then carried out to identify a range of “*resilience capacities*” – absorptive, adaptive and transformative – which distinguished resilient households.

Some of the key preliminary findings derived from this resilience context analysis are as follows:

- Karamoja has experienced multiple shocks and stresses in the recent past. Most prominent among those are drought, floods, livestock and crop diseases, insecurity, high food prices and relatively limited access to basic services. Many of those shocks and stresses overlap.
- While some of the food insecurity and malnutrition variables investigated seemed to be on an increasing trend between 2011 and 2014, direct linkages between the drivers of food insecurity and malnutrition and the shocks the region has sustained are not statistically established in the present report. However, trend analysis and feedback from the range of stakeholders consulted in the study area showed that cumulative shocks and stresses had had a bearing on household food insecurity and malnutrition in the past.
- A range of capacities was identified as important in contributing to resilience to food insecurity and malnutrition in Karamoja, including:
 - Absorptive capacity, represented by livestock ownership, informal social safety nets and small businesses.
 - Adaptive capacity, represented by access to productive and secure land, livelihood risk diversification and household labour capacity.
 - Transformative capacity, represented by access to social and productive services, access to credit and savings, and the empowerment of women, youth and local leadership.

- According to the research, some of the possible priority interventions which would enhance local resilience to food insecurity and malnutrition in Karamoja are:
 - Livelihood support, which includes strengthening pastoral production and diversification of activities.
 - Support for access to basic services to strengthen human and social capital.
 - Support for both formal and informal social safety nets and social protection.
 - Support for local governance and empowerment with due consideration for women and youth.

Finally, the study recommended some of the resilience indicators that could be used to quantify the impacts of interventions and could be incorporated in the monitoring and evaluation frameworks for the operationalization of the IGAD drought disaster resilience and sustainability initiative and other relevant in-country efforts to strengthen resilience in Karamoja.

1. Background

The 2010–2011 crisis in the Horn of Africa led to calls for action to break the cycle of high food insecurity and malnutrition in the region. The IGAD secretariat therefore called on the United Nations Food and Agriculture Organization (FAO), the United Nations Development Programme (UNDP), the United Nations Children’s Fund (UNICEF) and the World Food Programme (WFP) to support their capacity and that of their member States to measure and analyse the resilience of people and systems to shocks and stresses. In 2013, a regional Resilience Analysis Unit (RAU) was established to build and strengthen that capacity and provide strategic cross-sectoral analysis and knowledge to inform policies and programming at the agency level aimed at strengthening resilience.

The Unit developed a five-year strategy (2014–2017) for strengthening partnerships around an enhanced resilience research agenda. Under identified result area 2 (as output 2.3), Partnership for Resilience Research, it agreed to undertake a resilience context analysis in the Karamoja subregion of Uganda. The region is one of the least socially and economically developed parts of Uganda, where the majority of the population live below the poverty line, with high levels of malnutrition and little food security. Shocks and stresses include erratic rainfall that causes dry spells and flooding, pervasive insecurity and violence between or within communities, land loss and degradation, and inadequate access to basic services, which exacerbates outbreaks of human livestock disease or crop pests and invasive species. Against this profile of risks, and in spite of a range of policies and programmes in place to mitigate their impacts, the levels of malnutrition and food insecurity are increasing – in June 2014, two thirds of the population was food insecure (UNICEF-WFP FSNA).¹

What is a Resilience Context Analysis?

A resilience context analysis is a study that aims to provide an understanding of resilience in a given context through analysis of available quantitative and qualitative data, supplemented by community consultations and key informant interviews. It also provides a scoping of available data to identify gaps for understanding resilience in a given context. Overall, it is an effort by a multidisciplinary and inter-agency team to align with and support national and regional policy and programming on resilience. By doing so it also seeks to contribute to the development of resilience analysis methodologies.

Given those features, the analysis may serve as an entry point for further in-depth study of resilience. It is a flexible approach that can be adapted according to the context, available data and objectives. Further, it aims to provide guidance and a basis for national or local level resilience analysis – in line with RAU efforts on capacity.

¹ See <http://reliefweb.int/report/uganda/uganda-food-security-outlook-july-2014-december-2014> and <http://reliefweb.int/report/uganda/uganda-karamoja-wfp-unicef-food-security-and-nutrition-assessment-june-2014>.

In the light of the above definition, the present study had the following objectives:

1. Provide an analysis of resilience to food insecurity and malnutrition in Karamoja.
2. Identify data gaps for future understanding of resilience to food insecurity and malnutrition in Karamoja.
3. Contribute to the operationalization of the IGAD drought disaster resilience and sustainability initiative and other relevant in-country efforts to strengthen resilience in Karamoja.
4. Support the efforts of partner agencies to develop or improve methodologies for resilience analysis in Karamoja (and beyond).

An inter-agency RAU technical team was assembled for the Uganda resilience context analysis composed of a range of specialists: a vulnerability and resilience data analyst (WFP), a disaster risk reduction and drylands development specialist (UNDP), an anthropologist (UNICEF), a socioeconomist (FAO-IGAD) and an environmental sociologist (FAO-IGAD).

The work began in August 2014 with a desk review of literature and the available data, in order to develop the analytical approach and framework explained below. That was followed by a visit to agencies, partners, local government, key stakeholders and community representatives in Karamoja in November to validate and deepen the findings that were emerging. That in turn led to a revision of the analysis and writing of the present report, validated by a consultation workshop.

2. Conceptual Framework

2.1. Resilience Definition

Many definitions of resilience exist among development and humanitarian actors (see annex 1). As stated in the strategy for the IGAD drought disaster resilience and sustainability initiative, “Resilience is the capacity to manage, adapt to, cope with, or recover from stresses, shocks and disasters; or the ability of a system to remain stable or adapt to a new situation without undergoing catastrophic changes in its basic functioning”.² The present analysis focuses on the capacity to absorb shocks and stresses, to adapt to shocks and stresses and to transform in the face of shocks and stresses.



The photo above shows members of a community consultation – with a woman demonstrating “agogong”

It seeks to understand resilience in Karamoja from a local perspective. In any context analysis, local terms for resilience need to be established. That was done at the start of the consultations held in Karamoja with local communities. The words agreed and used are listed in the box below:

Local terms used for resilience in Karamoja

Agogong is the most appropriate word in Ng’akaramojong for resilience. It means strength, and is widely applied for people, animals and systems. In communities where Ng’akaramojong is the local language, agogong is the closest fit for the definition of resilience this study uses: the ability to absorb, adapt and transform in the face of a shock.

Other words for resilience in the Ng’akaramojong language are akabaran and ekabaran - they describe a strong or wealthy person (female and male respectively)

Chichimat is the most appropriate word in the Pokot language for resilience. It is the equivalent of agogong in meaning strength, including the strength to overcome shocks.

² See <http://resilience.igadhost.com/index.php/about/strategy>.

2.2. Principles

The following principles inform a resilience context analysis, consistent with the general analytical approach of RAU:

1. **Resilience needs to be measured in relation to a given outcome.** Resilience context analysis focuses on resilience to one or more well-being outcome, which should be sustained and improved over time and shocks. Food security and nutrition are commonly the well-being outcomes used, as they align with the interests of a broad range of agencies and are relatively well represented in available data. Other well-being outcomes could be used based on the context, objectives and data availability.
2. **Resilience needs to be related to shocks and stresses.** Within a given context, resilience context analysis starts by generating trend analyses of typical shocks, such as drought or dry season, floods and insecurity. A calendar showing trends in those shocks over time can be generated and correlated with trends in outcomes and capacities. Identified shocks can be understood alongside a review of common stresses which increase vulnerability to (and the impact of) those shocks.
3. **Resilience can be understood as a set of capacities: absorptive, adaptive and transformative.** Trends in outcome indicators (e.g. food security and nutrition) can be used to distinguish resilient households from non-resilient ones. By matching this against a broad range of corresponding quantitative and qualitative data, it is possible to see which indicators are significant for resilience. Certain indicators may be seen to matter more than others in terms of supporting household capacity to absorb a shock, or adapt and transform in the face of it. That is the basis for an analysis that can guide programming and policy to strengthen resilience. Where gaps exist in data for understanding capacities that are relevant for resilience, the resilience context analysis identifies them and makes recommendations for addressing them.
4. **Resilience can be measured at different levels, including individual, household, community, systems, subnational, national and regional levels.** A resilience context analysis might focus on understanding resilience at household level, while referencing higher-level factors that influence it, i.e. community or higher levels. The analysis can be aggregated for districts, areas or regions.
5. **Resilience is best understood through the integration of quantitative and qualitative methods, considering objective and subjective measures.** Quantitative data is gathered from available sources (surveys, assessments, evaluations etc.) while complementary qualitative data is taken from literature and also from consultations with communities and other relevant stakeholders.
6. **Resilience must be understood over a significant time frame, with longitudinal data revealing how risks, responses and resilience interact – and affect food security and nutrition – over time and over shocks.** Resilience context analysis looks at the relevant and available data from recent years. A longer time frame may be referenced where necessary, for example to show long-term trends in livelihoods, assets, security etc. Looking forward, the hope is to guide ongoing resilience analysis in the same context using datasets from continued or additional surveys.
7. **A resilience analysis useful to implementing agencies must reference current programmes and policy, in order to guide suggestions on where improvements could be made.** Resilience context analysis includes an analysis of relevant programmes and policies. It also identifies policies or programmes, ongoing or planned, which could be informed by the findings as to which capacities strengthen resilience.

2.3. Conceptual Framework

It is understood that resilience is not directly observable per se, but rather must be measured using a series of indicators in an analytical framework. The framework in figure 1 was adapted to guide the analysis.³ It shows how a combination of resilience measurement approaches (considering qualitative and quantitative as well as subjective and objective data) are used to analyse initial states and capacities (at multiple scales from households to systems) and then subsequent states and capacities after shocks and stresses have occurred, while also bearing in mind the context in which the analysis takes place.

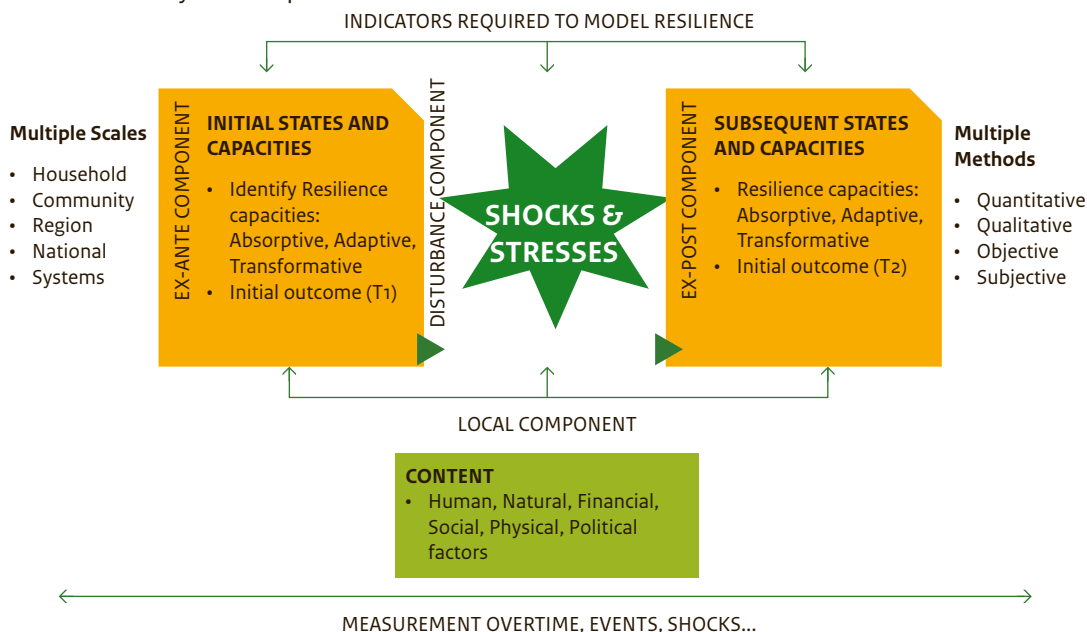


Figure 1. Resilience framework adapted for use in the present resilience context analysis

2.4. Analytical approach

Based on the resilience framework adapted for the present resilience context analysis, a step-by-step approach was developed to guide the work. It shows how the available data was used in a four-part resilience analysis, with follow-up steps that ultimately contribute to resilience strengthening. The approach is summarized in figure 2.

The steps of the analytical approach, in more detail, are as follows:

1. **Analyse shocks and stresses in recent years.** A shock calendar was created to display the multitude of shocks that have affected the area in recent years, using secondary data validated by local consultation. That is elaborated in section 5 below.
2. **Identify outcome indicators and analyse their trends in recent years.** Resilience context analysis identifies resilience outcomes that are proxies for well-being. In the present analysis, food insecurity and malnutrition were identified as resilience outcomes. To be consistent with ongoing analysis in-country, the food consumption score was used as a proxy indicator of

³ Adapted from a 2014 model by Frankenberger and Constanas, Resilience Measurement Technical Working Group. See Food Security Information Network, "A proposed common analytical model for resilience measurement: a general causal structure and some methodological options", World Food Programme, 2014, available from <http://www.fsincop.net/resource-centre/detail/en/c/267o86>.

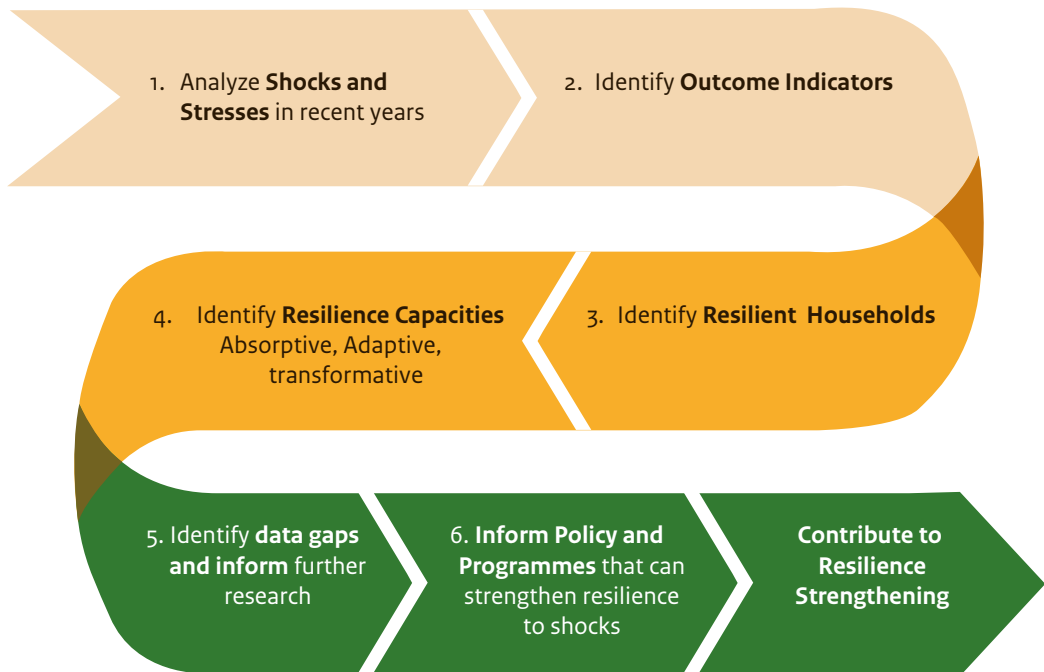


Figure 2. Resilience analytical approach

food security, while global acute malnutrition was selected as a proxy for child malnutrition.⁴ A detailed trend analysis of those key outcomes, along with other relevant indicators, is set out in section 6 below.

3. **Identify resilient households that are able to sustain well-being outcomes throughout the analysis period.** In the present analysis, resilient households were defined as those that, despite shocks and stresses, were (1) food secure according to their food consumption score and (2) did not have any malnourished children. More information on resilient households is included in section 7 below.
4. **Identify key capacities that distinguish resilient households.** Using long-term household data and a literature review, a comprehensive list of capacities was identified and divided into three categories: absorptive, adaptive and transformative. A second step using quantitative data analysis and qualitative inputs from local-level consultations (focus group discussions and key informant interviews) generated the set of capacities that characterized resilient households. More information on that is included in section 7 below.
5. **Identify data gaps and inform further research.** The steps above helped to identify further data gap areas that could be filled with existing, adapted or future surveys.
6. **Inform policies and programmes that can strengthen resilience to shocks and stresses.** Through identification of capacities that strengthen resilience – and identification of the shocks and stresses that undermine it – the present analysis has generated implications for policies and programming that seek to strengthen the resilience of vulnerable households. They could also align with existing in-country (or cross-border) processes by Governments, agencies and development partners.

⁴ Global acute malnutrition is the sum of the prevalence of severe and moderate acute malnutrition at population level, gauged by anthropometric measures. See <http://www.unicef.org/nutrition/training/2.3/13.html>.

3. Methodology

The present analysis took a participatory approach, involving a wide range of agencies and stakeholders including communities themselves. It began with a literature review, an analysis of secondary data and consultations with agencies and stakeholders remotely and face to face. A draft report was widely circulated among agencies and stakeholders. After incorporation of three rounds of comments, a technical consultation workshop was held in Kampala to collectively review and finalize the report. The workshop was attended by representatives of national and local government, the communities which had been consulted and partner development agencies.

3.1. Data sources

Different steps of the resilience context analysis used different sources of data, both quantitative and qualitative (as described below and in the references).

Step 1: Analyse shocks and stresses in recent years. The shock calendar and the list of stresses were created using different sources referenced in the present section and as follows:

- **Literature review:** Famine Early Warning Systems Network (FEWSNET), Karamoja action plan for food security 2009–2014; African Monitoring of the Environment for Sustainable Development, 2014; community-based resilience analysis in Kotido and Kaabong Districts, Karamoja, June–July 2013; UNDP, Karamoja districts hazard, risk and vulnerability profiles, August 2014; other sources as given in the references.
- **Quantitative data:** Food security and nutrition assessment, June 2014 and May 2013; food security assessment, February 2014; Ministry of Gender, Labour and Social Development and UNICEF Uganda, Situation Analysis 2014; Uganda Bureau of Statistics 2014; Desinventar; European Union Karamoja livelihoods programme baseline survey 2012; Tamsat research group 2009–2014; United Nations Department of Safety and Security.
- **Qualitative data:** key informant interviews during the field mission.

Step 2: Identify outcome indicators and analyse their trends in recent years. Prevalence of malnutrition (global acute malnutrition) and food insecurity were taken from the following sources:

- Food security and nutrition assessment reports from 2011 to 2014
- Action Contre la Faim (ACF)-UNICEF surveillance systems from 2009 to 2011
- Integrated food security phase classification analysis from 2009 to 2014, FEWSNET and FAO
- Qualitative information from the United States Agency for International Development (USAID) 2014.

Step 3: Identify resilient households. Quantitative data analysis was carried out using the food security and nutrition assessment by WFP and UNICEF:

- May 2013 (3,157 households and 3,051 children 0–59 months)
- June 2014 (3,700 households and 4,348 children 0–59 months)

The food security and nutrition assessment is a biannual food insecurity and malnutrition assessment in which sampling is designed to generate regional and district-level estimates for food insecurity and malnutrition. More detail on the sampling frame used in those surveys is in annex 2. For the purpose of the present analysis, the original sample was divided into two groups: resilient and non-resilient households as described in section 6 below.

Step 4: Identify key capacities. Quantitative data from the May 2013 and June 2014 food security and nutrition assessments were used to extract indicators identified from the literature review (including the community-based resilience analysis of 2013). The list of capacities was then integrated with qualitative information from focus group discussions and key informant interviews during the field mission.

- **Structured focus group discussions**, November 2014. These took place in communities in all seven Karamoja districts with more than 200 people representing agriculturalists, pastoralists, women and youth. The local-level understanding generated was used to triangulate the quantitative data analysed and direct quotes are included throughout the present report to represent community perspectives on resilience.
- **Key informant interviews**, November 2014. These took place in all seven districts with around 180 stakeholders from the Government, non-governmental organizations (NGOs) (ACTED, Adventist Development and Relief Agency, Institute for International Cooperation and Development, CAFOD, Community Action for Health, Community Association for Health, CUAMM Doctors with Africa, Danish Refugee Council, Welthungerhilfe, Medical Assistance Programme International, Mercy Corps, One Cow project, World Vision), United Nations departments and agencies (FAO, WFP, UNICEF, UN-Women, Department of Safety and Security) and the International Organization for Migration.

Step 5: Identify data gaps. Data gaps were identified in all the sources reviewed and analysed.

Step 6: Inform policies and programmes. An extensive review of government reports, policy documents and stakeholder programmes was conducted. Some of the documents reviewed included the Karamoja action plan for food security, the Karamoja integrated disarmament and development plan, the Uganda National Development Plan and the Government of Uganda country programming paper to end drought emergencies in the Horn of Africa (see references for full list).

3.2. Limitations of the present study

While as rigorous as possible, the limitations of the methodology are set out below:

- **Quantitative data:** (i) the study used available, published data and information, and therefore data which was not designed specifically for a resilience analysis. Some quantitative data that may have been relevant was missing and this has been identified throughout. Qualitative information was used to fill the data gaps where possible; (ii) while available data was representative at district levels, different households were interviewed, so trend analysis for specific households (i.e. panel data) was not possible. Comparisons over years were done at aggregate levels: district, groups etc.; and (iii) data comparison between different years was not always possible in instances where the questions asked differed from year to year. Even if some information was available regarding sampling frames of the data sets mentioned above, detailed information about the population used to design the sampling was not available to the team.

- **Qualitative data:** primary qualitative information was gathered from focus group discussions and key information interviews that were organized through purposive sampling and cannot therefore be called representative. Care was taken to include all districts and a comprehensive range of stakeholders was consulted, including women and men, young and old and pastoralist and cultivator representatives at the community level. However, there are limitations to the representativeness of the sample, all the more so considering that not all participants offered input.

4. Karamoja Context and Livelihoods

The study was conducted in the Karamoja subregion of Uganda. The area is located in north-eastern Uganda, bordered by Kenya to the east and South Sudan to the north (see figure 3). It covers an area of 27,511 km² in seven districts: Moroto, Kotido, Kaabong, Nakapiripiriti, Abim, Amudat and Napak. Karamoja has a population of approximately 1.3 million people, of the following ethnic groups: Karamojong, Jie, Tepeth, Dodoth, Oropom, Pokot, Teuso and Ethur.⁵

Currently all human development indices show that the Karamoja subregion is one of the least developed parts of Uganda, despite having 19.8 per cent of the total national cattle population (and 16.3 per cent and 49.4 per cent of the national goat and sheep populations respectively).⁶ Approximately 82 per cent of the population of Karamoja lives in absolute poverty, compared to the national average of 31 per cent and the global acute malnutrition level is 11 per cent (see table 1 below) versus a national average of 6 per cent.⁷ The region has a high degree of social/cultural marginalization, with long-standing dependency on external aid. Table 1 indicates additional statistics for the underdevelopment of Karamoja relative to the rest of Uganda.



Figure 3. Map of Uganda showing Karamoja

Comparative humanitarian and development indicators	National average	Karamoja
Population living in absolute poverty (World Bank 2006)	31%	82%
Maternal mortality rate per 100,000 live births (DHS 2011)	438	750
Infant mortality rate per 1,000 live births (UNICEF/WHO 2011)	54	105
Under-five mortality rate per 1,000 live births (UNICEF/WHO 2011)	134	153
Global acute malnutrition (UNICEF/WFP 2012)	6%	11%
Access to sanitation facilities (UNICEF 2008)	62%	9%
Access to safe water (UNICEF 2008)	63%	30%
Literacy rate (DHS 2004)	63%	21%
Life expectancy (UNDP 2013)	59.2 years	47.7 years

Table 1. Statistics comparing development in Karamoja with the national average

⁵ Uganda Bureau of Statistics projection for a 2012 estimate of the total population of Karamoja was 1,294,000. The total population of Uganda was 33,425,000 in 2010 according to United Nations world population projections.

⁶ National livestock census, 2008. Uganda Bureau of Statistics.

⁷ Karamoja action plan for food security (2009–2014).

4.1. Livelihoods in Karamoja

The main livelihood systems in Karamoja are pastoralist, agro-pastoralist, agricultural and urban. Figure 4 shows six distinct livelihood zones as classified by FEWSNET, FAO and the Government of Uganda,⁸ which correlate with the Karamoja region being hotter and drier to the east and wetter and cooler to the west. The most significant is the central sorghum and livestock zone (orange), followed by the western mixed crop farming zone (green), the mountain and foothills maize and cattle zone (blue) and then the north-eastern highland agriculture and potato zone (bright green).

As demonstrated in the present analysis, households in Karamoja typically do not rely on one income source but rather a combination – and one that varies among districts and across seasons.

The main economic activities are shown in figure 4. The largest group of households (30-40 per cent) engage in petty trade (in particular the sale of natural resources and brewing, an activity seen in both pastoralist and agricultural zones). For the second largest group (12–14 per cent), the most important economic activity is agricultural crop production for sale.

A smaller percentage of households (fewer than 5 per cent) engage in salaried employment, while others (3–4 per cent) depend on borrowing and food assistance.

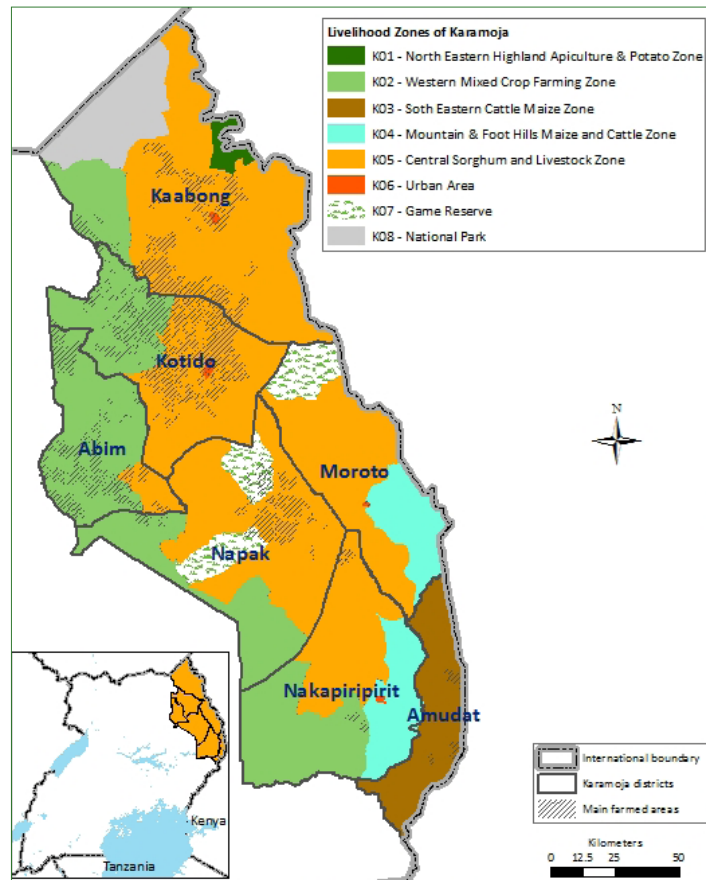


Figure 4. Karamoja livelihood zones (Source: FEWSNET 2013)

⁸ See <http://www.fews.net/east-africa/uganda/livelihood-description/december-2013>.

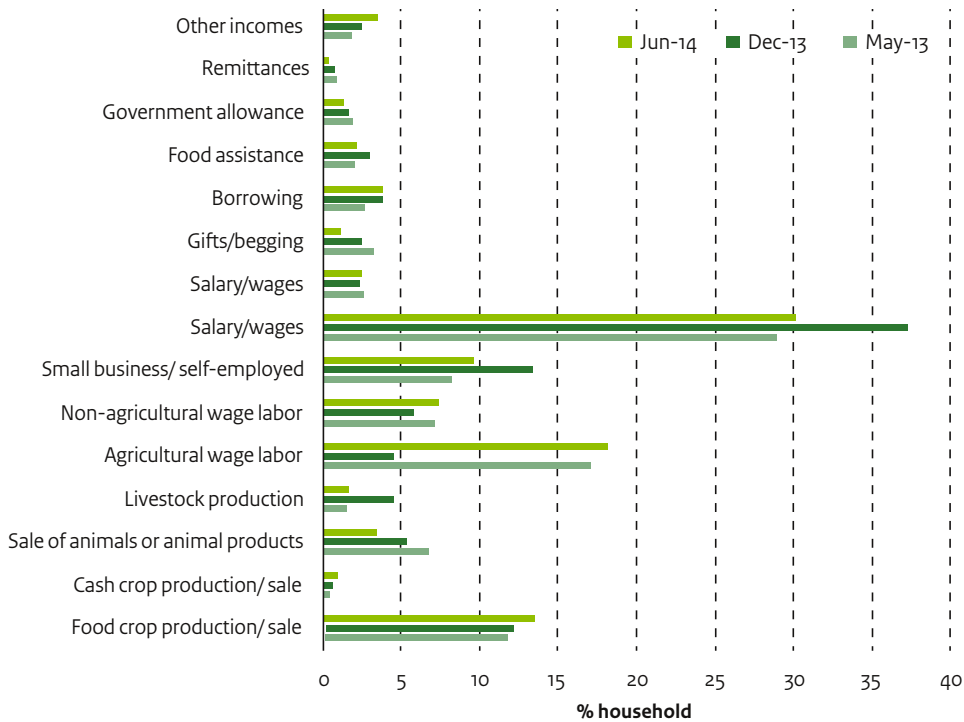


Figure 5. Karamoja income activities (Source: FSNA 2013–2014)

Cash income in Karamoja is mostly gained from selling firewood or charcoal, followed by brewing, then quarrying, then brickmaking. Figure 6 shows distinctions when it comes to cash income in different districts.

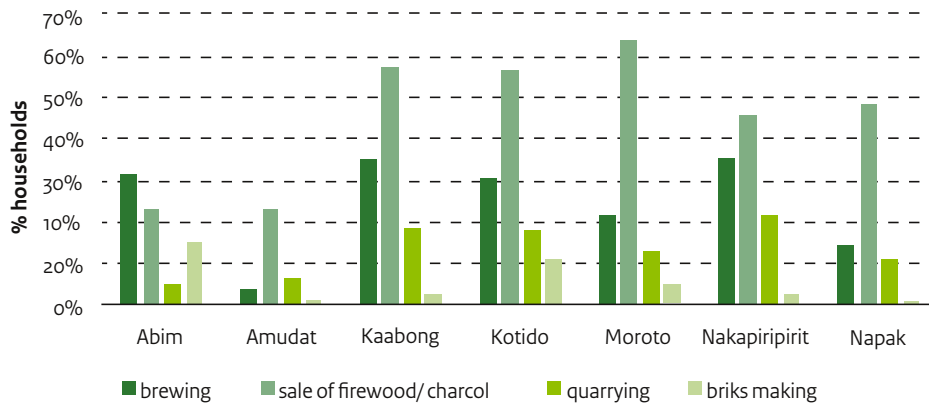


Figure 6. Karamoja cash activities by district (Source: FSA 2014)

Combining the data on livelihoods and cash income and corresponding to the map of livelihood zones shown above in figure 4, the following brief district profiles emerge (and can be interpreted alongside district-level information on resilience capacities given below):

Details on keys aspects of livelihoods in Karamoja – in particular livestock ownership and crop production, as well as other income activities – are included throughout the report.

Abim income activities are mostly related to crop production and agricultural wage labour, with 30 per cent of households involved in brewing as a cash-generating activity.

Amudat is more pastoralist, with the highest percentage of households trading animals (around 35 per cent of those surveyed) even if that percentage has decreased in the past year.

Kaabong sees petty trade as the main income activity (20–25 per cent) followed by food crop production. Thirty per cent of households are involved in brewing and more than 50 per cent in the sale of firewood/charcoal.

Kotido also sees petty trade as the most common source of livelihoods, followed by wage labour (mainly agricultural) and some food crop production. More than half the population is involved in the collection and sale of natural resources, such as firewood and charcoal, and around 30 per cent of households are involved in brewing.

In **Moroto**, the main activity is petty trade (with the sale of natural resources involving almost 60 per cent of households, followed by brewing). The second main activity is non-agricultural wage labour.

In **Nakapiripirit** the main income activity is petty trade. Households are also involved in agricultural wage labour and some have a small business. The district sees the highest percentage of households brewing to make an income.

In **Napak** agricultural wage labour and petty trade are the main income activities and more than 50 per cent of the households interviewed were engaged in brewing.

4.2. Programmes and policies

The plans, programmes and policies listed in this section provide an overview of the various initiatives by the Government and other development partners in Karamoja. They recognize that shocks and stresses frequently overwhelm many households and consequently advocate for investments to enable households to withstand and adapt to shocks and stresses in a timely and effective way. Some of those investments, policies and programmes are summarized in annex 3.

Key policies for resilience and development in Karamoja include:

- The Uganda National Development Plan 2011–2015 entitled “Growth, employment and socio-economic transformation for prosperity”
- Karamoja integrated disarmament and development programme 2011–2015, to become the Karamoja Integrated Development Programme from 2015
- Karamoja action plan for food security 2009–2014
- IGAD drought and disaster resilience initiative country programming paper for Uganda.

Key development partners operating in Karamoja alongside the Government of Uganda include IGAD, United Nations agencies (including UNDP, UNICEF, WFP and FAO), the World Bank, the Department for International Development (DFID), USAID, ECHO/DEVCO and a number of international NGOs. The programmes supported by development partners are also summarized in annex 3.

Inputs from key informants in Karamoja suggest that there are issues to be considered concerning the way in which development or humanitarian interventions are delivered. They include:

- **Short-term planning.** Much of the past programming in the region was short-term, delivered as humanitarian or “*transition*” (from emergency to development) assistance. That was partly a result of the prevailing insecurity, also arguably of funding constraints, and led to an inadequate strategic vision for sustainable development and capacity-building in Karamoja.
- **Planning and coordination.** Karamoja is not unique in being a context where better coordination and complementarity of actors is called for, but this is frequently repeated as an area for change, beginning with a comprehensive mapping of stakeholders and activities.
- **Remoteness of implementers.** Security constraints, agency modes of working and limited local agency staff have contributed to a sense of remoteness between implementers and those on the receiving end of development interventions.
- **Insecurity across borders.** The relative lack of regional policies for coordinated disarmament has increased the vulnerability of the pastoralists in Karamoja who have disarmed. The proliferation of small arms across the borders with Kenya and South Sudan and the relative mobility of those owning them have undermined security and development objectives for Karamoja.

5. Analysis Part I: Shocks and Stresses

5.1. Introduction to shocks and stresses

This section provides an overview of the shocks and stresses experienced in Karamoja,⁹ against which the present analysis considers resilience, expressed as sustained food security and nutrition.

The analysis reveals that Karamoja is affected by multiple shocks and stresses. Most of the communities and households in the study are typically affected not by a single shock or stress but by a combination, or by a sequence that makes recovery between episodes difficult (see figure 7).

The main shocks include erratic and uneven rainfall resulting in severe dry spells and flooding; outbreaks of livestock disease; crop pests and invasive species; high food prices; and insecurity.

The main stresses include livestock losses; youth disempowerment; weak community leadership; inadequate access to education and health services; inadequate access to water and sanitation; low agricultural productivity and services; violence, alcoholism and women’s disempowerment; negative social norms; and land degradation and tensions.

Figure 7 shows that the households surveyed perceived drought and poor harvest, the sickness of household members and high food prices as the most recurrent shocks in all the districts sampled. That varies by district: in Amudat for example, households report being more affected by crop pests and animal diseases than in other districts.

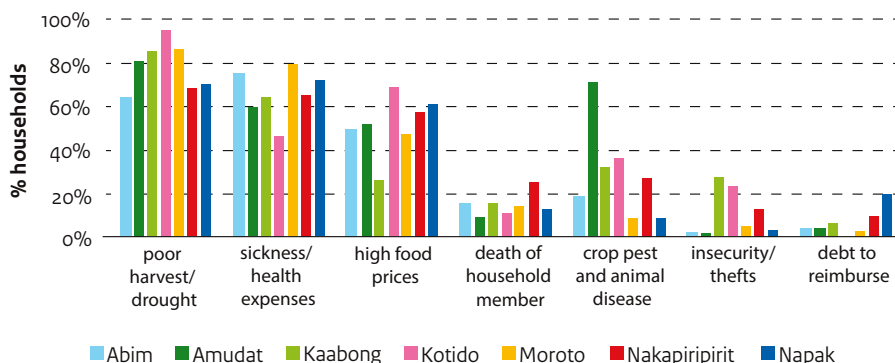
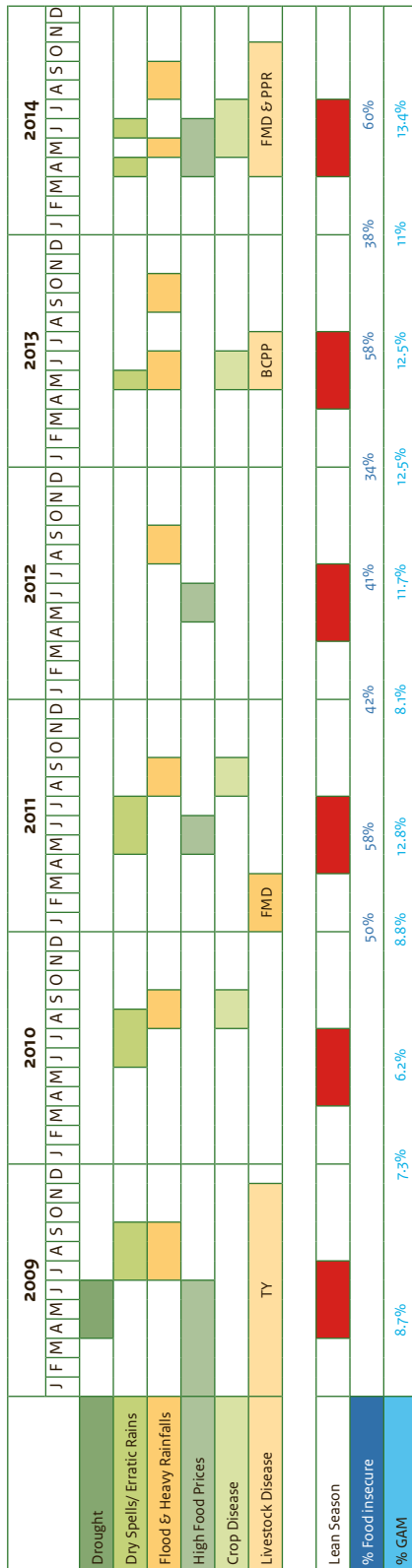


Figure 7. Shocks and stresses by district (Source: FSA February 2014)

⁹ For the purpose of the present analysis, working definitions used are as follows: a shock is a sudden event impacting the vulnerability of a system and its components and a stress is a prolonged event that undermines the potential of a given system and increases the vulnerability of the actors within it, or a slow-onset hazard that develops and passes a tipping point to become an extreme event.

Figure 8. Shocks and stresses event timeline (Source: Fewsonet, IPC, Karamoja action plan for food security (2009–2014), key informant interviews)



The occurrence of shocks and stresses changes across districts and also across years and seasons. Figure 8 provides information about the occurrence of key shocks and stresses in Karamoja between 2009 and 2014.

The event timeline shows that shocks and stresses in Karamoja are often observed at the same time. It also reveals a seasonal pattern to major shocks, with most occurring between April and July. In recent years, dry spells have often been followed by floods and associated with crop and often animal diseases and high food prices. This suggests the difficulty faced by a household or community trying to recover from each event. Overlaying the occurrence of shocks and stresses with food insecurity and global acute malnutrition rates implies that food and nutrition conditions may decline in response to multiple shocks experienced. While this is in line with other related trend analyses and community inputs, it would require further correlation analysis.

Figure 9 shows months when households reported having the most difficulty in accessing food. This was mainly between April and July, with 80 per cent of households experiencing difficulties in the month of May.

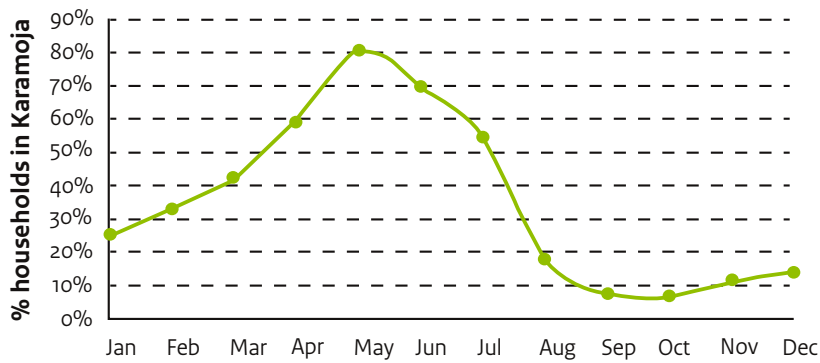


Figure 9. Months when households in Karamoja reported difficulties in accessing food (Source: FSNA May 2013)

Table 2 sets out the shocks and stresses described in the following sections.

Table 2. Shocks and stresses

SHOCKS

- Erratic, uneven rainfall causing dry spells and floods
- Livestock disease outbreaks
- High food prices
- Crop pests and invasive species
- Insecurity

STRESSES

- Livestock losses
- Inadequate access to health care
- Inadequate access to education
- Inadequate access to water and sanitation
- Land degradation and tensions
- Youth disempowerment
- Low agricultural productivity and services
- Limited community leadership
- Negative sociocultural norms
- Violence, alcoholism, women’s disempowerment

Table 2. Shocks and stresses

5.2. Shocks

Climate-related shocks as a result of unpredictable and uneven rainfall are increasingly leaving households more vulnerable and unable to cope or adapt. Households that have lost their productive assets and are relatively new to cultivation, or those with little access to services, support and information, face particular difficulty withstanding climate-related shocks in Karamoja.

Livestock diseases and parasites similarly affect lives and livelihoods in the region. Spikes in food prices also constitute a shock. The analysis of key shocks also considered insecurity between or within communities and caused by land or resource tensions. Further explanation of those shocks and their increased impacts is given in the section below on contextual stresses.

5.2.1 Erratic, uneven rainfall causing dry spells and floods

Karamoja has seen a significant change in rainfall patterns in recent history. Where the onset of rains may in the past have fallen at roughly the same times in a year, recent patterns show this has been shifting. Figure 10 illustrates how monthly rainfall varied in 2013 and 2014 (January–September) and what the average monthly rainfall was for the past 30 years. The final two rows show the anomalies in monthly rainfall occurring in 2013 and 2014 (expressed as relative difference [%]). The same analysis was done from 2009 to 2014, showing the same pattern, and can be found in annex 4.

The illustrations in Figure 10 show constant changes in rainfall patterns between months and over years. The start of the rainy seasons has been shifting in Karamoja.

They also show anomalies in rainfall, i.e. prolonged dry seasons that were more frequent in 2014 than in 2013. Rainfall anomalies coloured in blue represent unusually high concentrations of rainfall, often associated with floods. Rainfall anomalies coloured in orange represent unusually dry periods.

For crop producers, the shifting and unpredictable rainfall means planning is hard, seeds are wasted and crops may fail. As a farmer in Napak said, “*The rain has changed. We don’t know when to cultivate, or we use all our seeds at the wrong time*”. The fact that there are households across Karamoja transitioning to cultivation and crop production without significant experience or skills to complement the transition, makes adapting to the challenge of a shifting rainfall pattern even harder. Food and security nutrition assessment data from 2014 record that the harvests of 77 per cent of households were poor, owing to dry spells in the previous three months, with 41 per cent reporting dry spells as the primary shock suffered (by far the most substantial shock recorded).

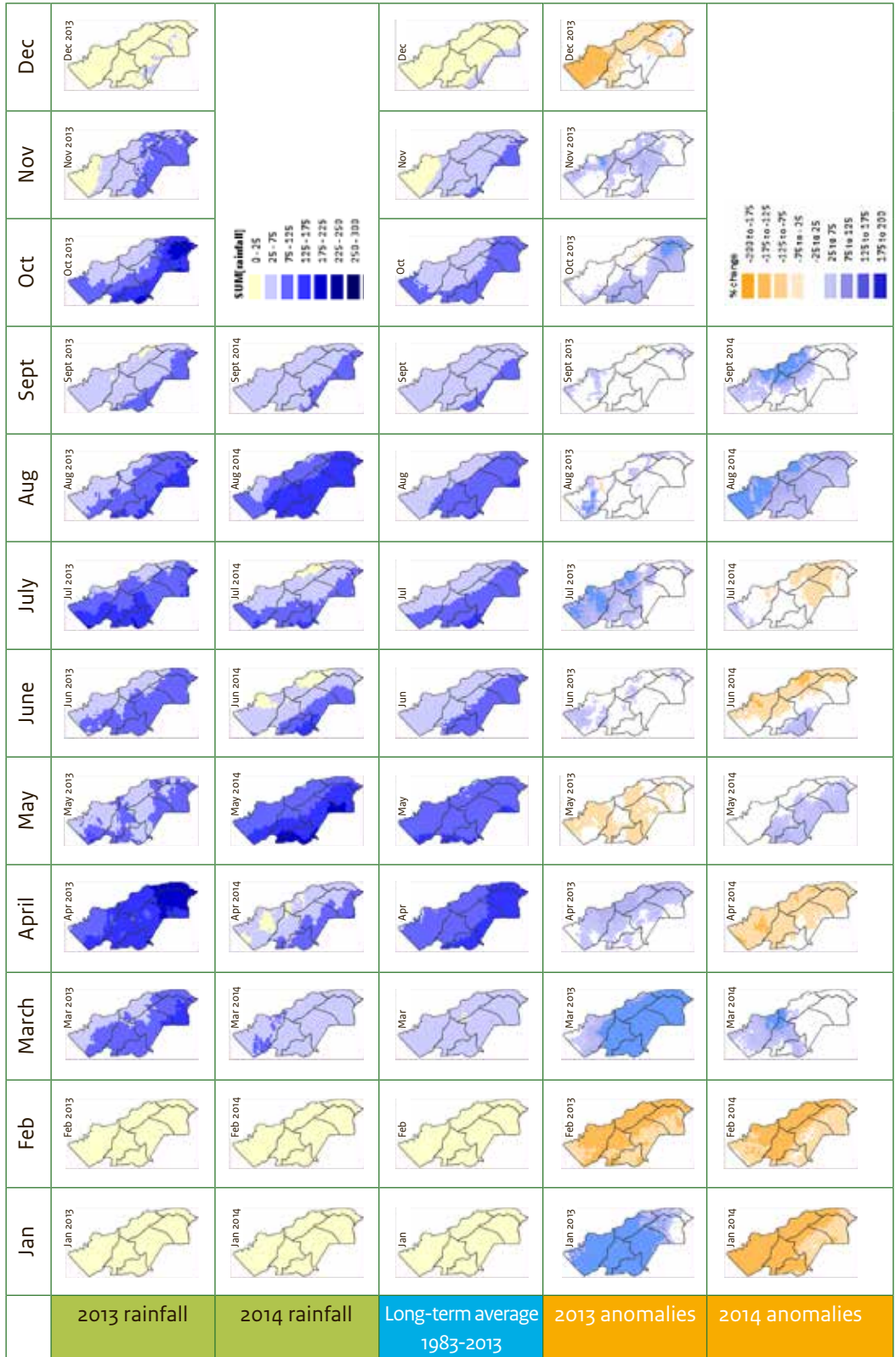
The erratic rainfall causes both severe dry spells and flooding (see figure 11), which are a threat for both cultivators and pastoralists, affecting assets and productivity. Over successive years, those shocks build up: repeated severe dry seasons (and failed harvests) can cause drought and chronic food insecurity, while successive floods can cause environmental degradation¹⁰ and lost assets.

Climate variability and change in Karamoja is projected to continue, manifested in extreme weather conditions, such as flooding and droughts, which will affect livestock, pasture and crop productivity and possibly also escalate epidemics of pests and diseases for humans, livestock and crops.¹¹

¹⁰ The most severe drought in living memory was in 1980, which triggered a famine which killed as many as 50,000 people. Since 2001 there have been extended dry spells in 2002, 2004, 2006 and 2009, and flooding such as that experienced in 2007 and 2012/13

¹¹ Anthony Egeru et al. “Assessing the spatio-temporal climate variability in semi-arid Karamoja sub-region in north-eastern Uganda”, International Journal of Environmental Studies, vol. 71, No. 4.

Figure 10. Karamoja monthly rainfall in 2013–2014, monthly rainfall average for the past 30 years and anomalies in 2013–2014 (Source: Tamsat research group 2009–2014)



5.2.2 Outbreaks of livestock disease

Karamoja suffers outbreaks of various livestock diseases that occur unpredictably, are often difficult to manage and can devastate herds. They include foot-and-mouth disease, peste des petits ruminants (or goat plague), contagious caprine pleuropneumonia in goats, contagious bovine pleuropneumonia in cattle, tick-borne diseases such as East Coast fever, anaplasmosis, cowdriosis (heartwater), babesiosis, trypanosomes (transmitted by tsetse fly, especially in certain areas including those close to game reserves) and mange. Poor distribution of quality livestock health services and limited cross-border veterinary controls mean that outbreaks of livestock disease can easily become epidemics (see section 5.3 below on stresses). Where insecurity exists, it hinders

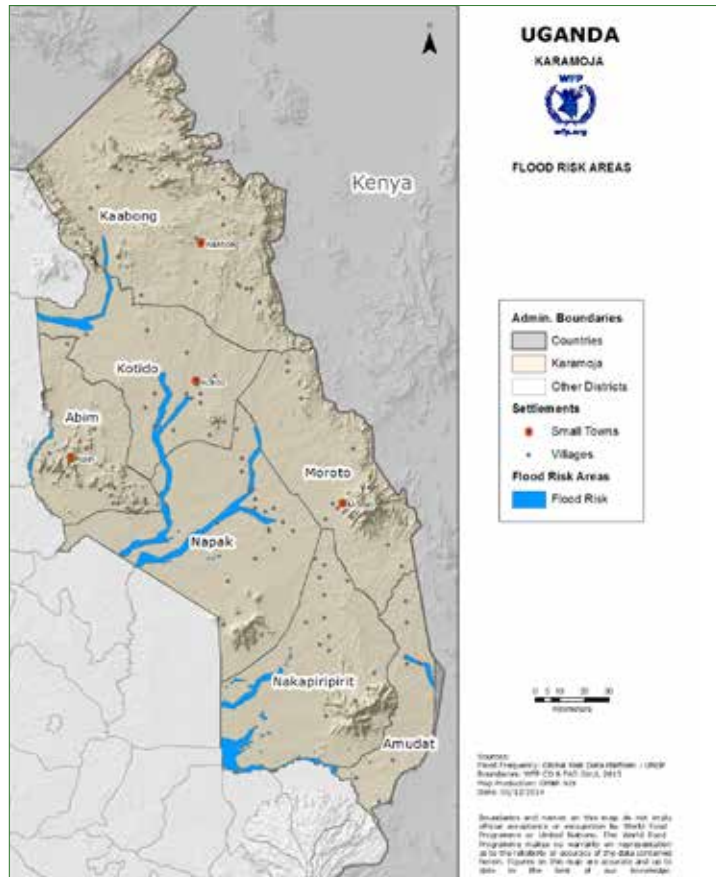


Figure 11. Flood risk areas (Source: UNEP)

movement or crowds animals together (e.g. in communal kraals), exacerbating the spread of disease.

As shown in figure 12, there are many constraints affecting livestock production in Karamoja. In all districts, animal diseases and inadequate access to quality veterinary services are perceived as the main challenges to livestock production. Limited money to invest in livestock production is

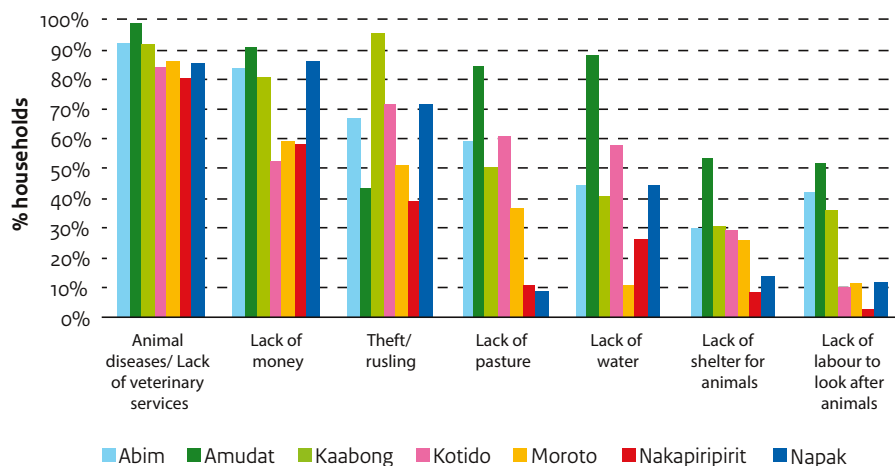


Figure 12. Main livestock production constraints by district (Source: FSA February 2014)

the second constraint, followed by theft, inadequate and fluctuating access to pasture and water, inadequate shelter and inadequate household labour to take care of livestock (especially when children attend school).

Some livestock production constraints are more prominent in certain districts: for example livestock thefts/raids are higher in Kaabong (reported by more than 90 per cent of households) and inadequate access to water, pasture, shelter for animals and labour are more prominent in Amudat.

There was a sense among local people that livestock diseases were becoming harder to recognize and/or control. As stated in a community consultation, *“Livestock diseases come which are not familiar and the traditional remedies we had don’t work”*. The problem is made worse by poor livestock health and access to veterinary services (as is shown in section 5.3 below on stresses).

Outbreaks of livestock disease can prompt market closures – for example in September 2014 the Government closed all the livestock markets in Karamoja and declared a quarantine period until early 2015, as a result of an outbreak of foot-and-mouth disease. That compounds the loss of livestock assets. An agro-pastoralist consulted reported that: *“On top of two failed harvests, we had foot-and-mouth disease, which closed the markets.”*

5.2.3 Crop pests and invasive species

Among the major shocks that affect agricultural production in Karamoja are crop pests and diseases. That was reported by almost 30 per cent of the population in February 2014. Major crop threats include striga (witchweed) and honeydew that affects late-planted sorghum. Those and other threats can slash yields and typically low-tech production methods are unable to control or reverse that. Many cultivators are ex-pastoralists, new to farming or *“in transition”* and their inadequate experience and knowledge, combined with poor extension services, make outbreaks of crop pests hard to control and significant in terms of food insecurity and economic vulnerability. An agro-pastoralist in Nakapiripirit described the struggle against pests that affected their staple crop: *“Here most people grow sorghum, for food and for local brew. If a pest affects sorghum it can be very difficult.”*

In Karamoja, the eroded areas are quickly invaded by the common invasive species such as *Picinus communis* (Ebune), *Cynodon dactylon* (Toananya), *Priva* sp., *Hoslundia opposita* (Etupukwanait) and *Ipomoea* sp. (Amatwae).¹² They are known to quickly overtake the palatable species and are poisonous, while some cause physical injury to livestock.

5.2.4 High food prices

The cereal prices in Karamoja, particularly of staple foods, including sorghum and maize, have fallen somewhat below the elevated food prices of 2009. However, they are still relatively high, because of the remoteness of the region and its weak infrastructure, as well as its recent low harvests. Food security and nutrition assessment data from 2014 show that 52 per cent of households experienced high food prices as a shock in the previous three months, with 8 per cent reporting it as the primary shock suffered.

There is not much annual variation in staple food prices, except in the post-harvest period from November to March, when prices normally decrease. Compared to the same period in August 2013, the average prices for maize grain in 2014 were higher across Karamoja by 11 per cent. The increase in

¹² See the briefing note prepared and technically facilitated by the International Union for Conservation of Nature, with financial support from the European Commission for Humanitarian Aid through ACF and in collaboration with the Directorate of Water Resources Management in Uganda, available from http://www.disasterriskreduction.net/fileadmin/user_upload/drought/docs/RANGELANDS%20NEW%20Policy%20Brief.pdf.

sorghum prices in 2014 was due to the poor harvest in 2013, caused by erratic rainfall and crop diseases, which caused many households to rely less on their own production and more on outside markets.¹³

In 2014, a quarantine period for livestock movement was introduced to control the outbreak of foot-and-mouth disease. That had a mixed impact on livestock markets and on the prices and purchasing power for households dependent on livestock as their main source of income.

For families and communities who have lost assets and are transitioning to new livelihoods not yet supportive of strong self-production, incremental or sharp price rises can represent a major shock that tips them into food insecurity. As one farmer consulted explained, “Food prices have been high here since the rains began disappearing.”

5.2.5 Insecurity

Karamoja has long been affected by insecurity, with cattle rustling and inter-ethnic conflict facilitated by the flow of small firearms from neighbouring countries. The Government of Uganda has contained insecurity in Karamoja through disarmament and peacebuilding initiatives and people currently speak of “prevailing peace”.

Despite this, insecurity exists in pockets among certain areas or groups and among districts affected by cross-border raiding by armed groups from Kenya or South Sudan.

Figure 13 outlines incidences of insecurity in Karamoja in the last three years (2011–2014). They include theft, which also threatens livestock assets. Application of a recent policy of punishment for livestock theft was cited by communities and stakeholders in all districts as an effective deterrent.

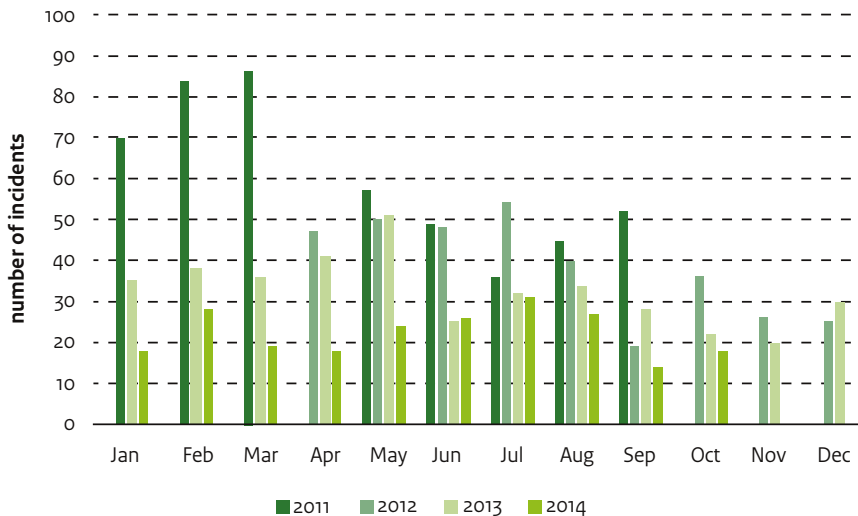


Figure 13. Incidence of insecurity in Karamoja (Source: Department of Safety and Security, January 2011/October 2014)

For example, as one young man in Amudat described: “Insecurity is lower since disarmament. Now it’s not raiding, it’s theft of maybe 1 or 3 or 10 cows. And what has helped is the rule that if you steal 1 you pay back 2, plus 1 for the elders to eat. So a thief who takes 5 cows could be ruined. That rule has put people off.”

¹³ World Food Programme, Monthly Market Monitor, issue 6, August 2014, available from <http://documents.wfp.org/stellent/groups/public/documents/ena/wfp268660.pdf>.

Table 3. Shocks, their impacts on livelihoods and their outcomes (Source: authors' compilation)

Impact on livelihoods and outcomes			
Shock	Livelihoods impacted	Direct impacts	Consequences
Severe dry spells or drought	Farmers	Loss of crops, seeds	Increased cost of food, reduced availability of staple foods, erosion of land resources, poor terms of trade, reduced food consumption and access to water, increased human/animal/crop diseases, reduced income and larger economic impacts at local, national and higher levels, migration/relocation, biodiversity degradation/destruction (e.g., species, habitat and ecosystem), social conflicts and possibly loss of human life
	Pastoralist	Reduction of pasture resources available, loss of livestock	
	Wage labour	Reduction in agricultural wage labour opportunities	
	Small business	Reduced food availability	
Floods	Farmers	Loss of production (especially in irrigated areas)	Increased food prices, reduced food availability, destruction of physical infrastructure and damage to households assets, reduced access to safe water, waterborne diseases, compounded land degradation, possible loss of human life
	Pastoralist	Reduced access to pasture resources, loss of livestock	
	Wage labour	Reduction of agricultural wage labour opportunities	
Livestock diseases	Pastoralist	Livestock losses	Increased costs of meat, reduced meat availability and consumption, reduced dietary protein, livestock assets become liabilities, regional and national impacts of trade losses
	Small business	Quarantine and market closures	
Crop pests and invasive species	Farmers	Loss of crops	Reduction of food availability, increased food prices, destruction or loss of native biodiversity, regional and national impacts of trade losses
Insecurity	Farmers	Constrained labour, reduced productivity	Increased cost of food and other goods consumed by the household, difficulty in accessing public services such as schools, markets and health care, reduced social cohesion
	Pastoralist	Reduced access to pasture resources, increased loss of livestock	
	Wage labour	Reduced labour opportunities	
	Small business	Difficulty in accessing markets	

Finally, growing tensions over land and resources create conditions for conflict, threatening livestock assets and impacting access to pasture and fertile land (see the following section on stresses).

Table 3 indicates how different livelihood activities can be impacted by a specific shock and what the consequences may be. Shocks affect livelihoods in different ways, but some consequences are common for different groups, such as reduction of food availability, increased prices and limitation of job opportunities.

5.3. Stresses

Stresses are long-term trends that undermine livelihoods, food security and general well-being, making communities more vulnerable to the effects of shocks and less able to recover.

This section gives an explanation of the stresses affecting Karamoja derived from qualitative and quantitative data. In addition to the relatively limited access to basic services and infrastructure, limited access to education, the presence of disease and rural or traditional behavioural norms considered negative, there are social and economic stresses signifying a region undergoing fundamental economic and social change. Loss of livestock – which has for long been a foundation of production, food, economy and society – is the most prominent of those. That is linked to other stresses in Karamoja today, including weakened local leadership, a fundamental and not yet successful shift in the role of youth and a form of violence and insecurity that is no longer between communities but within them. Degradation of land and tensions over land tenure and access are also significant stresses experienced by many households and communities.

5.3.1 Livestock losses

Insecurity, outbreaks of disease, protected kraals and a transition towards more sedentary, agricultural ways of life have prompted a reduction in livestock numbers in Karamoja. The combination of high stocking rates,¹⁴ inadequate feed supplementation and limited access to livestock services (see below) have aggravated the rate of decline in livestock populations. That is evident from trends that show decreasing numbers of livestock per household and also in community perceptions. One man in Amudat spoke of it as changing wealth: “Ten years back a rich man might have owned 100 cows – now a rich man will have 4 or 5”.

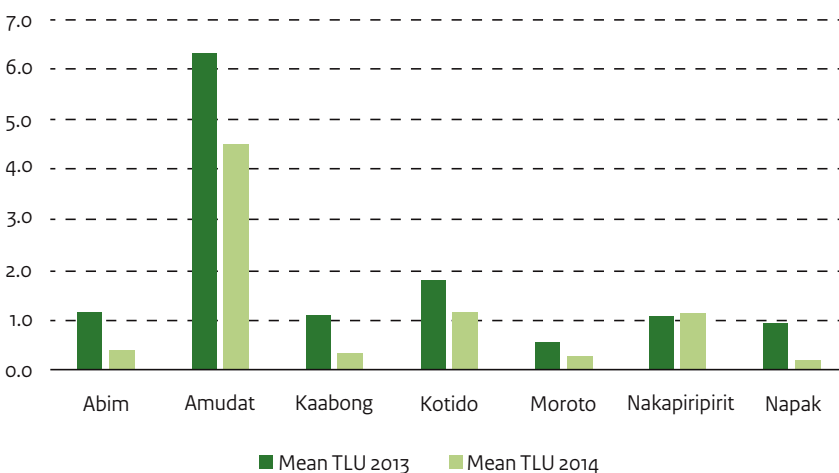


Figure 14. Tropical livestock units (Source: FSNA 2013–2014)

¹⁴ FAO/Global Information and Early Warning System “Livestock and market assessment mission to Karamoja Region, Uganda”, April 2014.

Figure 14 shows the most recent drop in livestock ownership in Karamoja from 2013 to 2014 in every district and more so in some districts, such as Abim, Kaabong and Napak.

The effects of loss of livestock for many households and communities in Karamoja include reduced economic stability, with traditional cattle assets lost and the transition to cultivation often not yet able to bring them up to their previous status. Traditionally, livestock could be exchanged for cash, food or other assets in times of need. The former basis of food security has shifted, with the high protein pastoralist diet (based on milk, meat, butter and other animal products) reduced or lost. *“In the old times people survived on animals”* is how one ex-pastoralist put it. A mother in Amudat explained that *“with the loss of animals there was less milk for children and they became like tiny people”*. And another added, *“In those places where people lost animals and could not raid to restock, you see malnutrition there.”*

Sociocultural changes are also associated with transition to a more diversified economy. Some assets, such as cash crops or chickens, belong to women, whereas livestock tend to belong exclusively to men. According to a community in Moroto where new, non-pastoralist ways of life are taking hold, *“Women are more engaged now, more powerful and more able to support the household. Many are the family breadwinners”*. There is inevitable tension associated with new gender roles (see section 5.3.8 below).

With outbreaks of animal disease, such as those described in the previous section on shocks, the limited animal health and veterinary services – both public and private – are felt by livestock owners across Karamoja as a stress. *“Even though livestock are our source of strength, there are very few people who can come to treat or prevent diseases that affect them”*, is how a pastoralist in Amudat district saw it.

There are only 11 government veterinarians in the Karamoja subregion. That amounts to one government district veterinary officer in each district and an assistant in Kaabong, Moroto and Nakapiripirit respectively. With a handful of additional persons trained in veterinary services supported by NGOs, the total is around 20 persons professionally qualified to treat livestock in Karamoja. There are community animal health workers in each district, who are crucial in livestock disease control and surveillance, trained in the basics of animal health, with access to drugs and vet-care kits and who work closely with the district and sub-county veterinary officers under the umbrella organization, Karamoja Livestock Development Forum. However, institutional backing could be strengthened for the community animal health workers and private health services for livestock are felt to be limited.

The result of weak animal health and veterinary services is that livestock can easily be exposed to incidences and outbreaks of disease. Pastoralist informants reported that emerging diseases were affecting animals and many felt unprepared. A woman in Nakapiripirit said: *“Our cows died of skin diseases and lung problems this year. Some had bloody diarrhoea and died. Cows were dying. It took us by surprise, we were not prepared for it”*. And an older pastoralist in Amudat added to this by saying, *“We need help for the ones [diseases] we know and the ones we don’t know”*.

Livestock remain fundamentally important in Karamoja, as wealth and insurance and for nutrition and identity. Many in the region still rely on livestock, although levels of ownership vary across districts,¹⁵ and despite transitions to new modes of production, livestock wealth is still an aspiration for many. *“Now that peace is prevailing we hope to see our animals increase”*, said one informant. However, the research found that the widespread reduction in livestock – and the subsequent livelihood

¹⁵ In 2014, 70 per cent of households in Amudat owned livestock (more than 2 cows or 14 goats), the highest level by district in Karamoja. In Napak, only 3 per cent owned livestock (Source: FSNA 2014).

transition faced by many – represented a stress and an underlying vulnerability that could increase the negative impacts of shocks.

The research also found that policy and programming typically supported a shift towards economic diversification and sedentary cultivation, and away from livestock-keeping pastoralism (particularly mobile pastoralism).¹⁶ *“Pastoralism is not supported in this place”*, said one herder. Historically, that absence of support has been linked to campaigns to bring peace to Karamoja: insecurity was linked to intercommunal pastoral raids and attempts to tackle it reduced pastoral mobility. A transition away from pastoralism is continuing, despite the prevailing peace and a sense among many that pastoralism – either on its own or in combination with other livelihoods – is a fundamental source of strength and resilience in Karamoja. A 2010 food security analysis of Karamoja for ECHO and FAO described then current development policies that favoured settlement and cultivation as *“counter to the evidence”* – evidence which showed that herding based on freedom of movement enabled greater resilience to short-term rain and crop failures as well as to longer-term pressures posed by climate change.¹⁷ In other documents, including the IGAD drought and disaster resilience initiative country programming paper for Uganda, the environmental sustainability and economic contribution of pastoralism are pointed out, while those within pastoralist contexts also cite the value of their cultural, political and legal systems.

5.3.2 Youth disempowerment

Relative peace in Karamoja has been accompanied by economic and social transition for many, including youth. Cattle are at the centre of traditional social relations in Karamoja, with youth responsible for their protection and dependent on them for status and marriage. Scores of head of livestock typically need to be paid to a bride’s father and youth would rear and raid cattle to make up the numbers. Consultations revealed that in the past some youth saw raiding as a way of life and felt stripped of a livelihood by disarmament that prohibited its continuation. An older man in Moroto observed, *“The youth have lost their guns and their livestock – the only asset they are left with is their body”*. Another was more concerned about the security implications of their disempowerment, adding *“If we don’t take care of youth they will turn into thieves”*. In focus group discussions, some young men without livestock confirmed their sense of lost livelihood and even place in society, with some adding that masculinity itself is being redefined, since it can no longer be attached to raided herds and warrior identities.

While the male youth of Karamoja may face an enormously challenging transition, many young women also suffer disempowerment, including high levels of unemployment after dropping out of school and increased susceptibility to underage pregnancy and sexually transmitted infections including HIV/AIDS.¹⁸

In the Karamoja context, many youth need to find new ways to produce and survive. They are often the backbone of household and community resilience, adapting and innovating to make ends meet for themselves and their families, but this is often challenging, and 87 per cent of Karamoja youth are considered to live in poverty.¹⁹ Their inadequate skills, capital and opportunities are consistently raised as an issue. The Karamoja integrated disarmament and development programme contains

¹⁶ Confirming the views of many local key informants, a report on community resilience in Karamoja commissioned by UNDP found that, *“Government policy puts a strategic focus on crop production”* (CoBRA, 2014: 104), available from <http://www.ug.undp.org/content/dam/uganda/docs/UNDPUG2014-CoBRA%20-%20Karamoja%20Assessment%20Report%20-%20FINAL.pdf>.

¹⁷ Simon Levine, *“What to do about Karamoja? Why pastoralism is not the problem but the solution: a food security analysis of Karamoja”*, ECHO/FAO, September 2010.

¹⁸ Ministry of Gender, Labour and Social Development and UNICEF Uganda *“Situation analysis of child poverty and deprivation in Uganda”*, 2014.

¹⁹ Ibid.

an emphasis on youth empowerment post-disarmament (see annex 3 on programmes and policies) and efforts are being made by many stakeholders. However, the issue of youth disempowerment remains a stress in Karamoja.

5.3.3 Limited community leadership

The social impacts of the transition to relative peace in Karamoja include a reformed role for customary elders or community leaders and weakened local leadership. While data on this may be elusive, local perceptions are often clear on the issue. As one young pastoralist in Napak explained, *“In the old days there were people named after mountains, leaders who were guiding people. When that generation of leaders ended, or when those people were forced out of power, problems started to come”*.

Existing literature on the decline of customary leadership in Karamoja in recent decades elaborates on governance systems that were in place historically. They include a formal parliament called akiriket, and a system of etem or ekokwa, meetings to which all men and women in a community would be invited and which elders would facilitate. Those systems allowed people to discuss issues and find solutions together and reinforced local authority and governance. During the years of State response to violent conflict the customary parliaments and meetings largely stopped.²⁰

Weak local leadership can directly lower a community’s chances of withstanding a shock, as collective decisions to cope, bounce back and adapt are harder to make and collective action harder to put in place. For example, some of the people consulted remembered the ability of local leaders to organize migration in the past, or even to predict where rain would fall. Others spoke of neighbouring communities which they felt were stronger because of leadership that could take good decisions and mobilize outside assistance if needed. In a time of transition, weakened traditional authority and community leadership is a stress for many parts of Karamoja.

5.3.4 Low agricultural productivity and services

In Karamoja, agro-pastoralists and farmers are constrained by multiple challenges, including weather, availability of arable land, limited knowledge and skills for diversifying livelihoods, limited infrastructure and farming inputs and poor access to credit.

As with the relatively limited animal health and veterinary services, households and communities in Karamoja have inadequate access to agricultural extension services and therefore their agronomic skills and knowledge are relatively low. In addition to erratic rainfall, the limited access to agricultural extension services is a stress for cultivators.

That inadequate livelihood support is a particular stress for new cultivators (who are diversifying their livelihoods to include farming) and in the context of emerging crop pests or diseases. Combined, those factors can compound low productivity and leave communities unable to withstand or adapt to shocks. Community representatives often spoke of only having seeds that were not resistant to dry spells or disease and being powerless to save their harvest.

The relative remoteness and underdevelopment of Karamoja in terms of infrastructure compounds the problems of limited access to agricultural services and low levels of skills and knowledge. While major infrastructure and road development is ongoing and visible in Karamoja, the subregion still has some of the poorest roads in the country. Many roads connecting districts – and connecting people to services, towns and markets – are gravel murrum, often washed away by seasonal rains.

²⁰ See Karamoja Action Research Team with Patta Scott Villiers.

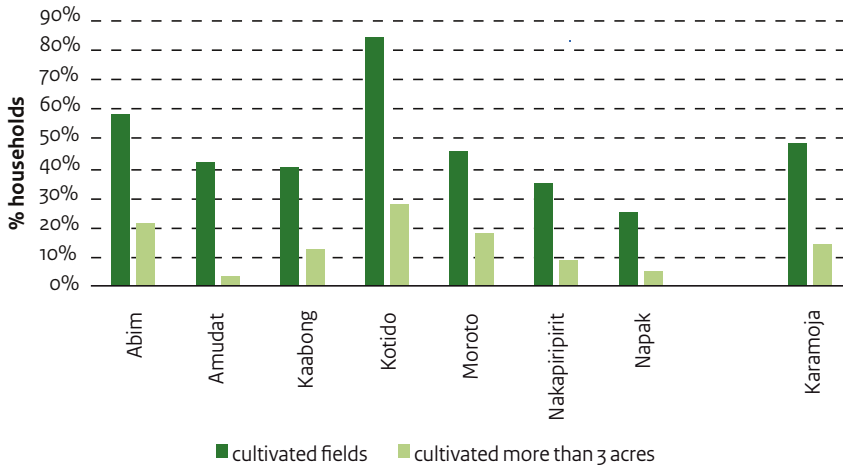


Figure 15. Land access by districts (FSNA 2014)

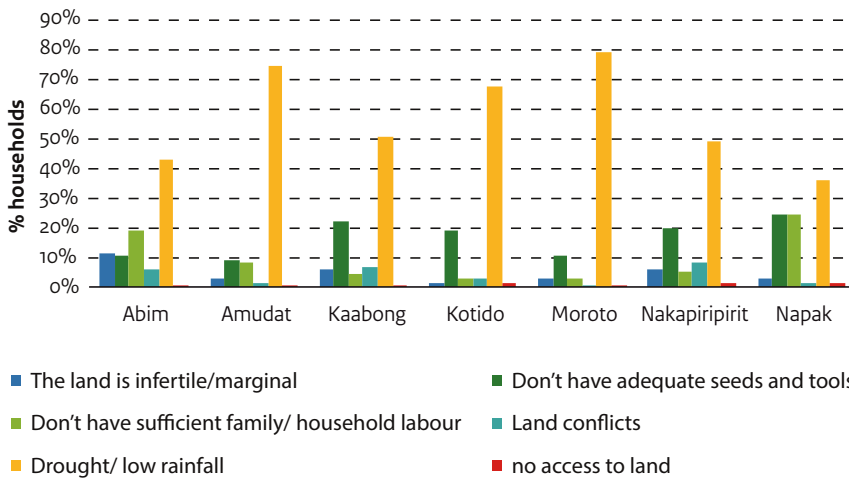


Figure 16. Main perceived constraints to agriculture by districts (Source: FSNA 2014)

Figure 16 shows the main perceived constraints to agriculture faced by households in a recent survey: the most common one is related to erratic rainfall, followed by inadequate seeds and tools and insufficient labour capacity.

5.3.5 Limited access to education

In Karamoja, many feel that education will support transformed livelihoods, including professional work and salaried labour that is climate- and shock-resistant. Men and women of different ages and backgrounds feel it will support their children to cope with change and prosper. There is also a sense that it will empower communities and reduce the relative underdevelopment of Karamoja.

Significant efforts are being made to provide access to education in Karamoja, including government-led universal primary education, functional adult literacy, and universal secondary education initiatives, and the priorities of the Karamoja integrated development plan. However, Karamoja records the lowest literacy rates in Uganda at 12 per cent and many speak of their inability to access education for financial, physical and cultural reasons.

Financially (and in the context of very high levels of poverty in Karamoja) there are costs additional to school fees, such as uniforms and books etc., which can put school out of reach for many parents. There is also the opportunity cost of losing labour, since a child traditionally supports the family with herding, cultivation and domestic tasks. Secondary school is significantly more expensive than primary school and with fewer facilities – and fewer still that offer boarding, considered especially important for girls' education. Many described this as out of reach. The data supports this, showing the small proportion of Karamoja children of secondary school age (15–19 years) in school at any time during the year: 26 per cent in 2011.²¹

Key informants spoke of the cultural challenges faced by parents in a traditional context who wished to send a child to school. A mother in Amudat, who believed firmly in the value of education, explained the challenge: *“You might want to send your child to school, but it is not just the decision of the parents. Relatives will refuse, because school would mean no animals will come back to them from the child's marriage [if it is a girl].”* Informants spoke of a limited return on investment, deterring parents from enrolling their children in schools. In part that is because schooling typically runs counter to a traditional agro-pastoral lifestyle that requires the labour of children. While initiatives to provide flexible, alternative models of primary education do exist, they tend to be small-scale and may not enable a child to transition to formal secondary schooling. Another reason is that education is a long process and many do not see immediate or short-term benefits from school attendance: *“It is like a myth, for some families, that school will bring wealth – they see only poor results or dropouts”*, reported one mother. This was most pronounced among communities who were certain that livestock were still the main source of wealth and status in Karamoja. A disappointed young man who had been to and dropped out of school made the following comment: *“Those who went to school are being laughed at; people say ‘look at those poor people who went to school and won't have animals!’”* However among the successfully educated – and employed – that is no deterrent. A female councillor in Amudat, one whose education had brought her well-being and status, retorted defiantly to a sceptic in a community consultation, *“Let me eat my ink”*.

The quality of education was repeatedly raised as indivisible from its relevance. Many communities described wealthy or elite parents sending their children to schools outside local areas for that reason. As a father in Nakapiripirit described, *“Local schools need to be better quality. Here the local leaders cry about schooling but with one eye closed – their own children are not in that boiling pot but in better schools elsewhere.”*

As a result of the various limits to accessing education, school enrolment and literacy remain persistently low in Karamoja. The capacity to withstand shocks – by using alternative livelihoods, financial resources, critical skills and knowledge, or simply a risk-taking and innovative attitude – is reduced. For parents and children who believe education will strengthen their future resilience, the limited access to it represents a significant stress.

5.3.6 Limited access to health care

Karamoja suffers from the highest maternal and child mortality rates in Uganda and its women are the least likely to deliver in a health facility,²³ important indicators of the region's morbidity burden and limited access to health care. Most other health indicators also perform worse than the rest of the country: the Karamoja integrated disarmament and development programme states that about 100 children aged less than five die each week in Karamoja from preventable illnesses²⁴ and food security

²¹ Uganda Bureau of Statistics, Uganda demographic and health survey, 2011.

²² See, for example, the draft report for the Ministry of Education and Sports on the study on alternative delivery models for primary schooling and primary teacher training for Karamoja region, available from http://www.unicef.org/evaluation/files/Alternatives_to_Primary_Educ-Teacher_training_in_Karamoja_Uganda.pdf.

²³ Ministry of Gender, Labour and Social Development and UNICEF Uganda, Situation analysis, 2014.

²⁴ See the draft revised sector comprehensive logframe, 2011–2015, of the Karamoja integrated development & disarmament plan, Office of the Prime Minister, available from <http://opm.go.ug/assets/media/resources/15/KIDDp.pdf>.

and nutrition assessment data from 2014 record that 67 per cent of households suffered from sickness and the burden of health expenses in the previous three months. The most prevalent diseases in Karamoja include malaria, meningitis, diarrhoea, cholera and skin diseases, with outbreaks of emerging diseases, such as hepatitis E and Marburg haemorrhagic fever, causing health emergencies.

The poor health status of Karamoja is attributed to the low access to and use of basic health services. On average, 24 per cent of the population have access to health care, compared with the national average of 72 per cent and only 3.4 per cent of households have two insecticide-treated bed nets, while the regional target is 60 per cent of households with two such nets.²⁵

When asked what supported a family through hard times, a woman in a focus group discussion in Abim replied, “*When a family is healthy it is strong*”. Exposure to disease and limited access to health care was a stress described in every district, a factor that increases vulnerability and depletes resilience to shocks.

The main challenges in accessing health care are reported as the long distance to facilities, the cost of treatment, associated costs (transport, accommodation and food for accompanying parents/relatives) and opportunity costs (i.e. the cost of not working while seeking treatment). In appreciation of village health teams who operate at community level in several districts, a mother in Amudat said, “*You can call them in the evening, for example if you have been working all day and it is only in the evening that you realize your child is sick. Having them come to you saves you the cost of a boda boda [motorbike taxi] to the nearest health facility and saves you the risk of that journey especially if it is at night.*”

5.3.7 Inadequate access to water and sanitation

Access to water is a major stress in Karamoja. The integrated disarmament and development report for the period 2011–2015 shows that 73 per cent of the population of the region take more than 30 minutes to reach a water source. Water consumed per day per capita is less than the global (Sphere) standard of 15 litres in all districts except Abim (see figure 18).

Among households who do have access to safe water, keeping water safe is a major health concern in the region (see figure 17), particularly related to how the water is collected, transported and stored. Food security and nutrition assessment data shows that less than 10 per cent of households treat water before drinking it and while water and sanitation committees exist at community level, they are limited in capacity.

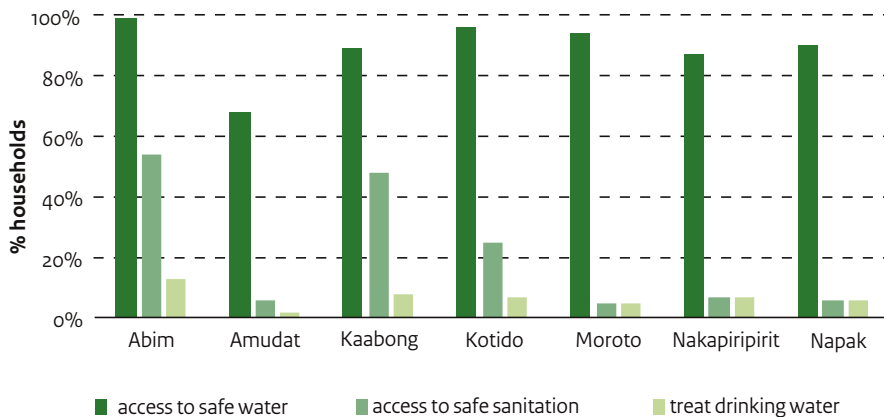


Figure 17. Access to water and sanitation (Source: FSNA June 2014)

²⁵ Ibid.

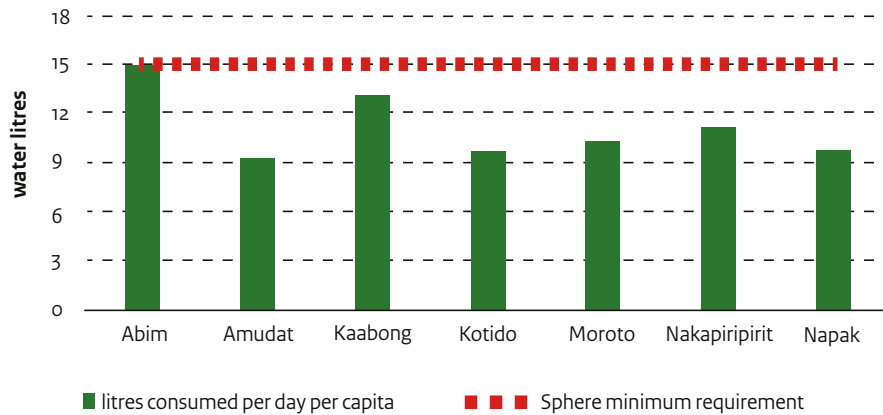


Figure 18. Litres of water consumed per day per capita (Source: FSNA June 2014)

That data also shows that safe sanitation, defined by the presence of private latrines, is also limited in Karamoja, with only 22 per cent of households having access to one. For cultural reasons, households may hold that sharing with in-laws or between men and women is taboo and for this reason open defecation remains a norm, even where latrines have been built. Hygiene measures such as handwashing, simple but powerful in its ability to reduce vulnerability to poor health and nutrition, are considered to have low uptake in Karamoja. When it rains – or floods – the challenges of poor water and sanitation become apparent in outbreaks of waterborne diseases, including cholera or, more recently, hepatitis E.

5.3.8 Violence, alcoholism and women's disempowerment

The impact of domestic violence and disunity came out conclusively in qualitative data, along with the underlying disempowerment of many women in Karamoja society. In relation to shocks, this was described as something that makes it hard for a family to cope together in hard times, to take collective decisions and shoulder the responsibilities that enable them to withstand and adapt in the face of shocks.

The level of domestic violence in Karamoja is high: a national survey found that 45 per cent of women in Karamoja had experienced violence (sexual, physical or emotional) committed by their husband or partner at least once.²⁶ Some key informants from the research regarded a recent increase in domestic violence as linked to changing gender roles, in particular men's alienation from the economic opportunities being taken up by women. Others felt that previously high intercommunal levels of violence had in fact been transferred to intracommunity and intra-household levels.

Domestic violence in this case refers to violence in general against women and children, especially girls. The presence of other stresses and of food insecurity and malnutrition is known to exacerbate vulnerability to violence and abuse.

Alcoholism was commonly described at community level as a feature of domestic violence. Alcohol in Karamoja is typically a local brew made from sorghum (busaa or the stronger distilled version chang'aa) and imported liquor pouches (waragi in Luganda and etule in Ng'akaramojong.²⁷ So prevalent is alcohol consumption in Karamoja that some informants reported that casual labour was

²⁶ Uganda demographic and health survey, 2011.

²⁷ There are other more colloquial names for crude imported liquors: in Moroto and Napak districts it is called lotodok, which can be translated as the thing which weakens people's ability to walk; in Nakapiripirit district it is called lomulen, meaning couples that do not sleep facing each other (i.e. impotent through drink); in other places it is called "mobile breastfeeding" to describe the way people move while sucking on these pouches.

paid in alcohol, putting stress on household food security and childcare, as well as driving domestic violence and disunity. As a woman in Nakapiripirit explained, *“Some of us have drunken husbands. It makes it difficult to make a good decision – like if we should move, or sell a cow. What we try to do is leave him until he is sober and then present the decision to him as a good one.”* A female relative in the same discussion agreed that household disunity, whether because of alcoholism or women’s disempowerment, limited the ability to cope and adapt in the face of shocks: *“Togetherness in a family keeps it strong. This means taking decisions together with your husband, your co-wives, and even your children. It is hard for a family who is not together to be strong in hard times”.*

In one community in Nakapiripirit, alcoholism was described as limiting household food security for children even when food was available: *“Here some people sell food immediately and use the money for drinking. Children can be left hungry or given the residue of busaa to eat. Or they might be left hungry until the father, who’s been drinking, has eaten”.* Described as something that could affect women as well as men, and parents as well as youth, alcoholism was portrayed as a critical stress.

5.3.9 Negative social norms

“The causes of vulnerability here are more than food”. That is how a woman approached the subject of certain local practices and norms which distinguish between resilient and non-resilient households.

Certain traditions affecting women and girls in Karamoja can reduce their access to education, development and productive contribution to society. One of these is child marriage, in which girls are exchanged for livestock and to build social relationships between families. That is widespread in Uganda generally, with 49 per cent of women aged 20–49 years stating that they were married before the age of 18 and 15 per cent before the age of 15, the majority into polygamous households.²⁸ Evidence from other relevant sources suggests that those figures could be even higher among rural communities in Karamoja. Tackling the practice is a challenge, because it is a means of increasing family and community assets. A mother in Nakapiripirit put it this way: *“We have always depended on the livestock you get from a daughter’s marriage, but now the Government is stopping it and it is a shock to lose that income source”.*

Child marriage increases the risk of higher maternal and child mortality and child malnutrition, and has critical socioeconomic implications for the individual, as well as her household and community. In certain communities in Karamoja child marriage is preceded by female genital mutilation.²⁹

Community representatives and key informants confirmed that those practices put additional stress on communities in hard times, limiting a household’s ability to take collective decisions and a woman’s ability to cope.

The present study also found that poor feeding practices increased vulnerability, including poor food preservation and storage. Cultural beliefs around childcare and nutrition can safeguard a household’s well-being, just as they can limit it. The practice of selling food to buy alcohol (or receiving alcohol in lieu of payment for labour) was cited widely in certain areas, as was a culture of prioritizing food for men’s consumption or for ceremonies, rather than children. Complementing existing data, there was also evidence in the consultations of limited access to education concerning diet and nutrition for children and safe food handling and preservation.

²⁸ Uganda demographic and health survey 2011. More than 50 per cent of marriages in Karamoja are polygamous.

²⁹ Ibid. Female genital mutilation affects 90 per cent of girls in the three Karamoja districts concerned (inhabited by Pokot, Tepeth, Kadama and Sabiny).

5.3.10 Land degradation and tensions

Land degradation and soil erosion in Karamoja is a major risk to livelihoods. Causes include extreme weather (torrential rain or floods in between extreme dry spells), porous soils with poor water retention and sloping landscapes that allow soil run-off. Those processes are exacerbated by the conversion of grazing areas and forested lands to croplands and the transition to unsustainable agricultural practices. As well as changing land use in the context of a shift from pastoralism to sedentary cultivation, tree cutting and burning for charcoal is contributing to devegetation and leaving the land bare and prone to erosion. Resorting to exploitation of the natural environment in order to cope was described by one man in Nakapirit: *“If the household doesn’t have food, they turn to the environment. They go to cut down trees to make charcoal to buy food or alcohol.”*

Fires, either wild or for rangeland management, also influence degradation in Karamoja. Bush fires are normally set during the dry season and before the rains to eliminate unused biomass and to break seed dormancy in order to allow for the growth of new and nutritious pasture when the rains come. An analysis of burnt scars in Karamoja using MODIS (Moderate Resolution Imaging Spectroradiometer) data shows that fires normally occur between November and March, with a peak in December to January. They leave burnt scars with limited vegetation cover, which renders them susceptible to erosion through run-off and/or wind erosion.

Degraded areas support the proliferation of common invasive species, including *Picinus communis* (Ebune), *Cynodon dactylon* (Toananya), *Priva* sp., *Hoslundia opposita* (Etupukwanait) and *Ipomoea* sp. (Amatwae), among others. Those are known to quickly replace more palatable plant species and some are poisonous or cause physical injury to livestock. Species invasion also reduces the biomass production needed to sustain adequate livestock feeding materials and land cover.

Land degradation increases the vulnerability of rural people to extreme weather and climate change, as the buffering capacities of land resources and livelihood assets are depleted. The fact that land degradation affects forage availability has implications for the viability of livestock production and therefore the overall security of livelihoods of pastoral communities.

With changes in land use and access, land tensions in Karamoja are a related stress that seems to be increasing on several fronts. When land is lost or fragmented, particularly in ways that compromise traditional land use systems, that threatens livelihoods and can be a source of tension or conflict.

As many in Karamoja increasingly practice crop cultivation and as land is increasingly reserved for wildlife conservation,³⁰ the traditional pasturelands and migratory corridors used by pastoralists are constrained. That is exacerbated by the effects of a changing rainfall pattern on the availability of water and pasture. As one Napak herder put it, *“The problem with farmers is they just cultivate everywhere, so the pastoralists can’t move their animals”*. The issue is two-way: for example in the same community it was said that *“The farmers say the problem is the pastoralists and vice versa”*.

New non-agricultural developments are also changing land use and access in Karamoja. Often due to mining exploration or because of commercial developments, such as sugar plantations, land in Karamoja is being privately leased.

According to informants and also secondary evidence, local people are being left *“deeply insecure about their rights to land”* and there are tensions between different actors and communities, even within communities.³¹ It was also evident that local communities wished to see strengthened mechanisms or institutions that could safeguard land tenure and access through participatory land use planning and provide legal rights and compensation where necessary.

³⁰ As well as a major national park there are several conservancies in Karamoja, often on the most fertile and biodiverse land.

³¹ See, for example, Karamoja Action Research Team with Patta Scott Villiers.

6. Analysis Part 2: Food Security and Nutrition Trends

Food security and nutrition are considered in the present analysis as indicators of “resilience outcomes”. This section looks at the recent trends in food security and nutrition for the whole Karamoja region and for the seven districts within it.

The working definitions of food and nutrition security are as follows:

- Food security exists when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”.³²
- Nutrition security exists when “all people at all times consume food of sufficient quantity and quality in terms of variety, diversity, nutrient content and safety to meet their dietary needs and food preferences for an active and healthy life, coupled with a sanitary environment, adequate health, education and care”.³³

Overall, the data shows that food insecurity and malnutrition in Karamoja have been chronic and steadily worsening over recent decades and certainly over the last five years. Within the region, different districts show different trends.

6.1. Overall trends for Karamoja

Food insecurity and malnutrition levels in recent decades have been critical in Karamoja. Figure 19 shows that in Karamoja the level of malnutrition in children aged less than five (global acute malnutrition) and the percentage of food insecurity has been increasing since 2011. During the lean season (April–September) in 2014, the percentage of households that were food insecure reached almost 60 per cent of the population and global acute malnutrition also reached a four-year high of 13.4 per cent.³⁴

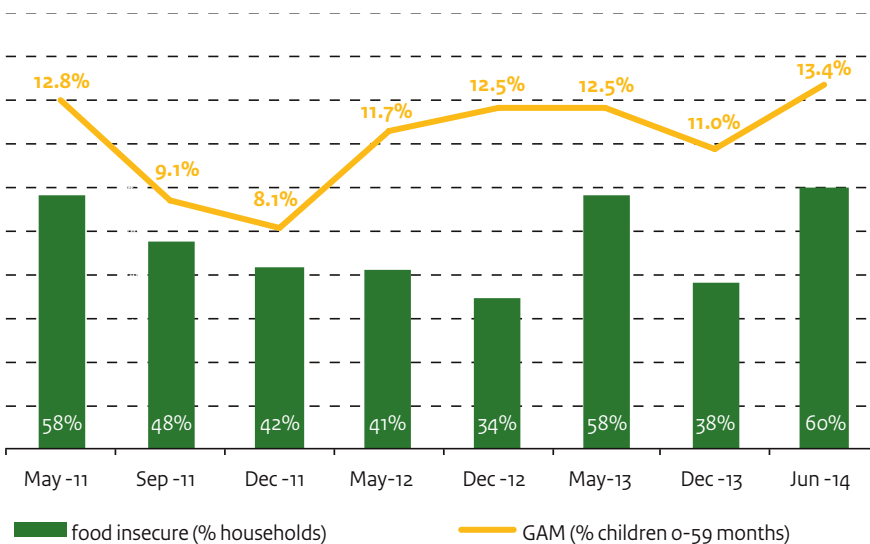


Figure 19. Food insecurity and global acute malnutrition trends in Karamoja 2011–2014 (Source: FSNA 2012–2014, ACF-UNICEF surveillance system)

³² World Food Summit Plan of Action, 1996, para. 1.

³³ FAO/AGN, March 2012.

³⁴ Food insecure households were defined as those with poor or borderline food consumption.

6.2. Food security in Karamoja in recent years

Karamoja has a long history of food insecurity. Figure 20 gives a summary of all integrated phase classification analyses from 2009–2014, which show levels of food insecurity.³⁵ Summarizing the data from the last five years, the most common food security phase of each sub-county is colour coded: phase 3, classified as “crisis”, is orange; while phase 2, classified as “stress”, is yellow (the ranking goes from minimal 1 to famine 5). The central areas of Karamoja – roughly corresponding to the central sorghum and livestock zone – has been largely in crisis, suffering the most chronic and severe food insecurity in the region over the past five years.

Those food insecurity trends are also confirmed by the food security and nutrition assessment data, where a food consumption score is used as a proxy indicator for food security.³⁶ Figure 21 indicates that districts shown in dark orange had a prevalence of household food insecurity ranging from 60 to 80 per cent at the time of data collection (between May 2011 and June 2014).

In June 2014, five out of seven districts in Karamoja had similar household food insecurity levels, between 60 and 80 per cent, meaning that almost two thirds of Karamoja households were food insecure. Food security is linked to seasonality, deteriorating especially during the lean period (April–July). A comparison of May 2013 with June 2014 shows that over the past year the household food security situation has been deteriorating in all districts apart from Moroto and Amudat, a strong indicator of household stress.

Food insecurity levels vary across districts – for example in June 2014, 27 per cent of households in Amudat were food insecure while 74 per cent of households in both Kotido and Napak were food insecure.

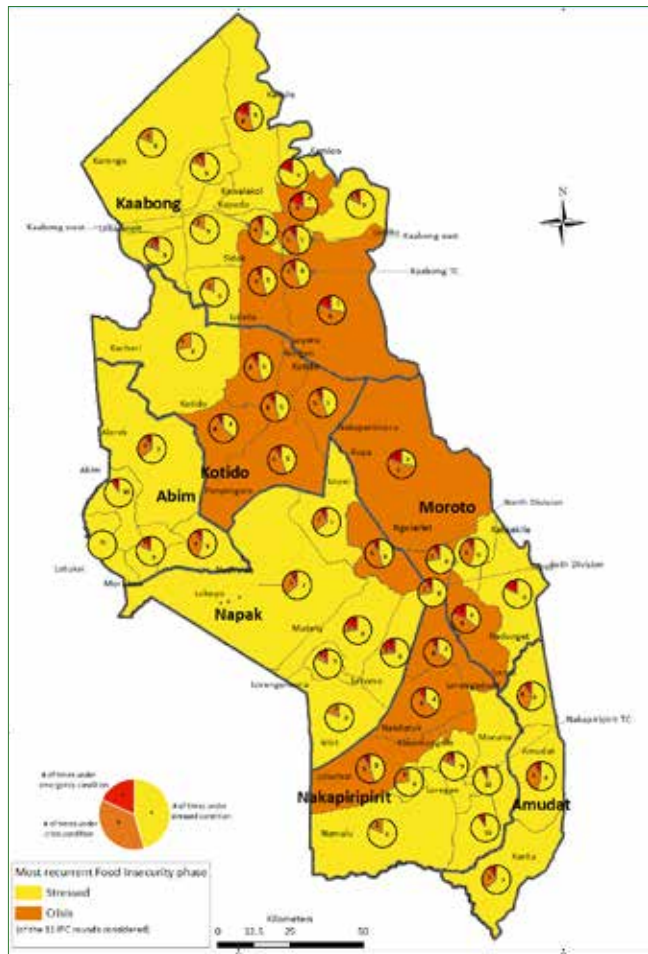


Figure 20. Status of integrated phase classification food security phases for 2009–2014 analyses (source: IPC)

³⁵ For more info on IPC check <http://www.ipcinfo.org/>.

³⁶ The food consumption score is based on dietary diversity (number of food groups), food frequency (number of days a given food is consumed) and the relative nutritional importance of different food groups. It is calculated from the types of foods and the frequency with which they are consumed over a seven-day period. A food consumption score below 35 is considered unacceptable and therefore used as a proxy for food insecurity.

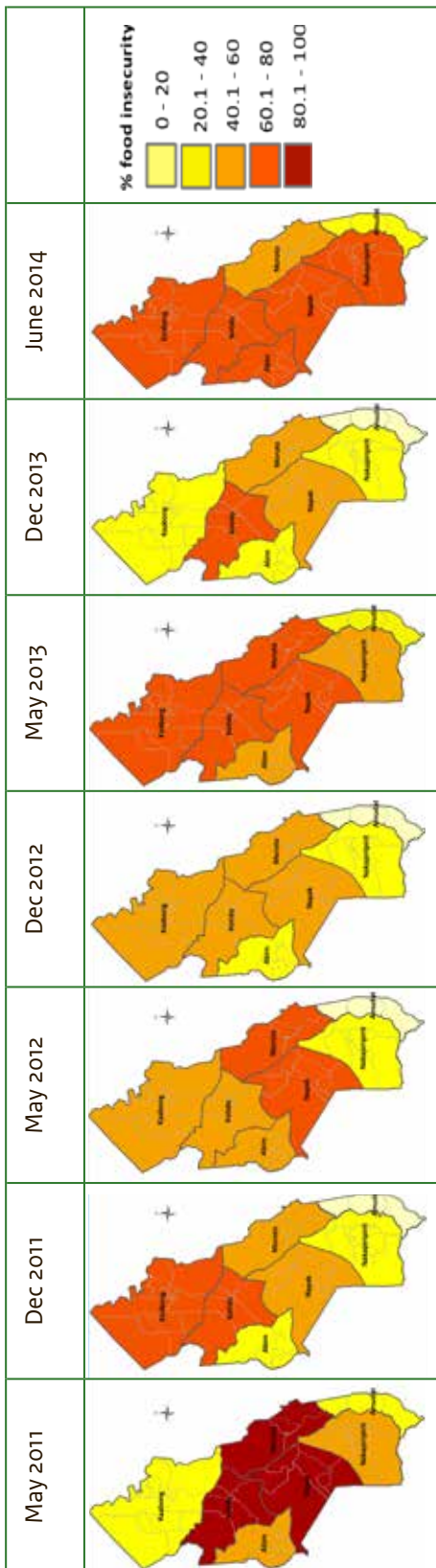


Figure 21. % of Food insecurity in Karamoja from May 2011–June 2014 (Source: FSNA and ACF-UNICEF surveillance)

Food insecurity levels also vary across a year: figure 22 shows seasonal fluctuations in districts from December 2012 to June 2014. While all districts saw marked changes between December and May/June, in some this was more extreme. In Kaabong for example, food insecurity went from 24 per cent to 69 per cent between December 2013 and June 2014; and in Abim food insecurity jumped from 20 per cent to 70 per cent over the same period. Districts with smaller fluctuations are the ones with the highest levels of household food insecurity, e.g. Napak and Kotido. While Amudat, with the best household food security, also sees seasonal fluctuation and an overall increase in food insecurity during the lean season (associated with its shocks and stresses).

As described in various different analyses (food security and nutrition assessment 2014, food security assessment, 2014, USAID, 2013 and integrated phase classification), key causal factors of food insecurity are:

- **Limited access to food:** limited livelihood and income-generating options at household level and high food prices which are the result of supply-demand imbalances.
- **Food availability:** inadequate food production as a result of drought/low rainfall, inadequate key agricultural inputs, such as tools and seeds, and limited human resources within the family for cultivating land.
- **Food consumption and utilization:** as a result of the above, a high percentage of households do not meet adequate food requirements.

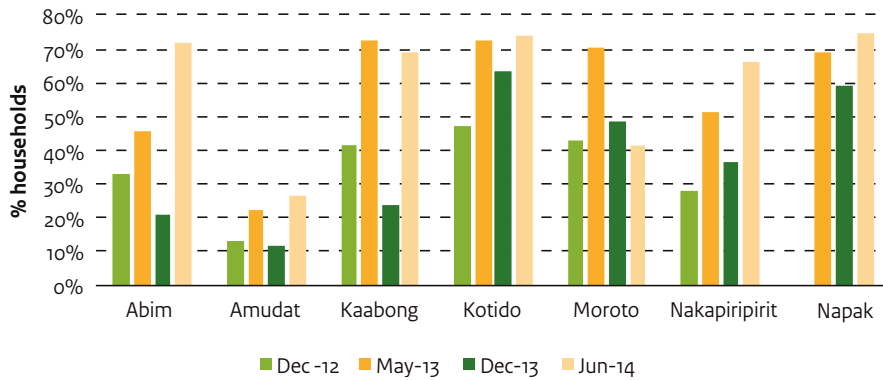


Figure 22. Seasonal fluctuation in food insecurity by district (Source: FSNA and ACF-UNICEF surveillance)

6.3. Malnutrition trends in Karamoja in recent years

Relative to the rest of Uganda, Karamoja consistently has the highest prevalence of malnutrition: 32 per cent of children undernourished, 7 per cent wasted and 45 per cent stunted.³⁷

Global acute malnutrition is commonly used as a proxy for acute malnutrition, as it is useful for showing variability, and figure 23 shows trends in global acute malnutrition in Karamoja since May 2011. Apart from Abim, in all the districts the prevalence of malnutrition has increased and can now be classified as “serious” according to the World Health Organization standard classification.

Moroto has the worst prevalence of global acute malnutrition and, since May 2013, has remained at the “critical” level. In June 2014, the rate in Moroto was 20 per cent, meaning that one fifth of the district’s children were malnourished.

While trend data is not shown here, the level of stunting in Karamoja must be noted. Stunting is a measure of chronic undernutrition, resulting in both a child being short for their age, but also affecting their development and performance in school and at work. Stunting is an important indicator of nutrition insecurity and also of child poverty, since it reflects economic and social deprivation and whether children’s basic needs have been adequately met in their early years. Unlike other indicators of undernutrition, including children being underweight (i.e. their weight is too low for their age) or wasted (they are too thin), the effects of stunting are largely irreversible. The effects are also long-term and intergenerational: stunting begins during pregnancy, results in lifelong damage and may be passed onto the next generation, since women who are stunted are at risk during labour and childbirth and more likely to deliver low-birthweight and stunted children who have lower levels of educational attainment, reduced physical capacity and poor resistance to infection and disease. In adulthood, stunting translates into diminished work capacity and a higher propensity to diseases such as diabetes, heart disease and hypertension.³⁸ Globally, about a quarter of children aged less than five are stunted. In Karamoja, this figure is 45 per cent, or nearly half of the region’s children.³⁹

There are three main determinants of malnutrition: (1) limited access to food; (2) poor care and feeding; and (3) poor health and sanitation. While causes differ between districts and households, and even within households, the literature reports the following as the main causes of malnutrition in Karamoja (food and security nutrition assessment, June 2014 and USAID, 2013):

³⁷ Ministry of Gender, Labour and Social Development and UNICEF Uganda, Situation analysis, 2014.

³⁸ See <http://www.unicef.org/nutrition>.

³⁹ Ministry of Gender, Labour and Social Development and UNICEF Uganda, Situation analysis, 2014.

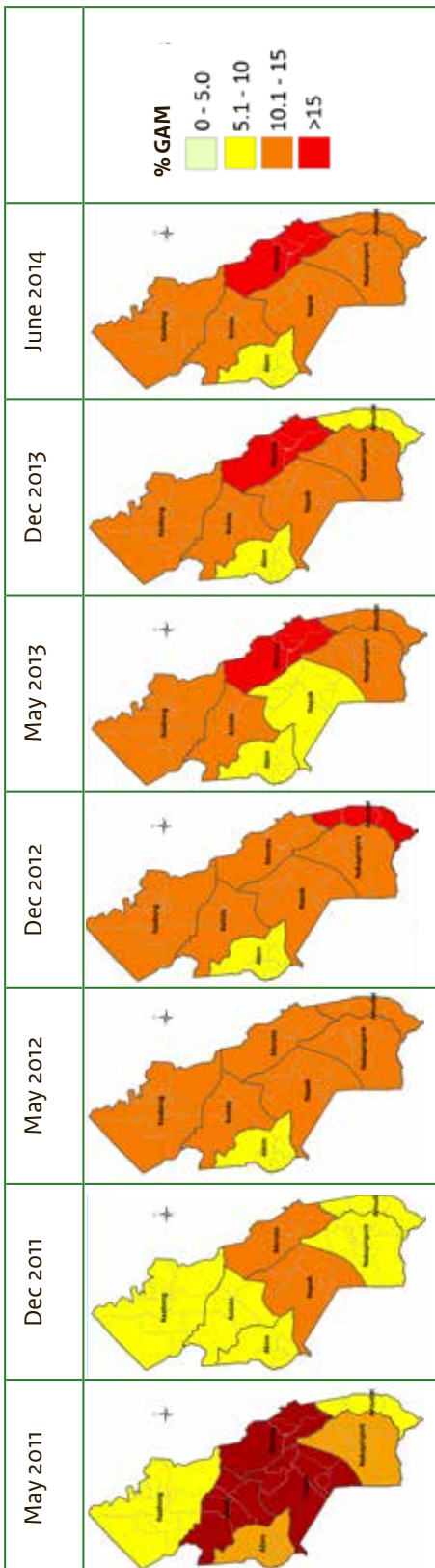


Figure 23. Global acute malnutrition in Karamoja May 2011–June 2014 (Source: FSNA and ACF-UNICEF surveillance)

- **Poor care and feeding practices:** 99 per cent of children aged 6–23 months were not receiving a minimum acceptable diet in June 2014 and 58 per cent received minimum meal frequency.
- **Limited access to safe sanitation:** only 10 per cent of wasted children had access to a private latrine.
- **High morbidity rates:** diarrhoea (31 per cent) and malaria (58 per cent), acute respiratory infection (40 per cent).
- **Limited access to health care:** including not sleeping under an insecticide-treated net, not receiving a vitamin A supplement and not being dewormed.
- **Poor level of hygiene, limited access to an improved water source and limited treatment of water:** respondents frequently prioritized closer access to water and few of them treated water.

Other underlying factors affecting malnutrition – in Karamoja as well as in other contexts – include the education level of the mother, household access to life skills and information on nutrition and diet and factors negatively influencing care and feeding practices (food security and nutrition assessment, May 2013). At the other extreme, some communities described the customary practices of food preservation and storage, prioritizing children’s sustained nutrition throughout the year, despite lean seasons or shocks.

7. Analysis Part 3: Food Security and Nutrition Resilience Capacities

In the present analysis, a resilient household is defined as one able to maintain a certain level of well-being in the face of shocks and stresses. Households that are resilient in the face of food insecurity and malnutrition are defined in the box below:

Categorization of households resilient in the face of food insecurity and malnutrition

For the purpose of this study, resilient households have been defined as (1) food secure and (2) without any malnourished children in their household, using the following proxy indicators:

- *Food secure: households that have an acceptable food consumption score (>35)*
- *No malnourished children: no child that is wasted, stunted or underweight based on the z-scores from weight-for-height, weight-for-age and height-for-age.*

Using quantitative and qualitative data, this section compares resilient and non-resilient households with a set of indicators in order to better identify the differences between the two groups. Resilience indicators are divided into three sets of capacities: absorptive, adaptive and transformative. That covers absorbing or simply coping in the short term, to adapting in the medium term, to transforming structurally over the long term. Those capacities are not mutually exclusive (i.e., they overlap) and this makes the categorization of certain indicators challenging, despite the utility of the “three capacity” concept. Working definitions of the three key resilience capacities are as follows:⁴⁰

The objective is to provide information as to how stakeholders including Governments, agencies and communities themselves can strengthen resilience to food insecurity and malnutrition, either in terms of what is provided (in terms of assets, services, skills and knowledge) or in terms of how it is provided. Recommendations are provided in the section on recommendations and conclusions at the end of this report, while district-level information on resilience capacities is in annex 7).

Absorptive capacity is the ability to minimize exposure to shocks and stresses, where possible, and to recover quickly when exposed without suffering permanent, negative impacts on longer-term well-being. It is being able to cope. That is the resilience capacity operating in the shortest time frame, typically at individual or household level.

Adaptive capacity involves making informed choices to adapt to changing social, economic and environmental conditions. This might involve responses that support preparedness, flexibility and adaptation, particularly in terms of livelihood strategies, assets and social and human capital. They are proactive responses. Typically the indicators of adaptive capacity operate in a medium-term time frame and at household and/or community levels.

Transformative capacity typically relates to governance mechanisms, policies/regulations, infrastructure, community networks and formal safety nets that are part of the wider system in which households and communities are embedded. It is longer-term and structural. Transformative capacity refers to (often significant) changes that enable more lasting resilience at community and system (or enabling environment) levels.

⁴⁰ Adapted from definitions including those of Conostas et al., 2014, Frankenberger et al., 2012, and Béné et al., 2012.

7.1. Identifying key capacities indicators

Using long term household data and literature review, a comprehensive list of capacities were identified and divided into the three sets of capacities described above. A second step using quantitative data analysis and qualitative inputs from local-level consultations (focus group discussions and key informant interviews) generated the set of capacities that characterize resilient households.

When data were available, significance tests (t-tests and chi-square) were run to establish whether the differences between resilient and non-resilient households were significant and therefore whether it was possible to describe the characteristics that make a household resilient.⁴¹ Some indicators were only available for 2013 and some only for 2014. Where possible a comparison between the two years was made. Description of the indicators can be found in annex 7.

Table 4 summarizes the statistical significance of the capacity indicators described in the following section – those for which there was quantitative data available.

Capacity	Survey year	Indicators		N	Mean or %		Sig. <0.05
Absorptive	2014	Reduced coping strategies index (mean)	Resilient	926	16.8	T- test	0.000
			Non-resilient	3051	19.9		
	2013	Reduced coping strategies index (mean)	Resilient	872	13.9	T- test	0.000
			Non-resilient	2143	16.6		
	2014	High coping tercile (%)	Resilient	231	25%	chi-square	0.000
			Non-resilient	1002	33%		
	2013	Tropical livestock unit (mean)	Resilient	763	3.484	T- test	0.000
			Non-resilient	1691	1.256		
	2014	Number of assets owned (mean)	Resilient	926	2.336	T- test	0.000
			Non-resilient	3055	0.673		
	2013	Number of productive assets owned (mean)	Resilient	806	2.289	T- test	0.000
			Non-resilient	2069	0.956		
	2013	Number of productive assets owned (mean)	Resilient	808	0.269	T- test	0.000
			Non-resilient	2072	0.208		
2013	Percentage of food expenditure (%)	Resilient	874	70.45	T- test	0.000	
		Non-resilient	2139	75.91			
2013	Total monthly expenditures (UGX)	Resilient	876	281769	T- test	0.000	
		Non-resilient	2167	108706			

⁴¹ Dataset from food security and nutrition assessment, May 2013 and June 2014, was used to run the analysis. Data for the two surveys was generated from different samples and not from panel data.

Adap- tive	2013	Number of different animals owned (mean)	Resilient	876	1.795	T- test	0.000
			Non-resilient	2167	1.057		
Transformative	2014	Improved source of water (%)	Resilient	118	87%	chi-square	0.001
			Non-resilient	276	91%		
	2014	Litres of water per capita per day	Resilient	926	12.412	T- test	0.000
			Non-resilient	3052	10.806		
	2013	Improved sanitation (%)	Resilient	212	0.243	chi-square	0.000
			Non-resilient	289	0.135		
	2014	Use debt to pay for education	Resilient	69	0.151	chi-square	0.000
			Non-resilient	111	0.0746		

Table 4. Resilience capacity indicators and tests

7.2. Absorptive capacities

- Livestock ownership
- Expenditure
- Informal safety nets, social capital
- Psychological strength
- Asset ownership
- Coping strategies
- Small businesses
- Household cohesion

The absorptive capacities seen significantly in resilient households in this analysis hinge on what people own or have access to at the time of a shock – in particular livestock, cash, short-term strategies to cope and links to other people for immediate support. Qualitative data presents fewer material components of resilience at household level – a household that is united in decision-making and copes collectively, and a personality or psychology that makes you “strong inside to endure a shock”.

7.2.1 Livestock ownership

Livestock ownership was one of the most significant factors distinguishing resilient households. Figure 24 shows that households which were resilient in the face of aftershocks or stresses have, on average, significantly more animals in terms of tropical livestock units than those which were not resilient. Livestock provide them with food and economic security, as well as perhaps social and cultural status. In hard times livestock can be sold for cash to help absorb the shock.

Livestock ownership as a key determinant of resilience is prominent in qualitative data too. Asked what had helped him during the many hard times he was describing, an agro-pastoralist in Amudat explained: “Having livestock is important and helps me in a crisis. You can sell livestock in hard times to raise cash. During the last two years when the harvests failed it was very clear that households without animals did worse.”

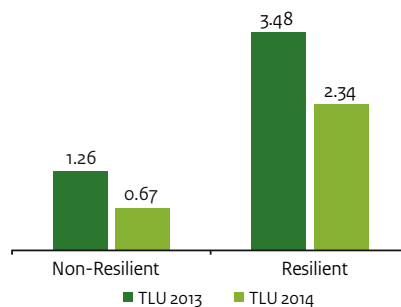


Figure 24. Livestock ownership in tropical livestock units (Source: FSNA May 2013 and June 2014)

7.2.2 Asset ownership

Key assets are a resource households use in times of need, selling or using them to absorb the impacts of shocks. On average, more resilient households own more assets and productive assets as shown in figure 25. Assets include households items such as mobile phones, bicycles, furniture etc. Productive assets include draft animals, especially oxen that are important in cultivated areas to both use and hire.

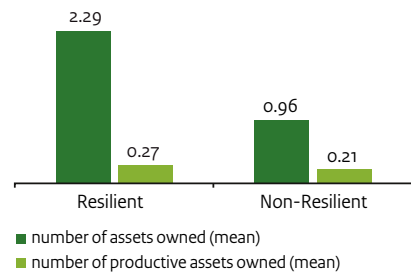


Figure 25. Asset ownership (Source: FSNA 2013)

7.2.3 Expenditure

Data on household expenditure – and particularly the proportion which is spent on food – is often used as a proxy indicator of income. The data used in the present analysis showed that resilient households spent slightly less of their total expenditure on food than non-resilient households (70 per cent versus 76 per cent). Resilient households have higher total monthly expenditure as shown in table 4.

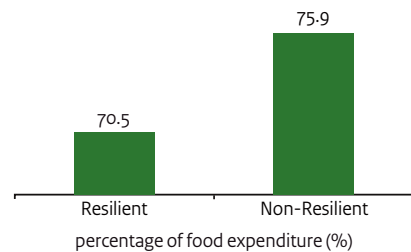


Figure 26. Share of food expenditure (Source: FSNA May 2013)

7.2.4 Coping strategies

Households respond immediately to a shock by “coping”. Coping strategies range in significance and severity, from reducing the number of meals in a day to begging or the sale of key productive assets. The data shows that resilient households had, on average, a reduced coping strategies index (rCSI), i.e., they had resorted to fewer ways of coping to face a food shortage. The data also shows that from 2013 to 2014 there was an increase in the coping strategies index for all households, meaning that in general households had to find more ways of coping in the face of shocks and stresses.

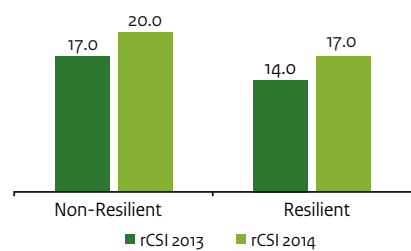


Figure 27. Reduced coping strategies index (Source: FSNA May 2013, June 2014)

7.2.5 Informal safety nets, social capital

Informal safety nets – dependent on social systems, capital and connectedness – are a bedrock of absorptive capacity in the face of shock. Communities consistently mentioned that as a first response, with women often citing male relatives and everyone citing neighbours. For example, one woman in Nakapiripirit stated: “When I see a situation is not good I go to my brothers and uncles and I ask for help. They give me food or money to help me get through the hard times”. A girl also noted: “Our neighbour had no cows and we saw that family was really struggling. The father of the household requested our help and we loaned them a cow for a year and gave them some maize”.

While many of such types of assistance are not directly paid back, although they are part of a reciprocal social network, the presence of an unpaid debt can be a quantitative indicator of informal safety nets.

7.2.6 Small businesses

Small businesses are mushrooming in Karamoja, their proliferation and diversity indicating a transition from reliance on traditional rural livelihoods towards a cash- and town-oriented society. People spoke of retail enterprises (e.g., selling sugar or other basic items bought wholesale), boda boda [motorcycle taxi] driving, chapatti-making, local brewing, vegetable selling and many other kinds of trade. Using small enterprises to make personal cash – in a customary livestock economy the major productive assets belong to the head of the household – is clearly a very effective way to quickly absorb a shock that could not be avoided and minimize its negative impacts.

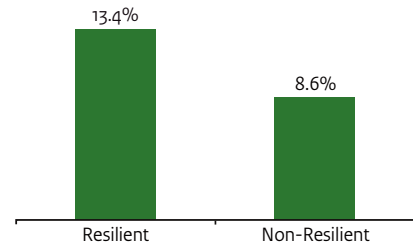


Figure 28. Percentage of households having a small business as livelihood (Source: FSNA 2014)

7.2.7 Psychological strength

Women in particular talked about the importance of psychological strength, linking it to an intrinsic characteristic and also to faith in God. As one in Nakapiripirit stated, “*You have to be strong inside to endure a shock. It comes from inside and also from God, from believing in God*”. The classification of this as a female capacity was noticeable in consultations: “*For a household to be strong it starts with the woman*” stated one female participant. While very subjective, the evidence around intense and dynamic livelihood diversification and enterprise by women seems to support it. By contrast, laziness was widely blamed for lack of household resilience. That included inherent laziness, laziness caused by alcoholism and laziness as a result of reliance on external aid and particularly food: “*After all, food aid will come.*” was how one man in Nakapiripirit described what he felt was a common apathy.

7.2.8 Household cohesion

Just as limited household cohesion was commonly cited as a stress, cohesion or togetherness was present throughout the qualitative data as a key resilience capacity at household level – in particular the value of thinking and acting together to absorb a shock. In a discussion among women about how domestic alcoholism, violence or tensions inhibit the ability to manage in difficult times, one agreed that recent crop failures had been less damaging to her household because of its cohesion: “*In my home we do things together. With my husband and co-wives we decide as one to sell a cow to start something to make cash – like sugar selling or another sort of business*”.

Absorptive capacity data gaps

The identified indicators for which there was no available quantitative data included the following: small businesses, informal safety nets, psychological strength and household cohesion. It is suggested that ways be found to capture information on those in future surveys.

7.3. Adaptive capacities

- Livelihood risk diversification
- Access to productive and secure land
- Household labour capacity
- Food preservation and storage

Adaptive capacities are better planned and more proactive than absorptive capacities: they support a household or community not only to withstand shocks but to positively change in the face of social, economic and environmental change. From the list, adaptive capacities in Karamoja that distinguish resilient households seem focused on production, but there are important social and human capital aspects of each. For example, women in Karamoja play a major role in new enterprises that are part of diversified livelihoods and in food preservation and storage. Provision of basic services such as education and nutrition information – and social protection systems that provide capital to vulnerable households – can pave the way for uptake of those responses and strategies in ways that help to adapt positively in the face of shocks.

7.3.1 Livelihood risk diversification

Livelihood diversification in general is a key component of resilience, particularly when it allows major risks to be evaded.

Owning different livestock was a significant feature of resilient households (compared to those whose food security after shocks was lower) – see figure 29. This represents an important risk diversification strategy, since shocks related to climate or disease affect different livestock species differently. The risk diversification comes from having different types of stock – cattle, goats, sheep, donkeys, camels – and different species of each of those.

Near the Kenyan border a community spoke of the recent adoption of camels: *“We have adopted camels from Turkana. Their milk is more plentiful and we can access it even during dry spells, even during drought, unlike other animals. That milk we also think is medicinal”.*

Another pastoral risk diversification strategy described at community level was herd splitting – having your herd in different areas reduces the likelihood of losing all of it to an environmental shock, disease or raiding. Sons and relatives enable a family herd to be split up, as do polygamous families, where different wives take care of separate homes and herds. As explained by a Pokot family in Amudat, *“Many of us are polygamous families where different wives live with herds in different places – they will not all be affected by the same raid or disease. And the crops planted in each of those wives’ homes should also not be all affected by the same pest or disease. Finally, a household here will probably put some of its cows in the herds of relatives, rather than looking after them all themselves and risking losing them all at once to a raid or disease”.*

Planting different crops in different areas is another form of livelihood risk diversification, which distinguishes resilient households – it allows households to minimize the chance that all their crops will succumb to the same risks – whether pests and diseases, damage by livestock or wildlife, lack of rain or flooding, low market selling price, or other factors. Diversified crops also support a diversified diet and thus good nutrition.

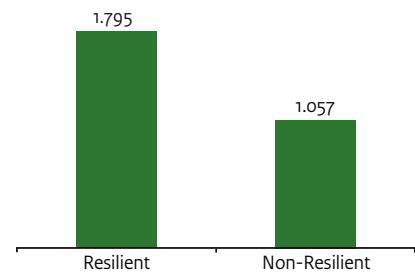


Figure 29. Number of different livestock owned (Source: FSNA 2013)

Vegetable cultivation was repeatedly cited as a popular adaptive strategy, particularly for women and youth, since simple irrigation with river water allowed year-round cultivation independent of the erratic rainfall and a robust market (especially near towns) for vegetables meant they were a handy cash crop. As explained by a woman in Amudat, “*Growing vegetables is a way for women – or youth or even anyone – to get cash when they need it. You bring water from the river and then you grow onions, tomatoes, cabbage, kale and other things you can sell*”.

Vegetable cultivation was consistently presented as a common solution for raising cash, especially during hard times. It is a good example of an adaptive capacity that in the short to middle term enables individuals/households/communities to adapt to shocks. However, it is not able to transform livelihood and well-being options over the longer term. As a means of coping, it should not be interpreted as a scalable or sustainable route to resilience in Karamoja. Vegetables are water-hungry, heat-sensitive, prone to disease and pests and they have high input requirements that correspond with an identified weakness in Karamoja – the relatively limited skills, services and resources required for agricultural production.

It was noteworthy during consultations in Karamoja that most of the livelihood strategies for risk diversification were either time-held or customary, or were being pioneered by communities – which suggests that supporting complementary livelihood strategies is what is needed rather than their introduction.

7.3.2 Access to productive and secure land

From multiple data sources it is clear that land quality matters as well as quantity, particularly in terms of access, and there must be a secure tenure system in place. While not reflected quantitatively, this factor recurred in community consultations and is also referenced in current literature on Karamoja. One of five overall recommendations given in an ECHO-FAO analysis of food security was as follows: “*A longer-term economic transformation of Karamoja can only happen when difficult issues are tackled, in particular when the land rights of the Karamojong are recognized and respected.*”⁴²

7.3.3 Household labour capacity

Having the labour capacity for household productivity and livelihood diversification is key. Many of the typical rural livelihoods – associated with agriculture, herding and casual/seasonal work – depend on a physically strong and healthy workforce, and the number of its members able to do such work will certainly determine a household’s resilience.

Non-traditional labour that allows money to be made during lean seasons or hard times also requires labour capacity and often physical strength. It should be noted that there are risks attached to many of the forms of casual labour available in Karamoja. Working as a relatively unprotected source of labour at quarries or mineral mines exposes individuals and their families to harm: as well as physical harm and the potential loss of earners for a household, stakeholders spoke of the childcare risks when parents leave their children unattended to do casual labour, or if they are paid not in cash but in alcohol (see previous section).

⁴² See Levine 2010.

7.3.4 Food preservation and storage

The ways in which food is collected, preserved and stored make a difference to whether or not a household can sustain food and nutrition security, despite shocks. Quantitative data for Karamoja was not available for the present analysis, but there was a wealth of qualitative and anecdotal information around this, for example on the use of dried milk or meat and butter for dry season food security.

While storing food for lean seasons was in some places dismissed as simply “*not traditional*”, other communities took pride in how they preserved and stored food. In Amudat, customary practices of drying meat, producing oil and butter and drying a fermented milk called soyo were described in detail, along with the potential of this to sustain children through times of food insecurity. Preservation of seeds as well as food was also described. Social norms, but also positive deviance and behaviour, are central to this capacity and there was evidence that some agencies had tried to share information and learning through exchange visits between communities and between mothers within them.

In a community in Nakapiripirit, people described storing dried food and crops, such as cowpeas and sorghum, as well as grass and dried fruits, in household granaries. They also described in detail the way they dried meat and also milk products. As explained by one mother, “*In this community people depend on crops but also milk. They preserve milk to last for a year. You dilute the dry milk with warm water. Each family has that method and can avoid malnutrition. People without access to animals might dry greens*”.

The foregoing account of local practices indicates the potential of indigenous knowledge for further transformation, with complementary inputs from outside the society.

Absorptive capacity data gaps

The identified indicators for which there was no available quantitative data included the following: land size, crop diversification, vegetable cultivation, household labour capacity and food preservation and storage. It is suggested that ways be found to capture information on those in future surveys.

7.4 Transformative capacities

Access to Social Services

- Improved access to water and sanitation
- Access to local health services
- Access to education

Access To Productive Services

Safety Nets And Social Protection

- Access to credit or savings
- Local social protection systems

Empowerment, Governance And Leadership

- Early warning systems
- Youth empowerment
- Women’s empowerment
- Community leadership and cohesion

Transformative capacities are part of long-term responses that fundamentally address vulnerabilities at community, environment or systems level. Such changes allow a new direction that can avoid the impact of shocks and break a cycle of vulnerability caused by stresses. They include access to basic social services – health, education, protection, water and sanitation – as well as support and services for increased and diversified productivity. They include social safety nets and social protection that can enable even destitute people to break a cycle of vulnerability and stand up to shocks. They are linked closely to wider issues of empowerment and governance, especially for women and youth whose vulnerability – or resilience – is distinct. And finally, they include community leadership and cohesion that can strengthen the bonds within a community, with other communities and with an “outside world” of authorities, service providers and decision makers. Data on many of the transformative capacities in Karamoja were qualitative and the following capacities are explored here according to four main themes: productive assets, access to services, safety nets and social protection, and empowerment, governance and leadership.

Access to Services

7.4.1 Access to social services

Improved access to water and sanitation

The percentage of access to safe water – for drinking and domestic use – is still very high, even if non-resilient households seem to have better access (91 per cent vs. 87 per cent). On the other hand, resilient households use more litres per capita per day compared with non-resilient households: 12.4 litres compared to 10.8 litres.

Sanitation is a key part of resilience at household and community level, with simple sanitation and hygiene promotion indicators, including increased handwashing, known to be among the cheapest and most effective ways of improving child morbidity, mortality and nutrition status. Access to improved sanitation increased in 2014 and on average around 20 per cent of the population have access to a private latrine (with large differences between districts, see district profiles in annex 7). In 2013, resilient households had better access to safe sanitation (24 per cent vs 14 per cent), while in 2014 there was no difference between the two groups.

Access to water for productive assets (i.e. livestock-keeping and crop production) is a critical component of resilience in Karamoja and one that has a direct impact on food security and nutrition. Safeguarding the productivity of crops or livestock through access to water for those assets ensures food and nutrition security through household food production, household income generation and household milk production (a key component of child health and nutrition).⁴³

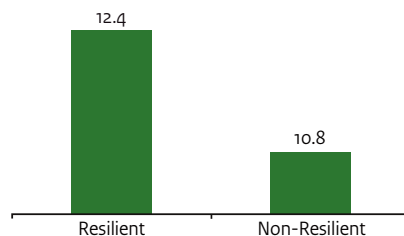


Figure 30. Litres of water consumed per capita per day by resilient and non-resilient households (Source: FSNA June 2014)

⁴³ See Elizabeth Stites and Emily Michard, “Milk Matters in Karamoja: milk in children’s diets and household livelihoods”, 2011, Tufts/Feinstein study that explored the critical role of household milk availability, accessibility and utilization in child health and nutrition, available from <http://fic.tufts.edu/assets/Milk-Matters-in-Karamoja.pdf>.

Access to education

Education can bring salaried labour, life skills and connections that benefit both the educated individual and their family or even community. From the focus group discussions it was clear that educated household members could boost a household's resilience and the ability to transform in the face of change and vulnerability, if they could access non-agricultural income opportunities and networks.

Long-term dividends were less clearly explained – or only for a very few who had achieved salaried labour and supported their families in Karamoja, mostly remotely – but many spoke of the short-term capacity to earn money and make connections which an education afforded. *“Women who have been to school can get jobs with NGOs that will help in tough times”*. Another linked it bluntly to food security: *“If you stand in the middle of the manyatta [homestead] looking for the house of a wife who went to school, you will see it because there is always smoke coming out of that pot.”*

The transformative power of education was linked for many to the customary coping strategy of simply having children whose future success should bring you benefit. A woman in Nakapiripirit said, *“Children who have grown up and settled and have jobs can support you”*.

Access to local health services

Access to local health services was often cited by community representatives as a means of affordably combating ill health and maintaining productivity. *“Health services have made people in this place strong”*, said a woman in Amudat. Another in the same district said, *“Health services give your strength. You can work more and services that reduce costs mean you can spend money on other things like schooling”*.

In times of shock or extreme stress, basic social services need to keep operating in order to support people's resilience. That was well expressed qualitatively by informants who upheld or advocated for local health service providers who were part of the community and stayed with those communities.

7.4.2 Access to productive services

This includes animal health/veterinary services and knowledge to avoid outbreaks and increase productivity, agricultural extension services, technologies and knowledge to safeguard/increase yield, cereal banking and storage that maintains food availability in hard times and strengthens social cohesion, and water solutions, including dams, irrigation and forms of water harvesting that maximize productivity despite uneven rainfall.

Access to productive services that are complementary to productive assets are essential to achieving resilience by increasing production and productivity at the household level.

Safety Nets and Social Protection

7.4.4 Access to credit or savings

Access to credit or savings is becoming increasingly important for women and youth who are embarking on non-traditional enterprises. That might be through a tested form of diversified livelihood strategy or through a more entrepreneurial one. Either way, start-up capital is essential. Typically in Karamoja this would be through borrowing from friends, relatives and local traders – dependent on the person’s social capital and connections (see the earlier section on informal safety nets as a key absorptive capacity). However, qualitative data for the present analysis makes it clear that access to credit or

savings increasingly comes through membership of formal credit and savings institutions such as village savings and loan associations. One young woman in Nakapiripirit explained her experience as part of one and how it would support her vision for a transformed livelihood:

“We formed a VSLA at the beginning of the year. We were 30 and we each gave a member fee of 5,000. Every week after that we put in 2,000 shillings each – for me I raised this selling aloe vera I collected. At the end of the year we will open the box and take loans to start businesses. I plan to start a second-hand clothes business in town. Or maybe I will buy something like sugar wholesale and sell it in the market”

Saving schemes, such as village savings and loan associations, were not only enabling a transformative capacity for young people and women embarking on new enterprises, they were also seen to be supporting those trying to support or rehabilitate a customary livelihood. As a pastoralist in Kotido explained, *“You borrow from the savings schemes and you buy medicines for your sick animals; then when your livestock is healthy and producing again, you can afford to return the money”*.

The food security and nutrition assessment data does not show differences in terms of households with debts (almost 50 per cent of the entire sample), but does show a significant difference in the reason for household debts. Resilient households take debts for reasons other than the need to buy food, including coverage of education expenses.

7.4.5 Local social protection systems

As well as formal social protection systems, resilience for the most vulnerable depends on the presence of local social protection mechanisms – which are typically stronger in a community with peace, social cohesion and strong leadership. Locally driven social protection mechanisms are well regulated and understood – for example as described by a man in Amudat: *“You borrow animals from relatives if you have none. You can borrow them for up to five years, in which time they must have reproduced. You will give back the offspring too, because you only loaned one and because you have supported yourself with milk from all the cows during that time. You can also do exchanges with relatives – for example if you have bulls you can do an exchange so you have a heifer for milk...”*

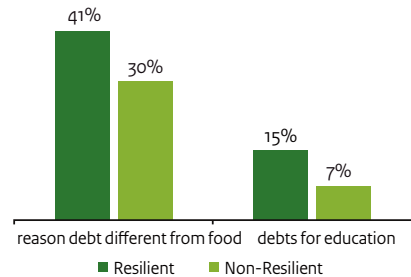


Figure 31. Reasons for contracting debts
(Source: FSNA May 2013)

Empowerment, Preparedness, Governance and Leadership

7.4.6 Early warning systems

The present analysis has shown that rainfall is erratic and largely unpredictable, with negative effects on the food security and well-being of households in Karamoja that could be avoided if effective early warning systems were in place. In places where early warning systems exist and are accessible - whether traditional or non-traditional - households can better plan not only to avoid shocks and stresses but to stay ahead of change, whether it is economic or environmental. That includes leaders with good links to outside experts, or their own foresight about impending risks. In Napak a young pastoralist said, *“At the beginning of the year an emuron [prophet] in my place told us from his dreams that there would be no rain. And he was right”*. It could also include outside and less traditional sources: for instance, members of a community near the Kenyan border were listening to a Kenyan radio station that combined weather forecasts with local knowledge on climate, while another was receiving early warning information on droughts from a contact he had at an NGO in Moroto. Based on that information, and given confidence by it, they were able to adjust their plans and transform their productivity even in the face of change.

7.4.7 Women’s empowerment

In the context of social, economic and environmental change in Karamoja, the role of women is fundamental. A good deal of the experience and data relating to Karamoja finds that resilience has an important foundation in women’s capacity to own assets, engage in enterprises and groups and take decisions at household and community level. That is linked to them being confident enough to adapt and transform, to take risks and find ways to endure, as was explained by a woman in Amudat who lived with five co-wives and struggled to make household assets stretch to her children: *“It’s upon you as a woman to think left and right and find ways to cope”*.

The role of women’s empowerment in resilience is especially important in areas where pastoralism is being replaced as the mainstream livelihood. A community in Moroto, asked what made them strong in hard times, explained this clearly: *“Women are now our source of strength. Men used to be the ones owning livestock, but women are now the breadwinners of the family and they have more opportunities to make money”*.

The resilience of women needs to be enabled in the context of widespread intracommunity and domestic violence against them, as well as social or cultural norms that typically limit their ownership of assets (or position them as assets themselves). Social and economic empowerment of women includes measures to tackle violence or negative social norms, as well as ensuring the representation of women in governance structures, development (or peace) committees and processes, and service delivery, especially in terms of health, education and nutrition.

7.4.8 Youth empowerment

Youth are undergoing a major transition in Karamoja and the resilience of them, their families and communities and society in general relies on their possession of the relevant skills, knowledge, assets and opportunities, as well as their cohesion with elders, the community and outside agencies or authorities. Qualitative data collected for this and other studies show that in communities where there is confidence that youth are finding a productive role in society – and being supported

to do so – there is confidence in the future. That links to them having the appropriate skills and abilities for traditional or non-traditional livelihoods and also to the presence of quality, relevant education, the results of which are demonstrated through empowered youth with a valuable (and valued) role in society.

7.4.9 Community leadership, cohesion and peacebuilding

The importance of community leadership was commonly expressed as key to local resilience. While quantitative data cannot show this, qualitative inputs and communities themselves described strong local leadership as able to gather the community together for collective decisions or collective actions. As explained by a woman in Nakapiripirit, *“A stronger community calls a meeting when there’s a problem, like a disease outbreak – they call a meeting where the community can discuss what to do and what help is needed”*.

The capacity to mitigate conflict and build peace – both within a community and with other communities – was also stressed, as was cohesion between elders and youth. That cohesion is a powerful way to facilitate community resilience, especially since both groups have undergone recent economic and sociopolitical transition.

Informal social protection or local safety nets depend on a level of cohesion in a community and can be very powerful in addressing the vulnerability of an individual or a household. Varying across groups and communities, customary systems can assist in hard times, for example through gifts and/or loans of livestock, food or cash. Often there exist formal structures of governance in terms of targeting, payment and repayment.

Not only should good leadership be able to bring a community together and with neighbouring communities, it should be able to connect it with those beyond.

The linking of communities is essential in times of stress, for accessing vital outside assistance and resources – from animal drugs to early warning systems and information on available services. A woman in Nakapiripirit considered their local elders able not only to be decision makers on behalf of the community, but also to have the capacity to find help: *“Elders might approach the people who can help, or might advise and organize the community to move”*.

Transformative capacity data gaps

The identified indicators for which there was no available quantitative data included the following: support for livelihood productivity, access to education and local health services, access to informal saving schemes, early warning systems, youth empowerment, women’s empowerment, community leadership and cohesion and community connections. It is suggested that ways be found to capture information on those in future surveys.

8. Recommendations and Conclusions

8.1. Recommendations

The present report explores the context of food security and malnutrition resilience in Karamoja through the use of secondary data, both qualitative and quantitative, complemented by inputs from local communities. It gives an overview of the interaction of multiple shocks and stresses that affect Karamoja, provides information on trends in food insecurity and malnutrition and analyses a range of capacities that allow some households to be resilient despite those shocks and stresses.

In the study, multiple shocks and stresses in Karamoja were observed, most prominent among those being drought, flooding, livestock and crop diseases, insecurity, high food prices and relatively limited access to basic services. It also became clear that many of the shocks and stresses in the region occurred at about the same time. Furthermore, some of the food insecurity and malnutrition variables investigated increased between 2011 and 2014. While direct linkages between those variables and the shocks observed are not statistically established in the report, other trend analysis and feedback from a range of stakeholders showed that cumulative shocks and stresses had had a bearing on household food insecurity and malnutrition in the past.

In the study, a wide range of capacities were identified as important contributing factors to resilience in the face of food insecurity and malnutrition in Karamoja. The results indicate that for absorptive capacity, livestock ownership, informal social safety nets and small business enterprises are some of the key indicators. In the case of adaptive capacity, access to adequate productive and secure land, livelihood risk diversification and household labour capacity were found to be critical. Access to credit and savings, productive and social services, and the empowerment of women, youth and local leadership were among the key indicators for transformative capacity.

The study identified data gaps relevant to future monitoring of resilience, which include the following: livestock numbers and the prevalence of disease, the presence of early warning systems, formal and informal safety nets, credit disbursement, land size and quality, crop diversification, food preservation and storage, livelihood productivity, infrastructure and basic social services, including the education of household members, and the status and empowerment of youth, women and local leadership.

Based on the analysis in the study and on inputs from a stakeholder workshop held in Kampala to discuss a draft version of the report, activities to enhance local resilience to food insecurity and malnutrition in Karamoja might incorporate:

- **Support to livelihoods.** This includes both customary livelihoods, including pastoralism, and alternative or emerging ones for which there may be limited experience or support. Karamoja contains a wide range of livelihood zones, for which different forms of support to productivity are required:
 - In many districts and areas, pastoralism remains the mainstay of the economy and as this analysis has seen, services and inputs to support it require strengthening.
 - Agriculture and cultivation is to varying degrees an emerging livelihood in much of Karamoja and its success will depend on access to robust services and inputs, including knowledge and training to improve the technical capacities of producers. Quick-maturing

crop varieties and improved stock storage and safety were referenced by stakeholders as an important form of support.

- Other rural enterprises – many built on customary practices such as bee-keeping for honey production, others based on new opportunities such as fish farming in dams – should be strengthened and supported as part of livelihood diversification.
- There are emerging industries in Karamoja, for example mineral and oil extraction, conservation and tourism, which local communities are participating in at varying degrees. Stakeholders noted the opportunities presented by those activities, while cautioning that issues of resource-sharing and governance undermined their success. Livelihood risk diversification is seen as critical in the face of changing and often unpredictable shocks. Successfully pursuing and combining livelihoods in a way that enables households not only to withstand shocks, but to transform in the face of them, depends on access to services, including markets; education and knowledge; human and social capital; safety nets, such as access to credit; and local-level governance and leadership. It also depends on sustainable land use and management and secure access to productive land. In addition, with changing weather patterns and risk profiles, support to livelihoods – and other priority interventions to strengthen resilience – will require a concerted focus on disaster risk reduction and climate change adaptation.
- **Support for access to basic social services.** This will strengthen human and social capital in the form of educated, healthy and productive individuals, households and communities. Resilience to inevitable shocks depends on this, as does longer-term adaptation to changing social, economic and environmental conditions. Key social services include nutrition, health protection, education, and water and sanitation:
 - Education is widely felt to be a critical investment, with various forms of support called for: promoting the quality and relevance of education in Karamoja, including adapting curricula to support context-specific life skills and the uptake of appropriate local livelihoods after school; safeguarding the retention of children in schools; and addressing different ages and generations through education provision for adults or youth above schooling age.
 - Water was highlighted by stakeholders as a priority area, with a range of suggestions put forward: to identify water-stressed areas and respond by ensuring safe water for drinking and access to water for production, including irrigation; and to explore options for the use of underground water resources and harvested rainwater.
- **Support for social safety nets and social protection.** Social capital and connectedness is fundamental to resilience in Karamoja and can be supported either through formal initiatives that provide predictable cash transfers for the vulnerable, or through microfinance or savings and loan associations, which provide access to credit for enterprises. Informal safety nets are a foundation of resilience in Karamoja; where possible these should be supported and in all cases they should not be undermined.
- **Support for empowerment and local leadership.** Women and youth need specific support to keep up with cumulative shocks, as well as with economic and social change. Local leadership, especially where it is in a transitional and weakened role, also needs support if Karamoja is to build long-term resilience and sustain long-term development goals. As mentioned in the previous section, effective governance at national, subnational and local levels enables the

success of community engagement in new enterprises, as well as in external markets and relations. Efforts to strengthen governance may include civic education among both rights-holders and duty-bearers.

- **Support for mainstreaming of disaster risk reduction at the local government level;** many of the local governments in the Karamoja region showed a willingness to mainstream disaster risk reduction as it was essential to increasing resilience. Coupled with other interventions, such as livelihood risk diversification and support for safety nets, it would be prudent to use this opportunity to strengthen the institutionalization of disaster risk reduction at both district and community levels.

8.2. Conclusions

In conclusion, some of the indicators identified in the present study could inform the monitoring and evaluation of the IGAD drought and disaster resilience initiative at the local, as well as national and regional, levels. It may also be useful for important in-country processes for strengthening resilience, for instance the Karamoja integrated development programme, among others. Inputs from the stakeholder workshop reflected the need for ongoing efforts to focus on the identification of different scales of indicators for the monitoring and evaluation of resilience in Karamoja, i.e., at individual/household, community and systems levels. Using or establishing panel data sets where possible, monitoring should focus on how resilience initiatives allow development outcomes to be sustained despite shocks, and should capture the extent to which absorptive, adaptive and transformative capacities are in place, at those different levels, prior to shocks.

In describing the capacities that strengthen household resilience to food insecurity and malnutrition, and in putting forward recommendations co-developed with key stakeholders, it is hoped that the present analysis will support the policy, programming and analysis efforts of government and development partners working together to strengthen resilience in Karamoja.

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Annexes

Annex 1: Resilience definitions

Many definitions of resilience exist depending on the objectives, discipline or context. Some key examples include:

“Resilience is the ability of a system and its component parts to anticipate, absorb, accommodate or recover from the effects of a hazardous event in a timely and efficient manner” (Intergovernmental Panel on Climate Change, 2014)

“Resilience is the capacity to manage, adapt to, cope with or recover from stresses, shocks and disasters; or the ability of a system to remain stable or adapt to a new situation without undergoing catastrophic changes in its basic functioning” (Intergovernmental Authority on Development, 2012)

“Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions” (Inter-Agency Secretariat of the International Strategy for Disaster Reduction, 2009)

“Resilience is an inherent as well as acquired condition achieved by managing risks over time at individual, household, community and societal levels in ways that minimize costs, build capacity to manage and sustain development momentum, and maximize transformative potential” (United Nations Development Programme, 2013)

“Disaster resilience is the ability of countries, communities and households to manage change by maintaining or transforming living standards in the face of shocks or stresses – such as earthquakes, drought or violent conflict – without compromising their long-term prospects” (Department for International Development, 2011)

“Resilience is the ability of individuals, communities, organizations or countries exposed to disasters and crises and underlying vulnerabilities to anticipate, reduce the impact of, cope with and recover from the effects of adversity without compromising their long-term prospects” (International Federation of Red Cross and Red Crescent Societies, 2012)

“Resilience is the ability of individuals, communities and states and their institutions to absorb and recover from shocks, whilst positively adapting and transforming their structures and means for living in the face of long-term changes and uncertainty” (Organization for Economic Cooperation and Development, 2013)

“Resilience to recurrent crisis is the ability of people, households, communities, countries and systems to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth” (United States Agency for International Development, 2012)

These definitions have the following common elements and principles:¹

1. All definitions emphasize that resilience is the ability to respond to transitory adverse events (shocks) or more persistent adverse trends (stresses). They emphasize the *ability* or perhaps more accurately the capacity of a system.
2. The concept of resilience can be applied at different levels of aggregation depending on the objectives, e.g. for individuals, households, communities, organizations, systems (as in the ecology literature) or state levels.
3. All definitions have a temporal focus, with greater emphasis on the potential long-term adverse consequences of shocks and stresses.

¹ Hoddinott J. 2014. Understanding Resilience for Food and Nutrition Security. 2020 Conference Paper 8, May 2014. International Food Policy Research Institute.

Annex 2: Quantitative data information

Below are descriptions of the sampling procedures used in the datasets that form part of this resilience context analysis, as reported in the publications related to them.

Food Security and Nutrition Assessment, World Food Programme and United Nations Children’s Fund, 2012–2014

Food Security and Nutrition Assessment, June 2014

“The sampling methodology was a two-stage cluster survey that enabled independent as well as combined reporting of results for the seven districts of Karamoja (Abim, Kotido, Kaabong, Moroto, Napak, Amudat and Nakapiripirit). A highly representative sample of approximately 3,700 households was sampled, with extremely vulnerable households making up 10 per cent of the sample. For the extremely vulnerable household, region-wide estimates for food security indicators were generated using a sample size of 350 households across the Karamoja region.” (p15)

Food Security and Nutrition Assessment, May 2013

Target population

The targets were district representative households in the five districts regardless of who occupied them. Children between the ages of 0 and 59 months and their mothers if they existed in the sampled households were assessed. Where children and/or mothers never existed in a household, the head of household was interviewed to collect information only on food security. The age of children was confirmed by use of child health cards. Children with physical disabilities were assessed but findings on anthropometry were excluded.

Sample size and sampling procedure

The target was to detect a minimum variation of 5 per cent of global acute malnutrition with 85 per cent precision. Empirically, it was established that a minimum of 25 clusters was required for a survey to be representative and valid in sub-Saharan setups. We therefore aimed to sample a total of 480 representative households per district using a multi-stage 30x16 cluster randomization design. At the first stage, a probability sample of 30 clusters was selected using an updated list of parishes that constitute a district (probability proportional to population size approach). The updated lists were obtained from the district population offices. At the second stage, households were systematically sampled. Systematic sampling was done by ensuring a random start and using a calculated sampling interval using a list of village households obtained from the village head. A total of 3360 households were therefore targeted for sampling in the five districts but we were able to reach up to 3157. All children 0–59 months living in the sampled households were assessed.” (p4)

Karamoja Food Security Assessment, Food and Agriculture Organization of the United Nations, World Food Programme, Ministry of Agriculture, Animal Industry and Fisheries and Uganda Bureau of Statistics, February 2014

“The Uganda Population and Housing Census (2002) conducted in September 2002 provided the sampling frame. The assessment was planned to generate regional- and district-level estimates and to achieve this a sampling scheme of 190 enumeration areas (clusters) and 10 households in each selected enumeration area (cluster), leading to 1,900 households, was adopted. The sample size was determined based on the severity of food insecurity, an indicator (predicted value of indicator) derived from the previous assessments.

A two-stage stratified sample design was used: at the first stage enumeration areas were selected with probability proportional to size; at the second stage, households which were the ultimate sampling units were selected using systematic random walk. A total of 1,900 households were interviewed using a structured questionnaire. In instances where the enumeration areas comprised of several manyattas, the segmentation method was used.” (p12)

Annex 3: Policies and programmes for resilience and development in Karamoja

Uganda National Development Plan 2011–2015: “Growth, Employment and Socio-Economic Transformation for Prosperity”

Key pillars of this plan are improved employment levels, higher per capita income, improved labour-force distribution, improved gender equality indicators and improved human development indicators. With the ambition of transforming Uganda “from a peasant society to a middle income country” by 2020, agriculture is identified as the primary growth sector, and northern Uganda as a geographical focus area. There are four associated intervention areas:

1. Increase **production** by increasing productive assets of farmers;
2. Promote **agro-processing and value addition**;
3. **Build capacity** of farmers and local governments, and strengthen the local government production departments; and
4. Improve **access to markets**.

The same push for enhanced agricultural productivity is reflected in other government strategies such as the Development Strategy and Investment Plan (DSIP) for the agriculture sector.

Karamoja Integrated Disarmament and Development Programme 2011–2015 to become Karamoja Integrated Development Programme from 2015

The **Karamoja Integrated Disarmament and Development Programme**, which is part of the Peace and Recovery Development Plan in Northern Uganda, has been addressing the “unique development challenges of Karamoja” and will be continued after 2015 as the Karamoja Integrated Development Programme (post-disarmament). It is coordinated by the Office of the Prime Minister, in collaboration with the Ministry for Karamoja Affairs, district local governments and development partners. It identifies key entry points relating to **security, law and order; basic social service delivery** (including education, health, water and social protection for vulnerable households); and livelihood **diversification** (primarily support for cultivation and agriculture but also support for enhanced roads).

As a key government strategy, it harmonizes a broad range of development interventions and investments, setting out an important set of key principles for interventions that include community ownership and participation; gender and generational integration; a rights-based approach; ongoing peace and security; labour-based approaches (using local residents in development interventions); transparency and accountability; and sustainability.

Karamoja Action Plan for Food Security (2009-2014)

Complementing the Karamoja Integrated Disarmament and Development Programme and led by the Office of the Prime Minister, the Plan is aimed at supporting sustained food security and increased household incomes, for example through capacity-building and by increasing crop and livestock production and restoring degraded natural resources.

The country programming paper for Uganda of the Intergovernmental Authority on Development's drought disaster resilience and sustainability initiative

Intended as a platform for coordinated planning and resource mobilization and as part of the Intergovernmental Authority on Development (IGAD) drought disaster resilience and sustainability initiative,² the country programming paper is a 15-year strategy coordinated by the Office of the Prime Minister's Department of Relief, Disaster Preparedness, Management and Refugees. Key themes of the country programming paper include strengthening institutional capacity to manage disasters; building community-based preparedness, early warning and response systems; and mainstreaming resilience in interventions in key sectors. It also highlights conflicts over natural resources, lack of secure land owing to eroded customary land ownership, restricted mobility of pastoralists, and weak investments in social services and infrastructure. It emphasizes the need to transform agro-pastoralist and pastoralist dry lands into more profitable, integrated and resilient economic systems. The paper proposes six components:

- A. Natural resource management
- B. Market access and trade
- C. Livelihood support
- D. Pastoral disaster risk management
- E. Research and knowledge management
- F. Peacebuilding and conflict resolution

Focus areas for implementation of the country programming paper, which complement other key policies including the National Development Plan and the Karamoja Integrated Development Programme, are West Nile, parts of western Uganda, and the semi-arid "cattle corridor" covering Karamoja.

² Intergovernmental Authority on Development drought disaster resilience and sustainability initiative, established at the Nairobi Summit 2011.

7.2. Development Partners and Programmes in Karamoja

Key development partners operating in Karamoja alongside the Government of Uganda include IGAD, United Nations agencies (either “delivering as one”,³ or in joint strategies or independently), the World Bank, the Department for International Development (DFID), the United States Agency for International Development, ECHO/DEVCO and a number of international non-governmental organizations (NGOs). The major development investments in Karamoja from 2011 to 2016 are summarized in the following table:

Programme	Donor/Country	<2011	2012	2013	2014	2015	2016>
FAO-UNICEF-WFP Joint Resilience Strategy (draft)	DFID Uganda						
Peace, Recovery and Development Plan 2 / Karamoja Integrated Disarmament and Development Programme	Government of Uganda Office of the Prime Minister						
Post-Peace, Recovery and Development Plan	Government of Uganda Office of the Prime Minister						
Karamoja Livelihoods Programme	European Union Uganda Karamoja						
Second Northern Uganda Social Action Fund	World Bank Uganda Northern						
Expanding Social Protection Programme	DFID Uganda						
World Bank Regional Pastoral Livelihood Resilience Project	World Bank Regional						
IGAD drought disaster resilience and sustainability initiative	IGAD						

Source: FAO, UNICEF and WFP (2014) Enhancing Resilience in Karamoja, Uganda; Business Case and Intervention Summary

The second Northern Uganda Social Action Fund

In its second phase (2009–2015), the Northern Uganda Social Action Fund is a \$100 million project funded by the World Bank (with contributions from other donors including \$12 million from DFID) and aligned with the Peace, Recovery and Development Plan in its efforts to “close the gap” between northern Uganda and the rest of the country. The Fund seeks to provide earning opportunities and better basic services for vulnerable households in northern Uganda, through three components:

- Livelihood investment** by supporting community-based public works programmes (e.g. community feeder roads and valley tanks), creating income-generating activities, implementing a household income support programme, providing skills to facilitate self-employment, and supplying or supporting productive assets (especially with regard to crop production);

³ Uganda is a United Nations ‘Delivering as One’ country: <http://www.un-ug.org/about.php?res=1&node=1>

2. **Community infrastructure rehabilitation** to improve access to basic services (e.g., schools, community water points, community access roads, health centres, teachers' houses, sanitation facilities and basic solar lighting); and
3. **Institutional development**, financing activities at the national, district, sub-county and community levels that improve project implementation, including through increased accountability and transparency in the use of project resources.

Regional Pastoral Livelihood Resilience Project

The Regional Pastoral Livelihood Resilience Project is the major project through which the World Bank is supporting development in Karamoja. Regionally, the objectives of the project are to enhance livelihood resilience of pastoral and agro-pastoral communities in cross-border drought-prone areas of selected countries and to improve the capacity of the selected countries' governments to respond promptly and effectively to an eligible crisis or emergency. In Karamoja, the project includes a cross-border project with Kenya operating in the "Karamoja Cluster". The project has five components:

- **Natural resources management** – enhancing the sustainable management and secure access of pastoral and agro-pastoral communities to natural resources (water and pasture) with transboundary significance;
- **Market access and trade** – improving the access of agro-pastoralists and pastoralists to the intraregional and international markets of livestock and livestock products;
- **Livelihood support** – enhancing the livelihoods of pastoralist and agro-pastoralist communities;
- **Pastoral risk management** – enhancing drought-related hazard preparedness, prevention and response at the national and regional levels; and
- **Project management and institutional support** – focusing on all aspects related to overall project management, including monitoring safeguards and mitigation measures identified in the different frameworks disclosed, and institutional strengthening at national and regional levels for drought resilience.

Food and Agriculture Organization of the United Nations (FAO), United Nations Children's Fund and United Nations World Food Programme: a common approach to building resilience in Karamoja (draft)

Together, these agencies represent approximately 90 per cent of the current United Nations activities in Karamoja. Combined, the agencies have seven field offices and 86 staff in the region. Building on experience and relationships, a more coordinated effort around resilience – the FAO-UNICEF-WFP Joint Resilience Strategy for Karamoja – is currently under development and in the process of finalization.

This strategy for building resilience in Karamoja has three interrelated objectives:

1. To strengthen **productive sectors**;
2. To improve **basic social services**; and
3. To establish **predictable safety nets**.

The strategy is being implemented in support of the Government of Uganda and in collaboration with other partners, and builds on the comparative advantages of each agency. The following are key elements of this approach:

- Common situation and problem analysis;
- Clear articulation of how a resilience-focused approach supports the Government's own policy efforts and actions in relation to Karamoja;
- Common results framework;
- Joint area-based planning of interventions;
- Increased coordination, information-sharing, monitoring and evaluation among the three agencies, particularly (but not only) in the nutrition, livelihood, water and health (human and animal) sectors;
- Increased joint support for government efforts to coordinate other entities operating in Karamoja; and Common evidence base about interventions that are effective in the Karamoja context.

Food and Agriculture Organization of the United Nations

FAO Uganda is implementing a project aimed at strengthening the resilience of agro-pastoral communities and local governments with a view to reducing the impacts of climate risks on livelihoods in Karamoja. The main objectives are (1) to improve strategic planning and response to climate risks/shocks, and (2) to strengthen adaptive capacities of agro-pastoral communities and the district local governments to reduce climate risks.

Output 1 (early warning, preparedness and contingency planning and response system) focuses on strengthening early drought warning systems through monthly bulletins at the district level. Additionally, it develops food security baseline and analysis of the integrated food security phase classification for district stakeholders. It also updates livelihood zone maps of Karamoja and support preparedness through radio advice on coping with future/current shocks. **Output 2** (livestock disease surveillance, diagnostic capacity, veterinary services and animal/livestock nutrition) focuses on livestock disease control and training. **Output 3** (agro-pastoral production systems strengthened through support to the district local government, agro-pastoral field schools and improved access to water) includes support to cereal banking and energy-efficient stove making.

United Nations Children's Fund

The United Nations Children's Fund (UNICEF) works with government ministries, counterparts and other relevant stakeholders at the district level to provide support to primary school infrastructure, teaching and attendance in Karamoja, with a focus on girls and including provision of scholarships; maternal and newborn health and health care; nutrition; HIV/AIDS; water, sanitation and hygiene; and child protection.

Capacity-building is a key element of UNICEF interventions in the region, for example in education through training of teachers and in nutrition through support to district health offices to establish and run therapeutic feeding centres for treatment of severe acute malnutrition. UNICEF has also supported districts in Karamoja to roll out and scale up the functionality of village health teams

(2,968 in total) to treat children under the age of five for malaria, diarrhoea and pneumonia. UNICEF works in Karamoja to support routine immunization programmes.

United Nations Development Programme

The United Nations Development Programme (UNDP) has a Karamoja programme focusing on accountable democratic governance and poverty reduction. Since 2011, UNDP has focused on strengthening peace and reconciliation initiatives in the conflict-affected region of northern Uganda. It is working to enable formerly displaced communities to not only settle back safely into their homes, but also to gain access to basic social services like health and education and the skills to be economically productive. As part of this, UNDP is funding the Karamoja Livelihoods Programme (2011–2015).

UNDP is also working towards ensuring that natural and energy resources are used and managed in a sustainable manner and helping to contribute to growth and poverty reduction. As part of this, UNDP is investing in conservation agriculture training for farmers' groups, environmental sustainability action plans in districts, household grants for tree-planting, rehabilitation of degraded forests, promotion of bee-keeping and provision of energy-saving stoves.

United Nations World Food Programme

The United Nations World Food Programme (WFP) collaboration with government in Karamoja focuses exclusively on component 1 (livelihood investment support) and component 3 (community infrastructure rehabilitation) of the second Northern Uganda Social Action Fund. Component 1 has been included in recognition of the strengths of WFP in poverty targeting and community mobilization, as well as its demonstrable track record in managing a large public works programme and supporting the creation of productive assets in communities across the region. This component includes the Public Works Programme and Household Income Support Programme. Component 3 has been included in recognition of the need for an explicit capacity development function within the partnership (as a sustainability and handover measure). It is intended to be a vehicle for addressing the problem of low capacity and district, sub-county and community levels.

European Union

The European Union is funding the Karamoja Livelihoods Programme (2011–2015), which covers a limited geographical area and is focused on building productive assets, increasing farmer productivity, ensuring food security and income generation and strengthening local government.

United States Agency for International Development

The United States Agency for International Development (USAID), via a Food for Peace programme (2012–2017), is sponsoring Mercy Corps and ACDI/VOCA programmes in agribusiness, financial services, enterprise development, community development and food security and nutrition.

Department for International Development

The Department for International Development (DFID) has pledged £38.5 million over three years (until 2016) in Karamoja, with a focus on risk- informed and timely responses or interventions. Relevant investments cover various sectors, such as social protection, through the Government of Uganda's Expanding Social Protection Programme (2009–2015), which is piloting a cash transfer system for senior citizens and vulnerable families including in four districts in Karamoja; support to the second Northern Uganda Social Action Fund and its key components; and emergency support, such as the Sustaining Nutritional Assistance in Karamoja project.

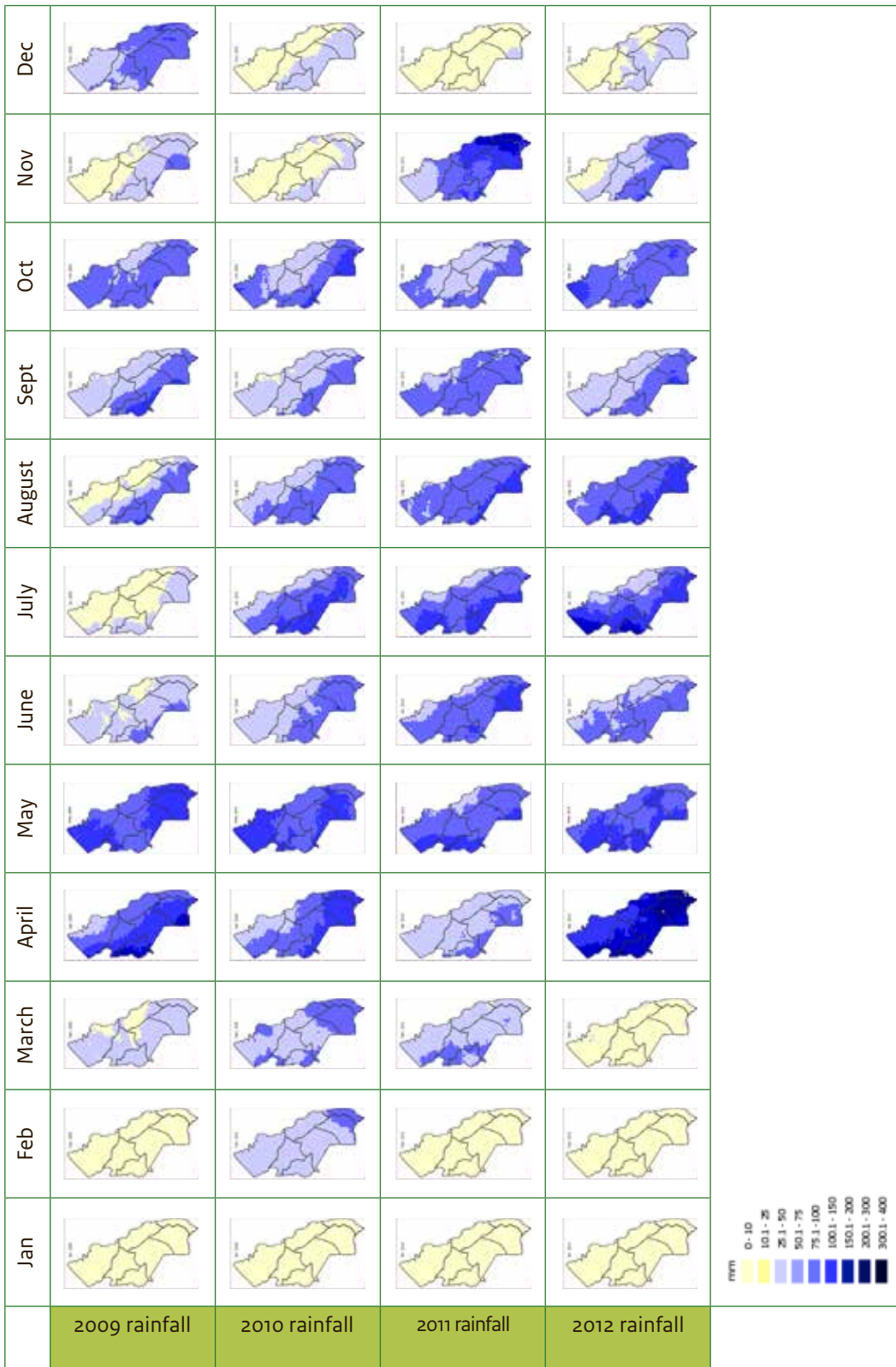
Other key development partners operating in Karamoja

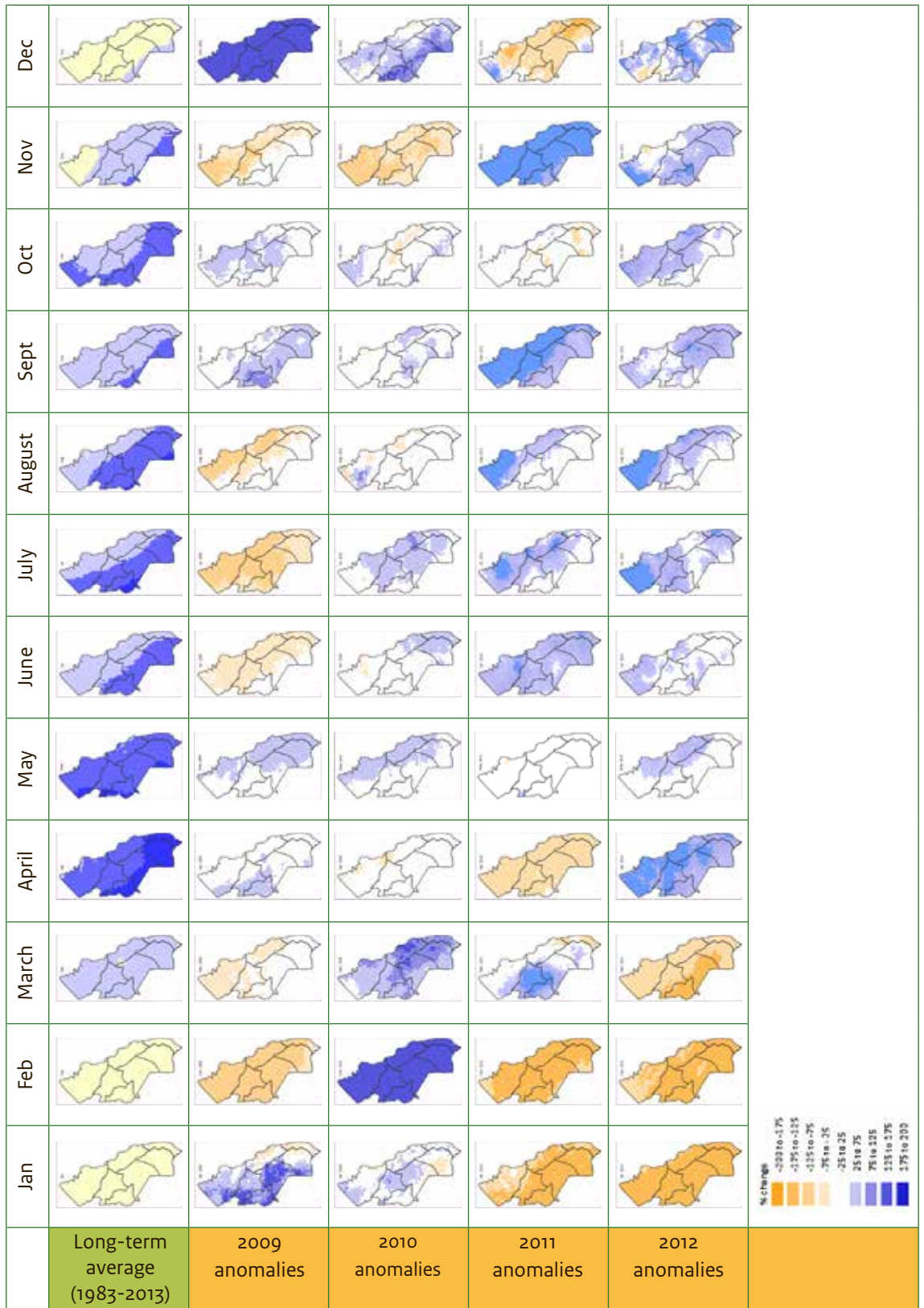
Many international non-governmental organizations are currently operating in Karamoja, supported by donors including Irish Aid (education and social welfare), UKAid (the second Northern Uganda Social Action Fund and social welfare), the German Agency for International Cooperation (livelihood and peace programmes) and the Danish International Development Agency (roads, safety and security, and livelihood development).

Through funds from these and other sources, a number of international NGOs are present in Karamoja, including the Adventist Development and Relief Agency, Oxfam, the International Rescue Committee, World Vision, Mercy Corps, Welt Hunger Hilfe, Action Contre le Faim and Concern Worldwide.

Annex 4: Rainfall analysis 2009-2012

The figure below shows how monthly rainfall varied from 2009 to 2012 and the average monthly rainfall of the past 30 years. The last two rows show the anomalies in monthly rainfall occurring in the same period (expressed as relative difference [%]). Rainfall anomalies coloured in blue represent unusually high concentrations of rainfall, often associated with floods. Rainfall anomalies coloured in orange represent unusually dry periods.





Annex 5: Data on stresses

Livestock ownership

The table gives estimated stocking rates by district in hectares of grazing area per tropical livestock unit (TLU)⁴ (FAO (2014), FAO/GIEWS Livestock and Market Assessment Mission to Karamoja Region, Uganda).

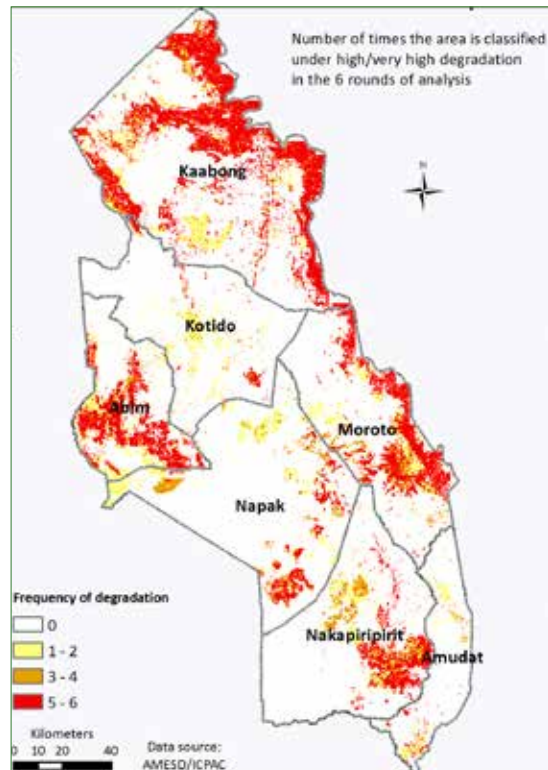
District	Total area (000s ha)	Parks & wildlife reserves (000s ha)	Estimated grazing area ¹ / (000s ha)	TLUs 2008 (000s)	TLU/total area 2008	TLU/ grazing area 2008
Kaabong	727	358	367	596	0.82	1.63
Kotido	596	230	362	788	1.32	2.17
Abim	n/a	n/a	n/a	n/a	n/a	n/a
Moroto	844	490	350	417	0.49	1.19
Nakapiripirit	582	250	238	726	1.25	3.05
Karamoja	2 749	1 328	1 317	2 529	0.92	1.92

Source: UBOS 2008

Land degradation

An analysis by African Monitoring of the Environment for Sustainable Development shows the average status of land degradation in Karamoja taking into consideration land degradation for six seasons from February 2010 to December 2012 (fig. 24). It considers human and livestock population density, land cover, soil erosion likelihood, slope and precipitation, and shows the following dynamic and seasonal degradation patterns: from September to December land tends to improve following rain, while from February to June land degrades following a dry season, during which much of the biomass is consumed by animals or fire.

However, a number of areas were found to remain under high or very high degradation (chronic degradation) across the six seasons. These were mostly in areas along the Kenya-Uganda border, parts of Kaabong, areas around Nakapiripirit town and agricultural areas of Abim. The pattern can be partly attributed to the terrain (these are high elevation locations), agricultural activities and to some extent mining activities (some of the areas coincide with areas of known mineral occurrence).



⁴ The tropical livestock unit (TLU) is a theoretical construct aggregating livestock species for calculation purposes, with cattle = 0.8 TLU and sheep and goats = 0.2 TLU.

Annex 6: Capacity indicators description

Description

In the **first page** there is a full description of the district in terms of livelihood zones, trends of food security and malnutrition, shock and stressors, income activities, access to land, livestock ownership, and facilities and infrastructure.

The **second page** includes the list of the key capacity indicators by food security groups. It has been assumed that more resilient households are the ones that are food secure and do not have any malnourished children.

Temporal dimension was 1 year (May 2013 to June 2014).

Data used

- Food Security and Nutrition Assessment, May 2013
- Food Security and Nutrition Assessment, June 2014
- Food Security Assessment, February 2014
- Famine Early Warning System Network livelihood zones

Tests applied

Chi-square and t-test

Indicators

The table on the next page describes the meaning of each indicator and how it was calculated according to the capacity it contributed to.

Absorptive	
Coping Strategies Index (CSI) (2013-2014)	<p>CSI is composed of a list of fixed coping strategies and severity scores. A high CSI refers to the third tercile of the index, the “worst” one, indicating that a household was pushed to adopt multiple ways to cope with reduced food access.</p> <p>A low CSI indicates that a household improved the manner in which it coped with a shortfall in food access.</p>
Asset depletion (2014)	Percentage of households that, in the past 30 days, adopted activities that could be classed as “crisis strategies”, namely selling of assets.
Expenditure (2013)	Expenditure quintiles are based on the items purchased in the past month and the estimated value of food consumed but not purchased.
Assets (2013)	<p>Number of assets (productive and non-productive) that are owned by the household, out of 18 key assets.</p> <p>Percentage of households that own an ox plough.</p>
Livestock ownership (2013-2014)	<p>Tropical livestock unit (TLU) shows the sum of the animals owned, multiplied by a specific coefficient for standardization among different animal types.</p> <p>Equivalent of two cows: animal ownership that is equivalent in monetary value to having two cows.</p>
Adaptive	
Income capacity (2014)	Number of household members who are earning an income, over the total household size. Poor capacity: below 50 per cent. Good capacity: above 50 per cent. Children/elderly capacity: earning members that are children or elderly.
Debts (2014)	<p>Households that had debt or credit to repay.</p> <p>Share of debt used to pay for education.</p>
Dependency (2014)	Percentage of non-active household members (under the age of 15 or over the age of 60), over the total household size. The higher the dependency rate, the lower the working capacity in the households.
Livestock diversity (2013)	Number of different animals owned by the household, out of six key types of animals.
Land access (2014)	Land size: land cultivated in the past season.
Transformative	
Social capital - source of credit (2014)	Main source of credit for debt and loans is from banks, credit institutions and/or micro-credit projects.
Water and sanitation	<p>Safe sanitation: presence of a private latrine in the household.</p> <p>Safe water: piped tap water, from a borehole fitted with a hand pump and water from a protected spring/well.</p> <p>Treatment of drinking water and amount of water used per person per day.</p>

Annex 7: District profiles

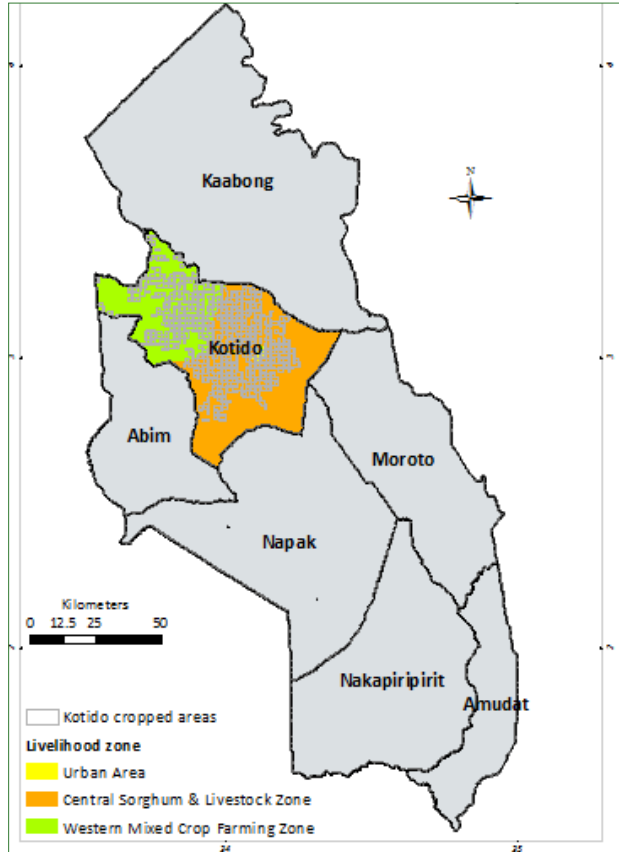
KOTIDO

Trend Analysis and Livelihood Zones

Kotido is located in the western part of Karamoja and is characterized by two different livelihood zones. The central sorghum and livestock zone represents 68 per cent of the territory, while the rest is characterized by a western mixed crops and farming zone.

Food security: Kotido has one of the highest rates of food insecurity, with only a quarter of the population having access to adequate food. Food security has deteriorated in recent years, especially in December, and the prevalence of food insecurity during the lean season (May-June) remains alarming.

Malnutrition: global acute malnutrition rates are increasing and have reached the threshold defined as serious.



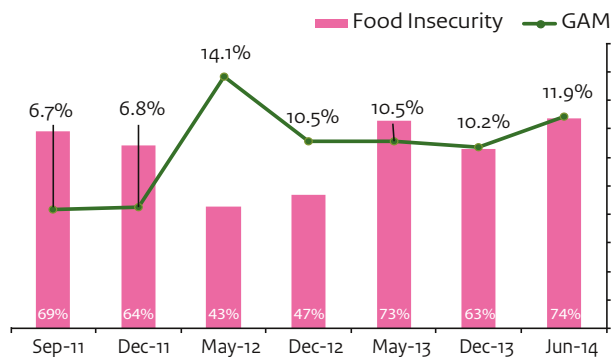
Shocks

- Drought/dry spells
- High food prices
- Flooding
- Animal disease
- Crop disease

Stresses

- Agriculture: Low crop production due to land degradation and limited tools/inputs
- Livestock: parasite and diseases, thefts, and limited pasture/fodder and water Death of a family member

Population (2013): 248,900
 Perc. of Karamoja: 18.1 per cent
 Female h. head: 43.2 per cent



Context

Livelihood activities

Petty trade is the main activity carried out by 35 per cent of households. This is mainly the sale of natural resources (charcoal and firewood) and brewing. The second most common activity is agriculture and non-agricultural wage labour. The main changes in the past year include a **decrease in non-agricultural wage labour**

in favour of agricultural wage labour, an **increase in food crop production** and a **decrease in sale of animals and animals products**.



Land access

The majority of households (90 per cent) have access to agricultural land. The main constraints to agriculture are related to **adverse climate conditions** (dry spells and low rainfall), followed by **inadequate seeds and tools, and sickness of family members**. There has been an increase in households cultivating land.

Livestock ownership

The data highlights a significant **reduction** in animal ownership (63 per cent vs. 39 per cent) in the past year. There was a decline in sale of animals and animal products. The main constraints are **parasites, thefts, shortage of pasture and lack of veterinary services**.



Facilities and infrastructures

Roads and markets: Kotido town has a main market and is well linked with the rest of Karamoja.

Water: more than 95 per cent of the population has access to safe water but only 6 per cent of households treat water before drinking it.

Sanitation: access to safe sanitation has increased (11 per cent vs. 24 per cent).

Health: a majority of households (97%) receive treatment in health centres.

Capacities	Resilient	Non-resilient
Absorptive		
Coping strategies (2013-2014)	16 to 19* increase in CSI 27 per cent to 37 per cent* increase in households adopting high coping strategies	19 to 22 increase in CSI 39 per cent to 49 per cent* increase in households adopting high coping strategies
Asset depletion (2014)	49 per cent* of households adopt crisis-coping strategies	56 per cent of households adopt crisis-coping strategies
Expenditure (2013)	Average food expenditure: 77 per cent* 58 per cent* of households in highest consumption quintiles	Average food expenditure: 82 per cent 25 per cent of households in the highest consumption quintiles
Assets (2013)	2.7* assets owned on average per household 47 per cent own an ox plough	1.5 assets owned on average per household 41 per cent own an ox plough
Livestock ownership (2013-2014)	2.8 to 1.8* decrease in TLU 36 per cent* own the equivalent of two cows	1.5 to 1 decrease in TLU 19 per cent own the equivalent of two cows
Adaptive		
Income capacity (2014)	33 per cent of households have good income capacity	26 per cent of households have good income capacity
Debts (2014)	48 per cent have debts 18 per cent* have debt to pay for education	45 per cent have debts 4 per cent have debt to pay for education
Dependency (2014)	49 per cent of households have a high dependency rate	43 per cent of households have a high dependency rate
Livestock diversity (2013)	Average number of different animals owned: 1.7*	Average number of different animals owned: 1.4
Land access (2014)	Access to 2.9 acres on average	Access to 2.8 acres on average
Transformative		
Social capital – source of credit (2014)	35 per cent* have access to credit institutions and/or banks	16 per cent have access to credit institutions and/or banks
Water and sanitation (2013-2014)	27 per cent to 37 per cent* increase in access to a private latrine 11.6* litres of water are consumed on average per person per day	7 per cent to 24 per cent increase in access to a private latrine 9.4 litres of water are consumed on average per person per day

*Represents a statistically significant difference between resilient and non-resilient households p < 0.05

Capacities adopted by resilient households

Absorptive

- Adopted fewer coping strategies and fewer severe coping strategies
- Owned more assets in terms of productive and non-productive assets
- Owned more livestock
- Higher consumption in terms of higher expenditure and production
- Lower share of expenditures designated for food

Adaptive

- More income capacity per household
- More livestock diversity

Transformative

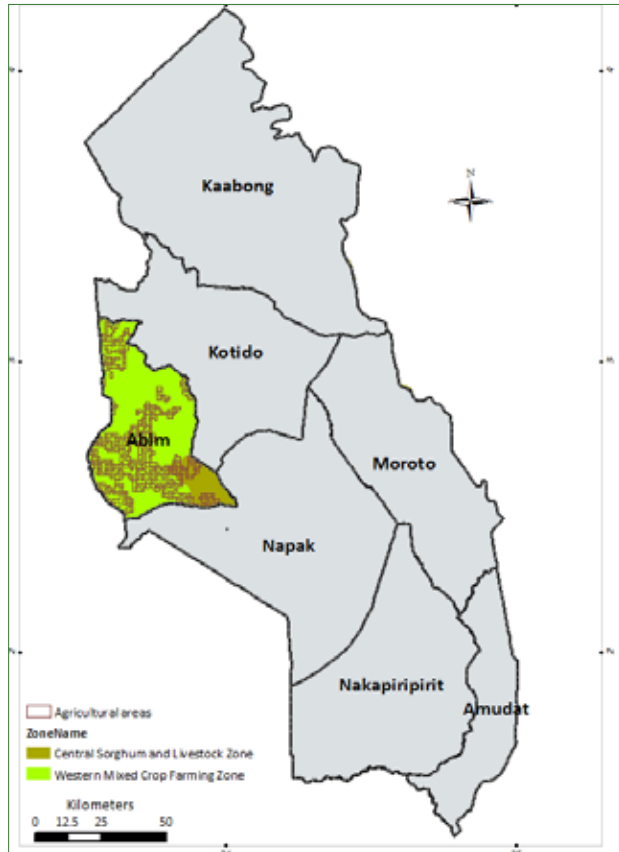
- More access to credit from formal sources such as banks and microcredit institutions
- More formal assistance
- Better access to safe sanitation More water available per person

ABIM

Trend Analysis and Livelihood Zones

Abim is located in the western part of Karamoja and its livelihood zones are mainly mixed crop farming (88 per cent). The main crops cultivated are sorghum, maize, millet, upland rice and different varieties of vegetables. A small area (12 per cent) is more livestock oriented. The district is highly populated (45 people per square kilometre).

Food security: the food security situation has deteriorated in the past year. **Malnutrition:** after an initial decrease, in June 2014 global acute malnutrition rates increased, although they did not reach crisis level.



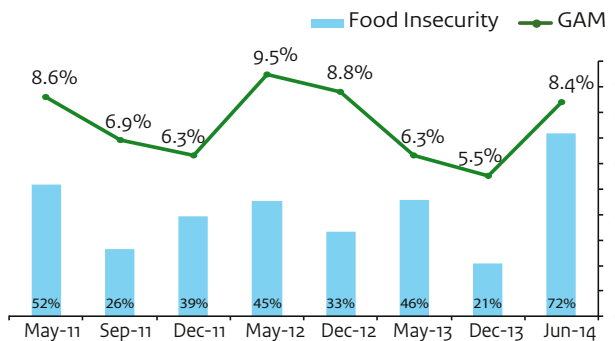
Shocks

- Dry spells
- High food prices
- Water logging
- Crop pests and diseases
- Wild fires

Stresses

- Debt reimbursement
- Illness of household members

Population (2013): 57,200
 Perc. of Karamoja: 4.2 percent
 Female h. head: 15.3 per cent

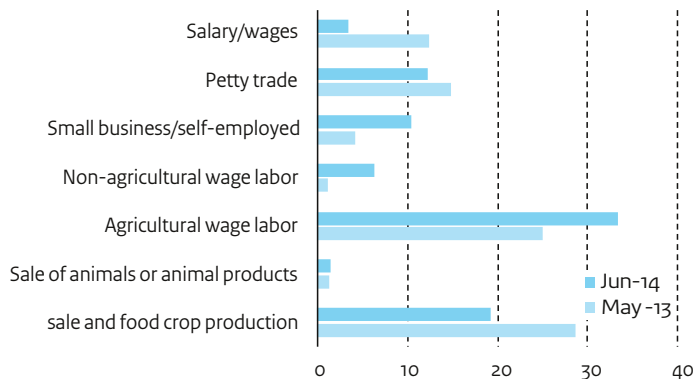


Context

Livelihood activities

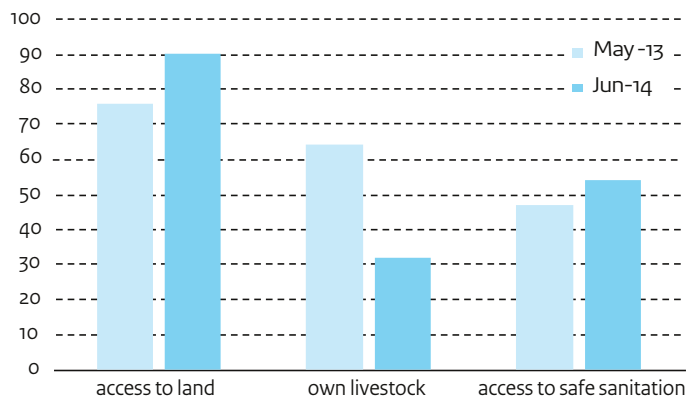
Agriculture is the main livelihood activity in this district. Agricultural **wage labour** increased in 2014 and sale of crop production decreased.

The main challenges faced by agriculturalists are related to weather conditions (e.g. dry spells, lack of rain or water logging) and unavailable manpower due to illness of household members. In the past year the number of households involved in small businesses has doubled.



Land access

90 per cent of households had access to agricultural land in 2014, but **57 per cent** of these had access to less than two acres. The biggest constraints reported for agriculture were drought / low rainfall, lack of sufficient family labour, lack of adequate tools and infertile land.



Livestock ownership

32 per cent of households owned livestock in 2014, a significant decrease since 2013. The main constraints for livestock and livestock production are parasites and diseases, shortage of pasture, lack of veterinary services and theft.

Facilities and infrastructures

Roads and markets: Abim is fairly isolated and linked with the rest of Karamoja by secondary roads.

Water: almost all households have access to safe sources of water but only 11 per cent treat the water they drink.

Sanitation: access to sanitation increased since 2013, with more than 50 per cent of households reporting access to a private latrine in 2014.

Capacities	Resilient	Non-resilient
Absorptive		
Coping strategies (2013–2014)	10 to 12* increase in CSI 15 per cent to 18 per cent* increase in households adopting high coping strategies	14 to 21 increase in CSI 25 per cent to 36 per cent* increase in households adopting high coping strategies
Asset depletion (2014)	18 per cent* of households adopt crisis-coping strategies	29 per cent adopt crisis-coping strategies
Expenditure (2013)	87 per cent of households in highest expenditure quintile Average food expenditure: 58 per cent*	58 per cent of households in highest expenditure quintile Average food expenditure: 66 per cent
Assets (2013)	4.2* assets owned on average per household 28 per cent own an ox plough	2.4 assets owned on average per household 9 per cent own an ox plough
Livestock ownership (2013–2014)	1.3 to 1 decrease in TLU 22 per cent* own the equivalent of more than two cows	1.1 to 0.2 decrease in TLU 5 per cent own the equivalent of more than two cows
Adaptive		
Income capacity (2014)	47 per cent of households have good income capacity	48 per cent of households have no income capacity
Debts (2014)	58 per cent of households have debts 33 per cent* use debt to pay for education	55 per cent of households have debts 17 per cent use debt to pay for education
Dependency (2014)	40 per cent of households have a high dependency rate	48 per cent of households have a high dependency rate
Livestock diversity (2013)	Average number of different animals owned: 1.3*	Average number of different animals owned: 0.9
Land access (2014)	37 per cent* cultivate more than three acres	17 per cent cultivate more than three acres
Transformative		
Social capital – source of credit (2014)	79 per cent* have access to formal credit institutions and/or banks	54 per cent have access to formal credit institutions and/or banks
Water and sanitation (2013–2014)	59 per cent to 61 per cent increase in access to a private latrine 17* litres of water are consumed on average per person per day	38 per cent to 52 per cent increase in access to a private latrine 14 litres of water are consumed on average per person per day

* Represents a statistically significant difference between resilient and non-resilient households p < 0.05

Capacities adopted by resilient households

More involved in small business and more salaried wage labour

Absorptive

- Applied fewer coping strategies and less severe crisis-coping strategies
- Greater access to food from both own production and purchasing power
- Own more animals and assets

Adaptive

- More income capacities
- Lower dependency rate in the family
- 50 per cent of households have debt: wealthier households use it for education
- More livestock diversity
- More access to land

Transformative

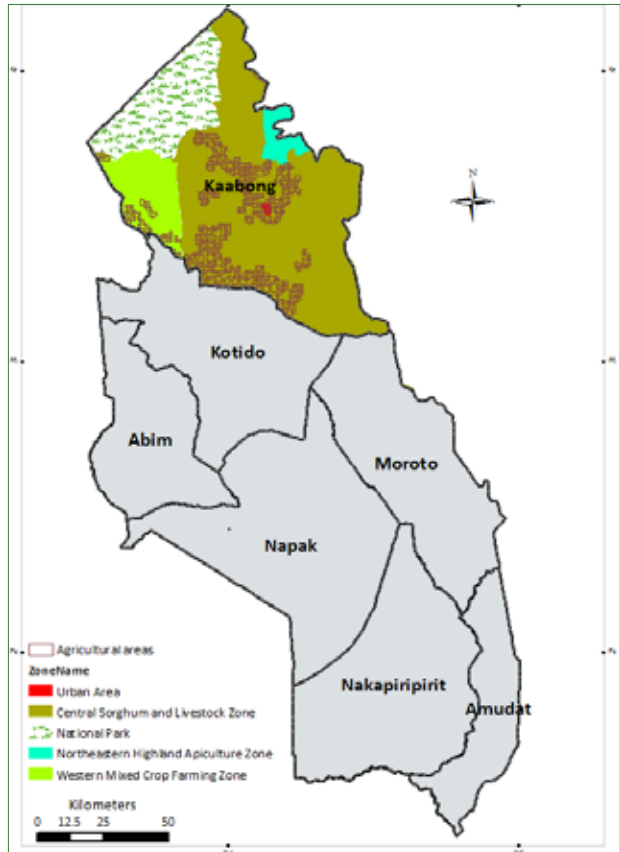
- More access to credit through formal institutions
- More access to safe water and sanitation
- More water per capita

KAABONG

Trend Analysis and Livelihood Zones

Kaabong is located in the northern part of Karamoja. A small percentage (3.5 per cent) of its territory has a specific livelihood zone called the highland apiculture and potato zone. The main livelihood zone (77 per cent) is sorghum and livestock and around 11 per cent of the territory is a mixed crop and farming zone. 18 per cent of the area is dedicated to a national park. Cultivated lands are mainly located in the centre of the district.

Food security: Kaabong food security trends are very seasonal. The prevalence of food insecurity during the lean season (May-June) is stable but very high at 69 per cent, and seasonal fluctuation is marked. Malnutrition: global acute malnutrition rates remain high and at a serious level (13.5 per cent).



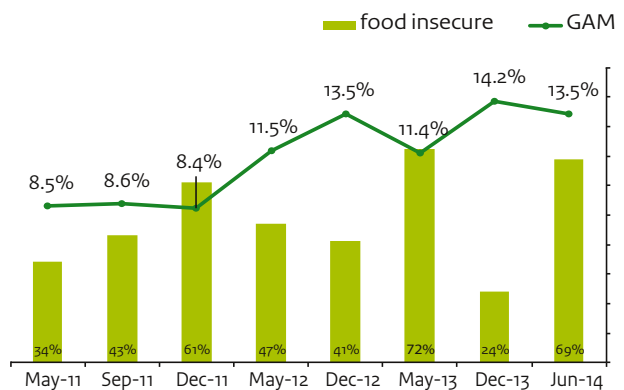
Population (2013): 422,300
 Perc. of Karamoja: 30.7 per cent

Shocks

- Dry spells / drought
- Livestock disease
- Crop pests and diseases
- Bush fires during dry season
- Cattle theft/raiding

Stresses

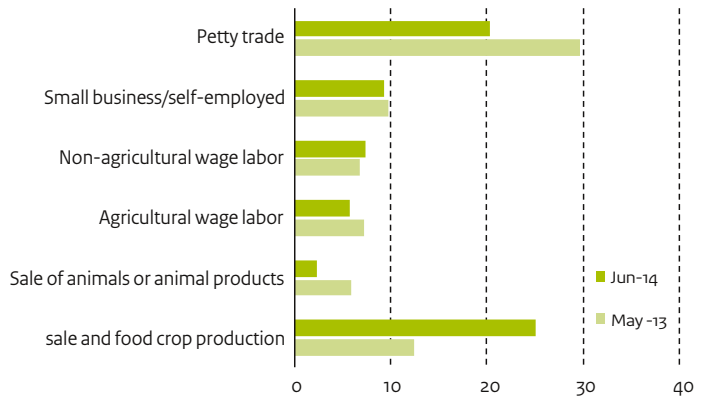
- High food prices
- Death of a family member
- Crop loss due to rodents



Context

Livelihood activities

Sale and production of food crops together with **petty trade** are the main livelihood activities in the district. Sale and production of crops increased from 2013 to 2014, while the percentage of households relying on petty trade decreased. Petty trade is mainly composed of brewing followed by sale of natural resources. The percentage of households relying on small business, agriculture and non-agricultural wage labour did not change in the past year but there was a slight increase in livestock sales.



Land access

Despite the fact that 90 per cent of households had access to agricultural land in 2014, **70 per cent** of households had access to **less than two acres**. The biggest constraints reported for agriculture were adverse climate conditions, such as dry spells, and a lack of adequate seeds and tools (22 per cent). A smaller percentage of households reported land conflicts and not having sufficient family labour.



Livestock ownership

Livestock ownership **decreased** in the past year and in 2014 only 25 per cent of households owned livestock. The main constraints for livestock ownership and production are diseases and lack of veterinary services, insecurity, animal theft and lack of pasture.

Capacities	Resilient	Non-resilient
Absorptive		
Coping strategies (2013–2014)	Increase in CSI from 10.4 in 2013 to 18* in 2014 Increase in percentage of households adopting high coping strategies: 11 per cent to 18 per cent	Increase in CSI from 11 in 2013 to 15.3 in 2014 Decrease in the percentage of households adopting high coping strategies from 15 per cent to 10 per cent
Asset depletion (2014)	3 per cent of households adopt crisis-coping strategies	30 per cent of households adopt crisis-coping strategies
Expenditure (2013)	55 per cent* in the highest expenditure quintiles Average food expenditure: 77 per cent	40 per cent in the highest expenditure quintiles Average food expenditure: 73 per cent
Assets (2013)	Average number of assets owned: 1.4* 47 per cent* of households own an ox plough	Average number of assets owned: 0.6 23 per cent of households own an ox plough
Livestock ownership (2013–2014)	3 to 0.6* decrease in TLU 16 per cent* own the equivalent of more than two cows	0.6 to 0.2 decrease in TLU 7 per cent own the equivalent of more than two cows
Adaptive		
Income capacity (2014)	20 per cent* have good income capacity	11 per cent have good income capacity
Debts (2014)	71 per cent* have debt, 19 per cent for education	52 per cent have debt, 12 per cent for education
Dependency (2014)	52 per cent* of households have a high dependency rate	41 per cent of households have a high dependency rate
Livestock diversity (2013)	Average number of different animals owned: 2.2*	Average number of different animals owned: 1.2
Land access (2014)	26 per cent* have access to more than three acres	10 per cent have access to more than three acres
Transformative		
Social capital – source of credit (2014)	11 per cent* have access to formal credit institutions and/or banks	4 per cent have access to formal credit institutions and/or banks
Water and sanitation (2013–2014)	46 per cent to 49 per cent increase in access to a private latrine 85.6 per cent to 94 per cent increase in access to an improved water source 18* litres of water are consumed on average per person per day	29 per cent to 47 per cent increase in access to a private latrine 87.5 per cent have access to an improved water source 11 litres of water are consumed on average per person per day

*Represents a statistically significant difference between resilient and non-resilient households p < 0.05

Facilities and infrastructures

Roads and markets: Kaabong town council has a main market and is connected to the rest of Karamoja by a main road.

Water: almost 90 per cent of the population has access to an improved water source (borehole fitted with hand pump) but only 8 per cent treat water for drinking and this percentage has decreased since 2013.

Sanitation: access to sanitation increased since 2013, with 48 per cent of households reporting access to a private latrine.

Health: a majority (92 per cent) receives treatment in health centres.

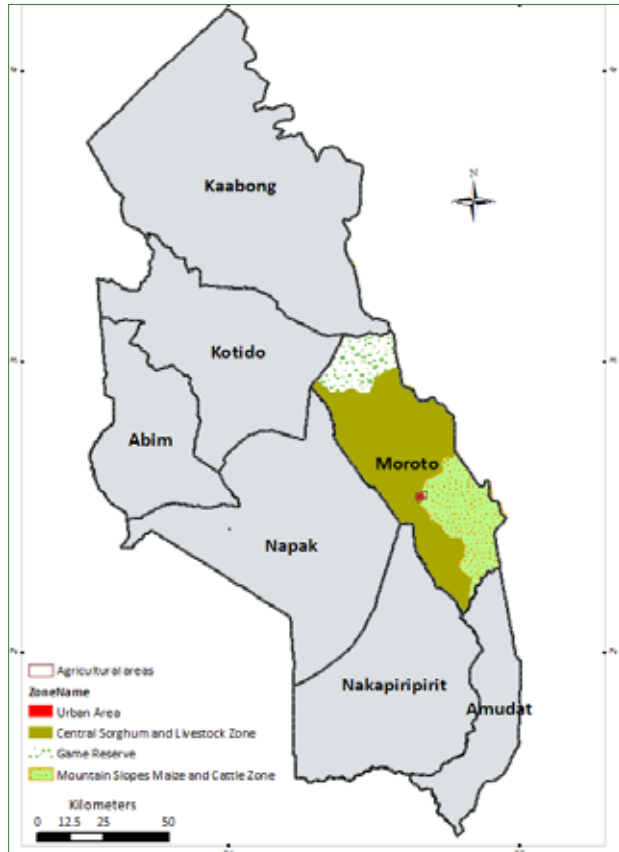
MOROTO

Trend Analysis and Livelihood Zones

In Moroto more than 60 per cent of the district is a central sorghum and livestock livelihood zone; 25 per cent of its area bordering Amudat is a mountain slopes maize and cattle zone; and 13 per cent of the district belongs to a game reserve. Moroto town, the main town in Karamoja, has a regular market and a main road that links it with Soroti. In 2011, Moroto and Napak separated to become two separate districts.

Food security: the percentage of food insecurity is decreasing in Moroto but the prevalence of food insecure households remains high (40 per cent).

Malnutrition: global acute malnutrition rates became significantly worse in December 2013 and brought the level of malnutrition up from serious to critical. The rates decreased from December 2013 but the level is still alarming (16 per cent).



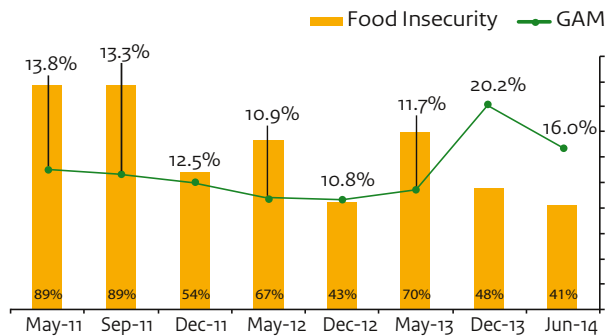
Population (2013): 57,200
 Perc. of Karamoja: 4.2 percent
 Female h. head: 15.3 per cent

Shocks

- Dry spells / drought
- Livestock disease
- Crop pests and diseases
- Cattle theft/raiding

Stresses

- High food prices
- Crop loss due to rodents
- Debts to reimburse



*** until Dec 2012 Moroto included Napak Districts

Context

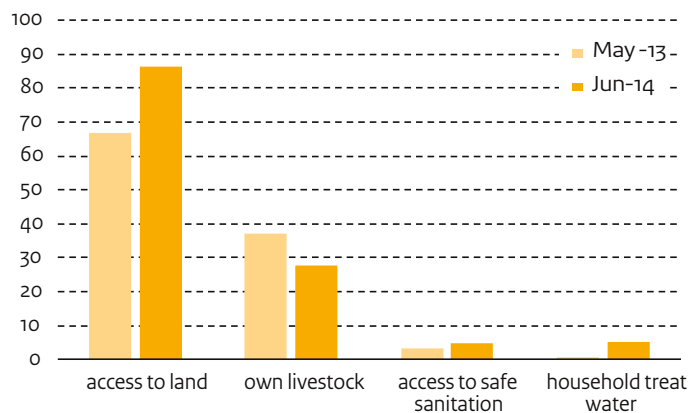
Livelihood activities

Petty trade is the main livelihood activity in Moroto, followed by small business and non-agricultural wage labour. Sale and production of crops increased to around 10 per cent from 2013 to 2014. Petty trade is mainly composed of the sale of natural resources (firewood and charcoal) and brewing.



Land access

Access to land **increased** in the past year, but 60 per cent of households have access to less than two acres. The main agricultural constraints households reported were related to **lack of rainfall**. Only a small percentage of households declared having inappropriate seeds and tools for farming.



Livestock ownership

As per the general trend in Karamoja, livestock ownership decreased from 2013 and only 28 per cent of households owned livestock in 2014. The main constraints for livestock ownership and production are parasites, lack of veterinary services and lack of pasture.

Facilities and infrastructures

Roads and markets: the central area is well connected with the rest of Karamoja and with Soroti, while physical access is limited in the eastern part of the district. The district has one of the biggest markets in the sub-region.

Water: a majority of households have improved water access but a very small percentage treat drinking water.

Sanitation: access to safe sanitation remained insignificant in this district possibly due to behavioural practices.

Health: a majority (92 per cent) receive treatment in health centres.

Capacities	Resilient	Non-resilient
Absorptive		
Coping strategies (2013–2014)	16.6 to 17.1* decrease in CSI 38 per cent to 23 per cent* reduction in high coping strategies	22.6 to 19.6 change in CSI 55 per cent to 27 per cent reduction in high coping strategies
Asset depletion (2014)	48 per cent* of households adopt crisis-coping strategies	58 per cent of households adopt crisis-coping strategies
Expenditure (2013)	60 per cent* in higher expenditure quintiles Average food expenditure: 67 per cent*	21 per cent in higher expenditures quintiles Average food expenditure: 74 per cent
Assets (2013)	Average asset number per household: 1.8* 20 per cent* own an ox plough	Average asset number per household: 0.4 8 per cent own an ox plough
Livestock ownership (2013–2014)	1.1 to 0.4* decrease in TLU 10 per cent* own the equivalent of more than two cows	0.3 to 0.2 decrease in TLU 4 per cent own the equivalent of more than two cows
Adaptive		
Income capacity (2014)	27 per cent have good income capacity	31 per cent have good income capacity
Debts (2014)	72 per cent have debt to repay 78 per cent took debt to buy food 11 per cent took debt to pay for education	73 per cent have debt to repay 4 per cent took debt to pay for education
Dependency (2014)	36 per cent of households have a high dependency rate	35 per cent of households have a high dependency rate
Livestock diversity (2013)	Average number of different animals owned: 0.9*	Average number of different animals owned: 0.5*
Land access (2014)	19 per cent cultivated more than 3 acres	16 per cent cultivated more than 3 acres
Transformative		
Social capital – source of credit (2014)	9 per cent have access to formal credit institutions and/or banks	5 per cent have access to formal credit institutions and/or banks
Water and sanitation (2013–2014)	Access to a private latrine remained stable at 7 per cent 97 per cent have access to safe water 11 litres of water are consumed on average per person per day	2 per cent to 4 per cent increase in access to a private latrine 94 per cent have access to safe water 10 litres of water are consumed on average per person per day

*Represents a statistically significant difference between resilient and non-resilient households p < 0.05

Capacities adopted by resilient households

- Decrease in coping strategies associated with better food security
- More animals owned
- Higher expenditure (more access to cash even if a large amount is spent on food)
- More assets and productive assets

Adaptive

- More likely to use debt for education
- Access to more land
- Diversified livestock owned

Transformative

- More access to formal credit institutions
- More access to water
- Slightly more access to sanitation

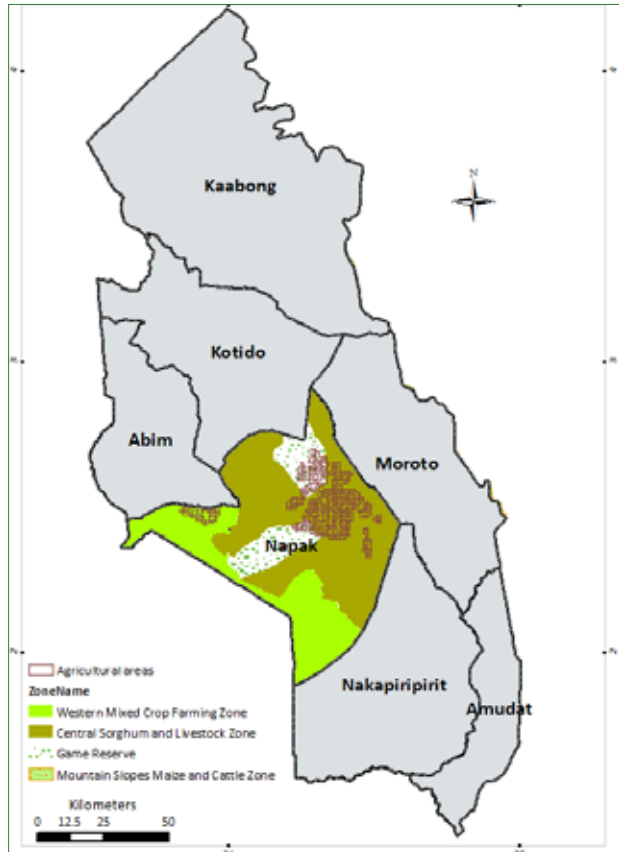
NAPAK

Trend Analysis and Livelihood Zones

Napak became a separate district in 2010, having previously been joined with Moroto. Its territory has two livelihood zones: the majority (57 per cent) is central sorghum and livestock; the rest is a mixed crop and farming zone. 14 per cent of the land is used for game reserves.

Food security: food insecurity is extremely high (74 per cent) and increased from 2013.

Malnutrition: GAM prevalence is also worsening and reached serious levels.



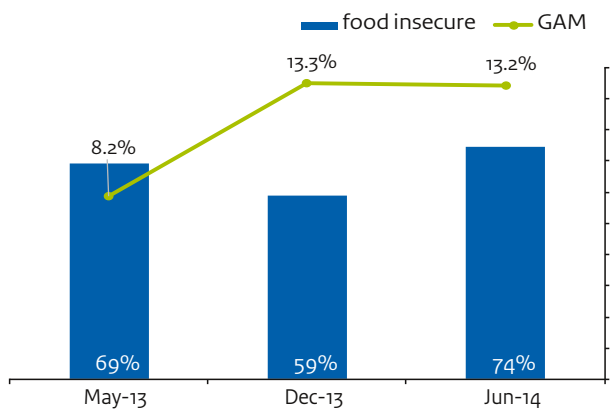
Population (2013): 209,100
 Perc. of Karamoja: 15.2 per cent
 Female h. head: 17.4 per cent

Shocks

- Dry spells / drought
- Crop pests and diseases

Stresses

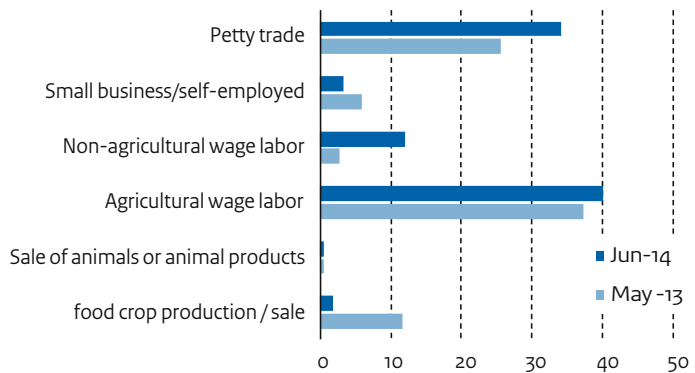
- High food prices
- Sickness of a family member



Context

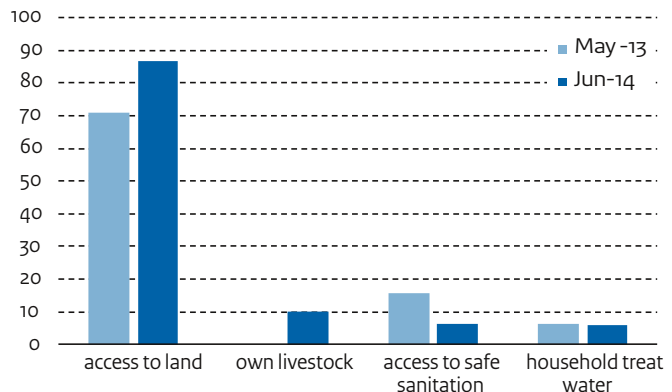
Livelihood activities

Agriculture wage labour and **petty trade** are the two main sources of income in this district. Since 2013 there has been a decrease in agricultural labour, while non-agricultural wage labour more than doubled. Petty trade, composed mainly of sale of firewood and charcoal (41 per cent), brewing (23 per cent) and quarrying (12 per cent), is carried out by more than 30 per cent of the population.



Land access

Access to land increased between 2013 and 2014, with 86 per cent of households having access to land in June 2014. However, among this percentage, 90 per cent had access to less than two acres of land. Lack of seeds and tools, adverse climate and lack of family labours were the main agricultural constraints that households were facing in Napak.



Livestock ownership

Livestock ownership is very low in this district: 10 per cent of households own animals. **Animal diseases and lack of veterinary services** are the main constraints faced by households with livestock.

Facilities and infrastructures

Roads and markets: Napak has access by main road to Soroti and to the north and south of Karamoja.

Water: a majority of households have improved access to water but only a small percentage (5 per cent) treat water before drinking.

Sanitation: access to safe sanitation remains one of the biggest challenges in the area.

Health: a majority (80%) receive treatment in health centres; only 20% have access to a hospital.

Capacities	Resilient	Non-resilient
Absorptive		
Coping strategies (2013–2014)	17.5 to 15* change in CSI 45 per cent to 29 per cent* reduction in high coping strategies	14 to 20 change in CSI 27 per cent to 35 per cent increase in high coping
Asset depletion (2014)	41 per cent of households adopt crisis-coping strategies	45 per cent of households adopt crisis-coping strategies
Expenditure (2013)	31 per cent* in the highest expenditure quintiles Average food expenditure: 62 per cent*	5 per cent in the highest expenditure quintiles Average food expenditure: 75 per cent
Assets (2013)	1.4* asset on average per household 19 per cent of households own an ox plough	0.5 asset on average per household 11 per cent of households own an ox plough
Livestock ownership (2013–2014)	1.3* to 0.2 decrease in TLU 8 per cent own the equivalent of more than two cows	0.8 to 0.2 decrease in TLU 12 per cent own the equivalent of more than two cows
Adaptive		
Income capacity (2014)	60 per cent* have higher income capacity	49 per cent have high income capacity
Debts (2014)	45 per cent have debts; 67 per cent to buy food	40 per cent have debts; 73 per cent to buy food
Dependency (2014)	25 per cent of households have a high dependency rate	30 per cent of households have a high dependency rate
Livestock diversity (2013)	Average number of different animals owned: 1*	Average number of different animals owned: 0.6
Land access (2014)	3 per cent have more than three acres	6 per cent have more than three acres
Transformative		
Social capital – source of credit (2014)	9 per cent have access to formal credit institutions and banks	14 per cent have access to formal credit institutions and banks
Water and sanitation (2013–2014)	18 per cent to 8 per cent decrease in access to a private latrine 97 per cent have access to safe water 9.3* litres of water are consumed on average per person per day	15 per cent to 6 per cent decrease in access to a private latrine 87 per cent have access to safe water 9.9* litres of water are consumed on average per person per day

*Represents a statistically significant difference between resilient and non-resilient households p < 0.05

Capacities adopted by resilient households

Absorptive

- Adopted fewer coping strategies
- More cash availability (higher expenditure)
- Lower share of food expenditure
- More assets and productive assets
- More livestock

Adaptive

- Higher income capacity
- More access to credit and more debts
- More diversified livestock

Transformative

- Slightly higher access to safe sanitation (even if is still low), and safe water.

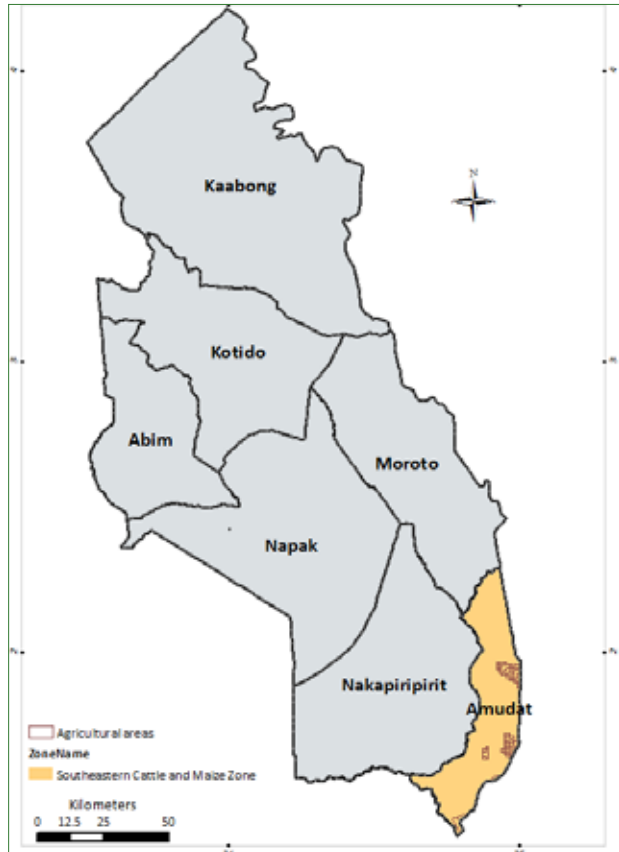
AMUDAT

Trend Analysis and Livelihood Zones

Amudat is located in the south-east of Karamoja and is characterized as a cattle maize zone. This district has the highest per centage of livestock ownership.

Food security: the district has the lowest level of food insecurity in Karamoja. Between 2013 and 2014, the prevalence of food insecurity increased and 27 per cent of households were considered food insecure in June 2014.

Malnutrition: global acute malnutrition prevalence is worsening and is at a serious level (11.2 per cent).



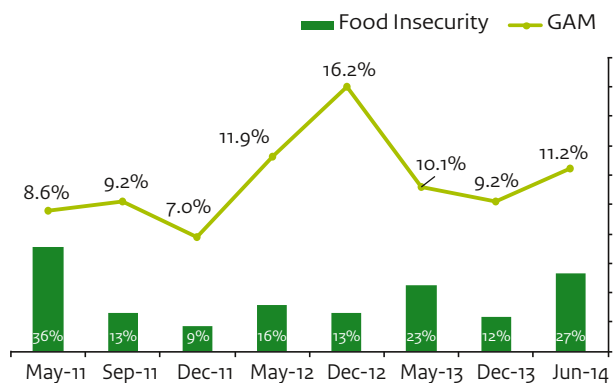
Population (2013): 120,500
 Perc. of Karamoja: 8.8 per cent
 Female h. head: 15.4 per cent

Shocks

- Dry spells / drought
- Crop pests and diseases
- Livestock disease
- Mudslides

Stresses

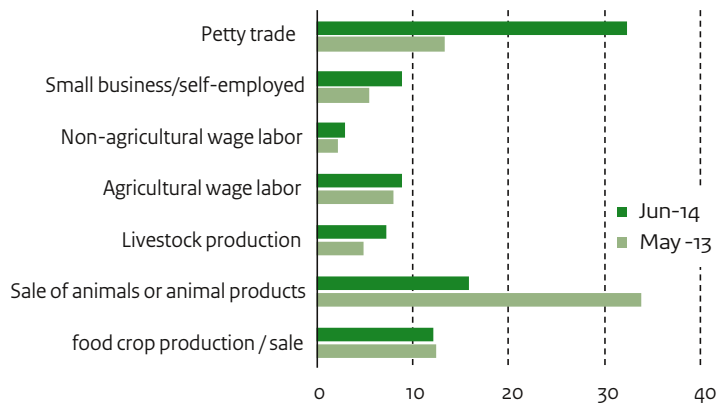
- High food prices



Context

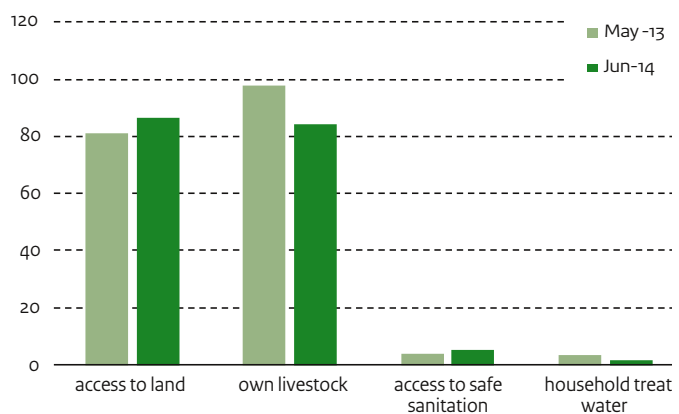
Livelihood activities

The main income activities are related to **livestock production** and **sale of animals and animal products**. In the past year there has been an increase in households relying on petty trade. Food crop production (mainly maize) remains stable at around 12 per cent.



Land access

More than 80 per cent of households have access to land but **only 11 per cent have access to more than two acres of land**. The main constraints in cultivation are due to lack of rainfall or changes in rain distribution.



Livestock ownership

Livestock ownership is the **highest in Karamoja**: 80 per cent of households owned animals in 2014, although there had been a 10 per cent decrease since 2013, reflecting the general trend for the region. **Animal diseases and lack of veterinary services** are the main constraints faced by households with livestock.

Facilities and infrastructures

Roads and markets: the main internal markets in the area are Amudat town council and Karita sub-county, linking with various external and regional markets.

Water: as is the case in other districts, most households have access to safe water but very few treat the water they drink.

Sanitation: access to safe sanitation is very limited in this district.

Health: 63 per cent of households are treated in health centres and 32 per cent have access to hospitals.

Capacities	Resilient	Non-resilient
Absorptive		
Coping strategies (2013–2014)	CSI: remained stable from 16.7 to 16.8* High coping decreased from 33 per cent to 23 per cent*	CSI: increased from 17.5 to 23 High coping almost doubled from 28 per cent to 45 per cent
Asset depletion (2014)	34 per cent of households adopt crisis-coping strategies	37 per cent of households adopt crisis-coping strategies
Expenditure (2013)	86 per cent in the highest expenditure quintiles Average food expenditure: 75 per cent	62 per cent in the highest expenditure quintiles Average food expenditure: 78 per cent
Assets (2013)	1.9* assets owned on average per household 9 per cent* own an ox plough	1 asset owned on average per household 3 per cent have productive assets
Livestock ownership (2013–2014)	7.6* to 4.3 decrease in TLU 75 per cent* own the equivalent of two cows	4.8 to 4 decrease in TLU 63 per cent own the equivalent of two cows
Adaptive		
Income capacity (2014)	19 per cent* have good income capacity	29 per cent have good income capacity
Debts (2014)	35 per cent* have a debt and 11 per cent use debit for education	46 per cent have a debt and 5 per cent use debit for education
Dependency (2014)	37 per cent of households have a high dependency rate	33 per cent of households have a high dependency rate
Livestock diversity (2013)	Average number of different animals owned: 3.1*	Average number of different animals owned: 2.6
Land access (2014)	Average land access: 1.5 acres	Average land access: 1.5 acres
Transformative		
Social capital – source of credit (2014)	-	-
Water and sanitation (2013–2014)	5 per cent to 7 per cent* increase in access to a private latrine 70 per cent have access to safe water and 10* litres of water are consumed on average per person per day	2 per cent to 3 per cent increase in access to a private latrine 72 per cent have access to safe water and 8 litres of water are consumed on average per person per day

* Represents a statistically significant difference between resilient and non-resilient households p < 0.05

Capacities adopted by resilient households

Absorptive

- Adopt fewer coping strategies
- More access to food in terms of cash availability
- Lower percentage spent on food
- More asset and productive assets
- More animals and more diversified animals

Adaptive

- Less debt
- No differences in dependents and income capacity

Transformative

- No difference in food assistance received (which is low)
- Rely more on family and relatives as a source of credit
- Access to safe water slightly better and more litres consumed per day

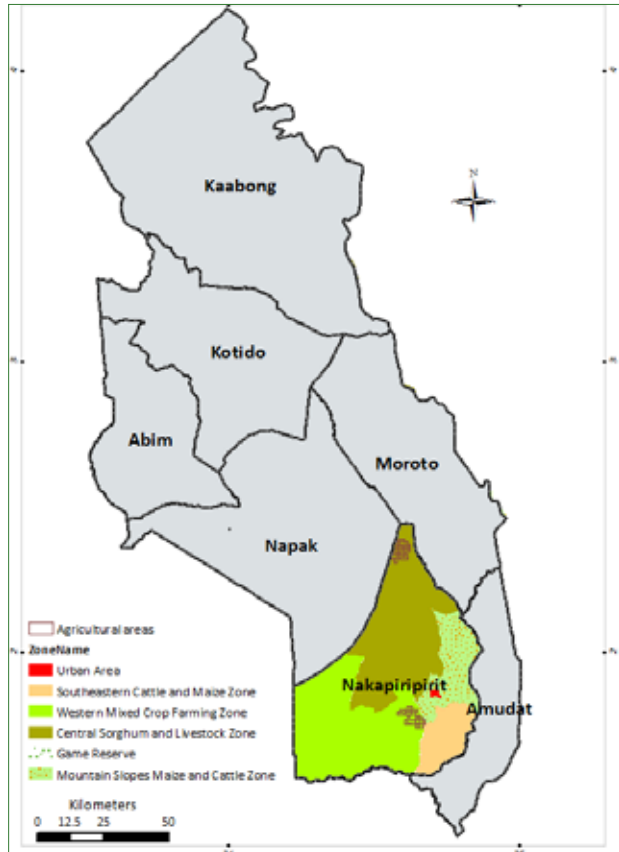
NAKAPIRIPRIT

Trend Analysis and Livelihood Zones

This district is composed of three livelihood zones: the western part is a mixed crop farming zone (40 per cent of the territory), the eastern part is a mountain slopes maize and cattle zone (37 per cent) and the northern part is a central sorghum and livestock zone.

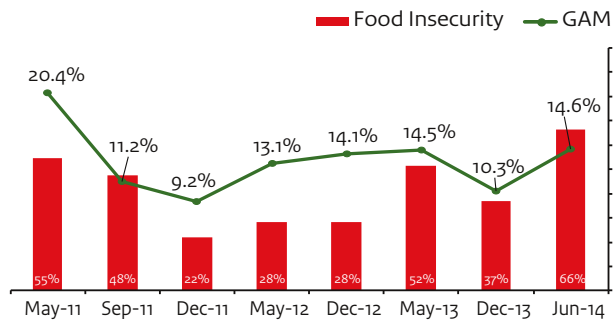
Food security: since 2013 food insecurity increased and reached the highest level (66 per cent) since 2011.

Malnutrition: Global acute malnutrition has almost reached critical thresholds, with 14.6 per cent of children under the age of five suffering malnutrition.



Population (2013): 171,100
 Prop. of Karamoja: 12.5 per cent
 Female h. head: 8.9 per cent

- Dry spells / drought
- Crop pests and diseases
- High food prices
- Sickness of a family member



Context

Livelihood activities

Petty trade, agriculture wage labour and small business are the main income sources in this district. In the past year there has been a decrease in agricultural wage labour, while non-agricultural wage labour and small business has increased. **Petty trade**, composed mainly of natural resource collection, brewing and quarrying is carried out by more than 30 per cent of the population.



Land access

Access to land increased in the past year: almost 80 per cent of households cultivated land but 90 per cent of them had access to less than two acres. **Lack of seeds and tools, adverse climate and lack of family labour** are the main constraints faced by households in Napak.



Livestock ownership

Livestock ownership **decreased** between 2013 and 2014: in June 2014, only 30 per cent of households owned animals. **Animal diseases and lack of veterinary services** are the main constraints faced by households with livestock.

Facilities and infrastructures

Roads and markets: the district has access to a main road to Soroti and to the north and south of Karamoja.

Water: a majority of households have improved access to water but only a very small percentage treat water before drinking.

Sanitation: access to safe sanitation remains one of the biggest challenges in the area.

Health: a majority (80 per cent) receive treatment in health centres and only 20 per cent have access to a hospital.

Capacities	Resilient	Non-resilient
Absorptive		
Coping strategies (2013–2014)	12 to 20 increase in CSI 18 per cent to 35 per cent increase in high coping strategies	15 to 19 increase in CSI 20 per cent to 31 per cent increase in high coping strategies
Asset depletion (2014)	38 per cent of households adopt crisis-coping strategies	39 per cent of households adopt crisis-coping strategies
Expenditure (2013)	55 per cent* of households in highest expenditure quintiles Average food expenditure: 72 per cent*	24 per cent of households in highest expenditure quintiles Average food expenditure: 78 per cent
Assets (2013)	2.2 assets owned on average 31 per cent own an ox plough	1 asset owned on average 27 per cent own an ox plough
Livestock ownership (2013–2014)	41 per cent* own the equivalent of more than two cows TLU remained stable at 1.8*	17 per cent own the equivalent of more than two cows Slightly TLU increase from 0.6 to 0.8
Adaptive		
Income capacity (2014)	28 per cent have good income capacity	27 per cent have good income capacity
Debts (2014)	26 per cent have debts 4 per cent took debt for education	29 per cent have debts 2 per cent took debt for education
Dependency (2014)	40 per cent of households have a high dependency rate	35 per cent of households have a high dependency rate
Livestock diversity (2013)	Average number of different animals owned: 1.3*	Average number of different animals owned: 0.8
Land access (2014)	5 per cent have access to more than three acres	10 per cent have access to more than three acres
Transformative		
Social capital – source of credit (2014)	12 per cent have access to formal credit institutions and banks	12 per cent have access to formal credit institutions and banks
Water and sanitation (2013–2014)	20 per cent to 30 per cent increase in access to a private latrine 12* litres of water are consumed on average per person per day	11 per cent to 6 per cent decrease in access to a private latrine 11* litres of water are consumed on average per person per day

*Represents a statistically significant difference between resilient and non-resilient households p < 0.05

Capacities adopted by resilient households

Absorptive

- Increased coping strategies in the past year
- Lower share of food expenditure, although still high
- More productive and non productive assets
- More livestock owned

Adaptive

- Higher percentage took on debt to invest in business
- Less land access
- More diversified livestock

Transformative

- More food assistance received
- More access to safe sanitation
- More access to safe water



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