



REPUBLIC OF KENYA

KENYA DROUGHT RESPONSE GUIDELINES

Revised January 2018



**NATIONAL DROUGHT
MANAGEMENT AUTHORITY**



REPUBLIC OF KENYA



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MANAGEMENT AUTHORITY**

The National Drought Management Authority (NDMA) is a public body established by the NDMA Act, 2016.

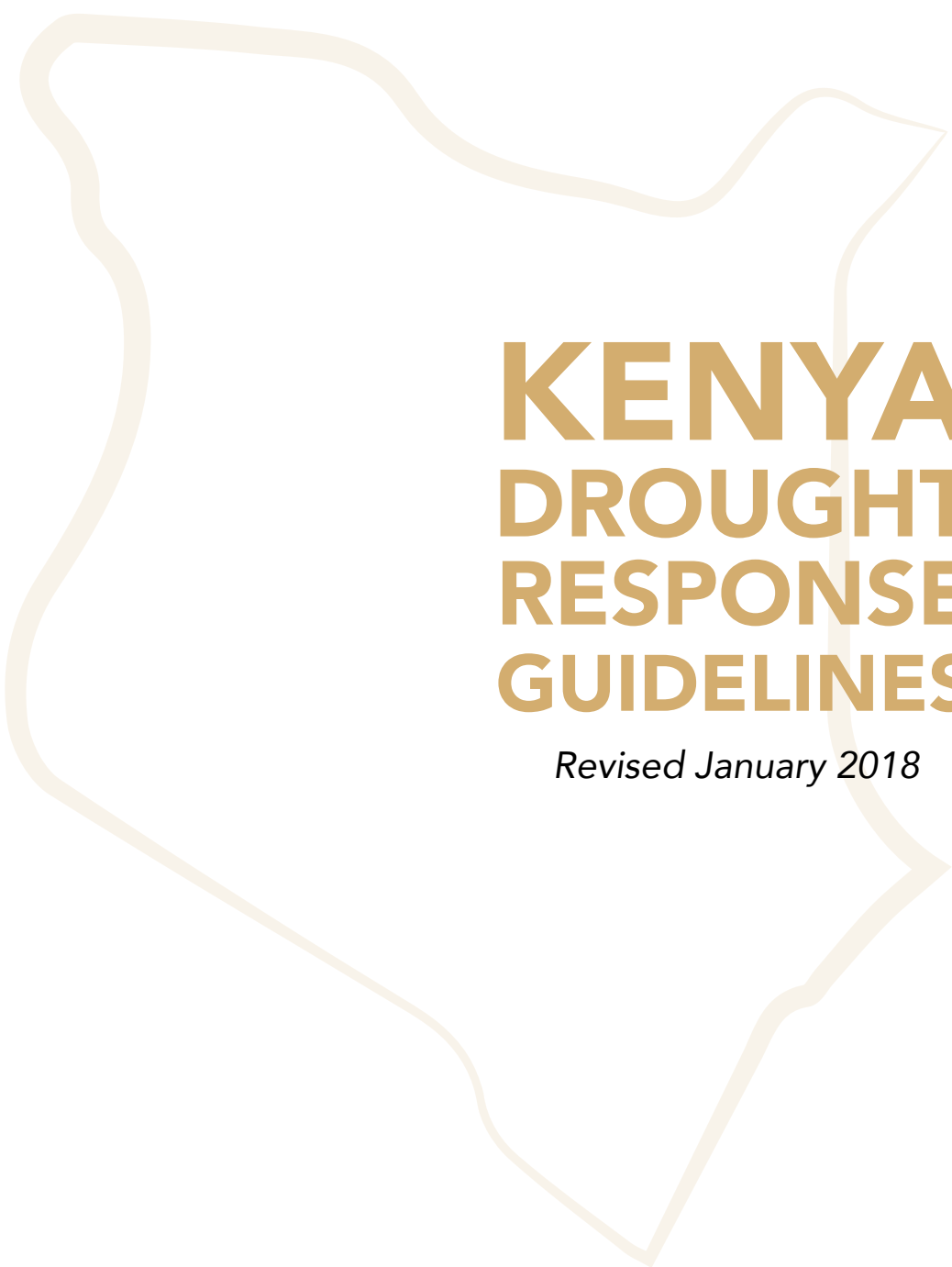
The Act gives the NDMA the mandate to exercise overall coordination over all matters relating to drought risk management and to establish mechanisms, either on its own or with stakeholders, that will end drought emergencies in Kenya.

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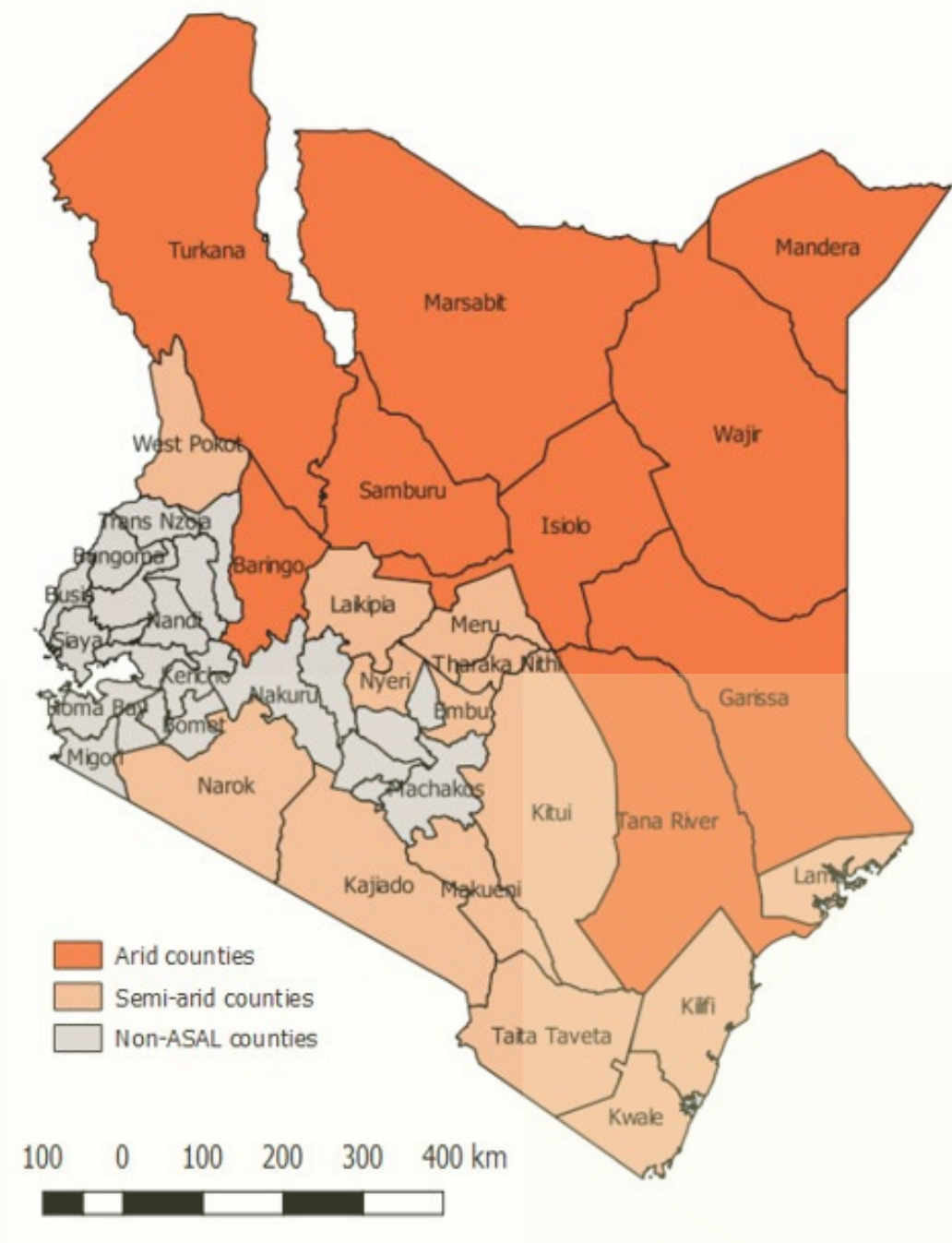
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Figure 1: ASAL counties covered by NDMA



ABBREVIATIONS AND ACRONYMS

ASALs	Arid and Semi-Arid Lands
CBO	Community Based Organisation
CIDPs	County Integrated Development Plans
CSG	County Steering Group
DCF	Drought Contingency Fund
DCM	Drought Cycle Management
DEWS	Drought Early Warning System
DRM	Drought Risk Management
ECD	Early Childhood Development
EDE	Ending Drought Emergencies
EWS	Early Warning System
EU	European Union
FBO	Faith-Based Organisation
FFA	Food for Assets
GFD	General Food Distribution
GDP	Gross Domestic Product
GoK	Government of Kenya
HH	Household
HSNP	Hunger Safety Net Programme
IGA	Income Generating Activity
KFSM	Kenya Food Security Meeting
KFSSG	Kenya Food Security Steering Group
KMD	Kenya Meteorological Department
KRDP	Kenya Rural Development Programme
LEGS	Livestock Emergency Guidelines and Standards
LZs	Livelihood Zones
MIS	Management Information System
MUAC	Middle Upper Arm Circumference
NDEF	National Drought Emergency Fund
NDMA	National Drought Management Authority
NGO	Non-Governmental Organisation
OVC	Orphans and Vulnerable Children
REWAS	Revised Early Warning System
SOPs	Standard Operating Procedures
VCI	Vegetation Condition Index
WFP	World Food Programme

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The Kenya Drought Response Guidelines are based, in part, on the work of a variety of organisations and individuals involved in drought risk management, some of whom are acknowledged in the bibliography.

The guidelines highlight priority mitigation and response activities for various sectors, especially those eligible for funding under the National Drought Emergency Fund (NDEF). We would like to recognise the effort of a wide range of individuals and partners who participated in the development of the guidelines.

We are particularly grateful to the authors of *Livestock emergency guidelines and standards (LEGS)* and *Emergency food security interventions, good practice review*. Sincere appreciation goes to all our stakeholders, including technical and county teams in their respective sectors, for their invaluable contribution to the review of these guidelines. Special mention goes to Jeremy Swift, who facilitated the drafting of the first version.

We also acknowledge the significant role of the NDMA Technical Department led by the Director Technical Services, Sunya Orre, in steering development of the national Drought Response Guidelines. The dedication of Drought Contingency Planning and Response Manager Saiyana Lembara and invaluable input of Technical Advisor Luigi Luminari cannot go unmentioned.

Our sincere appreciation goes to the European Union for continued invaluable support to drought risk management in Kenya through the NDMA, particularly the financial support towards the review and update of these guidelines. Finally, we acknowledge and appreciate the editorial team led by Lucy Kirauni for quality control and coordinating final publication.

FOREWORD

The development of Kenya's drought management system started in Turkana almost three decades ago and has seen numerous improvements over the years. The Government has further institutionalised drought risk management through establishment of the National Drought Management Authority as its dedicated and specialised institution. The NDMA Act, 2016, mandates the Authority to coordinate drought management in the country, ensuring sustained focus on long-term solutions.

Drought risk management cuts across sectors and we, therefore, have a large number of stakeholders at various levels. NDMA seeks to continuously improve the ability of National and County governments and communities to prevent, mitigate, and prepare for adverse impacts of drought and climate change. The Authority does this by; leading and facilitating timely planning, early action and monitoring; enhancing coordination and capacity building of all stakeholders; and serving as the knowledge hub for drought risk management and climate change adaptation in Kenya. The Authority also coordinates the preparation of drought contingency plans and drought response and relief activities, among others.

To mitigate adverse drought effects, the NDMA Act also provides for the establishment of a National Drought Emergency Fund that will avail real-time funds to support the implementation of preparedness, response and recovery activities. The operationalisation of the NDEF requires identification of activities eligible for funding under the various drought phases/stages.

These Guidelines, therefore, provide norms and best practices that will guide stakeholders involved in the implementation of drought risk management activities in Kenya. They also highlight sectoral mitigation and response initiatives eligible for funding under the NDEF. They target; NDMA technical staff working at national and county levels, national and county level technical staff from line ministries collaborating with NDMA, development partners, UN agencies, community and faith-based organisations, and local communities or institutions charged with the responsibility of managing drought risk.

I sincerely thank all our partners who participated in putting together the guidelines and urge you to now operationalise them in your drought risk management efforts.

JAMES ODUOR
Chief Executive Officer

EXECUTIVE SUMMARY

Drought is one of the biggest threats to the achievement of Kenya's Vision 2030. It erodes community assets and undermines their livelihood strategies, causing widespread suffering, and increasing poverty. Droughts pose a threat to hard-won development gains, especially in the least developed parts of the ASAL region, and have a major impact on the national economy. For instance, the 2008-2011 drought cost Kenya US\$ 12.1 billion in damages and losses combined and slowed GDP by an average of 2.8% per annum.

Without urgent action, these impacts will worsen as climate change deepens. Better management of drought is, therefore, critical for the realisation of sustainable development goals, particularly in vulnerable ASAL counties, which constitute more than 80% of the country.

Kenya has made considerable progress in the development of the main components of a drought risk management system. However, there are still significant gaps such as the gap between information provided by the early warning system on impending threats and the ability of stakeholders to act in time to reduce their impact.

These Drought Response Guidelines are designed to promote best practices and norms related to the implementation of drought mitigation and response activities in Kenya. They also highlight sectoral mitigation and response activities that are eligible for funding under the National Drought Emergency Fund (NDEF) established by the NDMA Act (2016).

The guidelines are organised into three main sections. The first section covers general issues and methodologies related to principles of drought risk management such as; Drought cycle management, monitoring and early warning system, drought preparedness, contingency planning and early response, livelihood analysis, food security assessments, the role of communities, cross-cutting issues, and monitoring and evaluation.

Section two describes disbursement mechanisms for the NDEF including; drought contingency fund business process and its management information system. The third section is specific to the sectoral mitigation and response activities eligible for funding under the NDEF, including the norms and best practices that should be considered in the design and implementation of the various sectoral contingency initiatives.

Sectors considered in the manual are; Livestock, agriculture, water, direct/indirect cash transfers (food, cash, and micro-finance), health and nutrition, education, and peace and security. The last section details the drought response monitoring and evaluation framework.

SECTION 1: OVERVIEW OF DROUGHT RISK MANAGEMENT SYSTEM

1.1 Introduction

Droughts limit rural production in Kenya, threaten many people with impoverishment, and may trigger famine in extreme cases. Droughts directly influence the food security of over 10 million people living in drylands, erode their assets, undermine their livelihood strategies, pushing them deeper into poverty. However, there is little that is inevitable about the impact of droughts in Kenya.

For 25 years, Kenya has had in place the main components of a system to manage droughts more effectively. Though considerable progress has been made, there are still significant gaps in drought risk management. One of the main shortcomings has been the gap between information provided by the early warning system about impending threats and the ability of government to act to reduce the impact of those threats.

County drought contingency plans are available and include pre-prepared 'shelf projects' of activities to be triggered by the early warning system. However, these projects could not be carried out without funding. This gap is expected to be addressed with the creation of the NDEF.

Since drought is a slow onset hazard, its impacts can be monitored and reduced. Kenya will eliminate the worst of these impacts by pursuing two simultaneous strategies:

- (a) Take measures to strengthen people's resilience to drought on an ongoing basis and regardless of prevailing drought conditions. These measures will be the responsibility of all sectors since drought vulnerability is aggravated by deeper inequalities in access to public goods and services.
- (b) Improve the monitoring of, and response to, emerging drought conditions in ways that harness the efforts of all actors – communities, the government and its development partners – in an effective and efficient manner. This is the responsibility of the NDMA¹.

These guidelines attempt to provide a framework within which both National and County governments, communities and development partners should intervene in drought preparedness and response. Moreover, the Guidelines specify procedures and standards for activities that can be funded under the drought response component of the NDEF.

¹ Under the Ending Drought Emergencies strategy, Pillar 5

1.2 Drought Risk Management

Drought Risk Management (DRM) can be defined as the systematic process of using administrative directives, organisations, and operational skills and capacities to implement strategies, policies, and measures for improved coping capacities to lessen (i.e. prepare and mitigate) the adverse impacts of drought and the possibility of disaster.²

The DRM system in Kenya consists of four main components, namely:

1. **A drought early warning system** based on aggregated information from different sources, ranging from field interviews to satellite imagery. Investment decisions are guided by an authoritative drought information system, linked to the contingency financing mechanism, which all actors draw on to guide their response. This information system provides accurate warning as droughts evolve and uses evidence-based triggers to prompt appropriate and timely response at different stages of the drought cycle.
2. **A set of county-level contingency ('shelf') plans** for rapid reaction to early warning and changes in the warning stages. These cover the necessary interventions at each phase of a drought (normal, alert, alarm, emergency and recovery) together with a detailed budget for each activity.
3. **A drought emergency (contingency) fund**, enabling rapid implementation of the contingency plans. The most critical issue in drought response is timeliness and appropriateness. The NDEF and currently drought contingency funds provide flexible resources that can be drawn on quickly and used to improve the timeliness and appropriateness of interventions.
4. **Drought coordination and response structures:** With the NDMA Act 2016, Kenya now has a permanent and specialised institution tasked with providing leadership on drought risk management, coordinating the work of all stakeholders implementing DRM activities, and ensuring delivery of the Ending Drought Emergencies (EDE) strategy³. The drought risk management structure at the national level includes the NDMA and the Kenya Food Security Meeting (KFSM), whereas the coordinating role at the county level is discharged by the County Steering Groups (CSGs). The Inter-governmental Forum is an advisory group on all issues about drought and food security. The CSG is co-chaired by the Governor and County Commissioner.

2 UNISDR, 2009: 'Drought Risk Reduction, Framework and Practices: Contributing to the Implementation of the Hyogo Framework for Action'. Geneva, UNISDR.

3 The EDE strategy emerged in reaction to the 2008-11 droughts in the Horn of Africa. At a summit of Heads of State and Government in Nairobi in September 2011, IGAD was directed to coordinate member states in implementing this initiative. The Kenya country paper seeks to create 'a more conducive environment for building drought resilience'. It commits the government to end drought emergencies within ten years.

NDMA has developed the following strategic objectives related to DRM in Kenya to provide a guiding framework at both the national and county level:

- Strengthen institutional and community resilience to drought risk and climate change.
- Provide drought and climate information to facilitate concerted actions by relevant stakeholders.
- Protect livelihoods of vulnerable households and community systems to cope and recover from drought shocks.
- Ensure coordinated action on drought risk management by government and other stakeholders.
- Strengthen planning, performance management and knowledge management for drought risk management and climate change adaptation.
- Strengthen institutional capacity to provide leadership in drought risk management at national and county levels.

The following sub-sections illustrate DRM concepts and methodology adopted by NDMA for drought mitigation and linkage to sustainable development. Drought preparedness and resilience-building guidelines are available separately to guide DRM practitioners on complementarity.

1.2.1 Drought cycle management and early warning system

The contingency planning and funding process adopted by NDMA is based on the Drought Cycle Management (DCM) approach, which outlines five phases that can be categorised into *normal*, *alert*, *alarm*, *emergency*, and *recovery*, with different types of interventions tailored to the various phases.

DCM generally describes how to reduce vulnerability (and increase resilience) of populations to drought through proper planning. The aim is also to ensure effective use of funds: investing in drought preparedness during the *normal* and *alert* stages so that less money is spent during the *alarm* and *emergency* phases.

The Drought Early Warning System (DEWS) and associated warning stages is an effective way of triggering interventions to manage drought. The events contributing to a drought emergency and the warning stages provide a conceptual model of 'Drought Cycle Management', which links drought events to preparedness, mitigation and response. This model is valid for 'slow-onset' hazards such as drought, but not for rapid-onset hazards such as floods or armed conflicts.

NDMA considers this objective way of classifying droughts and their impacts based on set criteria critically important for improved transparency of the system when declaring a drought situation. The DCM phases are, therefore, triggered by a set of indicators (based on clear thresholds) that measure drought severity, spatial scale, and whether conditions are progressing or receding.

The set of indicators used include social indicators showing the impact of drought. The biophysical drought stages are categorised using nomenclature such as *no drought*, *mild*, *moderate*, *severe*, and *extreme drought*. It is, therefore, important to define thresholds that are meaningful in distinguishing these drought phases and build consensus among users and stakeholders.

The methodology used by NDMA for early warning phase classification is based on a holistic analysis of the drought situation and its impact on specific livelihoods. This is achieved by collecting a set of indicators and combining them to determine the DCM phase.

The indicators used for the drought early warning phase classification are;

- i. Biophysical (environmental).
- ii. Production (mainly related to the impact on livestock and crop production).
- iii. Access (impact on market and access to food and water).
- iv. Welfare (impact on nutrition and coping strategy).

For all the major indicators monitored in the monthly data collection, current observations are compared with long-term average or baseline data. The data variations are analysed to determine whether the changes significantly deviate from the long-term average for the specific period of the year.

This helps determine whether changes recorded are normal occurrences or should be considered as early warning concerns. It also helps indicate whether problems identified are chronic and, therefore, require long term solutions, or indicate a crisis or an emergency that could stress normal coping mechanisms. Baseline data is available for the major monitoring indicators.

While the comparison of quantitative early warning data with baseline or long-term references provides a systematic way of identifying significant changes, qualitative information is essential to beef up the analysis. The information is mainly used for triangulation and verification of quantitative data from households and markets for each livelihood zone.

The combination of biophysical and socio-economic indicators is used to establish the phase of the DCM a county, sub-county and livelihood zone falls under, which in turn determines the triggering for disbursement of drought contingency funds (which should normally start from the *alert worsening* phase).

The complete methodology for the early warning phase classification is spelt out in the guidelines adopted by the NDMA. Each phase requires specific drought mitigation/response activities to support livelihoods and minimise depletion of assets.

The early warning phases are defined as follows:

Figure 2: Drought Cycle Management

Recovery: Environmental indicators returning to seasonal norms.

This phase can be declared either when the drought phase is at *Alarm* worsening or *Emergency*. In this phase, the environmental indicators start registering improvement, translating to improved production, access and later utilisation indicators. General recovery is registered across all sets of indicators and thereafter conditions revert to normalcy.

5. RECOVERY

Environmental indicators return to seasonal norms

4. EMERGENCY

All indicators are outside normal ranges

Emergency: In the emergency phase, **all indicators are outside normal ranges** and local production systems within the dominant economy have collapsed. The emergency phase affects asset status and purchasing power to an extent that seriously threatens food security. As a result, coping strategy index, malnutrition (MUAC) and livestock mortality rates move above emergency thresholds.

NOTE: NDMA and other partners have assigned flags to mark every drought phase declared for ease of understanding the warning phase by the public. For example, when environmental indicators are outside the normal range, the alert flag is raised. When production and/or access indicators are outside the normal range, the alarm flag is raised. The emergency flag is raised when all four major indicators are outside the normal range.



1. NORMAL

Environmental indicators show no unusual fluctuations

Normal: The normal phase occurs when all **drought indicators show no unusual fluctuation** and remain within the expected ranges for the time of the year in a given livelihood zone, sub-county or county. In this phase, the drought status is normal, the risk low, and vulnerability also low.

2. ALERT

Environmental indicators fluctuate outside expected seasonal ranges

Alert: The alert phase occurs when **environmental indicators show unusual fluctuation outside expected seasonal ranges** within the whole county/sub-county or livelihood zone. In this phase, risk and vulnerability are moderate. Proposed environmental indicators for the early warning phase classification include remote sensed indicators measuring meteorological and agricultural drought, while hydrological drought is assessed using local informants.

3. ALARM

Environmental and production indicators fluctuate outside seasonal ranges

Alarm: The alarm phase occurs when both **environmental and production indicators fluctuate outside expected seasonal ranges**, affecting the local economy. This condition affects most parts of the county/sub-counties or specific livelihood zones and directly or indirectly threatens food security of vulnerable households. In this phase, both risk and vulnerability are high. Production indicators proposed for the early warning phase classification include: milk production; livestock body condition; livestock mortality rate; pattern of livestock migration; actual planting date; area planted; and estimated/actual harvest. If **access indicators** (impact on market, access to food and water) move outside the normal range, the status remains at "alarm" but with a worsening trend. Proposed access indicators include terms of trade, price of cereals, availability of cereals and legumes, and milk consumption. The trend will be further worsening when welfare indicators (middle upper arm circumference-MUAC- and coping strategy index) also start moving outside the normal ranges.

1.2.2 Drought preparedness, contingency planning, funding and early response

a) Drought preparedness

Preparedness can be defined as *'the capacities and knowledge developed by governments, professional response and recovery organisations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions'*.⁴

To facilitate early drought response (mitigation), it is important to enhance investments in preparedness that build capacities needed to manage drought episodes efficiently, and contribute to fast recovery and long-term resilience. Preparedness activities in the *normal* stage are an essential precondition for many emergency activities in later 'alarm' and 'alert' stages.

Preparedness is based on sound analysis of drought risks and includes such activities as contingency planning, stockpiling of equipment and supplies, investment in strategic infrastructure, development of coordination arrangements and related trainings aimed at enhancing readiness capacities to cope and bounce back better from drought shocks.

The NDMA places strong emphasis on drought preparedness because it is crucial for developing the capacity for early, efficient and effective response. NDEF regulations will allow the Authority to use part of the contingency funds to undertake strategic preparedness activities and investments. NDMA has developed and adopted guidelines regulating the use of DCF for preparedness.

b) Drought contingency plans

Contingency planning ensures that county and communities are in a high state of preparedness and ready to implement planned drought risk management activities as soon as trigger thresholds are arrived at and money is made available from the contingency fund. The drought cycle management has 'preparedness' as a key set of activities, corresponding to the *normal* warning stage.

The *normal* drought stage does not imply that nothing needs to be done. On the contrary, this stage is the most important of all. It is at the *normal* stage that preparedness initiatives can be implemented to reduce the need for later initiatives and projects, thus reducing suffering and costs.

4 UNISDR, <http://www.unisdr.org/we/inform/terminology>

Counties prepare contingency plans, or shelf projects, ready for immediate implementation when the EWS signals a problem. Such plans do not exist in a vacuum but are responses to local and national conditions. Contingency plans are developed by CSGs, which comprise officers from sectoral line ministries, non-governmental, and community organisations.

The plans incorporate accumulated experience within counties on how best to cope with drought threats and are revised annually. Counties are encouraged to synergise the county integrated development plans (CIDPs) and drought contingency plans.

The sector working groups, led by the line ministries at the county level, work in consultation with sub-county technical teams, and final proposals are discussed and approved by the CSGs for adoption by all county stakeholders.

As part of the contingency planning process, each county prepares a portfolio of contingency projects. These should add up to a strategic preparedness investment plan that prepares the county for a serious drought and lays the ground for sectoral interventions and contingency projects in *alarm* and *emergency* phases.

The CSG has the responsibility to coordinate the development of sectoral contingency plans and frequent baseline information updates to ensure that data being used for decision-making is up-to-date. Plans are developed based on possible drought scenarios under each phase.

As part of mainstreaming, contingency plans prepared at the community level should be included in the county drought contingency plans prepared by the CSGs to ensure community views and interests are adequately reflected.

In this regard, the NDMA in collaboration with other stakeholders, supports the establishment of community-level disaster management committees and adoption of ward level contingency plans through the following steps:

- Communities are helped to identify underlying risk factors that make them vulnerable to drought at each stage of the drought/cycle.
- They conduct context analysis and scenario building in drought risks.
- Based on previous experiences, they propose the best strategies to cope with drought risks.
- Communities are facilitated to develop strategies for each stage of the drought cycle, including action they can implement themselves and actions that they need to undertake in partnership with their development partners.
- Communities then draw up detailed and costed contingency plans that indicate who will do and pay for what and when.

NGOs, CBOs and other development actors should help prepare such plans at the invitation of communities. Plans must be aggregated at the county level and incorporated into a county drought response strategy.

c) Contingency fund and early response

Since the start of drought contingency planning in Turkana in 1985, lack of contingency funding for implementation of interventions outlined in contingency plans has hampered rapid reaction to information from the EWS. Drought management experience over the years has established that contingency finances for early action are critical for effective risk management.

It is widely accepted that the earlier the warning and the faster the reaction, the more effective and cheaper the response. Quite often, there are usually long time lags between an early warning being signalled and action being taken. This is mainly attributed to the long lead time caused by slow decision-making and long procurement delays, among other things.

Response lead times can in most cases be reduced by undertaking essential administration early, especially under the preparedness phase. This includes; preparation of terms of reference; agreeing on specifications; preparation of templates for memoranda of understanding; letters of acceptance; maintaining an up-to-date database of suppliers; agreeing on streamlined procurement rules; identifying local suppliers; pre-qualifying suppliers; and many other activities that can be done in advance to shorten the lead time considerably when the decision is finally taken.⁵

However, implementation of contingency plans needs fast disbursement of sufficient financial resources that if not readily available would significantly delay the response. A contingency fund enables appropriate and timely disbursement of funds for early response to drought. It does this by financing early mitigation activities and reducing the time lag at the county level between an early warning signal of impending trouble and response.

Most response activities eligible for support from the fund should have been identified and prepared in detail as part of the county contingency plan. County contingency plans cover potential initiatives at each stage

5 RELPA/PACAS, 2008, 'Contingency Planning for Early Response': Workshop Report. USAID

of the drought cycle and are costed in advance. Most activities supported by the NDEF will be at 'late alert', 'alarm', 'emergency' and 'recovery' warning stages, and will be designed to support community readiness systems to withstand shocks and bounce back after a drought.

Activities in the 'normal' stage (preparedness) may also be funded if there is a justification that by acting swiftly, they can significantly reduce suffering and hardship later in the cycle, and contribute to building long-term resilience. A specific budget line under the NDEF regulations is dedicated to finance such preparedness project (see NDMA guidelines for preparedness projects eligible for funding).

d) Drought rapid assessments

Timely assessment of the current situation and trend is crucial to drought management and disbursement of DCF. The county EWS provides general information about key indicators on status and trend, but in most cases will need to be supplemented by ad hoc rapid field assessments carried out by county technical staff, NGOs and community representatives. Such assessments are necessary for all livelihoods within the county.

There is a delicate trade-off between speed and accuracy. Assessments must not be used as a reason to delay action, and likewise the need for action must be tempered with accurate information about the real nature of problems on the ground. The key output of the rapid assessment is to update the drought contingency plans and develop a comprehensive drought response plan for action.

The design of assessments should be based on the standard rapid methodologies of each technical discipline. Assessment methodologies are described in the LEGS (pg 32-38). The NDEF has also developed specific guidelines for drought-related food security field assessments that are used to fine-tune drought response frameworks by highlighting hotspots and people to be targeted. The following should be applied;

- Special care is needed during the consolidation of results to produce a comprehensive cross-sector assessment.
- Participatory methods are appropriate in many cases and should be used.
- Background information on the characteristics and weaknesses of local livelihood systems, including information from the EWS, should be available during assessments.

- Information on livelihoods or household economy types should, where possible, be also available.
- Local community associations and NGOs working in particular regions are normally a good source of information on 'normal' and unusual events.

The need for a detailed assessment should not, however, be a reason for delaying decisions about interventions.

The use of a livelihood approach is useful when identifying and designing appropriate mitigation interventions based on analysis of behavioural responses of different livelihood groups to drought events. This approach is particularly relevant for pastoral and agro-pastoral livelihoods since it helps in the development of possible scenarios related to migration and coping strategies adopted to respond to drought. E.g;

- Large movement of people and their herds is often associated with conflict, the spread of animal diseases and environmental degradation, while the increased number of animals in dry grazing areas puts the available water boreholes under pressure, with an increased risk of breakdown.
- Household members left behind when the main herds move in search of pasture and water are exposed to food insecurity since the few available animals cannot produce sufficient milk due to lack of feeds. This often results in a dramatic increase in malnourished children.
- Education is also severely affected by drought, with high dropout of vulnerable students whose parents are not able to pay fees due to reduced purchasing power or because students must help their families during the drought period.

Hence, livelihood analysis helps drought analysts to identify appropriate livelihood services and relief that can support mobility of pastoralists and mitigate the possible problems that migration usually creates.

Assessments must be carried out as early as possible in the drought cycle but should be repeated at suitable intervals throughout the cycle to measure the progress of the drought and waning of its impact. After the end of a drought, an evaluation of the drought responses should be made to identify key lessons learnt for future improvements.

e) Specificity of NDEF

Not all drought management interventions are eligible for support from the NDEF. The principles determining which activities can be funded and related best practices are described as follows:

Focus on drought risk management – NDEF is specifically established for drought risk management, not for other kinds of hazards or disasters.

Target ASAL areas – The contingency funds are accessible in all ASAL counties that have a fully-operational drought early warning system and an approved contingency plan in place. However, inter-county initiatives can also be promoted with non-ASAL counties whenever relevant to the use of a livelihood approach (e.g. inter-county conflict and migration).

Finance non-food response only – The fund can only finance non-food activities to support the implementation of sectoral contingency plans. No food aid can be funded under the NDEF as provided by the regulations. However, support to education can include the purchase of food to keep drought vulnerable students in school using a food-for-fees approach.

NDEF and humanitarian aid – The fund will not in any way replace humanitarian aid – particularly food aid – but is designed to reduce the need for humanitarian aid by intervening early and in depth to slow down or halt the progression of a drought-induced disaster. The fund will work alongside humanitarian donors and plan jointly with them but will not itself undertake humanitarian activities.

Support to livelihoods – Livelihood support means protecting production and marketing assets and preserving social and economic relations through early intervention in the drought cycle. Interventions must support local livelihoods and household coping strategies by providing strategic assistance and services. Sectoral interventions must be planned based on their potential to protect livelihoods. Hence, activities funded by the NDEF look beyond emergency response designed only to save lives and focuses on saving livelihoods by helping rural households to preserve their productive assets. The rationale for supporting the local livelihoods is to sustain the local economy and purchasing power of households to cope with the variabilities of market forces.

Support to local economies – This involves the promotion of early mitigation efforts through provision of services with a livelihood perspective and designed to support local economies and promote linkages with long-term development strategies. This is expected to considerably reduce the loss of assets by households during drought crises and contribute to enhanced resilience. The rationale of this approach is based on the fact

that the benefits of investing in early response by subsidising livelihoods/ local economies exposed to drought risks are much greater than intervening at a later stage to provide emergency humanitarian aid⁶.

Contribute to scalability of services and programmes – Scalability is defined as ‘the ability of interventions to expand and contract in a cost-efficient fashion in response to surges in demand, occasioned by external risk factors.’⁷ Scalability should accelerate response, reduce overheads, and increase predictability. It is particularly appropriate for non-equilibrium environments such as the ASALs, which are exposed to recurrent risk. Examples of scalability include cash transfers, nutrition services, veterinary services, etc.

Support private initiatives – Response to drought should contribute to the building of sustainable rural services rather than affecting them. For instance, the provision of free drugs can be detrimental to the business of agro-vets and discourage investments of the private sector. The NDEF will, therefore, assess how different response activities influence local service provision and encourage, as much as possible, private initiatives that can contribute to support coping strategies of drought-affected populations. For instance, the use of vouchers for the supply of veterinary drugs or animal feeds through local agro-vets may be appropriate to support the consolidation of rural services.

Support cost-recovery strategy – Key mitigation measures are funded through the provision of subsidies to ensure supply of relevant services in water and sanitation (e.g. spare parts, fuel, water trucking, supply of disinfectants), livestock health and nutrition (vaccination, provision of animal feeds and drugs, market information, etc) and human health and nutrition (surveillance, outreach services, mass screening), among others.

However, in many cases, there are no cost-recovery mechanisms in place to ensure better sustainability of these initiatives. For sustainability purposes, whenever possible and appropriate, cost recovery mechanisms should be established and strengthened. The NDEF will, therefore, explore possible avenues for introduction of viable and equitable cost-recovery mechanisms, including strategies for involvement of private sector in the provision of essential rural services.

Promote a ‘no-regrets’ approach – *These are actions by households, communities, and local/national/international institutions that can be justified from economic, and social, and environmental perspectives, whether natural hazard events or climate change (or other hazards) take place or not’.*⁸

6 see for example “The Economics of Early Response and Disaster Resilience: Lessons from Kenya and Ethiopia, June 2012

7 Kimetrica (2014) ‘Methodology Report: Design of a System to Scale-up Social Protection in Kenya’

8 Paul B. Siegel (2011), “No-regrets approach to increased resilience and climate change justice: Toward a risk-adjusted social protection floor”

Since many contingency projects are worth doing anyway, decisions can in some cases be safely biased towards an early decision and action. For instance, if the long rains fail and the situation is deteriorating, it may be unwise to wait for the short rains before intervening to vaccinate cattle. If the rains fail, the situation will be disastrous, but it will be too late by then to intervene effectively. Vaccinating the cattle would have been desirable.

Targeting drought-affected populations – Livelihood support requires use of strategic targeting, which refers to the identification of priority interventions and beneficiary groups. This maximises the impact of DCF on drought mitigation and livelihood support and is based on an analysis of the drought coping strategies of affected people. In the case of pastoral livelihood systems, some examples of strategic targeting include: supporting boreholes in key dry grazing areas; deploying rural services along main migratory routes; supporting ring vaccination in areas of livestock convergence; supporting key livestock markets to facilitate early commercial destocking; etc. This approach does not necessarily target the poorest, but rather assists productive households that risk losing their assets and livelihoods.

At the same time, livelihood support initiatives must be complemented with provision of targeted relief interventions that can address the short-term needs of vulnerable groups such as female-headed households, expectant mothers and children, persons living with disability, food-insecure households and the elderly. It is important to get a clear understanding of community inclusion and exclusion mechanisms and, therefore, access to drought relief by various community groups, with specific focus on gender relations.

Strengthening community readiness – Drought response interventions should not undermine community coping capacities. Local institutions play a critical role in ensuring planning, implementation, and monitoring and evaluation process of the drought risk management strategies. The following is key;

- Lessons learnt and upscaling of good practices should be a continuous process that local community institutions can spearhead.
- Continuous reviews and updates of community hazard maps and drought risk reduction measures in terms of contingency plans where community members and their development supporters know their specific roles.
- Resource mobilisation for implementation of the drought risk reduction measures is a primary role of the community institutions.

Promote complementarity – Based on livelihood analysis, the design of various response activities should ensure complementarity and synergy to maximise drought mitigation. For instance, when promoting livestock off-take, complementary services should be offered to help herders keep their strategic core breeding herd alive throughout the drought crises.

The provision of animal feeds, water, and veterinary services should, therefore, complement off-take interventions. Scalability of cash transfers may also complement non-food activities, for example by enhancing the purchasing power of herders and facilitating their access to livestock-related services.

Humanitarian aid has saved many lives and is an indispensable tool in provision of relief to drought-affected populations. However, untargeted aid may promote dependency and affect the private sector and the consolidation of rural services.

The NDMA recommends the integration of relief in the broader drought risk management approach and framework. This requires strategic targeting of humanitarian aid to complement other drought mitigation services that support livelihoods to protect the most vulnerable households.

Create linkage to sustainable development – Planned and implemented drought response activities should be designed to cushion livelihoods and facilitate recovery (building back better) through sustainable strategies. Prioritised drought response activities should not compromise the local coping capacities but rather enhance coping capacities by strengthening the local communities' readiness systems.

Resilience will thus be realised if the community readiness function is enhanced. The vulnerable groups are identified and risk reduction measures targeted towards enhancing their coping capacities. This enables communities to enumerate their drought risk management strategies and showcase the good practices that they have implemented in partnership with development partners.

Timing and spread – Timing of interventions is critical. The fund gives priority to activities that are strategically planned to coincide with a particular phase in the drought cycle, and especially the shift from one phase to another. These shifts are informed by the early warning system and activities can occur at any warning stage, including the 'normal' or 'preparedness' stage as long as they contribute to rapid response when required.

Monitoring & evaluation – At the end of drought (recovery phase), it is essential to evaluate not only the performance of the technical interventions but also the accuracy of the assessments on which they were based and the state of preparedness. Wherever possible, the evaluation should be made by a different team from that which made the assessment. One of the

important items to be evaluated is the adequacy of shelf projects when faced with reality.

Minimum standards – Drought management interventions are expected to meet minimum standards of efficiency, fairness, and technical competence. SPHERE (humanitarian charter and minimum standards in disaster response) and LEGS⁹ should be the minimum standards for all programmes supported by the NDEF, with suitable adaptation to a wider context where needed. Some of the principles and standards applied across all sectors are listed below:

- The drought-affected population actively participates in the assessment, design, implementation, and monitoring and evaluation of the drought risk management programmes.
- Assessments provide an understanding of the role of livestock in the livelihoods of different socio-economic groups in the Kenyan ASAL areas, an analysis of the nature and extent of the emergency, an appraisal of appropriate interventions in relation to operational and policy context, and existing service providers and systems.
- Food security interventions are undertaken with a specific objective to ensure nutrition security of the most vulnerable groups in the population.
- Different interventions are harmonised and are complementary to other interventions intended to save people's lives and livelihoods.
- Assistance is provided fairly and impartially, based on the uses and needs of different livelihood groups and gender relations.
- Design of drought response activities must take into account the local perception of needs and socio-cultural norms.
- Monitoring and evaluation and livelihood impact analysis are carried out to check and refine implementation as necessary and draw lessons for future programming.
- Aid workers possess appropriate qualifications, attitudes and experience to effectively plan, implement and assess livelihood-based programmes in emergency contexts.

9 LEGS 2009. Livestock Emergency Guidelines and Standards. Practical Action Publishing

Table 1: Examples of drought risks identified through a livelihood approach and proposed mitigation initiatives

SECTOR	DROUGHT RISK/IMPACT	STRATEGY	ACTIVITIES
Livestock health	Overconcentration of livestock in dry grazing areas, which leads to high risk of disease outbreaks and closure of markets (quarantine)	- Enhance livestock disease surveillance in hotspots - Livestock ring vaccinations in areas of convergence of animals; inter-county coordination	- Disease surveillance - FMD ring vaccination - Mass CCPP/PPR vaccination
Livestock nutrition	Vulnerable members of households are left behind with few weak milking stocks when the main herds migrate to dry grazing areas	- Support fodder production in areas with potential and pre-position feeds. - Provide livestock supplementary feeds to vulnerable households to sustain milk production and improve nutrition status of children	Support targeted livestock feeds distribution (hay, and other concentrates)
Commercial Livestock Off-take	- Livestock body conditions deteriorate due to reduced grazing resources - Risk of high mortality once drought deepens	- Support sale unproductive livestock before they lose their market value and use income to support core breeding stock. - Stimulation of livestock markets to function optimally	- Awareness creation on the need for early destocking - Support involvement of traders - Strengthen livestock marketing structures - Provide ad hoc transport subsidies
Slaughter De-stocking	- Livestock with very poor body condition and high risk of mortality - No or minimum market value	Provide relief by purchasing animals and distributing meat to vulnerable groups	- Identify vulnerable households to be targeted for purchase of animals - Identify beneficiaries of meat distribution
Water	- Boreholes in dry grazing areas are operated continuously, with high risk of breakdowns - Cost of water significantly increasing during drought - Particular dry season areas are characterised by acute water shortages	- Ensure continuity of operation of water pumping in high livestock concentration points - Subsidies provided to keep water costs at strategic boreholes affordable (drought grazing areas) - Limited water trucking to communities and institutions facing acute water shortages - Activate rapid response teams to be able to attend and repair boreholes within 24hrs	- Purchase of stand-by gen-sets and fast-moving spares - Purchase of fuel - Repairs of boreholes - Limited water trucking
Health & Nutrition	- Children under 5 and PLW become vulnerable to malnutrition - Elderly population vulnerable to malnutrition - Outreach to remote and insecure areas difficult - Poor quality of available water resource - Outbreak of human diseases	- Mass screening in areas with high malnutrition rates based on the outcome of nutrition assessments - Livestock slaughter destocking to provide protein-rich food to vulnerable elderly populations - Support outreach services - Support provision of water treatment tabs - Support provision of mass screening equipment	- Mass screening at hot spots - Slaughtering of goats - Support outreach costs - Support provision of water treatment tabs - Provision of Kalazar screening equipment
Education	- Some schools are located in acute water shortage areas - Parents of vulnerable households are unable to pay school fees to retain their children in school during crises	- Water tanks installed in concrete platforms - Water trucking to schools and other important public institutions - Provide food-for-fees to waive school fees for vulnerable pupils to minimise school dropouts	- Water trucking and provision of roof water harvesting infrastructure - Provision of food to schools
Security	Overconcentration of livestock in dry grazing areas increases risk of conflict over limited natural resources	- Support peace initiatives in the hot spots (dry grazing areas) and inter-county negotiations - Involve school children as peace ambassadors	Support resource-sharing negotiation forums

SECTION 2: DROUGHT CONTINGENCY FINANCING

Drought risk financing is critical in ensuring the availability of real-time accessible funds to facilitate early response to drought and climate-related shocks. In the Kenyan context, drought contingency finances are provided for under the NDEF, which is established under the Public Finance Management (PFM) Act, 2012. The NDMA has developed regulations to guide administration of the Fund.

The NDEF will ensure that resources are always available for quick action before a drought deteriorates. NDMA has been testing this approach since 2014 with drought contingency funds provided by the European Union. The pilot has enabled the Authority to disburse funds to drought-affected counties in partnership with the County Governments.

Operationalisation of the NDEF will build on the fund business process and MIS developed by the NDMA during the pilot phase. This section, therefore, expounds on funds disbursement mechanisms with special focus on the NDEF.

2.1 Disbursement of Drought Contingency Funds

The criteria for release of contingency funds should be systematic, evidence-based, transparent and based on the drought cycle management and that, if implemented properly, can link relief, rehabilitation and development. The three drought response management systems that include contingency planning, early warning, and drought contingency fund management shall be interlinked to ensure the coherence of outputs from all.

Drought response activities are specific initiatives triggered by the stages of the drought cycle as signalled by the EWS. Interventions are identified for each stage, and activities implemented depending on five drought early warning stages based on drought monitoring data (normal, alert, alarm, emergency, and recovery).

Comprehensive, multi-sectoral contingency (shelf) plans are prepared and activated for rapid reaction to the early warning. They cover the necessary interventions at each phase of drought (alert, alarm, emergency and recovery) together with a detailed budget and standard operating procedures (SOPs) for each activity.

A specific management information system is used to automate the process of funds requisition, approval, disbursement and reporting. The system connects NDMA County Drought Coordinators (CDCs), headquarters staff and third parties (such as development partners) to enhance information sharing, and provide a link between the contingency planning process, early warning system and the rapid food security assessment process.

2.1.1 DCF Business Process

The business process is aimed at reducing the response lead time to a maximum of 30 days from EWS trigger thresholds to the start of implementation of response interventions. The DCF MIS captures data electronically through web-based software that computerises the processes of the funding request, approval, and implementation reporting.

The following steps are required for approval and use of DCF:

Preparation of drought contingency plans

Contingency planning ensures that counties and communities are in a high state of preparedness and ready to implement planned drought management activities as soon as money is made available from the contingency fund. The plans cover necessary interventions at each phase of drought (alert, alarm, emergency and recovery) and a detailed budget for each activity. Drought contingency plans are approved by county governments and endorsed by the NDMA Board of Directors.



Determination of early warning stage

The early warning information from county bulletins determines the drought status per livelihood zone based on the basic indicator thresholds. As soon as the drought status reaches an 'alert worsening' stage, sectoral working groups of the CSG undertake rapid food security assessments to assess drought risks and necessary interventions, including the costs and time frame for interventions.



County Steering Group meeting held

The meeting discusses the drought situation on the ground and agrees on the contingency activities to be implemented. The CSG identifies priority response activities and determines the funding gap to be financed through the DCF. Based on the financial requirement, the CSG submits a request for funds to the NDMA headquarters through the county office.

Applications for DCF funds are supported by detailed contingency action plans, minutes of the CSG meeting, response and procurements plans as well as the drought early warning bulletins.

Not approved

Approved

Approval by NDMA headquarters and notification to county office

Proposed activities are appraised by the NDMA headquarters and the funding request is either approved or not.

Funding

If the request is approved, NDMA headquarters informs the County Drought Coordinator, prepares disbursement schedules, and disburses contingency funds directly into the NDMA county office's bank account.

Implementation

The project(s), as outlined in the contingency action plan, is implemented by the relevant line ministries and/or leading agencies under the coordination of the CSG. The NDMA county offices are responsible for procuring supplies and services and facilitating field operations such as payment of per diems, fuel, etc. Tenders are adjudicated centrally at the NDMA headquarters.

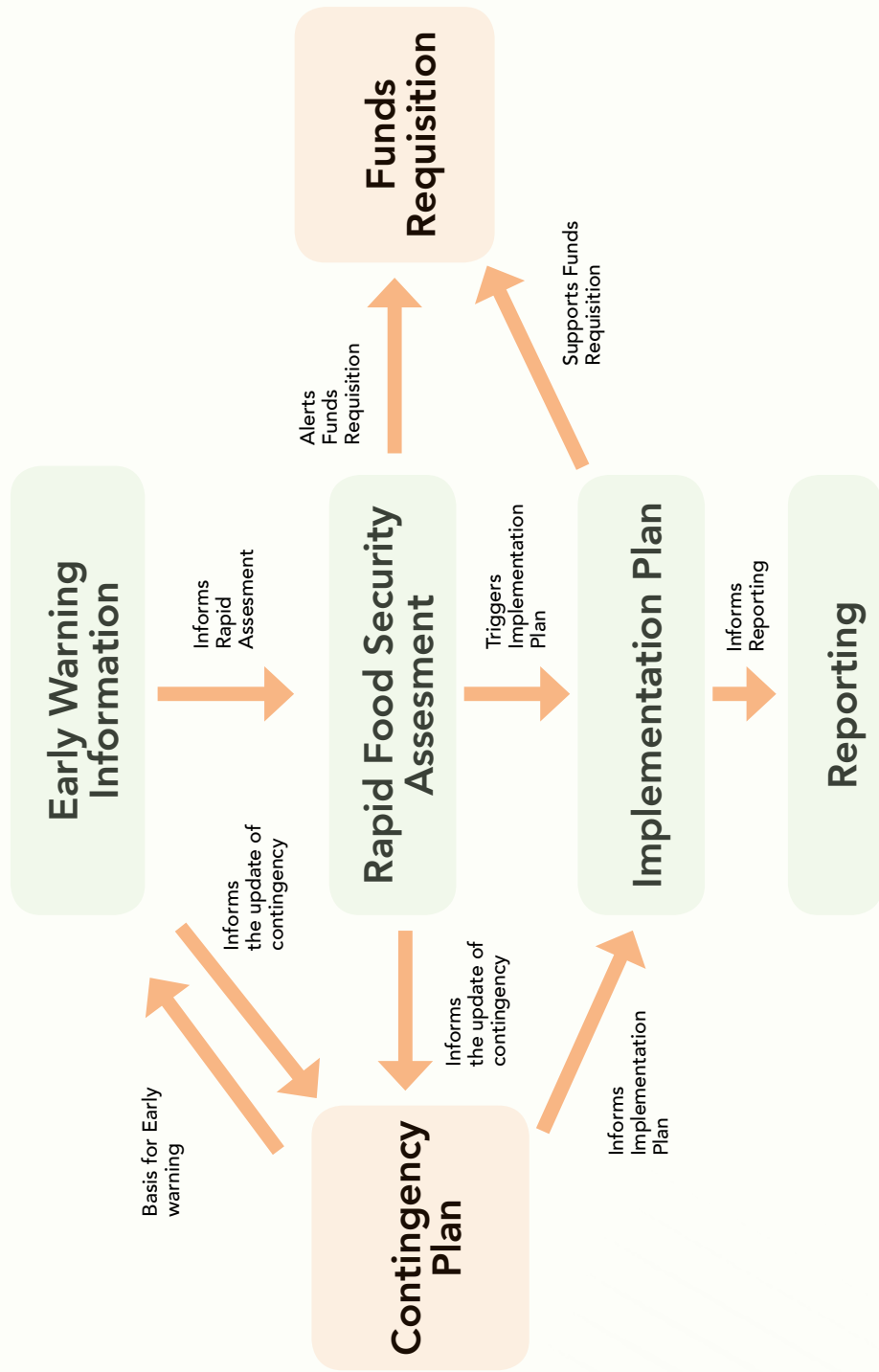
Monitoring and reporting

Information on implementation is uploaded in the Fund MIS regularly. The NDMA county offices organise regular monitoring missions, with backstopping from NDMA headquarters. Progress and final reports are uploaded in the MIS.

Impact evaluation

Post-implementation assessment is carried out to evaluate the impact of the various drought mitigation activities.

Figure 3: Drought response and fund disbursement model



SECTION 3: SECTORAL MITIGATION AND RESPONSE ACTIVITIES

3.1 Livestock Sector

The livestock sector contributes about 12% of Kenya's gross domestic product (GDP), 40% to the agricultural GDP and employs 50% of the agricultural labour force. About 60% of Kenya's livestock herd is found in the ASALs and it is estimated that 10 million Kenyans living in the region derive their livelihood largely from livestock. Livestock, therefore, plays an important role in Kenya's socio-economic development and contributes to household food and nutritional security.

Due to its importance in ASAL counties, livestock is given special prominence on account of the following:

- Drought has an early impact on livestock and livestock-based livelihoods. However, skilful livestock management practices can reduce the threat, with herders' management skills determining to a large extent how well the animals survive.
- In agro-pastoral households, livestock - the chief asset - is also critical in the way households navigate their way through drought. Herders and farmers react in many ways to drought. Most of these reactions – which include such things as changing the mix of browse species that animals feed on, or changing the frequency of watering - are based on the herders' knowledge and experience, and on the circumstances they face.

Only a few of these actions require outside support. However, those that do are extremely important and can make the difference between household survival and destitution. Best practice in most cases consists of supporting herders' responses and facilitating the actions that they try to take.

3.1.1 Livestock mobility

Herders, and to a lesser extent, agro-pastoralists, move their animals seasonally to maximise feed availability. One of the earliest reactions of herders to deteriorating rangeland conditions at the onset of drought is moving animals to better environments, which are often further away or less accessible than those used in normal seasons. Rearrangement of herd supervision - splitting of herds or joining several herds together under a single herdsman - often accompanies this movement.

Unusual movement of livestock, and changes in the organisation of grazing are some of the earliest drought early warning signals and are key to identifying a livelihood threat. There are several areas where herders (pastoral and agro-pastoral) may be able to move their animals in an emerging drought crisis. They include dry season grazing areas, conflict areas, national parks and other conservation areas; areas across communities, counties and national borders; private and community ranches; and crop residues from rain-fed or irrigated cultivation.

Although successful movements of this sort depend largely on the skill and knowledge of the herder, the strategies require government, (national and county) support. The main activities that should be supported are facilitation of intra and inter-community/inter-county resource use negotiations and promotion of peace and security. Facilitation of favourable environment for migration to areas with pasture and water resources as well as stock market routes should also be considered for support.

3.1.2 Livestock off-take

Livestock off-take interventions are aimed at cushioning pastoralists against loss of valuable assets by offering price incentives. Livestock off-take programmes serve the following purposes in drought risk management:

- Protect, to a limited extent, market prices of animals, and thus livestock keeping.
- Protect the purchasing power of households to avoid complete economic collapse in pastoral and agro-pastoral areas.
- Reduce grazing pressure on rangelands at times of great stress.

Livestock off-take programmes take several forms depending on their timing in relation to the drought cycle, the resources available and the intended beneficiaries. Most off-take programmes fit within one of two categories:

(i) Accelerated commercial destocking/off-take

This entails the promotion of livestock sale through community sensitisation and awareness, provision of subsidies to livestock traders and access to financial services including credit facilities. Improvements in the provision of livestock market information and infrastructure development are critical in accelerated commercial destocking. Strengthening the capacity of the existing and established livestock marketing structures at all levels should be sustained to address social challenges in local livestock markets.

The objective is to preserve some of the declining value of the animal for the owner, and generally maintain market prices by stimulating and sustaining demand. This intervention should take place early in the drought cycle, ideally at *late alert* or *early alarm* warning stage. Such programmes should be led by the sector working group and supported by other stakeholders including the local community institutions, and most importantly, the private sector (local livestock traders) or county governments.

The emphasis is on increasing livestock volumes offered for sale by pastoralists in markets when their body conditions attract good prices as opposed to when they are poor. The intervention is an early preparedness initiative where pastoralists and other stakeholders need to work together to strengthen the livestock value chains to induce local functioning of livestock markets.

Provision of subsidies during commercial off-takes

In subsidised commercial off-take projects, government or development partners, directly or through traders or other actors, collaborate to stimulate functioning of the local markets. All actors along the value chain are considered, and the challenges they face and action points to address the challenges. The focus is mainly on increasing the volumes of livestock trade in local markets through buying animals (with cash or food), fattening them, and facilitating the transportation of sold livestock to terminal markets.

In addition to enabling herders to buy food for their households, subsidised off-take provides cash, which many herders reinvest in their remaining herd buying water, drugs, or extra animal feed. The subsidies can also be directed to the local livestock traders to remove barriers hindering access to the feeder and terminal livestock markets.

Commercial off-take subsidy programmes meet the following key minimums;

- Should be participatory; involving community, middle level livestock traders and government agencies.
- Targeting criteria should be transparent and agreeable across the livestock value chain actors.
- The intervention should demonstrate that the expected benefits trickle down to the producer/herder.



Emaciated livestock presented for emergency slaughter off-take in Kaloleni, Kilifi County, during the 2016-17 drought.

(ii) Emergency slaughter off-take

This intervention is taken as a last resort when there are clear indications of risk of significant livestock mortalities and the possibility of collapse of livestock markets unless the actions are taken. The intervention is recommended during the *alarm* stage and with deteriorating trends in declining livestock body conditions and prices. The meat from the emergency off-take may be distributed to vulnerable households or institutions from within the same locality.

Due to the large number of animals to be slaughtered, responsible agencies should put in place adequate hygiene and sanitation requirements such as the construction of slaughter slabs¹⁰ and disposal pits. Multi-sectoral teams (livestock, public health, water, Interior and coordination of national government, county governments, civil society organisations, private sector and local communities) should work together in the implementation of livestock off-take programmes.

The targeting process should be participatory, fair, inclusive and vulnerability-based. The off-take prices should be determined locally but above the market prices to achieve the objective of cushioning vulnerable households from drought shocks.

¹⁰ Refer to LEGS and SPHERE standards guidelines on hygiene and sanitation for slaughter livestock off-takes

Table 2: Main features of livestock off-take interventions and their timing in relation to the drought cycle management

EW stage	Interventions eligible for NDEF support
Normal	– Community sensitisation on need for commercial off-take – Infrastructure development in feeder and main livestock markets – Improvement of livestock market information system – Promote access to financial services and credit facilities – Sustain intra and inter-county disease surveillance – Establish and strengthen livestock value chain actors' forums, including livestock traders, to promote accelerated livestock off-takes and livestock value chains improvement – Public awareness creation
Early alert	– Continued community sensitisation on interventions – Support market-based off-take – Expansion of activities initiated under normal stage – Public awareness creation
Late Alert	– Support expansion of market-based off-take
Early alarm	– Support market-based off-take – Commence preparation for emergency livestock slaughter off-take – Conduct community and stakeholder mobilisation meetings on slaughter off-takes and related targeting criteria – Public awareness creation – Inspect and establish the status of the necessary infrastructure
Late Alarm	– Support slaughter off-take – Public awareness creation
Emergency	– Scale up slaughter livestock off-take – Public awareness creation
Recovery	– Scale down slaughter off-takes – Evaluation of response interventions – Public awareness creation

3.1.3 Veterinary services

Veterinary services play a critical role in drought management through provision of skilled personnel at different levels, and prophylactic and curative care.

Two categories of veterinary activity qualify for NDEF support;

- (i) Public sector interventions such as veterinary public health programmes including ring vaccination where livestock mobility is restricted by disease outbreaks, information gathering, surveillance and public awareness, as well as animal disease issues surrounding livestock trade and exports.
- (ii) Private sector and community-managed animal health services at local level.

Table 3: Warning stages and interventions — Veterinary care

EW stage	Interventions eligible for NDEF support
Normal	– Strengthen private partnerships in the field of veterinary health services – Provide for strategic disease control infrastructure, and promote inter-county and cross border disease surveillance and control mechanisms – Put in place framework contract for vaccine production – Public awareness creation
Early alert	– Support surveillance of livestock diseases related to drought – Support supervision and training of contact herders – Support preparation for ring vaccination campaigns – Promote inter-county and cross border disease surveillance and control mechanisms – Public awareness creation
Late Alert	– Support surveillance of livestock diseases related to drought – Roll out ring or mop up vaccination – Public awareness creation
Early alarm	– Support surveillance of livestock diseases related to drought – Close monitoring of livestock movement in concentration areas and markets – Roll out ring or mop up vaccination – Livestock disease monitoring for slaughter off-take – Public awareness creation
Late Alarm	– Support surveillance of livestock diseases related to drought – Subsidise key veterinary drugs and facilitate supply chain – Public awareness creation
Emergency	– Support surveillance of livestock diseases related to drought – Public awareness creation
Recovery	– Animal disease monitoring during restocking activities by communities and other partners – Public awareness creation

3.1.4 Supplementary animal feeds

Supplementary feeding of free-range livestock is often done where the pasture resources have been depleted. The activity is specifically aimed at saving the more valuable breeding animals, which form the nucleus from which the herd will recover after the drought.

Supplementary feeding projects require very careful design and feed supplements should ideally include high-density nutrients and concentrates. Provision of supplements should be combined with an off-take programme to focus the supplementary feeding on the most valuable animals and those most likely to survive the drought.

Supplementary feeding should be undertaken at mid or late drought crisis (early and late alarm and emergency stages). Activation earlier than this poses the risk of supplementary feeds being spread too thin through the herds and not focused on those animals which need it most. Clear targeting criteria should be developed with a clear objective of saving the targeted number from dehydration and starvation.

The core breeding stock is often held in special regard by the pastoral households and forms the immediate stock for herd size buildup during the *recovery stage*. Geographical targeting and actual numbers should be very clear, forming the monitoring framework baseline.

Table 4: Warning stages and interventions — Supplementary animal feeds

EW stage	Interventions eligible for NDEF support
Normal	– Promote production and storage of hay in areas where it will be used – Promote fodder as an irrigation crop – Invest in fodder seeds/planting material bulking – Promote innovation on diversification of livestock feeds – Public awareness creation
Early alert	– Develop framework contracts with livestock feeds suppliers for feeds prepositioning – Support the conservation and storage of fodder – Public awareness creation
Late Alert	– Map and determine the livestock feeds requirements for the affected hotspots – Develop and validate the targeting criteria – Public awareness creation
Early alarm	– Provide supplementary feed for core herd – Public awareness creation
Late Alarm	– Provision of livestock feeds to core herd – Public awareness creation
Emergency	– Scale up provision of supplementary feeds – Public awareness creation
Recovery	– Conduct monitoring and evaluation to establish the outcome and impact of the supplementary feeds.

3.1.5 Restocking

Restocking destitute or impoverished households after a drought can be an effective way to re-establish local livelihoods. Restocking aims at helping households that have suffered severe drought losses to rapidly bounce back into production.

Most pastoral and some agro-pastoral livelihood systems have their own customary restocking institutions which may be effective at circulating and redistributing livestock within the community. Key features in the design of an effective restocking scheme include:

- **Criteria for selection of beneficiaries** — This should factor in the number of animals remaining in the beneficiary household's herd compared to the number needed to return households to independent production. In general, it is better to target households with a surviving herd that is not too far below the threshold of viability.
- **Number of animals distributed** — Distributing very few animals results in a very slow return to normality, during which households are vulnerable to new disasters. Where it is decided to distribute a few animals to households (below 35 for small stock, 5 for cattle and camels), it is essential to also give cash to meet basic needs until the household herd has grown above threshold of viability, otherwise, people may be forced to sell some of the restocked animals.
- **Financial model** — Animals should be given as a gift. Giving animals to beneficiaries as a loan should be avoided during recovery stages of drought.
- **Species** — Livestock species identified for restocking should be adaptable to the environment.
- **Environmental considerations** — The programme design should not compromise environmental sustainability.
- **Beneficiary targeting** — This should ensure community participation, be fair and transparent.
- **Restocking herd** — It is recommended that livestock for restocking purposes are purchased from the same community or neighbourhood.
- **Diseases** — The programme should ensure that new animal diseases are not introduced. The process should also provide for veterinary services to the restocking herds where the animals are restocked from a different environment.

3.2 Water Sector

Access to safe and sufficient water is essential for people's sustenance and is a basic human need. Water is central to social-economic activities and well-being of the citizenry and provision of basic water needs is, therefore, central to government development agenda. During drought emergencies, it may be difficult for communities to access this basic right commodity in all its forms and parameters in as far as quantity, quality and accessibility is concerned.

In the various drought phases, stakeholders should endeavour to invest in both infrastructure and management components of water services. However, in drought emergencies, all efforts should be geared towards providing at least survival water needs to save lives and, where it is cost-effective, protect social-economic activities of drought-affected communities. Drought response interventions should endeavour to link relief and development, prioritising cost, timeliness and immediate impact to save lives and livelihoods.

Fast-tracking to fill infrastructural gaps or provision of emergency water tanks are good examples of linking relief and development. Poorly designed interventions for provision of supplies and fuel subsidies, on the other hand, may exacerbate existing poor management and lack of accountability by water management committees.

Correctly identifying and carrying out water works is a major task in county drought management and county contingency funds can, therefore, be used to support viable water interventions. Several types of water sources supporting human and social-economic activities as well as associated tasks are eligible for support under NDEF at different phases of the drought cycle. These include:

- **Deep and shallow hand wells** - Shallow wells are generally dug by groups of kinsmen and deep wells are in most cases dug by government technical services or contractors.
- **Sub-surface dams/sand dams** - To build up the water table in wadis/dry river beds.
- **Managed catchments**, especially rock and roof catchments where run-off is concentrated and channelled into storage tanks to support domestic and institutional water needs.
- **Surface water run-off capture structures**, including dams and pans, serve both domestic and social-economic activities.
- **Vendors/water trucking** from a distant source - This may be done by government or commercial operators.
- **Boreholes** (with pumps) are generally dug by government or major donors.

- **Springs, streams/river base water supplies** - These are mostly constructed by government, donors, humanitarian organisations and faith-based organisations.

Interventions during various drought phases related to these types of water sources should include improved management of existing water points, repairs, rehabilitation or equipping of existing sources, or construction of new sources. Catchment/environmental protection may be done as a stand-alone or integrated into the various interventions. Access, control, water demand management, regulation, intra/inter-county catchment activities, gender mainstreaming and water resource-based conflict reduction activities are eligible for funding under the NDEF.

Clear rules, guidelines and standards should be applied in the design of such interventions. Innovation and upscaling of tested good practices is encouraged, with emphasis on cost-effectiveness and efficiency of delivery for immediate impact.

Poorly/inadequately designed water interventions could lead to conflict, undermine existing management systems, resource wastage or trigger environmental degradation. Critical factors that can be taken into consideration include;

- Land ownership/technical competence in site selection, design, technology, and engineering.
- Gender sensitivity.
- Environmental consideration.
- Legal/approval process and management of the water supply once created.
- Location of new water points in relation to existing sources, since too dense a pattern will lead to overuse of vegetation and conflict.
- Community/beneficiary participation in site selection of new water sources.

Adequate management arrangements must be a part of every proposal for contingency funding involving water. Management rules must specify overall management responsibilities, access rules and level of cost recovery. Proposals for contingency fund support should be encouraged to adopt local contracting and procurement procedures, under which an increasing part of the work and responsibility is taken on by the beneficiaries themselves.

Stakeholders should emphasise on community implementation, where it is technologically viable, to enhance ownership and build organisation and management capacities. This is impossible for some tasks (e.g many

of those concerned with borehole construction and equipment), but is possible for others such as the construction of hand wells and rock catchments.

Innovative design, including use of green energy for water projects, should be encouraged and contingency funding could be used for this purpose. This includes interventions such as:

- Drought emergency deep wells and boreholes, which are normally closed and the pump removed, but which are opened during an emergency.
- Limited water trucking to temporary storage structures (e.g. plastic sheeting placed in a hand-dug pit), roofed storage tanks constructed by herder groups in remote and under-grazed areas.
- Programmes for supplying/stockpiling borehole fast-moving essential spare parts to maintain, service and, when necessary, repair pumps and generators.
- Training of local association members in technical aspects of water management, including water point construction, maintenance, servicing and repairing pumps and generators.
- Use of solar and wind energy.

3.2.1 Water trucking

Water trucking is expensive. A study in Ethiopia estimated that the cost of water trucking for animals was four times the cost for people.¹¹ The same study suggests that water trucking acts as a disincentive to the construction of permanent water points. The ecological impact of water trucking in keeping animals on the range until all fodder has been depleted is well known. Water trucking should, therefore, be treated with great care.

However, water trucking to schools with water storage facilities and are already storing water from roof catchments may be justified to forestall any disruption of learning or nutritional programmes or imminent closure. Schools serving as refuge centres when households have fragmented due to drought may also be considered for water trucking.

Counties should establish their own rules and guidelines to determine when water trucking is eligible for contingency funding. Such rules might include maximum distances from water sources, quantity allocated per person per day, and an understanding of strategic trucking to facilitate access to remote under-grazed pasture, especially where herders have

¹¹ Sandford and Habtu, 2000.

constructed covered water storage facilities. In this case, agreements to ensure that grazing stops before any ecological damage is done would be needed.

Water trucking has potentially serious implications for pasture tenure where water is delivered to herds without taking into account customary rights to those particular pastures. Any water trucking proposal supported by the NDEF must take into account the grazing rights in the area, and an assurance that customary rights are not being infringed.

Table 5: Warning stages and interventions — Water

EW stage	Interventions eligible for NDEF support
Normal	– Construct/rehabilitate strategic water sources¹² in under-provided areas to ensure optimum coverage during droughts – Rehabilitate existing water sources including spring development, water harvesting and construction of underground cisterns – Extension of supply lines to vulnerable segments/elements – Drilling, development and equipping of strategic boreholes – Feasibility / Hydrogeological studies – Public awareness creation
Alert	– Establish and regularly update an inventory of water sources and profiling of equipment to inform prepositioning of fast-moving spare parts – Support periodic maintenance of strategic boreholes – Activate emergency water repair teams/borehole rapid response teams – Stockpile fast-moving spare parts, including standby gen-sets – Trigger rehabilitation of water infrastructure – Support inter-community negotiations on water resources use – Ensure that water bowsers are ready for use – Public awareness creation
Alarm	– Support, where necessary, operational and maintenance activities – Limited water trucking to covered water storage installations and public institutions – Provision of standby generators to be used in case of major breakdown – Rehabilitation of shallow wells, including installation of hand pumps and well protection – Support rapid response teams to prepare repair of boreholes – Provision of strategic water storage tanks for isolated communities – Provision of fuel subsidies to boreholes with high livestock concentration – Public awareness creation
Emergency	– Up-scaling water trucking, especially to affected communities, schools, and health facilities – Provision of fuel subsidies for boreholes with high livestock concentration – Provision of fast-moving spares for boreholes/servicing of equipment – Provision of strategic water storage tanks for isolated communities – Public awareness creation
Recovery	– De-silting pans (food or cash-for-work) to restore holding capacity – Rehabilitation or replacement of overused pumps and other equipment – Rehabilitation of boreholes to improve efficiency – Public awareness creation

¹² Emphasis on 'strategic' – i.e. critical water sources only, identified through a mapping exercise.

3.3 Agriculture Sector

The immediate effect of drought on the farming sector is depressed crop production. Given the nature of climate variability, the frequency of drought has made rain-fed agriculture unsustainable in the ASALs. This, coupled with emerging land use and poor agronomic practices, has impacted negatively on crop production, in particular, and food security in general.

The most important drought interventions in agricultural livelihood systems include providing seeds, tools and equipment, and creation of agricultural capital assets such as rainwater harvesting systems. Soil conservation, rainwater harvesting and tree planting schemes may improve preparedness and ultimate resilience to drought shocks.

Assessment of planting seed requirements is essential during the alarm phase to determine the appropriate varieties and quantities required. The focus of the assessment should include: ¹³

- A quick farming and seed system profile in normal times based on the livelihood assessment.
- Farmer demands for seeds (quantity and timing).
- How customary seed distribution channels are working and whether, even in an emergency, there are seeds stored within the community which could be bought for local distribution rather than buying seeds elsewhere that may pose adaptation challenges or introduce new diseases.

The objective of the assessment is to match the priorities to response and should distinguish between chronic and acute stress, and immediate and longer-term needs.

Preparedness measures in agriculture can also be supported. These include:

- (i) Physical activities such as construction or repair of agricultural capital assets such as soil conservation.
- (ii) Micro-irrigation or rainwater harvesting systems and tree planting.
- (iii) Development of rural institutions specifically concerned with drought risk management such as cereal banks and seed banks, and emergency marketing cooperatives or micro-finance initiatives or DRM-related extension programmes.

¹³ See Maxwell et al, 2008

Food storage is also critical as a preparedness measure. In this regard, household and community risk management measures such as cereal banks and household cereal stores could be supported.

Value addition activities may be designed to increase the shelf life of agricultural products and take advantage of market opportunities. Value-added agriculture entails changing a raw agricultural product into something new through packaging, processing, cooling, drying, extracting or any other type of process that differentiates the product from the original raw commodity.

Provision of seeds and tools normally takes place at the end of the *emergency* phase and start of *recovery*. Other programmes to create livelihood assets are also likely to be needed at the start of the *recovery* stage and during the *normal* warning stage.

Table 6: Warning stages and interventions — Agriculture

EW stage	Interventions eligible for NDEF support
Normal	– Support cultivation of drought tolerant and early maturing crops – Support crop diversification for increased production and incomes – Support value chains and promote value addition – Support development of risk management institutions such as cereal banks – Support strategic post-harvest management of crops – Support development of integrated water and soil conservation infrastructure for production – Public awareness creation
Alert	– Support control of armyworms (e.g. purchase of pumps and chemicals, guidance on treatment) and other notifiable pests – Support control of quelea quelea infestation (e.g. facilitate response teams) – Support irrigation activities with micro-irrigation kits – Public awareness creation
Alarm	– Support integrated water and soil conservation infrastructure for production – Support seed and agricultural inputs requirements assessment for recovery phase – Public awareness creation
Emergency	– Preparedness for seed and tool distribution (e.g. procure seeds, tools, fertilisers and other inputs) – Link communities to social protection agencies – Public awareness creation
Recovery	– Emergency seed (including short cycle varieties) or tool distribution – Support community-led water harvesting technologies for enhanced crop production – Subsidise vulnerable farmers, e.g. in land preparation through provision of oxen ploughs, fuel – Linkage of communities to livelihood reconstruction programmes – Repair irrigation infrastructure and support irrigation where appropriate – Public awareness creation

3.4 Drought Shock-Responsive Social Protection

Droughts dramatically affect food availability, reduce pastoralist communities' purchasing power and destabilise livestock markets. The best strategy to cushion pastoral communities during droughts is through provision of direct incentives either in cash or in kind.

Most common social protection and safety net interventions are cash transfers to vulnerable persons, food rations, relief seeds and school feeding programmes. The purpose of safety net programmes is to save livelihood assets and cushion households from drifting into destitution. By instituting such strategies, households can 'bounce back better' in the event of worse drought.

3.4.1 Social protection programmes

Social protection is commonly understood as *"all public and private initiatives that provide income or consumption transfers to the poor, protect the vulnerable against livelihood risks and enhance the social status and rights of the marginalised; with the overall objective of reducing the economic and social vulnerability of poor, vulnerable and marginalised groups."*¹⁴

Except for the Hunger Safety Net Programme (HSNP), all social protection programmes in the country are not drought-responsive but address chronic poverty particularly the categorical poor. However, households receiving longer term social protection transfers, particularly cash, are better placed to deal with drought and its effects. Consequently, supporting the rollout of such programmes represents a key strategic preparedness action. Additional strategic preparedness actions in the social protection sector include:

- Supporting update of the Single Registry to understand the number and location of existing social protection beneficiaries so that gaps in geographic and demographic coverage can be mapped. Programmatic targeting will also be enhanced as well as building programme complementarity.
- Developing contingency budgets and mechanisms for filling these gaps in social protection programmes during times of crisis. Counties to domesticate national guidelines to clarify how these funds will be activated in their areas and utilised during drought.
- Development of guidelines to ensure that scalable social protection programmes e.g. HSNP and food aid can be prioritised for those most in need i.e. not already benefiting from an existing social protection transfer or are genuinely likely to need additional

14 Devereux & Sabates-Wheeler, 2004

support. For example, a very large vulnerable household may justifiably benefit from food aid in addition to, say, the orphans and vulnerable children cash transfer.

- Review beneficiary mapping and targeting mechanisms and guidelines for all programmes to ensure compatibility and complementarity. For example, review of the populations in need of food aid as informed by rapid assessments to account for numbers already benefiting from longer-term social protection transfers.
- Support of long-term livelihood programming that strengthens community resilience to drought and long-term food security. For example, supporting the most vulnerable communities to access food/cash for work programmes, other income-generating activities and savings and credit initiatives. An integrated approach is needed for cash transfers to sustain the good practices at household and community levels.
- Monitoring poverty and vulnerability of communities in all geographical areas to assess the most vulnerable to drought for targeting for relief assistance in addition to wider social protection transfers.

3.4.2 Scalability of social protection interventions for drought response

The scale-up of social protection interventions such as cash transfers should be done as the drought and food security situation evolves towards *alarm* and *emergency* stages of drought. NDMA shall establish the EWS trigger mechanism adopted for cash transfers based on the livelihood/sub-county that meet the vegetation condition index (VCI) threshold for cash transfers.

Thresholds for arid counties could be different from semi-arid counties because of the difference in vulnerability and drought resilience. The Authority shall further establish the degree of scale-up based on drought stage and vulnerability.

Activities for which NDEF funding may be requested during drought crises include:

- Scaling up HSNP cash transfer payments to additional households in a county experiencing drought shock within the existing four HSNP counties (Turkana, Marsabit, Wajir and Mandera) as per the scalability guidelines.
- Expanding the scale and duration of school feeding programmes in the most affected areas.

- Expanding school bursary/fee support to minimise school dropouts during drought crisis.
- Expanding supplementary feeding programmes in response to early warning and Health Ministry information system data highlighting malnutrition risks.
- Use of mapping and targeting tools to target temporary food and cash transfers to households in most need as a result of drought.
- Emergency cash-for-work schemes in areas where no other scalable systems are in place.
- Only those programmes that are scalable in response to drought can be funded from the response component of the NDEF.

(a) Principles of cash transfer scalability

The following are the principles that would guide decisions in expanding cash transfer coverage as a weather-related shock response instrument:

- (i) **'No-regrets' early response** — The HSNP infrastructure enables cash to be transferred to any or all HSNP households via bank accounts within approximately three weeks of a decision to scale up being made. This is a far quicker large-scale response than any other humanitarian distribution mechanism currently in place on the continent.
- (ii) **Objective triggers** — Decisions to scale up (or down) in response to drought are triggered automatically using objective, pre-agreed, quantitative and auditable indicators for which reliable, time series data exists. Using such data removes any possibility that subjective analysis or political influence can affect decisions during scale-up.
- (iii) **Scale-up to pre-defined sets of households based on poorest first** — Households in the drought-affected sub-counties are selected from the register in wealth order to avoid delays that arise by re-targeting as a crisis unfolds and ensure the poorest get resources first.
- (iv) **Independent monitoring** — Early response based on pre-targeting and an objective trigger may not be perfectly correlated to local impacts but is faster than any other current mechanism. The programme uses monitoring and independent evaluation to assess the impact of such swift payments and examine how the process can be continuously improved.

Satellite-based remote sensed data shall be the indicator for trigger of cash transfer scale-up to ensure objectivity.

(b) Financing of HSNP scalable cash transfers

Timely availability of funds is essential for scalability to take place on the basis proposed in the HSNP operations manual. NDMA has been supported by the World Bank Global Fund for Disaster Risk Reduction team to develop a financial model that uses NDMA VCI data and HSNP MIS data to calculate an estimate of the future long-term costs of scaling up HSNP.

The model has been used to generate the average annual costs of funding the HSNP based on the current guidelines using monthly VCI data for all HSNP sub-counties for the last 16 years. The Average annual cost for four drought-prone and poorest counties is estimated at Kshs 543 million.

Table 7: Warning stages and interventions — Social protection

EW stage	Interventions eligible for preparedness and response
Normal	– Registration of households and targeting (considering single registry) – Validation of targeting outcomes at village level – Establishment and strengthening of cash transfer infrastructure – Facilitation of registration for households without Identity cards – Review of scalability triggers and contingency plans updates – Establish levels of scalability based on drought severity – Facilitate referral and linkage to other social services – Public awareness creation
Alert	– Mobilisation of resources based on drought early warning information, – Registration, validation and cash transfer infrastructure development continues – Public awareness creation
Alarm	– Roll out scalability of cash transfers based on agreed objective within 20 days of the trigger values – Resource mobilisation – Post payment monitoring – Public awareness creation
Emergency	– Resource mobilisation – Increase scale-up following scalability procedures within 20 days of the trigger values – Post payment monitoring – Public awareness creation
Recovery	Scale down payments as informed by EWS triggers

3.5 Health and Nutrition Sector

Food insecurity has a direct bearing on the health and nutrition of communities especially children under five, lactating and pregnant mothers, the physically challenged and the elderly. During low food intake, the immune system gets compromised, predisposing vulnerable groups to opportunistic diseases. The situation is exacerbated by upsurge of diseases such as measles, typhoid, diarrhoea, eye infections, skin diseases, respiratory infections and HIV/Aids.

Health and nutrition are closely linked to “under-nutrition-infection cycle” in which diseases contribute to under-nutrition, making an individual more susceptible to diseases. The following are critical health and nutrition areas of focus during drought periods;

- Promotion of hygiene and sanitation practices.
- Support to nutrition surveillance and provision of supplements to targeted vulnerable groups such as children below five, pregnant and lactating women, and the elderly.
- Support to integrated health outreaches and mobile clinics.

Health and nutrition programmes need to develop strategies that ensure health and nutrition of vulnerable communities is addressed. Identification and implementation of interventions should take into consideration relevance, appropriateness and ease of adoption.

The role and participation of communities in drought risk management should be of utmost priority under normal times. These can be achieved by implementing community health strategy as a preparedness measure during the *normal* phase of drought cycle. This, in turn, builds community resilience through the empowerment of community units.

Table 8: Warning stages and interventions — Health and nutrition

EW stage	Interventions eligible for NDEF support
Normal	– Support setting up and or strengthen community health units for primary health care – Strengthen the technical and human resource capacity for healthcare workforce in health and nutrition service delivery through technical trainings – Review and update health and nutrition contingency plan – Initiate and roll out IMAM surge model in all ASAL counties and link with early warning information – Support hygiene and sanitation health campaigns (health promotion) – Support Community-led total sanitation initiatives – Improve equipping storage facilities for health and nutrition commodities – Improve water storage facilities for health facilities – Support dissemination of essential health and nutrition messages at community level – Strengthen/activate coordination structures at county and sub-county level including Multi Stakeholder Platform for nutrition-sensitive programme – Support routine stakeholder mapping through 4W matrix – Support advocacy actions at county level for increased budgetary allocations for nutrition (human resource, resilience interventions) – Strengthen Logistics Management Information System for nutrition commodity management
Alert	– Scale-up nutrition surveillance through the Integrated Disease Surveillance & Response and regular dissemination – Support assessments to establish health and nutrition status in hotspots/ flagged areas (nutrition surveys, rapid assessments) – Support mapping, prioritize and conduct of outreaches in the hard to reach areas – Support community health and nutrition awareness activities – health promotion – Strengthen school health programs (hygiene and sanitation, de-worming, vitamin A and growth monitoring) – Activate IMAM surge actions at health facility level and at sub-county level. – Support and coordinate with the Ministry of Education for outreach activities to ECD centres to enhance nutritional screening and referral – Support deworming of school-going children and under-fives – Support inter-county linkages for implementation of health and nutrition activities – Support hygiene and sanitation awareness campaigns – Support capacity assessments of health facilities and health and nutrition needs – Support nutrition surveys – Prepositioning of nutrition and hygiene and sanitation supplies
Alarm	– Intensify disease and nutrition surveillance and reporting to weekly – Scale up outreach sites and conduct integrated outreaches in hard to reach areas – Scale up school health programs (hygiene and sanitation, de-worming, vitamin A and growth monitoring) – Support community health and nutrition awareness activities – health promotion – Strengthen referral mechanisms from community to health facility and back – Distribution of water treatment chemicals to affected communities – Review and update health and nutrition response plan – Scale up coordination at county and sub-county level – weekly nutrition meetings – Distribution of health and nutrition commodities – Support stockpiling and prepositioning of health and nutrition commodities.

EW stage	Interventions eligible for NDEF support
Emergency	– Intensify disease and nutrition surveillance and reporting to weekly – Scale up implementation of integrated outreaches in hard to reach areas and to affected communities – Promotion of optimal maternal, infant and child-care (MIYCN) in emergencies – Monitoring breast milk substitute (BMS) code violation at all levels – Scale up school health programmes (hygiene and sanitation, de-worming, vitamin A and growth monitoring) – Intensify community-level health promotion activities (hygiene messaging) – Intensify IMAM defaulter tracing and referral mechanisms from community to health facility and back – Intensify distribution of water treatment chemicals – Intensify linkages between sectors (WASH and Health) for response - provision of water to institutions, social protection – food assistance to households with malnourished individuals – Intensify coordination at county and sub-county level – weekly nutrition meetings – Support recruitment and deployment of surge health teams for response.
Recovery	– Support evaluation through health and nutrition surveys to draw lessons learnt – Downscale micro-nutrient supplementation and monitoring of progress achieved, with target on hotspots – Support sharing of best practices and develop lessons learnt

3.6 Education Sector

Severe droughts disrupt learning in ASAL areas and contribute to high dropout rates in schools, thus affecting access, equity, and retention in the schools.

Cases of school dropouts and absenteeism increase as pupils leave school to assist their parents in herding, search for food or accompany them during migration in search of pasture and water. Others are forced to accompany their parents in search of employment and casual labour opportunities in far-away areas, which eventually affects school attendance and overall performance.

Cases of children from vulnerable households dropping out due to lack of fees also increase during drought periods as household purchasing power dwindles.

Schools can also play a direct role in drought management, providing a refuge for children whose parents can no longer feed them as well as acting as critical vehicles for dissemination of drought messages. Boarding schools, which offer continuity and uninterrupted education during drought periods, are not included in the school feeding programme and funds allocated under the free primary education are often delayed.

The main categories of interventions eligible for NDEF support in the educational sector are:

- Support to equipping of schools with rainwater catchment and storage systems to enable them to have an independent source of water.
- Support provision of large covered water storage tanks and cisterns to enhance water storage.
- Support equipping of strategic boarding facilities for both boys and girls in far off communities to accommodate influx from in-migration to ensure uninterrupted schooling during drought periods.
- Support school fees subsidies.
- Leverage schools as centres for dissemination of drought messages.

Equipping schools with roof rainwater collection systems and construction of covered water storage and boarding facilities can be done during a normal phase. Providing refuge for children starts in the *alarm* stage and continues into *emergency*. Support to school fees subsidies takes place in *emergency*, and in some cases in *alarm*.

Table 9: Warning stages and interventions — Education

EW stage	Interventions eligible for NDEF support
Normal	– Promote installation of roof top rainwater harvesting facilities and covered water storage tanks and cisterns in schools – Support equipping of strategic boarding facilities – Promote home grown school feeding programmes – Promote and equip mobile schools in nomadic areas and integration of skills training – Support skills development for youths/dropouts e.g. carpentry, record keeping, business, value addition – Support schools in adopting energy saving options to cut school operational costs – Support awareness creation on drought risk management
Alert	– Assess likely number of children who will need support in event of major drought – Support to needy schools for development of water storage facilities – Support nutrition screening in ECDs – Support promotion of good sanitation and hygiene practices – Support awareness creation on drought risk management

EW stage	Interventions eligible for NDEF support
Alarm	– Support limited water trucking to schools facing water shortage – Support provision of non-instructional materials and facilities (e.g. mattresses, chairs) to boarding schools which experience increase in numbers – Provide additional support to mobile schools, e.g. food, water and storage facilities – Support mass screening in children under five years including those in ECD – Support awareness raising on good sanitation and hygiene practices – Liaise with security agencies to secure schools in conflict (resource-based) hotspots
Emergency	– Support provision of temporary boarding facilities – Support mass screening of children under five including those in ECDs – Support promotion of awareness on good sanitation and hygiene practices – Support supplementary and therapeutic feeding targeting malnourished children in ECDs and other feeding centres – Support targeted water trucking to schools facing water shortage
Recovery	– Evaluation of response interventions – Plan 'bounce-back' interventions – Promote implementation of activities in schools for learning how to minimise the effects of drought

3.7 Peace and Security Sector

Peace and human security are pre-requisites for investment, development, and facilitation of pastoral livelihoods, including mobility for trade and access to resources. However, conflicts are a regular feature in Kenya's drylands, and drought and climate change make it even worse.¹⁵ Conflict exacerbates the effects of drought and it's during times of natural resource scarcity that their frequency and intensity increase in tandem with migration.

Successful management of conflicts in situations where outsiders are not involved, would require the full involvement of all significant local institutions and sources of power and influence including the national and county administration, customary authorities and elders, associations of women, warriors and young people. The following steps should be followed:¹⁶

- Build mutual trust between the organisations and institutions concerned through unconventional ways such as football matches, peace marathons, peace in education and drama between competing groups.
- Beware that women often have a critical role in dispute creation and settlement, thus need to involve them from the beginning.
- Support elders and local institutions in following customary procedures for conflict resolution, including customary rituals for dispute settlement.

- Identify unresolved past disputes and perform appropriate rituals to settle outstanding quarrels from the past.
- Involve the police, army, and political leadership and elite in joint meetings and activities with customary authorities to create a united front.
- Where conflict is mainly concerned with natural resources, ensure that such meetings and activities are carried out in the field where the young men, who are the main combatants, are.
- Pay special attention to the problem of cross-border conflict resolution.
- Pay attention to the role of the elite/social media.
- Emphasise on win-win arrangements/give-and-take spirit.
- Presumed natural resource windfalls.
- In your design, you may interrogate if there are safe havens outside the conflict zone (cross border dynamics).

Table 10: Warning stages and interventions — Peace and Security

EW stage	Interventions eligible for NDEF support
Normal	– Support initiatives for youth income-generating activities in hotspots e.g. peace dividend projects – Promote traditional resource sharing practices – Map conflict hotspots and migratory routes/patterns and shared resources – Support review of community declarations where necessary e.g. Modogashe and Maikona declarations
Alert	– Intensify resource sharing agreements/negotiations – Promote inter-community peace dialogue campaigns
Alarm	– Intensify peace building efforts/ peace campaigns in conflict flash points using trusted mediators – Negotiate and open up restricted parks/reserves/private ranches – Support cross border negotiation meetings – Public awareness/Dissemination of information on ongoing interventions/negotiations
Emergency	– Intensify peace building efforts in conflict flash points using community trusted mediators
Recovery	—

3.8 Drought Response Coordination

Coordination structures at both national and county levels should work in harmony to ensure effective coordination of drought preparedness and response activities. Coordination structures at the national level include the KFSM and Kenya Food Security Steering Group (KFSSG). At county level, CSGs provide leadership across sector working groups to coordinate drought risk management activities.

While CSGs and their sector working groups handle overall coordination at the county level, sub-county CSGs provide leadership in drought risk planning, implementation, and monitoring and evaluation at community level.

The CSG sector working groups are responsible for development and review of drought contingency plans, which outline sectoral preparedness and response strategies to be activated during the early alert phase. Technical working group members at sub-county and Ward levels should facilitate communities to develop and update drought contingency plans that highlight community drought risk management priorities and that inform CIDPs and contingency plans.

Besides holding monthly CSG meetings, sector working groups should endeavour to meet fortnightly to provide leadership in their respective sectors on matters relating to drought and climate change. For example, the working groups should develop necessary frameworks to guide other partners and, most importantly, clear SOPs for use by actors at the county level.

The sector working groups should also domesticate the monitoring and evaluation framework based on their context and use it for tracking of drought preparedness and response interventions.

SECTION 4: MONITORING AND EVALUATION OF DROUGHT RESPONSE INTERVENTIONS

A participatory monitoring and evaluation framework will be developed to track progress and assess the efficiency and effectiveness of drought response activities. The participatory monitoring and evaluation framework should be anchored on the key tenants of sound monitoring and evaluation that include relevance, efficiency, effectiveness, impacts on beneficiaries and sustainability. Some of the key indicators of effectiveness include;

- 'No-regrets' early response actions by actors addressing drought shocks.
- Increased drought preparedness and readiness mechanisms in place for drought eventuality.
- Reduced number of people vulnerable to drought shocks.
- Reduced proportions of livelihoods assets that are vulnerable to drought shocks.
- Efficient and effective drought response and coordination mechanisms at national, county and community levels.
- Costs effectiveness of drought response interventions (value for money).
- Appropriateness and prioritisation of drought response actions by actors.
- Progressive improvements in drought response systems and actions.
- Reduced malnutrition rates in drought affected hotspots.
- Increased transparency and accountability systems at all levels for effective drought response.
- Improved targeting based on vulnerability and drought phase.
- Drought response activities linked to sustainable development.

4.1 Drought Response Monitoring and Evaluation Framework

SECTOR	ACTIVITY	INDICATORS OF ACHIEVEMENT BY DROUGHT EARLY WARNING STAGE					RECOVERY
		NORMAL	ALERT	ALARM	EMERGENCY		
LIVESTOCK	• Livestock migration	• Strategic pasture reserves conserved • Migratory routes agreements developed	• Dry season grazing areas accessed by pastoralists • Migratory corridors accessed	• Access to pasture and water resource increased • Natural resource-based conflicts reduced • Access to terminal markets increased	• Reduced incidences of natural resource-based conflicts • Pastoralists access to insecure zones, including cross-border, increased	• Increased conservation of dry season grazing zones • Increased rangeland rehabilitation • Increased access to migration routes back to settlements	
	• Livestock off-takes	• Increased preparedness to drought shocks • No. of livestock off-takes infrastructure established	• Increased number of pastoralists willing to destock • Increased volumes of livestock destocked	• Number of livestock targeted for off-takes • Number of livestock mortalities due to starvation reduced	• Reduced livestock mortalities	• Increased livestock herd sizes	
	• Animal health	• Increased community involvement in disease surveillance	• Number of livestock treated • Decreased livestock morbidity	• Decreased livestock morbidity • Number of livestock markets functional • Number of livestock supported	• Decreased livestock morbidity • Decreased livestock mortalities • Decreased livestock mortalities	• Increase in herd size build up	
	• Livestock feeds supplementation	• Increased production of livestock feeds	• Quantity of livestock feeds stock piled	• Number of functional strategic water sources • Number of beneficiaries rehabilitated	• Number of functional strategic water sources • Number of beneficiaries • Reduced water trucking activities	• Number of water facilities reconstructed	
WATER	• Provision of water for domestic and livestock use	• Increased water resource infrastructure • Improved water resource governance	• Number of functional strategic water sources • Number of beneficiaries • Number of water sources rehabilitated	• No. of HHs targeted for food aid	• No. of HH targeted for food aid	• No. of HHs in need of food aid scaled down	
AGRICULTURE	• Drought tolerant crop production	• Increased yields at HH level • Increased adoption of technologies • Increase in water harvesting and irrigated land	• Decreased losses due to post-harvest handling • Strategic cereal reserves established • Reduced number of HHs in need of food aid	• Reduced morbidity rates on water diseases • Number of HH accessing health services through health outreaches	• Reduced morbidity rates on water diseases • Number of HH accessing health services through health outreaches	• Reduced morbidity rates	
HEALTH & NUTRITION	• Hygiene and sanitation	• Decreased morbidity rates due to water-borne diseases • Increased hygiene and sanitation facilities • Increased awareness on hygiene and sanitation at HH and institution levels	• Reduced morbidity rates • No. of HH and institutions with access to clean and safe water	• Reduced morbidity rates on water diseases • Number of HH accessing health services through health outreaches	• Reduced morbidity rates on water diseases • Number of HH accessing health services through health outreaches	• Reduced morbidity rates	
	• Nutrition interventions	• Increased nutrition awareness • Normalised malnutrition rates	• Normalised malnutrition rates	• Reduced malnutrition rates • Number of vulnerable groups targeted for nutrition supplements	• Number of vulnerable groups targeted • Reduced malnutrition rates	• Reduced malnutrition rates	

4.1 Drought Response Monitoring and Evaluation Framework (Continued)

SECTOR	ACTIVITY	INDICATORS OF ACHIEVEMENT BY DROUGHT EARLY WARNING STAGE				
		NORMAL	ALERT	ALARM	EMERGENCY	RECOVERY
EDUCATION	Hygiene and sanitation in schools	- Increased hygiene and sanitation facilities - Increased number of institutions with access to clean and safe water	- Normalised enrolment rates - Number of institutions with water reserves	- Reduced school drop outs due to water shortages - Reduced number of schools closed due to water shortages	Reduced school closures due to acute water shortages	Increased hygiene and sanitation facilities in institutions
	Nutrition intervention in schools	- School feeding programmes supported - Increased awareness on nutrition in ECDs - Normalised malnutrition rates	- No. of schools with food reserves - Normalised malnutrition rates	Reduced malnutrition rates among school children	- Reduced malnutrition rates in schools - Number of children benefiting from nutrition supplementation	Reduced malnutrition rates
PEACE & SECURITY	Peace promotion for ease of pastoral mobility	- No. of intra/inter-community dialogues on peace - No. of agreements developed and adopted - No. of functional peace committees	- Reduced insecurity incidences - Increased access to natural resources and markets - Resource use agreements developed and adopted	- Reduced conflict incidences - Functional resource use agreements - Improved access to insecure dry season grazing areas	- Reduced incidences of insecurity - Improved access to insecure dry season grazing areas	Improved access to migratory corridors
	Food aid	Strengthened community institutions	No. of HHs in need food aid identified	No. of HHs and institutions benefiting from food aid	- Increased number of HHs benefiting from food aid - Reduced malnutrition rates among vulnerable groups	No. of beneficiaries scaled down
SOCIAL PROTECTION	Cash transfers	- Data registries updated - Cash transfers infrastructure developed - Functional referral system	- Updated data registries - Beneficiaries identified through community-based targeting	No. of beneficiaries benefiting with cash transfers	No. of beneficiaries scaled up	No. of beneficiaries scaled down

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