



THE REPUBLIC OF UGANDA

Review and Analysis of Existing Drought Risk Reduction Policies and Programmes in Uganda

National Report on Drought Risk Reduction Policies and Programmes

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MINISTRY OF AGRICULTURE ANIMAL INDUSTRY AND FISHERIES
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DEPARTMENT OF DISASTER PREPAREDNESS AND REFUGEES



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NATIONAL REPORT ON DROUGHT RISK REDUCTION POLICIES AND PROGRAMMES

February 2008

Ministry of Agriculture Animal Industry and Fisheries –

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Department of Disaster Preparedness and Refugees



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It is our sincere hope that this report will lead to programmes policies and legislation that will contribute to building resilience of Ugandan communities to natural disasters especially drought thus enhancing achievement of the millennium development goals (MDGs) and sustainable development.

Ms Annunciata Hakuza
Ministry of Agriculture Animal
Industry and Fisheries

and

John Waita
Drought Risk Reduction Expert
Acacia Consultants Ltd.

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EXECUTIVE SUMMARY

This report is a joint effort of the Ministry of Agriculture Animal Industry and Fisheries and the Office of the Prime Minister – Department of Disaster Management with support from the United Nations International Strategy for Disaster Reduction (UN-ISDR) Africa Office and Acacia Consultants Ltd. It outlines the findings and intervention options for Drought Risk Reduction, based on the review and analysis of existing national level Disaster Risk Reduction policies and drought management programmes implemented in the country by the government, development partners; the local community and other stakeholders. The analysis has taken into account the following:

a) Experienced Disasters and their Impact for the Country

The major naturally triggered disasters that Uganda faces include: drought, floods, landslides, earthquakes; disease epidemics and pest infestation. The human induced disasters that have aggravated the impact of natural disasters include wild fires (particularly within the dryland grazing areas), ethnic conflicts and wars. Climate change has had impact on the people's health, while drought has adversely impacted on the national economy, community livelihoods, food security and nutritional status of the local population; on the environment and natural resources, and on the communities' capacity for coping with disasters.

b) National Disaster Policy and Legislation and Implementation of the Hyogo Framework of Action (HFA)

In year 2007, Uganda revised the National Disaster Management and Preparedness Policy and Institutional Framework 2002, but the country has no comprehensive national disaster management plan. The focus and investment for Disaster Risk Reduction has been on emergency response. The country has embarked on implementation of some aspects of the Hyogo Framework for Action (HFA) through the revised National Disaster Risk Reduction and Management (DRRM) Policy and institutional framework. Some elements of the HFA have been integrated in the National Development Plan referred to as the Poverty Eradication Action Plan (PEAP).

c) Drought Risk Reduction Policy Framework and Programmes

Some drought management related policies, plans and programmes are in existence. However, the concept of Drought Risk Reduction and particularly the related aspects of drought preparedness, resilience enhancement, sustainable food security, and livelihood diversification and strengthening have not been accorded the necessary status as key elements in enhancing resilience against drought risk. Although the plans for mainstreaming Drought Risk Reduction are in progress, the necessary policy and budgetary/funding support, governance and institutional frameworks are yet to be actualized.

SWOT analysis was undertaken on drought policies and programs for Uganda. The SWOT reviewed the following:

- √ Drought risk reduction for Uganda,
- √ Institutional structures for NDRRM policy,
- √ Coordination for disaster/drought risk reduction initiatives,
- √ Funding/Budgeting,

- √ Human resources capacities,
- √ Legal framework for disaster/drought risk reduction and management,
- √ Political economy of drought

The salient findings of SWOT include:

- Lack of national policy, strategies and plans, and inadequate budgetary and other resource allocations for Drought Risk Reduction
- Weak coordination of drought management initiatives due to lack of National Platform for Drought Risk Reduction
- Lack of community awareness and participation in implementation of drought programmes at community level
- Lack of insurance on disasters in general and drought in particular.

The consultants listed the best practices and lessons learnt the Uganda drought risk reduction initiatives. The best practices identified includes use community based approach in afforestation and livestock programs, enhancing rapid information dissemination at community level by use radio and internet, adopting of new drought management technologies and practices developed from initiatives (being a member of the global village) etc. The consultants also listed about eleven lessons learnt that range from drought prevention, preparedness to use traditional drought coping mechanisms.

While consultants concluded that Uganda has made substantial progress toward developing Disaster Risk Reduction Policy, there are gaps that need to be addressed to tighten the policy. The legislation for the disaster/drought risk reduction policy is urgently needed to address the emerging issues related to drought as a disaster. Among the key recommendations made includes enacting of the national drought policy and undertaking the requisite actions that hasten its implementation that includes:

- √ Resource mobilization and allocation,
- √ Setting strategies for enhancing communities resilience to drought
- √ Improvement of coordination for implementation of drought programs
- √ Putting in place a program for enhancing capacity building for the human resources
- √ Setting drought preparedness and contingency planning mechanisms
- √ Balancing long term emergency response and short-term development programs etc.

List of Acronyms/Abbreviations

AU	- African Union
BCPR	- Bureau for Crisis Prevention and Recovery
CAHW	- Community Animal Health Worker
CAP	- Community Action Plan
CCA	- Common Country Assessment
CSO	- Civil Society Organization
DDC	- Dryland Development Centre
DDPR	- Department of Disaster Preparedness and Refugees
DEAP	- District Environment Action Plan
DNA	- Designated National Authority
DRR&M	- Disaster Risk Reduction & Management
EM-DAT	- Emergency Events Database
ENR	- Environment and Natural Resources
EU-ACP	- European Union –African, Caribbean and Pacific countries
FAO-AGL	- Food and Agriculture Organization/Land and Water Development Division
FFA	- Food for Assets
GEF	- Global Environmental Facility
HFA	- Hyogo Framework for Action
HPG	- Humanitarian Policy Group
IDDP	- Integrated Dryland Development Programme
IGAD	- Inter-Governmental Authority on Development
KLDF	- Karamoja Livestock Development Forum
LVEMP	- Lake Victoria Environment Management Project
MAAIF	- Ministry of Agriculture, Animal Industry and Fisheries
MDG	- Millennium Development Goal
MFP&ED	- Ministry of Finance, Planning & Economic Development
MLWE	- Ministry of Lands, Water and Environment
MWE	- Ministry of Water and Environment
NAP	- National Action Plan
NAPA	- National Adaptation Programmes of Action
NCCS	- National Climate Change Secretariat
NCCSC	- National Climate Change Steering Committee
NDP	- National Development Plan
NDRRM	- National Disaster Risk Reduction and Management
NEMA	- National Environmental Management Authority
NGO	- Non-Governmental Organization
NPDRM	- The National Platform for Disaster Risk Reduction and Management
OCHA	- Organization for Coordination of Humanitarian Assistance
OFDA	- Office of U.S. Foreign Disaster Assistance
OPM	- Office of the Prime Minister
PEAP	- Poverty Eradication Action Plan
RANET	- Radio and Internet

SWOT	- Strengths, Weaknesses, Opportunities and Threats
UNCCD	- United Nations Convention on Combating Desertification
UNDAF	- United Nations Development Assistance Framework
UNDP	- United Nations Development Programme
UNEP	- United Nations Environmental Programme
UNFCCC	- United Nations Framework Convention on Climate Change
UNICEF	- United Nations Children's Fund
UNISDR	- United Nations International Strategy for Disaster Reduction
WFP	- World Food Programme
WMO	- World Meteorological Organization

1. INTRODUCTION

1.1 Rationale for Review and Analysis of Uganda Drought Policy

1.1.1 Drought Policy Study Context

This study has entailed review and analysis of existing national level Disaster Risk Reduction policies and programmes including those of the government, bilateral and multi-lateral agencies as well as non-governmental organizations. The key outputs are the specific analyses on policies and programmes on Disaster Risk Reduction and outlines of intervention options to accommodate current climate / drought trends and institutional settings made to the relevant authorities within the country. The outputs are crucial for the timely and efficient implementation of strategic technical activities for Uganda's programmes on Drought Risk Reduction.

The accrued report will advise on the development of Concept Note on Drought Risk Reduction policy framework for the Horn of Africa under the auspices of the Inter-Governmental Authority on Development (IGAD). The major output of the Drought Risk Reduction policy and programme review and analysis include recommendations and outline of opportunities for interventions aimed at enhancing communities' preparedness and mitigation capacities and reducing their vulnerability to drought. This would be reflected in communities' full awareness on drought risks; enhancement of political commitment and development of drought policy; designing, planning, funding and implementation of short and long-term drought programmes.

1.1.2 Addressing the Need to Relate Drought Risk Reduction to the ISDR and HFA

The study has taken into account the fact that drought is one of the natural hazards that are being considered in the implementation of the International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework for Action (HFA). And while drought has historically been treated as an emergency or disaster, recent experience strongly suggests that intensified focus on investment in national institutional frameworks for drought risk reduction using longer term drought-related programmes would be more effective than short term drought emergency response (UN-ISDR/UNDP-DDC/UNDP-BCPR, 2006). In this regard, the review and analysis of Uganda's National Drought Policies and programmes will address the complex impacts caused by drought disasters in the country (UNISDR/NDP-DDC/UNDP-BCPR, 2006).

This study has also taken into account the provisions of the proposed policy guideline on Drought Risk Reduction drawn from the Hyogo Framework for Action (HFA) which is aimed at promoting coordinated efforts to build resilience to drought in the drought prone countries/regions (UNISDR, 2007). The study is also aimed at supporting the process for strengthening of coordination mechanisms and harmonizing policies on Drought Risk Reduction in the country, and is focused on the highlights by Ministerial recommendations made at the 1st African Platform (UNISDR, 2007) and the 1st Global Platform on Disaster Reduction (UNISDR, 2007) emphasizing the need to accelerate support for addressing risks arising from hazards of particular significance to Africa (including Uganda). Such hazards include droughts which are projected to increase as a result of global climate change.

1.1.3 *The Need for Assessing Progress on Development of Supportive Drought Policies*

The study has been designed to ensure that the effects of drought are effectively incorporated in the broader progress in the socio-economic and political development of Uganda, and that drought is included among the natural hazards to be considered in implementing the International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework for Action (HFA) to which Uganda is a signatory (UNISDR/UNDP-DDC/UNDP-BCPR (2006)). In this regard, the review and analysis of Uganda's National Drought Policy is required to address the complex impacts caused by drought disasters in the country. Notably, it has been deemed imperative to address the possible gaps on drought policy; lack of adequate policy frameworks, or failure to implement drought policies which may in effect restrict development of the major sectors that are usually adversely affected by drought (these include agriculture, health, education and environment among others). There is also urgent need for establishing the links between Drought policy and other development policies which support food security, environmental protection, land use and land tenure that may alleviate resource based conflicts and reduced productivity.

1.1.4 *Linking Drought Policy to Development in Uganda*

Comprehensive development policies, which support food security, environmental protection, land use and land tenure, are missing or inadequate in the region, including Uganda. As priority, there is urgent need for putting drought near the centre of sustainable development and risk reduction priorities in order to increase net resilience to the impacts of drought, whilst advancing other development objectives aimed at improving and sustaining the welfare of the vulnerable and the wider community (Trench, et al; 2007). The goal for enhancing the capacity of the local community in efficiently and effectively dealing with drought disasters is to increase its coping capacity during drought when the resources are scarce and also during the times of plenty in order to exploit the available opportunities for livelihood improvement. This will lead to greater resilience and a reduced need for the unsustainable interventions by the government, donors and other stakeholder in the form of drought disaster assistance.

1.1.5 *Linking Drought Risk Reduction Interventions to Development Activities*

The Government of Uganda has recognized that drought risk reduction interventions are development activities and that the country's development strategies and programmes need to be disaster risk sensitive to avoid/ minimize the negative impacts of natural and man-made hazards on its citizens' livelihoods (Owor, 2005). The country also recognizes the fact that given the destruction and losses disasters (including drought) can cause and the high costs of helping out people to recover, sustainable development cannot be achieved without addressing issues of disaster risk reduction in a comprehensive manner. This also tallies with the observed need for putting drought near the centre of sustainable development and risk reduction priorities in order to increase net resilience to the impacts

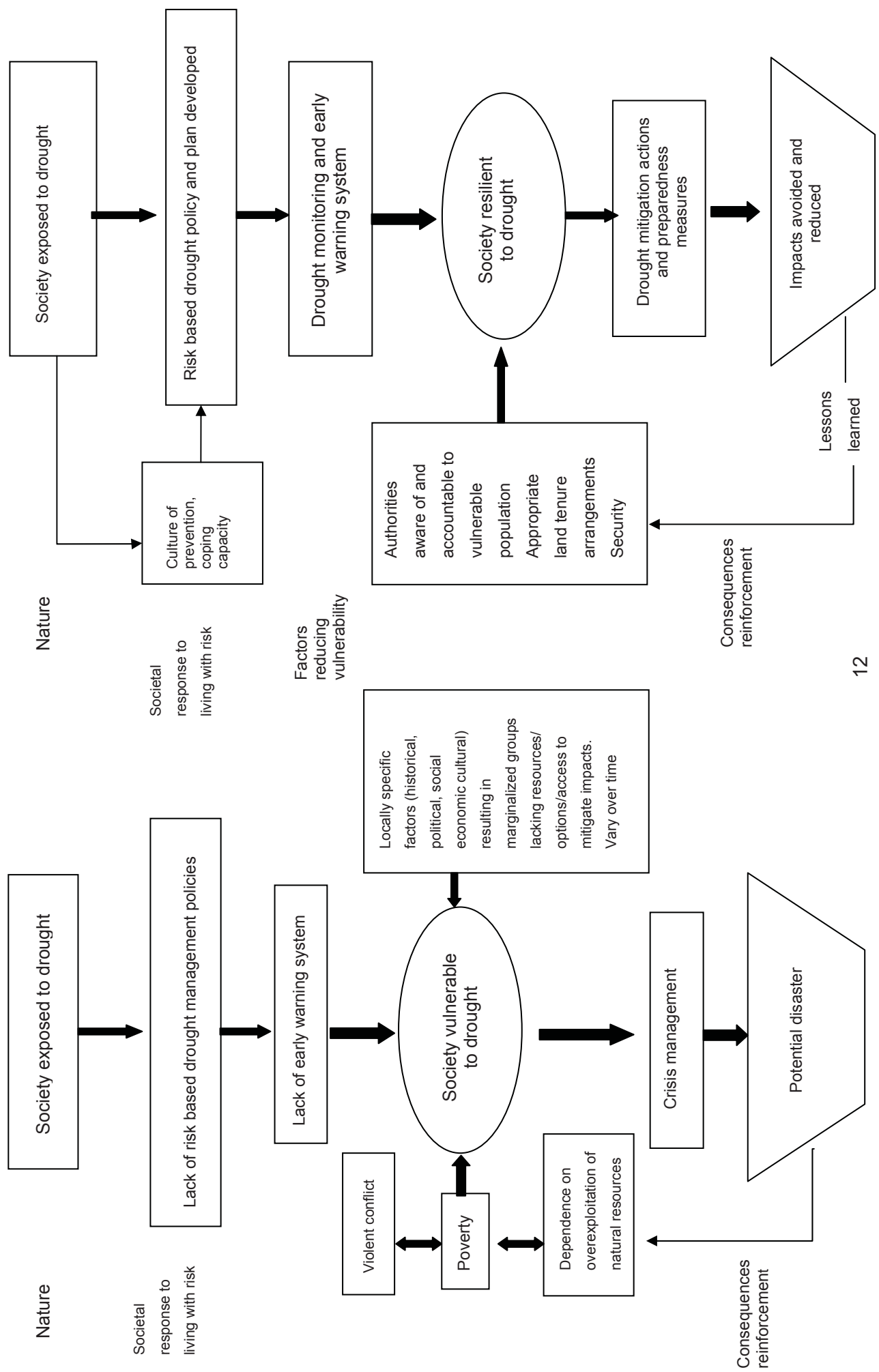
of drought, whilst advancing other development objectives aimed at improving and sustaining the welfare of the vulnerable and the wider community (Trench, et al; 2007).

The goal for enhancing the capacity of the local community in efficiently and effectively dealing with drought hazards, and to increase its coping capacity particularly during drought when the resources are scarce is one of the major challenges that call for guideline policy. This would lead to greater resilience and reduced need for the unsustainable interventions by the government, donors and other stakeholder in the form of drought disaster assistance. In this regard, the Uganda Government and other stakeholders have deemed it essential to pay greater attention on the need for a country policy that is directed at Drought Risk Reduction, and to guide the efforts for building of institutional capacity at national and local levels, with a view to facilitating effective drought preparedness and mitigation programmes. The reviewed policies and programmes are those intended to address the key challenges facing Uganda in the context of Drought Risk Reduction and in the context of the country's social and economic development. This report serves the purpose for informing on the key emerging issues from the Review and Analysis of Drought Risk Reduction Policies and Programmes of the country.

1.1.6 Enabling the move from Drought Disaster Response to Drought Risk Reduction

The Uganda Government and other stakeholders have acknowledged the need for a country policy that is directed at Drought Risk Reduction, and to guide the efforts for the building of institutional capacity at national and local levels, with a view to enabling effective drought preparedness and mitigation programmes among communities that are highly vulnerable to drought and other natural disasters (see also **Figure 1** below). In view of the increase in drought vulnerability in Uganda and the challenges posed by drought to the development agenda for the country, Disaster Risk Reduction and Management is being adopted as the way forward in combating the potential adverse effects of drought and other disasters.

Figure 1: Characteristics of Drought Vulnerable and Drought Resilient Societies (Source: UN/ISDR Secretariat, 2007)



2.0 BACKGROUND INFORMATION

2.1 Country Background

2.1.1 Uganda's Geographical Profile

Geographically, Uganda is a land-locked country that occupies 241,038 square kilometers, of which open water and swamps constitute 43,941 square kilometers, and land area, excluding open water and swamps constitutes 197,097 square kilometers (Twinomugisha, 2005). Uganda has a total population of 24.6 million persons. The population has increased by of 7.9 million persons over a period of about 12 years (national census of 2002). This was the highest Uganda's inter-censal increase ever registered in the post-independence period.

The country's relief lies at an average height of 1,200 meters above sea level with the minimum altitude of 620 meters (within the Albert Nile) above sea level and the maximum altitude is 5110 meters (Mt. Ruwenzori Peak). Uganda is well endowed with fresh water resources; among others, significant water features such as River Nile, the longest river in Africa has its sources at Lake Victoria, which is also, the largest lake in Africa. The vegetation is mainly composed of Savanna grassland, bush land and tropical high forests. The country experiences moderate climatic conditions throughout the year with rainfall level ranging from 750 to 2000 mm per year.

2.1.2 Socio-Economic Status

Uganda has registered progress that is reflected in macro-economic growth and stability in social conditions. This is based on agriculture which is the backbone of the country's economy, and constitutes about 42% of GDP, over 90% of export earnings and employs about 81% of the labour force (Twinomugisha, 2005). The lives and livelihoods of the local population are dependent on agricultural production which is sensitive to climate variability and climate change. The effects of climate change on agricultural production have been characterized by reduced agriculture production.

2.2 Country's Disaster Profile

2.2.1 Uganda's Vulnerability to Climate Change Hazards

Uganda is a country whose economy relies heavily on its major agricultural cash crops (including coffee), and is thus among the African countries that are vulnerable to climate change (UNFCCC, 2006). The country is apparently more vulnerable to climate change hazards due to her low adaptive capacity to adverse effects therein. The adverse effects of climate change in Uganda include droughts and floods. These have been experienced in the last few decades due to an increase in the frequency and intensity of extreme weather. With rampant poverty, weak institutional capacity, lack of skills on Climate change adaptability and inadequate skills in disaster management, lack of equipment for disaster management, limited financial resources and above all an economy which depends entirely on exploitation of its natural resources.

2.2.2 Natural Disasters Experienced in the Country

Uganda has witnessed various naturally triggered and human induced disasters, examples of which include earthquakes, landslides, floods, construction accidents, fires, ethnic conflicts and wars, drought and pests (OPM, 2007). The relief and rehabilitation phases of disaster response have previously been the main focus of disaster management in the country. The table below highlights some of the recent disasters that have occurred in Uganda.

Summary of Disasters that have affected Uganda

Type of Disaster	Date	No. of People Affected
Flood	15 – Aug - 2007	718,045
Drought	Mar - 2005	600,000
Drought	June - 2002	655,000
Drought	Aug - 1999	700,000
Drought	Jan - 1998	126,000
Epidemic	26 – Nov - 1997	100,000
Flood	14 – Nov – 1997	153,500
Earthquake	6 – Feb - 1994	50,000
Drought	Dec - 1987	600,000
Drought	1979	500,000

Source: EM-DAT: The OFDA/CRED International Disaster Database, 2007

2.2.3 Effect of the Major Disasters Experienced in the Country

Climate change has already had a direct impact on people's health in Uganda. Changes in temperatures and precipitation have supported the spread of malaria epidemic in the country. For instance, malaria has escalated in southwestern Uganda where temperatures have changed and increased in the recent time. Similarly, poor agriculture production due to floods has led to water-borne diseases such as malaria, cholera, and dysentery among others.

2.3 Country's Drought Profile

2.3.1 Extent of Drought Hazards

In recent years, Uganda has experienced cyclical (within a range of 10 to 12 years), frequent and severe droughts in most parts of the country, especially the northern and western parts which were particularly seriously affected. This has made the affected regions chronically food insecure (OCHA, 2006). The situation has been aggravated by the fact that global warming and deteriorating regional weather conditions have resulted in many parts of Uganda receiving decreasing amounts of rainfall. On the other hand, desertification is expanding making Uganda more prone to drought.

2.3.2 Drought Risk and Vulnerability

Due to global warming and deteriorating regional weather conditions, many parts of Uganda are receiving less rainfall than they used to (UNISDR, 2007). The water table has gone down and water levels in major lakes have reduced. The Sahara Desert is expanding further south making Uganda more prone to drought and water shortage. And as is the case with other countries in the Horn of Africa, the risk associated with drought for the communities in the drought prone areas of Uganda is a product of the exposure to the natural hazard and their vulnerability to its frequent occurrence (ISDR, 2007).

2.3.3 Drought Preparedness and Contingency Planning

There are disaster contingency plans in place at national level, and at community level in the disaster prone districts numbering 30 out of 56 disaster prone districts (DDMR, 2004). The plans show the risks and likelihood of related disasters occurring with potential effects, as well as measures in place to respond to the disasters. The Uganda government has carried out hazard mapping/assessment and has developed hazard maps for Wetlands, Environment, Forests, Earthquakes, Landslides, Drought and Floods (DDMR, 2004). The country has also carried out vulnerability and capacity assessments in 30 out of 56 districts (DDMR, 2004); a community participatory method was used that involved drawing hazard profiles of the districts based on historical experiences and forecasting the future. However, the mapped profiles detailing the major social, economic and physical settings of the districts need annual updates which have not been possible due to financial constraints.

3.0 KEY CONCEPTS AND DEFINITION

3.1 *Climate Change and Natural Disasters*

Climate change refers to direct and indirect attributes of human activities that alter the composition of global atmosphere and which in addition are attributed to natural variability observed over comparable time periods (Twinomugisha, 2005). While natural disasters such as droughts, floods, pests, disease epidemics and wild fires that have been experienced in Uganda can be described as serious disruption of the functioning of the local communities and the society as a whole, and in causing widespread human, material and environmental losses that exceed the capacity of the affected society to cope unaided (OPM/MDPRR, 2007). The disasters in Uganda, as in the other countries in the Horn of Africa, have also been characterized by having the impact of exceeding the ability of the vulnerable society or community to cope without extraneous interventions (HPG, 2006).

A natural disaster is triggered by a hazard and the magnitude of its effect depends on the society's coping capacity and vulnerability. Slow-onset disasters, such as drought, are cyclical in nature and affect large numbers of people; their effects can more often be predicted, controlled and prevented. Uganda has witnessed various naturally triggered and human induced disasters examples of which include earthquakes, landslides, floods, construction accidents, fires, wars, drought and pests (OPM/MDPRR, 2007). The areas prone to natural hazards in Uganda include mountain and hill slopes, rift valley areas, lake shores, river banks, the lowlands and plains.

In this regard, Disaster Risk Reduction is the conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development; while disaster management is organized analysis, planning, decision making, and assignment of available resources to mitigate, prepare for, respond to, and recover from the effects of disasters (HPG, 2006; OPM/MDPRR, 2007).

3.2 *Drought Hazard and Vulnerability*

Drought is a natural part of climate that is characterized by a deficiency of precipitation over an extended period of time (usually a season or more); it is a slow onset hazard which occurs less frequently than other hazards (UNISDR, 2007). Further, drought hazard can be described as a major emergency or variable that affects subsistence crop and livestock production which are the main livelihoods for the country (FAO, 2004). In technical terms, drought may be describes as the prolonged absence of moisture which adversely and substantially affects the physiology of plants, particularly crops and pasture. Drought by itself does not trigger an emergency; whether it becomes an emergency or not depends on its effect on local people, communities or the wider society and their vulnerability to the stress of the drought (UNISDR, 2007). Drought affects virtually all climatic zones, but its characteristics and impact differ from one region to another. The deficiency in precipitation has resulted in water shortages particularly for the agricultural and livestock sectors, but also for the environment and other socio-economic activities.

As a slow-onset disaster that can have adverse impact on the vulnerable sectors within the country (noting that drought has generally affected Uganda for seasons or years at a time), drought can affect a large proportion of the local population. But its effects can be predicted, controlled and prevented. In Uganda drought has increased the vulnerability of the non-resilient local community by having longer-term adverse effects on the local people's livelihoods and socio-economic development. The country is among other countries in the region which are particularly more prone to drought disasters; each year, disasters originating from prolonged/severe drought not only affect tens of millions of people, but also contribute to vulnerability of the local population through increased severe food shortages, famine and starvation particularly during the peak of droughts (HPG, 2006; UNISDR, 2007).

The target groups' vulnerability is also dependent on their ability to cope with the drought. Such scenario has proved to be existing in the case of Uganda. In the harsh climate in the predominantly arid and semi-arid regions of country which are characterized by generally low rainfall and highly variable rainfall patterns that are frequently exacerbated by drought, the latter phenomenon has been identified as a major variable affecting crop and livestock production (FAO, 2004). Drought has in effect increased the vulnerability of the local community in Uganda.

4.0 COUNTRY DISASTER / DROUGHT RISK REDUCTION SITUATION ANALYSIS

4.1 The Effects of Drought

4.1.1 Impact of Drought on Balance of Payment

Although Uganda has achieved strong, broad-based economic growth, with low inflation and an improved balance of payments, the status is under threat posed by drought which has been known to have the potential for reversing years of national development gains and causing economic losses of tens of millions of dollars for countries in Africa, particularly those which largely rely on agricultural revenue (including Uganda which largely exports Robusta coffee) and have minimal capacity for dealing with the devastating impact of regular droughts (International Regional Information Network, 2006).

4.1.2 Effect of Drought on National Budget

Overall, experience in the Horn of Africa region has shown that the cumulative effects of drought include depletion of national assets, decreasing ability to cope with future droughts, impoverishment of rural communities, and depletion of national coffers. In the case of Uganda drought has had adverse impact on the country's economic growth. For instance, the budget for the period 2007/2008 indicated that the national budgets for the last two financial years had been hampered by drought, particularly depicted in an incapacitating energy crisis, and a dilapidated road network that saw sectors like agriculture and manufacturing register negative growth in the last two years (MFP&ED, 2007).

4.1.3 Impact on Agriculture/Livestock Production and Food Security

Drought has contributed to the vulnerability of rain-fed agriculture, dryland farming and pastoralism which comprise the backbone of the local communities' livelihoods and the country's economy (Twinomugisha, 2005). This has been manifested in serious decline in livestock productivity and crop failures. The trend for the future is reflected in the high uncertainty in onset and cessation of rainfall seasons, coupled with high evaporation rates and increased frequency and intensity of droughts (particularly in northern Uganda) are likely to seasonally affect agricultural/livestock production, food security and household incomes (Twinomugisha, 2005). There is already some predicted increase in temperature by an average of 2°C, which would drastically reduce production of the major cash/export crops such as Robusta coffee. And the productivity of Uganda's pasturelands and livestock which is dependent on climate is usually affected by climate variability/change and droughts.

4.1.4 Impact on Environment/Natural Resources; Wildlife and Biodiversity

Although there are guidelines to mainstream environment and natural resources (ENR) issues which are crucial for the transformation of Uganda's economy and sustainable reduction in poverty through the enhancement of the quantity and quality of ENR, these are still under threat from the adverse effects of drought (Twinomugisha, 2005). For instance, Water supply, which is important for household and community production and socio-economic activities (including fishing, water supply, transport, hydro-energy and tourism among others), is under threat from the increasingly frequent

periods of drought which has had an adverse effect on both the quantity and quality of water resources.

Problems of droughts alongside other disasters such as soil erosion and siltation are expected to become more frequent and more severe with the impending climate change, and the reality that water demand is increasingly not being met especially in the semi-arid regions. And despite the institution and implementation of conservation policies and programmes by the Uganda government, the biodiversity-dependent sectors in the country (particularly the energy sector which is heavily dependent on biodiversity which provides multiple benefits to people and the eco-systems on which they depend, such as plants for food and medicines, pollination of crops and maintenance of soil health (IIED, 2008). In essence, the bio-diversity that is found in natural forests, open waters, wetlands, and dry/moist savannahs of Uganda are under threat by drought and other disasters.

4.1.5 Effect on Communities' Socio-Economy/Livelihoods and Nutritional Status

Recent experiences demonstrate that drought is becoming increasingly frequent in Uganda where it has caused progressive depletion of livelihood assets, human suffering, decreased productivity and reduced access to learning opportunities, particularly for children and women, who are forced to struggle for survival needs (IGAD, 2002; OPM, 2007). The greater impact has been on the poor members of the local population. Severe droughts have resulted in human and livestock losses. There have also been social conflicts as people searched for pasture and water for animals across local borders (Orindi & Eriksen, 2005).

The frequent occurrence of drought has also become a major contributory factor in worsening food insecurity (Kisamba-Mugerwa, 2001), which has in turn increased the vulnerability of the people living in the prone areas to the drought effects. And poor agriculture production due the adverse effects of drought has led to inadequate nutrition (2,226 daily calorie intake per person compared to 2,663 average for developing countries), which is likely to result into malnutrition (Twinomugisha, 2005).

4.1.6 Impact on Rate of Land Degradation and Desertification

The presence of large tracts of arid and semi-arid land which are commonly overgrazed, and the use of poor cropping methods which reduce water retention capacity of the soil, and inadequate or lack of soil conservation techniques have tended to exacerbate drought effects (Kisamba-Mugerwa, 2001). The widespread reliance on subsistence farming and pastoralism, weak farming and livestock management systems, population pressure and water scarcity, all contribute to increased vulnerability to drought, a situation that is exacerbated by increased desertification, environmental degradation and deforestation. Repeated stress and population pressures have reduced use and effectiveness of traditional drought coping mechanisms (AU, 2005). Other factors that contribute to reduced effectiveness of the traditional drought coping mechanisms include:

- Poor natural resource utilization practices that have resulted in deforestation, environmental degradation and desertification;
- The widespread reliance on subsistence farming and pastoralism;
- Weak farming and livestock management systems;
- Repeated stress on existing livelihoods due to food insecurity and population pressure.

4.1.7 Effects on Communities' Capacity for Coping with Disasters

According to Otim (2007), traditional grazing patterns and resource management that have previously applied as mechanisms for coping with drought have been disrupted by resource based conflicts emanating from the effects of the now more frequent droughts; the coping mechanisms have also to some extent been abandoned due to the influence of modernization. For instance, the raiding of cattle that has been a traditional form of restocking among pastoralists communities in the Karamoja cluster that straddles north eastern Uganda's and north western Kenya and the frequent cattle raids between the Karomojong, the Sebei (both of Uganda), and the Pokot and Turkana of Kenya is now more linked with death and destruction of property due to the proliferation of arms, leading to increased vulnerability to drought. Other factors that have led to the decline in their application include:

- The non-functioning of community by-laws;
- Influence of the various aspects of modernization;
- Trends in land tenure, e.g. policy move from pastoralism (depicting frequent movement of households or basic livelihood assets) to settlement;
- Resource-based conflicts;
- Community marginalization.

4.2 Progress on Implementation of the Hyogo Framework for Action

4.2.1 Implementation of the Strategic Goals and Priorities of the HFA

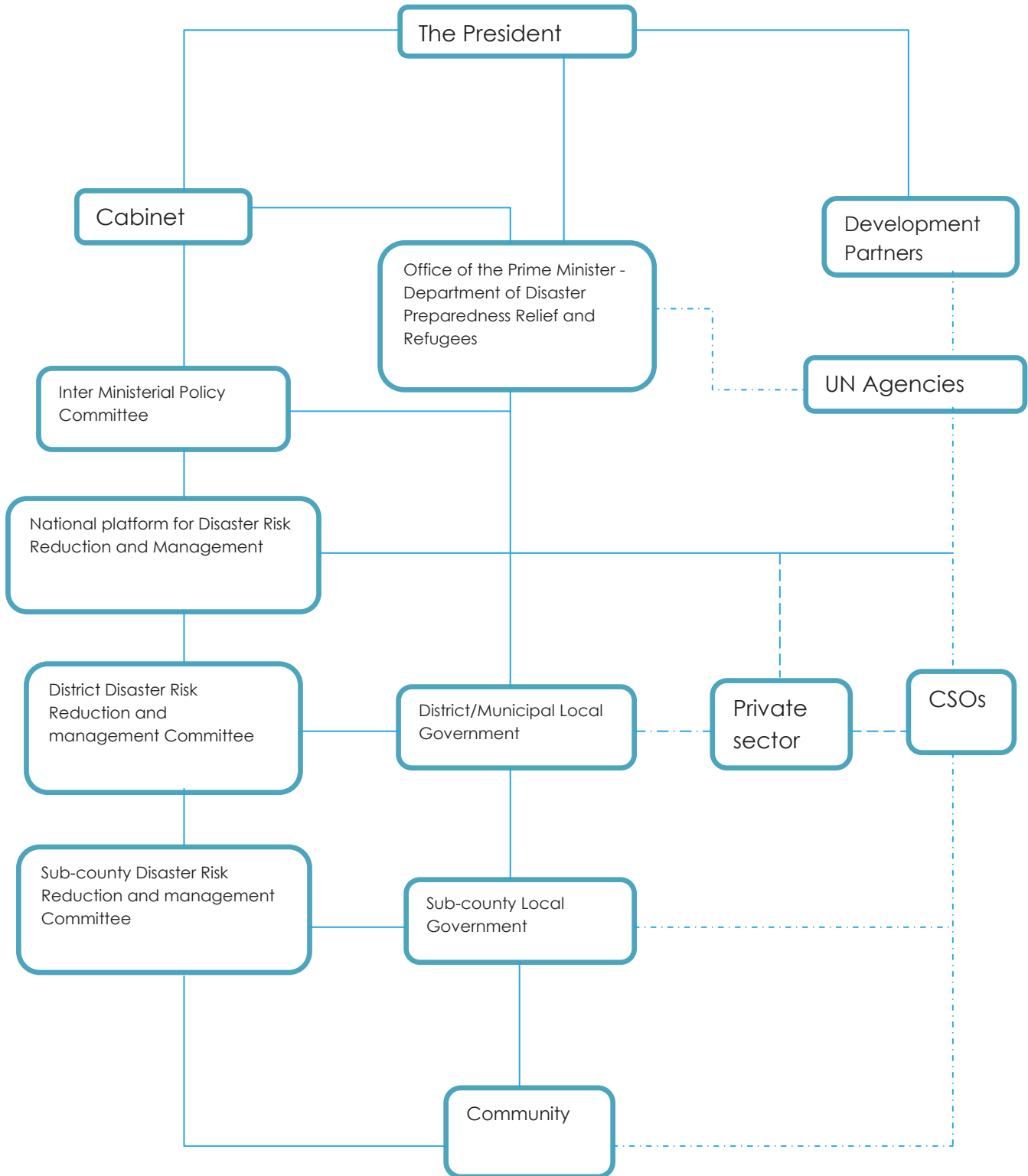
Uganda is implementing some of the priorities of the Hyogo Framework for Action (HFA); one of the major achievements in this regard is the establishment of the National Disaster Risk Reduction and Management (DRRM) Policy and institutional structure for Disaster Risk Reduction and Management. The goal for the DRRM Policy is "To establish institutions and mechanisms to reduce Uganda's vulnerability, effectively manage existing risks and enhance preparedness and response capability to likely disasters" (OPM, 2007).

The implementation of the DRRM policy is to a large extent being facilitated through the National Development Plan/Poverty Eradication Action Plan (NDP/PEAP) that was revised in 2003 which also includes issues of disaster management (OPM, 2007). The country has also established Disaster Risk Management systems that safeguard and enhance resilience against disasters (including drought). The adopted multi-sectoral system entails cross-sectoral linkages which have catered for Drought Risk Reduction whose programmes currently operate under the umbrella of the NDRRM Policy.

4.2.2 Disaster Risk Reduction and Management Policy Framework

The Disaster Risk Reduction and Management activities are currently being conducted by the Department for Disaster Preparedness and Management (AU, 2005). The Uganda has not yet written a comprehensive national disaster management plan. However, in the 17 districts most affected by drought, inflow of refugees and internally displaced people, the MDPRR, UNICEF and OCHA, have helped the local administration and NGOs to prepare District Emergency Preparedness and Response Plans. Ultimately, Disaster Risk Reduction and Management will be a shared responsibility between the state and citizens. The implementation of the Disaster Risk Reduction and Management Policy will be multi-sectoral and multidisciplinary. The policy will be implemented by all government ministries in collaboration with humanitarian and development partners, the private sector, local governments and the community (OPM/MDPRR, 2007). The Ministry for Disaster Preparedness and Refugees (MDPRR) in the Office of the Prime Minister will be the lead agency in coordinating all stakeholders on Disaster Risk Reduction and Management in the country through the outlined institutional structure (see **Figure 2** below).

Figure 2: Institutional Structure for Disaster Risk Reduction and Management



4.2.3 Disaster Management and Preparedness Policy and Approach

Uganda's Disaster Management and Preparedness Policy and Institutional Framework whose overall goal is "to promote disaster management to be implemented in such a manner that integrates disaster management with development planning and programming", was drafted in 1999 and revised in June 2003 (UN/ISDR, 2004). The bulk of the resources earmarked for Disaster Risk Reduction have previously been allocated to emergency response (i.e. relief and rehabilitation). While the combining of some of the predominantly disaster/emergency issues (e.g. security) with drought management forums and implementation strategies has more often resulted in the loss of focus on drought management and risk reduction.

5.0 ANALYSIS OF DROUGHT RISK REDUCTION POLICIES AND PROGRAMMES

5.1 Drought Risk Reduction Framework and Practices

5.1.1 Overview on Drought Policy Issues

The national and local drought policy has all along been skewed in favour of the high and medium potential areas to the detriment of the mainly poor and destitute residents of the dry belt/livestock corridor zones (Muwaya, 2007 – personal communication). The issues of Drought Risk Reduction and Climate Change have not been accorded attention as priority by the government institutions, donor agencies and development partners in Uganda. Food security has been viewed as an issue of food contingency (particularly during periods of drought) rather than being perceived as a key element in enhancing resilience against drought risk.

Although the plans for mainstreaming Drought Risk Reduction within the drought management programmes are in progress, the supportive infrastructure in the said areas has not been well developed, and dissemination of information on drought has been slow. Also, the efficiency in Drought Risk Reduction and the impact therein has been compromised by general coordination problems, particularly regarding the handling of cross-cutting issues such as health, education, water and sanitation. Further, the allocated resources have also been insufficient (e.g. the support for Drought Risk Reduction programme activities has mainly entailed staff deployment).

5.1.2 Policies and Governance for Drought Risk Reduction

The Draft Drought Policy and Framework is yet to be finalized, with the process entailing submission to the Office of the Prime Minister (OPM) which together with relevant Ministries review and facilitate the process further towards approval by Cabinet and thereafter drawing up of related implementation strategies by the key stakeholders. It is envisaged that the development of a Drought Risk Reduction policy framework will cater for the key issues of inter/intra-agency and institutional collaboration and having provision for capacity development in the OPM as the central coordination body and MAAIF as lead sectoral ministry. The approved policy framework will guide development of a drought risk reduction legal framework.

The UNDP Environment Programme which has played a major role in the development of the draft drought policy document advocates for greater attention on drought preparedness and for Drought Risk Reduction to be accorded similar level of priority as other initiatives (Ecaat, 2007 – personal communication). The policy guidelines aimed at reducing community vulnerability to drought and building long-term resilience to drought should include:

- Operational framework to incorporate sufficient feedback to drought prone communities;
- Establish drought management committees;
- Seek support of civil society organizations (CSOs);
- Focus on drought preparedness and mitigation.

Meanwhile, the strategy for involving the target communities in drought preparedness and building resilience to drought risk is increasingly being adopted through:

- Having operational frameworks that incorporate sufficient feedback to the drought prone communities;
- Establishment of drought management committees at the district and sub-district levels to enable access to community inputs and their participation in action planning;
- Seeking support of civil society organizations (CSOs);
- Focus on drought preparedness and mitigation.

5.1.3 Indications for Political Commitment on Drought Risk Reduction

The Uganda government has demonstrated willingness to commit to Drought Risk Reduction issues (OPM, 2004), in particular through facilitating the envisaged shift from drought response to mainstreaming drought in sectoral development activities, and in having partnership with UNDP Uganda to Draft a Drought Policy that will be soon submitted to Cabinet for approval (Ecaat, 2007: personal communication). The country has also developed other major national strategic plans that are intended to address issues of drought, these include:

- Draft National Disaster Risk Reduction and Management Plan (NDDRM);
- Plan for Modernization of Agriculture (PMA);
- Poverty Eradication Action Plan (PEAP);
- National Environmental Action Plan (NEAP);
- Vision 2025; and
- Poverty Reduction Strategy Papers (PRSP).

The development of a Drought Risk Reduction Policy for Uganda was conceptualized in 1998, but the actual drafting started in 2005 with major input from UNDP (Ecaat, 2007 - personal communication), alongside participation from the United Nations Convention for Combating Desertification – UNCCD (Muwaya, 2007 – personal communication). While the previous government policy on climate and drought disaster had focused on the high potential areas rather than the dry belt/livestock corridor, the new policy will focus on drought-related sustainable livelihoods, land and environmental management.

5.1.4 Technical and Institutional Capacity Development

Uganda has inadequate integrated approaches to management of drought and ensuring biodiversity of natural resources; has shortfalls in monitoring and evaluation of resource biodiversity; has insufficient stakeholder involvement, low level of documentation and appreciation of indigenous knowledge; has inadequate financial and technical resources; and gaps in the capacity for implementation of the Drought-related programmes. This is aggravated by the limitations in institutional capacity for coordination between the relevant institutions at national, provincial and district levels.

And like other African countries, Uganda has not fully identified its short and long-term priorities in the management of climate change, drought and other natural disasters (Mugabe & Muyungi, 2000). To enable this, the country needs to promote the accumulation of national and regional capacities to implement climate change commitments without compromising the emerging priorities which include: -

- Assessing and establishing the full understanding of the nature of drought impacts and their severity;
- Assessment of national vulnerability and searching for appropriate drought preparedness and management measures;
- Awareness raising and promotion for environmentally sound and appropriate technologies for sustainable development;
- Emphasis on the importance of building communities' capacity for procurement and utilization of the promoted technologies, as well as the availability of adequate financial resources to undertake the related tasks.

5.1.5 Drought-related Policies and Plans for Uganda

a) Range Management Policy

The Uganda government has developed the Range Management Policy which addresses drought related issues such as the particularly low and erratic rainfall regimes leading to frequent and severe droughts; the effects of fragile soils with weak structures which render the soils easily eroded; and on how to address factors that contribute to land degradation and desertification, these including drought (particularly in the Cattle Corridor where the effects of drought tend to be severe), overgrazing, deforestation, poor farming practices and soil erosion (Kisamba-Mugerwa, 2001). Other areas of focus for policy include: -

- Attitudes of pastoralists who resist adjustment of livestock population to the rangeland resources carrying capacity;
- Inadequate water supply and water sources;
- Insufficient market facilities;
- Insufficient investment in extension, infrastructure and research;
- Poor pasture management and insufficient disease and pest control;
- Lack of institutional support.

b) The New Forest Policy

Noting that deforestation has been rampant in Uganda, and has threatened continued access by the poor to forest products used in coping strategies; and has increased the degradation of water catchments, also reduces the reliability of springs (Orindi & Siri, 2005), the government has developed the new Forest Policy which is aimed at turning this trend around. The adopted overall strategy entails encouraging development and sustainable management of natural forests on private land, encouraging tree growing on farms, and developing innovative mechanisms for the delivery of forestry extension and advisory services.

c) National Environment Management Policy

The National Environment Management Policy (1995) is the umbrella framework that recognizes the importance of conservation and restoration of ecosystems, biodiversity and ecological process and of enhancing public awareness and local participation in environmental actions (FAO-AGL, 2006). Linkages between poverty and environment and inter-sectoral actions are implemented through the National Poverty and Environment Action Plan (PEAP) and its District Environment Action Plan (DEAP). The draft National Land-use Policy aims to fill a gap in integrated, harmonized land-use planning/ management across sectors and among land users/ stakeholders; and the draft National Soils Policy aims to maintain productivity of land /agro-ecosystems.

5.1.6 National and Local Drought Policy Case Studies

It has been concluded through case study conducted in Mbarara region that; tackling the problem of land degradation particularly caused by erosion and declining soil fertility and aggravated by drought in agricultural zones in semi-arid Uganda, requires both additional technological or agronomic research, and a multi-sectoral and interdisciplinary approach (Olson & Berry, 2003). Also, farmers are deemed to perceive drought as one of the major environmental problems they face.

5.1.7 Plan for Modernization of Agriculture

The Plan for Modernization of Agriculture is in line with the PEAP aiming to increase production/unit area and to promote sustainable use and management of natural resources forest, wildlife, livestock and rangeland. This is supported for example by the Livestock Policy which sets optimum stocking rates to prevent over-grazing and soil compaction, by the multi-sector Food and Nutrition Policy (2003) and the National Policy for the Conservation and Management of Wetland Resources (1995), aiming to maintain ecological and socio-economic functions of wetlands through optimal use of resources and partial exploitation for economic development

5.2 Drought Risk Identification, Impact Assessment and Early Warning

5.2.1 Risk Assessment and Early Warning

Drought risk assessment and early warning are among the key interventions that would significantly contribute to the reduction of vulnerability to drought for the communities in the drought-prone areas of Uganda (UN-ISDR/UNDP-DDC/UNDP-BCPR, 2006). This implies the urgent need for building early warning and contingency planning systems, investing in conflict resolution, encouraging the use of social safety nets, focusing on mitigation activities and piloting insurance schemes.

5.2.2 Enhancing Capacity for Drought Monitoring and Early Warning

The establishment of well developed monitoring and early warning systems for drought and other hazards is consistent with the acknowledgement of the fact that drought monitoring and early warning

is a prerequisite for successful Drought Risk Reduction and Management interventions; the process also serves as the basis for developing and reinforcing Drought Risk Reduction programmes (OPM, 2004; OPM/DDPR, 2007). The main institutions involved include the Department of Disaster Preparedness and Refugees, the Department of Meteorology, Ministry of Agriculture, Ministry of Health, Ministry of Water, Lands and Environment and the Local Governments.

5.3 Drought Awareness/Knowledge and Management

5.3.1 Preparedness and Contingency Planning

Uganda has information on drought and other disasters (OPM, 2004). The information is collected by community level workers in the respective field, analyzed at the central level and disseminated through the media, community leaders and politicians. Contingency plans for disaster prone districts numbering 30 out of 56 are in place (OPM, 2004). The plans (including those for Drought management) show the risks and likelihood of related disasters occurring with potential effects, alongside response measures. However, there is no contingency fund for specific use in addressing drought issues.

5.3.2 Education and Training on Drought Management

The educational and training programmes in place cover hazard studies such as drought, climate change, environment degradation, and flood patterns. However, these programmes have not been re-oriented to address disaster risk reduction related to drought and other hazards (OPM, 2004). Training programmes in schools have been carried out in some disaster risk areas; the training components have included control of environmental degradation and control of floods and soil degradation (OPM, 2004). Terracing is practiced in the hilly parts of Uganda.

5.4 Programmes Addressing Issues of Drought

5.4.1 National Action Plan to Combat Desertification and Drought in Uganda

There is a National Action Plan (NAP) to Combat Desertification and Drought in Uganda developed by the Ministry of Agriculture, Animal Industries and Fisheries in 1998 and provides long-term integrated strategies that focus simultaneously on improved productivity of land and the rehabilitation, conservation and sustainable management of land and water resources leading to improved living conditions and in particular at the community level (Aryamanya-Mugisha, 2006). Also, the promotion of appropriate technology under NAP for the largely rain-fed agriculture dependent country has been carried out in order to alleviate its vulnerability to droughts and their effects. This has entailed the development and use of affordable, environmentally friendly and sustainable technologies that address drought and desertification.

5.4.2 National Adaptation Plan of Action (NAPA)

In recognition of the fact that climate change is important to Uganda, the government has initiated some action for adaptation to climate change through the signing of the United Nations Framework

Convention on Climate Change (UNFCCC) in June 1992 and ratified it on 8th September 1993. The country has subsequently adopted the National Adaptation Programmes of Action (NAPA) interventions and has developed and updated national policies aimed at minimizing impacts of adverse effects of climate change (Twinomugisha, 2005). Some of the significant adaptation interventions to date include:-

a) Plan for Modernization of Agriculture:

In the agricultural sector, the Plan for Modernization of Agriculture (PMA) is an important adaptation element which ensures development of drought resistant cultivars, provision of water for production, agricultural information dissemination, training and research among others.

b) Forestry Action Plan:

In the forestry Sector, a fully-fledged Forestry Action Plan was developed to check afforestation, reforestation, conservation and protection of the existing forest estate.

c) Water Management Systems:

Water resources sector adaptation measures have called for improved water management systems throughout the country through strict implementation of the Water Statute. Remarkable work can be traced in strict protection of wetlands.

d) Livestock and Pasture Management:

Adaptation measures in this respect have included awareness raising and promotion of measures for reduction of animal numbers, improvement of pastures and rangeland management; reducing siltation of riverbanks and lakeshores, and developing initiatives on water harvesting.

5.4.3 The United Nations Convention on Combating Desertification Uganda Programme

The United Nations Convention on Combating Desertification (UNCCD) Uganda Programme has a component on drought management, and has participated in the development of policy on drought-related sustainable land management in collaboration with the Integrated Dryland Development Programme (IDDP) that is also operating in the country (Muwaya, 2007). The UNCCD's Early Warning Unit which provides advice on food security has close links with the Meteorological Department. The programme has participated in the formation of policies that have had impact on drought management, these include:

- Land use policy (being pushed) and land tenure policy;
- Rangelands Draft Policy
- Water and Sanitation policy (focused on both crop and livestock production and productivity);
- Forestry policy implemented by the National Forestry Authority and the Forest Inspectorate Division/Department (entailing promotion of commercial exploitation and reinvestment in the forest resources, e.g. through tree farming, agro-forestry and other food security enhancement initiatives.

5.4.4 National Initiatives on Climate Change

Climate change has been manifested in decrease in rainfall amounts and increased frequency in drought, leading to decrease in food productivity (from the crop farming and livestock sectors) and increased food insecurity particularly among the poor households (Ocaya, 2007: personal communication). In efforts to address this phenomenon, the Department of Meteorology (Ministry of Water and Environment) has had a lead role in the conceptualization and preparation for the national initiatives on climate change (Isabirye, 2007 – personal communication). The Department has collaborated with the Office of the Prime Minister (OPM), Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and Makerere University among others to achieve the same. The department has received support from the World Food Programme (WFP) in the form of equipment and infrastructural development. However, it has limited mandate and institutional structure for direct information dissemination.

5.4.5 The Farm Income Enhancement, Forest Conservation Project & FFA Programme

The project is managed by a National Project Coordination Unit comprised of five consultants (Ocaya, 2007). The structure for the project includes: National Steering Committee; District Technical Committees (these produce district work plans); Sub-County Committees; Community Committees (produce Community Action Plans – CAPs). The programme is operating in 55 out of the 81 districts in the country. The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) is collaborating with the Ministry of Water and Environment (MWE) in the implementation of the project.

The MAAIF supports small scale irrigation, water harvesting, soil fertility management, beekeeping as income generating activity, and agricultural marketing. The MWE is involved in support for the forestry component of the project which is focused on tree planting and watershed management. According to Ocaya (2007), the food security enhancement, natural resource conservation and management, and drought risk reduction activities that are being promoted through the project include:

- Development of strategic water sources particularly within the Cattle Corridor region;
- Water harvesting/river diversion to access water for farming;
- Promotion mechanized irrigation;
- Afforestation/re-forestation;
- Improvement of agricultural extension services and drought mitigation activities;
- Enhancement of community participation in project activities, e.g. contributing positively to environmental protection through the Food for Assets (FFA) programme.

5.4.5 Uganda Environment Programmes

a) Programme on climate change and global warming:

Environmental factors appear to seriously impact on the overall eco-system in Uganda; available data suggest that the impact of climate changes is already evident in the country (MAAIF, 2007). The institutional framework to deal with this problem resides in the Designated National Authority (DNA)

under the Ministry of Lands, Water and the Environment (MLWE), and its role is to oversee all initiatives designed to reduce global warming. There is also a National Climate Change Steering Committee (NCCSC) formed of experts from various fields including agriculture, energy, forestry and environment to provide technical information on how to deal with climate change. A National Climate Change Secretariat (NCCS) serves as a secretariat of the DNA.

b) UNEP/UNDP initiative on poverty and environment:

The UNEP/UNDP initiative on poverty and Environment is supporting the implementation of pilot projects in seven African countries including Uganda, with the aim of increasing the capacity of governments to mainstream environment into national development processes (UN/ESC, 2007). The country's Environment Programme has been developed to advocate for greater attention on drought preparedness and for Drought Risk Reduction to be accorded similar level of priority as other initiatives under the umbrella of UNEP Uganda programme (Ecaat, 2007). There is also need for incorporation of Climate Change within the drought management programmes.

5.4.6 Monitoring and Drought Information Data Analysis Programme

The Department of Meteorology has recognized that improved drought monitoring and early warning systems are important components of effective drought management. The Department in this regard undertaken the monitoring and analysis of data and information on droughts and of the trends in climatic conditions and drought incidence since the year 2000 (Isabirye, 2007). The Department has had a lead role in the conceptualization and preparation for the national initiatives on climate change, in collaboration with OPM, MAAIF and Makerere University among others. The department has received support from the World Food Programme (WFP) in the form of equipment and infrastructural development. However, has limited mandate and institutional structure for direct information dissemination.

One of the major outcomes of the programme is the awareness among stakeholders that the occurrence of drought which used to be in every 20 or more years, is now within a span of less than 10 years and is more frequent and prolonged. The basic information on climate change process has also comprised the focal point and basis for adoption of strategies for combating drought particularly in the prone areas. On the other hand, indigenous knowledge and drought coping mechanisms such as meat preservation using local honey and milk preservation using herbs are essentially still helpful.

5.4.7 Department of Meteorology's Radio and Inter-net Programme (Radio-Net)

The Meteorology Department, in collaboration with an agency that is running a communication satellite system, has launched the Radio and Inter-net Programme (Radio-Net) that is serving the purpose of raising awareness and disseminating information on drought early warning and other type of information including agro-meteorological and farming information (e.g. giving updates on food security situation, advising on when to plant and the recommended type of seeds to be used) through radio and inter-net /website; a similar programme in other parts of Africa that has been in existence

since 2001. The pilot scheme area for the Radio-Net programme is Western Uganda where it is operating through Risk-Net and serving over 500 people per village.

The programme has targeted the main NGOs located within the pilot area as facilitating and service provision agencies, through the contact persons based at specifying programme sites. The programme has supplied the necessary software, and the local people are being trained on use of software. The entailed information dissemination method (including information availed through village notice-boards, and community members seeking for related information on their own accord) has proved to be cost effective. The major challenges faced by the programme include:

- High turn-over among the programme staff for the implementing agencies and other stakeholders, particularly in consideration for the staff trained in back-stopping or in service provision;
- Lateness in information production;
- Frequent breakdowns in the computer or satellite systems.

5.4.8 The Lake Victoria Environment Management Project (LVEMP)

This is a regional project covering Uganda, Kenya and Tanzania (Aryamanya-Mugisha, 2006). The project aims to (a) Improve environmentally and socially sustainable economic development through spatial planning and promoting of local, regional and international investment in Lake Victoria Basin; (b) Develop the capacity of local governments, local individuals, communities and NGOs to participate in the spatial planning process and be strong advocates of their own interests in spatial development planning; and (c) Identify and promote “self funding” of government management activities, including biodiversity protection and community driven development in the Lake Basin, through incremental increase in revenue generated in the basin, improved revenue collection and revenue retention.

5.4.9 Strengthening Environmental Policy Management Capacity at the National and Local Level for Poverty Alleviation

This is a four-year regional project, which started in 2004 with funding from the Belgium Government through UNEP and is being implemented by NEMA (Aryamanya-Mugisha, 2006). The project aims at building the capacity for mainstreaming of environment into national development strategies. Activities include an integrated ecosystem assessment, specifically capturing the links between ecosystems and ecosystem services and their impacts on welfare.

6.0 SWOT ANALYSIS FOR DROUGHT POLICY, INSTITUTIONAL FRAMEWORK AND PROGRAMMES

6.1 Drought Risk Reduction Policy for Uganda

The current government policy on climate and drought disaster has focused on the high potential areas rather than the dry belt/livestock corridor which is more prone to drought. However, the government along with donors, development partners and other stakeholders has of recent indicated willingness to commit to Drought Risk Reduction issues, and has developed a Draft National Drought Policy that is to be submitted to cabinet for approval. The Draft Drought National Policy is yet to be finalized; it has provision for greater attention on climate change, drought preparedness and advocacy for medium and longer term initiatives that will help to build the communities' resilience to drought

SWOT Analysis for Drought Risk Reduction Policy for Uganda

Strength	Weakness
Uganda has national policy and draft strategy addressing disaster risk reduction including drought management	Little attention in addressing drought and climate change
Draft Drought Policy is in place and it is due for review before submission to Cabinet for approval	Delays in allocation, approval and disbursement of funds
There is recognized complimentary link between disaster risk reduction and drought risk reduction	The link between early warning information available and actions taken is currently weak
Existence of a National Action Programme (NAP) to combat desertification and mitigate the effects of drought	Lack of operational drought policy and supportive frameworks
Accessibility to support of other policies, e.g. National Development Plan/Poverty Eradication Action Plan (NDP/PEAP)	
Opportunities	Threats
Adopting proactive approaches through the divested decision-making to sub-national levels	Conservative attitude among the target groups
Improvement of farming technology and practices	Lack of follow-up on the developed drought management concepts and plans
Enhancement of stakeholder synergy and scope for shared responsibility between the state and citizens.	Increase in human and livestock population not marched by development at same level
Establishment / improvement of infrastructure	Resource based conflicts at national and trans-boundary levels
Promotion of alternative livelihoods to enhance communities' coping capacity	Impeded opportunistic use of resources and coping mechanisms due to conflicts
Developing of institutional framework to facilitate drought policy implementation	Global climate change and spread of the desertification phenomenon
Establishment/intensification of regional and international mechanisms and cooperation (e.g. through IGAD) to address cross-border drought and other issues such as resource based conflicts	

6.1.1 Institutional Structures

a) Implementation Structure for the NDRRM Policy

The National Disaster Risk Reduction and Management (NDRRM) Policy provides for an implementation structure that caters for both long term Disaster Risk Reduction and Management interventions and planning as well as immediate response in the event of a disaster occurrence (OPM, 2007). This structure will be coordinated by the Ministry for Disaster Preparedness, Relief and Refugees in the Office of the Prime Minister. The Office of the Prime Minister links Ministry responsible for disaster preparedness and refugees to other relevant Ministries and to Cabinet. The Inter-Ministerial Committee on Disaster Risk Reduction and Management handles cross sectoral matters relating to Disaster Risk Reduction and Management. An Institutional Framework is already in place to facilitate implementation of the policy on Disaster Risk Reduction in Uganda (UN/ISDR, 2007); it runs from the national level to the grassroots.

b) The National Platform for Disaster Risk Reduction and Management

An Institutional Framework for Disaster Risk Reduction, namely the National Platform on Disaster Risk Reduction and Management (NPDRRM) is already in place to facilitate implementation of the policy on Disaster Risk Reduction (OPM, 2007). It runs from the center to the grassroots; at the top is the Department of Disaster Management which coordinates/chairs a National Platform on DRR. The Department uses the decentralized structures and works through the District Disaster Management Committees at the District Level and the Sub-County Disaster Management Committees at the Sub-County Level. Sector working groups are in place to address specific concerns regarding each sector.

The NPDRRM coordinates Disaster Risk Reduction and Management and information sharing in accordance with the Hyogo Framework for Action (HFA) i.e. brings together all stakeholders in disaster management. Under the platform, modalities and guidelines for information sharing between government and other development partners is agreed upon and formulated. The National Platform for Disaster Risk Reduction and Management is chaired by the Permanent Secretary Office of the Prime Minister and is composed of representatives of the Development Partners, UN Agencies, and CSOs; private sector, other line ministries and the media. The major challenges and lessons experienced during the implementation of Disaster Risk Reduction initiatives include:

- Sectoral coordination and harmonization problems;
- Resources for Disaster Risk Reduction are limited;
- Negative perceptions regarding weather predictions and the related early warning messages by communities
- Poor flow of information and limited means for information dissemination;
- The Disaster Risk Reduction policy is still under review and is yet to be implemented; and Drought Policy yet to be approved by Cabinet.

SWOT Analysis for Institutional Structures for Drought Risk Reduction

Strengths	Weaknesses
Existence of implementation structure that caters for both long term disaster/drought management	Weak institutional capacity (including poor set ups, lack of legislative backing)
National Platform serving as coordination structure for disaster and drought management	Inadequate human resources which constrain effectiveness of programme/project implementation
Plans for devolving institutional structure to incorporate grassroots/community participation	Inadequacies in cross-sectoral coordination and harmonization of adopted approaches
National Drought Policy having institutional framework component that enhances the coordination of drought management institutions	Limited resources allocated to support Drought Risk Reduction institutional structures
Opportunities	Threats
The HFA sustaining the provision of technical institutional guidance to the Uganda NPDRRM (including Drought Risk Reduction)	Conservative perceptions by community institutions regarding climate change and emerging trends
Allocation of financial and human resources to support Drought Risk Reduction-related institutions	Disharmonized approaches and lack of consensus on modalities and guidelines for information sharing
Building on existing institutional set-ups and capacities	Inadequate coordination and communication at the various institutional levels

6.1.2 Coordination for Disaster/Drought Risk Reduction Initiatives

a) Coordination for Disaster Risk Reduction

The NDRRM policy has provision for facilitating the coordination of other policies and strategies in order to ensure effective disaster management (Owor, 2005). These include land use policy and planning, disaster preparedness and management information, water resource conservation and management, climate, gender integration, education, training and public awareness, population, and public participation in disaster management. The NDRRM policy framework also specifies for sectoral ministries and government agencies, communities and families, humanitarian agencies, donors, the private sector and civil society organizations involved in disaster management. Further, there is an Inter-Ministerial Management Committee on disaster, as well as District Disaster Management Committees and Sub-country Disaster Management Committees that coordinate Disaster Risk Reduction activities at the district and community levels.

b) Coordination for Drought Risk Reduction

Although the Disaster Risk Reduction and Management Policy developed by the government recognizes the necessary link between disaster risk reduction and drought risk reduction, and the need to enhance coordination between the two components (OPM/DDPRR, 2007), it is lacking in effective national coordination for Drought Risk Reduction programme activities among the collaborating actors who are charged with providing guidance and leadership for the stakeholders in order to ensure cross-sectoral and integrated planning for drought management. The combining of

some of the predominantly disaster/emergency issues (e.g. security) with drought management forums and implementation strategies has more often resulted in the loss of focus on drought management and risk reduction.

Also, the efficiency in Drought Risk Reduction and the impact therein are compromised by general coordination problems, particularly regarding the handling of cross-cutting issues such as health, education, water and sanitation. The above scenarios have been reflected in challenges in achieving effective integration/mainstreaming of drought preparedness, mitigation and management plans into national development and budgetary frameworks. It is envisaged that the development of Drought Risk Reduction policy framework will cater for the key issues of inter/intra-agency and institutional collaboration and having provision for capacity under the OPM as the central coordination body (Ecaat, 2007).

SWOT Analysis on Coordination for Disaster/Drought Risk Reduction Initiatives

Strengths	Weaknesses
Existence of the National Platform for Disaster Risk Reduction	Lack effective national coordination for Drought Risk Reduction mechanism
Government recognizes the necessary link and need for coordination between disaster risk reduction and drought risk reduction	National Drought Policy which would specify and coordinate stakeholders roles in Drought Risk Management is yet to be finalized and implemented
The NDRRM policy has provision for facilitating the coordination of other policies and strategies	Coordination aspects of Disaster Risk Reduction having priority on the wider disaster aspects at the expense of Drought Risk Reduction
The NDRRM policy framework specifies the roles for sectoral ministries, government agencies and other stakeholders involved in disaster management	Poor flow of disaster/drought early warning information and limited means for dissemination in the more remote regions
Opportunities	Threats
Completion for the process for developing a National Drought Policy and launching of the policy implementation process	Inadequate budgetary framework and allocation to support linkages and networking among stakeholders
Effective integration/mainstreaming of Drought Risk Reduction plans into national development and budgetary frameworks	Non-achievement of inter-agency institutional collaboration due to stringent guideline principles
Replication of the National Platform for Disaster Risk Reduction and Management to cater for the specific forums for Drought Risk Reduction	Support agencies adhering to own interests regarding issues and approaches related to drought management at the various levels
Replication of the public/private sector collaborative partnership model for Disaster Risk Reduction and Management under the schemes for Drought Risk Reduction	
Creation of a multi-sectoral systems approach to planning and implementation of drought risk reduction and sustainable management	

6.1.3 Funding/Budgeting

One of the budget lines in the National Budget caters for the Department of Disaster Management and Refugees through the Office of the Prime Minister (DDMR, 2004). However, the financial and material resources allocated for Drought Risk Reduction programmes/projects are still very limited; much of what is released goes to drought emergency response. The bulk of the resources earmarked for Disaster Risk Reduction are allocated to emergency response (i.e. relief and rehabilitation), while the support so far given for Drought Risk Reduction is mainly staff. The priority needs for drought prone regions such as the Cattle Corridor have not been adequately accorded the deserved priority status. The support so far given to Drought Risk Reduction programmes are mainly in the form of technical personnel and administrative facilities; other resources for use in facilitating their activities are inadequate. Majority of the human resource has not been able to generate the envisaged impact due to lack of financial and material support.

SWOT Analysis on Funding/Budgeting for Disaster/Drought Risk Reduction

Strengths	Weaknesses
There is a budget line in the National Budget catering for Disaster Risk Reduction and Management	Insufficient government funding/budgeting for Drought Risk Reduction
Access to funding for drought management activities through the Disaster Risk Reduction policy framework	Skewed focus on drought emergency response and less on drought preparedness and longer-term management
Technical personnel and administrative facilities have been availed to Drought Risk Reduction programmes	Priority not accorded to the drought prone regions of the country
Opportunities	Threats
Specific allocation of funds and material support to Drought Risk Reduction as a separate component	Budgetary allocations for development, management and implementation of processes for Drought Risk Reduction not based on local communities' priorities
Capacity building and financial support for staff facilitating and coordinating the Drought Risk Reduction programmes	Conflicts continuing to hamper the implemented activities for Drought Risk Reduction

6.1.4 Human Resource Capacities

Although development and donor agencies are committed to providing support to the government ministries and other governmental institutions in the implementation of the Drought Risk Reduction-related programmes (e.g. support of the Environment Programme by UNEP and the UNCCD programme facilitated under MAAIF), most of the programmes are faced with shortage of the human

resource to contribute in the effective coordination and synergy of the planned initiatives (Ecaat, 2007). The technical capacity of the institutional service providers and the trained community based resource persons who are potential facilitators of drought related initiatives on the longer term is low. For instance, the dissemination and adoption of agro-forestry technology is low lack of forestry extension staff and only few agricultural extension staff involved in work related to agro-forestry.

SWOT Analysis on Human Resource Capacities

Strengths	Weaknesses
Commitment by the government, donor and development agencies to support Drought Risk Reduction	Shortage of funds to facilitate staff capacity building and for enabling them to implement programmes efficiently
Government line ministries/departments and research institutions having human resource capacity for implementation of Drought Risk Reduction programmes	Shortage of human resource curtailing potential contributions in the effective coordination and synergy of the planned initiatives
Support from community based resource persons who also double up as field focal point persons	Relatively low technical capacity of institutional services providers and community based resource persons
Opportunities	Threats
Backstopping from government, support agencies and other stakeholders	Possibility for down-sizing/retrenchment of government technical and administrative personnel
Community contributions in furthering outreach services	Shortfalls in government financial/budgetary allocations to cater for deployment of the human resource
Establishment and training of cross-sectional drought management teams in order to increase efficiency and effectiveness in drought preparedness and management	Rivalry for supremacy from line Ministries, NGOs and other actors.

6.1.5 Legal Framework for Disaster/Drought Risk Reduction and Management

Uganda does not as yet have in place a legal framework for disaster risk reduction and or drought risk reduction. Uganda, however, has national policy and draft implementation strategy addressing disaster risk reduction including drought management (DDMR, 2004). The Office of the Prime Minister-Department of Disaster Preparedness and Refugees (OPM/DDPR) is the lead agency responsible for Disaster Risk Reduction and Management and coordinates risk reduction, prevention, preparedness, mitigation and response actions in the country in consultation with other line ministries, humanitarian and development partners, Local Governments, CSOs, the private sector and the community. The Ministry of Relief and Disaster management and Refugees issues guidelines on the management of likely disasters and presents annual reports including financial reports relating to Disaster Risk Reduction and Management to Cabinet. The Ministry of Relief and Disaster Management and Refugees also link the Office of the Prime Minister- to inter governmental organizations, the donor community and other regional frameworks. The adopted multi-sectoral system for the National Disaster Risk Reduction and Management Policy provides for cross-sectoral

linkages which have catered for the Drought Risk Reduction programme activities which are currently implemented under the umbrella of the DRRM Policy.

SWOT Analysis for Legal Framework for Disaster/Drought Risk Reduction

Strength	Weakness
NDRRM Policy in place and Draft Drought Policy is being developed	Focus on the relief and rehabilitation phases of disaster response, and paying less attention in addressing drought and climate change on the longer term
Government's is commitment to development of a national disaster risk reduction and management legal framework.	Delays in allocation, approval and disbursement of funds
Positive trends in the adoption of anticipatory proactive approach in managing disasters	The link between early warning information available and actions taken is currently weak
Existence of a National Action Programme (NAP) to combat desertification and mitigate the effects of drought	Inadequacy of weather and climate data collection infrastructure and manpower to collect, analyze and disseminate drought early warning information
There is recognized complimentary link between disaster risk reduction and drought risk reduction	
Opportunities	Threats
Finalization and implementation of Drought Risk Reduction Policy	Existence of both human and naturally induced disasters, and conservative attitude among the target groups regarding the scope for alleviating their impact
Adopting proactive approaches through the divested decision-making to sub-national levels, and enhancement of stakeholder synergy	Lack of follow-up on the developed drought management concepts and plans
Improvement of infrastructure and livelihoods (e.g. through farming/agro-pastoral/pastoral technology and practices	Increase in human population (almost doubling every 10 years) and livestock population not marched by development at same level
Establishment / improvement of infrastructure	Resource based conflicts at national and trans-boundary levels
Promotion of alternative livelihoods to enhance communities' coping capacity	Impeded opportunistic use of resources and coping mechanisms due to conflicts
Developing of institutional framework to facilitate drought policy implementation	Global climate change and spread of the desertification phenomenon

6.1.6 Political Economy of Drought

Uganda's economy and level of development has been steadily improving mainly through utilization of its abundant natural resources (OPM, 2007). In addition, the country has elaborated a National Action Programme (NAP) that includes outlines on priority areas to address preparedness and mitigation for the effects of drought. In line with the decentralization policy whereby decision-making on development issues has been divested to sub-national levels (OPM, 2007), the Disaster/Drought

management components for the District and Sub-County Development Plans are, principally, the basic planning instruments to guide action and budget allocation for the components' activities.

However, there is still existence of gaps in political commitment on addressing issues of drought management institutions, governance, risk and vulnerability identification, and local stakeholders' capacity (i.e. knowledge and technical skills). While there have been clear perceptions regarding the urgent need for drought relief and rehabilitation of the vulnerable communities, there has been notable lack of longer-term development plans established in the period between droughts to alleviate the vulnerability and apparent dependency syndrome among the target groups (Zwaagstra, 2007).

The political sector has usually advocated for the emergency drought relief and rehabilitation initiatives, with minimal commitment on development aimed at reducing the inherent risks and building the vulnerable communities' resilience to drought. In the same regard, national interests on modalities for addressing drought issues. Overall, the current lacking in a National Drought Policy, budgetary framework and disbursement of funds for the longer-term drought preparedness and development programmes) in the country's approach to Drought Risk Reduction, has put the gains in national development at risk.

SWOT Analysis on Political Economy of Drought

Strengths	Weaknesses
Existence of the National Disaster Risk Reduction and Management Policy which caters for Drought Risk Reduction issues, albeit superficially	Disharmony in the adopted approaches and criteria for prioritization of issues, this emanating from interests of the individual organizations or agencies
Existence of a Draft National Drought Policy which could enhance the planning and implementation, and drawing of support for drought management initiatives	Lack of community education and awareness raising, and conservative attitude regarding Drought Risk Reduction (partly due to high illiteracy rates in the drought prone areas)
Country's economy and level of development steadily improving based on the abundant natural resources	Drought early warning not necessarily initiating timely preparedness and response, posing threat to sustainability of existing or alternative livelihoods
Government's commitment demonstrated in the establishment of institutions and mechanisms to reduce the country's vulnerability to drought and other disasters	Lack of national drought management plan to address drought impact particularly in the drought prone areas
The government's move from focus on reactive drought responses, to inclusion of proactive drought management initiatives	Despite the emerging political commitment relevant to Drought Risk Reduction, the country has gaps in its approach to drought risk reduction, preparedness, resilience and prevention
Opportunities	Threats
Development of solid policy and strategies for the short, intermediate and longer-term Drought Risk Reduction	Increase in human and livestock population not marched by development at the same level
Designing Drought Risk Reduction initiatives that cater for the longer-term as opposed to the current 2 - 3 years cycle	Unsuitable environment for development posed by resource based conflicts

Scope for having enhanced opportunistic and harmonized utilization of available resources	Intensification and spread of the effects of global warming and climate change
Fuller incorporation of good governance and adoption of holistic/sectoral approach	Delays in the finalization for legal enactment and implementation of National Drought Policy
Adoption of longer-term vision and strategies on Drought Risk Reduction and related development initiatives	Failure to improve on key areas related to good governance
Putting drought near the centre of sustainable development and risk reduction priorities in order to increase net resilience to the impacts of drought	

6.2 Best Practices/Lessons Learnt

6.2.1 Overview on Best Practices Related to Drought Risk Reduction

Uganda's best practices that are related to Drought Risk Reduction (such as community-based, networking experiences and partnership initiatives in addressing drought issues), are linked to the relevant government and stakeholder implemented programmes (UN, 2005). Such programmes are components of the country's Poverty Reduction Strategy Papers (PRSP), Common Country Assessments (CCA), United Nations Development Assistance Framework (UNDAF) and Millennium Development Goals (MDGs).

6.2.2 Community Based Afforestation Project

The Community Based Afforestation Project is involved in planting pine trees on hill slopes that have been left bare due to seasonal fires to encourage pasture regeneration at the onset of the rainy season (MAAIF, 2003). The practice involves collecting seedlings from the neighbouring forest reserve, raising them in nurseries and later transplanting them to the hill slopes. This has enabled halting of soil erosion along the hill slopes. The practice has increased incomes of the community through sale of wood. It has also encouraged carbon sequestration and moderation of climate around the project area.

The success achieved by the project has been attributed to the fact that it was purely initiated by the local people who had acquired skills in forest management while working in the forest reserve. The practice has also yielded multiple benefits and the established management committee has been deemed crucial in guiding the community. Success of this practice has shown that environmental conservation practices stand high chances of succeeding if they are tagged to benefiting local actors. Also, the establishment of management committees is crucial to success of community initiatives.

6.2.3 *Enhancing Rapid Information Dissemination at Community Level*

Enhancing Rapid Information Dissemination at Community Level through Radio and Internet (RANET) has involved the use of Radio and Internet to collect and disseminate drought early warning and climate information to the beneficiaries in dryland areas (MAAIF, 2003). It has involved information gathering, transmission, interpretation and dissemination. The practice has successfully disseminated drought early warning and climate information to local farming communities and improved the efficiency of planning at the local level. It has also improved disaster preparedness and provided a variety of other information relevant to development of local communities. In addition, the practice has built the capacity of the community to interpret weather information and put in place a data and information collection system.

The success of the RANET-facilitated project has resulted from the reliable forecasts due to accurate satellite data. The information dissemination has been built on local structures, which have been used to interpret satellite data into simple information relevant to the communities. The information dissemination initiative has deliberately targeted women and youth who are the primary land users. The use of Area Development Committees has ensured the relevancy of the information to the local concerns. Success of the practice has shown that climate information is crucial in making reliable decisions regarding production and reducing vulnerability of local people, particularly in drylands.

6.2.4 *Integrated Livestock Health Improvement*

The Integrated Livestock Health Improvement practice has involved organization of pastoralists in Karamoja into groups, opening up project centers in three Counties and training Community Animal Healthy Workers –CAHWs (MAAIF, 2003). The project centers have also served as animal drug outlets and nodes for collaboration with other stakeholders. The practice succeeded in lowering animal mortality rate. Local capacity building through training for CAHWs, the holistic approach which incorporated drought, conflict and early warning into the practice, and establishment of an information network were important aspects that contributed to the success of the practice. The practice provided good lessons in the establishment of structures for consultation, planning and information exchange. The CAHWs gave a good example of local capacity building, collaboration with other stakeholders and establishment of the Karamoja Livestock Development Forum (KLDF) enabled networking among the pastoralists.

6.2.5 *Community Participation in Drought Risk Reduction Programmes*

Communities prone to drought hazards have valuable information and experiences to share, and also have a right to participate in key decisions that will affect their lives (OPM, 2007). Their participation in drought management has implications on sustainability of Drought Risk Reduction-related initiatives. The local-based approach on awareness regarding drought effects (e.g. through the establishment of district and sub-district disaster management committees, and action planning based on identified priority issues at the grassroots level have proved to be effective in enabling community participation and in enhancing of sustainability for the developed initiatives. But this will need to be supported by

policy on ensuring adequate budgetary allocations for the Drought Risk Reduction programme activities.

6.2.6 Adoption of New Drought Management Technology and Practices

New technology and practices such as those facilitated through the Global Environmental Facility (GEF) project have demonstrated good scope for sustainable land management. For instance, the development of strategically located water facilities (based on availability and sustainability of the specific areas' pastures and other essential natural resources) for both human and livestock use in the drought prone areas is crucial for Drought Risk Reduction.

6.2.7 Lessons Learnt and Implications for Drought Policy

There have been achievements of Disaster Risk Reduction which have encompassed aspects of Drought Risk Reduction initiatives by the various stakeholders in Uganda (Aryamanya-Mugisha, 2006; UN/ESC, 2007). Lessons learnt from the situational analysis of the Drought Risk Reduction policies and programmes include: -

- i. Drought prevention, preparedness, mitigation and development are complex issues that need an integrated approach to achieve meaningful and durable results in Drought Risk Reduction. Efficient and effective integration of the priority drought issues may be achieved through having strong and well-functioning institutional frameworks for coordinating the formulation and implementation of drought related policies and programmes.
- ii. Drought Risk Reduction and development are complimentary concepts; combining sustainable drought preparedness and mitigation and basic development activities has proved to be effective in reducing vulnerability and building communities' resilience to drought.
- iii. Drought interventions should be designed through effective involvement of local communities and to ensure their sustainability and that affected communities derive maximum benefits. In this regard, information for use in awareness raising, community education, policy advocacy and planning as well as monitoring of trends and impact of interventions on drought management and Drought Risk Reduction are central to the success of efforts in combating drought.
- iv. The existing district disaster committees (which have also handled drought issues) have proven to be a valuable interface between the government, community leaders and civil society organizations when responding to drought situations, but only on the short-term and having more focus on the slow-onset disasters including drought. District Drought Committees could be established in similar fashion with special focus on dealing with the longer-term aspects of preparedness and building of resilience for the vulnerable communities.
- v. The promotion of appropriate technology is effective in alleviating the country's vulnerability to droughts and their effects, particularly for the rain-fed, drought prone agriculture for which Uganda is largely dependent upon.
- vi. Drought Risk Reduction interventions are more likely to succeed when initiatives are owned and driven by the affected communities, and are inclusive and involve all the affected stakeholders in addressing the drought issues in the given context for the Uganda.
- vii. Effective community based policing compliments efforts in Drought Risk Reduction by strengthening coordination and harmonization of drought management initiatives, and the various gender roles – particularly acknowledging women as key actors in drought management at household level as being essential for the effective implementation of Drought Risk Reduction activities.

- viii. Timely and effective preparedness and mitigation interventions are essential in reducing communities' vulnerability to drought, and alleviating further escalation of the spread of the drought prone areas in the country.
- ix. Drought Risk Reduction interventions can be hampered by lack of, or limited budgetary allocation by the government.
- x. Traditional drought management and coping mechanisms have proven effective in managing community level; but there should be policy for strengthening them.
- xi. The role of women as key actors is essential for the effective implementation of Drought Risk Reduction activities.

7.0 CONCLUSION AND RECOMMENDED OPTIONS FOR INTERVENTION

7.1 Major Findings and Conclusion

7.1.1 Impact of Drought and other Disasters

Drought, which is a disaster that affects a significant proportion of the population of Uganda, has adverse impact on the people's livelihoods (including the causing of starvation and famine) and the country's socio-economic development. It is one of the major threats among natural hazards experienced in the country. Thus there is urgent need for intensified focus in addressing this hazard that is of national, regional and global concern.

7.1.2 Policy Status with Regard to Drought Management

Uganda has an elaborate Disaster Risk Reduction Policy; however, the policy has gaps in its approach to Drought Risk Reduction, particularly in the areas of preparedness, resilience and prevention. This is crucial considering that drought affects a very large proportion of the vulnerable population, and its effects can be felt over a long period of time. Other gaps are in the areas of institutional framework, governance, drought risk identification and knowledge management. There is also need for ensuring that policy issues that may appear remote from drought and therefore not accorded priority status, could possibly have significant influence on vulnerability to drought. And despite the recurrence of droughts and their devastating effects on the vulnerable communities and the economy, Uganda is yet to put into effect a comprehensive drought policy and the related institutional and legal frameworks to enable effective preparedness and coordination of the various institutions involved in drought risk reduction and management.

7.1.3 Addressing of Drought Issues under the Disaster Management Policy

The provisions for drought issues under the umbrella Disaster Risk Reduction and Management Policy and programmes are inadequate due to the inclination towards reactive/emergency approaches. It is thus a priority for the Uganda government to initiate and/or strengthen drought preparedness, prevention, mitigation and management/institutional structures and programmes.

7.1.4 Devolution of the Institutional Framework for Drought Risk Reduction

The approach for devolution and integration of Drought Risk Reduction issues at the local level is crucial for ensuring community awareness, sense of ownership and effective participation in sub-county and district plans on Drought Risk Reduction. The approach for ensuring efficiency and effectiveness of community participation has been hampered by limitations in budgetary allocations, existing human capacity and infrastructure; and on awareness on potential contributions by communities.

7.1.5 Funding / Budgeting for Drought Management Investments

Although the government is committed to investing in programmes aimed at reducing the adverse effects and vulnerability of the local peoples' lives and livelihoods to drought, the efficiency in drought risk reduction has been limited due to the limited resources provided for drought risk reduction. There has been negative impact on the Drought Risk Reduction initiatives and in the achievement due to the minimal priority accorded to drought management initiatives that principally coincide with the overall development plans for the country. Similar impact has emanated from the allocation of more funds for disaster management at the expense of drought risk reduction.

7.1.6 The Major Challenges Experienced in Drought Risk Reduction

The key policy and institutional challenges and constraints that have hampered implementation of drought management programmes in Uganda are linked to shortfalls in the drought early warning system and coping mechanisms (particularly at the community level), inadequate feedback and dissemination of drought preparedness and mitigation information to the local levels to enable risk reduction and building of long-term resilience to drought, and inadequate human resource for implementing and managing drought related programmes.

7.2 Recommendations and Opportunities for Intervention

7.2.1 Enacting of the national Drought Policy

There is urgent need for a National Drought Policy; the policy should be accorded priority and prominence and finalized soonest, as it is urgently needed for providing appropriate guidance and coordination for the various drought management initiatives, and to help in building drought resilience among the local communities and the wider society in Uganda. The necessary approval and according of the necessary legislative and governance support should be speeded up. The government should also continue liaison with donors and local and international development partners for assistance in the implementation of the National Drought Policy.

7.2.2 Strategy for Enhancing Communities' Resilience to Drought

Building drought resilience through risk reduction should be incorporated in long-term policies and strategies for development initiatives in the related sectors. For this, a national drought profile and mapping (to be updated routinely) should be prepared for use in developing of policy and plans for drought management. The related policy frameworks should cater for a proportionate mix of emergency, recovery and development interventions, intensification of disaster preparedness and mitigation, and for having collaboration with community institutions.

7.2.3 Strengthening Institutional Framework, Resource Mobilization and Allocation

The overall Drought Risk Reduction (DRR) institutional framework within which DRR strategies are implemented needs to be strengthening. This should include building the capacity of the local

authorities to enable them incorporate DRR activities and mainstream DRR issues at all levels (this would be enhanced through their being encouraged by the central government and other key players to draw up, implement and enforce the necessary by-laws (e.g. ensuring storage of staple food items as a contingency measure, controlling of bush fires, etc.). Such efforts will also need to be accorded the necessary political support in order for them to succeed and generate the desired impact. The Uganda government, donors, development partners and other stakeholders should take immediate measures to avail the essential human, financial and material resources to be invested in the prevention, preparedness and management of programmes aimed at mitigating the effects of drought in the country. The focus in this instance should include capacity building, drought-related research and development, and routine monitoring and evaluation of the related programmes.

In order to ensure effective resource mobilization, Drought Risk Reduction issues should be integrated in the various government policy documents. The Ministry for Relief, Disaster Management and Refugees (Office of the Prime Minister) in liaison with the Ministry of Finance, Economic Planning and Development, should establish a Drought Contingency Fund and allocate a specific budget for Drought Risk Reduction. Other resources required for drought management should routinely be mobilized from other stakeholders.

7.2.4 Approach for Effective Coordination of Drought Risk Reduction Programmes

For a start, the government should consolidate on going programmes on DRR for purposes of synergies. It should also intensify its role in building partnerships with both the public and private institutions and with the local community through capacity building, resource allocation and promotion of broad-based stakeholder representation and participatory approaches, and mechanisms for implementation of programmes for reducing the risks posed by drought and other disasters. Effective information structures, linkage/networking forums and operational systems (to be fed by both the farmers and DRR stakeholders such as the Meteorological Department) should be put in place. Information should flow to designated focal points and feedback relayed back to the information coordination centres in a timely manner.

7.2.5 Capacity Building for the Human Resource and DRR Institutions

The capacity building for the service providers/community resource persons and the wider community should be intensified to ensure that the beneficiaries are provided with means for acquiring starter materials (e.g. through cost sharing and access to micro-credit facilities) in order to ensure the putting into action and achieving the desired impact from the capacity building packages aimed at Drought Risk Reduction. Institutions involved in the planning and implementation of DRR projects and programmes should be facilitated to be able to process quality information which should be disseminated in timely manner.

7.2.6 Drought Preparedness and Contingency Planning

The Government should provide adequate financial support to ensure effective Disaster Risk Reduction and Management. Drought preparedness should be supported by policies and budgetary allocations, including having national and district level contingency plans and funds; while deliberate

efforts should be implemented to strengthen early warning systems so as to provide accurate and timely information for use in the planning of disaster/drought management programmes and for integration of environmental conservation in national development planning. Support should also be provided for the agricultural, livestock, meteorological, climate change and related research institutions to enable them generate scientific information for use in designing the relevant, efficient and effective DRR strategies. Drought preparedness and contingency planning initiatives should essentially entail the mapping out of drought prone areas and determine the number of people at risk. There should be special focus on the most vulnerable areas to drought, and setting up of national and regional desks to oversee regular information dissemination regarding drought situations and the progress in alleviating the related adverse effects. There should also be regular assessments on progress, impact and status on achievement for the set goals.

7.2.7 Ensuring Balance between Emergency Response and Long-term Development

There should be policy for ensuring proper balance between the short-term drought relief entailing routine food assistance during drought emergency; factoring the various aspects of contingency and preparedness into the development plans; and facilitation of longer-term livelihoods support and environmental conservation interventions.

7.2.8 Adoption of Participatory and Holistic Approach

The Uganda government should adopt a partnership and multi-stakeholder participation approach through the involvement of government ministries (particularly those focused on the agriculture, livestock, water, environment and social development sectors), government parastatals; academic and research institutions, and community groups) at the grassroots, district, regional and national levels, should be adopted as a key component for creating a greater understanding and collaboration in Drought Risk Reduction.

7.2.9 Knowledge Management & Education; and Promotion of Best Practices

The Drought Risk Reduction programs initiated by the government, development partners and other stakeholders should right from the initial stages of programme development, incorporate activities aimed at establishment or enhancement of information/data collection systems for use in drought early warning; and development and application of benchmarks, indicators and methodologies for drought monitoring. The government, development partners and other stakeholders should adopt as immediate priority the intensification and improvement for knowledge management and education through strengthening of the formal and informal training system at national, local and community level. There should also be policy for development and promotion of appropriate technologies for combating drought. Such initiative should be a priority for the academic, scientific and technological institutions at the national level.

7.2.10 Addressing of the Identified Challenges in Disaster/Drought Risk Reduction

The government with support from development partners, the community and other stakeholders should address the identified major challenges in Disaster/Drought Risk Reduction including: cross-sectoral coordination and harmonization problems; shortfalls in resource allocation and disbursement;

areas of weakness in the drought early warning systems (in order to ensure timely delivery and quality of the gathered information).

7.2.11 Basic Drought Risk Reduction Principles to be Adopted

The recommended basic Drought Risk Reduction (DRR) principles to guide the implementation of DRR projects and programmes should include:

- Integrating climate and weather information into all DRR activities;
- Strengthening and building partnerships and collaborations;
- Information dissemination;
- Increasing food production;
- Agro-processing and valued addition;
- Promote and enhance Community participation in DRR from planning up to M&E levels
- Capacity building for all stake holders (indigenous knowledge);
- By-laws on the following:
 - Food production and storage;
 - Bush burning;
 - Conflict resolution;
 - Livestock movement;
 - Afforestation;
 - Water and pasture management.
- Conserving natural resources;
- Livelihood diversification;
- Gender mainstreaming;
- Intellectual property rights in protection of drought information;
- All activities must be adequately funded, and the entailed financing mechanisms be clearly pointed out.

7.2.12 Incorporation of Basic Ingredients of Drought Reduction Programmes

There should be consideration for incorporation of the basic ingredients of Drought Risk Reduction for the country as listed here below:

Weather and climate: -

- Water harvesting technologies;
- Effective monitoring of weather in the country;
- Creating awareness about the impending risk;
- Giving advisories;
- Getting feedback from stake holders.

Crop Agriculture: -

- Provide information on drought tolerant, quick maturing and drought avoidance crops;
- Post harvest technology;
- Agro-processing;
- Food storage facilities.

Livestock Production: -

- Dry season feeding;
- Water harvesting technologies;
- Strategic stocking and de-stocking;
- Vaccinations;
- Commercial fodder production;
- Veterinary extension services;
- Processing of livestock products;
- Strategic rangeland development and utilization.

Forestry: -

- Alternative sources of fuel or wood lots;
- Afforestation and re-forestation;
- Agro-forestry;
- By-laws.

Irrigation: -

- Promoting small scale irrigation;
- Government providing required infrastructure;
- Capacity building for farmers and extension workers.

7.2.13 Addressing issues of gender in DRR

Mainstreaming of gender in DRR is crucial, as women bear the brunt of drought by virtue of their role of providing food for the family. Their role will greatly enhance success in DRR implementation.

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