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Policy options for improving drought resilience and its implication for food security: the cases of Ethiopia and Kenya

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Studies

Policy Options for Improving Drought Resilience and its Implication for Food Security

The Cases of Ethiopia and Kenya

Mesay K. Duguma
Michael Brüntrup
Daniel Tsegai

Published in cooperation with

United Nations
Convention to Combat Desertification

Policy options for improving drought resilience and its implication for food security

The German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) is a multidisciplinary research, policy advice and training institute for Germany's bilateral and multilateral development cooperation. On the basis of independent research, it acts as consultant to public institutions in Germany and abroad on current issues of cooperation between developed and developing countries. Through its nine-month training course, the German Development Institute prepares German and European university graduates for careers in the field of development policy.

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Preface from the DIE

This study has been executed in the frame of DIE's research project "Promoting food security in rural sub-Saharan Africa: the role of agricultural intensification, social security and results-oriented approaches", which is being funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) under its special initiative "One World, No Hunger" (SEWOH). In this project, special emphasis is put on the role of sustainable agricultural intensification and social security to promote food security while recognising that different approaches may be needed within the context of fragile states. It is explicitly acknowledged that the rural populations are not homogeneous and have varied development potential and support needs (Rural Worlds). In line with the aid effectiveness agenda, the project also explores how the results orientation of food security interventions can be improved.

The topics are allocated across eight working packages:

1. Conceptual framework: sustainable food security in rural sub-Saharan Africa
2. Agricultural growth corridors within the New Alliance for Food Security and Nutrition
3. Agro-ecological support of subsistence-oriented farms
4. Agricultural investments and finance in small-scale agriculture
5. Promoting irrigated agriculture
6. Social security systems, food security and long-term development
7. Fragility and its interaction with sector approaches to combating hunger
8. Results-based approaches and results-based management

The project seeks to cross the barriers between the different sectors and academic fields and to derive broader insights and recommendations on food security in rural areas. Cooperation is sought with other research organisations funded within the SEWOH initiative, with universities and think tanks, with projects of German development cooperation, with international organisations, with civil society and the private sector. Results

are spread through high-quality research papers and studies, policy briefs and opinion texts, electronic media, conferences, seminars and workshops.

The topic of drought resilience in East Africa was selected as a particularly interdisciplinary and intersectoral topic, and one in which DIE had some stakes from previous works. With the United Nations Convention to Combat Desertification (UNCCD), an ideal partner was found to work on that topic. Established in 1994, the UNCCD is the only legally binding international agreement on land issues. The Convention promotes good land stewardship. Its 196 Parties aim, through partnerships, to implement the Convention and achieve the Sustainable Development Goals. The end goal is to protect land from over-use and drought, so it can continue to provide us all with food, water and energy. With a renewed emphasis and attention on its topics and mandate, the ideal moment was chosen to conduct the study and feed its results into a number of international events and processes.

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Abbreviations

ASAL	arid and semi-arid land
BMZ	Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung (Germany)
CIDP	county integrated development plan (Kenya)
CPP	Country Programming Paper
CSO	civil society organisation
DPPA	Disaster Prevention and Preparedness Agency (Ethiopia)
DPPC	Disaster Prevention and Preparedness Commission (Ethiopia)
DRM	disaster risk management
DRMC	Disaster Risk Management Commission
DRMFSS	Disaster Risk Management and Food Security Sector
DRR	disaster risk reduction
EDE	Ending Drought Emergencies (Kenya)
EWS	early warning system
FAO	Food and Agricultural Organization
HABP	Household Asset Building Programme (Ethiopia)
HFA	Hyogo Framework of Action
HMNDP	High-Level Meeting on National Drought Policy
IDDRSI	IGAD Drought Disaster Resilience and Sustainability Initiative
IGAD	Inter-Governmental Authority on Development
KfW	Kreditanstalt für Wiederaufbau (Germany)
MOA	Ministry of Agriculture (Ethiopia)
NDMA	National Drought Management Authority (Kenya)
NDRMC	National Disaster Risk Management Commission (Ethiopia)
NGO	non-governmental organisation
NMA	National Meteorological Agency (Ethiopia)

PSNP	Productive Safety Net Programme (Ethiopia)
RPP	Regional Programming Paper
RRC	Relief and Rehabilitation Commission (Ethiopia)
SLM	Sustainable Land Management
SLMP	Sustainable Land Management Programme (Ethiopia)
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollar
WB	World Bank
WFP	World Food Programme

Executive summary

Drought is a complex and slowly encroaching natural hazard. It causes significant and pervasive socio-economic and environmental impacts. It is known to cause more deaths and displace more people than any other natural hazard. Drought is not exclusively an issue of developing countries: severe droughts have occurred in developed countries in recent years. However, the damages are magnified when placed in the context of less developed and developing countries, where not only ecological and economic damages are triggered but livelihoods and often human lives are threatened. Drought in fragile contexts is also associated with social unrest and local conflict, depending on the underlying socio-economic and political settings in which it occurs. Furthermore, (recurrent) droughts and resulting conflicts in already poor areas of politically fragile developing countries may not only lead to forced migration, but also run a risk of becoming a breeding ground for insurgences, extremism and terrorism across borders. With climate change, drought is projected to increase in severity, frequency, duration and spatial extent.

National governments and the international community have very often underestimated the need for longer-term drought resilience initiatives. Possibly the immediate mastering of droughts in rich countries and the constant availability of sufficient food through international trade and food aid has lulled governments. Responses to drought by many governments throughout the world have been generally reactive and poorly coordinated and have been typically characterised by “crisis management”. Lately, the increasing severity, frequency and spatial extent of droughts − and their severe consequences for lives, livelihoods and security (conflicts and migration) which in a globalising world are felt more intensely than before − have raised serious global concerns and revitalised interests towards better risk-management approaches with respect to tackling the effects of droughts.

An important step for that paradigm shift in drought management approaches was the drought crisis of 2010/2011 in the Horn of Africa (HoA) and wider Eastern Africa region. Up to 260,000 deaths in Somalia and millions of lives that were affected in the wider region wakened up the international community, inspired national governments and regional

bodies to tackling drought emergencies in the region in a more sustainable way. One notable milestone was the introduction of the Intergovernmental Authority on Development (IGAD) Drought Disaster Resilience and Sustainability Initiative (IDDRSI) in 2011, which reinforced the old mandate of its predecessor organisation IGADD (Intergovernmental Authority on Drought and Development) on drought. The High-level Meeting on National Drought Policies (HMNDP) in March 2013 was another global landmark initiative that signalled the need for shifting approaches to drought management. Launched at the HMNDP was a UN-Water collaborative initiative to support countries develop National Drought Management Policies (NDMP) spearheaded by the World Meteorological Organization (WMO), the United Nations Convention to Combat Desertification (UNCCD), the Food and Agriculture Organization of the United Nations (FAO), the Convention on Biological Diversity (CBD) and the UN-Water Decade Programme on Capacity Development (UNW-DPC). Between 2013 and 2015, a series of regional drought management policy capacity-building workshops took place. The regional workshops outlined the "3 key pillars" of national drought policy, namely: i) implement drought monitoring and early warning systems; ii) complete vulnerability assessments for sectors, populations and regions vulnerable to drought, and; iii) implement drought mitigation measures that limit the adverse impacts of drought and provide appropriate response measures when drought next occurs.

In parallel with the HMNDP was the development and adoption (in March 2015) of the United Nations Sendai Framework for Disaster Risk Reduction 2015-2030. The Sendai Framework succeeds the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters, which rests on previous UN initiatives dating back to the early 1990s to encourage better preparation for natural disasters. A central tenet of the Sendai Framework − and consistent with the HMNDP − is that nations take a proactive approach to disasters. The Sendai Framework lays out four priorities for nations to reduce risks from natural disasters: i) understanding disaster risk; ii) strengthening disaster risk governance to manage disaster risk; iii) investing in disaster risk reduction for resilience, and; iv) enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.

The need to do things differently has been specifically recognised: being proactive rather than reactive; regional cooperation instead of pursuing country-specific strategies; a twin-track approach which emphasises relief and development rather than humanitarian operations alone; a holistic and multi-sectoral approach in place of "silo" approaches; and, treating drought as a "risk" rather than a "crisis".

This study aims to look into national efforts to mitigate the effects of drought, also shedding light on its implications for food security in Ethiopia and Kenya. For long, drought in these countries implied food insecurity. In recent years, however, government policies and development cooperation have placed much emphasis on breaking this link. The aim here is, therefore, to understand how − following the 2010/2011 drought in Eastern Africa − political commitments for drought-risk management have been translated into action, thereby identifying policy options for enhanced drought resilience at national and sub-national levels. Accordingly, the study has the following objectives: i) to assess the present performance of drought management systems in Ethiopia and Kenya and to document the progress made since the 2010/2011 drought in both countries; and ii) to identify the factors behind the recurrent negative impacts of drought in Ethiopia and Kenya. In addressing both of these objectives, the study explores the roles of national policies, "governance" and "capacity" at all levels in mitigating or exacerbating the impacts of drought. It also assesses the role of state actors (at national and sub-national level) and non-state actors (including non-governmental organisations (NGOs), donors and other stakeholders) in containing drought and the related food insecurity. The assessments are, however, not based on own measurements but on interviews with key resource persons in both countries, as well as on the related literature.

The study reveals that drought-risk management in both countries is an ongoing effort. Yet, it also underlines the fact that efforts are still dominated too much by a reactive approach as opposed to a proactive one. Nonetheless, certain concrete policy, institutional and organisational reforms have indeed been undertaken, echoing an increased interest in and strong political commitment to end drought emergencies. The role of donors and NGOs/civil society organisations (CSOs) in assisting governments to implement long-term drought resilience measures including those that link relief and development has been significant. Their experiences have added important

lessons to local practices, though subsequent uptake at national level has been lagging behind.

The study has also identified constraining factors to enhancing preventive drought-risk management. First, the lack of a solid understanding of short-term planning for drought management versus long-term development measures undermines the potential impact of some of the long-term development programmes on drought resilience. For instance, the Productive Safety Net Programme (PSNP) has been implemented over the last ten years in Ethiopia; however, its strategies have been less sensitive towards building long-term resilience at household level. Second, poor governance of early warning systems characterised by multiple and contradictory information, limited access to data, and competing institutional interests has led to ineffective communication and delayed action in the face of frequent droughts. Third, the lack of a comprehensive institutional set up has hindered better coordination among the relevant actors at various levels (horizontal (multi-sectoral coordination) and vertical (coordination of government structures at different levels)). Fourth, there is poor follow-up, reporting and documentation of drought-resilience efforts and achievements. Fifth, the study confirms that capacities at individual, institutional and organisational levels are too weak and too poorly managed to process and use information and mobilise and absorb resources.

In pursuit of a comprehensive drought strategy that could be applicable for the East African region, the study finds a concrete and comprehensive strategic framework in the regional IDDRSI, and its national derivates, the Country Programming Papers (CCPs), which are also inspired by the national disaster risk management strategies of the countries. The emerging Drought Resilient and Prepared Africa (DRAPA) strategy (Tadesse, 2016) supported by the UNCCD and the government of Namibia could also further systematise African responses to drought. It identifies six key elements: i) drought policy and governance for drought-risk management; ii) drought monitoring and early warning; iii) drought vulnerability and impact assessment; iv) drought mitigation, preparedness, and response; v) knowledge management and drought awareness; and vi) reducing underlying factors of drought risk, as well as cross-cutting issues such as capacity-development and reducing gender and income inequality. However, every country has to adjust such generic guidelines to its own particular political,

institutional, social, economic and ecological setting and create its unique and evolving drought-resilience strategy.

Against the above backdrop, this study puts forward eight recommendations which are derived from our work in Ethiopia and Kenya. Although, generally, they are not a substitute for comprehensive drought strategies and many can be already found within existing strategies, these are the ones that we think need more emphasis as regards implementation:

1. A clear joint understanding, by stakeholders, of short-term disaster relief activities versus long-term development measures towards resilience-building is key for effective drought-risk management at community, sub-national, national, regional and global levels. This can be achieved by:
    - Enhancing the visibility of the regional comprehensive drought-risk management strategies, in particular the IDDRSI and the CCP, through promotion and awareness-creation both at national and sub-national level.
    - Engaging in constantly updating such strategies, for instance based on a review of experiences in new droughts and/or inspired by emerging international frameworks.
    - Facilitating knowledge-sharing by strengthening partnerships with public institutions, the private sector, civil society, research institutions and academia.
    - Using state and non-state channels, including mass media, to create awareness on drought, its multi-sectoral impact as well as its wider implications for national and regional peace and stability.
    - Ensuring the availability of funds through various resource mobilisation mechanisms including fund raising, to carry out public awareness on drought-risk management.
    - Empowering young Africans through provision of informal trainings on Sustainable Land Management and other drought-risk management techniques.
    - Promoting awareness on drought issues in primary and secondary schools by integrating the subject into school curricula.

- Creating incentives and inspiring the young to engage in volunteerism and public events related to drought-risk management.

2. It is vital to promote the integration of drought-risk management approaches into long-term development measures. Such measure should allow adequate flexibility to specific situations and address the needs of vulnerable groups. We recommend:

   - Conducting drought-risk assessments based on the vulnerability profile of various groups (for instance, gender; landless youth; people with disabilities) to ensure that interventions benefit the needy.
   - Finding particular solutions and providing more targeted support to areas of arid and semi-arid land (ASALs).
   - Developing livelihood protection and "no-regret" options for assisting vulnerable communities and households prevent and mitigate the impacts of drought, prepare for crises, and respond to them.
   - Following a subsidiary approach as a guiding principle for long-term drought resilience where resilience is first and preferably sought at the lowest possible level (the household). This can progressively grow to resource mobilisation at higher-level structures (community, district, region, nation) when increasingly severe drought surpasses households' capacity to withstand drought impacts. It should be recognised that a strong, multi-year drought can exceed the resilience of most of the poor; thus giving preference to the lower level does not mean that higher-level efforts should not be strengthened.
   - Linking humanitarian and drought-risk management (development) interventions in a way that mutually reinforces the efficiency and effectiveness of such measures.

3. Effective communication among all relevant stakeholders is decisive for efficient and properly functioning drought early warning systems, preparedness planning, better targeting and proactive action for emerging droughts. This will require:

   - Establishment of a regional/national independent and credible platform that consolidates the early warning information from various

sources. This can be in the form of a consortium of government, NGOs and research institutions with high expertise and reputations.

- Improved transparency and the provision of access to data for all relevant stakeholders would facilitate the process.

4. The impacts of drought are multi-pronged and their management requires strong multi-sectoral collaboration. Therefore, a strong and comprehensive connecting institution is indispensable to enhance coordination among governments, development partners and non-government organisations in carrying out long-term activities towards drought-resilience building. For this, the following is necessary:
   - Establishing a coordination unit with a solid authority, clear accountability and sufficient capacities to carry out its responsibilities.
   - Enhancing specialisation and clarity of roles among sectors, organisations, development partners and agencies.
5. Drought knows no geographical or sectoral boundaries, particularly in developing countries with old transboundary linkages, pastoralists and more or less open, uncontrolled and uncontrollable borders. Drought episodes thus call for strengthened collaboration among African countries, regional and sub-regional institutes, and international organisations in the implementation of drought-risk management and implementation plans. Thus:
   - IGAD and other African regional organisations should harness opportunities for stronger collaboration among countries. National actors are advised to use such regional initiatives and perceive them as support, not as a competing threat to their national efforts.
   - IGAD and other African regional organisations should prioritise and help mobilise resources for cross-border initiatives that enhance cooperation.
6. Monitoring and evaluation and knowledge management is vital for effective follow-up, reporting and documentation of drought resilience efforts and achievements. Therefore, we recommend:
   - Establishing an independent, strong monitoring and evaluation system under the above proposed coordination unit responsible for

monitoring and evaluation, identifying strengths and weaknesses and ensuring scale up of good practices.

- Developing mutual accountability among government, non-government stakeholders and development partners (DPs) through reporting.
- Facilitating the exchange of information and documentation of lessons learned. IGAD and other regional organisations should also strengthen their capacity to play a strong role as a knowledge hub for drought resilience and the dissemination of information.

7. Emergency funding is short-term and costly, and more so the later engagement starts. Therefore:
   - Development partners and governments should increase funding for drought resilience as opposed to emergency funding.
   - The use of contingency funding should be enhanced to link relief and development and provide easy and quick funding for early action.
8. Building the capacity of individuals, institutions and organisations is decisive to process and use, as well as to efficiently mobilise and absorb, resources. It is essential to:
   - Exploit readily available internal expertise and enhance efforts to reduce labour turnover at national level with a special focus on sub-national level.
   - Improve and use national, sub-regional, and regional drought preparedness networks for capacity-building, development and technology transfer.

In following these recommendations, drought can become a “connector” and an opportunity for more coherent policies and activities.

1 Background

1.1 Introduction

At first sight, droughts constitute a lack of rainfall; they stem from national variability of rainfall. However, to become a problem for people, or even a disaster,[1] more has to happen than reduced rainfall: water availability from streams, reservoirs and underground for irrigation, livestock and human use has to diminish, soil moisture for crop production has to reach critical levels, and the means for people to get food from other places has to be severely constrained (meteorological drought, agronomic drought, economic drought). Thus, drought is a complex and slowly encroaching natural hazard which, according to Wilhite (2000), should not be understood as a mere physical phenomenon but rather as an interplay between a natural event and human action in a form of demand placed on water supply. The natural environment plays a strong role in mitigating or exacerbating rainfall deficits. Numerous studies confirm that the impacts of drought are exacerbated by advancing desertification, land degradation and/or vegetation cover and climate change phenomena that are also interconnected with droughts in a series of feedback loops (Dai, Tranberth, & Qian, 2004; Henry et al., 2007; Narisma, Foley, Licker, & Ramankutty, 2007). In recent years, there has also been global concern that droughts may be increasing in frequency, severity, and duration (Sivakumar, 2012; Peterson, Hoerling, Stott, & Herring, 2013). Blaikie, Cannon, Davis and Wisner (1994) have shown that, on a worldwide scale, the frequency of drought has increased from 62 in the entire period of the 1960s to 237 during the 1980s.

When ranked according to various characteristics, such as severity, duration, spatial extent, loss of life, economic loss, social effect, and long-term impact of natural hazard events, drought takes first place among all natural hazards (Bryant, 1991). Droughts are among the world's costliest natural disasters and affect a very large number of people each year (Wilhite, 2000). The International Decade for Natural Disaster Reduction (IDNDR [International Decade for Natural Disaster Reduction], 1995) indicated that drought

1 A hazard like drought can turn into a disaster/crises if the drought causes a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (UNISDR [United Nations Office for Disaster Risk Reduction], 2009, p. 97).

accounted for 22 per cent of the damage from disasters, 33 per cent of the number of persons affected by disasters, and 3 per cent of the number of deaths attributed to natural disasters. The heavy cost of drought disasters in Africa is also well documented (Bika, 2012; CRED [Centre for Research on the Epidemiology of Disasters], 2006; Morton & Mousseau, 2010).

Most of the arid and semi-arid lands (ASALs) of Eastern Africa are characterised by high natural variability of rainfall and recurrences of extreme climate events such as drought and floods. Triggered by El Niño conditions, the frequency and severity of droughts also appear to be increasing in the region. In the last decade, major droughts occurred in 2001, 2003, 2005/2006, 2008/2009 and 2011 (FAO [Food and Agriculture Organization of the United Nations], 2011; Gautam, 2006). Drought in the region has far reaching socio-economic implications that include lack of water, pasture, energy and food; famine; loss of livestock, life and property; mass migration and environmental refugees, and conflict, among others. The region is observed to be the most food-insecure part of the world (IGAD [Intergovernmental Authority on Development], 2013, p. 11; Morton & Mousseau, 2010).

The 2010/2011 drought in Eastern Africa

In 2010/2011, Eastern Africa was hit by a severe drought that affected more than 13 million people. The drought exacerbated chronic food insecurity to famine levels in several areas. The pastoral areas on the Ethiopia-Kenya-Somalia border faced abject hardships, including loss of about 80 per cent of their livestock and mass migration of pastoralists out of drought-affected areas (FAO, 2011; Headey, Taffesse, & You, 2012). In Kenya alone, between 2008 and 2011 the impacts of drought are estimated to have slowed gross domestic product (GDP) by an average of 2.8 per cent, while damage and losses were estimated at USD 12.1 billion. Further, the highest values of per capita damage and losses occurred in areas where the Human Development Index was lowest (Government of the Republic of Kenya, 2012). Similarly, according to the 2011 situation brief of the Global Facility for Disaster Reduction and Recovery, the drought left 4.6 million Ethiopians in need of emergency food assistance (World Bank, 2011). Pastoralist areas in southern and south-eastern Ethiopia were the worst affected. In addition, cereal markets experienced a supply shock and food prices rose above 2008 levels, resulting in high food insecurity among poor people. In Somalia, the drought is said to have cost the lives of up to 260,000 people, mainly because

food aid came too late and could not reach the affected people for security reasons (al Shabab militia hijacked food aid and killed aid distribution staff) ("2011 East Africa drought", 2017).

Several post-drought assessments highlight the negative role of short-term remedial actions and/or the high cost of inaction or late action in the face of vulnerability to drought (Hillier & Dempsey, 2012). With regard to this, it is well documented that, while food aid can save lives and fend off famine, it also arrives with its own set of problems, mainly because it − almost always − arrives late and creates path dependency. During the recent 2011 drought, early warnings of poor rainfall were noted as early as May 2010. In February of 2011, the Famine Early Warning Systems Network (FEWSNET) issued a further warning that poor rains were forecasted for March to May. However, humanitarian funding did not increase significantly until the UN declared a famine in July 2011 (Cabot-Venton, Fitzgibbon, Shitarek, Coulter, & Dooley, 2012).

The new approach to drought

Responses to drought by governments throughout the world are generally reactive, poorly coordinated and untimely and are typically characterised as "crisis management" (Wilhite & Pulwarty, 2005). In the last decades, though, several international frameworks have prepared the ground for a more proactive approach (see Section 2). Attempts have been made to improve drought preparedness in the Eastern African region, with some success, in particular, in terms of saving lives. However, the devastating impacts of the 2011 drought crisis raised the alarm for a more radical shift in drought-management approaches. It also inspired a number of initiatives. The High-level Meeting on National Drought Policies in March 2013 was one important landmark that echoed the need for shifting approaches to drought management. The essence behind the event was to advise countries to formulate and implement national drought-management policies based on the principle of risk reduction (Tsegai, Liebe, & Ardakanian, 2015).

Furthermore, at the HoA Regional Summit, which took place in Nairobi on 8-9 September 2011, governments and development partners agreed on a Declaration highlighting the importance of developing long-term sustainable solutions to end drought emergencies. Leaders from the region, under the coordination role of the IGAD secretariat, developed the Horn of Africa Regional Disaster Resilience and Sustainability Strategy Framework

with the following overarching moto, as stated in the Nairobi Strategy: "While droughts may be an unavoidable natural phenomenon in the Horn of Africa, their impact can be mitigated by human action". It was strongly emphasised that "Droughts need not, and should not, lead to famine and other disasters" ("The Nairobi Strategy: Enhanced partnership to eradicate drought emergencies", 2011, Art. 71). Furthermore, governments have been showing increasing commitment to formulating national disaster risk reduction policies in line with the Hyogo Framework for Action 2005-2015 as well as committing to the implementation of other global and regional frameworks (MOA [Ethiopian Ministry of Agriculture], 2015).[2]

The lessons from the 2010/2011 drought also inspired a new sense of purpose in the way drought can be managed in the IGAD region. The need to do things differently was strongly recognised: proactive approaches (rather than reactive or emergency approaches); regional cooperation (rather than by individual member states); a two-track response (relief and development rather than humanitarian operations alone); a holistic and multi-sectoral approach (rather than "silos"); and treating drought as a "risk" (rather than a "crisis"). IGAD member states[3] and their development partners were urged to put in place coordinated long-term policies, programmes and interventions aimed at addressing food security and building drought resilience on a sustainable basis. Informed by the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI) Strategy, member states developed Country Programming Papers (CPPs) and a Regional Programming Paper (RPP) for interventions to be undertaken at the national and regional levels, respectively.[4]

Despite the high political commitment and ongoing efforts, drought in the ASALs of the HoA continues to threaten food security and livelihoods. For example, in 2016, Ethiopia dealt with one of the worst droughts in 50 years, with more than 10 million people in need of humanitarian and immediate food assistance. The impact of the drought has exacerbated food insecurity and malnutrition causing significant deterioration of health among the affected community. It weakened coping strategies causing livestock deaths particularly in the pastoral and agro-pastoral regions of the country (USAID

2 Please also see subsections 2.1 and 2.3.1.

3 Djibouti, Ethiopia, Somalia, Eritrea, Sudan, South Sudan, Kenya and Uganda.

4 More information can be found in the IGAD Drought Disaster Resilience and Sustainability Initiative (n.d.): Background.

[United States Agency for International Development], 2015, 2016). Regardless of the severity of the drought, Ethiopia's experience showcases the weak capacity to withstand more frequent and longer-lasting drought conditions by the local population itself (bottom-up resilience) which is still persisting at national level. This can be attributed to a wide range of interrelated factors including environmental degradation, low productivity of land, and the weak asset base of households. Yet, it has to be underlined that inadequate or a lack of domestic policies, governance and institutional capacity are equally important factors for national-level drought resilience.

This study will look into national efforts to mitigate the effects of drought also shedding light on its implications for food security in Ethiopia and Kenya − the two IGAD countries that share common problems within a similar regional context. For long, these countries witnessed solid interlinkage between drought and food insecurity. In recent years, however, government policies and development cooperation have placed much emphasis on severing this link. The aim here is, therefore, to understand in-depth how, following the 2010/2011 drought in the HoA, political commitments for drought-risk management have been translated into action, thereby identifying policy options for enhanced drought resilience at national and sub-national levels.

1.2 Objectives

The overarching objective of this study is to identify improved policy options to enhance drought resilience and thus food security at national and sub-national levels. The study also aims to address the following specific objectives:

- To assess the present performance of drought management systems in Ethiopia and Kenya and document the progress made since the 2010/2011 drought in both countries.
- To identify the factors behind the recurrent negative impacts of drought in Ethiopia and Kenya.

In addressing the above two main objectives, the study will do the following:

- Explore the roles of policies, "governance", and "capacity at all levels" in mitigating or exacerbating drought impacts.

- Assess the role of state actors (at national and sub-national levels) and non-state actors (including NGOs, donors and other stakeholders) in containing drought and related food insecurity.

1.3 Methodology

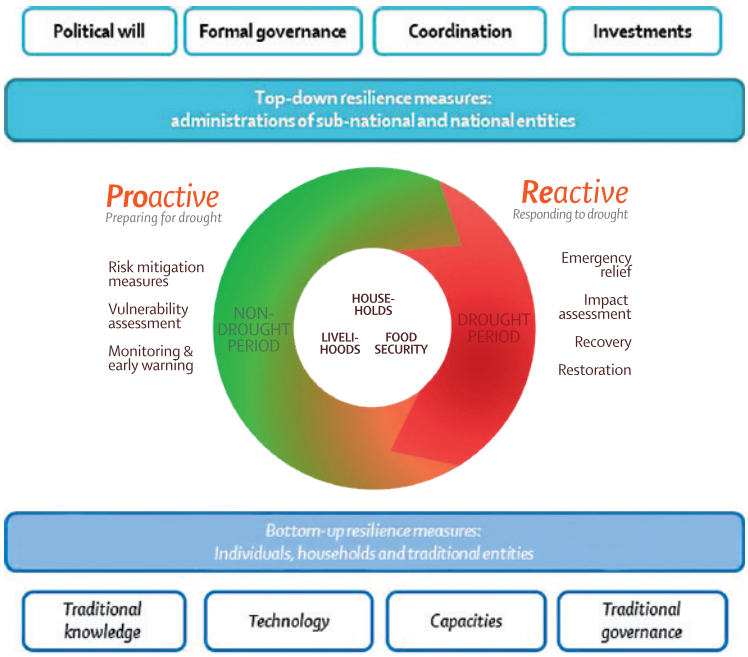
Primary data were collected through field missions to Kenya and Ethiopia between March and April 2016. Ethiopia and Kenya were chosen as ideal countries for the case studies because of i) the long-standing presence of drought and food insecurity with strong co-existence and interlinkage; ii) the dynamic policy and development cooperation activities in these two countries; and iii) the researchers' good access to relevant offices.

Primary data was gathered through in-depth interviews with relevant high-level stakeholders from government and non-governmental organisations including development partners, NGOs and research institutions. A total of 39 stakeholders (26 in Ethiopia and 13 in Kenya) participated in the interviews. The fieldwork in Ethiopia was conducted both at federal and sub-national level. With regard to the later, three regions − namely, Tigray, Afar and Oromia − were visited to further enrich the information obtained from federal level government and non-government stakeholders. The selection of these regions was undertaken after consultation with stakeholders (including government and development partners) in Ethiopia. The criteria used in the selection process included the vulnerability of the regions for drought and food insecurity as well as the presence of long-term development interventions and development cooperation linked to drought resilience and food security. The study also coincided with IGAD meetings in Nairobi that were held between 25 and 29 April 2016. Relevant inputs were gathered by attending the following sessions: the Meeting on Cross Border Cooperation in the HoA (25 April 2016); the Midterm review of IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI) (26 April 2016); and IGAD 6th Steering Committee and 4th General Assembly Meetings in Nairobi (27-29 April 2016). In addition to the fieldwork in Ethiopia and Kenya, complementary in-depth interviews were also conducted with donor organisations in Germany. Secondary data sources were extracted by reviewing relevant documents including international, regional and national policy frameworks, and study papers.

1.4 The conceptual framework for the study

Though drought is of relevance in all country settings, it is particularly critical for food security in the rural areas of poor developing countries. With due consideration of this aspect of drought resilience, the conceptual framework used for the study (see Figure 1) considers that drought resilience-building needs to combine two sets of measures: pro-active measures before droughts strike, and reactive measures once droughts emerge, but with due emphasis on the former. Drought sets off a vicious cycle of impacts at the household level which begins with shocks on livelihood ranging from crop-yield failure, unemployment, erosion of assets, decrease in income, worsening of living conditions, and poor nutrition. This further increases the vulnerability of the poor to increased food insecurity. The situation can be compounded

Figure 1: Conceptual framework for the study: drought-risk management cycle



Source: Authors

by adverse trends related to land degradation through overgrazing, mismanagement of irrigation (such as salinisation), deforestation and soil mining; animal diseases, theft and other livestock problems; lack of alternative income sources and jobs; inability to save, or lack of savings; difficult or expensive money transfers, and so on. The combination of all these factors determines the scale of the impact of drought on the most vulnerable groups. Nevertheless it has to be noted that one must not neglect the secondary, tertiary and spiralling drought impacts on electricity supply, environmental degradation, migration, tourism and loss of biodiversity.

According to the definition used in the drought-risk reduction framework prepared for the implementation of the Hyogo Framework of Action (HFA), "coping strategy" can be understood as "the ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters" (UNISDR [United Nations Office for Disaster Risk Reduction], 2009, p. 13). According to its contextual meaning within the conceptual framework, coping strategies by households (bottom-up measures) to improve resilience may include: animal husbandry (pastoralism as a traditional way of life in dry environments, for instance, allows the mobility of pastoralists with their animals in order to cope with scarce water and pasture); intensification and stabilisation of agricultural production through irrigation; diversification of income through participation in non-agricultural activities; savings (in terms of animals and, more recently, of cash); migration and remittances (income truly independent of local rains). Individual strategies are also enabled, supported, hindered or inhibited by the measures of entities of a higher order (top-down) such as extended families, clans or religious leaders, but in particular by the administrations of local communities and sub-national and national bodies. These set the boundaries within which households and individuals can act; they provide common and club goods which influence private decisions and increase or decrease transaction costs. Institutional capacity and governance issues − together with factors such as peace and stability and the level of political will of these entities − thus constitute important factors affecting individual coping strategies. Activities during the various phases of the cycle are intended to eventually contribute to increasing drought resilience at household, local and national level.

Furthermore, based on the definition adopted by the 1996 World Food Summit in Rome, "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet

their dietary needs, and their food preferences are met for an active and healthy life" (FAO, 1996, p.1).

A number of theories and development frameworks have been used to explain food shortages on various geographical scales which range from global to individual. The widely cited theories include the Food Availability Decline (FAD) (Devereux, 1993; Millman & Kates, 1990), the 'Food Entitlement Decline' (Sen, 1981), the Political Economy Explanations (Devereux, 1993), a theory that considers food shortages as a disaster (Blaikie et al., 1994), and the Sustainable Livelihoods Framework (SLF) which looks at food insecurity as an outcome of vulnerable livelihoods (Carney, 1998; Ellis, 2000; Scoones, 1998).

Drought ranks as the single most common cause of severe food shortages, particularly in developing countries, and represents one of the most important natural triggers of malnutrition and famine. Droughts often turn into famine if compounded by institutional, organisational and policy failure (von Braun, Teklu, & Webb, 1998). Food insecurity exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. It may be caused by the unavailability of food, insufficient purchasing power, inappropriate distribution, or the inadequate utilisation of food at the household level (Burchi & De Muro, 2016). Accordingly, in the developing countries of sub-Saharan Africa severe droughts tend to affect the four dimensions of food security – availability, stability, access, and utilisation. Based on the FAO's 2013 global report on the state of food security, the following section provides a contextual analysis of the impacts of droughts on the multiple dimensions of food security identified above.

- **Food availability:** The amount of food that is present in a country or area through all forms of domestic production, imports, food stocks and food aid. The occurrence of droughts in countries with rainfall-dependent agriculture can be accompanied by a shortage in the availability of food that is obtained through crop and/or animal production.
- **Food access:** The ability to access food rests on two pillars: economic access and physical access. Economic access is determined by disposable income, food prices and the provision of and access to social support. Physical access is determined by the availability and quality of infrastructure, including ports, roads, railways, communications, food

storage facilities and other installations that facilitate the functioning of market.

One of the impacts of droughts is manifested in weakening people's economic access to food. Accordingly, it leads to losses in production and lower incomes, affecting food prices and people's purchasing power. Under such a scenario, it should be understood that while supplying enough food to a given population is a necessary (availability), it is not in itself a sufficient condition to ensure that people have adequate access to food.

- **Food utilisation:** This has two distinct dimensions: The first is captured by anthropometric indicators affected by undernutrition that are widely available for children under five years of age, namely prevalence rates for stunting and wasting in children under five.[5] The second dimension is captured by a number of determinants or input indicators that reflect food quality and preparation along with health and hygiene conditions, determining how effectively available food can be utilised.

  Food utilisation depends on adequate diet, clean water, sanitation and healthcare which come under stress when drought strikes. Progress in terms of food access and availability is not always accompanied by progress in food utilisation. This reflects, to some extent, the nature of malnutrition and its associated anthropometric indicators, which capture not only the effects of food insecurity but also those of poor health and diseases.

- **Food stability:** This complements the previous factors and stresses that food must be available, accessible, affordable and properly utilised on a continuous, long-term basis. Based on the stability dimension of food security, one speaks of chronic and transitory food insecurity. Chronic food insecurity is a long-term or persistent inability to meet minimum food requirements. Transitory food insecurity is a short-term or temporary food deficit (Devereux, 2006). Drought may play a prominent role in two key aspects of stability, namely those that pertain to food supply and food price stability whereby in the case of the former it affects the per capita food production. With regard to food price

5 "Stunting", or "low height-for-age", is a measure of chronic food insecurity, while "wasting" is a measure of transitory, short-term food insecurity (Burchi, 2012; FAO, 2013).

stability, the impacts of drought can be associated with the volatility of food price levels.

The interlinkages among the various dimensions of food security and the cross-cutting and multi-dimensional impacts of droughts further highlight the fact that there is no one single approach to reducing the impacts of droughts. Instead, integrated interventions linked to each stage of the drought cycle are needed in order to holistically address food insecurity and to gradually build up long-term resilience to droughts. Accordingly, the interventions outlined in the conceptual framework interact within a continuous process guiding an integrated system through two major phases: i) Reactive phase; and ii) Proactive phase.

Reactive phase: Interventions during the drought period follow a reactive approach to drought management. Interventions include the provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce impacts on health, ensure public safety, and meet the basic subsistence needs of the people affected (UNISDR, 2009, p. 103).

Activities are also targeted at achieving "recovery" which is the restoration, and improvement where appropriate, of the facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors (UNISDR, 2009, p. 103). Results can be boosted if, prior to the drought disaster, capacity to detect and respond to drought is built upwards from the community level. The framework emphasised that interventions should be based on a thorough understanding of household vulnerabilities and risks and drought impact assessment results. Drought can turn into a crisis if the drought causes a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceed the ability of the affected community or society to cope using its own resources (UNISDR, 2009, p. 103).

Proactive phase: Interventions during the non-drought period follow a proactive approach that comprise the three important pillars of drought-risk management (Tsegai, Liebe, & Ardakanian, 2015). These are i) monitoring and early warning systems; ii) vulnerability assessment; and iii) risk mitigation measures

Monitoring and early warning systems

This includes monitoring of key indicators and indices of precipitation, temperature, soil moisture, vegetation conditions, stream flow, snowpack and ground water. Monitoring may also include impacts of drought on vulnerable sectors (agriculture, health, energy, and so on). Developing an early warning system is a critical step which provides the foundation for drought-risk management planning. Using early warning systems, droughts can be detected, proactive response designed, and actions triggered which all combine to allow steps to be taken towards timely mitigation. Timely data and acquisition of information, synthesis and analysis of data to "trigger" a set of actions as well as a well-functioning information dissemination network are an important set of components for an efficient early warning system. The information base for early warning systems should likewise integrate the traditional knowledge of local farmers and pastoralists (Glantz, 2004; Tsegai, Liebe, & Ardakanian, 2015).

Vulnerability assessment

Vulnerability can be understood as a condition resulting from social, economic, and environmental factors or processes, which increases susceptibility of a system to the impact of drought hazard. Thus, drought vulnerability assessment is about understanding the human and natural processes that add to drought vulnerability (in other words, a vulnerability profile for key sectors) and community resilience and conducting vulnerability mapping for vulnerable communities, populations groups and topographies (geographic areas). Also, developing criteria for vulnerability assessment is needed in order to assess mitigation actions. Such activities include assessing and documenting the type and scale of drought impacts on vulnerable sectors (agriculture, energy, tourism, health, and so on) and vulnerable groups including women, children, the elderly, the sick, the landless, farmers, pastoralists and marginalised communities. The process also includes an assessment of the coping capacity of communities affected by drought (Tsegai, Liebe, & Ardakanian, 2015).

Against the above backdrop and as also shown in the conceptual framework (see Figure 1), a well-established monitoring and early warning system and vulnerability risk assessment help ensure better preparedness for future drought events in the phase of vulnerability.

Drought risk mitigation measures

These are proactive prevention, mitigation and preparedness activities aimed at building drought resilience. The measures comprise any structural or physical measures (such as drought-tolerant crop varieties, improved animal breeds, small-scale irrigation, water harvesting ponds) and non-physical measures (such as policies and legal frameworks, awareness, knowledge development and stakeholder commitment). They are actions taken to build resilience to droughts and to reduce the impacts of drought when it occurs. In disaster risk management (DRM) literature, "drought resilience" is accordingly defined as

> the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. (UNISDR, 2006, p. 4, 2009, p. 103)

1.5 Scope of the paper

Countries in Eastern Africa, specifically Kenya and Ethiopia, were selected for this study with a view to replicating the results elsewhere. However, it is important to note that the scope of this study was very ambitious and that acquiring robust primary data both at national and sub-national levels (particularly in Kenya) was inconceivable within the short period of time allocated to it. It is also essential to mention that unfortunately, the staff of most government offices in Kenya were very busy attending meetings and thus were not available for interviews during the data collection period in Kenya. As a result, the volume of data gathered in Kenya was relatively limited.

2 Relevant frameworks and initiatives

This section aims to present an overview of some of the most relevant global and regional frameworks and initiatives that have been shaping drought management practices in Ethiopia and Kenya. The national contexts are also discussed in light of the recent policy developments in the two countries.

2.1 International frameworks

The Hyogo Framework of Action (HFA) (2005-2015)

At the World Conference on Disaster Reduction in January 2005 in Kobe, Japan, governments and other actors committed to the "the substantial reduction of disaster losses, in the lives and in the social, economic and environmental assets of communities and countries." The result was the adoption of the Hyogo Framework of Action (HFA)[6] 2005-2015: Building the Resilience of Nations and Communities to Disasters". The framework has since served as one key global instrument for reinforcing political awareness and momentum for disasters and risk reduction. It has inspired new policies and strategies and created global and regional mechanisms for greater cooperation and collaboration on the subject (UNISDR, 2006, pp. 5-6).

The Sendai Framework for Disaster Risk Reduction 2015-2030

On 18 March 2015 Hyogo's successor, the Sendai Framework for Disaster Risk Reduction 2015-2030, was adopted at the Third UN World Conference in Sendai, Japan. The Sendai Framework lays out 13 principles and 4 priorities for nations to reduce risks from natural disasters. The four priorities for action are: i) understanding disaster risk; ii) strengthening disaster risk governance to manage disaster risk; iii) investing in disaster risk reduction for resilience, and; iv) enhancing disaster preparedness for effective response and to "build back better" in recovery, rehabilitation and reconstruction (UNISDR, 2015).

The High-level Meeting on National Drought Policy (HMDP)

The shift from a reactive to a proactive approach to drought was the key theme of the High-level Meeting on National Drought Policy (HMNDP) held in Geneva in March 2013. The outputs of the HMNDP are the Final Declaration, the Policy Document advising national drought management policy, and the Science Document outlining best practices for national drought management policy (Sivakumar, Stefanski, Bazza, & Zelaya, 2014). These documents describe, at varying levels of detail, five major outcomes of the HMNDP:

6 The DRM policy of Ethiopia is primarily informed by the HFA as the primary International Framework on DRM (MOA, 2013a, p. 18). See also subsection 2.3.1.

- Nations must recognise the urgency and severity of the drought problem.
- Scientific progress must be made in developing drought monitoring and early warning systems.
- Coordinated and consistent drought vulnerability and impact assessments are urgently needed.
- Drought relief and emergency response and recovery measures must be targeted to better prepare, mitigate and adapt to future drought.
- There is an urgent need for effective drought management policies which mitigate drought impacts by combating land degradation and desertification, implementing integrated water resources management (IWRM) principles and rolling out science-based climate prediction and services.

2.2. Regional initiatives in Africa

2.2.1 Africa Drought Conference

The first African Drought Conference, held in Windhoek, Namibia in August 2016, brought together African Member States and Parties to the United Nations Convention to Combat Desertification (UNCCD), Ministers, Heads of Delegation and experts to discuss ways to enhance drought resilience in Africa. The two major outcomes of the Conference were the Windhoek Declaration and the White Paper on Drought Resilient and Prepared Africa (DRAPA). Signatories to the Windhoek Declaration committed to the implementation at national level of a strategic framework for DRAPA, guided by six principles: i) drought policy and governance for drought-risk management; ii) drought monitoring and early warning; iii) drought vulnerability and impact assessment; iv) drought mitigation, preparedness, and response; v) knowledge management and drought awareness; and v) reducing underlying factors of drought risk.

2.2.2 The IGAD Disaster Resilience and Sustainability Initiative (IDDRSI) Strategy

Since its establishment in 1996, the Inter-Governmental Authority on Development (IGAD) has expanded its focus to promote intergovernmental

cooperation in the areas of food security and environmental protection; promotion and maintenance of peace, security and humanitarian affairs; and economic cooperation and integration. As a Regional Economic Community (REC) recognised by the African Union, IGAD enjoys the membership of eight countries, namely Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda.[7]

Following the Nairobi Summit in 2011, the Heads of State and Government resolved to embark on an IGAD Drought Disaster Resilience and Sustainability Initiative founded in a spirit of collective political commitment to end drought emergencies in the region. The decision echoed the need to do things differently, by combining preventive (rather than reactive) methods, acting regionally (rather than as individual Member State) and using twin-track (rather than only emergency) and holistic (rather than silo) approaches. This involved the urgent introduction of innovative strategies, policies and programmes at Member State and regional levels, aimed at building resilience to climatic and economic shocks (IGAD, 2013, p. 8).

Accordingly, IGAD Member States translated IDDRSI Strategy into their respective Country Programming Papers − for activities at the national level − and the Regional Programming Paper − for interventions planned and coordinated at the regional level.[8] Both the CPPs and the RPPs are fundamental elements of the first phase of the IDDRSI Strategy (2013-2017) and form integral parts of its action plan and programmes.

The CPPs are intended to identify the root causes of vulnerability in individual East African countries, design multi-sectoral responses, identify areas of intervention and investment, and establish adequate national coordination mechanisms to implement the prioritised drought resilience programmes at national level. In addition to this, the CPPs provide regional and cross-border priorities, which will be introduced in a common RPP to guide the programmes to be developed and implemented at the regional level (IGAD, 2013, p. 20).

7 See http://www.igad.org.

8 See the official IDDRSI website http://resilience.igad.int/index.php/programs-projects/rpp.

2.3 National-level policy frameworks towards drought resilience

The enhanced global recognition of the negative and recurrent effects of drought over the last two decades gave impetus for an increasing number of countries to formulate risk management oriented policy frameworks aimed at prevention, mitigation and preparedness in the face of vulnerability to droughts. The need for such a policy move was also strongly felt in Ethiopia and Kenya, the two Eastern African countries where recurrent droughts and their persisting impacts are strongly felt in terms of exacerbating food insecurity and perpetuating poverty. Against the background of the global and regional frameworks of drought-risk management highlighted in the previous sections, the subsection below reviews some of the most notable national-level policy initiatives in terms of their linkage and contribution to drought-risk reduction.

2.3.1 National policy framework for drought management in Ethiopia

The present disaster management system in Ethiopia is a result of years of restructuring and thus entails a long evolutional history, as discussed below.

Evolution of the institutional arrangements for disaster risk management

The first formal governmental disaster management institution in Ethiopia was established in the wake of the 1973/1974 famine. Accordingly, the then Relief and Rehabilitation Commission (RRC) was given the primary mandate to provide relief supplies to drought victims. Two decades later, in 1993, a significant review of the disaster management strategy led to the adoption of the National Policy on Disaster Prevention and Management (NPDPM).[9] This was followed by the development of the policy implementation guidelines in 1995. In the same year, the government restructured again and created the Disaster Prevention and Preparedness

9 The major objectives of the NPDPM were to save lives, integrate relief assistance with development efforts in order to mitigate the impacts of disasters, and enhance the coping capacities of the affected population through the creation of assets in the affected areas. Primarily, the policy guided relief management policies, institutions, and processes whereby drought disasters were detected and resources, especially food aid, were mobilised and prioritised for affected areas.

Commission (DPPC) replacing the former RRC. This brought with it significant changes in mandate, particularly with respect to giving emphasis to linking relief to development. Furthermore, since 1993, policy-making and oversight responsibilities regarding disaster management were vested in the National Disaster Prevention and Preparedness Committee (NDPPC). As of 2003, key sector offices such as the Ministries of Agriculture and Rural Development, Health and Water Resources also became more involved in disaster management through the establishment of emergency sectoral task forces.

In 2004, the DPPC was split into the Disaster Prevention and Preparedness Agency (DPPA) and the Food Security Coordination Bureau (FSCB), with a revised mandate for the DPPA to focus on emergency response and for the FSCB to focus on responding to chronic food insecurity. In 2007, following the business process re-engineering (BPR), the rights and obligations of the DPPA were transferred to the Ministry of Agriculture and Rural Development (MOARD), which led to the establishment of the Disaster Risk Management and Food Security Sector (DRMFSS) within the MOARD. This new institutional arrangement brought a significant paradigm shift in the approach to disaster management in terms of moving from a drought- and relief-focused approach to a more proactive multi-sectoral and multi-hazard DRM approach.

As of December 2015, a new organisational structure led to the establishment of a commission with a primary mandate for overseeing the 2013 DRM policy, the National Disaster Risk Management Commission (NDRMC), and this was made accountable to the prime minister's office (MOA, 2013a, 15-16).

The Disaster Risk Management Policy and Strategy

The 2013 Ethiopian National DRM policy and strategy and its implementation manual, called the Disaster Risk Management Strategic Programme and Investment Framework (DRMSPIF), spell out that, along with drought, Ethiopia is vulnerable to multiple hazards and associated disasters including flood, human epidemics, outbreaks of livestock disease, crop pests and forest and bush fires as well as urban disasters such as fires and other incidents. The DRM Policy and Strategy is intended to respond to the multi-faceted nature of disaster issues in the country and is therefore firmly anchored to the principle of a multi-hazard and multi-sectoral

approach to disaster risk management (MOA, 2013b, pp. 3-4). Cognisant of the timeliness and efficiency of a communication system that such an approach demands including the need for a wide range of reliable data generated by multiple institutions, sectors and decision-makers, the policy puts forward a centrally managed DRM information system. Accordingly, the system envisions integrating information on hazards and associated risks, vulnerability/livelihoods/coping strategies, including the underlying and associated causes from different sectors and harmonises all internal information flows into one system (MOA, 2013a, p. 34).

The policy also envisages establishing an effective, people-centred, integrated, coordinated, accountable, and decentralised disaster risk management system. Accordingly, underpinning the DRM policy is an emphasis on a participatory approach that is both decentralised and community-based. The DRM policy commits to establishing DRM systems whereby communities play decisive roles in the planning, execution, monitoring and evaluation of disaster risk management projects and programmes. This includes due attention to vulnerable groups, especially women, children, the infirm, people living with HIV AIDS, people living with disabilities, and the elderly. The importance of gender within the DRM system is recognised within the DRM policy and is reflected in the formation of a DRM working group on mainstreaming gender in disaster risk management within the Ethiopian Rural Economic Development and Food Security Sector (RED & FS) coordination structures. Furthermore, it emphasises the proper participation of all stakeholders including the private sector, academic and research institutions, humanitarian organisations, and so on (MOA, 2013a, p. 34).

Generally − based on measures to be taken before, during, and after the disaster period − the DRM system is divided between seven pillars. Accordingly, three pillars – **prevention, mitigation** and **preparedness** constitute the core of disaster risk reduction with the aim to ensuring an early intervention. **Institutional strengthening** is the pillar which supports an enabling environment for the integration of these various components along the different phases of DRM. Providing the foundation for the DRM pillars is **monitoring** and **evaluation** and **resource mobilisation.** Linked to this, four taskforces that draw representatives from the government and partners, including donors, UN agencies and NGOs have been formed to execute the key pillars identified in the DRMSPIF. These include i) Early Warning, Risk Assessment, and Monitoring; ii) Prevention, Mitigation,

and Response; iii) Recovery and Rehabilitation and iv) Institutional Strengthening (MOA, 2015, p. 7).

DRM and its broader relevance

The DRM policy in Ethiopia builds on certain notable national- and global-level development frameworks. With regard to the former, Ethiopia's new DRM policy has been designed to respond to the goals of the national development strategy, its Growth and Transformational Plan (GTP), which envisions a middle income, a democratic and developmental state and a carbon-neutral climate-resilient Ethiopia by 2025. Towards this end, there is a strong anticipation that the economic and social development goals of the GTP will be safeguarded and reinforced and the vision of a disaster-resilient Ethiopia will be realised as a result of the implementation of the policy (MOA, 2013a, p. 4). Linked to its global context, the government of Ethiopia is highly committed to operationalising the recommendations for action stemming from the HFA.[10] As a policy implementation manual, the DRM Strategic Programme and Investment Framework is anchored in the priority areas identified in the HFA. One key aspect of the policy, which is also informed by HFA, is related to mainstreaming disaster risk management into development plans and programmes across all sectoral institutions at all levels (MOA, 2013a).[11] Accordingly, the document puts forward establishing a proper and dedicated structure in every designated lead sector government institution to facilitate the implementation of sector-specific disaster risk management activities. Such lead institutions at federal, regional, zonal, *woreda*[12] as well as at Addis Ababa and Dire Dawa City Administration levels will be responsible for undertaking activities ranging from monitoring to response (MOA, 2013b).

10 The Africa Regional Strategy for DRR is consistent with the HFA and transforms the strategic documents produced by the joint initiatives of the African Union (AU), New Partnership for Africa's Development (NEPAD), etc. into detailed actions for policymakers, decision-makers, disaster managers, and development practitioners at sub-regional, national, and community levels.

11 An important international lesson from the Hyogo process that reflects the Ethiopian experience is the need to ensure that DRM is integrated into the response architecture across the government and should not be the sole responsibility of any one ministry.

12 The Amharic word for "district".

According to Ethiopia's report on the implementation of the Hyogo Framework for Action in 2015, one of the major achievements in this regard is the establishment of the multi-sector and multi-agency national platform in the country with the membership of relevant government agencies and development partners. This platform, entitled the DRM Technical Working Group, is also supported by a series of sector task forces such as agriculture, water, sanitation and hygiene (WASH), health, nutrition, education, and so on along with the working group on gender. The national platform was also established at sub-national level, though progress varies according to the particular regional state (MOA, 2015, p. 6).

2.3.2 National policy framework for drought management in Kenya

In the wake of a new constitution in 2010[13] and following the 2010/2011 drought, which was estimated to have affected 4.5 million Kenyans (mainly in ASALs), the government of Kenya adopted a strategy aimed at ending drought emergencies by the year 2022 (Abdi, 2012, p. 63). The ASAL development policy known as the "National Policy for the Sustainable Development of Northern Kenya and other Arid Lands (the ASAL Policy)", approved as Sessional Paper No. 8, was also introduced in 2012 and aimed at addressing the developmental imbalances created between the ASALs and other parts of Kenya. These critical political reforms have been reinforced by some institutional transformations. Among the most notable are the devolution[14] of power to country governments and the establishment of the National Drought Management Authority (NDMA) as a permanent and specialist government body under the Ministry of Devolution and Planning which is tasked with the management of drought and climate risks (Kenyan Ministry of Devolution and Planning, 2015).

In light of the above key political developments, the following section presents a review of the existing policy frameworks that have been shaping drought management practices in Kenya over the last decade.

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13 For the first time, the 2010 constitution of Kenya provides for the sharing of power and resources between the national government and 47 county governments.

14 Devolution of power from the central government to country governments in March 2013 is the most significant change in governance since Kenya's independence.

The Ending Drought Emergencies Strategy

The 2010-2011 crisis in the HoA opened up a new chapter in the approach to drought management in Kenya. The Ending Drought Emergencies (EDE) strategy of 2012 re-frames drought management in terms of the debate on vulnerability and resilience, arguing that drought resilience will only be built by investing in the basic foundations for development (as articulated in the Vision 2030 strategy). The EDE Strategy generated a commitment from the government and its development partners not just to improve future response once drought arises, but to address the challenge of growing vulnerability. Accordingly, the EDE framework identified six key pillars which were also key entry points of strategies in effectively combating drought emergencies: i) Peace and Security; ii) Climate proofed infrastructure; iii) Human capital; iv) Sustainable livelihoods; v) Drought risk management; and vi) Institutional development and knowledge management. These were to be reinforced through accelerating investments in the foundations of development including human capital, roads, water, energy, education and health. Furthermore, strengthening the institutional and financial framework for drought management is identified as a key strategy to ensure more effective institutional frameworks are in place to promote the development of ASALs and manage droughts in a more sustainable way. The strategy also recognises the need for governments to work closely together, given that arid climatic conditions and many responses cut across boundaries (Kenyan Ministry of Devolution and Planning, 2015).

The EDE strategy echoes national, regional and international determination to end drought emergencies in a strongly decentralised national policy context which makes it a unique, comprehensive, enormously positive forward-looking step (Abdi, 2012, pp. 63-64). Against the above backdrop, there is a strong anticipation that devolution presents significant opportunities for achieving the EDE goal, including enhanced resource allocation to counties which have previously been underserved by central governments.[15] It is also perceived to provide space to set out activities in ways that are more attuned to local realities and priorities. This makes the EDE implementation a shared

15 According to the Constitution of Kenya 2010, (Article 185 (2), 186 (1) and 187 (2)), the governments at the national- and county-levels are distinct and interdependent. Moreover, the Constitution of Kenya provides for the sharing of power and resources between the national government and 47 county governments, thus giving space to regions previously marginalised to develop in ways that are more attuned to local priorities (National Council for Law Reporting, 2010).

responsibility of the national and county governments which, in turn, is categorised into 3 groupings based on the specific roles of actors at both levels of the governing structure. These are: i) interventions made by the national government through its sector plans; ii) interventions made by the county governments through their county integrated development plans (CIDPs)[16]; and iii) interventions made by the NDMA and its partners which cut across sectors (Kenyan Ministry of Devolution and Planning, 2015, p. 144).

EDE is annexed in Kenya's long term national planning strategy, "Vision 2030", which sees Kenya by 2030 as a middle-income, rapidly industrialising country, offering all its citizens a high quality of life (Government of the Republic of Kenya, 2007). EDE is given important recognition as one of the "foundations for national transformation" in the second Midterm Plan for 2013-2017 (Kenyan Ministry of Devolution and Planning, 2015, p. 9). In its regional dimension, the EDE initiative represents Kenya's contribution to IDDRSI (Kenyan Ministry of Devolution and Planning, 2015, p. 26).

National Policy for the Sustainable Development of Northern Kenya and other Arid Lands

In recognition of the development gaps and specific ecological, social, economic and political realities in the ASALs that distinguish them from the rest of the country, Kenya has formulated the National Policy for the Sustainable Development of Northern Kenya and other Arid Lands (the ASAL Policy), approved as Sessional Paper No. 8 of 2012. Linked to its contribution to the EDE framework, one of the objectives of policy is to provide policy frameworks for disaster management and ending drought emergencies. To this end, the policy document puts forward the strategies that aim to reduce the effects of drought and climate change on vulnerable communities in the ASALs (Government of the Republic of Kenya, 2015, p. 48). These include:

- Providing and supporting a framework for effective coordination of ending drought emergencies in Kenya.

16 The CIDPs are supposed to be living documents, regularly updated as the operating and institutional contexts change. The NDMA has been working with the county governments to ensure that relevant EDE commitments are mainstreamed in these plans, although this process needs further reinforcement (Kenyan Ministry of Devolution and Planning 2015, p. 144).

- Establishing the National Drought Contingency Fund to ensure timely response to drought.
- Promoting protection of the livelihoods of vulnerable households during drought, including the provision of timely drought and climate information to facilitate early and concerted action by various stakeholders.
- Gazetting and managing emergency drought reserve grazing areas and encouraging the development of buffer areas of crop and forage production, and reseeding, as part of contingency planning.
- Mainstreaming climate foresight and climate adaptation into planning at all levels.
- Exploring opportunities and developing appropriate mechanisms through which communities can benefit from bio-carbon initiatives, wind and solar energy.
- Expanding electrical access, while capitalising on already existing grid infrastructure through last-mile connectivity.
- Supporting institutional frameworks for drought-risk management, and safety net programmes targeting the poorest and the most food-insecure.

Furthermore the policy recognises the need for effective planning and coordination of development and therefore provides a framework for consultation and cooperation between the National and County governments as well as other stakeholders in addressing developmental gaps for the sustainable development of Northern Kenya and other arid lands. Accordingly, the policy in its institutional and legal frameworks sections provides strategies to ensure the coordinated and harmonised development of ASALs, through the establishment of ASAL Transformation Structures (Government of the Republic of Kenya, 2015, p. 52). These include:

- An ASAL Inter-governmental Decision-Making Forum, chaired by the President attended by the Deputy President, Cabinet Secretaries, the Chairperson, Council of Governors and Governors from ASAL counties to provide high-level policy direction and political support to ASAL development.
- An ASAL Inter-governmental Steering Committee comprising Cabinet Secretaries and Governors from ASAL counties to provide leadership across governments.

- An ASAL Inter-governmental Technical Coordination Committee comprising Principal Secretaries and government and county officials.
- An ASAL Stakeholders' Forum, bringing together national and county Governments, UN agencies, development partners, NGOs and the private sector.
- An ASAL Secretariat to provide technical, legal and administrative support to the transformation structures.

The implementation of the ASAL policy is anticipated to contribute towards the Government's vision of security, justice and prosperity for the people of ASALs. It will help achieve the three pillars of Kenya Vision 2030 – economic, social and political (Government of the Republic of Kenya, 2015, p. 30).

3 Ethiopia's experience

3.1 Progress in drought-risk management and its implication for food security

Ethiopia has long years of experience in dealing with drought issues, and has changed its strategy several time (see subsection 2.3.1). The following three subsections attempt to highlight the progress made with respect to the three main pillars of drought disaster risk reduction in light of the national policy framework for disaster risk management. These are: the early warning system; vulnerability assessment; and risk mitigation measures or long-term rural development programmes. Together they comprise the pre-drought-risk management activities, as defined by the conceptual framework of the study.

On account of its many years of dealing with drought, Ethiopia has developed its DRM policy as part of its commitment to the implementation of the HFA. A number of programmes and initiatives have been implemented by the government and its development partners in an effort to contain the negative impacts of droughts on its vulnerable population. Following the aftermath of the 2010/2011 drought, some key policy initiatives were introduced that echoed the need for a shift in the drought management approach in the country. In this regard, a comprehensive Disaster Risk Management (DRM) Policy and a County Programming Paper – which is Ethiopia's contribution

to the IGAD's initiative on the IDDRSI – offer a good example of such policy efforts. Some concrete steps were also taken towards establishing a scientifically and methodologically rigorous and multi-hazard based vulnerability risk profile (*woreda* risk profile) that is anticipated to inform all national DRM practices in the years to come. In addition, the Productive Safety Net Programme (PSNP), one of the largest social protection schemes in Africa implemented over the last ten years to support the chronically food-insecure, has increasingly been used to address drought issues.

3.1.1 Drought monitoring and early warning systems

In Ethiopia, the National Meteorological Agency (NMA) produces weather forecasts covering various different timeframes such as a one-to-three day forecast, a monthly outlook, a seasonal outlook, a decadal outlook and an agro-meteorological analysis to support agriculture and other economic sectors through providing information on the climate. The NMA disseminates weather forecasts through national television and radio, focusing on major cities on a daily basis. The Agency produces quarterly analyses based on climatic and administrative regions within the country. Along with this, it also distributes forecasts via its website (www.ethiomet.gov.et) and presents this on a monthly basis to the disaster risk management platform meeting in the country.

The National Disaster Risk Management Commission (NDRMC), formerly called DRMFSS, produces early warning bulletins as well as monthly early warning and response analysis bulletins. For the purpose of coordination, there is an early warning committee in each administrative structure, that is, at federal, regional state, zonal, *woreda* and *kebele*[17] level.

Ethiopia also has a very sophisticated weather risk management system, the "Livelihoods, Early Assessment and Protection" (LEAP) project that collects remotely sensed data and data from automated weather stations to provide vital early warning information. According to the information obtained from NDRMC, the LEAP software uses agro-meteorological monitoring data to estimate future crop yields and rangeland production, converted to estimates of people likely to be in need of assistance due to anticipated production reductions. LEAP, an early warning-early action tool, combines early warning, contingency planning, risk profiling and

17 The lowest level of administration unit.

contingency finance to support the flexible scale-up of the PSNP. The LEAP system was developed by the government in collaboration with partners (World Food Programme (WFP) and World Bank (WB)).

The study has identified certain limitations linked to the operational capacity of the early warning system in Ethiopia. One of the challenges stems from its small area coverage. At the time of data collection, the dissemination of information focused on cities and specific administrative regions. As a result, the information was less absorbed by communities and disaster managers at rural grass roots level. Moreover, the lack of a clear mandate among stakeholder institutions has led to various interest groups releasing conflicting information, which compromises the credibility of early warning information. A limited use of local and indigenous knowledge on drought characteristics, impacts and risks was also observed. According to stakeholders interviewed, this has been one of the hindrances for early response during drought events.

3.1.2 Vulnerability assessment (*Woreda* Disaster Risk Profiling)

According to the NDRMC experts, the starting point for reducing disaster risk and for promoting a culture of resilience should be knowledge about the hazards and physical, social, economic and environmental vulnerabilities to disasters that people face. Since 2008, vulnerability assessments have been conducted within the *Woreda* Disaster Risk Profiling (WDRP) programme of the disaster risk management commission (DRMC).[18] The programme targets every *woreda* in each region of the country (giving priority to food-insecure ones). Defining disaster risk in terms of hazards, vulnerability and capacity, the *woreda* risk profiling aims at examining the underlying causes of disaster risk in various different risk contexts,[19] informing the kind of early warning and response system that needs to be framed and the design of risk reduction programmes including risk mitigation, adaptation and contingency planning depending on the risk profile and the individual risks

18 DRMC is the former DRMFSS (Disaster Risk Management and Food Security Sector).

19 For instance, it aims to identify specific gender-based risks and vulnerabilities to inform risk reduction programmes.

identified.[20] Accordingly, it was noted that the *woreda* profile will be the basis for all DRM activities in the country (see Annex I).

With respect to its methodology, the disaster risk database relies on readily available secondary data sets including topographic and geomorphic information (International Food Policy Research Institute (IFPRI) Atlas), meteorological information (NMA), demographic information (Census, Central Statistical Agency (CSA)), access to electricity (Electric Light and Power Authority (ELPA)), access to health facilities (Ministry of Health), frequency of disaster occurrence (Risk Baseline surveys), and livelihood sources (the Livelihood Integration Unit (LIU)). Primary data collected at *woreda*-level complements the secondary information, including quantitative data through household surveys and qualitative information gathered through Focus Group Discussions and Key Informant Interviews. For the household surveys, a statistically significant household sample size is used at *woreda*-level (400 households) in which households were selected through systematic random sampling following a two-stage cluster sampling procedure. With due consideration of the gender balance, at least one Focus Group Discussion is conducted in each of the *kebeles* in the selected *woredas*. Key Informant Interviews with *woreda*- and sub-*woreda*-level officials, community leaders and NGOs are the other key sources of the qualitative information. Each *woreda* profile is presented in a short summarised report of a maximum of two pages. In order to ensure its accessibility to users/stakeholders, the complete and validated *woreda* profile is then published through the digital library and made available on the internet (see Annex II).

According to several stakeholders, the development of the *woreda* risk profiles is an important step forward in addressing the root causes of disasters whilst guiding the contingency/adaptation/mitigation plans before the actual occurrence of any hazard including drought. It is perceived as a key initiative providing impetus in light of the much appreciated shift from disaster crises management to disaster risk reduction.

At present, the programme is supported by the government's development partners but this is on a short-term basis. Linked to this, it was emphasised that the department that was carrying out the *woreda* profiling had been

20 The profiling is anticipated to inform the public works component of the PSNP, one of the prominent government-led social protection schemes aimed at contributing to disaster risk reduction.

operating under serious financial limitations over the last five years.[21] At the time of the interviews, only 300 out of the 670 rural *woredas*[22] had a completed profile while the rest were pending subject to funding from development partners. Of the 300 *woredas*, 200 have had their profile developed and available in the DRMC/former DRMFSS Information Management System. Additionally, Contingency Plan and Climate Change adaptation plans have been developed for some 42 *woredas*. However, triggering a response remains constrained. For instance, giving priority to food-insecure *woredas*, the programme has covered around 104 out of 265 *woredas* in the Oromia region. Among these, the disaster risk reduction (DRR) plans were prepared for 18 *woredas* only. Mainstreaming DRR into development plans and triggering a response for implementation is proving difficult due to the limitation of funding and poor capacity to absorb development planning. Stakeholders unanimously agreed that the impact of the current drought crises has also put pressure on funding such initiatives, given the budgetary shift to emergency humanitarian assistance.

Recognising the importance of such profiles in informing the planning and implementation of the country at decentralised community levels, the five-year Growth and Transformation Plan envisaged covering all districts of the country by 2014/2015. However, even though a substantial amount of resources and commitment have been secured from the government and development partners, we note that resource availability still remains a major concern. There is also a technical capacity gap, especially for risk analyses at the local level of the government.

3.1.3 Drought risk mitigation measures

Many of the actions needed to mitigate the impacts of a severe drought require long-term development interventions including investments in addressing poverty and inequality which are two of the root causes of vulnerability to the impacts of droughts. In this regard, Ethiopia has a national development framework and a series of policies and programmes which are primarily linked to environmental management and rural development. Among the most important environmental policies, strategies and legislations put in

21 The cost of covering one *woreda* is estimated at USD 16,000.

22 The *woreda* Disaster Risk Profile Information Management System was developed in 2014; the web-based portal is now accessible on http://profile.dppc.gov.et/Default.aspx.

place include the Forest Policy and Strategy; the Climate Change National Adaptation Programme; and the Forest Development, Conservation and Utilization Proclamation. Furthermore, under the wider policy framework of rural economic development and food security sector, the PSNP and the Sustainable Land Management programme have been widely operational with substantial financial and technical support from Ethiopia's development partners.

The following subsection selectively discusses the PSNP[23] and the Sustainable Land Management Programme (SLMP) which are primarily geared towards addressing the root causes of vulnerability to drought impacts including poverty, food insecurity and land degradation in chronically food-insecure and drought-prone regions of the country. The findings are presented with supporting case stories from Oromia and Tigray regional states. Furthermore, the role of regional resilience-building programmes at national level is presented using Afar region's experience in implementing the Strengthening Drought Resilience Programme under IGAD's regional pastoral drought resilience initiative.

The Productive Safety Net Programme (PSNP)

As part of the wider food security programme, the PSNP was launched by the Ethiopian government and a group of development partners in the year 2005. The programme targets the food-insecure population in chronically food-insecure rural districts and aims to bridge food gaps, to prevent asset depletion at the household level, and to create assets at the community level. For this reason, the PSNP is primarily designed to provide predictable support (food or cash) to households with predictable needs – those households that are chronically food-insecure. In its major component, which covers approximately 80 per cent of the programme participants, it targets healthy and able-bodied adults to carry out public works (PW); as part of its smaller component, vulnerable clients who have no other means of support including the disabled and elderly receive unconditional food and/or cash transfers (MOA, 2014a, pp. 1-2; Gilligan, Hoddinott, & Taffesse, 2009, p. 1).

23 Information on the PSNP is drawn from federal- and regional-level stakeholder interviews in 2015/2016 as well as complementary case stories captured through field visits in March-April 2016.

Besides the standard components, the PSNP includes risk financing/ contingency funds at the regional and district levels that are to be used to expand coverage in the case of drought emergencies. In other words, while the PSNP focuses on chronically food-insecure households, risk financing provides timely resources for transitory food insecurity in response to shocks within the existing programme areas. Risk financing uses a contingent funding mechanism, which provides resources for scaling up activities under PSNP. Such scaling up is based on early warning systems and contingency planning to tackle an impending drought in PSNP *woredas*. Such an early response through risk financing has been considered to have a potential to avoid a shock from becoming an emergency since its benefit lies in the fact that it is early and preventive, rather than late and reactive (Ashley, 2009).

A wide range of literature exists regarding the role of social protection in reducing chronic poverty and vulnerability to disasters as well as in facilitating long-term investment in human and physical capital (Arnold, Conway, & Greenslade, 2011; Barrientos, 2010; Dercon, 2011; Devereux, 2010; Ellis, White, Lloyd-Sherlock, Chotrary, & Seeley, 2008). Ethiopia is among those countries whose experience on the one hand suggests that productive safety nets can make a valuable contribution to protecting assets against "distress sales" for food and non-food needs, improving household food security, raising household incomes and enhancing resilience (Devereux et al., 2008; Headey et al., 2012; Jones, Tafere, & Woldehanna, 2010). On the other hand, some studies have shown less optimism with regard to the role of the programme in protecting households from the negative impacts of livelihood shocks such as droughts and in ultimately building the resilience of its beneficiaries. For instance, using a panel survey conducted in four regions (Tigray, Amhara, Oromia and SNNP), Béné, Devereux and Sabates-Wheeler (2012) found that the positive achievements of the programme were rather shallow as regards guaranteeing complete protection of its beneficiaries from the impacts of severe shocks. Similarly, Anderson, Mekonnen and Stage (2011) did not find evidence that PSNP protected households' livestock in times of climate or economic difficulties/ shock, while Gilligan et al. (2009) documented that PSNP had little impact on participants on average, due in part to transfer levels that were far below programme targets. Reports regarding the destructive impact of frequent droughts on the lives and livelihoods of people, including those in 2008, 2010/2011 and 2015/16, also show that the programme has not yet fully

succeeded in protecting households from the effects of catastrophic crises or in terms of building resilience.[24]

Annexes III and IV present a short summary of the findings from Oromia and Afar regions, two of the regions that were dealing with the impacts of the 2015/2016 drought by the time of the field study.

From the evidence in Oromia and Afar region, it is clear that, under the existing implementation mode and operational capacity, PSNP is still unable to make a fundamental positive impact on long-term household-level drought resilience although it is able to save lives and provide short-term support against asset depletion. This assertion also resonates with some of the earlier empirical findings (Anderson et al., 2011; Béné et al., 2012). Against the above well-established facts, many respondents emphasised that any "standalone" approach to drought resilience is less likely to achieve success in the face of frequent droughts and their associated negative impacts on nutrition and food security than integrated approaches. For instance, integrating livelihood components into the programme could help households diversify their livelihood options and increase their incomes, thus directly improving the availability of and access to food. This can also enhance the utilisation and stability dimensions of food security, thereby enhancing long-term resilience against the heavy impacts of frequent droughts. In response to such needs, the Household Asset Building Programme (HABP),[25] which had only been complementary to PSNP in the previous phases, is integrated into Phase 4 of the latest PSNP. This will be further strengthened with improved financial institutional structures in place in the next five years of the programme's implementation period.

The Sustainable Land Management Programme

There is a mutual relation between land degradation and drought. On the one hand, if land is healthy, it is a natural storage for fresh water. If it is degraded, it is not, and water storage and filtration capacities are lost, as

24 The 2008 failed rains, food shortages and unexpected price inflation left a maximum of 8.6 million people in need of immediate food assistance (Pelham, Braunholz & Clay, 2011, p. 43); the 2010/2011 drought left 4.6 million Ethiopians in need of emergency food assistance (MOA, 2014b).

25 The HABP aimed at building household assets through credit provision, input supply and market linkages. The Livelihoods Component of PSNP4 is similar in many ways to HABP.

well. On the other hand, droughts degrade vegetation, exacerbated by the emergency activities of man such as fires, further overgrazing of crippled grasses, cutting trees for forage or for charcoal to gain a meagre income of last resort, and thus contribute to land degradation. Thus, Sustainable Land Management (SLM) is one way to combat drought. According to World Overview of Conservation Approaches and Technologies (WOCAT), SLM is defined as the use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions (WOCAT, n. d.).

Ethiopia is considered to be one of the sub-Saharan countries most seriously affected by land degradation. It is estimated that some 30,000 hectares (ha) are lost annually due to soil erosion, while over the country as a whole some 1.5 billion tons of soil are removed annually by a variety of erosion processes. With the aim to address the current serious levels of land degradation, an SLMP was launched by the Ministry of Agriculture (MOA) in 2005. It combines technologies, policies and activities that integrate socio-economic and environmental concerns. Actual implementation of the programme commenced in 2009. The programme was planned to be implemented in three phases, over a 15 year-period (Phase 1: 2009-2013, Phase 2: 2014-2018, and Phase 3: 2019-2023) (MOARD [Ethiopian Ministry of Agriculture and Rural Development], 2010a, pp. 7-8).

According to the Ethiopian Strategic Investment Programme (ESIF)[26] document, the overall development objective of the SLM is

> to improve the livelihoods and economic well-being of the country's farmers, herders and forest resource users by scaling up SLM practices with proven potential to restore, sustain and enhance the productivity of Ethiopia's land resources whereas its environmental dimension aims to rebuild Ethiopia's natural capital assets by overcoming the causes, and mitigating the negative impacts, of land degradation on the structure and functional integrity of the country's ecosystem resources. (MOARD, 2010a, p. 8)

26 The ESIF was formulated with the goal of serving as a national-level strategic planning framework that is to be used to guide the prioritisation, planning and implementation, by both the public and private sector, of current and future investments in SLM with the aim of addressing the interlinked problems of poverty, vulnerability and land degradation at the rural community-level.

The SLMP is run under a principle of shared responsibility among the Ethiopian government, its development partners and the communities at grassroots level. It receives its financial and technical assistance from the World Bank (which provides 50 per cent of the total loan[27]), GIZ, the German Development Bank (KfW), the International Fund for Agricultural Development (IFAD), the European Union and the Canadian International Development Agency (CIDA). The MOA is the lead executing agency with its regional subsidiaries: the Bureaus of Agriculture.

The SLMP has been implemented in six regions[28] covering 202 *woredas* (28 per cent of all *woredas* in the six regions). At the time of this study, its coverage was limited to Midland and Highland *woredas*.[29] Field visits to the SLM sites in Tigray were made in early April 2016, a region in the northernmost part of Ethiopia, known for serious droughts and land degradation problems. Associated with these, the region has suffered from declining agricultural productivity and is one that has been seriously affected by chronic food insecurity. The visit covered two community watersheds, namely; the Biche community watershed in Ebo *kebele* and Weynalem community watershed in Tsigea *kebele*, both located on the lower Burka Watershed in Raya Azebo *woreda*, of the Southern zone of Tigray (for case studies see, Annex V).

The findings from government key informants both at regional- and *woreda*-level, along with random interviews with SLM programme participants in the case study region, roughly echo the literature review: The programme has been able to effectively link the environmental rehabilitation aspect to people's livelihoods ensuring that its users benefit economically from the programme. This means better income and better coping capacities, and hence improved food security and resilience. The programme has also inspired women to enter into income-generating ventures such as beekeeping which by norm is considered a man's task. Therefore, while such alternative livelihood schemes increase the income of food-insecure households, it also helps reduce the heavy pressure put on natural resources such as wood for fuel/forests which are used as a source of income among

27 This includes Norway, the Global Environment Facility (GEF) and the less developed countries (LDC) fund.

28 Amhara, Oromia, Tigray, Southern Nations, Nationalities and Peoples' Region (SNNPR), Benishangul Gumuz, and Gambella.

29 Lowland pastoralist areas were not covered by the programme.

the poor.[30] According to the opinion gathered from some beneficiaries and regional experts, the programme is gradually winning trust and social acceptance in communities.

The interviews with federal, regional and *woreda* SLM coordination bureaus also revealed some deficiencies that have slowed down the implementation of the programme. Among the major shortcomings are the availability of limited budget at *woreda*-level, the human-resource gap, and small area coverage. Furthermore, poor coordination with and among development partners has not only caused poor complementarity but also the duplication of efforts.

Respondents also noted that the following lessons should be taken into account to attain nationwide and sustained results on drought resilience and food security through the implementation of SLMP:

- Strengthening complementarity with other projects and programmes based on the principle of shared responsibility by both state and non-state actors is of critical importance to minimise duplication of efforts.
- Strengthening community ownership and scaling up "best" land management practices into non-SLMP *woredas* through labour mobilisation is crucial to ensure the sustainability of best land management practices.
- Increased focus on value addition should be reinforced by a progressive shift from land rehabilitation to the economic development phase.
- Lowland and pastoralist areas should form the target areas of the programme. This would, however, require integrating water management into the SLM practices.
- After careful verification of the effectiveness and efficiency of SLM, the programme should be up-scaled to cover more *woredas*.

The Strengthening Drought Resilience Programme in Afar region

The objective of the Strengthening Drought Resilience Programme (SDR) is to strengthen the production systems of the pastoralists and agro-pastoralists and diversify their livelihoods to enhance the drought resilience

30 In terms of its gender sensitivity, the application of quotas (50 per cent of users should be women) has ensured gender balance in the programme participation.

of communities in selected cross-border areas in the ASALs of the IGAD region.[31] Through the financial support of the KfW, the Strengthening Drought Resilience Programme (September 2013-December 2018) in Ethiopia is being implemented by the Regional Bureau of Pastoralists and Development (BOPAD). GIZ provides technical support in 16 *woredas*[32] in the Afar and Somali regions. Though the programme has local, national and regional focus in Ethiopia, the study exclusively discusses the local-level implementation of the programme in Afar, one of the most drought-prone, lowland pastoral regions in Ethiopia.

Through the SDR Programme, an innovative soil and water conservation technology using water-spreading weirs was introduced in Chifra *woreda* in 2013. Other approaches used in the programme include participatory land-use planning; stone bunds, and so on; range land rehabilitation, de-bushing, management of invasive plants, improved fodder production; livelihood diversification and income generation; capacity development and knowledge management. Annex VI presents one of the components of the programme in Chifra *woreda* of the Afar region, focusing on an innovative soil and water conservation technology using water-spreading weirs.

According to the experts in the field, the effective operationalisation of the technology will have multiple ecological and socio-economic benefits. These include:

- Slowing down rainfall and flood run-off, thereby protecting lowland areas from accelerated erosion. It will also increase the area into which the water seeps.
- Enabling rainwater (3-5 per cent) to be stored, and increasing the area along the banks of the *wadis* (dry rivers), suitable for cultivation.
- Each weir retains some water and alluvial deposits, gradually raising the bed of the *wadi*.
- Raising the level of the water table by up to 20 metres, making it possible to dig wells in areas where there were previously none.

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31 This phase is being implemented in Dikhil Cluster, in the following three cross-border corridors Siyyarou/Yaguer (Djibouti) – Elidaar (Ethiopia) Corridor; Gamarri/Amailé/Dakka/Gobaar/As Eyla (Djibouti) – Afambo/Ayssaita (Ethiopia) Corridor; and Sankal/Bakari/Galangalayta (Djibouti) – Woreda Ayshia (Ethiopia) Corridor.

32 Teru, Yalo, Gulina, Awra, Ewa, Kori, Mille, Jijiga Zurie, Shinille, Errer, Gode, Ayisha, Afambo, Assayta and Elidar.

- Protecting drainage systems, making it possible to improve the low-lying areas.
- Together with improved cultivation techniques (such as the use of different seed varieties and the introduction of new crops), also increasing agricultural and fodder production.
- Promoting the growth of vegetation cover. Moreover, off-season cultivation will also be possible, providing farmers with more income, and thus reducing food insecurity in this critical period.
- Reducing the workload of the women who have to draw and carry the water.
- The technology also has other comparative advantages in that maintenance is not complex, and requires only minimal effort, provided there is no major damage.

With respect to the overall SDR programme, certain institutional factors will play a critical role as to whether the programme is successful or not. Quality standards with regard to all aspects of implementation should be given adequate attention throughout the implementation. For this, awareness, capacities and accountability have to be created among stakeholders. Above all, the motivation for change among the pastoral and agro-pastoral communities as well as community-level ownership and commitment at community, regional and national government levels is likely to promote the success of the programme. Furthermore, building the capacity of local implementing stakeholders − including service providers, NGOs and engineering offices − is indispensable to ensuring the sustainability and scalability of the programme. Sustainability can also be ensured if the knowledge base on dry land ecosystems is strengthened through effective communications and technical knowledge-sharing mechanisms among the stakeholders on a vertical and horizontal scale, though these may require a long-time horizon.

3.2 Governance and institutional bottlenecks

Over the last five years, the government of Ethiopia has shown a great deal political leadership and commitment by introducing policies aimed

at reducing the negative effects of disasters including drought.[33] The field investigations confirmed the increasing political commitment by the government. Many of the government stakeholders and development partners interviewed noted that the government had significantly improved its capacity to respond to droughts and had succeeded in preventing famine and loss of human life. For instance, the Ethiopian government spent USD 800 million in controlling the impacts of drought in 2016. This kind of self-reliance at country level, amidst one of the worst droughts in years, was perceived by some of the respondents as a sign of resilience.

Other stakeholders have shown their strong scepticism about whether such kind of responses could be interpreted as meaningful drought resilience, both at household and national level. One interviewee noted "We have food reserves, money reserves, and a strategic fleet. But it has to go beyond that. The preparedness has to develop further. Our preparedness is there, but it is not something to be confident [proud about]."

Generally, the responses obtained from federal and sub-national level government stakeholders, development partners and research institutes boiled down to emphasising that development efforts are primarily skewed towards post-drought emergency assistance as opposed to pre-drought proactive measures. Accordingly, resources are often mobilised for responses based on the regular Humanitarian Requirement Documents (HRDs). Furthermore, emergency responses are not adequately linked to the existing long-term development interventions, rendering drought management relief oriented and one-dimensional as opposed to taking the twin-track approach of linking relief to development interventions. As a result, the existing long-term investments, aimed at creating drought-resilient and food-secure households, are not efficiently absorbed.

Against the backdrop of the above mentioned political practices, the views of stakeholders on the reasons behind the slow progress towards proactive drought-risk management can be summarised as follows.

33 More recently the government has taken steps with the aim of strengthening national disaster risk management which included transforming the Disaster Risk Management and Food Security Sector (DRMFSS) into a full-blown commission, the NDRMC, accountable to the highest body of the prime minister office (see subsection 2.3.1 on the evolutional history of NDRMC).

Lack of common understanding on the concept of "drought resilience"

Even though "drought resilience" is one of the most frequently used terms among DRM stakeholders, there is no clear and uniform understanding of the term among government stakeholders including those at sub-national level. The study noted that some stakeholders lacked clarity in distinguishing between the contributions of short-term responses and long-term development measures with respect to their relevance in building up drought resilience. For instance, the government's response to the current drought derives mainly from its use of national reserves, and thus the successes made in terms of preventing loss of human lives per se was frequently mentioned as an indication of resilience by some stakeholders. However, the damages this drought has inflicted in terms of destroying people's livelihoods − to the extent that it pushed even well-performing farmers into impoverishment (as shown by the Dodota experience[34]) – should not be underestimated. The longer-term programmes mentioned above are still insufficient, and early response to drought (post-impact intervention) is not simply synonymous with resilience. Therefore, in the absence of more widespread proactive measures aimed at preventing such losses, preparedness mainly through short-term *response* to drought alone may even undermine longer-term development efforts. Under such circumstances, the PSNP that has been implemented over the last ten years is found to be less sensitive to resilience measures at household level.

Poor governance: ineffective communication of early warning information, and delayed action

Ethiopia's early warning system is one of the oldest in Africa. According to the responses from federal-level stakeholders, poor management of early warning information and related governance issues are still major obstacles to its proper functioning. Linked to this, the availability of multiple sources of early warning information and the lack of a clear structure regarding the responsibility of consolidating drought information from government and other sources were identified as problematic. In fact, though it is much disputed among stakeholders, and thus difficult to substantiate, there were claims that information on the upcoming drought was available many months before the declaration of the drought was made. This has undermined

34 See Annex III, Box 2.

mutual trust and accountability among stakeholders and eventually caused delays in action during drought events.

Furthermore, even though there are vertical and horizontal coordination platforms in the form of task forces,[35] it was pointed out that the early warning information in such platforms, which is normally used for planning preparedness activities is mostly used for informing humanitarian actors to intervene/respond in the wake of drought crises. As a result, the available early warning information does not appear to have been used to stimulate drought preparedness before drought struck.

Inadequate institutions

Even though some concrete steps have been taken to improve coordination mechanisms through the establishment of agricultural task forces, key informants frequently mentioned that such coordination structures were weak at regional and lower levels of administration (see Annex VII). Some stakeholders reported that coordination discrepancies were even visible at the federal level. For instance, the Federal DRM section of the DRMFSS under the MOA was responsible for leading the coordination of the Agricultural Task Force at federal-level before the recent restructuring which led to the creation of the MOA and the NDMC as two separate government bodies with their own distinct sectoral mandates. Even though the current arrangement demands that the MOA lead the coordination of the Agricultural Task Force, by the time of this study the Ministry was said not to be responsive in taking over its responsibilities.

Furthermore, the lack of a clear mandate at times led to the duplication of efforts and inefficiency in terms of resource utilisation and the eventual development outputs. As spelled out by some federal-level interviewees, this was partly attributed to competition for funding, among certain organisations, regardless of institutional and resource capacity, including skilled manpower.

35 From lower *woreda*-level administration to the highest federal-level with membership from various line ministries, NGOs and DPs. Agriculture task forces have been established at regional level (for instance, Amhara, Tigray, Afar Somalia except SNNPR, Borena, Guji, Gode, City Zone (at zonal level).

It was also noted that drought resilience programmes and initiatives that had been implemented by government, development partners and NGOs were not sufficiently supported by comprehensive institutional setups facilitating coordinated action among the relevant actors at various levels. This is particularly true of long-term development programmes and initiatives. For instance, the contingency fund/risk financing of PSNP has been poorly integrated into the overall DRM framework. As a result, in the past the PSNP implementing body has at times failed to provide timely alerts to trigger contingency funds on the onset of drought crises.[36] Such kinds of coordination gaps at programme level tend to undermine the contribution of long-term development interventions in addressing drought issues, namely harmonising PSNP activities in line with early warning system (EWS) information.

With regard to the role of non-state and external actors, a number of development partners have been active in financing drought resilience initiatives in the country. Among the most notable and long-standing funding/development partners include the German government (through GIZ and the KfW),[37] the United States Agency for International Development (USAID),[38] FAO,[39] the WB[40] and the European Union[41] that are active in different regions including lowland pastoral areas. Stakeholders' opinions obtained from all of the above named organisations echoed that most of the projects funded consisted of efforts to address the issue of drought with focused strategies to tackle the root causes of the vulnerability of people in drought-prone regions.

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36 The risk finance was re-named as contingency budget during the PSNP 4. The contingency budget has also been trigged during the current drought.

37 The German government has a strong profile in engaging in development-oriented projects in the country. An example is the support by GIZ for the SLM and Strengthening Drought Resilience project.

38 USAID has been supporting the Pastoral Livelihood Initiative since 2013.

39 Since 2011, FAO has structured itself into five strategic programmes: Capacity; Early warning; Timely response; Application of risk reduction measures; Preparedness and response.

40 The World Bank has supported regional programmes such as the Regional Pastoral Livelihoods Resilience Project (RPLRP), national programmes (SLM, PSNP), and a number of other development-oriented projects.

41 The European Union has been funding projects dealing with the construction of roads, water supply, biogas digesters, energy-sector development and solar appliances.

Based on triangulation of results from in-depth interviews, economic and technical levels, cooperation between development partners and government actors, both at federal and regional level, can be roughly described as being fairly straightforward and synergetic. However, the political landscape apparently suffers from mistrust and limited transparency/limited mutual accountability. On the one hand, the knowledge transfer and learning process as a result of collaboration between development partners and government has been accredited as an indispensable achievement by government stakeholders. On the other, however, there is a level of scepticism as to the genuine interest of some development partners in contributing to long-term development interventions roughly characterising them as "emergency-oriented" as opposed to "development-oriented". Some national interview partners even claimed that, as a result donors were keeping Ethiopia in misery and dependence. On the other side, selected human rights abuses (HRW [Human Rights Watch, 2012] are seen critically by some development partners and make them reluctant to rely entirely on government information and plans.

In addition, drought resilience projects implemented by some of the long-standing NGOs in the country (such as Oxfam and the Mercy Corps) claim to have achieved enormous success in terms of strengthening the coping capacity of vulnerable populations in some of the remote lowland pastoralist regions of the country. Mercy Corps has been a leader in the implementation of the USAID-funded project PRIME. This five-year project aims to improve the lives of chronically food-insecure and vulnerable populations in pastoralist communities in dry lands with a special focus on pro-poor market development. Oxfam America (OA) and the United Nations World Food Programme (WFP) have been implementing the Rural Resilience Initiative/ R4 which builds on the initial success of HARITA (HoA Risk Transfer for Adaptation), an integrated risk management framework developed by Oxfam America, the Relief Society of Tigray (REST), Ethiopian farmers, and several other national and global partners. The initiative combines improved resource management (risk reduction); insurance (risk transfer); livelihoods diversification and microcredit (prudent risk taking); and savings (risk reserves). It supports the most vulnerable people in graduating out of food insecurity and escaping the poverty trap. However, the study notes that, despite the impressive achievements made through such resilience initiatives, weak follow-up and complementarity with government development programmes, as well as poor uptake and integration of some

of the best practices into long-term development programmes by the government has undermined upscaling and the sustainability of the efforts by NGOs.[42]

To sum up, the study has revealed that the responsibility for managing drought risks is spread across multiple government and other agencies which requires strong coordination and harmonisation at the highest levels. This is not always the case. Thus, it has to be stressed that strong mechanisms and incentives for collaboration must be developed further at all levels so that adequate synergies can be effectively created and duplication avoided.

Knowledge management

Integrated research and development efforts are key to overcoming the food insecurity, poverty, drought and environmental degradation which are common in different agro-ecological zones of the country. Over 50 years, one of the foci of the Ethiopian Institute of Agricultural Research (EIAR) has been applied research in support of the productivity and sustainability of livestock production as well as improvements in utilisation and management of the rangeland resources in the pastoral areas. With a strengthened focus on the Pastoral and Emerging Regions, the Research and Capacity-Building Directorate was established in 2011/2012 as a coordination office. It primarily had a mandate to undertake technology pre-scaling up, capacity-building and cross-cutting tasks in the pastoral and emerging regions/areas of the country.[43] The Institute has developed and generated different technologies, knowledge and information that contribute to the food self-sufficiency of pastoral and agro-pastoral communities.

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42 According to the IDDRISI strategy paper 2013, p. 35 "Non state actors including NGOs, private sector and professional and pastoralist organizations will be given a bigger role to play in the IGAD development and drought resilience initiatives. The IGAD/civil society organizations and non-governmental organizations Forum and the IGAD – Business Forum which was established pursuant to the decision of the Council of Ministers of IGAD is expected to serve as the mechanism to involve civil society and private sector appropriately in the policy formulation and strategic planning discussions, and the planning, designing and implementation of IGAD programmes" (IGAD, 2013, p. 35).

43 It has targeted Afar, Somali regional states, South Omo and Borana zones of the SNNP and Oromyia regions, respectively (pastoral areas) and Benshangul-Gumuuz and Gambela regional states (emerging regions).

Against the above backdrop, it can be fairly concluded that efforts to link research outputs to the agricultural extension systems are well underway at country level. Nevertheless, senior researchers at EIAR strongly emphasised that Ethiopia's development strategy in the pastoralist areas has flaws which can be attributed to the lack of knowledge of the pastoralists' production system. Furthermore, it was noted that strategies that were based on already-existing knowledge about highland production systems led to flaws when devising development strategies for pastoralist areas.[44] Lack of adequately skilled manpower (researchers, lab technicians, support staff), high staff turnover, budgetary gaps and a lack of sufficient audio-visual materials have led to poor documentation of research outputs and the absence of knowledge-management within the Institute.

Furthermore, interviews with IGAD's national coordination office revealed that, even though one of the priority intervention areas according to the CPP document of Ethiopia is "knowledge management", no funding goes to supporting that component.

Decentralisation and weak capacity

The placing of households in the centre of the conceptual framework of this study is an indication of the fact that it should be the central purpose of any drought-risk management effort to reach the people in need who, in many cases, are living on the periphery and in remote underdeveloped rural areas. This calls for the need to recognise the importance and specificity of local risk patterns and trends and to decentralise responsibilities and resources for disaster risk reduction to relevant sub-national or local authorities. Strong implementing capacities at all levels, with an emphasis on local solutions for local levels, are thus of vital relevance to the success of drought-risk reduction efforts.

The study identified institutional, organisational, technological, human and financial capacity gaps at multiple levels. This was more pronounced in pastoral regions/emerging regions of the country (including Afar, Somali, Beneshangul, Gumuz and Gambella) in which years of neglect by previous governments have caused a sharp development imbalance vis-à-vis the

44 According to the stakeholder, the country has no pastoral extension system, the focus still being on production of maize which is only of use to the agro-pastoralist areas.

rest of the country.[45] These regions were not only the last to implement decentralisation[46] from the Region to *woredas* but have also suffered from slow progress in implementation, mainly attributed to the acute capacity gaps mentioned above.

Even though there has been high level political commitment[47] and increased support for these regions during the current regime, the findings suggest that institutional, organisational, technological and human capacities are yet to be strengthened to enable pastoral regions to process and use information for mobilisation and efficient utilisation of resources. The regions still rely on federal-level governments for planning, directions and technological support in carrying out their regular development activities. This, in turn, not only undermines their ability to identify, prioritise and plan their public service according to regional needs but also leaves insufficient room for the grassroots-level participation of the most vulnerable population.

Furthermore, organisational, technological and human capacity limitations at *woreda*-level are a common problem across the country. Stakeholders emphasised that *woredas* lacked adequate office space, equipment and communications and IT facilities including computers to transmit EW and Risk and Vulnerability Assessment information. The shortage of skilled manpower due to the high turnover of staff has a huge impact on both the

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45 Literacy levels are very low, particularly in the pastoral regions and it is not much different in the agro-pastoral regions. The emerging regions are characterised by small, scattered and nomadic populations, making it more challenging to provide public services. Most of the areas are inaccessible, with poor or no roads and few social services such as schools and clinics. There are also very limited personnel in the specialist fields.

46 Increased support for the decentralisation of power to these regions and then to the *woredas* has been a centerpiece of the development strategy for tackling the high vulnerability of these regions to droughts and other disasters. This has been strongly advocated for fast realisation of improved accountability, responsibility and flexibility in service delivery and increased local participation in democratic decision-making on factors affecting the livelihood of the grassroots population.

47 Institutionally, the major policy steps implemented so far by the Federal Government include securing the constitutional rights of pastoralists not to be displaced from their own land; devolution of power to regions and hence *woredas*; and formation of pastoral institutions, including a Pastoral Affairs Standing Committee in the Parliament, and a Pastoralist Area Development Department (PADD) and Inter-Ministerial Board under the Ministry of Federal Affairs. The Pastoral Areas Extension Team and Pastoral Development Coordination Team, within the MOA, are responsible for providing institutional support to the pastoral regions as well. In addition, the pastoral regional states have reformulated many of their institutions to incorporate pastoralism in their planning processes.

number and quality of personnel in government offices. It was stressed that aggressive measures are urgently needed to attract and retain qualified civil servants.

Last but not least, the shortage of funds to support the building of long-term drought resilience has been reported as a major impediment to progress towards proactive drought-risk management in particular, and the disaster risk management process as a whole. For instance, stakeholders at the DRMC echoed the point that the lack of funding to complete the *woreda* risk profiling, which started in 2008/2009, has been a challenge for moving forward in implementing effective disaster risk management.

3.3 Interim conclusion

The shift from short-term responses to long-term development measures is an ongoing feature of efforts towards drought-risk management in Ethiopia. Linked to this, some concrete steps have also been taken showing an improvement in the knowledge base with respect to managing risks as opposed to crises. Ethiopia, under the leadership of a designated Commission − the Disaster Risk Management Commission (DRMC) − has recently developed both a DRM policy and legislation on Disaster Risk Management. On the one hand, the strategies put forward in these documents, including the mainstreaming of the DRM concept into sectoral development plans and interventions, which is clearly in line with international and regional frameworks, represents remarkable progress. On the other hand, however, the DRM policy and legislation is set out to address drought along with many other hazards: Here, it has to be underlined that droughts − unlike other disaster hazards − are predictable, slow on the onset and large-scale phenomena, the management of which requires different skills and mind-sets compared to other disasters. Furthermore, drought largely affects the ASALs, which are still recovering from decades of marginalisation and under-development, which further strengthens the need for a special policy-level focus to address drought issues in these regions. If the existing policy is to make a meaningful impact in reducing the negative effects of drought, then drought should be given a stronger focus in the disaster risk management.

Long-term development programmes, such as the PSNP and SLMP, represent important entry points for promoting drought-risk management practices at national level. However, some important revisions are required, if the

contribution to drought resilience and food security is be fully realised. PSNP needs to be supported by substantial funding for its livelihood component in order to strengthen its impact on drought resilience. Moreover, its integration into the existing DRM approach needs to be more fully translated into actual practice on the ground. Similarly, the potential role of the SLM programme in drought resilience could also be enhanced by increasing its area coverage and including additional intervention components that are well adjusted to arid and semi-arid agro-climatic contexts. In this regard, the programme may extend its reach to cover degraded lands in other regions including remote pastoral and lowland areas. Overall, strengthening complementarity through mutual learning among various drought resilience initiatives, including both PSNP and SLM, requires further attention to enhance the role of long-term development measures in building long-term drought resilience.

Furthermore, at national level the IDDRSI has inspired drought resilience investments in the ASALs of the country. However, the visibility of the initiative could be improved in light of the CPPs' special focus on the regional dimensions of such drought-resilience efforts. At aggregate level, the political will and the commitment of the government and its development partners in strengthening actions aimed at ensuring resilience (the later through funding regional resilience initiatives) is evidence to the solid commitments made towards realising its goals. However, there is room for improvement in terms of harmonisation of efforts on the part of development partners.

Drought preparedness in terms of budget allocation from national resources is quite significant. However, the cost of delayed action during the 2015/2016 drought crisis has apparently been huge. The implication of shifting budgets from the regular long-term development programmes to emergency interventions because of unexpected impact of drought has become quite destructive to the sustainability of the impact of such development programmes. The 2015/2016 experience is not only another opportunity to see the mistakes behind past practices but should also inspire stakeholders − including governments and development partners − to draw some lessons for better drought resilience actions at national level.

In a nutshell, the study finds that the poor resilience to droughts and the persisting food insecurity in Ethiopia is as much a political and governance issue as it is a capacity concern. Therefore, it can be fairly concluded that

more work is still needed in terms of fine-tuning and strengthening the policy, institutional and legal bases for properly functioning drought-risk management at national level (see Section 5 for recommendations).

4 Kenya's experience

4.1 Drought risk management and the role of actors amidst devolution

Following the devastating impacts of the 2010/2011 drought in Kenya, the country took concrete political steps towards the goal of ending drought emergencies by 2022. One of the most crucial policy measures was the introduction of the Ending Drought Emergencies initiative and the Common Programming Framework (CPF). As a guiding strategy document, the CPF operationalises EDE commitments through a coherent framework that recognises the structural vulnerabilities of those living in ASAL areas and strengthens collaboration and synergy across sectors, development partners/agencies and counties. The formulation of the strategy is well integrated with the Country Programming Paper and it is also the government of Kenya's contribution to the regional IDDRSI.[48]

Following a new Constitution put in place in 2010, the devolution of power marked another key milestone that brought a major political reform in the form of decentralisation of power from central government to 47 devolved counties. Most of the functions related to drought management and in particular to resilience, such as agriculture and disaster risk reduction, have been made to devolve. Against the general principles that guide the EDE, a strong focus was given to addressing the structural causes of vulnerability to drought, including inequalities in power and resources in the country. This is anticipated to be reinforced by building the capacity of devolved county governance through strengthened inter-governmental synergy and collaboration through agreed coordination mechanisms.

Field interviews were carried out at a time when stakeholders' involvement in drought-risk management was preoccupied with building and strengthening the institutional bases of the newly devolved county governments. In reinforcing the above statement, a stakeholder from the Ministry of

48 See subsection 2.3.2 for readings of the Common Programming Framework for EDE.

Agriculture, Livestock and Fisheries (MOALF) said: "Our success depends on the county governments. Our focus is on the county governments." Against the above background, this section synthesises the progress made over the last five years in light of drought-risk management objectives envisioned in the EDE strategy. It also captures the role of state and non-state actors in four specific areas of support and collaboration with the county governments. These are: mainstreaming disaster risk management into County Integrated Development Programme[49]; empowering county governments and drought-vulnerable communities, coordination among stakeholders; and the use of early warning information.

Mainstreaming disaster risk management into county CIDPs

Mainstreaming disaster risk management into CIDPs has been one of the priority areas of the Kenyan government since devolution was put into effect in Kenya. With most of the functions that relate to the EDE pillars[50] including agriculture and disaster management being devolved, investments in these areas are being increasingly absorbed into the CIDPs. The government is said to be aggressively working on this deconcentration. In addition to drought-risk management, the ministry collaborates with county coordinators who are responsible for ensuring that the development plans at county level have adopted elements of disaster risk management. This is set as a precondition for the counties to acquire funding for programme implementation on the ground. The process also invites vulnerable grassroot communities to map out the most pressing disasters that require priority intervention. Furthermore, consultations have been carried out to influence county governors to introduce legislation on drought management, disaster risk management, as well as climate change adaptation. Though some counties are more advanced than others, through time it is expected that all counties will mainstream drought resilience into their CIDPs. However, it was stressed that this requires the continued collaboration and goodwill of governments − at both the national and the county levels − and between counties.

49 The key guiding document through which counties implement the EDE Strategy (see also subsection 2.3.2).

50 Disaster risk management and climate change are part of the pillars of EDE.

Empowering county governments and drought-vulnerable communities

Despite the provision given in the constitution of Kenya regarding the management of natural resources being in the hands of the community, interviews with stakeholders revealed that local decisions are very often ignored in government plans. Operationalising provisions granted in the law requires a thorough understanding of how each community functions, including the local regulations. Several respondents stressed that there is a need to put sound mechanisms in place to support communities in enforcing the regulations. Against this backdrop, the relevant ministries at federal level are forging efforts towards empowering both counties and the local community in drought-prone ASALs. For instance, in pursuit of ensuring sustainability of resource use and effectiveness of investments, the MOALF − with the support of technical expertise − has been raising its voice to influence investment decisions so that they are based on local circumstances. At the same time, the ministry has been empowering local pastoralist communities, ensuring that their local traditional knowledge, such as grazing land management, is entrenched into both national and county strategies.

Furthermore, stressing the indispensable role that should be played by the county governments in ensuring sustainable land-management practices in ASALs, a stakeholder from the Ministry of Environment, Natural Resources and Regional planning explained that the efforts of consultation with county governments are ongoing. Focus is geared towards creating SLM platforms to assist counties in dealing with land degradation issues on the ground.[51] However, issues of funding, awareness, weak inter-governmental cooperation (between National government and those of the counties) and capacity gaps (both human and technological) at county level are slowing down the process.

Many of the stakeholders interviewed mentioned that there was a considerable level of engagement by NGO/civil society organisations in Kenya. For instance a respondent from SusWatch, a civil society organisation, highlighted that his organisation sensitises counties to be the driving force in the implementation of some of the international conventions (including UNCCD and UNFCCC), to which Kenya has committed to

51 It was also stressed that the SLM programme also serves as an entry point and opportunity to achieve land degradation neutrality (LDN) targets by 2030.

implement. He further commented that the organisation's role in raising the awareness of county governors on various environmental issues has been quite significant.

Notable success stories regarding communities' gradual uptake and ownership of some donor-supported initiatives in drought-prone ASALs were also highlighted. For instance, some encouraging results were seen as a result of the United Nations Development Programme (UNDP's) support in alternative livelihoods (bee keeping, livestock markets) in Northern Kenya. Increased awareness on environmental issues on the part of county-level agricultural experts and grass roots communities is another positive impact of the strong partnership between development partners and counties.

Coordination among stakeholders

The EDE Common Programming Framework emphasises the need to link general coordination mechanisms that harmonise technical assistance from national government and development partners with the county governments. This has been identified as a crucial step towards creating an enabling environment for the implementation of the EDE strategy in which state and non-state actors are supposed to carry out their activities in a coherent and harmonised manner.

The National Drought Management Authority, under the Ministry of Devolution and Regional Planning has the mandate for leadership and coordination of all matters related to drought management in Kenya. It hosts the EDE Secretariat which is the focal point in government for the EDE initiative. The Secretariat will service the Inter-Governmental Forum, the Inter-Governmental Committee on EDE matters and the national EDE Steering Committee. The Inter-Governmental Forum is the apex body, chaired by the President and attended by the Governors from drought-prone counties. It provides political direction to the EDE within the framework of the Intergovernmental Relations Act, 2012. The Inter-Governmental Committee is chaired by the Cabinet Secretary with responsibility for drought management in Kenya and attended by Cabinet Secretaries from the national government and Governors from counties covered by the EDE. At political level, the Inter-Governmental Committee and the (less frequent) Inter-Governmental Forum are used to facilitate coordination between national and county governments and to provide political leadership.

The NDMA also chairs the National EDE Steering Committee, whose members include the government chair, development partner co-chair of each pillar of EDE and other co-opted members. The government chairs ensure links to the relevant sectors and ministries. It meets every quarter year to provide operational oversight of the EDE as a whole and to ensure progress towards the 10-year goal. The EDE Steering Committee provides technical coordination at national and county levels, in which the interests of the different pillars, including both state and non-state actors, are represented. The national committee is replicated in purpose and membership by a parallel structure at the county level, whose precise title and modalities are determined by the Governors.

Furthermore, the NDMA serves as the IDDRSI focal point/secretariat to both the national and county steering committees. It engages effectively with IGAD's IDDRSI platform in order to clarify Kenya's regional role in championing EDE, to contribute to regional objectives, and to benefit from regional opportunities for learning, peer support and resource mobilisation (see Annex VIII).

Whilst the established structures are the backbone for a coordinated stakeholder environment in the country, some complimentary and supportive efforts have been initiated by certain non-state agencies. For instance a respondent from a local CSO, SusWatch, explained that the organisation had a vested interest in carrying out mediation works to facilitate better coordination among state and non-state actors. There is a lot of optimism and strong anticipation that this will address the communication barrier between local communities and higher-level government entities as well as county governors and national-level stakeholders. Furthermore, while linking county governments to information sources on international processes,[52] it also serves to contain the information gap at county level with respect to some of the government-led and DP-supported drought resilience programmes. In connection with this, the respondent also mentioned that the organisation was at the initial phase of securing funding to start operation under the framework of the SLM programme run by the Ministry of Environment, Natural Resources and Regional Planning. Emphasising the funding limitation to operationalise such coordination programmes,

52 The organisation envisions facilitating the mainstreaming some of the UNCCD issues into the Integrated Development Plans of the counties by bringing information closer to the county government officials.

it was further stressed that such initiatives of building bridges between stakeholders are costly and require the availability of adequate resources.

Use of early warning information

At national level, the early warning system in Kenya is housed in the Kenyan Meteorological Department. The agency is strongly supported by the IGAD Climate Prediction and Applications Centre (ICPAC), a specialised institution of IGAD with its headquarters in Nairobi. The main climate information products from ICPAC are issued in the form of regular bulletins including ten-day, monthly and seasonal climate/weather bulletins, climate watch/El Niño updates and annual climate summaries along with seasonal climate outlooks (for March to May, June to August, and September to December).

The information on weather prediction and the expected results is used by sectoral ministries to plan communally. Depending on the state of expected results (normal, alert, alarm, and emergency or recovery situations) it provides guidance for interventions by relevant sectors. Given that the counties are responsible for undertaking the response measures, some efforts have been made with respect to the need to speed up and facilitate the communication flow. Once a steering committee chaired by the governor of the county has identified the gaps using the early warning bulletins, then recommendations for a response will be made in a form of request. Since communication is web-based, depending on the quality of the request, response from the national government may be given within a day. This reduces the time laps between request and response. However, some respondents noted that poor take-up and utilisation of early warning information by stakeholders, both at federal and county levels, often caused weak preparedness and late action in the face of frequent droughts. Some details are presented in subsection 4.2.

Linking relief with development interventions

The artificial divide between "humanitarian" and "development" practices has been shown defective since people's daily lives are often associated with multiple and interlocking forms of vulnerabilities. Such an understanding has led to the need to link relief with development measures towards broad-based interventions that address various aspects of vulnerabilities in drought-affected communities. Towards this goal, the flexible use of funding in the form of a crisis-modifier has been introduced for fast and responsible

use of resources in the wake of drought crises. One respondent, for instance, highlighted that some of the country's long-standing humanitarian partners had made a swift shift towards this goal. The WFP, for example, has supported "cash for assets" programmes, land rehabilitation, as well as soil and water conservation and irrigation schemes through the mobilisation of the community where the community gets paid for its labour. The European Union is collaborating with the government of Kenya in piloting a crisis-modifier approach for prompt response to drought in ASAL areas. What is more, UNDP and GIZ[53] were mentioned as long-standing partners in financing and technically supporting long-term development interventions that were contributing towards building drought resilience.

4.2 Governance and institutional bottlenecks

Kenya is at an early stage of a paradigm shift in its drought management approach, compounded by the radical devolution policy. Accordingly, establishing mechanisms that allow early action has been one of the policy priorities for the government of Kenya. This is also shared by most of its long-standing development partners that are actively involved in supporting the country's vision to end drought emergencies by 2022. Even though the country is at an early stage of building the foundations for the realisation of some of the reforms, some notable and enabling measures have already been taken, both at federal and county level. Some of the actions taken were aimed at improving the organisational, institutional and human resource base of the country. Towards this end, the establishment of the NDMA, with its devolved functions at county level, have given a special impetus to the overall political efforts.

According to the responses obtained from various federal-level stakeholders, for the most part the state of drought management practices follows a reactive approach. Furthermore, it was noted that the system is not yet free from the influence of crisis management that it experienced in the past. Interventions are still quite short-lived and are usually operated through a succession of time-bound projects as opposed to implementing an anticipatory, long-term and preventive approach to drought-risk management. Holding an analytical lens to the country's performance with respect to the shift from short-term

53 At the time of the interview, GIZ was supporting a long-term drought-resilience initiative in Marsabet and Turkana counties

responses to a proactive approach to drought-risk management and in light of the progresses made since the 2010/2011 drought, the following section presents some of the obstacles against fast progress in drought-risk management.

Poor absorption of contingency funding

The EWS is supposed to alert and trigger support for the vulnerable communities upon a given threshold before the onset of droughts. However, the National Drought and Disaster contingency fund, through which the support is made, was not yet ready to be operationalised at the time of the field data collection. For that reason, a number of stakeholders emphasised that this gap undermined early response and forced reliance on budgetary re-allocations, which were slow to process, and thus took resources away from long-term investment in drought resilience.[54]

Accuracy and use of early warning information

The NDMA relies on sector departments for technical data, which at times are not reliable. At the same time, though, ensuring the accuracy of data and understanding it in the sector departments is critical if the right conclusions are to be drawn and activities planned accordingly. Moreover, there is usually a time gap between information about impending threats provided by the EWS and the response of government to act. Some stakeholders interviewed noted that the government tended to save its image and was usually slow to declare a drought which it perceived as a sign of political weakness. Late reactions led to loss of effectiveness and often higher costs in the long run; these delays had to do with the lack of trust and perception people felt towards their EWS.

Weak implementation capacity at county level

With all the ongoing efforts put together to build up the capacity of counties, several stakeholders interviewed noted that some of the counties were still far from taking full responsibility as regards drought-risk management.

54 The Kenya national Policy for the Sustainable Development of Northern Kenya and other Arid Lands sets out a strategy of establishing a National Drought Contingency Fund to increase responsiveness to drought. This includes ASALs Education Trust, a Livestock Marketing Board, a ASALs Investment Fund, and a Health and Nutrition Council for ASALs (see subsection 2.3.2).

Dependency on national functions and a lack of goodwill among county governments is further reinforcing perceptions that see drought management as the responsibility of the nation. At the time of the study, some functions at federal level had not been devolved. Legislation in the 23 counties which was mostly the target for the EDE may take a long time to materialise due to inadequate capacities to legislate. Furthermore, the shortage of personnel and the lack of strategies in terms of policy direction at the county level are some of the constraints to fast progress towards drought-risk management.

Harmonisation of activities among stakeholders

Many stakeholders stressed that the platform of coordination among drought-resilience stakeholders is characterised by diverse interests and approaches. According to the view of a government stakeholder: "There are donors who work in line with our policy documents; there are others who like to try to do things here and there which we cannot prevent."

The lack of a coordination framework for mapping drought resilience activities being undertaken by the multiple actors contributes to the risk of duplication of activities among the development partners, NGOs and CSOs.[55] Moreover, short-lived projects and a focus purely on alternative livelihood approaches at the expense of neglecting the main livelihoods (presumably due to the pressure of showing immediate tangible results) were mentioned by some of the stakeholders interviewed as factors that undermined the efforts of some donor-supported initiatives with respect to following a harmonised programmatic approach in project implementation. Linked to this, limited involvement of national academia and research institutions in providing science-based directions on drought resilience measurements was considered a missed opportunity.

4.3 Interim conclusion

Since the devastating impact of the 2010/2011 drought, Kenya has gone through a series of institutional reforms that have significantly shaped the political landscape of its drought management system. Kenya has made a determined move towards the national goal of ending drought emergencies by 2022. Past milestones of political reforms and the ongoing efforts of

55 Development partners hold individual meetings on EDE, for example ADB/WB/FAO/ Ministry of Agriculture.

institution-building in Kenya offer opportunities for fast-track improvements in drought-risk management at national and county level.

In light of such changes, the continued collaboration and goodwill of governments, both at the national and the county level, the devolution of functions that relate to EDE pillars, and the subsequent integration of disaster risk management into the CIDPs are some of the steps that offer opportunities to ensure effective implementation of drought-risk management on the ground.

The empowerment efforts (which have both institutional and personnel dimensions) are other crucial measures in the process of strengthening local capacity for carrying out activities on the ground. In this regard, substantial support at county level is a critical step taken in pursuit of allowing county governments to own some of the processes that were previously at federal level (including the country's commitments to international conventions) and independently carry out activities on the ground. Such a bottom-up approach can make a long-lasting impact in terms of ending short-lived development interventions that largely ignore human needs. In other words, allowing the vulnerable people to grasp and prioritise their needs can also ensure the integration of their local knowledge into local development planning which, in turn, leads to strong ownership and commitment at local level, thus further reinforcing the sustainability of drought-risk management efforts.

Furthermore, the steps taken in establishing multi-level coordination platforms are encouraging measures that could lead to strengthened joint planning and increased harmonisation of activities among national government, development partners and CSOs/NGOs. The improved scale of practice in linking relief with development interventions among development partners is a step forward towards a twin-track approach, as opposed to a one-dimensional relief effort in the wake of drought events.

However, some critical concerns still remain to challenge the ongoing efforts of drought-risk management. Poor absorption of contingency funding, gaps in accuracy and utilisation of early warning information, institutional and human capacity gaps at county level, and slow progress in the harmonisation of activities between government and development partners are the major impediments to fast progress in drought disaster risk management. With due recognition of the revitalised interest of partners towards EDE, joint planning and the harmonisation of activities between

state actors and development partners remain challenges for a well-tailored and effective drought-risk management at country level.

Kenya, with a vast area of ASAL, is highly vulnerable to droughts. At the same time, it is the most prosperous country of the region. Under such circumstances, the need − but also the opportunity − for steady progress in the shift towards managing risks as opposed to crises in the country cannot be overstated. Without making a premature judgement, it can be fairly said that Kenya is on the right path towards its shift to a proactive approach in drought management. Further work is required, if the gains envisaged in the political reforms are to be translated into real economic and social benefits on the ground.

5 Lessons learned and policy options

The study draws the following eight key lessons and respectively puts forward recommendations which are derived from our work in Ethiopia and Kenya. Although, generally, they are not a substitute for comprehensive drought strategies and many can be already found within existing strategies, these are the ones that we think need more emphasis as regards implementation:

1. A clear understanding, by stakeholders, of short-term disaster relief activities versus long-term development measures towards resilience-building is key for effective drought-risk management at community, sub-national, national, regional and global levels. This can be achieved by:
    - Enhancing the visibility of the regional comprehensive drought-risk management strategies, in particular the IDDRSI and the CCP, through promotion and awareness-creation both at national and sub-national level.
    - Engaging in constantly updating such strategies, for instance based on a review of experiences in new droughts and/or inspired by emerging international frameworks.
    - Facilitating knowledge-sharing by strengthening partnerships with public institutions, the private sector, civil society, research institutions and academia.
    - Using state and non-state channels, including mass media, to create awareness on drought, its multi-sectoral impact as well as its wider implication for national and regional peace and stability.

- Ensuring the availability of funds through various resource mobilisation mechanisms including fund raising, to carry out public awareness on drought-risk management.
- Empowering young Africans through provision of informal trainings on Sustainable Land Management and other drought-risk management techniques.
- Promoting awareness on drought issues in primary and secondary schools by integrating the subject into school curricula.
- Creating incentives and inspiring the young to engage in volunteerism and public events related to drought-risk management.

2. It is vital to promote the integration of drought-risk management approaches into long-term development measures. Such measure should allow adequate flexibility to specific situations and address the needs of vulnerable groups. We recommend:

   - Conducting drought-risk assessments based on the vulnerability profile of various groups (for instance, gender; landless youth; people with disabilities) to ensure that interventions benefit the needy.
   - Finding particular solutions and providing more targeted support to areas of arid and semi-arid land (ASALs).
   - Developing livelihood protection and "no-regret" options for assisting vulnerable communities and households prevent and mitigate the impacts of drought, prepare for crises, and respond to them.
   - Following a subsidiary approach as a guiding principle for long-term drought resilience where resilience is first and preferably sought at the lowest possible level (the household). This can progressively grow to resource mobilisation at higher-level structures (community, district, region, nation) when increasingly severe drought surpasses households' capacity to withstand drought impacts. It should, however, be recognised that a strong, multi-year drought can exceed the resilience of most of the poor; thus giving preference to the lower level does not mean that higher-level efforts should not be strengthened.

- Linking humanitarian and drought-risk management interventions (development measures) in a way that mutually reinforces the efficiency and effectiveness of such measures.

3. Effective communication among all relevant stakeholders is decisive for efficient and properly functioning drought early warning systems, preparedness planning, better targeting and proactive action for emerging droughts. This will require:

   - Establishment of a regional/national independent and credible platform that consolidates the early warning information from various sources. This can be in the form of a consortium of various governments, NGOs and research institutions with high profile expertise and reputations.

   - Improved transparency and the provisioning of access to data for all relevant stakeholders would facilitate the process.

4. The impacts of drought are multi-pronged and their management require strong multi-sectoral collaboration. Therefore, a strong and comprehensive connecting institution is indispensable to enhance coordination among governments, development partners and non-government organisations in carrying out long-term activities towards drought resilience-building. For this, the following is necessary:

   - Establishing a coordination unit with a solid authority, clear accountability and sufficient capacities to carry out its responsibilities.

   - Enhancing specialisation and clarity of roles among sectors, organisations, development partners and agencies.

5. Drought knows no geographical or sectoral boundaries, particularly in developing countries with old transboundary linkages, pastoralists and more or less open, uncontrolled and uncontrollable borders. Drought episodes thus call for strengthened collaboration among African countries, regional and sub-regional institutes, and international organisations in the implementation of drought-risk management and implementation plans. Thus:

   - IGAD and other African regional organisations should harness opportunities for stronger collaboration among countries. National actors are advised to use such regional initiatives and perceive them as support, not as a competing threat to their national efforts.

- IGAD and other African regional organisations should prioritise and help mobilise resources for cross-border initiatives that enhance cooperation.

6. Monitoring and evaluation and knowledge management is vital for effective follow-up, reporting and documentation of drought resilience efforts and achievements. Therefore, we recommend:
   - Establishing an independent, strong monitoring and evaluation system under the above proposed coordination unit responsible for monitoring and evaluation, identifying strengths and weaknesses and ensuring scale up of good practices.
   - Developing mutual accountability among government, non-government stakeholders and development partners (DPs) through reporting.
   - Facilitating the exchange of information, and documentation of lessons learned. In other words, IGAD and other regional organisations should also strengthen their capacity to play a strong role as a knowledge hub for drought resilience and the dissemination of information.
7. Emergency funding is short-term and costly, and more so the later engagement starts. Therefore:
   - Development partners and governments should increase funding for drought resilience as opposed to emergency funding.
   - The use of contingency funding should be enhanced to link relief and development and provide easy and quick funding for early action.
8. Building the capacity of individuals, institutions and organisations is decisive to process and use, as well as to efficiently mobilise and absorb, resources. It is essential to:
   - Exploit readily available internal expertise and enhance efforts to reduce labour turn over at national level with a special focus on sub-national level.
   - Improve and use national, sub-regional, and regional drought preparedness networks for capacity-building, development and technology transfer.

In sum, drought can be leveraged as a "connector" among sectors, actors and various government levels and can therefore serve as an opportunity for governments to enhance policy coherence, not only for droughts but also for other natural disasters.

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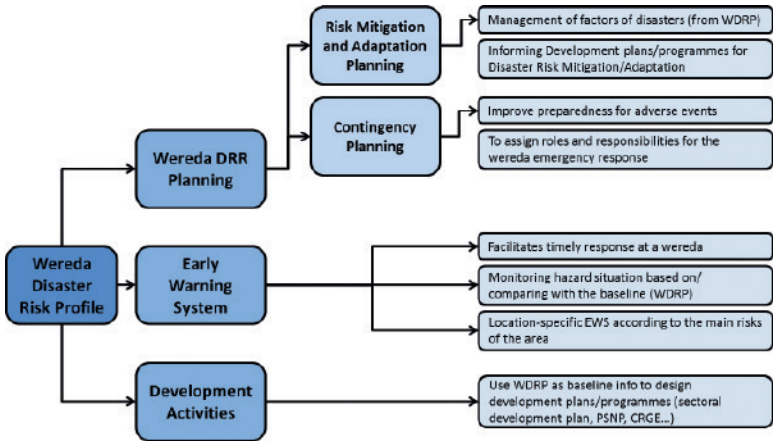
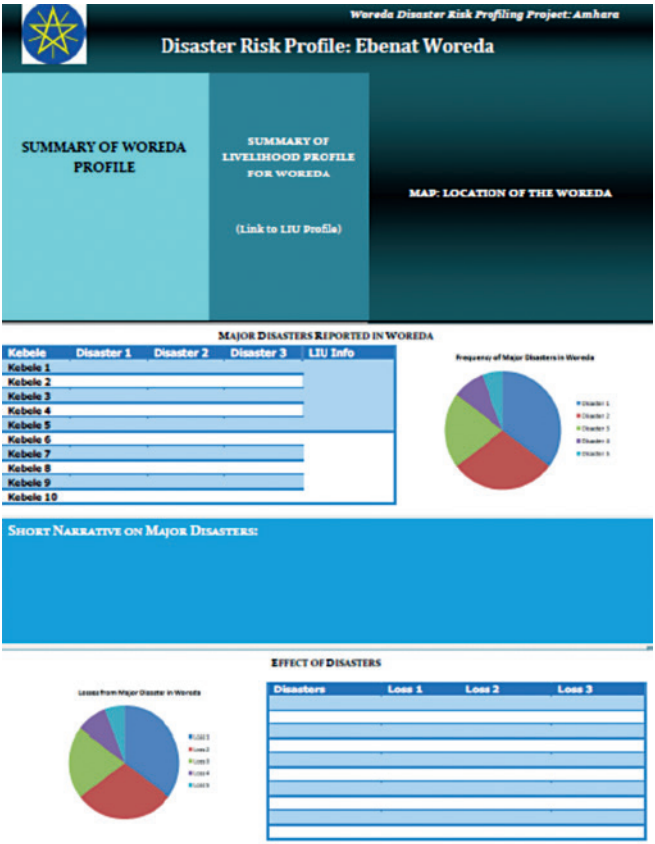
Annexes

Annex I: The *Woreda* Disaster Risk Profile and its linkage with the DRM system in Ethiopia



Source: MOARD, 2010b

Annex II: Sample *Woreda* Disaster Risk Profile



Source: MOARD, 2010c, p. 18

Annex III: Case study of PSNP and drought resilience in Oromia Region

Box 1: PSNP and drought resilience over the last 10 years: Oromia region

In Oromia region, PSNP has made notable progress in terms of filling food gaps and reducing the depletion of households' assets due to disasters. There was also wide consensus among regional stakeholders that through its public works (rehabilitating degraded land and the rehabilitation of destroyed social infrastructures), the PSNP had succeeded in bridging relief and development efforts as compared to one-dimensional relief efforts in the past. Despite these achievements, most of the *woreda* and regional level experts interviewed agreed that, with frequent droughts, the programme would need additional tools to ensure sustainability and to build long-term resilience at household level. For instance, the six months of support/food/cash transfers made under the programme were perceived by the *woreda* experts as insufficient to sustain the food needs of chronically food-insecure households throughout the year. Lack of integration of livelihood supporting schemes into the programme has also hindered asset-building among drought-vulnerable communities. Weak linkage with the disaster risk management programme (up until the 4th phase of PSNP) has undermined the potential of the response operation made under the contingency budget. As a result, the contingency budget has predominately focused on saving lives through provision of relief assistance *after* the occurrence of droughts. Because of this, the system was not able to support recovery and rehabilitation interventions identified on the basis of the local context. Neither was it implemented in an integrated manner with development plans and programmes to rehabilitate affected people and reduce future risk and vulnerability.

Besides the above, the poor quality of public works and flaws in the technical design had a negative effect on the environmental and technical sustainability of the public assets produced. This has been visible particularly in the construction of roads and water infrastructures. Key informants also expressed their concern regarding the pressure on *woredas* to force clients/households to graduate from the programme prematurely. It was reported that nearly 50 per cent of PSNP clients have graduated from the programme over the last 10 years.

Box 2: Case study 1: Dodota *woreda* in Oromia region and the impact of the 2015/2016 drought

Dodoto *Woreda* is located in the Arsi Zone of Oromia Regional State, at a distance of 125 km from the capital city, Addis Ababa. This drought-prone and food-insecure *woreda* consists of 15 *kebeles*, in which 12 are rural. The rural *kebeles* are home to a little more than 10,000 households. Located in the dry (*kola*) climatic zone of the country, the *woreda* has been experiencing frequent droughts over the last decade. It was reported that nearly 50 per cent of PSNP clients have been able to graduate from the programme over the last 10 years. According to the focus group discussion held with the *woreda* officials, the 2014 El Niño had a widespread impact in the *woreda*, affecting all of the 12 rural *kebeles* and putting the *woreda* on the emergency recipient list. In fact, by the time of the field visit, PSNP was operational in all of the 12 *kebeles*. The impact of the drought went to the extent of weakening the coping capacity of even the well-performing and relatively wealthy households in the *woreda*. Some graduated PSNP clients were forced to return to their beneficiary status after losing most of their assets. As of 2016, the total number of PSNP clients in the 12 rural *kebeles* stood only at 66,565. Yet, given the current situation, an additional 13,587 clients would require support through the PSNP.

Annex IV: Case study of PSNP in the Afar region

Box 3: Case study 2: PSNP in Afar region

By early April 2016, the seasonal rains in Afar region had failed for almost two consecutive years. Severe drought in the region caused large-scale livestock deaths and a severe shortage of food, weakening the coping capacities of the pastoralist and the semi-pastoralist communities. As one of the long-term rural development programmes, the PSNP has been implemented in all of the rural *woredas* of the Afar region since 2008. Since then, the programme has helped chronically food-insecure households bridge their food gaps and protect the depletion of assets at household level. A number of community asset-building works have also been carried out through the public works authority. Nevertheless, as one PSNP expert pointed out, one cannot strictly assume that the programme has made a substantial impact in terms of creating a drought-resilient community. It was further stressed that the constraints seen over the years have both nature- and capacity-related dimensions. As regards the former, it was pointed out that mobilising the community for public works during longer periods of drought has become a difficult undertaking since shortage of water has frequently forced communities to move to new settlement areas including to neighbouring regions of Amhara and Tigray. Ultimately, the respondent made a statement saying: "There is sometimes a wrong perception out there that the government alone can change the existing bad situation; we are beginning to see that this hardly is possible unless nature cooperates."

The programme also faces certain capacity gaps, including the lack of skilled manpower to function at its full capacity. For instance, despite the availability of a much wider range of technological options for the public works projects, the question of finding proper support for design and supervision is still unresolved. For this reason, some of the technologies used for land rehabilitation under the public works have serious quality problems. To address this gap, the government is seeking technical collaboration, for instance with a programme of the German international cooperation agency GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) to strengthen its " cash-for-work" programme. It was pointed out that the government has plans to scale up the water-spreading weirs technology (an innovative technology for mitigating flash floods while facilitating the infiltration of the water to rebuild groundwater reservoirs) built with the technical support of the GIZ in Chifra *woreda*. Furthermore, shortage of other resources (such as equipment and vehicles) and poor public infrastructures remain a serious problem in the region. At the time of the interviews, it was reported that the region owned only two trucks to distribute forage (obtained through aid) to all the districts in the region and that field experts were unable to reach remote districts in time.

Annex V: Case study of SLM sites in Tigray region

Box 4: Case study 3: SLM sites in Tigray region

Biche Community watershed located in Ebo *kebele* of Raya Azebo district in Tigray region supports a total of 242 beneficiary households (nearly 1,210 people) among whom 28 are landless youth. It is one of the districts that experienced the failing of the two consecutive seasonal rains in 2015. The *kebele* is among those drought-prone *kebeles* with a vast area of severely degraded land that is exposed to soil erosion. One of the youth user groups in this watershed is engaged in cultivating cash crops on highly degraded land of steep gullies that were once fertile lands. During the field visits, some of the key beneficiary informants stressed that they had noticed a substantial decrease in soil erosion and subsequent soil formation as a result of the treatment of gullies carried out under the SLMP.

For instance, deep trenches, bench terraces and water pans were used to conserve water, reduce effects of erosion and rehabilitate degraded land. The user groups were able to use treated land to cultivate fast-growing and less water-demanding cash crops such as backthorn and sweet potatoes. The cultivation of fruits such as orange and papaya has also been made possible using water accumulated through the water pans. In addition to their role in terms of stabilising and holding rain water in the soil, multi-purpose plants, such as elephant grass and ere are used for fodder production.

SLMP participants, who were engaged in the construction of feeder roads at the time of the field visit, expressed their satisfaction as a result of their participation in the SLMP. They also appreciated the employment opportunities offered through the programme and the wages they were entitled to through their participation in some of the SLMP activities in their community. In addition to this, some respondents proudly expressed strong confidence with respect to their contribution to the development efforts in their region. Among the participants interviewed was a 34-year-old man who had recently returned home from Riad, Saudi Arabia where he had lived as an economic migrant. In his opinion, he saw a better opportunity working in his village than living abroad. His future plan was to start his own business using the credit opportunities offered by the region.

The Weynalem community watershed (located in Tsegea *kebele* of Raya Azebo District) benefits 384 rural households (nearly 1,920 people). In this watershed, land management practices such as protected area, gully treatment works, water harvesting and small-scale irrigation around backyards have been widely practised. Moreover, through spate irrigation technology introduced through the programme, farmers have been able to conserve flood water for the cultivation of cash crops in their own yards while protecting the land from further erosion. Beyond the economic benefits from growing cash crops such as coffee, papaya, mango, oranges and backthorn, the area was able to remain resilient despite the failing of the seasonal rains in the years before.

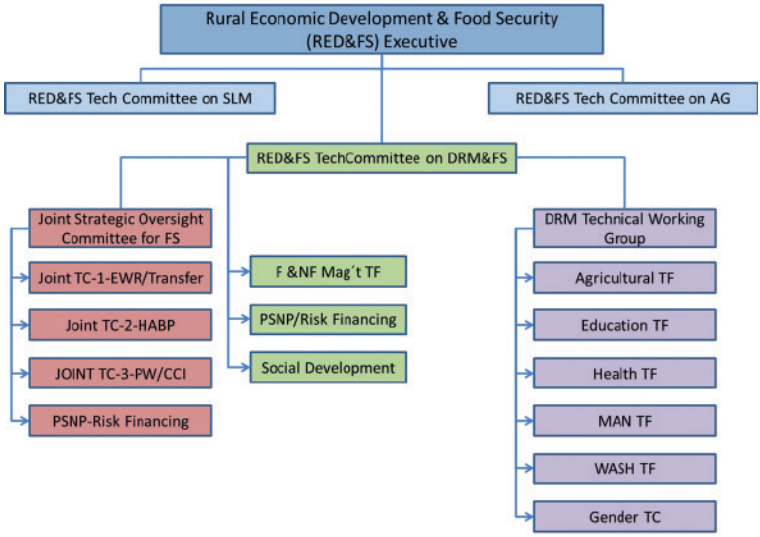
Annex VI: Case study of Afar region during the 2015/2016 drought

Box 5: Case study 4: Water-spreading weirs for drought resilience in Chifra woreda

Afar region is known for experiencing frequent droughts. Severe droughts in the years 2002, 2006, 2010, 2011 and 2015 have had devastating impacts in the region. During the field visit (2016) drought had even forced some pastoralists to migrate and settle around Awash river and the neighbouring Amhara region. The region also experiences severe floods stemming from the neighbouring regions, particularly from the highlands of Gojam. These cause severe erosion, environmental degradation, bush encroachment and the invasive (alien) species. This has created huge pressure on the existing land and water resources, exacerbated the vulnerability of the pastoralist and agro-pastoralists, and instigated conflicts over dwindling resources.

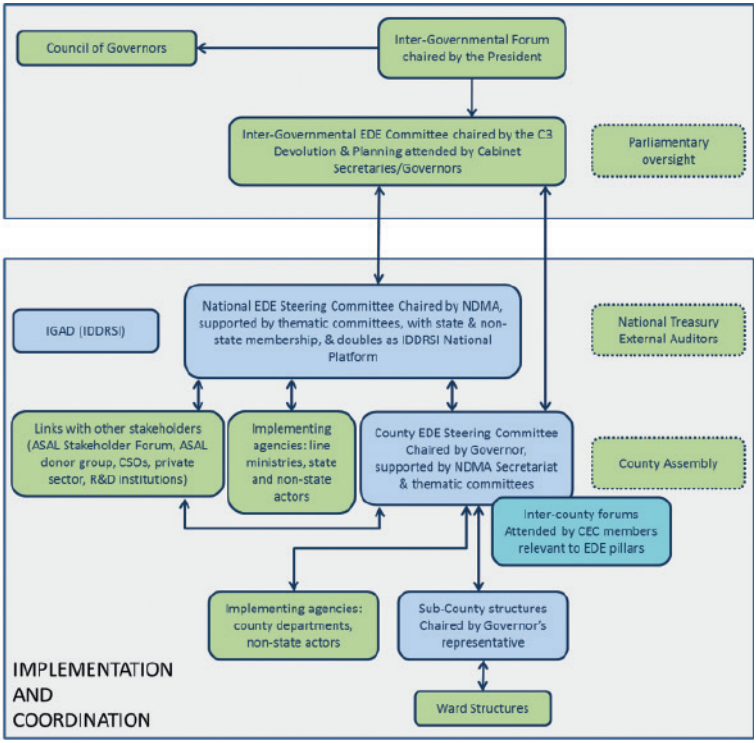
A field visit was made to Chifra *woreda*, Awol *kebele* of Afar region in early April 2016. Over the last 15 years, floods passing through this *kebele* from the highlands of Gojam have caused severe land degradation leading to the formation of deep gullies in vast areas. Water-spreading structures have been built to hold and spread flood water for the production of forage and other purposes. The structures have made significant positive impact in terms of rehabilitating pasture land and speeding up soil formation on highly degraded barren lands while even gullies as deep as 2 metres have been rehabilitated and filled with soil. In years of good floods, the community was able to grow vegetation (improved fodder varieties) and crops such as teff and maize using the water accumulated by the water-spreading weirs. By the time of the field visit, the community was waiting for the flood so that they could start planting. It was noted that one of the challenges of using the water-spreading weirs was the dysfunctionality of the technology in the absence of flood or rain.

Annex VII: Institutional arrangements for multi-stakeholder coordination



Source: MOA, 2013a, p. 45

Annex VIII: Core Institutional Framework for EDE



Source: Kenyan Ministry of Devolution and Planning, 2015, p. 27

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