

# IPCS PAPER

## Mitigating Natural Disasters in Somaliland Policy Options and Strategies

Nasir M. Ali and Kedir Jamal

### Executive Summary

The impact of drought emerges in Somaliland once again. Hundreds of thousands of Somaliland citizens are facing severe food shortages, water scarcity and malnutrition, which causes diarrhea and other associated diseases. This harsh drought, which has also affected many other parts of the Horn of Africa, is causing the reduction and loss of pasture and water, along with decreases or total losses of livestock herds. This directly affects the livelihoods of the pastoralist and agro-pastoralist societies that depend on livestock and livestock products, which have sustained the basic needs of their households for centuries. Recurrent drought also has broader adverse consequences for the rest of the population, including those who live in urban areas.

It is essential to acknowledge the importance of conducting research on drought. Such research is necessary for informing and proposing policy options to support the Somaliland Government in tackling the broad-ranging impacts resulting from the frequent and recurrent droughts affecting this nation. To this end, the central objective of this report is twofold. First, it explores existing gaps and weaknesses in climate-related policies and institutional frameworks, with a specific focus on drought-related issues. Second, it critically examines possible strategies and approaches to help mitigate the impacts of future droughts, in particular as this relates to early warning systems.

The old saying, 'An ounce of prevention is worth a pound of cure', serves as a valid and thought-provoking frame of reference for this report. A critical element of any disaster management and prevention activity or intervention is an effective and responsive early warning system. Such a system must be based on reliable research and other relevant measurements and instruments designed to forecast the weather and monitor climate changes. An effective early warning system also relies on reaching out to and educating communities at the grassroots level in order to harness their specific local knowledge and experiences of climate changes and natural disasters, most notably drought. This information can make a valuable contribution to devising effective

mitigation strategies and activities.

The problems and challenges of the recurrent droughts are numerous. Multidimensional policies with effective implementation, both pragmatic and tactful, are needed to address the drought situation. The Government of Somaliland is, in principle, enthusiastic in terms of its political willingness to address the challenges of creating an effective natural disaster management and response approach (including an early warning system) in collaboration with the public at large and the international community. This kind of thinking at the decision and policy making level could make Somaliland a sustainable, stable and prosperous nation. But, the decision making circle requires accurate and comprehensive research to reach positive and balanced decisions.

Creating such an environment requires a sense of social responsibility and a number of commitments on the part of all those involved. The Somaliland Government recognizes the importance of livestock and livestock products to the economic sector. Alongside this, there is a need to effectively implement the policies that were already in place to protect the interests of this vital livelihood sector. This kind of policies can also help root out illegal land grabbing in the form of land enclosures, the commercialization and commoditization of land and its exploitation such as cutting trees for charcoal production which has a negative impact on the environment.

### Introduction

Climate problems and continued climate variation affect large parts of Somaliland and many other parts of the Horn of Africa. In particular, drought is a major natural hazard affecting many parts of this region. Recurrent drought is primarily due to abnormal decreases in rainfall. The frequency of drought has significant environmental and economic impacts on the affected areas. The most direct impact of rainfall shortages and consequent drought are borne by pastoralists, the livelihoods of whom are seriously affected by the drying up of water sources and declining fodder resources for their livestock. As the availability of water and pasture

for livestock becomes increasingly scarce, these changes greatly influence this community's wellbeing and security.<sup>1</sup>

In Somaliland, rainfall distribution is bimodal (Gu<sup>2</sup> and Deyr<sup>3</sup>). The first main rainy season (Gu) occurs between April and June, when around 60 percent of rain falls. The second rainy season (Deyr) is from August to November. The months of highest rainfall during these seasons are generally from April–June and October–November. The two dry seasons in the country are Jilaal<sup>4</sup> and Hagee<sup>5</sup>, which occur between December and March and July and August, respectively. During these dry seasons, rainfall is low and erratic, thereby further reducing the total annual rainfall—except the high altitude areas around Sheikh, Hargeisa and Borama, which receive between 500mm and 600mm per year. The area around Erigavo receives up to 400mm annually. The coastline is characterized by low rains of less than 100mm per year. The rest of Somaliland receives an annual rainfall of 200 to 300mm. In the higher altitudes of the mountains and plateau areas, temperatures vary considerably with the seasons, with a mean annual temperature of 20–24°C, while the coastal region has mean annual temperatures of 28–32°C. The hottest weather is experienced between June and September, with temperatures getting cooler in December, January and February. The highest long-term mean maximum value that has been recorded is 42°C in June and July in Berbera. The lowest can reach 5–10°C in Erigavo, Hargeisa and Borama.<sup>6</sup>

Most of the time, rain is erratic and delayed in vast areas of the Horn of Africa and Somaliland. This creates water shortages and uneven distribution of livestock fodder in both time and space. As a result of rainfall problems, Somaliland is one of the countries frequently affected by drought. The impacts of drought on the pastoralist and agro-pastoralist lifestyle are long lasting. Although these problems are increasingly apparent in many countries, including Somaliland, there is a lack of clearly defined, long-term drought relief and mitigation plans.<sup>7</sup>

Recurring droughts have severely affected the livelihoods of pastoralists and agro-pastoralists, such that many have migrated from rural areas to urban centers.<sup>8</sup> Around 50 percent of the Somaliland population practice pastoralism and agro-pastoralism, depending on livestock and livestock productions for their livelihoods. They move their herds from one place to another in search of water and pasture. Pastoralists rear a mix of livestock types, such as camels, cattle, sheep and goats. Herds vary in composition depending on wealth, tradition, ecological zone and, more recently, market demand. The main source of income among pastoralists is generated from the sale of livestock and livestock products, such as meat, milk, skin and hides.<sup>9</sup> To a lesser extent, pastoralists also are involved with harvesting gum and wild fruits, and charcoal production. The latter severely damages the environment and has resulted in the deforestation of the many thick forests across the country.<sup>10</sup>

To be effective, any drought management system should have five components: 1) a national drought management policy; 2) a drought early warning system; 3) district level contingency (or shelf) plans; 4) a drought contingency (response) fund; and, 5) drought coordination and response structures.<sup>11</sup> Effective drought monitoring and early warning systems are an integral part of efforts worldwide to improve drought preparedness. Timely and reliable data and information from the state institutions are the cornerstones of effective and proactive drought planning.<sup>12</sup>

The central objective of this study is twofold. First, it explores existing gaps and weaknesses in climate-related policies and institutional frameworks, with a specific focus on drought-related issues. Second, it critically examines possible strategies and approaches to help mitigate the impacts of future droughts, in particular as this relates to early warning systems. This study aims to influence policy and decision making processes so as to find lasting and effective solutions to the critical environmental challenges hampering the livelihoods of many people in Somaliland.

## Methodology

This study is conducted by a team from the Institute for Peace and Conflict Studies (IPCS). The team has benefited from extensive discussions, inputs and comments from various stakeholders concerned with drought and the changing environment in Somaliland.

To address problems related to the scarcity of data and information on the topic of mitigating natural disasters in Somaliland, the IPCS organized meetings with government officials, national experts and the public at large to discuss and debate the issue, with emphasis on a coherent and mutually beneficial approach to alleviating the challenges and problems associated with recurrent droughts. Two separate meetings in November and December 2016 form the cornerstone of this study.

Diverse people and institutions, both governmental and non-governmental local and international organizations engaged and specialized in the area were part of the discussion. These institutions include: National Environmental Research and Disaster-preparedness Authority (NERAD), Ministry of Agriculture, Ministry of Environment and Rural Development, Candlelight, Havoyoco, Oxfam GB, NAGAAD Umbrella, Action Aid, Food Security and Nutrition Analysis Unit (FSNAU), Somalia Water and Land Information Management (SWALIM), Somaliland Journalist Association (SOLJA), Somaliland Non-State Actors Forum (SONSAF), and Representatives from different Youth Organizations, scholars from the University of Hargeisa, and the Drought Relief National Committee.

## Drought in Somaliland: A Glimpse of the Past

Somaliland has a semi-arid climate with an average rainfall of about 300mm per year. Water availability is, therefore, lim-

ited. Less than half of the population has access to clean water and less than 25 percent is able to access safe drinking water. There are no lakes or permanent rivers and rain water is limited to two brief seasons. In most cases, including pastoralist and agro-pastoralist areas, food security is intimately linked to water availability and access to it.<sup>13</sup> Although the government is aware of the need for better water management systems throughout Somaliland, implementing improvements falls far short of this need.

Drought is the most prevalent natural hazard in Somaliland, which is not only the case at present, but is a phenomenon Somalis have experienced for centuries (although this problem varies in terms of intensity and interval over time). The primary cause of drought in Somaliland is below average rainfall. Drought differs from other natural hazards in that it develops slowly, sometimes over years, and its onset can be masked by a number of factors. Severe drought can be devastating: water supplies dry up, crops, grass and fodder fail to grow, animals die, and malnutrition and ill health become widespread.<sup>14</sup> Rural populations and their livestock are the major victims of drought.

Over the last 100 years, more than 25 droughts of varied intensity have occurred in Somaliland. Droughts are named in relation to their intensity and severity, as well as how they generally affect the livelihoods of Somalis.<sup>15</sup> Crucially, the intervals between droughts are becoming increasingly shorter—every two to three years—in comparison to past events, which occurred at longer intervals of five to ten years.<sup>16</sup>

Based on available data, drought frequency is difficult to quantify or analyze. Much data in the interval periods between droughts in Somaliland are missing for one reason or another. For example, missing data may be the result of poor data collection practices or limited record keeping at relevant institutions, which hinders the scientific research that should be conducted on drought in Somaliland. Missing data may also be attributed to the total collapse of the state archive system following the wars that erupted in Somaliland during the 1980s.

The basic assumption of most methods of frequency analysis is that events observed in the past are likely to be typical of what may be expected in future. Planning for weather-related emergencies and reservoir management rely on knowledge and information about the frequency of drought events. Therefore, research on estimating drought frequency, duration and severity can provide a rigorous basis for future drought management and decision making.<sup>17</sup> Given that drought evolves over time, this offers significant advantages related to mitigating the impact of drought in a proper, timely and pre-planned manner. The entire planning process for drought mitigation, however, depends on reliable information generated from different data sources.

Frequency analysis identifies the likelihood of recurring droughts. In the literature, the frequency of long duration

events tends to be described by event period or return period. For instance, the droughts recorded for the 100-year period from 1914 to 2016, with most recorded droughts having a return period that ranges between a five to ten-year intervals. Recently, however, it is acknowledged that drought in Somaliland occurs almost once in every two years (although the last several years indicate drought as a continuous phenomenon, with varying degrees of intensity and severity). In summary, we know that droughts will continue to occur and we should plan for them more effectively.

In the current state of affairs, the Somaliland pastoralist and agro-pastoralist lifestyles are on the brink of collapse due to recurrent droughts. Livestock and livestock products, however, contribute significantly to both national revenue and individual income at the household level. Indeed, loss of livestock accelerates migration from rural to urban centers because those who have lost their pastoralist livelihoods must search for other sources of income to survive.

### **Growing Threats of Drought: Recent Responses and Challenges**

The UNOCHA report on drought issued in March 2017 highlights the severity of the current drought and its lasting impact on affected areas.<sup>18</sup> The report explains that drought conditions have continued to worsen and spread more widely since the last quarter of 2016. This has an effect on more than 50 percent of the population. Pasture land and water, upon which the livelihoods of the rural population depend, have been completely depleted in some areas. Persistent drought has caused crops to fail and livestock to die in many parts of Somaliland, resulting in severe food and water shortages. The current drought has driven thousands of people from their homes and left others in need of food and water to survive. Approximately 440,000 people in drought-affected areas have been displaced, many in urban centers, and more than one million people in Somaliland and Somalia are experiencing alarming levels of hunger.<sup>19</sup>

In response to the growing threats of drought, in 2016 the Somaliland Government established a committee, the Drought Relief National Committee. This committee took all necessary actions to help those in drought-affected areas. This includes, for instance, a planned contribution of \$60 for each affected household, along with food items, water, life-saving drugs, and blankets among other useful items.<sup>20</sup>

There are challenges about the way the Government and the Drought Relief National Committee have responded to the current drought. Multiple factors hamper efforts to make effective and efficient response. These include: lack of a strategic plan to address natural disasters at national, regional and local levels; absence of effective coordination office to establish relations with stakeholders across the country; ineffectiveness of the national institutions responsible for pre-planning to address natural disasters that might affect the nation; and absence of national reserve centers that could preserve national resources to donate to the people

during droughts or other natural disasters.

State policies and plans designed to cope with recurrent droughts are seriously challenged. Negative incidents are observed throughout the emergency mission. For instance, lack of collaboration and harmonization between Government institutions, including the Drought Relief National Committee, engaged in the emergency response is witnessed in many areas. During the emergency, for example, the Drought Relief National Committee bought fodder and transported it from one place to distribute to those left behind in drought-affected areas. Regarding this fodder as a commercial commodity, the Police then stopped to impose a tax on the fodder though later solved by high ranking officials. Not only does this demonstrate a lack of cooperation between emergency response actors, it also raises questions about the extent to which the Government is committed to helping those in need.

### Existing Early Warning Systems in Somaliland: Gaps and Problems

The old saying, ‘An ounce of prevention is worth a pound of cure’, serves as a relevant and thought-provoking frame of reference in the context of drought-affected countries, including Somaliland. Early warning involves forecasts based on climate projections and the area’s drought history, possible outcomes of developing drought events, and answering questions about how long a drought might last and how severe it might be. As such, early warning systems are the primary means of detecting drought-related stress on the livelihoods of a population in a timely manner. They are also key to eliciting timely responses designed to prevent emerging crises from further deteriorating.<sup>21</sup>

In Somaliland, the experience of the last two decades indicates that the Government fails to fulfill these roles. Warning signals frequently come too late to be effective in preventing drought-related problems. Responses on the part of both state and non-state actors are often inappropriate and usually come too late. Early warning and response activities are also constrained by the characteristics of the institutions that undertake them. The 2004 drought taught the Somaliland government and other stakeholders about the need not only for a policy for dealing with natural disasters (in particular drought) but also the importance of having the capacity to predict and prepare for them. The Somaliland government recognizes that although drought and other natural disasters cannot be avoided, the impact of such events on food security, livestock and family livelihoods can be mitigated through effective and timely planning and intervention.

At the national level, NERAD were created in 2003 to fulfill the need for an early warning system in Somaliland. Its primary mandate is to detect signs of natural disasters and catastrophes in order to seek better mechanisms to overcome or mitigate the problems associated with them. In general, drought early warning systems face numerous challenges. These challenges range from limited data and information

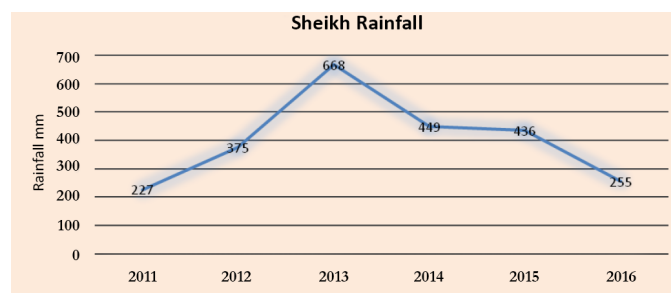
within the Government institutions, lack of capacity in using the data that does exist for forecasting purposes, to poor coordination and ineffective management. Moreover, though Somaliland has had so much research done on it over the years, the problem is not using the available research well; but, international agencies are perhaps not investing enough in building national organizations and not investing and committing enough to prioritize drought management to help the nation. Therefore, NERAD as an agency responsible for early warning is beset by these and other serious problems which question its effectiveness in dealing with these disasters.

In general, any intervention looks too late and drought management in Somaliland continues to take a reactive crisis management approach rather than an anticipatory and preventive risk management approach. In particular, a shortcoming of drought management is the gap between the information provided by the early warning system about impending threats and the ability of government to act to reduce those threats. This is easily understood from the letter written by the Somaliland President on 09 November 2016, declaring drought in Somaliland.<sup>22</sup>

A study by NERAD<sup>23</sup> in some villages severely affected by drought indicates that government responses in addressing the root causes of drought are unsatisfactory. The NERAD report further finds that external support in post-drought recovery phases is insufficient to reinstate households to their normal conditions.<sup>24</sup> Moreover, emergency responses during drought disasters can take weeks or even months before they obtain the desired support. In particular, the latter is one weakness of the existing system that is in urgent need of change to establish a proactive instead of reactive approach to drought management in Somaliland.

Accordingly, rainfall frequency is an important early warning indicator with respect to drought. In Somaliland, the rainfall data are generally good for analyzing the frequency of the rainfall. Available data indicate that rainfall across Somaliland is very limited compared to previous years, for instance, Sheikh, a town located in the highlands of the Sahil region. However, the institutions responsible for closely following this changing phenomenon have never said a word about it.

Figure 1: Rainfall (mm) in Sheikh, 2011–2016



Source: Sheikh Technical Veterinary School (2017)

The rainfall data for Sheikh raises a question. Why the responsible institutions failed to closely follow these rainfall patterns? Indeed, there are justifiable and reasonable factors related to institutional weaknesses to explain this shortcoming. It nonetheless indicates that there is a need for further legal, policy and institutional reforms to cement the commitment to establish an effective early warning system that can mitigate and prevent the devastating effects of future natural disasters.

Against all odds, there are government policies in place, albeit in the absence of their effective implementation. In the National Development Plan, for instance, the government acknowledges the importance of the advanced agricultural sector including the livestock in contributing to the economy.<sup>25</sup> In both the National Development Plan for 2006 and 2011, the government sets a clear policy direction to increase both the quantity and quality of livestock and livestock products.<sup>26</sup> At the same time, however, the Somaliland Government recognizes that the current situation in the water sector, along with the institutional management of this crucial sector, is inadequate and ill equipped. Among other problems associated with these weaknesses, this hinders the achievement of this particular policy objective.

To remedy this, the government identifies specific activities and priorities to deal with the problems affecting water management in Somaliland. Laid out in the National Development Plan (2011), these are as follows: build strategically distributed deep-bore wells as part of drought mitigation in all regions; develop an early warning system; and establish meteorological services to support the early warning system.<sup>27</sup> In line with this, the strategies pursued by the National Development Plan for the livestock sector seek to tackle the main obstacles impeding its development.<sup>28</sup>

Given that pastoralism, which essentially defines the Somaliland livestock sector, is presently on the brink of collapse, it is reasonable to pose the following question. After so many years, to what extent has the government actually realized its various plans and priorities in this regard? This question also applies in general. To what extent has the government actually realized its various plans and priorities with respect to disaster management and response, in particular when it comes to establishing an early warning system.

Although there is a national contingency plan in place in Somaliland, corresponding district and local-level drought management and contingency plans do not exist. Similarly, information about water and fodder in specific drought-affected areas, along with the necessary follow up to monitor these critical resources, does not exist. In order to effectively tackle and mitigate the shocks associated with natural disasters, however, it is necessary to have specific district and local-level plans in place, especially for hazard-exposed areas in general and drought-exposed areas in particular. Such plans should be in line with the national contingency plan, as well as with the National Development Plan.

To facilitate the development of district and local management and contingency plans, the government has urged communities affected by drought to participate in drawing up these plans. Alongside this, the government must play a central role throughout the whole planning process. This approach amounts to establishing a Community Based Early Warning and Response System throughout Somaliland. Best practice indicates that it is necessary to create a mechanism in which communities contribute to responses. Developing better information flows between beneficiaries and the responding institutions is another important mechanism. The developmental needs of specific areas also must be taken into account in these planning processes. In combination, these mechanisms can help to build resilient communities that are better protected against major shocks, such as drought.

In one way or another, the weaknesses in the early warning system in Somaliland can be attributed to corresponding weaknesses in relevant government ministries and agencies. In particular, NERAD is a pivotal part of this equation. Both the roles and responsibilities of NERAD in mitigating the effects of recurrent droughts and other national disasters that face the country are weak or, in reality, entirely absent. Monitoring early warning and prediction is also ineffective. More generally, there are weak linkages between the national contingency plan and the National Development Plan.

In conclusion, environmental degradation and climate change have changed the livelihoods and lifestyles of pastoralists and agro-pastoralists. Charcoal production, and land enclosures, remain major challenges against the environment. Therefore, the NERAD, mandated to predict and forecast climate variations and possible emergence of natural disasters has remained ineffective since its establishment. Thus, revisiting its policies, mandate and responsibilities to tackle the disasters are necessarily important.

## Concluding Remarks

This study identifies some key challenges to better coping strategies. In a nation where many livelihoods depend on livestock and livestock products, as well as remittance<sup>29</sup> economy, which is incredibly important, there are multiple challenges. These range from population growth and rapid urban settlements in rural areas to recurrent droughts due to worsening climate patterns, deforestation and desertification to land grabbing and land enclosures. These various challenges affect many parts of Somaliland and have an adverse impact on the livelihoods of many people as well as the State.

Recurrent droughts are one of the most serious emerging threats faced by the pastoralist and agro-pastoralist societies upon which the livelihoods of urban centers have depended for decades, and even for centuries. Drought has weakened both humans and animals. It has also reduced pasture for livestock—to the extent that pastoralists sometimes feed animals the same food as they eat, which increases rural vulnerability and poverty.<sup>30</sup>

The absence of coherent policies and programs at the national, regional and local levels hamper any efforts to address drought in appropriate and timely ways. The absence of a sense of nationalism and common purpose is another critical issue impacting on the survival of Somaliland people in both urban and rural settings. This needs urgent intervention from the state to preserve national security and state survival.

In the face of such serious environmental challenges, most notably drought, perhaps the most distressing reality is the absence of government interventions related to land management. There are at least four government ministries, along with a number of agencies and institutes active in land management. None of these, however, are guided by a common vision and purpose.<sup>31</sup> Although some of these ministries and agencies have policies that could benefit land management practices, the lack of coordination between government ministries and relevant agencies impedes their implementation. This is exacerbated by a lack of human resources and expertise.

Mitigating the impact of drought on the pastoral and agro-pastoral citizens is a national obligation that needs to be taken into account. To realize this; the government should take the lead in finding appropriate policies and solutions to ensure that effective governance institutions with its multi-dimensional forms prevails in Somaliland as a whole. Nevertheless, this goal will not be realized if the institutional weaknesses presence within the state intended to architect state policies and strategies were not reformed and transformed. Nonetheless, in Somaliland, building and strengthening the capacity of state institutions should be long-term key priorities focusing on capacity, which require more attention in state-building endeavors.

### Policy Options and Recommendations

This study proposes number policies to mitigate the challenges of drought. However, this can be prevented only if the mandated government institutions, with the help of the public at large, take the lead in finding appropriate solutions to ensure that appropriate and timely intervention are carried out in all rural areas.

There is an administration failure to cope with the disaster both prior to the calamity and post-recovery period. There is a need for institutional change and reforms, where national sustainability is concerned. Institutions and instruments capable of achieving fair and sustainable development should be created or expanded.

Therefore, to overcome the most serious challenges facing societies, a number of interventions can be undertaken by the relevant government ministries and agencies. These include the following proposals.

- The government, with the help of the public, should establish large grazing reserves in all six regions of the country for use during droughts and dry seasons.
- The government should introduce policies that can clearly demarcate land for grazing. For instance, carrying capacity of the land for grazing should be introduced and implemented accordingly.
- The government should develop and implement land ownership and management policies to prevent depletion. There is a need for land reform that can regulate the development of both rural and urban areas.
- The government should encourage watershed management systems throughout the country and persuade communities to manage water resources at the local level, without relying on foreign aid and agencies.
- The government should revive and revitalize a sense of nationalism and common purpose among diverse Somaliland communities in order to lead agricultural development designed to tackle droughts and discourage the dependency generated by foreign agencies distributing food aid to rural people, thus discouraging local agricultural production.
- The government should adopt a far-reaching set of strategies against de-forestation and soil erosion.
- The government should introduce and encourage re-forestation strategies that oblige each person in Somaliland to plant a tree and take care of for a while.
- The government should eradicate charcoal production at national, regional and local levels; ban its commercialization as a commodity; and encourage the use of existing alternative energy for cooking.
- The government should solicit funds in collaboration with the public and other donors for the development of rainwater harvesting schemes to overcome the shortage of water during the dry season.
- With prior study, the government should dig strategic wells to produce underground water for use in the dry season and especially when droughts occur.
- The military is present in every region in Somaliland. Thus, it is important to use this potential resource in all of the development activities taking place in areas around their respective bases.
- The government could develop and amalgamate a curriculum, from kindergarten to university, comprised of specific courses designed to influence how future generations think about the country and its environment.
- The concerned Government institutions mandated to preserve the environment and natural resources should be reformed and their institutional weaknesses improved to implement state policies more effectively and efficiently.

## Notes

- 1 NERAD (2015). 'Study on Traditional Coping Mechanisms in Disaster Management in Somaliland'. Hargeisa: NERAD.
- 2 First rainy season, April–June (Somali).
- 3 Second rainy season, August–November (Somali).
- 4 First dry season, December–March (Somali).
- 5 Second dry season, July–August (Somali).
- 6 NERAD (2014). Disaster Risk Management Contingency Plan for Somaliland. Hargeisa: NERAD.
- 7 Somaliland Ministry of Livestock (2006). 'National Livestock Policy (2006–2016)'. Hargeisa: Ministry of Livestock.
- 8 UNOCHA situation report about the drought released on March, 2017. There are thousands of people have taken shelter in the town to escape the current drought.
- 9 Ibid., 6.
- 10 Hartmann, Ingrid & J. Sugulle, Ahmed (2009). The Impact of Climate Change on Pastoral Societies of Somaliland. Germany: Heinrich Böll Foundation.
- 11 National drought contingency fund: disbursing funds for early response to drought. Available at [http://www.fao.org/fileadmin/user\\_upload/drought/docs/18%20Kenya%20LL%20ALRMP%20-%20Drought%20Institutions.pdf](http://www.fao.org/fileadmin/user_upload/drought/docs/18%20Kenya%20LL%20ALRMP%20-%20Drought%20Institutions.pdf), accessed on 15 August, 2017 (16:57).
- 12 Florian Sommer (1998). 'Pastoralism, Drought Early Warning and Response'. London: ODI.
- 13 Government of Somaliland (2011). 'Somaliland Food and Water Security Strategy—Somaliland Vision 2030: A Stable and Democratic Somaliland Where Citizens Enjoy Sound Quality Of Life By 2030'. Hargeisa: Government of Somaliland.
- 14 World Meteorological Organization (2016). 'Identifiers for Cataloguing Extreme Weather, Water and Climate Events'. Geneva: The World Meteorological Congress.
- 15 For instance, Sula, Xarama cune, Hargo-cune, Siiga case, Gaadhi-gaadhi saar, Daba dheer, are among the severe droughts that hit Somaliland within the last century.
- 16 Ibid., 10.
- 17 Sara Sadri (2010). 'Frequency Analysis of Droughts Using Stochastic and Soft Computing Techniques'. PhD thesis. Waterloo: University of Waterloo.
- 18 Ibid., 8.
- 19 Ibid., 15.
- 20 A briefing speech addressed by the deputy chairman of the Drought Committee at the Institute for Peace and Conflict Studies Hall at the University of Hargeisa, on 19 November, 2017, Hargeisa, Somaliland.
- 21 Ibid., 6.
- 22 This was the drought declaration in Somaliland and an appeal for urgent humanitarian relief assistance from the Somaliland Presidential Palace dated on 09 November, 2016.
- 23 Ibid., 1.
- 24 There are traditional mechanisms to re-stock people with livestock for example, and these go in at small and large-scale, managed by Somalis themselves.
- 25 Somaliland Ministry of National Planning and Development (2011). Somaliland National Vision 2030: A Stable, Democratic and Prosperous Country Where People Enjoy a High Quality of Life. Hargeisa: Government of Somaliland (pp. 4).
- 26 Somaliland Ministry of National Planning and Development (2011). Somaliland National Development Plan (NDP) 2012–2016: For Full recovery and Rapid development. Hargeisa: Government of Somaliland (pp. 63).
- 27 Ibid., 26, pp. 90.
- 28 Ibid., 26.
- 29 The role of remittance in addressing critical drought emergencies has been growing over the years. According to NERAD, those affected by droughts receive remittances from their relatives in the diaspora and also in towns such as Hargeisa, during emergencies. The cash obtained could be used to buy food items and cover other household expenses.
- 30 Nasir M. Ali (2015). "The Viability of Pastoral Society in Post-Conflict Settings: Evidence from Somaliland". In the Intricate Road to Development: Government Development Strategies in the Pastoral Areas of the Horn of Africa (eds). Addis Ababa: Institute for Peace and Security Studies.
- 31 There is a role of conflict among different government ministries, most notably: the Ministry of Agriculture; the Ministry of Livestock; the Ministry of Water Resources; the Ministry of Environment and Rural Development, and NERAD.

## About the paper

The challenges facing Somaliland people, both in rural and in urban areas are multi-faceted and disregard any single explanation and logical point of analysis. While some see the extensive charcoal production, rapid settlements in the rural areas, and water gullies as the major drivers of the environmental degradation and desertification. Others see weak governance institutions, both at the center and in the periphery, and absence of policies and strategies as the essential contributors to the recurring natural disasters, including droughts. Though the socio-political-economy problems of Somaliland may have one, two or all of these factors combined, the absence of commitment from the center seems obvious. This study, therefore, examines the intensity and severity of droughts and its effects on the citizens, the policy gaps and institutional deficiencies that existed in Somaliland. The study suggests the necessary interventions to mitigate this disaster, and proposes policy options to address the risks and shocks that disrupt the lives of many citizens, particularly, those at the margins. The current drought in one way or another exacerbated the already worsening situation of the rural population whose livelihoods primarily depend on livestock and livestock products.

## About the authors

Nasir M. Ali is the Director of the Institute for Peace and Conflict Studies at the University of Hargeisa, a position he has held since November 2015. In this role, he engages in teaching, research, and policy analysis. Nasir Ali is currently a PhD candidate at the University for Peace in Costa Rica. He obtained two masters' degrees in international relations (2010) and in African studies (2015) from Addis Ababa University. Mr. Ali has published more than a dozen articles in journals and book chapters exploring his areas of interest from different perspectives.

Kedir Jemal has a PhD in Agricultural Economics from Haramaya University, a leading university in agricultural science in Ethiopia, and a master's of science in economic policy analysis from Addis Ababa University. His most recent research activities involved leading the team that produced a report entitled, 'The contribution of hides and skins to the pastoralist economy in the Ethiopian Somali regional state: findings from Jarrar and Shebelle zones'. He has been with the School of Graduate Studies of the University of Hargeisa since February 2016, where he teaches and supervises postgraduate classes.

## About the Institute

The Institute for Peace and Conflict Studies (IPCS) is a higher learning and research institution based in and operating within the institutional framework of the University of Hargeisa, Somaliland. The IPCS was established in February 2008 in response to the long-recognized call for an in-depth multidisciplinary approach to understanding and addressing the conflict and violence that has engulfed many parts of the Horn of Africa. The mission of the IPCS is to provide interested scholars, institute members and students with opportunities to engage in intensive study and research on Somaliland and Somali-inhabited regions in the Horn of Africa on an interdisciplinary basis.

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Institute for Peace and Conflict Studies  
University of Hargeisa  
+252 (0) 63 442 0850  
+252 (0) 63 417 1582  
+252 (0) 63 411 9196  
[info@instituteforpeace.org](mailto:info@instituteforpeace.org)  
[www.instituteforpeace.org](http://www.instituteforpeace.org)

