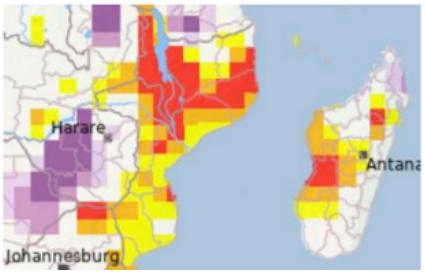
COUNTRY OVERVIEW

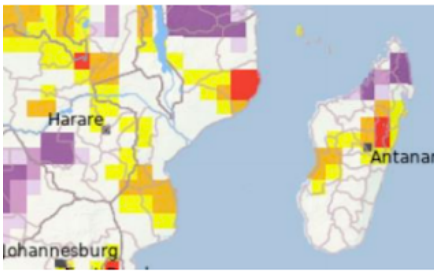
Mozambique is one of the countries in the Southern African Development Community (SADC) region most affected by natural hazards including drought (which tend to occur every 3 to 4 years), with over 25 million people affected by drought since 1984. The country is also vulnerable to other hazards such as floods, cyclones, coastal erosion, rising sea levels and soil salinization. Despite migration to urban areas being on the increase, two-thirds of the population still reside in rural areas with limited access to electricity, and in need of improved drinking water and sanitation. Forty-five percent (%) still live below the poverty line and 80% depends on climate-sensitive agricultural production for their food and livelihoods. Increased frequency and severity of intense storms, droughts and floods are likely to exacerbate these development challenges. El Niño conditions in 2015–2016 caused the worst drought in 35 years, reducing food availability by 15%. Food insecurity caused by the drought worsened in 2017 with Cyclone Dineo making a landfall near Inhambane, Southern Mozambique, which damaged crops and destroyed infrastructure. The situation was particularly worrisome in Gaza and Inhambane provinces where about 137,784 people were affected and exposed to intense food insecurity. The districts most affected by drought in Gaza province include Chicualacuala, Massangena, Mabalane, Guija, Massingir and Chigubo.

Figure 1: Standardized Precipitation Index (SPI), showing the precipitation anomalies with respect to the long-term climatological average

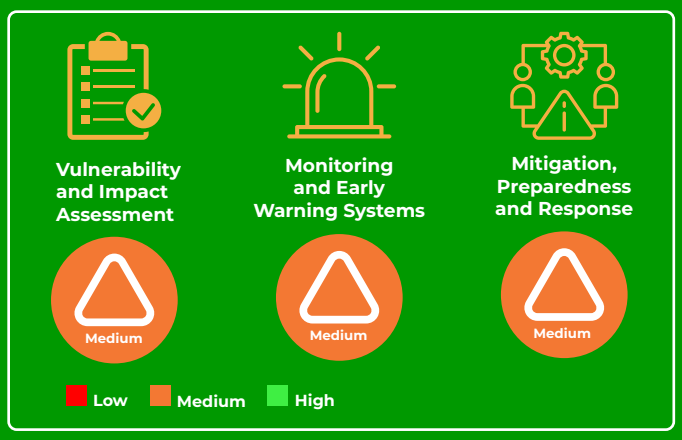
1(a) SPI-3, May 2020 (March to May cumulative)



1(b) SPI-12, July 2019 to June 2020



Source: JRC Global Drought Observatory (GDO) (2020)



The Integrated Drought Risk Management Framework highlights a three-pillar approach centered around interconnected, multi-disciplinary, multi-institutional activities. These are 1) Vulnerability and impact assessment; 2) Monitoring and early warning systems (EWS) and 3) Mitigation, preparedness and response. This country Drought Resilience Profile contains drought information based on these three pillars.

Mozambique's vulnerability and impact assessment capacity is categorized as medium. While the country conducts annual assessments, institutionally, the Mozambican government would benefit from strengthening its relevant ministries (e.g., Environment, Agriculture) and local institutions and improved coordination between these agencies to develop and implement risk reduction efforts. These challenges need to be overcome to provide better collection and systematization of data relevant for vulnerability mapping and assessments and, ultimately, implementation of adaptation strategies.

In terms of drought monitoring and EWS, Mozambique has a multi-hazard EWS not specific to drought. However, this can be improved through greater coordination and information flow protocols. There is also a need to move beyond sharing drought information and spreading awareness with target communities, to a focus on influencing changes in attitudes and promoting specific behavioral practices amongst targeted groups to adopt practical means of coping with drought.

Finally, Mozambique has a strong drought response framework, again embedded within its disaster management structures, but these could be strengthened by a dedicated focus on drought in its policies and strategies. Recognizing that drought is one of many natural hazards that Mozambique faces on a regular basis, it is different to sudden onset events and necessitates a different response strategy.

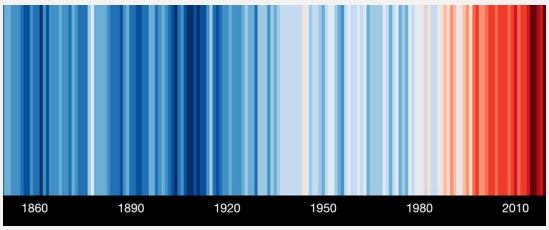
This document provides a brief overview of drought risk issues. The key resources at the end of the document provide more in-depth country and sectoral analyses. The contents of this report do not necessarily reflect the views of the World Bank, CIWA, SADRI, NDMC or IWMI.

Drought: Historical and Future

Historical climate

- As illustrated in the #ShowYourStripes 'warming stripe' graphic for Mozambique in Fig 2, the stripes turn from blue to mainly red in more recent years, demonstrating an increase in average temperature since 1901.
- Mean annual temperature was 23.76°C from 1901-2016.
- Since 1960, mean annual temperature across the country rose by an average of 0.9°C (0.15-0.16°C per decade), especially during the rainy season.
- The number of hot days increased by 25 in the last 40 years, and much of this has occurred during the southern hemisphere autumn.
- Mean annual precipitation is 991.83mm (1901-2016).
- Southern Mozambique has experienced more persistent droughts, while coastal regions have experienced more episodic floods (since 1960) (World Bank, 2020).

Fig 2. Temperature change in Mozambique, 1901-2019



#ShowYourStripes Source: Professor Ed Hawkins (University of Reading): https://showyourstripes.info

Future climate

- Annual temperatures are expected to increase by 1°C in the next 20 years, and by 1.4-3.7°C by 2060, with warming more rapid in southern and coastal areas.
- The number of hot days and nights are projected to increase throughout the country, hot days by 17-35% in 2060 and hot nights by 25- 45% in 2060.
- The number of cold nights is projected to steadily decrease.
- The number of heavy rainfall events is projected to increase by 2060, particularly during the dry season (January-June).
- No statistically significant rainfall changes are projected, but likely a continuation of delayed starts and earlier ends to the rainy season in the north may be evident (World Bank, 2020).
- An increase in droughts for central and southern regions and more floods during rainy seasons are to be expected.

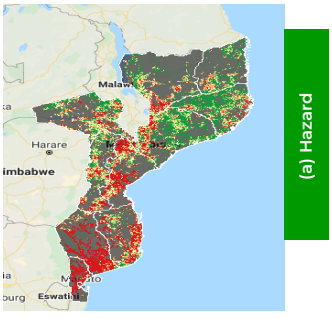
Table 1. Major droughts in Mozambique (Source: EM-DAT, 2020)

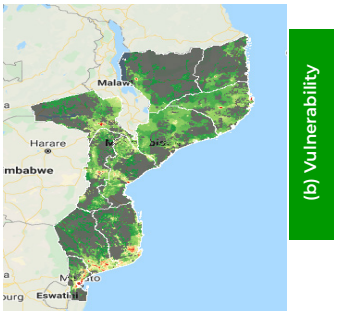
Year	Location	Affected Population
1981	Maputo, Gaza, Inhambane, Manica, Sofala, Zambezi	4.75 million
1987	Inhambane province	8,000
1989	Cabo Delgado, Nampula, Tete, Manica	6 million
1990	Central	3.3 million
1998	Maputo, Gaza, Inhambane	no data*
2001	Maputo, Gaza, Inhambane, Sofala, Tete, Zambezia	7 million
2003	Tete Province	119,500
2005	Maputo, Gaza, Inhambane, Manica, Sofala, Zambezia, Tete	1.4 million
2007-08	Maputo, Gaza, Inhambane, Manica, Sofala, Tete	1,020,000
2010	Maputo, Inhambane, Gaza	460,000
2016	Maputo, Gaza, Inhambane, Sofala, Tete	2.3 million

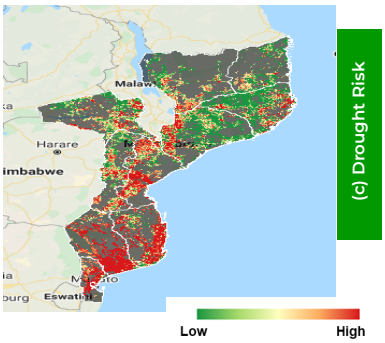
* No data provided from source

Vulnerability and Impact Assessment

Fig 3a-c. Drought hazard, vulnerability and risk maps for Mozambique







Vulnerability and Impact Assessment

The above maps (Fig 3a-c) depict drought hazard areas (a), areas of vulnerability (b) and drought risk (c). Drought risk is defined by characterizing hazard and exposure to vulnerability and the lack of adaptive capacity, using multisource information from satellite-derived drought indices and socio-economic conditions. In terms of components, hazard is defined through meteorological and agricultural drought i.e. Integrated Drought Severity Index (IDSI); and exposure and vulnerability expressed through population density, human modification index, water risk and irrigated systems.

Agricultural production (agricultural practices i.e. irrigated area, food production as provided on HarvestChoice) is used to define levels of vulnerability, which are combined with all three components to define levels of drought risk at the country level, referred to as the National Drought Risk Index (NDRI). The drought risk profile is therefore based on the probabilistic estimation of hazard and vulnerability to assess the drought risk in the exposed areas.

Among the drought prone areas in Mozambique, the NDRI illustrates that most of the southern and central provinces (Inhambane, Sofala, Gaza, Manica, Zambezia and Tete) are more drought-prone and have a higher drought risk, as shown by the red color (maps generated by IWMI). Mozambique therefore has a high probability of experiencing severe drought, and greater exposure to the risk of drought in the southern part. But the impacts of drought are not similar across all regions as some regions do not have red color shading.

These trends confirm other studies such as the Mozambique Food Security Outlook (2019), which reported that through January 2019, the most affected areas due to seasonal shocks were in Maputo and Gaza provinces with 28% and 3% of cropping lands affected respectively.

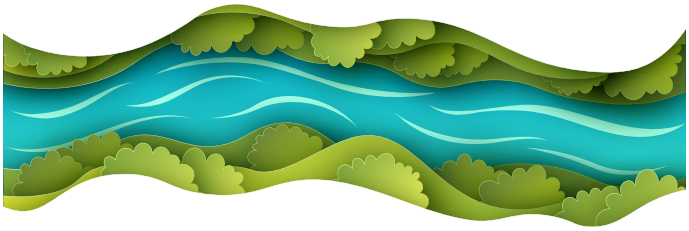
Water resources

Mozambique is well endowed with water resources, however, increased risk of floods and droughts, more variable rainfall and high population growth, as well as the fact that many major rivers originate outside the country, are putting these water resources under pressure (FAO, 2016). Mozambique shares 13 river basins with other countries, as well as several aquifers, and projected rainfall reductions in Zimbabwe and Zambia could translate into significant reductions in river flows in Mozambique (USAID, 2018). The water demand in Mozambique is expected to increase with the increase in population as well as the change in climatic conditions. Flows of the Zambezi River could be reduced by up to 15% (not taking into account drought risk and population growth).

In the central zone, this could translate into per capita water availability falling from about 1,900m³/capita/year in 2000 to about 500m³ by 2050 (the international water scarcity threshold is 1,000m³/capita/year) (ibid). In addition, increased evaporation and variable rainfall, combined with upstream irrigation demands, may negatively impact Mozambique's hydropower production. Mozambique is currently a net exporter of electricity, largely due to production along the Zambezi River Basin.

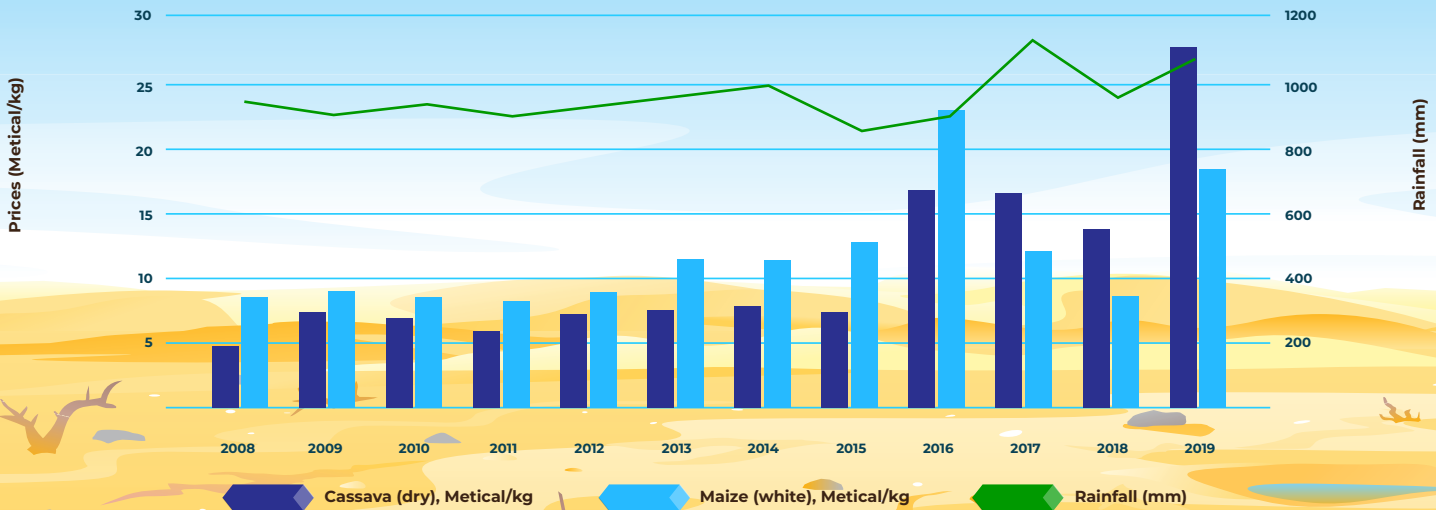
Droughts have adverse on effects population and GDP

According to the World Bank (2019a), the number of people affected by drought in Mozambique by 2050 will significantly increase to over 3 million. On average, once every 10 years a loss of USD 65 million in agricultural income is expected, with the equivalent of 4.5million labor days lost. Manica, Gaza and Zambezia are amongst the provinces said to experience the highest crop yield losses (ibid).



Droughts drag macro-level agricultural growth

Fig 4. Commodity prices and rainfall patterns, 2010-2020



Source: Own compilation from FAOSTAT & CHIRPS, 2020

Vulnerability and impact assessment capacity

Approximately 80% of households are involved in the agriculture, livestock, fisheries or forestry sectors (IrishAid, 2018) and of these 83% are women. Rural roads, storage, market access and new agro-investments all remain significant challenges, and only 15% of arable land is currently under cultivation. The agricultural sector provides employment for over 75% of the workforce. Nearly all agricultural activity (99.7%) is small-scale and 95% of agricultural production is rain-fed, making the sector highly vulnerable to rainfall variability.

Both maize and cassava are the most important staple foods in Mozambique and highly depend on rain-fed agriculture with minimum use of inputs. Growth in production has occurred over the past decade primarily due to land expansion. Between 2008 and 2015, the prices of both maize and cassava were very low in the market but showed an increasing trend. From 2015 to 2016, the prices of maize and cassava almost doubled (Fig. 3). The 2016 drought may have triggered an increase in prices of staple crops in Mozambique.

Yields of cassava, sorghum, soybeans and groundnuts could decrease by 2-4% over the next 40 years (particularly in the central region). Some drought-sensitive, major food crops like maize could decline by as much as 11% on average (2046–2065), and by as much as 45% in areas such as Tete. More erratic rainfall and changes in temperature could contribute to the spread of existing and new agricultural pests, such as the fall armyworm, posing unprecedented threats to maize and sorghum (USAID, 2018).

Mozambique has many disaster risk reduction efforts underway including reducing the vulnerability to drought. Some of these efforts are focused solely on Mozambique while others include participation from other developing countries. The projects mostly center on building the capacity of Mozambique to respond to climate impacts and formulate adaptation policies, but also focus on a range of sectors including disaster risk management, coastal zone management, forestry, freshwater and rural development. One of the most important adaptation programs in Mozambique is the Pilot Program on Climate Resilience, a multilateral climate investment fund that focuses on roads, water, agriculture, coastal cities and private sector investment.

Several international partners have further supported vulnerability and impact assessment work in-country. USAID supported a risk assessment study for the National Institute of Disaster Management (INGD), which looked at climate vulnerabilities in three major cities (Maputo, Beira and Quelimane) and considered costs, benefits and averted losses for possible adaptation measures.

Mozambique also has a number of policies and programs that determine the degree of the country's capability to respond to potential climate change impacts and specifically the impact of drought. The policies include the National Adaptation Plan of Action to Climate Change (NAPA), which is responsible for identifying the country's urgent needs with regard to climate change through a participative assessment process. The country is also involved in the UN Joint Program for Disaster Risk Reduction (DRR) and Emergency Preparedness, a program led by the UN Development Program (UNDP) and UN-HABITAT. This program aims at mainstreaming disaster risk and vulnerability reduction in national development plans and programs, including development of policy and norms, and strengthening government and civil society capacities in disaster risk reduction. Lastly, Mozambique has implemented the 2013-2025 National Climate Change Strategy, which aims to reduce vulnerability to climate change.

As a country highly vulnerable to climate change, Mozambique is committed to building adaptive capacity at multiple levels. Another practice used by the government to alleviate drought is sensitizing the population about the eminence of drought occurrence indicating ways to minimize its impacts, and promoting the adoption of drought-resistant crops through radio messages.

The Ministry of Agriculture and Health is part of SETSAN, and is involved in conducting vulnerability surveys to assess community food insecurity and requirements for emergency relief. In terms of vulnerability and impact assessment data, Mozambique has good historical climate databases dating back to 1951. However the series of data suffers some discontinuity in the 80s as a result of the war that destroyed a great part of the infrastructure of the national observation network. There is therefore a need to improve and update climate-related databases.

Recognizing that appropriate knowledge and understanding of disaster risk constitutes the basis for defining adequate DRM measures, the Government of Mozambique (GoM) has aimed to improve the understanding of disaster risk in all its dimensions, including hazard characteristics, exposure of people and assets, vulnerability and capacity. With support from the World Bank (2019b), the GoM acquired and processed high-resolution spatial and topographic data (through LiDAR1 survey) for two of the country's most critical river basins (Limpopo and Zambezi). The GoM is currently working on integrating this data into hydrological and hydraulic models to improve flood risk maps. The GoM also obtained new hazard and exposure maps for all major hazards at the national level, as well as nationwide exposure data for school infrastructure, which were prepared with support from the Global Facility for Disaster Reduction and Recovery (GFDRR).

However, a lot of disaster related data remains spread across various institutions and several databases, consequently planning and development decisions are frequently not guided by risk assessments. As a first step to address this challenge, in partnership with the World Bank and GFDRR, the National Institute for Disaster Management (INGD) has revived the Mozambican GeoNode – a web catalog that allows users to share, access, and visualize geospatial data – and complemented it with GeoSAFE – a web-based application for hazard impact scenario analysis, visualization and contingency planning (World Bank 2019b).

Further research is also needed on the changes in extreme events and the subsequent need for disaster management and response. Coastal vulnerability and risk assessments need to be conducted. Additionally, the network of observation and data management stations and systems needs to be improved in order to support decision-making, particularly for rivers in the central region and major cities.

Institutionally, the Mozambican government would benefit from strengthening its relevant ministries (e.g., Environment, Agriculture) and local institutions and improved coordination between these agencies to develop and implement risk reduction efforts. These challenges need to be overcome to provide better collection and systematization of data relevant for vulnerability mapping and assessments and, ultimately, implementation of adaptation strategies. The new National Directorate for Climate Change (DCC), recently created in the Ministry of Land and Environment (MTA), is a good step forward to facilitate institutional coordination on climate change.

Monitoring and early warning systems capacity

Table 2 represents a summarized traffic light checklist to illustrate the state of monitoring and EWS capacity in Mozambique. It summarises key aspects needed for a strong monitoring and EWS framework, most notably, whether there is an official definition of drought used in country; whether drought indicators are used, and if so, which ones; whether there is a drought early warning system (DEWS) in place; and if so, how functional it is; and whether the country makes use of seasonal forecasting.

Table 2. Summarized checklist of monitoring and EWS capacity

Official definition of drought	Yes
Drought indicators used	Yes
Existence of a DEWS	Yes
Capacity to tailor EWS messages to end-user needs	Limited
Effective communication of early warnings with built-in feedback mechanisms	Limited
Use of most salient communication channels to reach women/youth/disenfranchised communities	Limited
Use of community relays, extensions services, local media to communicate EWS and reach at risk communities promptly	Limited
Seasonal forecasting	Yes

Yes No Limited

Mozambique has a well-established EWS through the Climate Seasonal Outlook (CSO) for rainfall, periodic evaluation of food security and nutrition, vulnerability analysis and monitoring of watersheds. The National Institute for Disaster Management (INGD) is involved in the coordination of the disaster risk management activities in Mozambique at national, provincial and district and local levels and also has the mandate to coordinate relief activities during and after the disaster in collaboration with all the main economic sectors which include UN agencies and NGOs. The National Institute of Meteorology (INAM) is responsible for observing, monitoring and dissemination of warnings and alerts on possible extremes of weather and climate events and to issue the CSO. Further, the Technical Secretariat for Food Security and Nutrition platform (SETSAN) is responsible for the food security EWS.

The available EWS is not limited to droughts but to all other disasters (floods, tropical cyclone, landslide) that affect the country, and when a drought is predicted for the next season, the stakeholders follow the proper channels by involving provincial, district and municipal governments and other partners in taking the necessary operative positions (statement of alerts), activation of UNAPROC (National Civil Protection Unit). However, this can be improved through greater coordination and information flow protocols. Ensuring the sustainable functioning of existing sub-national committees and establishing committees in all high-risk communities is one of the key challenges for the country to strengthen local capacity for emergency preparedness and response through the adequate use of early warning information.

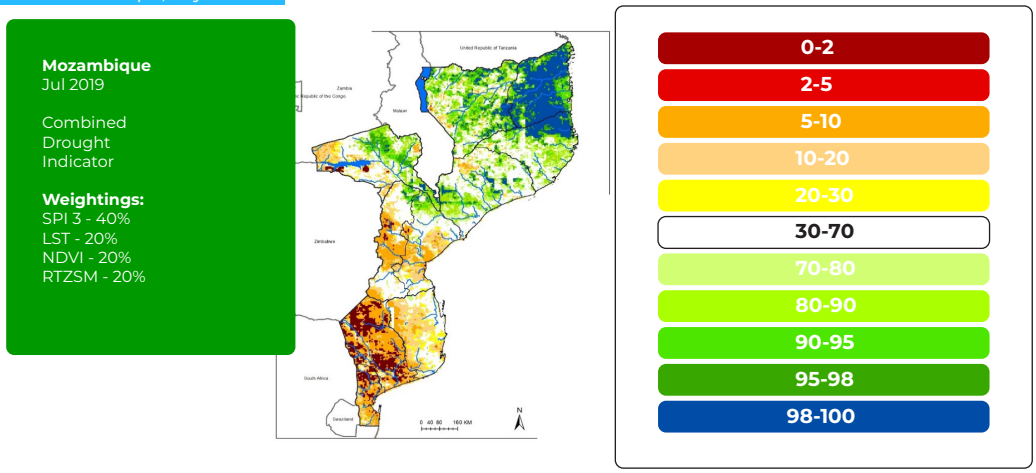
Combined Drought Indicator (CDI)

Using a Combined Drought Indicator (CDI) approach, the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln, in partnership with the World Bank, has developed a Drought Monitor that represents a consolidation of indices and indicators into one comprehensive drought map.

The CDI map for Mozambique was created using a weighted combination of four indicators of drought: precipitation, vegetation stress, land-surface temperature and soil moisture. July 2019 was selected to depict the severity of the recent 2018/19 drought. July, being the peak of the dry season when less rain is expected, provides an assessment of the drought's magnitude (duration and intensity), spatial extent, probability of occurrence, and impacts. The July 2019 CDI map shows much of the southern and central parts of the country severely impacted by some degree of drought.

The CDI could certainly strengthen Mozambique's EWS capacity by improving coordination and information flow protocols, that could in turn strengthen impact assessment procedures, proactive risk management measures, preparedness plans aimed at increasing the coping capacity and effective emergency response programs directed at reducing the impacts of drought.

Fig 5. Combined Drought Indicator for Mozambique, July 2019



Source: NDMC, **2020**

Drought policy framework

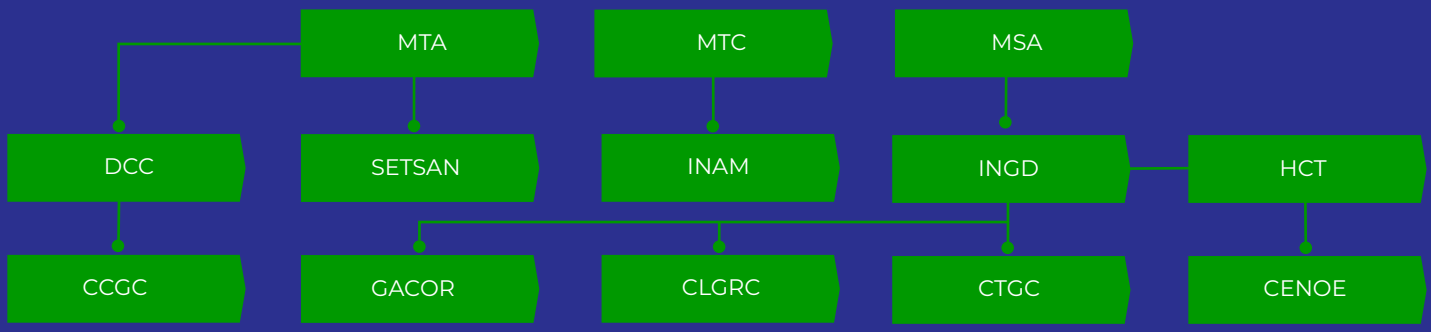
Mozambique has a well-established policy and institutional framework for disaster management, which includes drought management. These policies include: the National Climate Change Strategy; the Master Plan for Prevention and Mitigation of Natural Disasters (2006); the Environmental Strategy for the Sustainable Development of Mozambique (2007) and the National Water Resources Management Strategy (2006).

Mozambique also developed a strategy for the Green Revolution in Mozambique (ERV, 2007) as part of increasing the productivity of smallholders through sustainable management of natural resources, improved use of water resources, improved seeds and inputs, veterinary and extension services.

Another relevant document developed by the GoM is the Food Production Action Plan (PAPA) (2008), which aims at increasing production and productivity of cereals, cassava, potato and oil seeds as part of a drought relief strategy. Mozambique also has a Strategic Plan for Agrarian Development, PEDSA (2010) which includes water management, sustainable natural resource use, strengthen capacities, improved information management and, in general, promotes the development of plans, actions and programs for adaptation to climate change and drought. The country also has national policy papers such as the Government's Five-Year Plan (PQG), Poverty Reduction Plan of Action (PARPA), Strategic Plan for Agricultural Development (PEDSA) and the National Adaptation Plan of Action (NAPA).

All of these sketch out a strong disaster management response framework. Proactively addressing drought specifically in its policy mechanisms is an area that could however be strengthened.

Fig 6. Mozambique's drought institutional framework



Legend
CCGC-Coordinating Council for Disaster Management
CENOE-National Operation Centre
CLGRC-Comitês Locais de Gestão do Risco de Calamidades
CONDES-Sustainable Development Council
CTGC-Conselho Técnico de Gestão de Calamidades
DCC-Directorate for Climate Change
GACOR-Post-Disaster Reconstruction Support Office
HCT-Humanitarian Country Team
INAM-National Institute of Meteorology
INGD-National Institute of Disaster Management
MSAPS-Ministry of State Administration and Public Services
MTA-Ministry of Land and Environment
MTC-Ministry for Transportation and Communication
SETSAN-Technical Secretariat for Food Security and Nutrition platform

Institutions and coordination

Over the last two decades, the GoM has made considerable progress towards strengthening national capacity for emergency preparedness and response.

The Ministry of Land and Environment (MTA) is the designated national authority for climate change and drought coordination in Mozambique. Its responsibility is to oversee the country's involvement in the United Nations Framework Convention on Climate Change (UNFCCC), by providing institutional leadership on mitigation and low carbon development. In addition, the Coordinating Council for Disaster Management (CCGC) is responsible for climate change and disaster risk.

The National Disaster Management Institute (Instituto Nacional de Gestão de Calamidades – INGD), under the Ministry of State Administration and Public Services (MSAPS) assists with the institutional leadership on disaster risk and vulnerability reduction and also research on potential effects of drought and other natural disasters.

Mitigation, Preparedness and Response

Disaster preparedness and response at the national level is coordinated and supervised by the INGD and supported by the Humanitarian Country Team (HCT). The HCT is led by the Resident Coordinator from the United Nations (UN) and composes of UN agencies, national and international NGOs, the Red Cross and partners. The Mozambique Red Cross Society is responsible for the coordination of meetings of the National Operation Centre (CENOE) as part of monitoring and sharing information at national level. The Humanitarian Country Team (HCT) is the coordination platform for partner institutions (UN agencies, WFP, INGO's, NGOs) responsible for building common strategies related to humanitarian response and policy issues.

In addition, recognizing the role of communities as often the first responders to disaster events, the establishment of a network of DRM committees at local level (Comitês Locais de Gestão do Risco de Calamidades – CLGRC), composed of volunteers, has been fundamental in empowering community members in the face of disasters. More recently, INGD has integrated the Post-Disaster Reconstruction Support Office (GACOR) into its structure. Under the leadership and coordination of the Technical Council for Disaster Management (Conselho Técnico de Gestão de Calamidades – CTGC) led by INGD, the GoM prepared its first annual contingency plan in 1999. It has been preparing and assessing them systematically since 2007.

Mozambique's drought mitigation, preparedness and response objectives are executed through its disaster management structures and procedures, and are heavily focused on drought response. Coping with drought and climate change in Mozambique, the government set up a project funded by the Special Climate Change Fund with a grant of USD 960,000. The project document projected a mobilization target of USD 929,840 co-financing from the government of Mozambique (USD 729,840), NGOs (USD 70,000), UNDP (USD 5,000) and others (USD 125,000). These funds were used as relief funds for climate change and drought.
In addition, the GoM took an important step towards improving financial protection against disasters with the legal creation of the Disaster Management Fund (Fundo de Gestão de Calamidades, DMF) in October 2017 (Decree No. 53/2017 of October 18, 2017). The DMF is a dedicated account managed by INGD that is expected to receive annual budget allocations which is equivalent to at least 0.1% of the State budget (minimum annual allocation of about USD 4.5-5 million) to increase the availability and predictability of resources for emergency response and recovery and, in the future, possibly reconstruction activities. Disaster risk reduction activities remain included in sectoral budgets. The DMF has been designed in such a way that it can purchase sovereign risk transfer instruments, which provide an important backstop to the fund in the event of a large disaster. In this regard, the GoM have partnered with the African Risk Capacity (ARC) to deliver drought (and other) insurance.

In terms of drought relief, the government provides food and other basic needs as relief packages to affected populations. Food items distributed include maize, beans and vegetable oil. Additional food items are also bought regionally if the local stock is not sufficient to cover what is needed. Caseloads are estimated to be 75% of the affected population.

The government also provides food assistance (e.g. April 2019) through both conditional and unconditional transfers programs using in-kind, vouchers or cash depending on the nature of problem. The main food security partners are the World Food Programme, assisting 220,000 people in the provinces of Gaza, Tete and Cabo Delgado, and the CHEMO consortium (12 NGOs, led by World Vision), assisting 80,000 people in Gaza and Inhambane in 2019. The Government also provided assistance to affected people in Gaza, Tete and Manica provinces, mainly with food (103,500 people) and water (5,992 people) in April 2019.

The GoM also has its Agriculture and Livelihoods Plan to respond to droughts, which includes engagement of the relevant government departments to strengthen an in-depth Food and Nutrition Security (FNS) analysis and seed assessments to identify key early actions. The beneficiaries targeted also fall under the livestock vaccination program. However, the assessments that will be made in the course of the implementation allow for further analysis to tailor the interventions accordingly.

The water, sanitation and hygiene (WASH) sector is also activated to assist with water supply during water crisis. The water is distributed through bladder tanks and tap stands. Buckets and jerry cans are distributed to facilitate water collection, storage and treatment. Hygiene promotion messages are disseminated through face-to-face communications, radio, posters and leaflets.

Few activities focus on building ongoing resilience to drought. In early 2020, the Coastal Resilience to Climate Change (CRCC) project was initiated by the IUCN (International Union for Conservation of Nature) in partnership with Mozambique Ministry of Sea, Inland Water and Fisheries and RARE, funded by the Swedish Embassy in Maputo. The project's aim is to help build resilience of poor communities and empower them to respond to climate change in an inclusive, resilient and more sustainable way by developing conservation agriculture projects. So far, the project has trained mainly women on sustainable farming practices (such as mulching, maintaining soil structure, promoting soil productivity and producing biological pesticides using plants) and provided them with agricultural inputs.

In summary, the GoM has a robust institutional apparatus to respond to drought but could benefit from a stronger focus on drought mitigation and building long-term resilience through improved preparedness efforts, such as the development of sector-specific contingency plans linked to an EWS to trigger these actions. The country may also consider strengthening coordination among different stakeholders. Finally, the GoM could consider reviewing its climate change policy, and clearly articulate its policy on drought beyond that which exists in its disaster management policy.

Mitigation, Preparedness and Response

Recent drought resilience efforts by the international community

Table 3. Selected projects focused on drought, or some aspect of it, in Mozambique.

World Bank

Conservation Areas for Biodiversity and Development
Budget (USD): 28.62M
Time Period: 2020 - Now

Additional Financing to the Agriculture and Natural Resources Landscape Management Project (SUSTENTA)
Budget (USD): 60M
Time Period: 2019 - Now

Sustainable Rural Economy Program
Budget (USD): 150M
Time Period: unknown

Artisanal Fisheries and Climate Change
Budget (USD): 3.4M
Time Period: 2015-2019

World Bank

Cities and Climate Change
Budget (USD): 120M
Time Period: 2012-2019

Mozambique Conservation Areas for Biodiversity and Development Project
Budget (USD): 40M
Time Period: 2015-2019

Climate Resilience: Transforming Hydro-Meteorological Services
Budget (USD): 21M
Time Period: 2013-2018

WFP

To provide immediate life-saving and life-sustaining assistance to the population affected by droughts in the three provinces of Gaza, Tete and Sofala. This is through cash transfer and food transfer to the affected families.
Budget (USD): 10M
Time Period: 2019

Danida

Climate Change and Environment Sector Program Support; Phase III
Budget (USD): 5M
Time Period: 2014-2017

GIZ

Adapting to Climate Change
Budget (USD): unknown
Time Period: 2012-2020

USAID

Mozambique Coastal City Adaptation Projectt
Budget (USD): 19.9M
Time Period: 2014-2019

CHEMO-World Vision

Immediate food voucher or cash assistance: Address immediate life-saving food needs in target communities and promote resilience building through productive asset creation for Changara, Cahora Bassa in Tete province, Mandlakaze in Gaza province
Budget (USD): 4.656M
Time Period: 2019

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Data Sources:
Climate Data: CHIRPS
Drought Risk: International Water Management Institute (IWMI)
CDI: National Drought Mitigation Center at the University of Nebraska-Lincoln
Population Data: WorldPop
Livestock, GDP: FAO, World Bank

About the Southern Africa Drought Resilience Initiative (SADRI)

SADRI is a World Bank initiative supported by the Cooperation in International Waters in Africa Program (CIWA) that integrates across the energy-water-food-environment nexus to help lay the foundations for making southern African countries more resilient to the multi-sectoral impacts of drought. Its main objectives are to generate tools and dialogue for enhancing partnerships and capacity across Member States and to inform future national and regional investments in drought-related activities.

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