ESWATINI

Disaster Risk Finance Diagnostic

Disaster Risk Financing & Insurance Program

SUPPORTED BY WORLD BANK GROUP

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Abbreviations

ADFIP	Association of development finance institutions in Asia and the Pacific
AfDB	African Development Bank
AMC	Advance market commitment
ARC	African risk capacity
CAT DDOs	Catastrophe deferred drawdown options
CDI	Combined drought indicator
CFI	Centre for financial inclusion
CMA	Common monetary area
COVAX	COVID-19 vaccines global access
DPP	Disaster protection program
DRF	Disaster risk finance
DRM	Disaster risk management
DRR	Disaster risk reduction
EEC	Eswatini Electricity Company
ESEPARC	Eswatini economic policy analysis and research centre
ESRIC	Eswatini Royal Insurance Company
ESWADE	Eswatini water and agricultural development enterprise
EVAC	Eswatini vulnerability assessment committee
FAM	Famine action mechanism
FCDO	Foreign, commonwealth & development office
FCI	Finance, competitiveness and innovations
FSRA	Financial services regulatory authority
GDP	Gross Domestic Product
GoE	Government of Eswatini
GP	Global practice

ICU	Intensive Care Unit
IHR	International health regulations
IMF	International Monetary Fund
IPC	Integrated food security phase classification
MSMEs	Micro, small, and medium enterprises
NDMA	National disaster management agency
NDRFS	National disaster risk finance strategy
NERMAP	National emergency response, mitigation and adaptation plan
NGO	Non-governmental organizations
NMC	National maize corporation
OECD	Organisation for economic co-operation and development
PFM	Public finance management
PHEIC	Public health emergencies of international concern
RFMH	Raleigh Fitkin Memorial Hospital
SACU	Southern African customs union
SADC	Southern African development community
SADRI	Southern Africa drought resilience initiative
SMEs	Small and medium enterprises
UCL	Université catholique de Louvain
UNDP	United Nations development programme
UNDRR	United Nations office for disaster risk reduction
UNOCHA	United Nations office for the coordination of humanitarian affairs
WHO	World Health Organization

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Executive summary

The objective of this disaster risk finance (DRF) diagnostic is to assess the status of financial preparedness of Eswatini to disasters and crises. This assessment entails analysis of the following: (i) the scale of economic losses following disasters; (ii) pre-arranged funding available to the government and existing ex post sources of funding; (iii) key legal and institutional arrangements relevant to DRF; and (iv) the funding gap (the difference between the pre-arranged funding available and government liability driven by disaster losses). Based on this analysis, the diagnostic proposes some measures to strengthen the financial preparedness of Eswatini to disasters and crises.

The DRF diagnostic is prepared as part of a broader engagement between the World Bank and the Government of Eswatini on strengthening disaster risk financing. This effort is led by the World Bank Finance, Competitiveness and Innovations (FCI) Global Practice (GP) in collaboration with the Macro Economic, Trade and Investment GP and the Water GP. The diagnostic was delivered with financial support from the Disaster Protection Program, a trust fund managed by the Crisis and Disaster Risk Finance global team in the FCI GP and funded by the UK Government (Foreign, Commonwealth & Development Office).

Eswatini, a landlocked country in southern Africa bordering South Africa and Mozambique, has faced deepening economic challenges in recent years. Although Eswatini is a lower-middle-income country with a gross domestic product (GDP) per capita of US$4,145 a year, the country has a high rate of poverty: 28.3 percent of the population was estimated to be living under the international US$1.90 poverty line in 2017. Customs duties from the Southern African Customs Union (SACU) make up almost half of the Eswatini government's revenue, and these had been declining prior to the COVID-19 pandemic. Eswatini's economic growth had been slowing even before the COVID-19 pandemic; growth declined from 2.8 percent in 2018 to 1.3 percent in 2019 on the back of a deteriorated fiscal situation and low agricultural output.

Eswatini is highly exposed to climatic shocks, particularly droughts, which remain the most recurrent hazard threatening the country's environmental and socioeconomic stability. The most recent El Niño drought, in 2015/16, cost the government 19 percent of its annual expenditure, equivalent to roughly 7 percent of its GDP. Eswatini's economic exposure to shocks is exacerbated by its reliance on water for power generation, and on sugar cane, a water-intensive crop, for revenue. Droughts also threaten the development agenda; between 20 percent and 25 percent of Eswatini's population is affected by food insecurity annually due to droughts. The 2015/16 drought led to one-third of the country's population facing severe food security. To reduce the impact of the drought on the economy, the government implemented expansionary fiscal policies to boost economic activity and employment. Although this step helped support economic growth, it also contributed to fiscal and external imbalances and an increase in public debt and domestic arrears.

Eswatini's exposure to shocks is exacerbated by its reliance on South Africa. Eswatini is vulnerable to any shock to the South African economy, be it from disaster or other causes, given its reliance on SACU revenues, which are primarily driven by South Africa. Against a backdrop of low GDP growth in South Africa (projected at 0.3 percent for 2021) and suppressed demand for imports from Eswatini amid high unemployment, SACU revenues are likely to continue declining. The country is also reliant on South Africa for 95 percent of imports and 60 percent of exports. Droughts affecting South Africa have led to a sharp decrease in output and increase in food prices, deepening food security challenges.

The COVID-19 pandemic came on the back of a large regional drought in 2019, presenting Eswatini with compounding shocks. In 2019, South Africa declared its second drought-related national state of disaster in three years; the Government of Lesotho declared a national disaster; Namibia was hit with its worst drought in 90 years and declared a state of emergency, the second in three years; and Botswana declared 2018/19 a drought year. The COVID-19 pandemic deepened Eswatini's economic challenges, causing the country's GDP to contract by 3.2 percent in 2020—a sharp contrast to the pre-COVID-19 projection of 2.6 percent growth. The government's COVID-19 containment measures brought the economy to a near standstill, and the response to the pandemic reversed the fiscal consolidation efforts that the government had started in 2019. The fiscal deficit increased from 6.3 percent of GDP in 2019 to 8.6 percent of GDP in 2020. The current fiscal challenges impede Eswatini's ability to respond to future shocks. Drought is particularly worrisome, given that temperatures in Southern Africa are rising at twice the global average.

Eswatini is wholly reliant on ex post financing of disaster shocks, and its average annual cost of disaster response is US$10.8 million, increasing to US$30 million in response to events such as the 2015/16 El Niño drought. The primary driver of disaster response cost is drought and the food distribution costs associated with it. Draft regulations for a Disaster Management Fund have been prepared, but they have not been adopted, and the government has no financing instruments in place to finance disaster response; it is fully reliant on budget reallocations and ex post borrowing. Eswatini does receive limited support from donors and humanitarians; between 1984 and 2019, however, humanitarian aid has funded only 20 percent of total relief costs. The complete reliance on ex post funding mechanisms has led to delayed relief efforts in the past, which have been shown to increase the overall cost of response and erode development gains, as vulnerable households adopt negative coping strategies.

Introducing a comprehensive risk-layering strategy could generate savings of US$2–6 million for quite frequent events (i.e., 1-in-5-year to 1-in-10-year events) and up to US$26 million for more severe events. Budget reallocations carry a high opportunity cost as they entail the reallocation of resources away from high-yielding investments. Ex post borrowing is also costly, in particular for small states, which can face challenges raising debt during disasters. The cost savings of risk layering are driven by the less frequent use of more expensive financing instruments. For example, the Government of Eswatini could have saved US$12.4 million by using a risk-layering strategy when responding to the 2015/16 El Niño drought.

The diagnostic makes several recommendations for strengthening the country's financial preparedness to shocks moving forward, summarized in Table 1 and detailed in the recommendations section of this report. These measures are not mutually exclusive and can be implemented in parallel.

Table 1. Recommendations for strengthening DRF in Eswatini →

Measure	Time frame
Draft and adopt a National Disaster Risk Finance Strategy (NDRFS) clarifying the government's strategic priorities for financing disaster response in Eswatini.	Short term
To support achievement of the development objectives of the NDRFS, implement a risk-layering strategy for financing disaster response.	Short to medium term
Finalize the regulations for the Disaster Management Fund and establish a budget line to adequately capitalize it.	Short term
Explore the feasibility of developing index-based agricultural insurance and assess its potential to help achieve multiple development policy objectives, including deepening financial inclusion and increasing insurance penetration.	Medium term
As part of the NDRFS, consider activities to strengthen the delivery mechanisms for disaster expenditures, specifically by increasing speed, reducing cost, and increasing transparency of expenditures.	Medium term

Introduction

Eswatini is a landlocked country in Southern Africa bordering South Africa and Mozambique, with a population of 1.1 million people. Although Eswatini is a lower-middle-income country with a gross domestic product (GDP) per capita of US$4,145 a year, the country has a high rate of poverty and unemployment and the world's highest HIV prevalence rate. Poverty has stagnated at high levels in the last five years; in 2017, 28.3 percent of the population was estimated to be living under the international US$1.90 poverty line, the general unemployment rate was 23 percent, the youth unemployment rate was 47 percent (2016), and the HIV adult prevalence rate was 27 percent. Furthermore, in recent years economic growth has been consistently lower than the average rate for Sub-Saharan Africa, averaging 1.8 percent over the past five years.

The Government of Eswatini (GoE) is dependent on customs duties from the Southern African Customs Union (SACU) for almost half of its revenue and has one of the largest informal sectors in Africa (approximately 38.5 percent of GDP). Eswatini is a member of the Common Monetary Area (CMA) with Lesotho, Namibia, and South Africa. Under the CMA, Eswatini's domestic currency, the lilangeni, is pegged at par to the South African rand. Approximately two-thirds of the new jobs created over the past decade have been in self-employment, while another 20 percent have come from the public sector. The agricultural sector contributes nearly 10 percent of the country's GDP, and over 70 percent of the country's rural population is dependent upon subsistence agriculture. The country relies heavily on rain-fed agriculture.

Eswatini's economic growth, impaired by drought, had been slowing even before the COVID-19 outbreak, but the pandemic has deepened Eswatini's economic challenges. Economic growth declined significantly in 2019, to 1.3 percent, down from 2.4 percent in 2018 on the back of a deteriorated fiscal situation and low agricultural output. An expansionary fiscal policy amid low SACU revenue has widened the fiscal deficit to an annual average of 8 percent of GDP over the past five years. The COVID-19 pandemic is causing Eswatini's first recession since 1976. Given that Eswatini's population growth is 1 percent, this means that average income growth for a citizen will decline by at least 4.5 percent in 2020. A large part of the Eswatini population already lives in poverty or close to the poverty line, and in the absence of strong measures to protect the poor and vulnerable, poverty in the country will deepen further.

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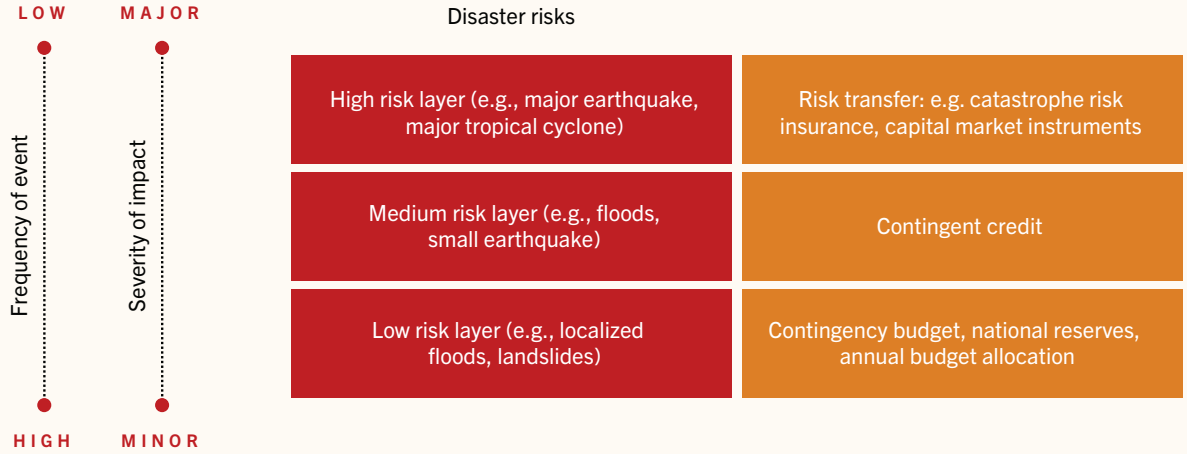
Timely access to pre-arranged funding after disasters helps strengthen a country's financial resilience to disasters, mainly by improving the speed and quality of government's public financial management of natural disasters and hastening the human and economic recovery. This funding can be provided through a combination of risk financing instruments tailored to address specific government objectives and different post-disaster needs. The combination of various instruments is referred to as a risk-layering strategy. The objective of this strategy is to reduce the need for emergency borrowing and budget reallocation, lessen delays and uncertainty associated with external financing, facilitate more effective use of public funds, attract private sector funding to post-disaster recovery and reconstruction, and make response and recovery faster and more cost-effective.

This disaster risk finance (DRF) diagnostic report has been developed in response to a request from GoE for technical assistance in DRF. The diagnostic seeks to improve the ability of the GoE to understand and meet the obligations that arise

from shocks caused by disasters and pandemics, while minimizing threats to development progress and fiscal stability.

This diagnostic uses a robust methodology developed by the World Bank (2017) to provide recommendations to the Government of Eswatini on developing a risk-layering strategy to minimize costs and maximize benefits in managing post-disaster costs. For example, the approach suggests leveraging contingency funds and national reserves to address the low-risk layer and combining these with more expensive instruments to manage more severe yet less frequent events. An example of a risk-layering strategy is shown in Figure 1. This strategy can be developed to manage a wide range of post-disaster costs by the government or can target a specific priority to be developed at national level (for instance, the Government of Kenya has adopted a risk-layering strategy to manage the financial impacts of drought, which can devastate the economy).

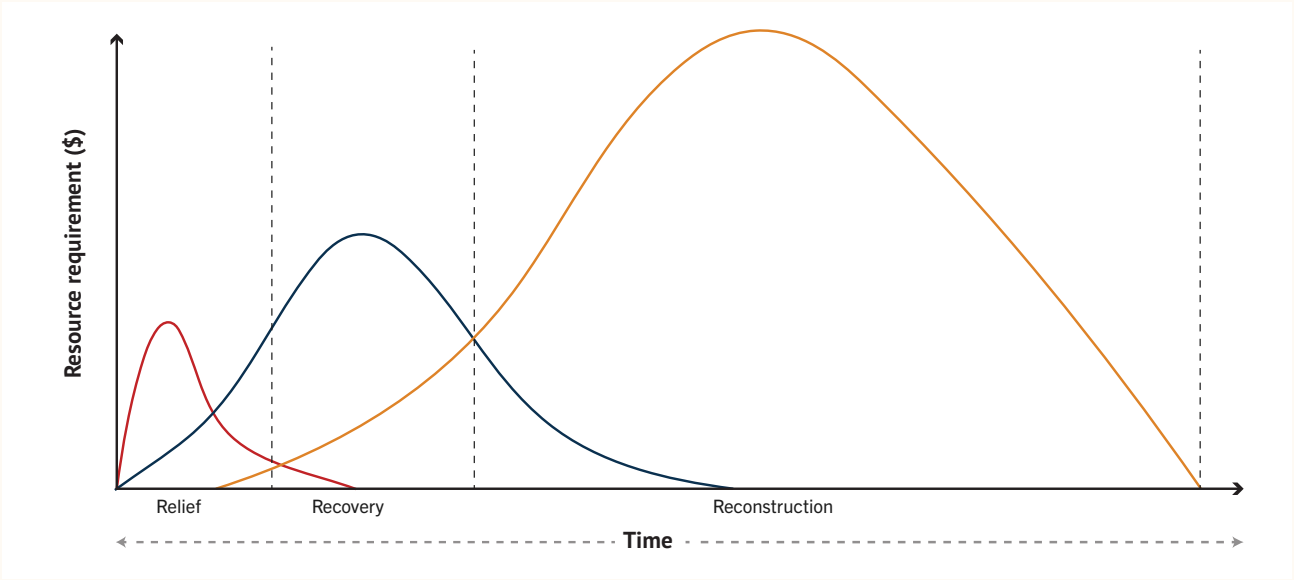
Figure 1. Three-tiered disaster risk financing strategy



Source: World Bank.

Different amounts of financing following disasters are required during the various phases of relief, recovery, and reconstruction. Some financing instruments can and must be activated rapidly. Others may take longer to activate but can generate substantial funding; see Figure 2. A DRF strategy needs to reflect both time and cost dimensions, ensuring that the volume of funding available at different stages in the response efforts matches actual needs in a cost-efficient manner.

Figure 2. Funding requirements for post-disaster phases and their duration



Source: Ghesquiere and Mahul 2010.

The diagnostic report has six sections relevant to disaster risk finance in Eswatini. Section 1 describes the financial, economic, and fiscal impact of past disasters; section 2 describes the legal and institutional framework for DRF in Eswatini; section 3 reviews the domestic insurance market; section 4 provides a statistical analysis of fiscal costs of disaster response and the protection gap; section 5 provides a case study of COVID-19; and section 6 provides a series of recommendations for the GoE on how to strengthen its financial protection against disasters moving forward.

The diagnostic report has been co-financed by the Disaster Protection Program (DPP), a trust fund managed by the Crisis and Disaster Risk Finance global team in the World Bank's Finance, Competitiveness and Innovations (FCI) Global Practice and funded by the Foreign, Commonwealth & Development Office (FCDO) of the Government of the United Kingdom. The development objective of the DPP is to improve the financial resilience of low- and middle-income countries against disaster risks through sovereign disaster risk finance and insurance solutions in order to protect the lives and livelihoods of poor and vulnerable people, while helping countries recover faster in the aftermath of disasters.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1. Assessing disaster risk and the impact of past disasters

Evidence from past disasters

Eswatini is vulnerable to several hazards, including droughts, floods, disease outbreaks, windstorms, forest fires, and invasive species, among others. Drought remains the most recurrent and pervasive of the hazards impacting the country's environmental and socioeconomic stability: it discourages household participation in agriculture, increases food insecurity, and diminishes resilience. Frequent environmental shocks also affect macroeconomic stability by creating volatilities in trade balances and food prices. As droughts become more frequent, their impact on the country will require more comprehensively planned resource allocation for all phases of the disaster risk management cycle in national public budgets, where a funding gap of about 79 percent for crisis response remains (WFP 2019).

Eswatini's disaster risk is somewhere in the middle of countries globally—it is 91st of 181 countries[1]—and it faces an insurance protection gap of 100 percent. Total economic losses experienced between 1981 and 2019 amount to US$364 million. None of the losses experienced were insured. Drought has been the most frequent peril and has caused both the greatest economic loss and the highest death toll (Table 2). The Government of Eswatini declared national states of disaster due to drought in 2001, 2007, 2015/16, and 2019. In 2015, a combination of the El Niño phenomenon, poor rains, and a sequence of prolonged dry spells over consecutive seasons caused massive crop and livestock failure. According to the Eswatini Policy Analysis and Research Centre, 16 percent of sugarcane, 67 percent of maize, and 90 percent of cotton failed, while 26,000 calves and 88,000 other livestock animals died (ESEPARC 2017).[2]

Table 2. Historical losses in Eswatini by type of peril, 1981–2019

Peril	Occurrences	Deaths	Affected	Total damage (US$)
Drought	8	500[a]	2,389,000	309,739,000
Storm	4	74	742,639	54,152,000
Flood	3	11	544,400	50,000
Wildfire	1	2	1,500	NA
Epidemic	3	142	3,677	NA
Total	19	729	3,681,216	363,941,000

Source: EM-DAT: The Emergency Events Database, Université catholique de Louvain (UCL), CRED, D. Guha-Sapir, Brussels, Belgium,

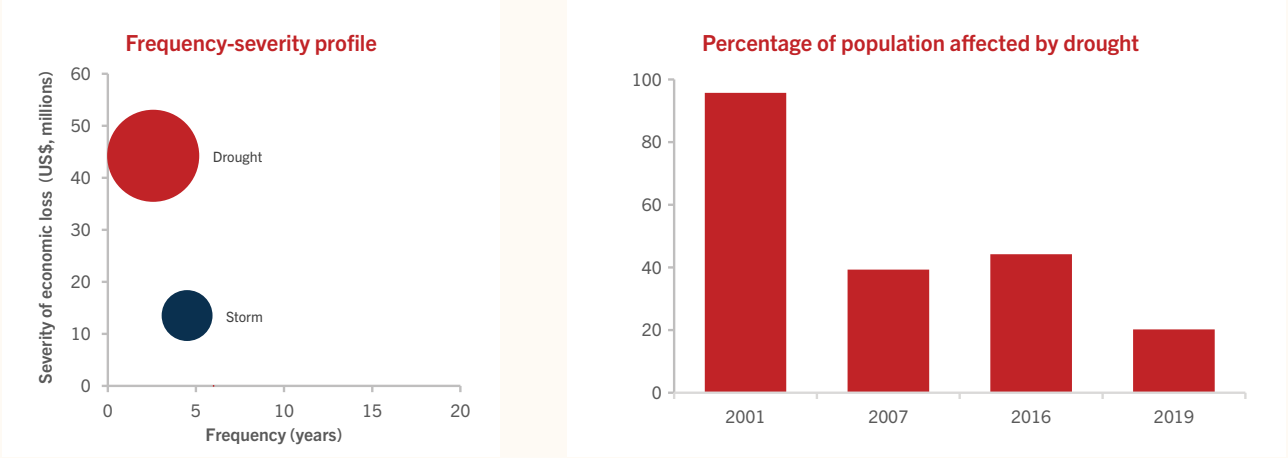
Note: The table presents aggregate impacts across different disaster events. NA = data not available.

a. This figure underestimates the impacts, as it excludes indirect deaths from malnutrition, disease, and displacement, which are the primary outcome of droughts. Such indirect deaths largely occur after the emergency phase and are often poorly documented.

Droughts, the most serious peril facing Eswatini, occur nearly every second year, and each occurrence costs US$44 million on average. In recent years, droughts of varying severity have occurred almost annually (UNDRR 2020). Natural disasters threaten the subsistence agriculture on which much of the population depends for food security and employment. Over the last two decades, a significant share of Eswatini's population has been affected by droughts, ranging from 20 percent of the population during the most recent drought in 2019, to 96 percent of the population during the countrywide 2001 drought (Figure 3).[3]

1. The 2020 World Risk Report's World Risk Index score for Eswatini is 6.42, reflecting a combination of low exposure, high vulnerability, high susceptibility, high lack of coping capacities, and high lack of adaptive capacities (Bündnis Entwicklung Hilft and RUB 2020).
2. Compared to 2013, when 35,096 cattle deaths occurred, the cattle mortality rate more than doubled due to the drought.
3. The 2001 and 2016 droughts affected the whole country, while the 2007 and 2019 droughts primarily affected the Shiselweni, Lubombo, and Hhohho regions.

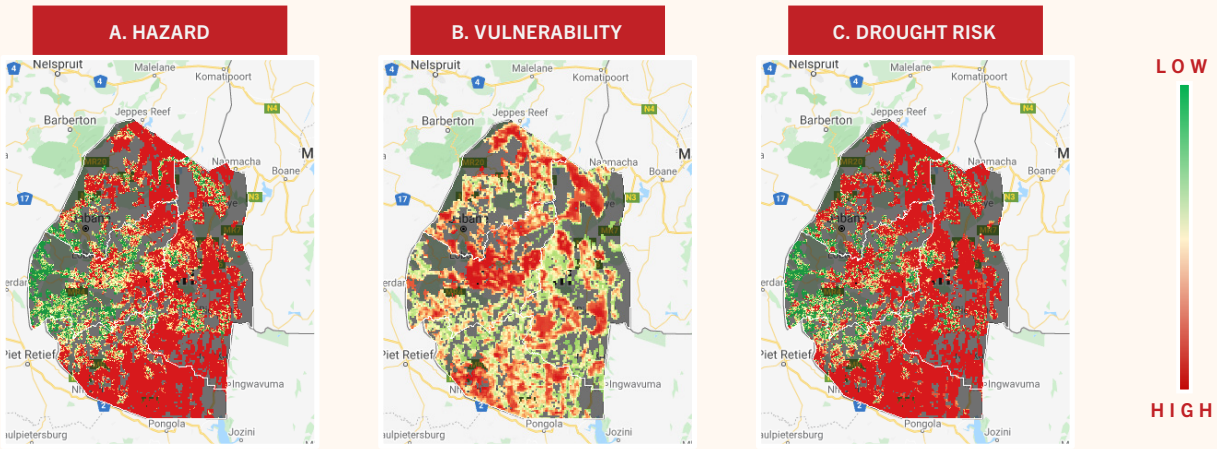
Figure 3. Disaster risk profile of Eswatini, 1981–2019



Sources: Calculations by World Bank staff based on EM-DAT: The Emergency Events Database.

Drought risk is high across most of the country, as depicted in Figure 4. Drought risk is assessed by considering hazard exposure and vulnerability or adaptive capacity, using multiple sources of information, including satellite-derived drought indexes and data on socioeconomic conditions. The drought risk profile is therefore based on a probabilistic estimation of hazard and vulnerability. An average of 15 percent of GDP (approximately US$0.5 billion) is potentially affected by droughts annually. This share is expected to rise to more than 40 percent by 2050 (UNDRR and CIMA 2018). The impacts of drought in Eswatini include wildfires, food shortages, reduced hydropower generation, loss of income, and increased crime rates (Eswatini Ministry of Agriculture 2020).

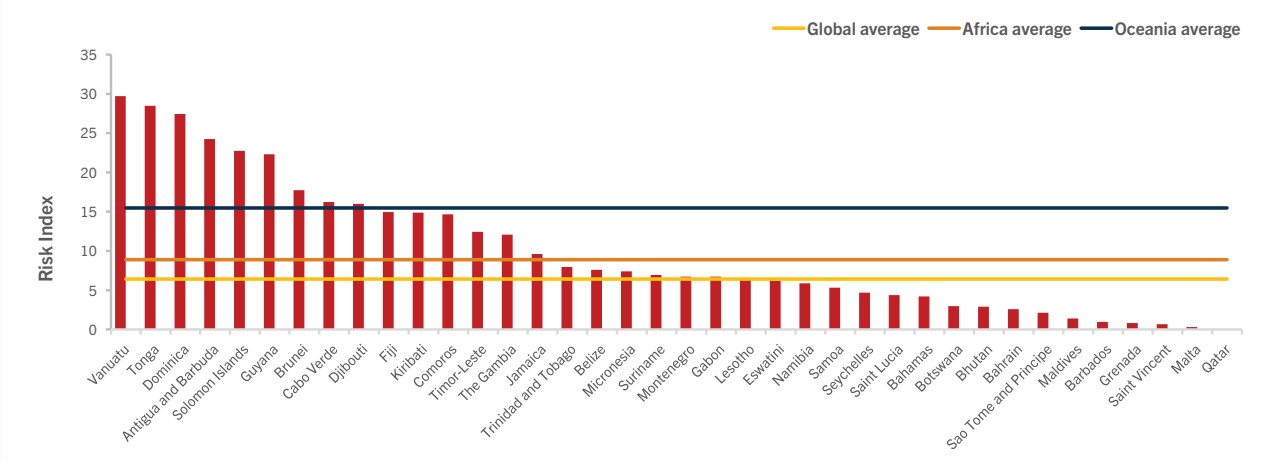
Figure 4. Drought risk profile in Eswatini



Source: Southern Africa Drought Resilience Initiative (SADRI), "Drought Resilience Profile: Eswatini,"

Eswatini compares favorably to other small states in terms of vulnerability to natural disaster risk as measured by the World Risk Index (Figure 5). Most small states are at relatively higher risk than the global average. However, there is a significant amount of variation among small states, with Pacific Island states at highest risk and southern African states like Eswatini and Namibia in the middle.

Figure 5. Comparison of vulnerability of small states by World Risk Index, 2020

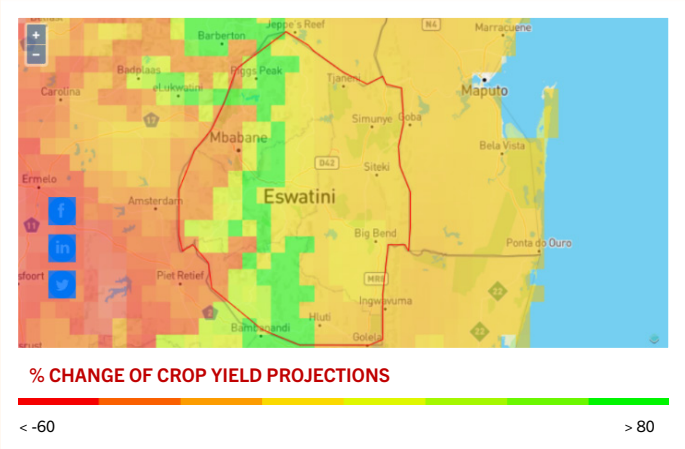


Source: Bündnis Entwicklung Hilft and RUB 2020.

Note: Countries exclude Europe and North America.

Climate change is expected to increase the frequency and severity of weather-related disasters through more intense temperatures, more variable rainfall patterns, prolonged heat waves, and water scarcity. By 2059, monthly maximum temperatures in Eswatini are expected to be 1.2°C to 2.4°C above the historical mean. Between 2040 and 2059, the number of hot days is expected to increase by 24 days, while annual precipitation is expected to fall by 36 mm. As shown in Figure 6, temperature change is expected to affect crop production regardless of crop type or agro-ecological zone. In addition, according to the Intergovernmental Panel on Climate Change, temperatures in southern Africa are rising at twice the global average, and so climatic shocks there are likely to continue increasing in both frequency and severity. Late onset of the rainfall season, shortened rain periods, and severe dry spells during the critical crop growth stages are expected to become more likely.[4]

Figure 6. Projected impact of climate change on rain-fed maize by 2050



Source: World Bank Group, Climate Change Knowledge Portal.

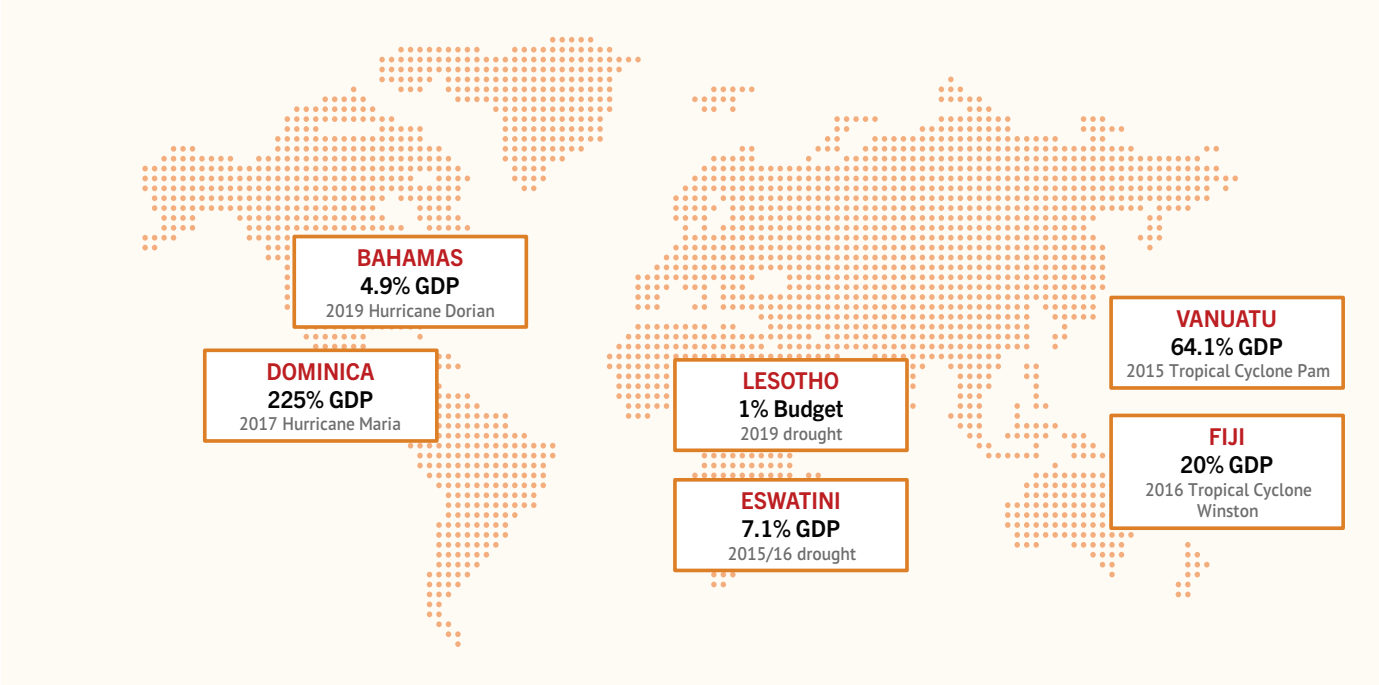
Eswatini reported its first COVID-19 case on March 14, 2020, and by February 2021 it had recorded more than 45,000 cases and 1,100 deaths, as of September 2017. The COVID-19 case study in section six provides an in-depth analysis of the impact of, and government response to, the pandemic.

4. World Bank Group, Climate Change Knowledge Portal.

Economic impact

Disasters have a disproportionate effect on small states, and Eswatini is no exception (Figure 7.). In small states, the average annual cost of disasters is 2 percent of GDP, more than four times that of larger countries. In addition, 9 percent of events in small states cause damage equivalent to more than 30 percent of GDP, compared to less than 1 percent of GDP in large countries for the same share of events. Disasters are also more frequent when adjusted for land area (IMF 2016). Small states, as a consolidated group, experienced 460 disasters between 1950 and 2014, an average of seven disasters within the group each year. By contrast, in eight countries whose overall land area roughly equals that of the combined small states, only 66 disasters occurred over the same period, or roughly one each year.

Figure 7. The economic impact of shocks in small states



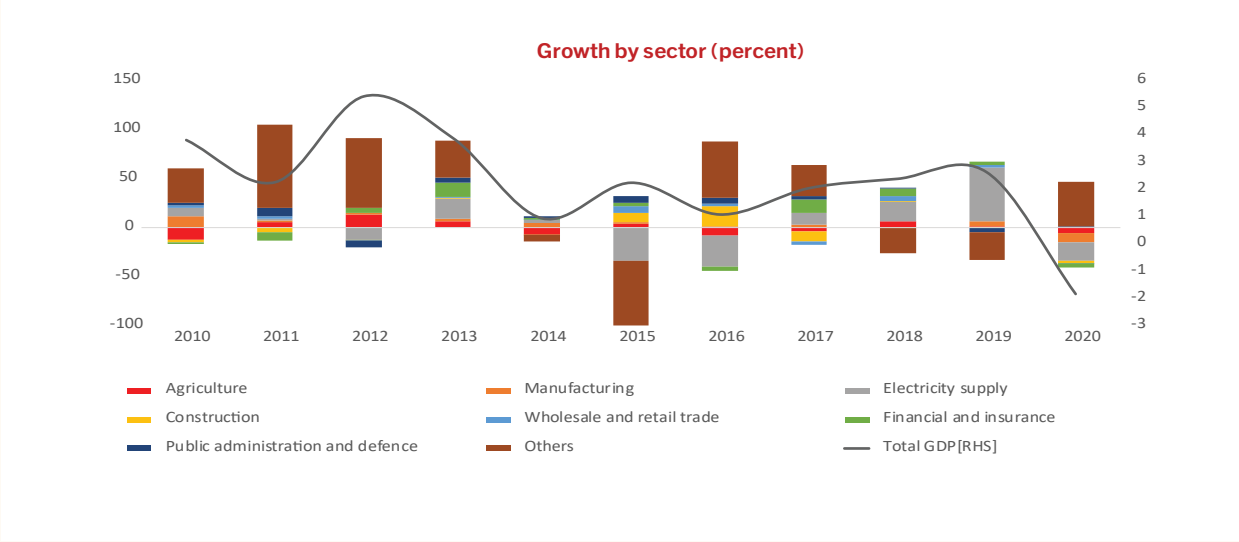
Source: World Bank 2019a.

The macroeconomic stability of Eswatini has been challenged by repeated climactic shocks. Between 1981 and 2019, the country experienced a number of droughts that had heavy economic impacts; the extended drought conditions between 1989 and 1992 are a key contributing factor to the country's slow economic growth since the 1980s (UNDP 2012). The drought in 2015/16 cost the government 19 percent of its annual expenditure, equivalent to roughly 7 percent of its GDP. Eswatini's economic exposure to shocks is exacerbated by its reliance on water for power generation, and on sugarcane, a water-intensive crop, for revenue. During the 2015/16 drought, Eswatini's water levels fell below the minimum needed to generate electricity; the resulting shutdown in domestic power generation led to an increase in electricity imports from South Africa and weakened the balance of payments.

Real GDP declined by 1.1 percent in 2016 due to drought-related declines in the agriculture and hydropower production sectors, with negative effects on other sectors as well (Figure 8). Headline inflation reached 8.7 percent in December 2016, largely due to an increase in food prices as a result of the drought (Figure 9). Although Eswatini's currency is pegged to the South African rand, the Central Bank of Eswatini increased the policy rate in 2016 and again in January 2017 to reach 7.25 percent for the first time in years—above the South African Reserve Bank policy rate; the increase was due to elevated risk owing partially to drought-related challenges (Figure 10).

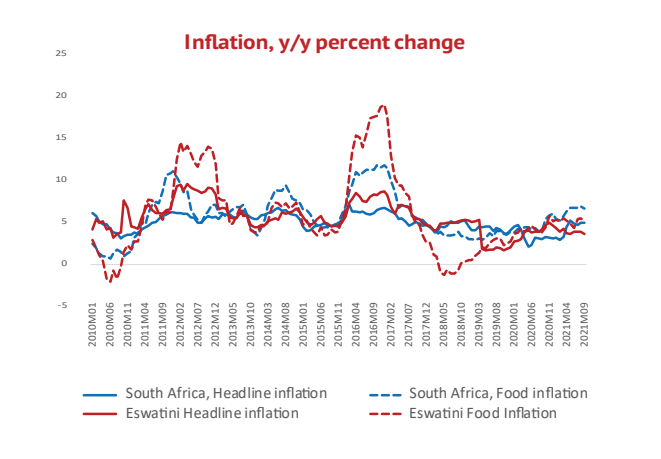
Responding to the drought required substantial financial resources, while a concurrent decline in SACU transfers led to a decline in revenue. Debt rose significantly during the drought years (Figure 11). With gross financing needs already high and further increasing, the government increased its reliance on domestic financial markets. After reaching 14.5 percent of GDP in FY15/16, gross financing needs increased substantially, to 21.8 percent of GDP in FY16/17. With little access to external debt markets, the share of domestic debt rose from about 47 percent of total public debt in FY14/15 to about 63.5 percent in FY16/17. To reduce the impact of the drought on the economy, the GoE implemented expansionary fiscal policies to boost economic activity and employment. Although this helped support economic growth, insufficient revenue led to fiscal and external imbalances and an increase in public debt and domestic arrears. The government acknowledged that expansionary policies were untenable in the medium term and that a path toward fiscal consolidation must be pursued to protect macroeconomic stability, support sustainable growth, improve social outcomes, and restore reserves.

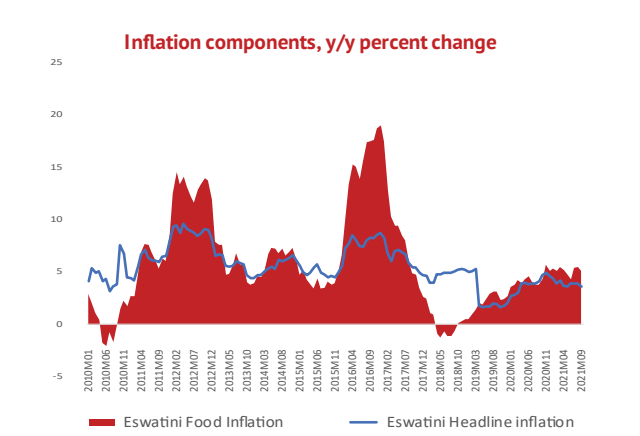
Figure 8. Adverse effect of drought on real GDP growth, 2010–20



Source: Eswatini Central Statistical Office, 2021

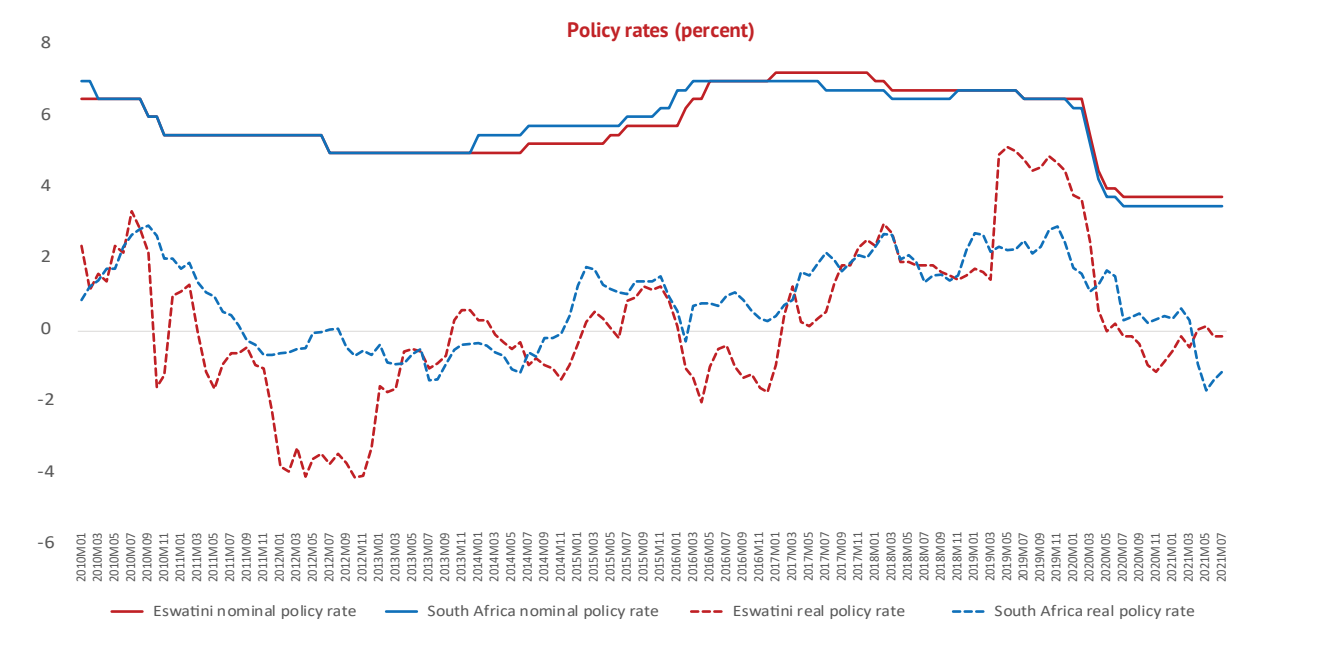
Figure 9. Increase in inflation and food prices due to prolonged drought





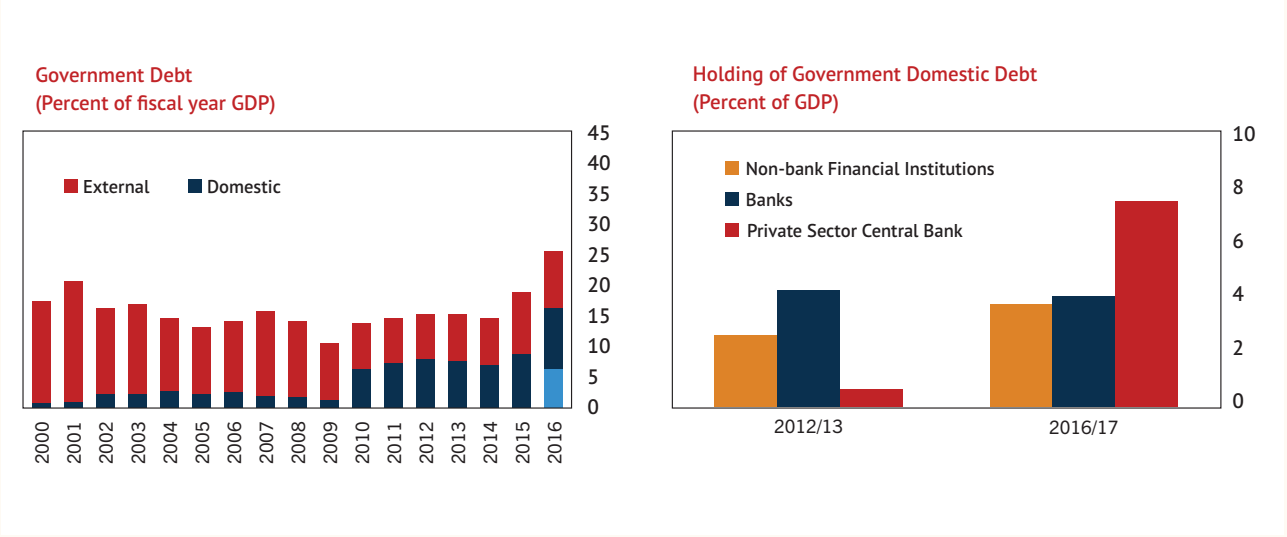
Source: Eswatini Central Statistical Office and Statistics South Africa, 2021

Figure 10. Central Bank of Eswatini and the South African Reserve Bank policy rates



Source: South African Reserve Bank and Eswatini Central Bank,2021.

Figure 11. Spike in government debt (mainly domestic) during 2015/16 drought



Source: IMF 2017.

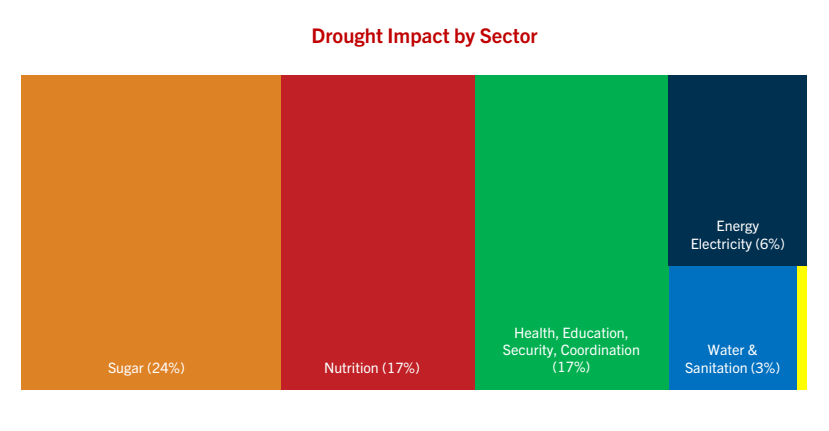
Note: In left-hand figure, light blue area in 2016 represents stock of arrears. In right-hand figure, estimated amount of domestic arrears (4.6 percent of GDP as of March 2017) is included as debt held by the private sector and central bank.

The partial lockdown of the country to contain the COVID-19 outbreak—from March 27, 2020, to April 16, 2020—severely restricted the movement of people and curtailed economic activity. Eswatini relies heavily on trade with South Africa (which accounts for about 60 percent of total exports and 95 percent of imports), and economic activity was affected by the closure of some ports of entry with South Africa along with weak demand. The result was a contraction of 9.1 percent in the second quarter of 2020. The exchange rate against the US dollar, which had depreciated significantly in early 2020, had largely recovered to the pre-crisis level by year end.

Sectoral impacts

The 2015/16 drought affected all sectors of the economy and unlike previous droughts was both a rural and an urban phenomenon (Figure 12). Major dam levels dropped to as low as 5 percent, affecting both energy production and water provision. Potable water scarcity affected rural and urban supply, including for health and education facilities. Agribusiness—including both rain-fed and irrigated farming— suffered the highest economic losses (World Bank 2020). Low agricultural production and a spike in food prices increased food insecurity, and the resultant household food pressure increased cases of gender-based violence. Health facilities further noted an increase in drought-related conditions like malnutrition and diarrhea (ESEPARC 2017).

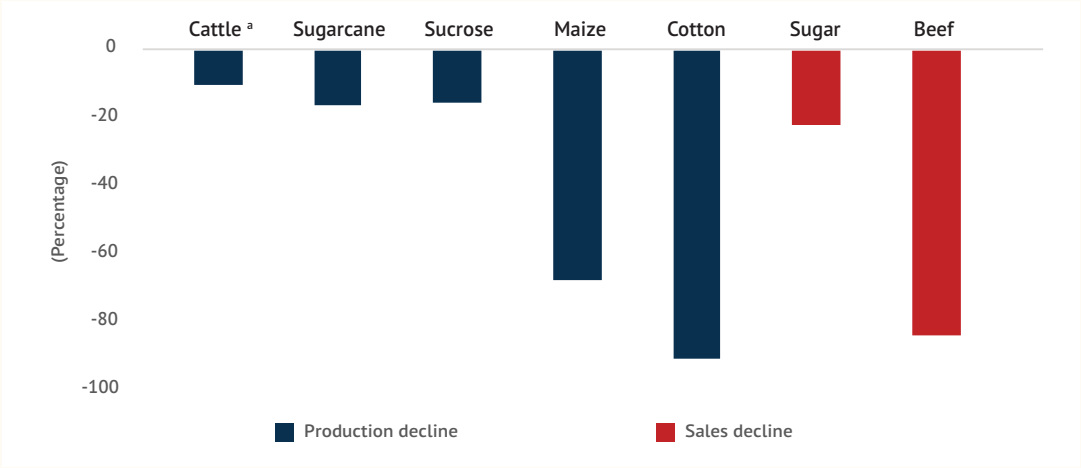
Figure 12. Economic impact of 2015/16 drought by sector



Source: ESEPACRC 2017.

The 2015/16 drought severely affected agricultural production and undermined food security. The drought resulted in the death of more than 88,000 head of cattle, or 10 percent of the national herd, due to lack of water and fodder. Sugarcane and sucrose production fell nearly 20 percent, while cotton fell 90 percent. Sugar sales declined by more than 20 percent due to the decline in production. The downgrading of 33 percent of beef exports to the EU caused revenue from beef sales to fall by over 80 percent. Additionally, during the 2015/16 season, maize production declined by 67 percent from the previous year (Figure 13), forcing Eswatini to import over 30,000 metric tonnes of maize from South Africa. Because the drought affected the whole southern Africa region, South Africa's white maize prices increased by 150 percent over the drought period. Consequently, the Eswatini National Maize Corporation increased the official price of maize by 66 percent, which made it unaffordable for many (ESEPARC 2017).

Figure 13. Impact of 2015/16 drought on agricultural production and sales



Source: ESEPACRC 2017. ;
a. The figure for cattle is for estimated decline in the national herd.

The drought-induced challenges facing agriculture and other affected sectors led to financial sector losses. In 2016, nonperforming loans in the banking system increased to 9.6 percent of gross loans (6.6 percent in 2015). Additionally, the sugar sector challenges led to a decline in the central government's SACU revenues, which put the entire fiscal system under further strain.

Water provision came under severe duress during the 2015/16 drought and resulted in emergency relief costs of E120 million. As key sources of water, such as reservoirs, springs, and boreholes, dried-up, water provision to rural households, major towns, and agricultural estates became critical. Urban areas, particularly Mbabane, went without water for the first time, requiring the Swaziland Water Services Corporation to execute intensive water rationing in Mbabane for four consecutive days. Key costs included the construction of a water pipeline from Luphohlo Dam to the capital city (E110 million) and the construction of a treatment plant to maintain water supply to business establishments in the central business district (E10 million).

Children have been among the most vulnerable to the effects of the drought. The 2015/16 drought affected 661 primary and secondary schools (78 percent of Eswatini's schools), impacting 189,000 students and 8,200 teachers. Many schools are reliant on boreholes, which were severely impacted by the drought. Approximately 88 percent of schools in the Lubombo region and 85 percent in the Hhohho region had poor access to clean water. The drought also adversely affected school feeding schemes, which are an important avenue for supplemental nutrition for children who come from poor households. A 2016 assessment showed that 22 percent of schools struggled to meet the needs of their feeding programs and that 73,000 students went without food at some point as a result of the water shortage.

Eswatini's economic vulnerability is heightened by its dependence on water for power generation. During the 2015/16 drought, river flows were their lowest since the great drought of 1992, and dam levels, including the power generation dams, fell below minimum levels required to generate electricity. The Eswatini Electricity Company had to shut down domestic power generation and import electricity from South Africa at a cost of E237 million (Table 3).

Eswatini's micro, small, and medium enterprises (MSMEs) are highly vulnerable to the impact of shocks. MSMEs are a core part of the economy and provide employment to 70 percent of workers who are not government employees. The MSME sector is estimated to comprise nearly 60,000 business owners, or 10 percent of the country's population, and employs 93,000 people, accounting for 16 percent of the total working-age population. The MSME sector is a critical provider of rural livelihoods: 74 percent of MSMEs are located in rural areas, and 65 percent of all MSME owners are female. Three-fourths of MSME owners rely on the business as their only source of income, and roughly the same share are unregistered/informal. MSMEs are highly vulnerable to shocks through both supply and demand channels and have low resilience due to their size (UNDP 2020).

The vulnerability of MSMEs to shocks is primarily driven by their limited access to risk financing mechanisms and financial services, and this is particularly acute for women-led MSMEs. Eswatini has one of the highest estimated MSME financing gaps in Sub-Saharan Africa, at 45% for formal MSMEs and 30% for informal MSMEs (IFC, 2017). There are no ongoing risk financing mechanisms supporting MSMEs in Eswatini (the Government did launch a MSME relief fund to support MSMEs impacted by Covid-19, however this mechanism is now discontinued). Limited access to financial services and risk financing mechanisms forces MSMEs to shoulder the financial costs of shocks, which in turn can lead them to reducing salaries / work schedules for staff, making staff redundant and for more extreme shocks, shutting down their business. Women-led MSMEs are particularly vulnerable, with only 14% reporting having access to a bank credit versus 32% of men-led MSMEs (Enterprise Survey, 2016). There are multiple reasons why financial institutions constrain credit to MSMEs, including exposure to shocks, poorly designed products, information asymmetry and limited assets / guarantees to serve as collateral. International experience suggests that sharing credit information, introducing collateral registries, having well-managed credit guarantee schemes and FinTech can drive down the cost of credit for MSMEs and enable financial institutions to better design products for the market segment. Such interventions, combined with risk financing mechanisms to strengthen financial resilience to shocks are critical to enable a vibrant MSME sector in Eswatini.

Fiscal impact

The total cost of the 2015/16 drought was E3.8 billion, amounting to approximately 7.01 percent of Eswatini's GDP. Drought response cost the government 18.6 percent of total government expenditure in 2015/16. This number excludes information from the Swaziland Dairy Board for milk production losses, National Marketing Board for vegetable production losses, and banana estates and citrus fruit producers for their losses. This number also does not incudes losses to fisheries and fish stock that resulted from declining water levels in many rivers and dams. The E3.8 billion includes only the short-term cost of the drought and does not include long-term costs resulting from loss of ecological infrastructure and biodiversity. For example, in the sugar sector, replanting of rhizomes was stopped during the drought, and this step will have a long-term effect on sugar yields. The figure also does not cover long-term challenges resulting from the drought, such as loss of household savings.

Table 3. Monetary costs of 2015/16 drought →

Sector	Impact	Cost (E Millions)
Cotton sector	Cotton production is 100 percent reliant on rainwater. Production declined by 90 percent, from 837 tons in 2015 to 100 tons in 2016.	3.98
Sugar production	With sugarcane highly reliant on water, total sugar sales declined (22 percent) in 2016/17.	903.85
Beef production	Some 88,000 head of cattle died as a result of the drought, and calf births declined by 6 percent in 2016, translating to a loss of 26,000 calves. Cattle slaughter increased sharply (62.4 percent in 2015) as farmers disposed of cattle due to the drought.	702.38
Maize production	Maize production sharply dropped in the 2015/16 season (from 101,000 to 33,450 tons), and the National Maize Corporation (NMC) increased the price of white maize by 66 percent, from E3,533 in 2015 to E5,865 in 2016. NMC also imported 30,446 tons of maize from South Africa, and in 2016 the price reached E4,935.	466.9
Water supply	A water treatment plan was developed for Mbabane to provide water to the central business district. A pipeline was also under construction to supply water from Mbabane and Luphohlo Dam.	120
Electricity generation	The drop in water levels at Maguga and Luphohlo Dams forced the Eswatini Electricity Company (EEC) to stop local power generation and import all electricity from South Africa.	237
Household food consumption	The drought affected food production, which translated to an increase in food price inflation. On average, monthly household spending on food declined by E30,973,463.	650.44

Source: ESEPARC.

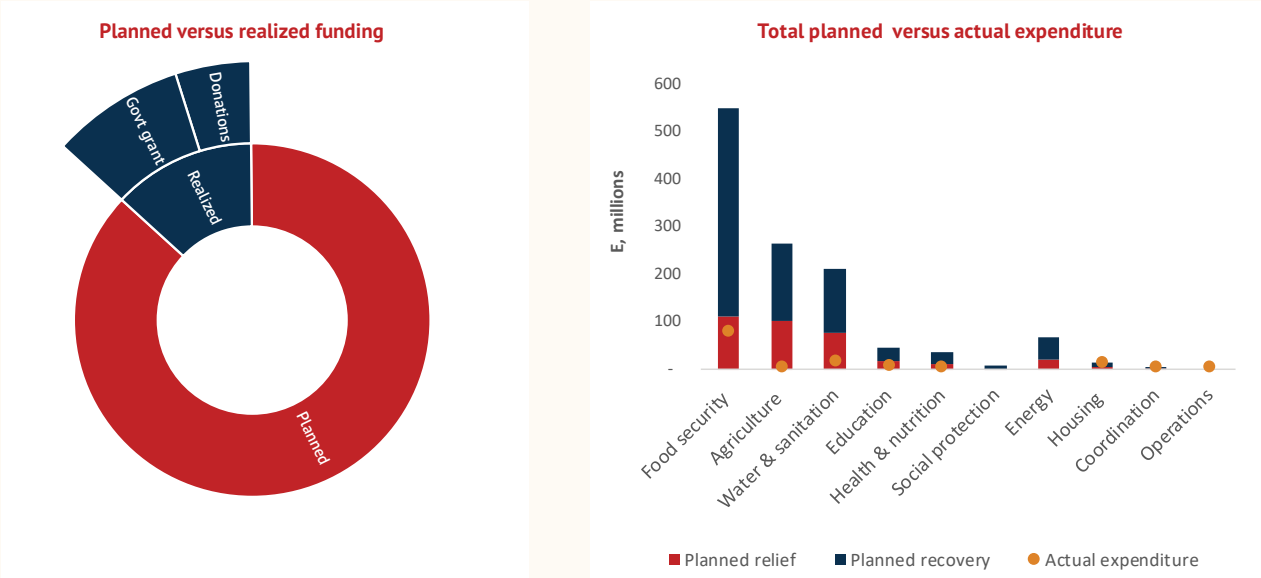
Photo© Denis Kabanov/Shutterstock

A farmer market in the capital's downtown area.

The Government of Eswatini is committed to improving disaster preparedness. Following the 2015/16 drought, GoE established the National Emergency Response, Mitigation and Adaptation Plan (NERMAP) as a key part of its financial response to climate shocks, in particular to drought, between 2016 and 2022.[5] NERMAP operates through the National Disaster Management Agency and prioritizes water and food security through intensified local maize production as well as rehabilitation and expansion of water systems to increase access to potable water. NERMAP had an initial budget of US$3 million for implementation. In addition, an estimated US$80 million is required for mitigation and long-term recovery measures (World Bank 2018). The cost of implementing NERMAP is beyond the capacity of the GoE, so support has been solicited from development partners, nongovernmental organizations (NGOs), and local companies.

Following the 2015/16 drought, Eswatini prioritized drought mitigation in line with NERMAP. By 2016 the government had allocated E105 million through a supplementary budget. In the 2016/17 fiscal year, GoE set aside E200 million for continued drought mitigation. In 2019/20, due to a steep increase (90 percent) in food-insecure people following droughts (SADC 2019), the government's budgetary allocations once again turned to food security and to programs aimed at decreasing farmers' vulnerability to drought. The farmers' input subsidy program, which the minister of finance described as a tool for disaster mitigation,[6] received a budget allocation of E30 million (Figure 14).

Figure 14. NERMAP funding and expenditure, 2016–20



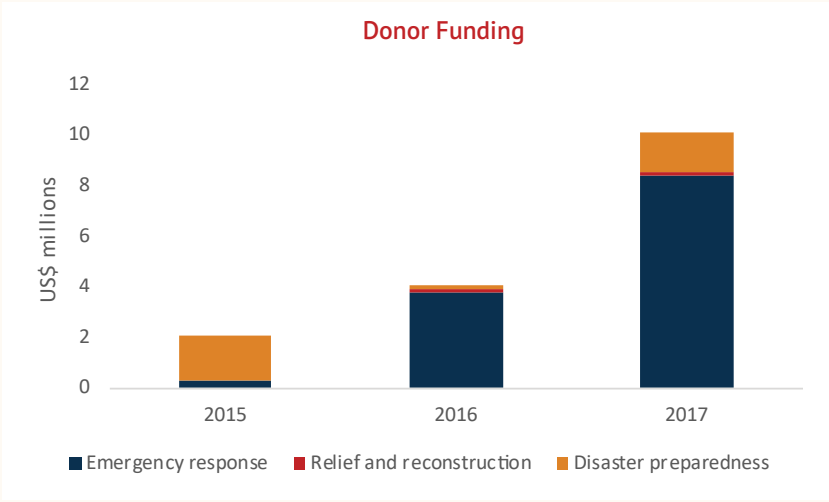
Source: NERMAP audited financial statements.

Over the last five years, NERMAP has raised E183 million, or 15 percent of the E1.2 billion planned, mainly through grants from the national treasury; total expenditure is significantly below plan across all sectors. Relief covers immediate response, while recovery covers medium-term expenditures on mitigation and adaptation activities. The bulk (69 percent) of the emergency response plan has been funded through grants from the national treasury, while development partners and the private sector have contributed 30 percent in donations.[7] More than half of NERMAP expenditure has been toward food security; however, this covers only 15 percent of the need. Expenditures in water and sanitation and in health and nutrition have covered about 10 percent of the need. Agriculture has been severely underfunded, currently covering 2 percent of the need. Social protection and energy are yet to be funded.

5. Eswatini launched NERMAP in response to the 2015/16 drought. The plan establishes risk management systems that seek to minimize the country's vulnerability to hazards and to effectively prevent and mitigate the impact of disasters within the context of sustainable development. See NDMA (2015).
6. See Ministry of Finance, "Budget Speech 2019," http://www.gov.sz/images/PM/Budget-Speech-2019.pdf.
7. During the 2015/16 drought, total donations of E10.7 million were raised, with the central bank and king accounting for a third. Donations were received from both domestic and international donors, including pension funds, banks, insurance companies, religious societies, and private sector actors.

A risk-sensitive budget review (UNDRR 2020) found that donor funding was mobilized as part of the emergency response following the 2015/16 El Niño drought.[8] Over the three-year period from 2015 to 2017, donors spent an average of US$5.42 million each year, with 77 percent going toward emergency response. There was a substantial increase in the share of donor funds being used for emergency response after the 2015/16 El Niño. In 2015, 12 percent of donor funds were used for emergency response and 88 percent were used for disaster preparedness and prevention.[9] However, in 2016, 93 percent of donor funds were used for emergency response, compared to 5 percent for disaster preparedness and prevention. In 2017, 83 percent of donor funds continued to be used for emergency response. Total donor spending continued to increase over the 2015–17 period, from US$2.1 million in 2015 to US$10.1 million in 2017 (UNDRR 2020) (Figure 15).

Figure 15. Donor funding of principal disaster risk reduction activities, 2015–17 (US$, millions)



Source: UNDRR 2020.

Impact of past disasters on the poor

The 2015/16 drought affected rural households more than urban households. A study by the Eswatini Economic Policy Analysis and Research Centre (ESEPARC 2017) estimates that because of the drought, there was a decline in food consumption at the household level that amounted to E650.44 million, equal to 1.19 percent of GDP in 2016. The largest decreases in consumption occurred in rural households in the Manzini region, which recorded decreases of E240.5 million, followed by Hhohho at E193.4 million and Lubombo at E133.4 million. The 2015/16 drought pushed one-third of the country's population—320,970 people, including 135,144 children—into food insecurity. The 2015/16 Drought Rapid Assessment, carried out by the Deputy Prime Minister's Office (2016), showed that households were utilizing extreme coping mechanisms in response to the drought; 68 percent of Swazis reported reducing the number of meals they consumed, while 63 percent reduced the diversity of their diet by eliminating certain foods.

The compounding effects of high exposure to climatic shocks and the highest adult prevalence of HIV/AIDS in the world (28 percent) make a large share of the population vulnerable. Because antiretroviral treatments for HIV/AIDS must be taken with food, extreme droughts affecting food supply may make taking the necessary medication impossible.

8. The risk-sensitive budget review uses the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee disaster risk reduction (DRR) policy marker to evaluate and assess the extent to which the government has budgeted for and/or invested in DRR. The analysis screened and analyzed actual and approved estimates of expenditures by the central government of Eswatini for a five-year period (April 2014 to March 2019).
9. A DRR-related activity can be located along the disaster management cycle: pre-disaster activities (prevention, mitigation, or preparedness) or post-disaster activities (response or mitigation).

2. Legal and institutional framework for disaster risk finance in Eswatini

Background

Eswatini's institutional structure for disaster risk management (DRM) focuses on mainstreaming disaster risk reduction into project development, sectoral planning, and budgeting, with response managed through a highly centralized system. The institutional framework for DRM was first outlined in the Disaster Management Policy of 1999. It aimed to prevent or minimize the impact of disasters on vulnerable communities and groups, foster a culture of disaster prevention, and build national, regional, and local capacity and resilience to withstand the impact of future disasters. Currently, the National Disaster Management Agency (NDMA) is the central authority promoting risk reduction programs and conducting awareness campaigns.

The country's policy strategy is consistent with international and regional frameworks. The Sendai Framework for Disaster Risk Reduction is a core component of disaster management efforts in the country. Eswatini has leveraged the framework to strengthen national disaster management capacities while supporting disaster preparedness and management plans (Government of Swaziland 2016). Before implementing the Sendai Framework, the country endorsed the Africa Regional Strategy for Disaster Risk Reduction.

Currently, the most important legal document guiding DRM in Eswatini is the Disaster Management Act of 2006. The act creates the institutional structure for DRM activities in the country and establishes the three bodies that are responsible for high-level supervision of DRM activities: the Ministerial Disaster Management Team, National Disaster Management Council, and National Disaster Management Agency.

In the years following the drought of 2015/16, the government further fast-tracked and adopted adaptation policies that addressed disaster-related challenges. The National Emergency Response, Mitigation and Adaptation Plan served as a cross-sectoral assessment of short- and long-term needs resulting from the drought. However, the emphasis of this document was limited to disaster risk response and mitigation, with fewer activities focusing on preparedness and reconstruction. The National Drought Plan of 2020 provides more comprehensive coverage of drought risk management and defines four pillars for building drought resilience in the country: monitoring, vulnerability assessment, preparedness and mitigation, and communication and capacity building.[10] Besides these two documents, the Seasonal Multi-Hazard Contingency Plans and the National Multi-Hazard Contingency Plans are living documents reviewed annually; they are updated by stakeholders in response to changes in the hazard and risk profile of the country.

In addition to policy documents and project plans, Eswatini carries out an annual vulnerability assessment and analysis to determine the vulnerability status of households using a multi-sector approach that addresses food security, agriculture, health, nutrition, and education. The assessment takes place between May and June, during the post-harvest season. Further, an annual National Agricultural Survey is conducted in collaboration with the Central Statistical Office; this survey draws on the Household Economy Analysis and Household Survey to provide information on cropped areas.

Another document, the Strategy for Sustainable Development and Inclusive Growth, articulates the country's current development vision and maps out the strategic path for the country, including emergency preparedness and response as a key sector. Other recent country policies also prioritize efforts to address disaster vulnerabilities such as food insecurity and poverty. In order to better inform future efforts, the country has developed maps of drought- and flood-prone areas, which are expected not only to improve regional and local disaster management policies but also to help planning of expenditures and implementation of disaster risk reduction measures; see the National Development Plan 2019–2021 (Ministry of Economic Planning and Development 2019).

Despite significant progress in strengthening DRM in the country, significant gaps remain. The highly centralized structure of DRM management reduces involvement at the community level (Kamara et al. 2020) and in some cases leads to underutilization of local expertise and the specific knowledge that may exist within line ministries or local government bodies. Further, despite the strong position of NDMA, which reflects the level of recognition given to DRM, Eswatini has no pre-funded risk financing instruments and suffers from challenges in terms of timeliness and efficiency of post-disaster expenditures (see the subsection titled "Budget execution and service delivery mechanisms"). Improvements could be made in areas such as procurement, interagency communication, and access to a wider range of financial mechanisms that would facilitate faster and better-targeted response for disaster-affected communities, individuals, and businesses.

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10. The World Bank's Kingdom of Eswatini Water Supply and Sanitation Access Project is supporting the development of drought preparedness plans for cities and towns in Eswatini.

Institutional set-up for disaster management in Eswatini

Since the passing of the national Disaster Management Act in 2006, Eswatini has had a highly centralized institutional set-up for disaster risk management. The concentration of power is especially apparent in the case of response activities; in the preparedness and mitigation phases of DRM, line ministries show a higher level of involvement. Given the centralized structure for DRM activities, it is important to ensure that both the benefits and potential pitfalls of such an arrangement are understood and addressed.

The Disaster Management Act established the Ministerial Disaster Management Team, which acts in an advisory capacity to the prime minister. The team is headed by the deputy prime minister and comprises ministers whose portfolios involve DRM activities, including response. The body is responsible for advising the policy development process and response activities, and offers its opinion to the prime minister on establishing a state of emergency following shocks. The existence of this high-profile DRM body emphasizes the country's commitment to well-informed and coordinated DRM decision-making.

The National Disaster Management Council, also established by the Disaster Management Act, is responsible for keeping the DRM policy of the country up to date. Its role is similar to that of the Ministerial Disaster Management Team; it focuses on building resilience and proposes risk reduction programs across ministries that take part in DRM activities. The council comprises principal secretary–level civil servants from selected ministries as well as representatives from civil society, business organizations, scientific organizations, religious groups, and NGOs. Among the achievements of the council is the co-development of the DRM policy in 2010, which was followed by the National Emergency Response, Mitigation and Adaptation Plan 2016–2022.

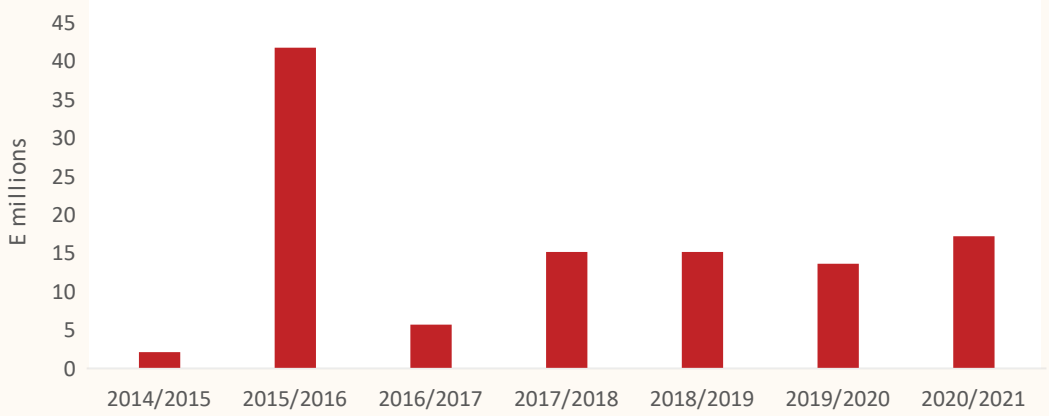
The Disaster Management Act also established regional disaster management committees. At the community level, regional committees deliver their mandate through the traditional governance system of chiefdoms. Regional-level authorities are mandated to advise national authorities on their planned disaster management investments that tackle regional issues—that is, those that go beyond local capacities or national mandates. However, their primary duty is to update the National Disaster Management Agency on local needs and disaster risk exposure and to provide feedback to the agency during disaster events. The committees are by and large controlled by the NDMA, and while they are not its regional offices, their mandate makes them dependent on the agency. There are in addition teams of citizen scientists throughout the country who are being trained by the NDMA to report the impacts of disasters.

Finally, the Disaster Management Act of 2006 established the NDMA as the central authority responsible for day-to-day DRM activities at the central level in Eswatini. Initially, the agency was established as part of the government structure, and its employees, including the CEO of the organization, were public servants. However, since 2014 the agency has been classified as a class A parastatal under the Public Enterprise (Monitoring and Control) Act of 1989; it was established in a new form through Legal Notice No. 8 of 2014. On the one hand, the high level of independence and in-house capacity of the NDMA allows for faster decision-making than occurs in institutional set-ups where the power is spread across numerous agencies and where coordination of numerous bodies is required. On the other hand, the highly centralized system may narrow down the institutional focus, create a risk of reduced oversight, and lead to a perception of insufficient transparency.

The authority's operational role is emphasized by its responsibility to write the national Disaster Management Plan, which covers all phases of disaster risk management—mitigation, preparedness, response, and recovery—and includes drafting of the budget for the activities and administering most of the response funds in the country. While the National DRM Team and National DRM Council provide policy guidelines for the country, the NDMA leads implementation, remains the focal point during all phases of disasters, promotes research, decides on the balancing of efforts between preparedness and response, and coordinates volunteers and other personnel involved in DRM operations. The NDMA reports to the Cabinet through the National Disaster Management Council (at principal secretary level) and the Ministerial Disaster Management Team (at Cabinet level).

As evidenced during the response to the drought of 2015/16, NDMA coordinates both the work of national-level ministries and the local sphere of governance such as municipalities. Following the drought, almost all response funds were channeled through NDMA's accounts and were disbursed under its supervision (Figure 16). The supplementary allocation was transferred to the agency, even before the establishment of the official strategy on the response. Even ministries that had already had money allocated to them were mandated to transfer the funds to NDMA, which then made centralized decisions on further allocations. For example, the Ministry of Agriculture—which has relevant expertise and in many countries is central to drought response efforts—was required to transfer response funds to NDMA. Further to its coordination role and responsibility for the management of funds, NDMA also maintains food reserves, another responsibility that most countries vest with the Ministry of Agriculture.

Figure 16. Actual expenditure of NDMA



Source: GoE budget estimates

NDMA also provides coordination across relevant sectors and actors to implement a response to public health emergencies of international concern (PHEIC) and pandemics. The COVID-19 response was organized with the collaboration of various inter- and intraministerial coordination mechanisms. The main actors involved have been the Ministries of Health, Agriculture, and Tourism and Environmental Affairs as well as NGOs and the private sector. Eswatini has a fully staffed International Health Regulations (IHR) National Focal Point Secretariat that operates continuously and reports to the World Health Organization (WHO) within 24 hours as prescribed in the IHR. The National Epidemic Task Force provides leadership and rapid response team structures, and it collaborates with and provides coordination for multiple Ministry of Health units, external agencies, and NGOs involved in a large-scale response.

Since the establishment of NDMA, the level of responsibility of local government bodies has been reduced. During the drought of 2015/16, which resulted in significant and unexpected water shortages in urban areas, the capital city of Mbabane incurred only minimal costs for the disaster response; provision of vital supplies such as emergency water tanks and distribution of water were coordinated centrally. Interviews with city officials highlight both the challenges and strengths created by a centrally managed DRM model. On the one hand a central institution able to build the required expertise and procedures facilitates handling of complex procurement processes and other financial proceedings. Indeed, officials in Mbabane stress that the capital's municipal administration would face challenges creating ad hoc structures for efficient post-shock procurement. On the other hand, however, the city experienced delays in the delivery of requested supplies, and according to city officials some of the interventions (such as allocation or timing of tank refills) could have been targeted better. In this instance, the centralized DRM planning might not have fully utilized local expertise.

Despite the advantages of centralized procurement procedures, the experience with fodder purchase in 2015 revealed challenges with post-disaster procurement in the country. Following the drought, the feed purchased by NDMA was not subject to the normal quality controls, and the contaminated supplies caused the death of a large number of animals. Officials at the GoE emphasized that one of the reasons for this error was the lack of dedicated emergency procurement procedures. There is a general understanding with the government that "procurement for disasters takes priority;"[11] this approach increases the speed of response but often at the expense of quality and transparency.

There are four further government agencies that play a role in DRM and are worth mentioning:

- **The Eswatini Meteorological Service together with the Ministry of Agriculture carries out workshops preceding seasonal forecasts.** The service provides information to farmers on the importance and the use of seasonal forecasts for planning. It also works with the National Malaria Control Unit to publicize seasonal mosquito surges, to forecast alerts, and to aid mitigation strategies.
- **The National Early Warning Unit is expected to work in cooperation with other stakeholders to conduct food supply assessments that inform food policies in the country.** Together with Eswatini Meteorological Service, the Early Warning Unit also gathers, analyzes, and disseminates information on food security issues and provides the early warning information on expected weather conditions and crop production.

11. Based on the interview with a representative from the Ministry of Water held on December 1, 2020.

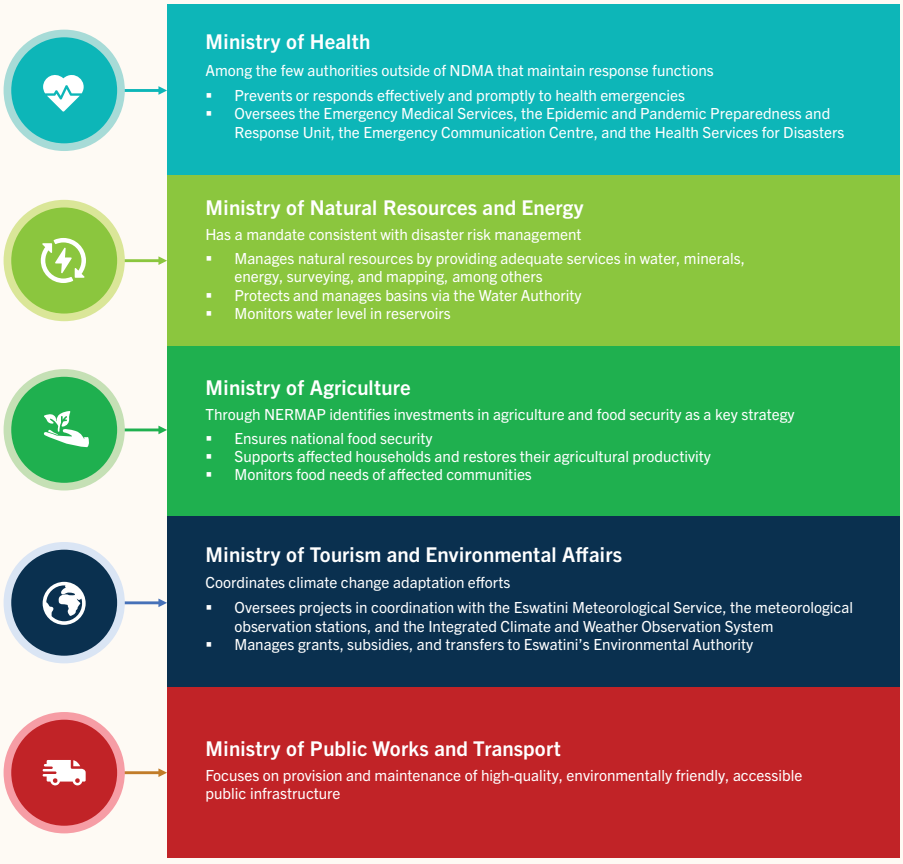
- **The Eswatini Vulnerability Assessment Committee (EVAC) collects household-level information to assess livelihoods as well as levels of chronic food insecurity, malnutrition, and vulnerability in rural households in all regions of the country.** Trained EVAC members undertake integrated food security and vulnerability analyses of household survey data.
- **The Emergency Preparedness and Response Unit is intended to lead and provide coordination on health emergencies.** It lays out the health emergency research agenda, sets norms and standards, articulates evidence-based policy options for disaster risk management for health, monitors disease outbreaks, and assesses the performance of health systems during emergencies.

Ministries

The role of line ministries in DRM activities largely excludes response; instead, ministries focus on preparedness and recovery. Some ministers have mainstreamed disaster risk management through the development of emergency preparedness plans, while others conduct DRM activities through specific departments and programs. Among the institutions that house DRM programs, the largest numbers are housed in the Ministry of Health, the Ministry of Natural Resources and Energy, the Ministry of Agriculture, the Deputy Prime Minister's Office, the Ministry of Tourism and Environmental Affairs, the Ministry of Public Works and Transport, and the Ministry of Housing and Urban Development through the Fire and Emergency Services (Figure 17).

Ministries also utilize preparedness plans to further develop cooperation among specific units. The Ministry of Health, for example, has in recent years mainstreamed DRM through the establishment of a unit dedicated to emergency preparedness and response and through the development of several contingency plans for the management of epidemics, such as the Ebola Preparedness Plan of 2015 and the National Contingency Plan for Novel Coronavirus 2020. Similarly, the Ministry of Tourism and Environmental Affairs participates in several disaster management activities through the Eswatini Meteorological Service and the Integrated Weather Observation System, and the Ministry of Housing and Urban Development houses the Fire and Emergency Services Department, which participates in the development of national contingency plans.

Figure 17. DRM duties of line ministries



Source: World Bank staff.

Risk financing instruments in Eswatini

Eswatini currently has no dedicated financial instrument for protection against disasters. The lack of contingency planning, risk pooling, or transfer facilities exacerbates Eswatini's dependence on ex post mobilization of funds (borrowing), and to a lesser extent on funding from development partners and the international community, in times of disaster. Recognizing the challenges posed by shocks to economic development and fiscal stability, more and more countries in the region are working toward implementing a wider range of risk financing instruments such as contingency funds, sovereign risk transfers, contingent credit lines, and other. The National Development Plan of 2019–2021 also touches upon the impact that lack of access to self-sustained, rapid, and predictable disaster financing has on the budget. In addition, in policy briefs from 2015–17 and 2017–19, the Eswatini Economic Policy Analysis and Research Centre (ESEPARC) has reported interest from the government in transferring disaster risk to established insurance markets.

The emergency provision in the Public Finance Management (PFM) Bill provides relatively limited guidance on the extent of the government's power to amend the pre-planned use of funds in the aftermath of a disaster. The PFM Bill's provision for the aftermath of a disaster obligates the minister of finance to present a report on the newly arisen needs to the Parliament for a vote.[12] Under this arrangement, lengthy reallocations are necessary to finance disaster response.

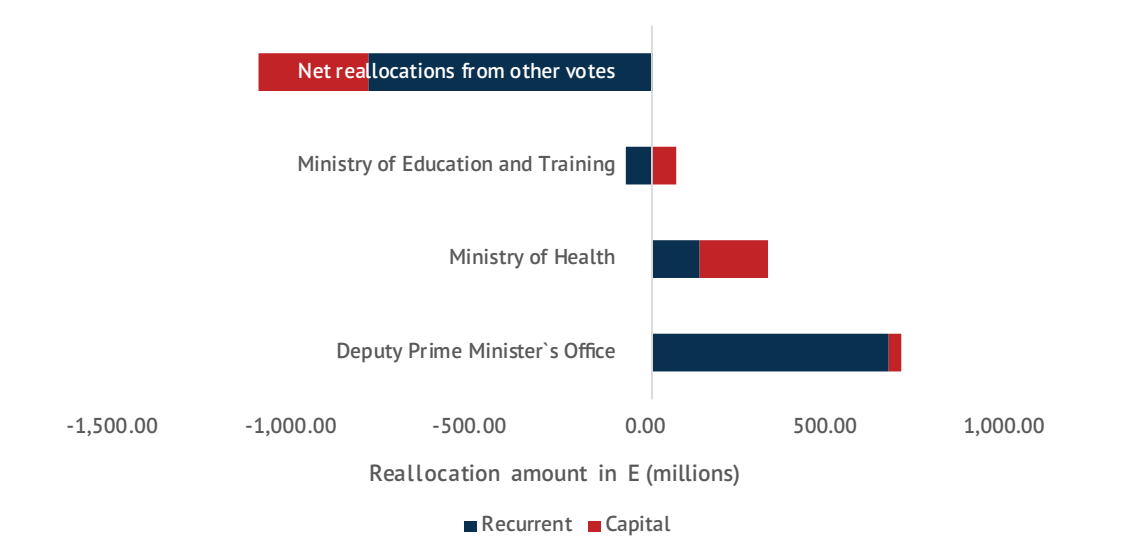
The financing of disaster response relies solely on ex post mobilization of resources, which can negatively affect other investments in the budget. Furthermore, Eswatini's ability to mobilize funding during disasters is currently hampered by its macroeconomic and fiscal stability challenges. The Government of Eswatini acknowledges high financial vulnerabilities and the correlation between disasters, poor agricultural performance, and increased expenditure on (for example) electricity and unsustainable food imports.

Reallocations

Ex post reallocations are the main instrument used to fund disaster response activities. However, they involve a bureaucratic procedure and thus are subject to delays. Reallocations without Parliament's vote can occur only in very limited circumstances[13] and when the amount in question is less than 5 percent of the budgeted activity.

Following the COVID-19 crisis, the Parliament passed a supplementary budget that reduced the allocation across 30 ministries, departments, and agencies, and that primarily affected 72 percent of recurrent budgets. Almost all the emergency funds were channeled through the Office of the Deputy Prime Minister to the NDMA, which coordinated procurement of supplies and the nonmedical staff. The Ministry of Health was also allocated E326 million to make necessary capital investments. The direct reallocation to the Ministry of Health is explained both by the nature of the emergency and by the fact that the Ministry of Health is among few institutions other than NDMA with a comprehensive emergency response mandate (Figure 18).

Figure 18. Budget reallocations in response to COVID-19



Source: Ministry of Finance, Supplementary Appropriation (No. 03) Bill, 2020.

12. PFM Bill of 2013, Clause 22.
13. The vote in Parliament can be dispensed with only when funds are moved within the same budget activity, and only when they affect a non-salary recurrent expenditure or projects funded from the same source.

Ex post borrowing

Ex post borrowing has also extensively been used to finance post-disaster expenditures in Eswatini. The minister of finance can raise debt to finance liquidity shortfalls, including those that may arise from shocks. The DRM Bill also allows the minister of finance to facilitate raising of money on behalf of a public entity, which can borrow money from the government but not directly on the market. Eswatini has a Parliament-mandated borrowing ceiling established at 35 percent of GDP. However, this limit had already been breached in 2019, when borrowing amounted to 38 percent of GDP; and following COVID-19 debt issuance and mounting arrears, it currently stands at 48 percent of GDP (AfDB 2021).

Public enterprises such as NDMA can borrow money on the market, assuming transactions are approved by the line ministry responsible for the parastatal. Similarly, when the schedule of borrowing is to change, for example following a disaster, parastatals require approval only from the line minister. This makes their ability to raise money on the market significantly greater than that of other public bodies.

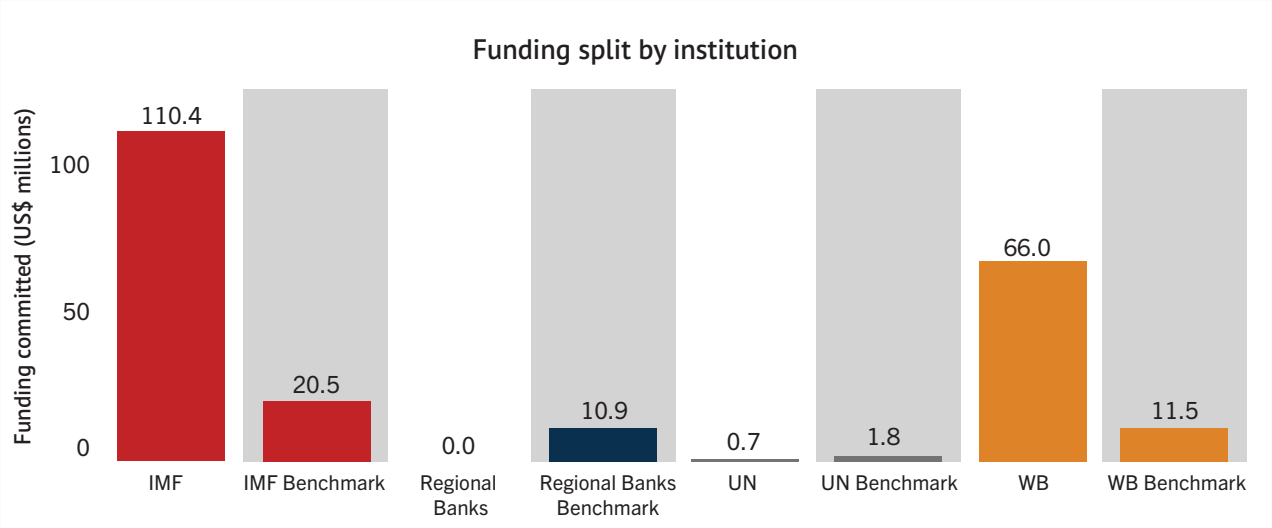
Borrowing by parastatals or public enterprises ultimately increases public debt. Thus, borrowing carried out by parastatals and public enterprises poses the same challenges in regard to financing disaster response as borrowing carried out by the minister of finance, with the latter being subject to higher transparency and scrutiny.

The government has requested initial financial and technical support from partners for implementation of key activities under its COVID-19 contingency plan. To finance the response package, Eswatini obtained total committed support from multilateral development organizations (World Bank, International Monetary Fund [IMF], United Nations) of US$177.2 million, 99.6 percent of which came in the form of loans. No loan was obtained from regional multilateral development banks (Figure 19).

In July 2020, the IMF approved US$110.4 million in emergency financial assistance under the Rapid Financing Instrument.[14]

As of December 2020, the World Bank had approved a total package of US$66 million through three loan operations to support the country's COVID-19 recovery plan. This complements the US$6 million already approved to assist the country in supporting its health care system during the pandemic. The Development Policy Loan supported policy actions enacted by the GoE to promote the economic recovery of the country, including the capitalization of the small and medium enterprises (SMEs) relief fund and unemployment benefits for those affected by the pandemic.

Figure 19. Support from multilateral development organizations to finance COVID-19 response in Eswatini



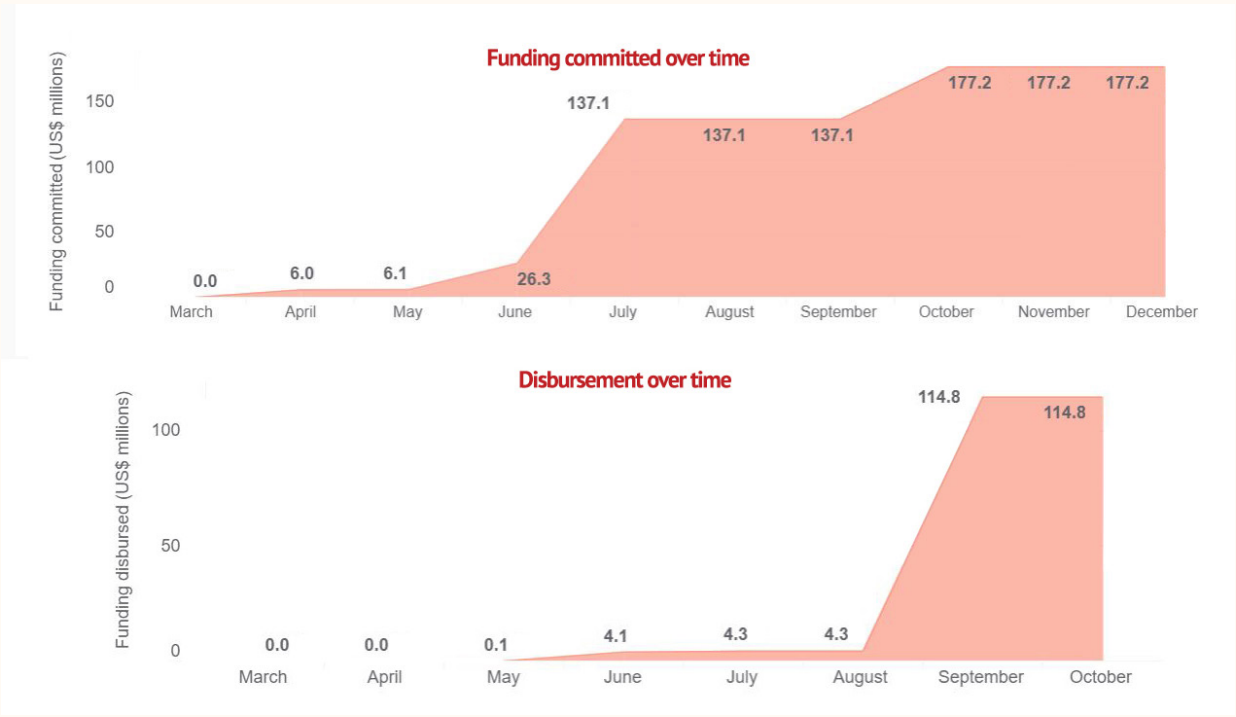
Source: Centre for Disaster Protection, "Global Covid-19 Humanitarian and Development Funding"

Note: WB = World Bank. The benchmark is the average funding given for COVID-19 response by a given international organization to countries in Sub-Saharan Africa.

From the total funding committed, 65 percent had been disbursed as of Q4 of 2020 (see Figure 20).

14. The Rapid Financing Instrument makes rapid financial assistance available to all member countries facing an urgent balance of payments need. The instrument was created as part of a broader reform seeking to make the IMF's financial support more flexible so as to address the diverse needs of member countries. See IMF (2021).

Figure 20. Committed and disbursed funding from multilateral organizations as of Q42020



Source: Centre for Disaster Protection, "Global Covid-19 Humanitarian and Development Funding"

Note: In lower graph, disbursement data are available only up to October, and only for the IMF, World Bank, UN, and African Development Bank regional bank. Data are accurate as of December 16, 2020.

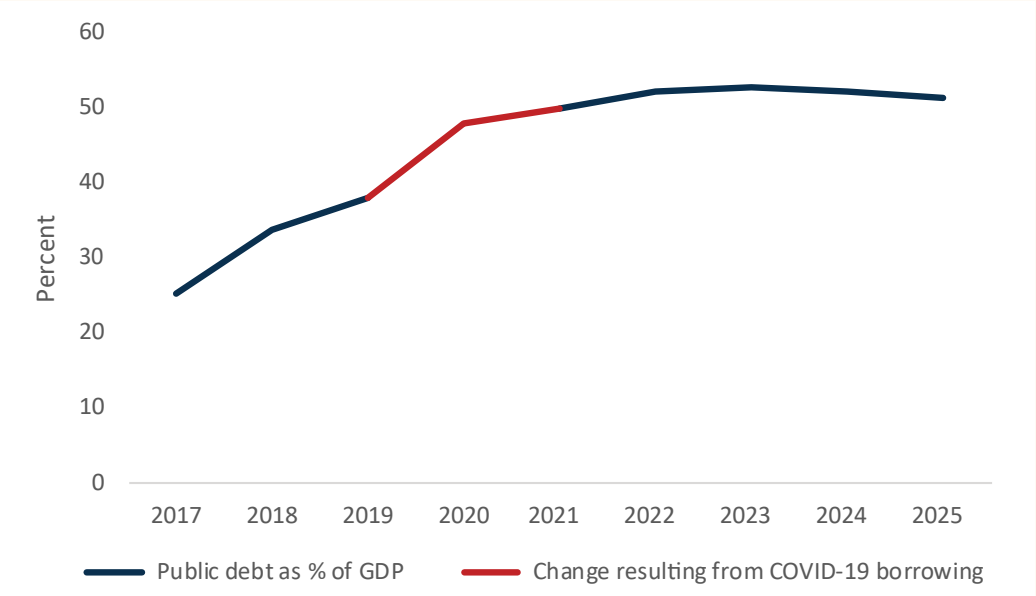
The GoE has also entered into agreements with a foreign state-controlled lender, Exim Bank of India, to fund its disaster management projects, such as construction of a disaster recovery site.[15] The credit line has a preferential interest rate and allows the country to draw funds to finance investments utilizing Indian imports. In March 2021, the credit line was extended for a third time, with a new limit extension of US$10.4 million and a total amount of US$68.3 million (ADFIP 2021).

The emergency borrowing to finance COVID-19 response came amid the downgrading of Eswatini's credit rating, a move that will increase the cost of borrowing and limit the country's ability to issue further debt. With the country's fiscal position deteriorating and the debt-to-GDP ratio as high as 43.3 percent at the beginning of the COVID-19 crisis (up from 14.9 percent in 2015), Eswatini will need to make fiscal adjustments to maintain the ability to service its obligations (Figure 21). In the future the country may see a reduced ability to borrow on the international market.

Eswatini continues to be exposed to natural shocks, especially droughts, that affect the agricultural sector, a backbone of the economy and a major foreign currency earner. In the event of a major drought, the country could both lose its ability to borrow and face difficulties in maintaining the currency peg, which would hurt its ability to service financial commitments in foreign currencies. It is therefore crucial that while working toward fiscal consolidation, especially once the impact of COVID-19 subsides, the country continues to reduce the exposure of the fiscal position to natural disasters. It may also be in the interest of budgetary resilience for Eswatini to work toward the establishment of pre-agreed credit facilities, such as contingent credit lines (more below).

15. A recovery site is a digital information back-up facility.

Figure 21. Public debt as a percentage of GDP (including projections)



Source: Central Bank of Eswatini.

Sovereign insurance

The Government of Eswatini does not currently have sovereign insurance. Sovereign insurance is a risk transfer product that is purchased by the Ministry of Finance in order to protect the budget against the financial impacts of severe climatic shocks. The insurance provides rapid liquidity in the form of a payout when a severe shock occurs. Multiple countries, both in the Africa region and internationally, use sovereign insurance to serve these objectives (World Bank 2019c). If introduced in Eswatini, it could strengthen the liquidity position of the budget during shock years, enabling a more rapid shock response. In particular for drought response, there is a sound body of evidence demonstrating that indexes can accurately predict drought occurrence and can therefore be used as the basis for sovereign insurance products.

When seeking to implement a sovereign insurance product, customization to the needs of the country is critical. On average insurance is an expensive risk-financing product to utilize. This is because insurance companies need to make a profit and cover their operating costs. That said, for less frequent and more severe shocks, insurance is a very effective and cost-efficient instrument to manage the cost of disaster response. In addition, innovations in satellite and weather data now mean that indexes can be readily developed to monitor risks, in particular for drought, and that index insurance products can in turn be developed. However, index insurance products entail a risk of "uninsured losses"—that is, the policy holder may experience a loss that is not captured under the index and therefore does not trigger a payout. With this in mind, it is critical that sovereign insurance products are carefully designed to ensure value for the country. See Box 1 for more details on and examples of sovereign insurance products.

Box 1. Sovereign insurance in the Sahel

The Sahel's generally dry climate and low and irregular rainfall can have a significant economic impact on the region. Repeated drought cycles and the consequent degradation of natural resources have a profound effect on the revenue sources of the Sahel's population. Poor rainfall in the Sahel in 2018 sparked acute pasture and water shortages, raised food costs, and caused livestock prices to fall, leaving almost 6 million people—across Burkina Faso, Chad, Mali, Mauritania, Niger, and Senegal—in need of food and livelihoods assistance to survive. Responding to droughts in the Sahel can require substantial resources. During the 2018 drought, for example, the UN launched a humanitarian appeal for US$1.37 billion. However, only 26 percent of the appeal had been funded by June 2018 (UNOCHA 2018).

To manage the risk from drought, governments in Sahel countries have purchased drought insurance from the African Risk Capacity (ARC). Governments can customize the drought insurance policy according to their needs by choosing the levels of risk retention and risk transfer as well as other parameters. To support a quick response to disasters, ARC provides technical assistance to governments for development of contingency plans that identify how the resources from potential insurance payouts could be spent. Since 2014, four Sahel countries—Mali, Senegal, Mauritania, and Niger—have purchased drought insurance from ARC.

In 2015 the governments of Mauritania, Niger, and Senegal received payouts that provided needed liquidity to respond to a severe drought. These countries had purchased insurance and paid an annual premium that amounted to US$8 million for the three of them. A US$26 million payout from ARC to the three countries was triggered by the drought.[a] ARC's payout arrived earlier than food security contributions by donors, and the funds were used by the governments to deliver relief to the affected populations. The payout covered the costs of food distribution in the three countries, as well as cattle feed support in Senegal and Mauritania and conditional cash transfers in Niger. The relief activities benefited an estimated 1.3 million people. In Mauritania, the early support prevented drought-affected households from resorting to negative coping strategies, such as migrating, reducing the number of meals per day, and selling livestock, which could have had a long-term impact on their future income.

An important lesson from the ARC payout in 2015 is that to ensure a timely response to a disaster, establishing ways to channel resources to beneficiaries is as important as mobilizing these resources. In the case of Senegal and Niger, activities were delayed because funds were blocked in the national treasury of each country, for several possible reasons: government financial systems were not in place to receive funding from ARC, processes for procuring food were inefficient, or the distribution of food and cash to affected households was not well organized.

Sahel countries complement insurance with other DRF and budget execution instruments. In Senegal, for example, the government complements sovereign insurance by subsidizing agricultural insurance at a micro level so that farmers can transfer risks to the private sector. The government is also developing a disaster risk finance strategy that includes establishment of different instruments to enhance its financial resilience to natural disasters. In addition to mobilizing resources, countries in the Sahel are strengthening budget execution in case of disasters by developing adaptive social protection systems that can expand to provide support to affected households when disasters strike. This is the case in both Niger and Senegal.

Source: Kimetrica 2016.

a. Senegal received US$16.4 million, Mauritania US$6.3 million, and Niger US$3.3 million.

Contingency reserve

The PFM Bill established provisions for a contingency fund that can be used for unforeseen expenditures, including disasters. The cap on the amount of the fund is 2 percent of the budget. However, the contingency fund does not receive regular contributions from the budget.

Disaster Management Fund

The PFM Bill also creates a legal framework for the creation of special funds, including contingency and disaster funds. The formulation of a Disaster Management Fund is first described in the Disaster Management Act 2006, article 35, subsection 1: "The ministry responsible for finance shall establish a fund to be known as the Disaster Management Fund." The GoE is currently working toward creating a dedicated disaster fund and has requested technical assistance from the World Bank to support it. If established and appropriately capitalized, the Disaster Management Fund will be among the first ex ante DRF instruments used by the government.

Budget execution and service delivery mechanisms

In addition to the contingency fund and Disaster Management Fund, the third component to consider in the context of public financial management for disaster response and relief service delivery is the existence of a mechanism facilitating speedy and precise dissemination of funds. Strengthening the delivery mechanisms available to the GoE to channel disaster assistance to shock-affected households is critical to defend development outcomes. Mobilizing resources alone is insufficient to support households in need. Once resources are mobilized, they must be channeled and delivered to those most in need. Only by combining these two phases—budget mobilization and budget execution—can financial resilience be strengthened.

The United Nations Office for Disaster Risk Reduction's risk-sensitive budget review (UNDRR 2020)[16] identified 41 programs in the Eswatini budget with a mandate directly relating to disaster risk management. In 2018/19 these programs accounted for a budget of US$60.3 million; on average 16 percent of that budget is dedicated to response, with its value increasing significantly following major shocks (UNDRR 2020). The response budget has traditionally been almost exclusively reliant on donor funding; donor finance accounted for 93 percent of the principal response budget in 2016. Almost all of the response funds are managed under programs within just four ministries (the Ministry of Agriculture, the Ministry of Health, the Fire and Emergency Services, and the Deputy Prime Minister's Office), and the capacity of these ministries to assess the impact and design and implement the response drives the efficiency of response delivery in Eswatini.

Among the key ministries responsible for programs with a response mandate, the credibility of the budget is low; frequent over- and underspending translates into delays and spending inefficiencies. Even more worryingly, actual releases are frequently not captured in budget revisions, reducing accountability. For example, in 2017/18 the revised budget of the Ministry of Health was 4 percent lower than the originally approved one, while the actual releases were 78 percent higher, indicating a disconnect between planning and actual activities.[17] Likewise, the budget execution of the Ministry of Agriculture, which together with the Ministry of Health is responsible for over 50 percent of response programs, has been low, ranging from 85 percent to 90 percent (Nhlengethwa et al. 2021).

Overall, Eswatini has relatively few mechanisms for swiftly channeling funds to distressed populations, with social security accounting for approximately 0.1 percent of the total budget expenditure.[18] However, despite its low reach, the mechanism has been used during the COVID-19 pandemic. The budget for 2020/21 increases transfer amounts under the Bogogo na Bomkhulu social program by 20 percent and the grant to the disabled by 55 percent. As social safety nets provide an easy-to-scale mechanism to protect disaster-affected populations, the government's effort to increase access to social safety nets in the future will increase its ability to respond. In the Sub-Saharan region, Kenya is an example of a country that already incorporates disaster response into its safety net programs: a drought response component is fully integrated into its Hunger Safety Net Program, which focuses on the most vulnerable population in drought-prone parts of the country. It also utilized its existing safety net system as one of the first response mechanisms following the COVID-19 outbreak. Furthermore, to improve the efficacy of delivery, Kenya is transferring some of the responsibility for the management of support systems to the private sector, specifically by supporting and subsidizing agricultural insurance programs. The country is also utilizing its well-established mobile payment infrastructure to deliver payments to pre-identified populations in the immediate aftermath of shocks.

Digital payment channels have proven in many cases to be highly efficient in rapidly delivering disaster assistance to shock-affected households. When established, resources can be sent from the GoE to the recipient (via electronic transfer) in moments. A significant body of evidence demonstrates that rapidly providing households with disaster assistance lowers the overall cost of response, in part because it prevents households from resorting to negative coping strategies, which have extremely high, often intergenerational, costs (World Bank 2019b). In addition, public funds can be tracked from the designated account to the end beneficiary, significantly reducing opportunities for leakages, often a challenge with emergency expenditures.

Most small states are already taking important actions related to DRF. As of 2020, 28 out of 50 small states had received advisory and financing support on financial resilience (Figure 22). Nine of these have established disaster reserve funds; six have Catastrophe Deferred Drawdown Options (CAT DDOs) worth over US$80 million; and at least four countries have transferred over US$780 million to the financial markets.

16. The report assesses the level of public expenditure on DRM programs by applying OECD Development Assistance Committee DRR policy markers.
17. UNICEF, "Health Budget Brief 2018/2019," https://www.unicef.org/eswatini/media/161/file/Budget-Brief-Health-report-2018-2019.pdf.
18. Ibid.

Figure 22. Risk financing strategies in small states

Source: World Bank 2019a.
Note: CCRIF = Caribbean Catastrophe Risk Insurance Facility; PCRAFI = Pacific Catastrophe Risk Assessment and Financing Initiative.

Further considerations for public financial management

In the context of disaster risk finance, the public management strategy needs to demonstrate balance between agility, which reduces the time required for activating response funds, and accountability, which helps avoid irregularities but may pose a bureaucratic burden. To address this balance, some countries in the region, including South Africa, have written their public financial management acts to include special provision for aspects of public financial management amid disasters. They aim to ensure the ability to (i) quickly reassess the needs following shocks, (ii) deliver resources in a swift manner to the units of the government responsible for response, and at the same time (iii) keep the level of transparency that prevents mismanagement. Finding the right balance between the three is the key characteristic of robust public financial management and is always important, but the priorities as well as methods used to fulfill these goals are typically different amid shocks, and dedicated procedures may be needed.

As indicated above, the PFM Bill of Eswatini offers limited guidance on the magnitude of the government's power to revise the pre-planned use of funds in the aftermath of a disaster. The PFM Bill's provision for post-disaster expenditures focuses on the requirement that the minister of finance deliver a report on the needs resulting from the disaster to the Parliament for a vote.[19] Under this arrangement, lengthy reallocations are necessary to finance disaster response. The extent to which virements—a faster way to reallocate funds—are allowed is limited and does not change in the aftermath of shocks. At the same time, Eswatini has made some recent improvement in the area of procurement; the passage of procurement regulation in 2020 lays out emergency procurement rules for the first time, specifying (for example) single sourcing of goods and services required for response. However, while this is a very positive step, the regulation does not include some of the more sophisticated procurement provisions seen in other countries, such as framework agreements with suppliers of response goods and services.

The complexity of DRM costs and investments requires that good administrative resources and audit practices be in place. Poor consolidation of receipts and lack of mechanisms to track expenditures harm liquidity and disrupt budget tracking. A 2016 audit showed concerns regarding the use of funds destined for DRM; food and building materials amounting to E11 million were unaccounted for. Additional discrepancies were found, including incomplete warehouse stock movements and mishandling of project beneficiaries' records. The newly approved procurement regulation aims to address such issues by requiring the controlling officer to report on the expenditures made under the emergency provision.

19. PFM Bill of 2013, Clause 22.

Past experiences of financing post-disaster activities highlight the need to make post-disaster fund management more transparent. The funding of borehole drilling following the 1992 drought is a good example: citizens were to apply for borehole drilling and pay a deposit of E5,000, with the balance collected based on the success of the project—yet by 2016, E211,834 for borehole drilling was owed and had not been collected from the clients who benefited from this service. In the absence of records, there was no effort to follow up with the beneficiaries to collect additional payment. Another example of the cost of insufficient record keeping was the Sustainable Feed and Fodder Production project funded under the Ministry of Agriculture: the government budgeted and released funds totaling E7,299,332 over five fiscal years, but actual expenditure amounted to E5,754,712.

Box 2. Coordinated budget mechanisms for mobilization of post-disaster funds in South Africa →

The National Treasury in South Africa has multiple mechanisms built into the budget that allow it to mobilize funds for disaster response. They include virements, which enable departments to reallocate up to 8 percent of a line item, and which can be used to fund response; adjustment budgets, which allow for more flexibility when providing additional funding to a budget line in the event of a more severe shock (two adjustment budgets were completed to finance response to COVID-19); amending of agency cash flow, which allows departments to spend a year of funding in a shorter time period to respond to a shock (with the assurance that an adjustment budget will provide additional funding to cover the following months in the budget cycle); and amendments to existing grant frameworks, including conditional grants, which allow departments and municipalities to use funding allocated through a well-understood and well-implemented grant framework for disaster response.

During the COVID-19 pandemic, South Africa has successfully utilized several budgetary mechanisms. The public financial management provisions available in South Africa allowed the country to first activate budgetary tools that provide fast access to funds. While these funds were quickly depleted, further mechanisms such as (sometimes complex) reallocations allowed for the activation of more substantial funds. In the conversation with the National Treasury of South Africa, officials reflected on how despite the general success of the process, they identify areas for future improvement.

The contingency reserve was the first instrument the government used to address the pandemic. While using it did not require a reallocation and hence avoided the possible opportunity cost of other development projects, the National Treasury officials reported that the pre-established procedures were complex and eventually reduced the value of the instrument in response efforts. They emphasized that regulations should be eased to make the fund a more relevant response instrument in future disasters.The second mechanism that allowed for fast response, without the need for a supplementary budget, was virements. South Africa's PFM Act allows for virements of up to 8 percent of a vote or program to address unforeseeable financial events. Virements allowed for fast mobilization of funds, reallocated from programs that due to COVID-19 were likely to face delays or that could be postponed. These funds were first used for repatriation flights for South Africans stranded in China. The experience of COVID-19 showed that virements can be a very useful tool when many departments face immediate changes in priorities and when some projects need to be postponed, thereby freeing some funds. However, strict virement rules in South Africa—common in many developing countries—reduce the instrument's overall usefulness and easing of strict public financial management conditions amid disasters could be considered.

The third mechanism used in South Africa was emergency budget provisions, which allow the minister to authorize the expenditure of up to 2 percent of the total revenue fund to finance emergency response before parliamentary approval. This expenditure must be included in the next supplementary budget; however, funds can be accessed without a delay. This mechanism was not widely used, however, as the use of funds without parliamentary approval is seen as risky and should be avoided whenever Parliament's approval for a reallocation can be obtained in time. For this instrument to work effectively, the government requires precise regulation to ease the decision-making.

The fourth, and arguably the most useful, mechanism used in South Africa was the supplementary budget process. It successfully built on complex analysis and forecasts of the development of the epidemic and associated costs as estimated by a special consortium and consultants from the Department of Health. Consultations also involved line ministries and provincial and municipal governments, which helped establish how much money could be reallocated without jeopardizing the core work of these entities, and also established plans for how to replenish these funds in the future.

Building on the diligent costing processes carried out in advance allowed the country to make bold decisions when reallocating significant amounts of money.

Further, two novel off-budget mechanisms were utilized. A solidarity fund, built on public and private contributions that supported response to the pandemic, was capitalized with over R3 billion and supported the establishment of testing facilities, vaccine procurement, food relief distribution, and information campaigns. The government has also approached development partners, such as the African Development Bank, the IMF, and the World Bank, to request preferential loans. These instruments provide large amounts of funding but involve a complex appraisal process, and they were thus among the last instruments that the government built on in its response efforts. Going forward and given relatively limited experience of the country with borrowing from international financial institutions, the National Treasury will work to ensure its ability to quickly fulfill the formal requirements associated with concessional lending products.

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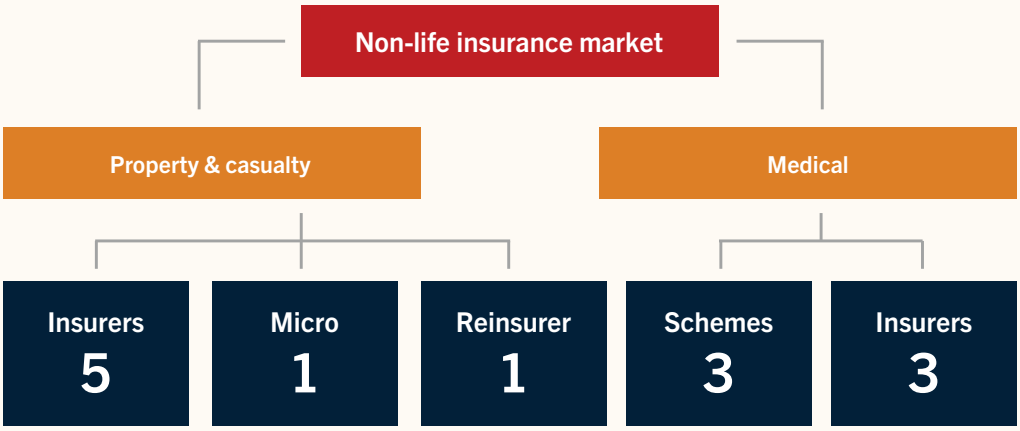
3. Domestic insurance market review

Background

This section reviews the state of the domestic insurance industry and the relevant legal and regulatory environment governing the sector. It assesses the extent to which households, farmers, firms, and SMEs transfer disaster-related risk to insurance markets through property insurance, agricultural insurance, microinsurance, and health insurance.

The insurance industry has a strong South African influence and evolved through two distinct phases, a liberal pre-1973 period, and a closed pre-2005 period. Prior to 1973 several foreign insurance companies established branches and operated in Eswatini. In 1973 all short-term insurance companies were consolidated into Eswatini Royal Insurance Company (ESRIC) and partly nationalized through a joint venture in which the government acquired 41 percent.[20] Since then, foreign firms have reentered the market, and most insurance companies are foreign-owned, operating under a conglomerate group structure. By the end of 2019, there were 10 general insurance companies, including one reinsurer, Ezulwini Re, which is majority-owned by the Public Services Pension Fund (Figure 23).

Figure 23. Composition of the non-life insurance market, 2019



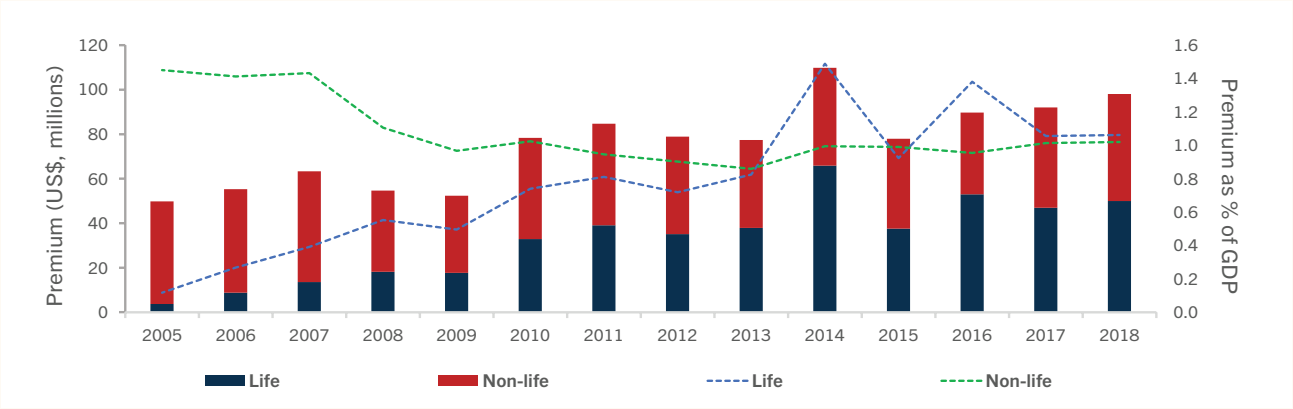
Source: Financial Services Regulatory Authority, "Licensed Entities: Insurance & Retirement Funds"

Insurance penetration

The insurance sector in Eswatini is relatively small, with a total gross written premium of US$98 million (or 2.2 percent of GDP) in 2018. The life segment has grown steadily, at 30 percent annually, driven by compulsory credit-life cover, funeral cover, and group life assurance. Since 2005, penetration of the life segment has risen tenfold, to over 1 percent of GDP. Meanwhile, the non-life segment has experienced cycles of contraction and growth over the period; from 1.4 percent of GDP in 2005, it declined to 1 percent in 2014 and has remained stagnant since. See Figure 24.

20. The balance is held by Munich Reinsurance Company Ltd., Cougar Investment Holdings Ltd., Inba Holdings Ltd., PSPF, Zurich Insurance Company South Africa Ltd., Old Mutual Life Assurance Company South Africa, and South African Eagle Insurance Ltd.

Figure 24. Trends in total premium written and insurance penetration, 2005–18

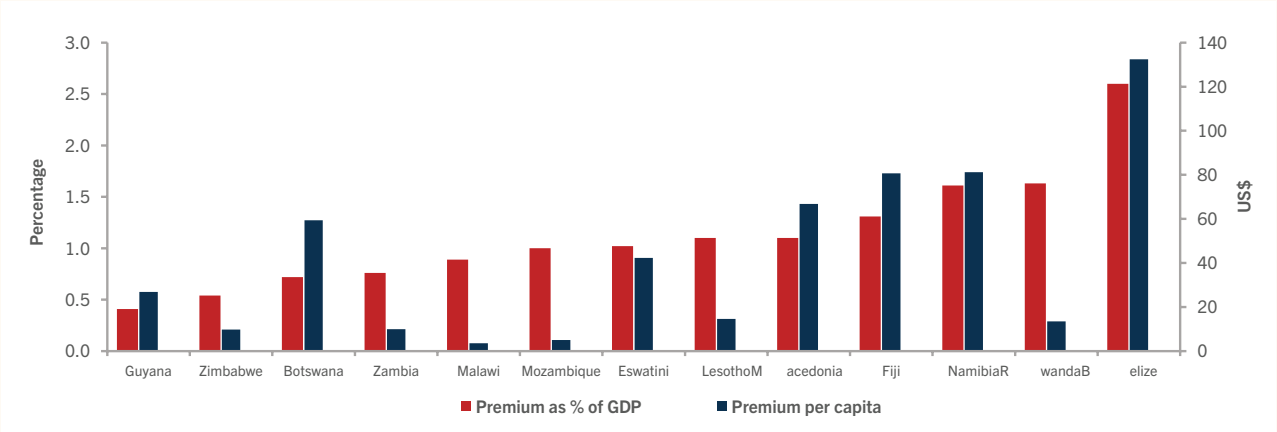


Source: Axco; Fitch Solutions

Non-life insurance market

As just indicated, non-life insurance penetration and density in Eswatini have been stagnant over the last several years. Penetration is within average range of comparable small middle-income countries, while density is on the low side.[21] Compared to other Southern African Development Community (SADC) countries, both penetration and density are in the upper range as shown in Figure 25.

Figure 25. Insurance penetration and density: Cross-country comparison, 2018



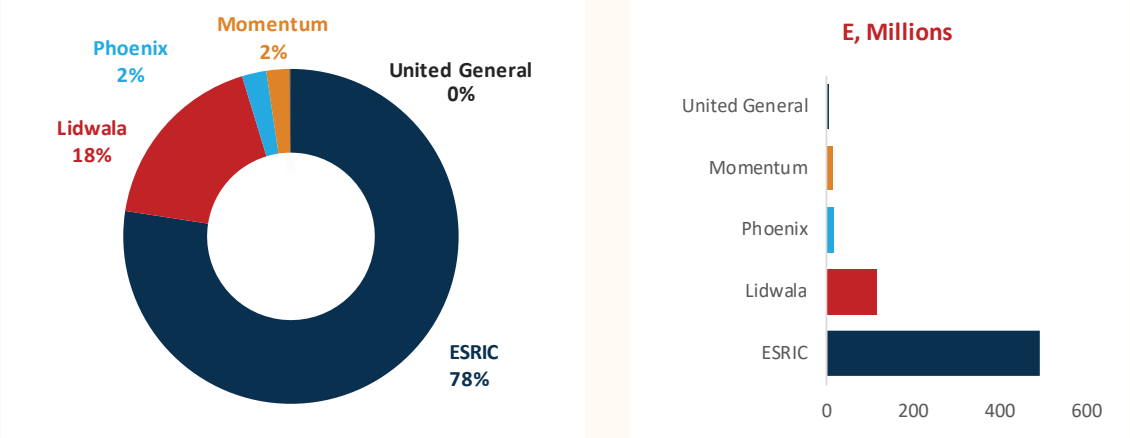
Source: Axco.

The non-life insurance market continues to be profitable, with a strong solvency position and stable claims and expense ratios. The average claims ratio is about half the claims ratio in selected African countries.35 Furthermore, the claims ratio tends toward the bottom of the regulator's accepted range of 30 to 60 percent, which may indicate excessively high premiums or stringent and unfair claims settlement practices. Due to low claims ratios and a low asset and capital base, the market is highly profitable, with an average asset profitability ratio of 17 percent and an average return on equity of 43 percent. The solvency ratio has nearly doubled since 2014, reaching 171 percent in 2018.

The non-life insurance segment is highly concentrated. The two largest insurers account for 96 percent of premium, though this is down from 100 percent in 2014. ESRIC dominates, accounting for 77.6 percent of premium written and 74 percent of assets. On a composite basis, ESRIC assets constitute 4 percent of GDP and 50 percent of total insurance industry assets (Figure 26). ESRIC's continued dominance is due to its 32-year legacy as a sole insurer coupled with its strong balance sheet and reputation for more leniency in claims settlement compared to newer entrants.

21. "Small" refers to population size. These countries include Belize, Botswana, Fiji, Guyana, Lesotho, and Namibia.

Figure 26. Insurance market shares by premium volume: Percentage (left) and monetary value (right)

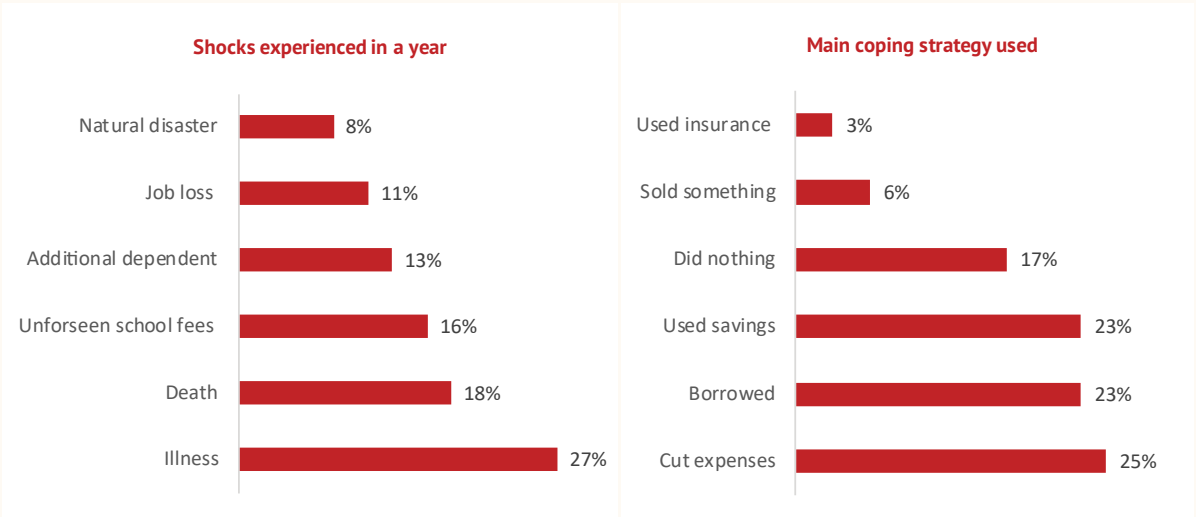


Source: FSRA 2018.

Note: ESRIC = Eswatini Royal Insurance Company.

Non-life insurance usage is relatively low; only 8 percent of adults in Eswatini have a short-term product. In 2017 about 38 percent of the population experienced major risk events, including insurable perils like death, illness, and climate disasters, but only 3 percent used insurance to manage the shock (Figure 27). The majority (46 percent) used savings and credit instead (CFI 2019). While the lenders used by borrowers are not known, it is possible that some borrowers resorted to informal lenders or loan sharks at high interest rates. Consumptive borrowing at high interest rates and other negative coping strategies increase indebtedness and exacerbate socioeconomic vulnerabilities (Banerjee and Jackson 2017). Insurance provides protection by offering immediate access to cash or services after a shock. Insurance can also help prevent shocks by making the insured aware of risks and thus reducing certain risks. Shock protection and prevention together build household resilience to shocks, which protects people from falling back into poverty and thereby stabilizes development outcomes (Access to Insurance Initiative 2015). Since 2011, for example, China's public policies have increasingly relied on private insurance to reduce poverty through loss protection, credit enhancement, and direct financing (Peking University and Swiss Re 2018).

Figure 27. Insurance uptake versus shocks and coping strategies in Eswatini



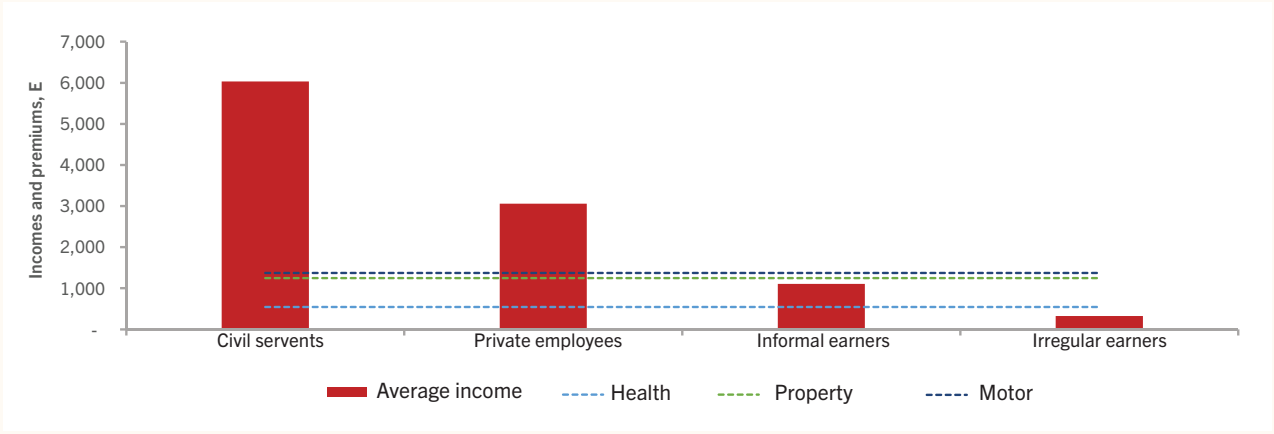
Sources: CFI and FinScope 2018.

The high incidence of cutting expenses as a coping strategy is problematic for poor households who are typically forced to divert investments away from consumption and productive expenses like education.[22] In response to the 2015/16 drought, households decreased food consumption in 2016 by E650.44 million, or 1.19 percent of GDP (ESEPARC 2017). This situation could have long-term negative impacts on nutrition levels as well as school attendance and performance.

Property insurance

Disaster-related insurance products are available but unaffordable for a significant proportion of the population, largely due to a relatively small insurance pool size.[23] The average monthly premium for property insurance is about half of private employees' monthly income and higher than the average monthly incomes of irregular and informal earners. Motor and property insurance premiums together make up half of civil servants' average income (Figure 28). In 2020 the market wrote just over 42,000 policies. The small market size limits the insurance pool, the extent of risk diversification, and possible economies of scale. Consequently, premiums are high relative to income. There is need for more cost-effective insurance models.

Figure 28. Average monthly income versus premiums for key products, 2019



Source: Financial Services Regulatory Authority.

The low level of non-life insurance usage is further exacerbated by low levels of financial literacy and limited appreciation of the value of insurance. The CFI and FinScope (2018) study found that 27 percent of adults in Eswatini exhibited low financial capability. Moreover, among the four dimensions of financial capability, respondents scored lowest on control and financial literacy. The control dimension entails budget mechanisms that help to manage sudden life-changing financial shocks. The low score in the knowledge dimension is driven by lack of understanding of terms and conditions used in contracts. There is need for targeted financial education programs to improve awareness of the available products and their benefits, and to build trust in the industry.

Public asset insurance

Municipalities and state-owned entities are legally required to have insurance. However, the available covers are subject to limits and exclusions on some key disaster-related perils. Furthermore, critical public infrastructure and services are not covered. This leaves the GoE with a significant contingent liability in the event of a shock.

22. A World Bank study found that in Côte d'Ivoire between 1986 and 1987, school enrollment of children from households that experienced income shocks due to significant agricultural shocks declined by 20 percent, in comparison to non-affected regions. The study further found that in Tanzania income shocks have a significant impact on the school attendance and performance of children from poor households (Rentschler 2013).
23. Eswatini has a middle-income population of 100,000. Public employees number about 45,000, private employees 260,000, and informal and irregular earners 29,000 and 98,000 respectively. Insurance is largely targeted at public and private employees.

Agricultural insurance

A combination of a small pool, a high incidence of drought, and the lack of high-quality data limits the supply of agricultural insurance. The available indemnity agricultural crop insurance is costly and subject to high deductibles and exclusions.[24] Of the 4,616 ha of sugarcane cultivated by Eswatini Water and Agricultural Development Enterprise (ESWADE) farmers, only 1 percent, or 44.3 ha, is insured due to the high cost. This lack of financial protection against drought—the major climate risk—exacerbates the vulnerability of small-scale farmers. The market does not offer index-based insurance, which would be more affordable for customers, because of limited appetite by non-life insurers and a lack of credible agricultural and climate information. Notwithstanding, the government is developing a combined drought indicator (CDI) to strengthen its early response warning system. The CDI could be explored for use as a trigger in an agriculture index insurance program. High-quality data are critical for product development and pricing. Most value chains, with the exception of sugarcane, lack reliable data on historic production yields, climate conditions, and price forecasts.

Microinsurance

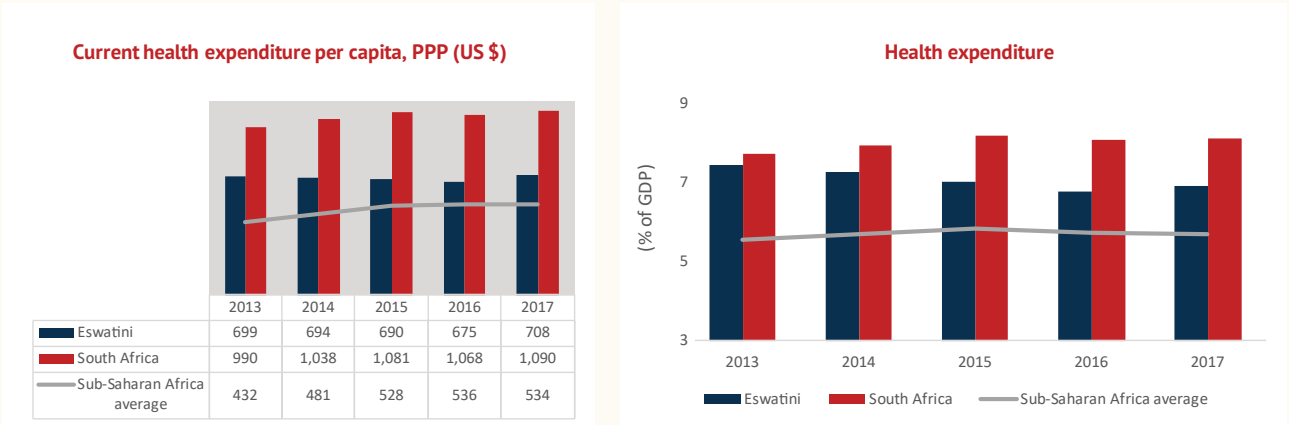
Eswatini is pursuing microinsurance as a cost-effective insurance model. Microinsurance guidelines were issued in 2017 as a precursor to upcoming microinsurance regulations. The guidelines provide for lower capital requirements, lower limits, and simplified prudential rule.[25] Overall, these provisions are expected to reduce operational costs and increase affordability. In addition, the guidelines allow for a wider range of entities to conduct microinsurance business, including registered companies, registered cooperatives, mutual benefit organizations, and microfinance institutions. As of November 2020, the regulator had licensed one microinsurance company.

Health insurance

Eswatini has the highest HIV prevalence in the world, with more than a quarter (28 percent) of its reproductive-age population living with the virus. The national HIV response has achieved significant success, particularly in its rapid scale-up of antiretroviral treatment—evidenced by a 44 percent reduction in HIV incidence from 2011 to 2016; but challenges remain.

Eswatini's spending on health decreased from 7.5 percent of GDP in 2013—a level similar to the one in South Africa—to 7 percent in 2017, though its share of expenditure on health is still higher than the average in Sub-Saharan Africa (Figure 29). The breakdown by economic classification shows that personnel and drug expenses take up nearly two-thirds of the budget. Recurrent expenditures account for around 90 percent of the budget, while capital expenditure and budget for maintenance are limited.

Figure 29. Comparison of health expenditure indicators across Sub-Saharan Africa



	2013	2014	2015	2016	2017
Eswatini	699	694	690	675	708
South Africa	990	1,038	1,081	1,068	1,090
Sub-Saharan Africa average	432	481	528	536	534

Source: World Bank, World Development Indicators, 2020

Note: PPP = purchasing power parity.

24. Premium rates and deductibles can be as high as 10–15 percent.
25. Benefits are limited to E50,000 (US$3,266) for all lines except homeowners' coverage, which is E100,000 (US$6,532) per risk.

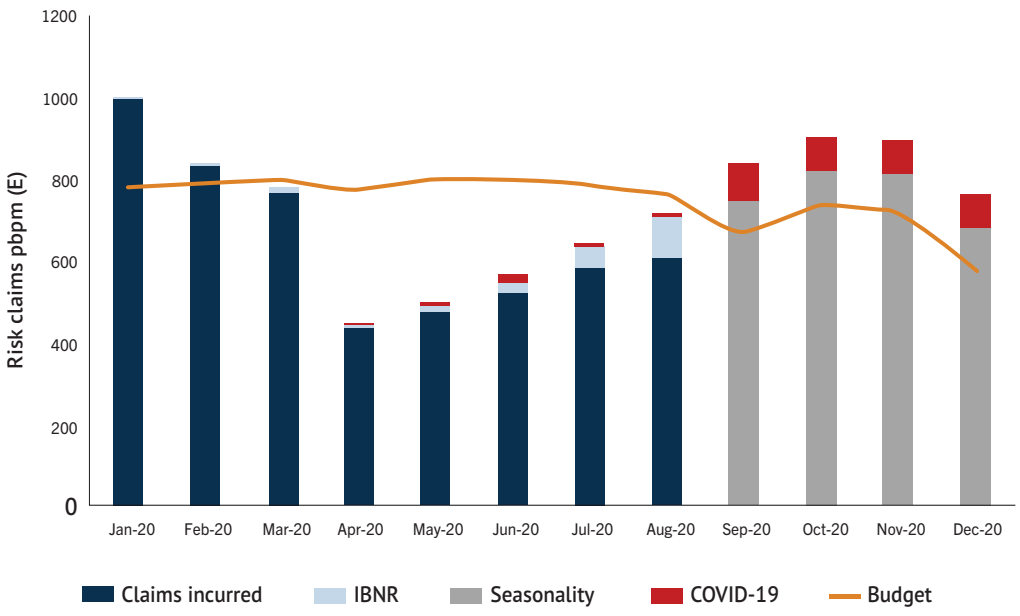
There are several medical schemes operating in Eswatini, which cover a total of 50,000 lives (4.3 percent of the population). The three schemes insuring the largest number of people are Swazimed (44,000 lives, full range of benefit options), emaSwati Care (2,000 lives, low-cost medical options, limited range of benefits), and Mpilwenhle (1,500 lives, very limited provider access). Based on the model from South Africa, all medical schemes are not-for-profit, and they are regulated based on a minimum (25 percent) solvency level. The members' contributions are negotiated every year and adjusted at least for inflation, but also depend on the claims experience of medical schemes.

Box 3. COVID-19 impact on Swazimed

Swazimed, the largest medical scheme in Eswatini, observed a decrease in risk claims during the first three months of the pandemic (March–June 2020), for two main reasons: (i) the GoE established that only the publicly managed health facilities (whose costs are lower than those of private facilities) were eligible to provide treatment; and (ii) many elective procedures were delayed given the shortage in medical personnel and people's reluctance to seek non-emergency medical treatment.

Starting in June 2020, the private health care facilities could provide testing and treatment, and Swazimed decided to fully cover the COVID-related costs for people who tested positive. Together with the very expensive treatments, this decision significantly augmented the claims costs. Based on Swazimed's September membership, the total estimated claims cost impact of direct COVID-19 claims is E17 million (US$1.1 million), with a direct impact at the level of the solvency margin that is expected to decrease from 58 percent before COVID to 40 percent after 12 months of the outbreak (Figure 30).

Figure 30. Volume of risk claims per month



Source: Swazimed forecasts, September 2020.

Note: IBNR = incurred but not reported; pbpm = per beneficiary per month.

Given the deterioration of the reserves, the fund might be forced for the first time in five years to increase the level of contribution by an index higher than simply the year-on-year inflation rate. Swazimed does not envisage creating pandemic-focused products; it has invested E400 million in building a new health care facility that will increase access to health care in the country (and decrease the health tourism to South Africa) and that will be equipped with new intensive care beds.

Households, farmers, and firms have limited resilience due to low levels of insurance use and overreliance on cutting of expenditures. Furthermore, critical public infrastructure and services lack financial protection. In the event of a shock, contingent liability falls to the government and threatens development gains. There is an opportunity for the public and private sectors to work together to strengthen the financial resilience of households and firms. Shock-responsive safety nets could be used to support the poor and vulnerable; agricultural index insurance could be used to support small- and medium-scale farmers; and public asset insurance could be strengthened and expanded to cover critical public infrastructure and assets.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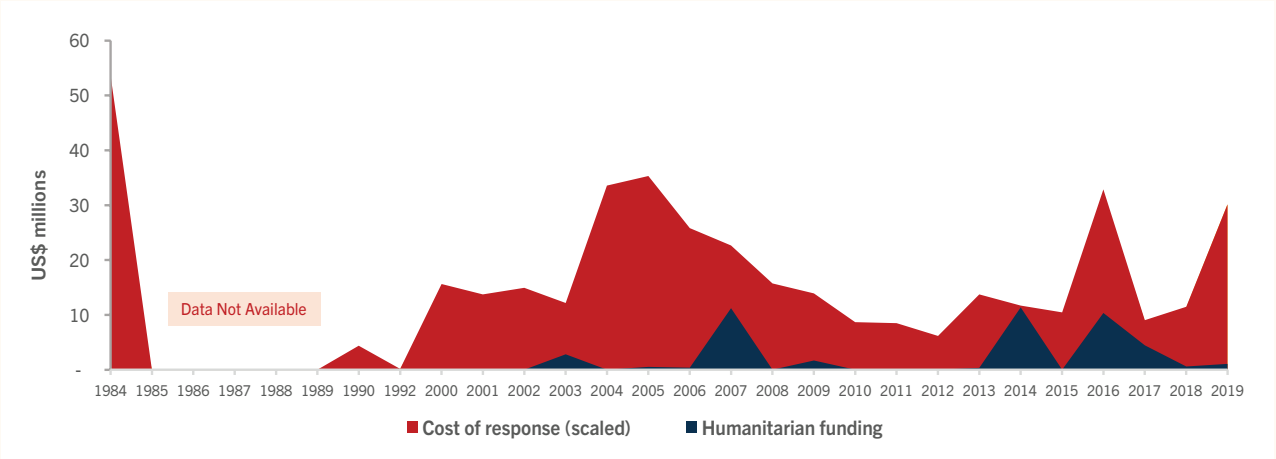
4. Assessing the fiscal cost and funding gap for disaster relief in Eswatini

Analysis was conducted to estimate the fiscal costs of disaster relief in Eswatini. The costs of recovery and rehabilitation are excluded from this assessment. The analysis was conducted in two steps. First, the historical cost of response was estimated using the number of people in need of food assistance or affected by a disaster and an assumed cost of response per person. Second, based on the estimated historical cost of response and allowing for population growth, statistical analysis was conducted to estimate the frequency and severity of shocks in the future. The estimated historical costs were compared with the humanitarian aid received to determine the humanitarian funding gap. The indicative expected future costs were compared to the available funding to determine the funding gap.

A significant amount of the estimated cost of disaster relief between 1984 and 2019 was unfunded, while humanitarian aid funded only 20 percent of the total cost (Figure 31). The cost of relief response was estimated using a combination of EM-DAT and EVAC data.[26] These respectively provide historical data on the number of people affected by disasters and the number of people in emergency need of food assistance each year. From EVAC data the population in emergency need of assistance consists of lives classified in the Integrated Food Security Phase Classification (IPC) Phases 3 to 5 or IPC3+.[27] The estimation assumes that the average cost of assistance per person is US$50. This assumption is based on the national poverty line of US$1.90 per day and assumes a relief period of 28 days. Based on this cost assumption and the number of people affected, donor funding covered only 20 percent of the estimated annual cost of disaster response in Eswatini from 1984 to 2019. Donor funding spiked after the 2015/16 drought, from US$2.1 million in 2015 to US$10.1 million in 2017, and the share of donor funds being used for emergency response increased from 12 percent in 2015 to 93 percent in 2016 and 83 percent in 2017 (UNDRR 2020. Overall, donor funding left a funding gap of 80 percent.

Figure 31. Humanitarian funding gap, 1984–2019

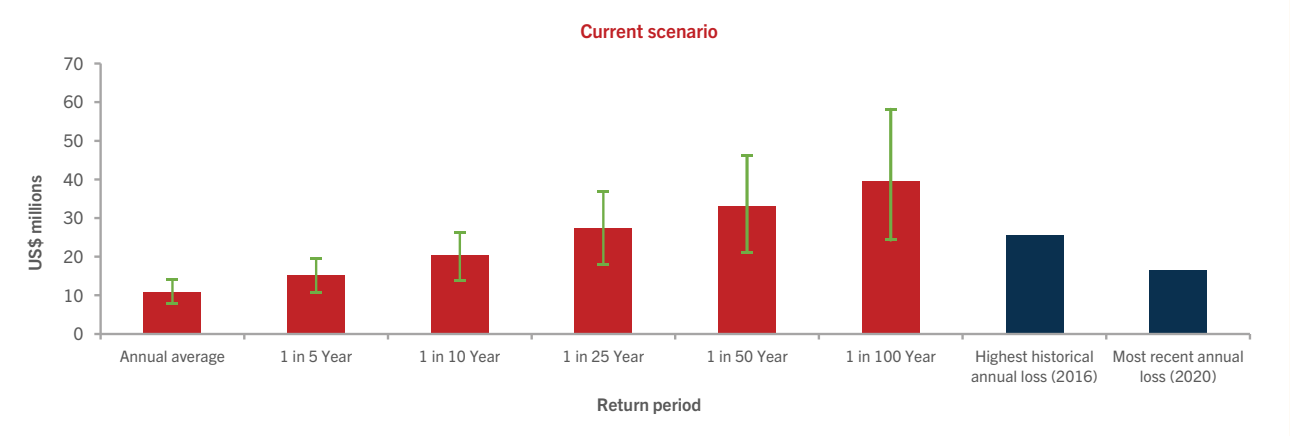


Sources: Calculations by World Bank staff based on EM-DAT, EVAC, UNOCHA Financial Tracking Service.

26. Eswatini Vulnerability Assessment Committee (EVAC) data provide the number of people who require food assistance per year—the most basic need that government should address when disasters occur. EM-DAT data provide the number of lives affected by disasters (though with gaps in some years) and provide information on a wider range of needs than EVAC. A limitation of using EVAC data is that it is not disaggregated by disaster type and includes food insecurity due to non-climatic events.
27. This assumption is in line with the World Bank's Famine Action Mechanism (FAM), which is a global partnership dedicated to scaling up anticipatory and early action to emerging food crises. IPC Phase 3 is defined as crisis condition facing an immediate food deficit, IPC Phase 4 ais emergency condition facing an acute food deficit, and IPC Phase 5 as famine condition facing a survival food deficit.

The simulated average annual cost of disaster relief is US$10.8 million, and the cost of relief from the 2015/16 El Niño–induced drought was estimated at US$25.6 million, which is estimated to be exceeded once every 20 years, or with a probability of 5 percent. The estimated cost of disasters between 2000 and 2020 was scaled for population growth and used to fit a statistical distribution and conduct a Monte Carlo simulation to estimate the frequency and severity of shocks in Eswatini. The return period is the time period over which one should expect to see a loss of the same or greater magnitude. For example, a 1-in-5-year return period is the estimated annual loss expected to be exceeded once every five years on average; in other words, in any given year there is a 20 percent probability of a loss at least as great as this. Similarly, a 1-in-10-year return period is the annual loss expected to be exceeded once every 10 years on average, i.e., with a 10 percent probability. The estimates do not mean these disasters will occur only once every 5 (or 10) years. The error bars in Figure 32 show the 95 percent confidence interval for each return period, which highlights the level of uncertainty in the analysis given the limited years of data. If the statistical analysis was repeated, the estimated loss at each return period would fall within the error bars. There are fewer data points as the return period increases, so the error bars widen to indicate more uncertainty. Given that the analysis is partly based on the vulnerability assessment data, the estimates are not specific to a type of disaster but applicable to any disaster that leaves people in need of assistance.

Figure 32. Simulated average annual loss due to disasters in Eswatini for various return periods



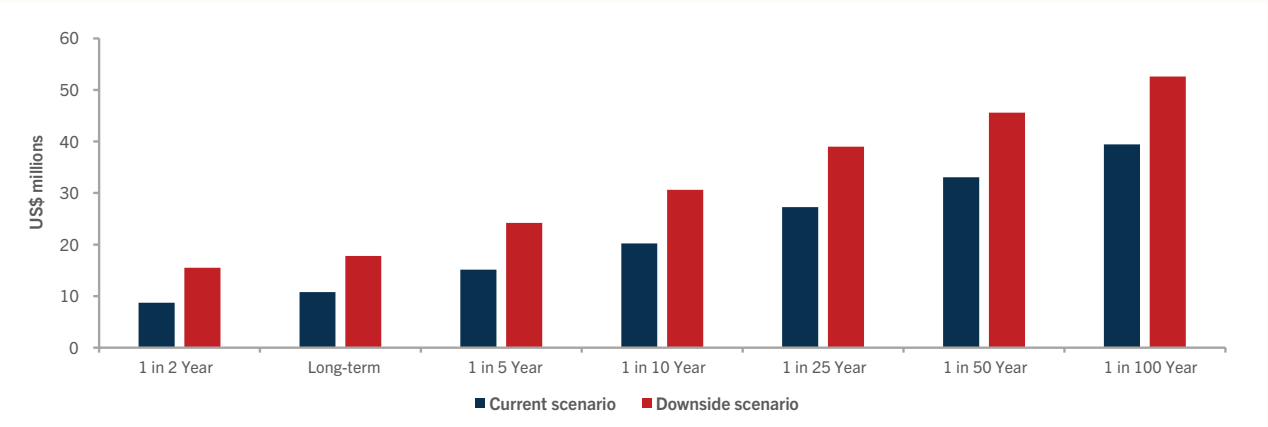
Source: Calculations by World Bank staff based on EM-DAT, EVAC

Note: The error bars show the 95 percent confidence interval. The most recent loss (2020) relates to food insecurity due to the ongoing drought compounded by COVID-19.

The analysis also considered a downside scenario, in which the frequency and severity of losses increase. The simulated average annual cost of disaster relief increases to US$17.8 million, and the cost of relief from the 2015/16 El Niño–induced drought is estimated to be exceeded once every 10 years, or with a probability of 10.1 percent. Among other emerging crises, climate change is expected to increase the frequency and severity of shocks, which would in turn increase the number of lives in need of food assistance. Therefore, for the downside scenario the statistical analysis done under the current scenario was repeated with the addition of historical data on the number of people in a stressed condition (classified as IPC2).[28] Based on the statistical distribution, climate change and other emerging crises like COVID-19 could increase the median cost of relief by up to 78 percent and the average cost of relief by 65 percent. The impact of climate change becomes less pronounced at high return periods due to a limit in population size, e.g., 33 percent for a 1-in-100-year event (Figure 33).

28. The population classified as IPC Phase 2 is in a stressed condition facing a livelihood food deficit.

Figure 33. Simulated average loss due to disasters at various return periods: Current scenario versus downside scenario



Source: World Bank analysis.

The analysis is limited by scant data on disaster losses in Eswatini. The Government of Eswatini should invest in a database of natural disaster occurrences to strengthen the evidence base on disaster risk funding and broader DRM. EVAC collects annual information on the number of people who require food assistance; it does not capture data on food insecurity related to disasters but on general food requirements in the country. In addition, estimations of the frequency and severity of shocks should ideally also consider other losses from disasters, such as infrastructure damage and replacement or repair costs. However, data on economic, fiscal, and human losses due to disaster are extremely limited, as are data on disaster spending in Eswatini prior to the 2015/16 drought.

Building on the indicative distribution of fiscal costs of relief presented in the preceding sections, an analysis was undertaken comparing costs and potential coverage provided by different risk financing strategies. When the GoE develops a National Disaster Risk Finance Strategy, it will be important to decide on the level of risk government can retain as well as the amount it will transfer to private financial markets, which will be limited by the premium charged.

The analysis illustrates the following:

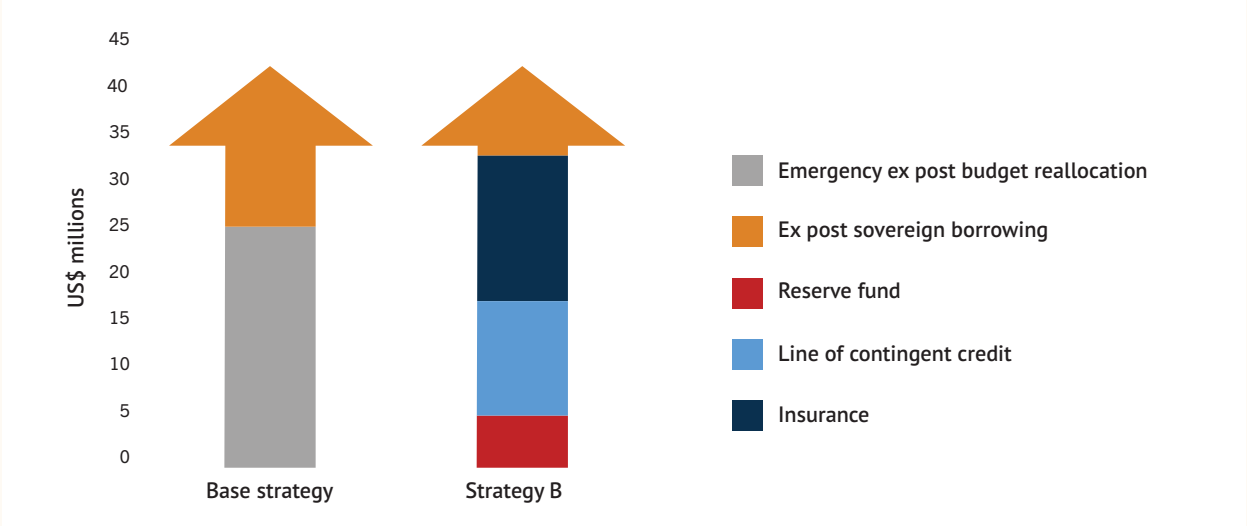
- Different risk financing instruments have different costs attached to them, such as the opportunity cost of keeping reserves or up-front costs for insurance premiums.
- Holding large reserves entails an opportunity cost; but if a major event occurs, having too little funding available can result in avoidably high disaster costs when financing must be mobilized through budget reallocation and borrowing.
- Budget reallocations carry a high opportunity cost, as resources are channeled away from high-yielding social and capital investments.
- Ex post borrowing is especially costly for small states, which can face challenges raising debt after a shock. Furthermore, a disaster event can result in a credit downgrade and trigger a debt crisis.
- Insurance is suited for relatively extreme events—that is, events occurring less frequently than every 5–10 years, on average. It is more cost-effective for insurance to cover only a share of the costs.

The analysis demonstrates how the GoE could develop a risk financing strategy consisting of multiple financial instruments that balance risk retention and risk transfer (risk layering), and it compares this strategy to the current financing approach (base strategy) (Figure 34).

- **The base strategy consists of budget reallocation of US$25 million and ex post borrowing, based on the 2015/16 drought response.** This base strategy is only illustrative, as Eswatini does not have a defined financing strategy in place.
- **Strategy B consists of a reserve fund of US$6 million, contingent credit of US$11 million, and sovereign insurance with a maximum payout of US$16 million.** The instruments were selected to meet an increasing severity of losses. The reserve fund covers losses of up to a 1-in-1.5-year event. Contingent credit covers losses of up to a 1-in-10-year event, while insurance covers up to 1-in-50-year events. We assume that the reserve fund is solely dedicated to natural

disaster relief and incurs small administrative costs. The contingent credit instrument used for illustrative purposes is a World Bank CAT DDO; its maximum amount for Eswatini would be US$20 million. Sovereign insurance is assumed to be multi-peril insurance with the attachment set such that insurance pays out when losses or costs of relief exceed US$17 million, which is the cost of a 1-in-10-year loss event. Insurance would cover losses above those covered by the other two funding instruments (reserve fund and contingent credit). Any losses beyond the insurance exhaustion point, which has been set at a 1-in-50-year loss of about US$23 million, would not be covered by the insurance. In such a rare event, GoE would raise additional funds through borrowing.

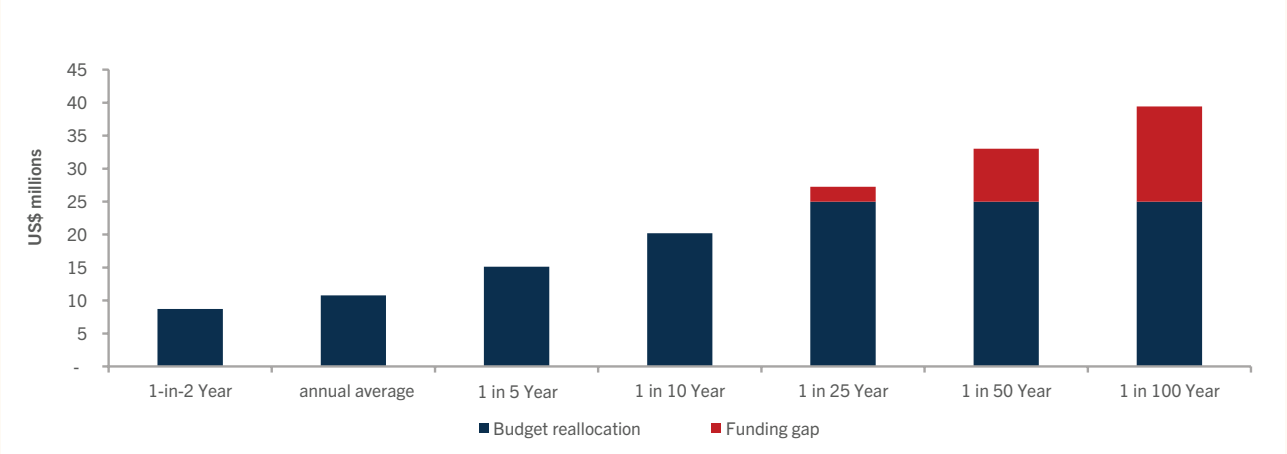
Figure 34. Funds available under each DRF strategy



Source: World Bank analysis.

The analysis indicates that using the base strategy of US$ 25 million in budget reallocations, Eswatini faces a funding gap for moderate (around 1-in-15-year) events. The funding gap is the difference between the available government budget and the probable loss for a given event size or return period. The funding gap increases as the losses increase (with higher return periods) because the amount of budget reallocation is constant (Figure 35). While there is no funding gap for low-severity events, budget reallocation takes time, which may be a challenge for relief response where timeliness is critical. The impact of climate change and other emerging crises is expected to create a funding gap for low- to moderate-severity events and to widen the gap overall. See the annex for more analysis of this downside scenario.

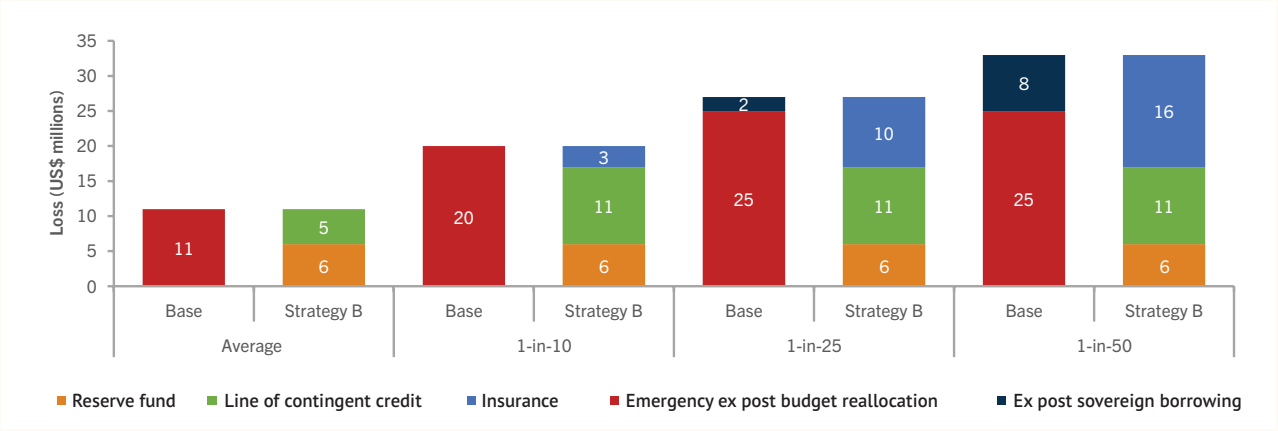
Figure 35. Funding gap at various return periods assuming budget reallocation of US$25 million based on current loss scenario



Source: World Bank analysis.

Under the base strategy of US$25 million in budget reallocations, Eswatini would resort to borrowing and donor aid for moderate (around 1-in-15-year) events. Figure 36 illustrates a breakdown of instruments used by the two strategies for annual average loss events, 1-in-10-year events, 1-in-25-year events, and 1-in-50-year events. The yellow layer could be interpreted as the funding gap, as this is the amount that could be funded by ex post sovereign borrowing.

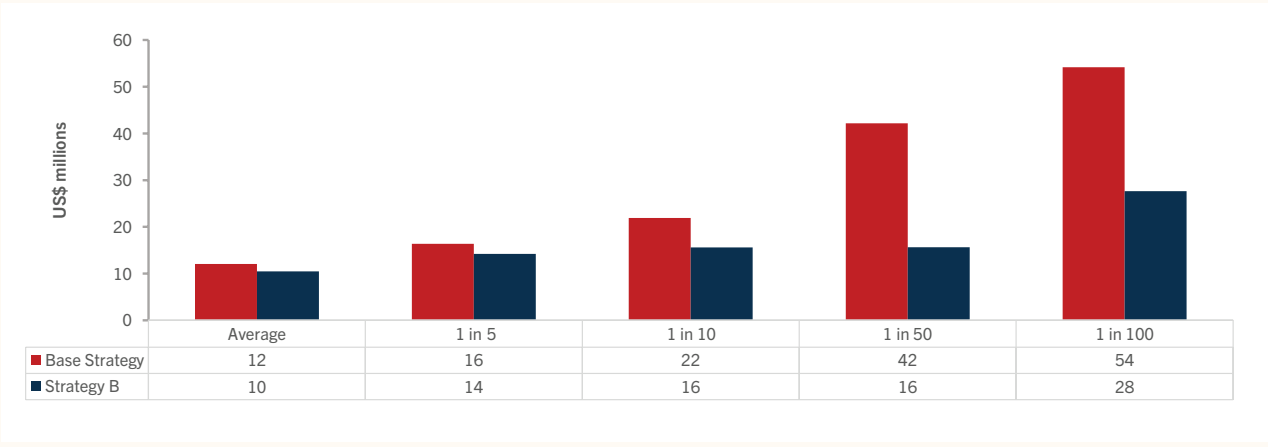
Figure 36. Breakdown of instruments used to fund different magnitudes of loss under each DRF strategy based on current loss scenario



Source: World Bank analysis.

Based on the indicative distribution of simulated losses, the analysis shows that a risk-layered financing strategy could be more cost-efficient on average and for more extreme shock events. Strategy B could create annual average savings of US$1.6 million (Figure 37). Budget reallocations carry a high opportunity cost (the analysis assumes a social rate of return on investments of 17 percent), and ex post borrowing is costly (the analysis assumes an ex post borrowing rate of 19 percent). As these financing instruments are used less frequently under Strategy B, using it could entail significant savings compared to using the base strategy. For example, GoE could have saved US$12.4 million by using Strategy B during the 2015/16 El Niño drought. See the annex for analysis of the opportunity cost based on the downside loss scenario.

Figure 37. Expected cost of funding different magnitudes of loss over the next year under each DRF strategy based on current loss scenario



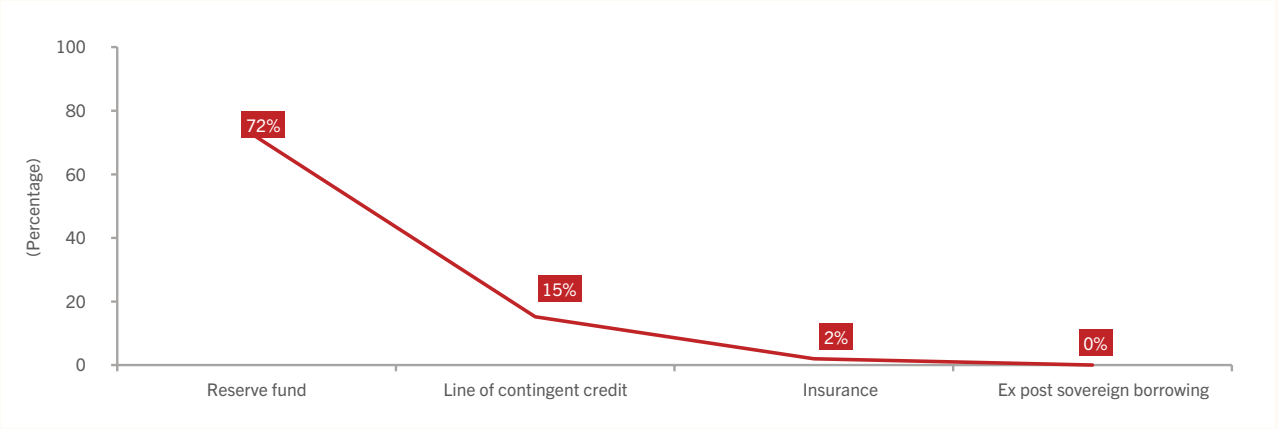
	Average	1 in 5	1 in 10	1 in 50	1 in 100
Base Strategy	12	16	22	42	54
Strategy B	10	14	16	16	28

Source: Calculations by World Bank staff based on EM-DAT, EVAC

The analysis further indicates that savings could increase with the severity of losses, so that a risk-layering strategy becomes even more cost-effective for major disasters (at return periods of 1-in-10 years and more). Savings for low-frequency (less than 1-in-5-year) events are modest at US$2 million but could increase to US$26 million for a 1-in-100-year event. This change reflects the higher up-front costs—for arranging the contingent credit and paying the insurance premium—of Strategy B. The significant savings for moderate to extreme events demonstrate the ability of insurance to mitigate the financial impact of larger costs as the premium leverage additional capital. This analysis is indicative only. For the GoE to make decisions, the analysis would need to be further refined, with better information on available funding and refinement of several economic assumptions underlying the analysis, such as interest on sovereign debt, the discount factor, and the cost of insurance.

In the case of Strategy B, the GoE will have a wider range of risk financing options that can be triggered after disasters, including sovereign insurance to protect the budget against some of the cost from severe events. While there is a 72 percent chance of exhausting the reserve fund each year, the fund is dedicated and fully available every year. There is a 15 percent chance each year that the contingent credit of US$20 million will exhausted, at which point the sovereign insurance would be triggered (Figure 38). This multi-peril insurance is in place to protect the budget against some high-impact catastrophic events. There is a 2 percent chance of the insurance cover being exhausted; for such rare events the GoE would resort to ex post borrowing. See the annex for similar analysis based on the downside loss scenario.

Figure 38. Probability of instruments exhausting under Strategy B based on current loss scenario



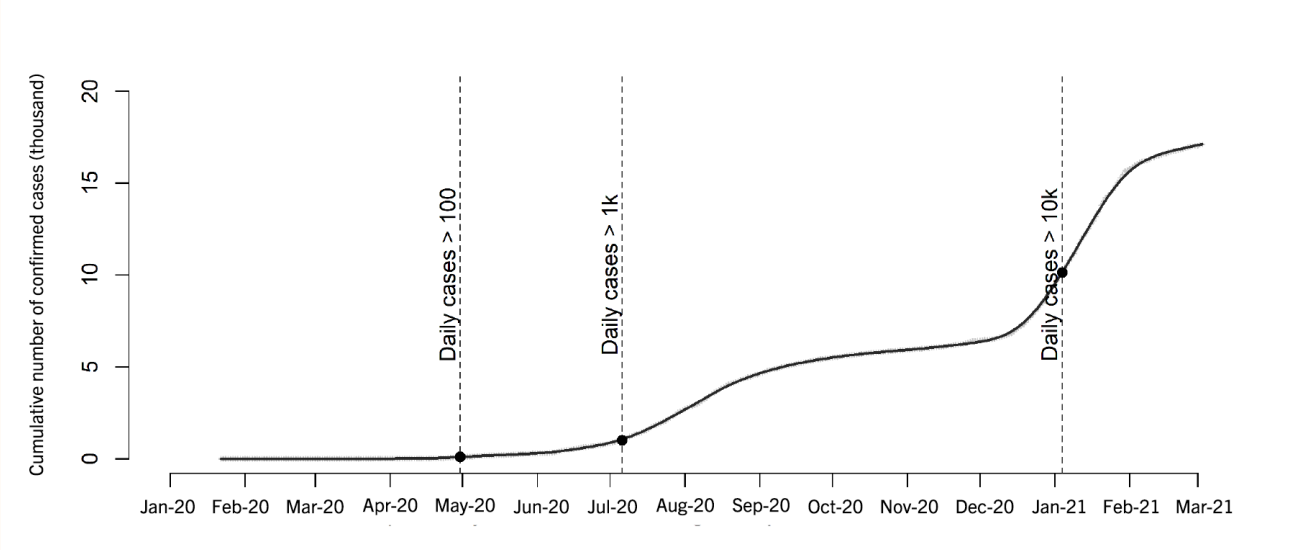
Source: World Bank analysis.

5. COVID-19 case study

Health impact

Eswatini reported its first COVID-19 case on March 14, 2020, and by February 2021 it had recorded more than 15,000 cases and 500 deaths (Figure 39). On March 17, 2020, before the cap of 100 confirmed cases was reached, the government declared a national state of emergency and implemented containment measures, including suspension of private and public gatherings of 20 people or more, schools closures, suspension of nonessential travel within cities for all citizens, and closure of borders to all but goods, cargo, returning citizens, and legal residents, as well as mandatory self-isolation for residents and citizens coming from abroad.

Figure 39. Evolution of total number of confirmed COVID-19 cases in Eswatini

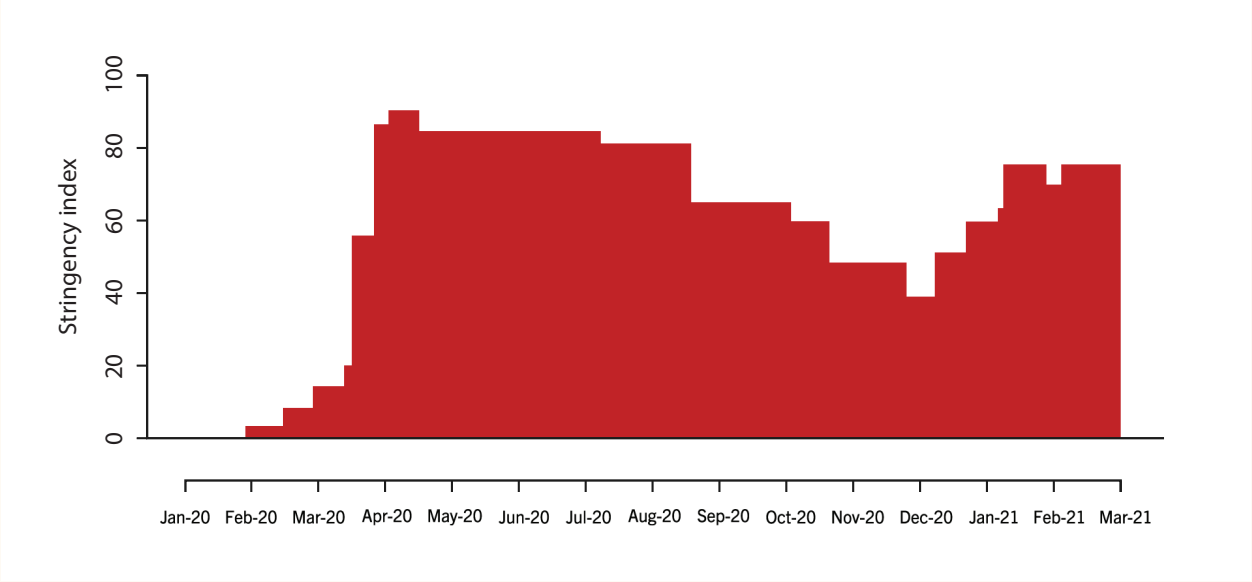


Source: World Bank using data on COVID-19 from Our World in Data.

On March 27, 2020, a partial lockdown went into effect, and a month later the Manzini region, where a third of the population resides, went into full lockdown. The authorities in collaboration with the WHO have built domestic detection capacity. A preliminary budget of approximately US$7 million was passed by Parliament to support the COVID-19 response, including activation of the National Disaster Management Agency to coordinate the response.

The main policy measures implemented by the GoE range from interdiction of international travel to closure of borders to all but goods, cargo, returning citizens, and legal residents. The more restrictive internal measures—bans on public gatherings and school closures—were still in force at the beginning of 2021. On the COVID-19 Stringency Index—a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest)—Eswatini was often between 60 and 90 (Figure 40).

Figure 40. Evolution of Stringency Index in Eswatini

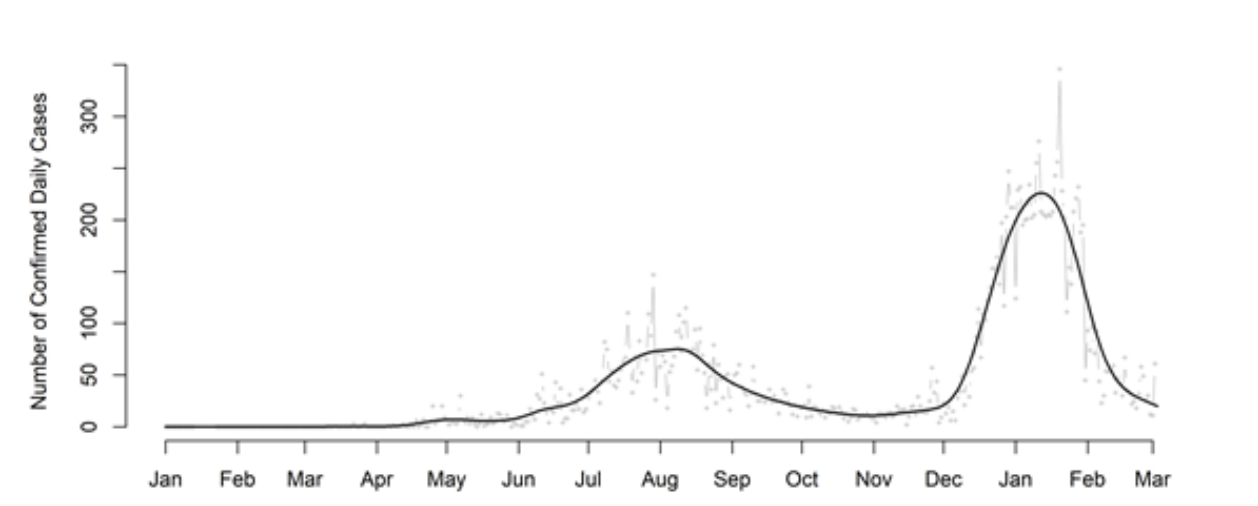


Source: Oxford Stringency Index

Note: The Oxford COVID-19 Government Response Tracker provides a comprehensive internationally comparable daily time series, comprising 19 indicators on the nature and extent of relevant government policy measures implemented since the beginning of the COVID-19 outbreak in March 2020 and up to the present day. It uses the indicators to calculate a composite Stringency Index.

Given the effect of government containment measures, the development of the outbreak showed a decrease, but—as in most countries around the world—it spiked again in a second wave, forcing the government to reinstate some of the stricter containment measures starting in January 2021 (Figure 41). As of March 2021, the number of daily new confirmed cases has been decreasing and the economy is slowly reopening. However, the risk of increased escalation of the epidemic remains significant, given the variants circulating, especially the highly transmissible B1.351, which is quickly becoming the predominant variant in South Africa.

Figure 41. Evolution of new daily COVID-19 cases in Eswatini



Source: World Bank using data on COVID-19 from Our World in Data.

Eswatini has joined the COVAX Facility aimed at ensuring global access to viable COVID-19 vaccines as a co-financing country. In July 2020, the COVID-19 Vaccines Global Access (COVAX 2) Advance Market Commitment (AMC) approved Eswatini's application to reach 16 percent coverage free of charge. The government has budgeted E200 million to procure vaccines for Eswatini's entire population, and it announced that 108,000 doses of AstraZeneca vaccine were expected in mid to late February. The government further ordered 2 million doses from the Serum Institute of India and 237,328 doses from the African Union, both expected to arrive in the second quarter of 2021. The GoE has been approved a supplementary finance package of US$8 million from the World Bank for support in the acquisition and deployment of vaccines.

The COVID-19 response was organized with the collaboration of various inter- and intraministerial coordination mechanisms. The main actors involved have been the Ministry of Health, Ministry of Agriculture, and Ministry of Tourism and Environmental Affairs as well as NGOs and the private sector. Eswatini has a fully staffed IHR National Focal Point Secretariat that operates continuously and reports to WHO within 24 hours as prescribed in the IHR. The National Epidemic Task Force provides leadership and rapid response team structures, and it collaborates with and provides coordination for multiple Ministry of Health units, external agencies, and NGOs involved in a large-scale response. The country's NDMA also provides coordination across relevant sectors and actors for implementing a response to emergencies, including public health emergencies of international concern (PHEIC) and pandemics.

Economic impact

The partial lockdown of the country from March 27, 2020, to April 16, 2020, severely restricted the movement of people and curtailed economic activity. Eswatini relies heavily on trade with neighboring South Africa (for about 60 percent of total exports and 95 percent of imports), but growth projections for South Africa are muted, at 0.3 percent, and could further decline. Economic activity was affected by the closure of some ports of entry with South Africa and by weak demand, leading to a contraction of 9.1 percent in the second quarter of 2020. The exchange rate against the US dollar, which depreciated significantly in early 2020, had largely recovered to the pre-crisis level by the year end.

Response package and fiscal impact

Eswatini has developed an initial National Contingency Plan of E100 million to address COVID-19. The plan's general objectives are to (i) effectively provide relevant technical expertise to strengthen COVID-19 response; (ii) support capacity building of health workers at all levels in public health surveillance, outbreak investigation, and response to COVID-19; (iii) improve diagnostic capacity; (iv) enhance risk communication and community engagement; (v) enhance COVID-19 event management at points of entry, entry screening for COVID-19 at airports and ground crossings, and exit screening in case a COVID-19 case is introduced; and (vi) comprehensively monitor the coverage, quality, and impact of preparedness, response, and system-building activities.

In parallel with the health-related National Contingency Response plan, Eswatini prepared a broader response package worth E1.16 billion (US$75 million) for FY20/21. This comprehensive package will cover public health care spending (increase health care capacity and the population's access to health care services), food distribution and social protection transfers, unemployment benefits, tax relief, and support to SMEs (Table 4).

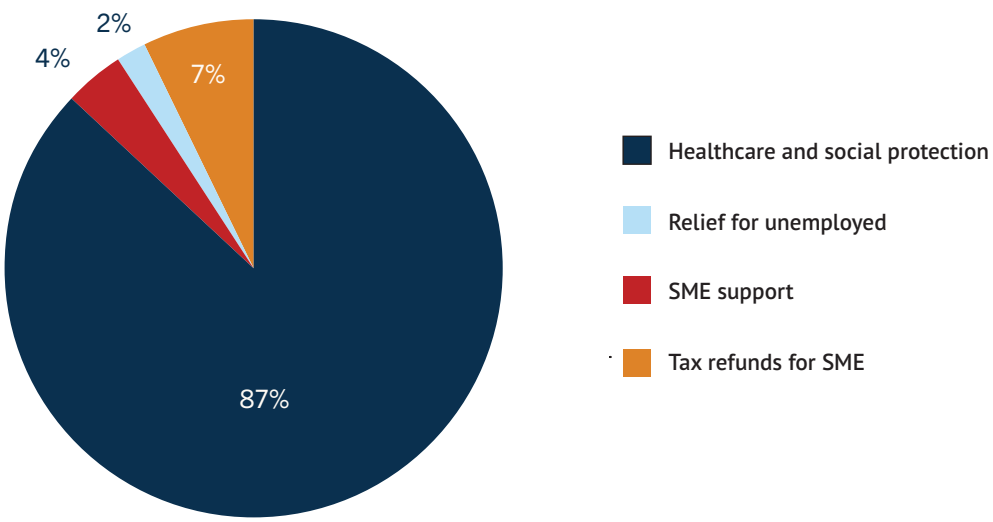
Table 4. Breakdown of COVID-19 response plan costs by activities supported →

	FY19/20 (in millions)	FY20/21 (in millions)	Total (in millions)
Health care and social protection	100	1,000	1,100
SME support		45	45
Relief for unemployed		25	25
Tax refunds for SMEs		90	90
Total (E)	100	1,160	1,260
Total (US$)	$6.51	$75.52	$82.03

Source: World Bank, based on public information on the total cost of COVID-19 response in Eswatini.

The breakdown of the measures shows a strong focus on strengthening health care capabilities and protecting the vulnerable against the negative financial impact of COVID-19 through social protection schemes (Figure 42).

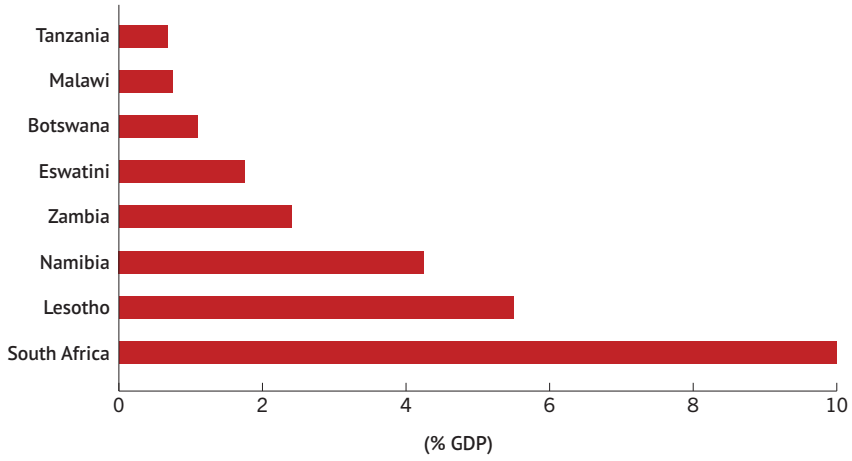
Figure 42. Eswatini COVID-19 response package



Source: World Bank, based on public information on the total cost of COVID-19 response in Eswatini.

Across the SADC region, the government response packages range between US$20 million and US$130 million (except for South Africa, where the estimated total cost of the response by the government is US$3.5 billion). The equivalent burden in terms of share of GDP ranges from 0.7 percent in Tanzania to 5.5 percent in Lesotho (again, South Africa is the outlier, with an estimated burden of 10 percent of GDP). Eswatini is in the middle of the range, with an initial estimated expenditure of US$67 million, or 1.5 percent of its GDP (Figure 43).

Figure 43. Value of COVID-19 response package as share of GDP for countries in southern African region



Source: International Monetary Fund, "Policy Responses to COVID-19: Policy Tracker"

Note: The expenditures are for all support measures to be implemented by the government.

The GoE has requested initial financial and technical support from partners for implementation of key activities under its COVID-19 contingency plan. To finance the response package, Eswatini obtained total committed support from multilateral development banks (World Bank, IMF, UN) of US$177.2 million, 99.6 percent of which came in the form of loans. No loan was obtained from regional multilateral development banks. From the total funding committed, 65 percent had been disbursed by the fourth quarter of 2020 (Figure 19). On July 29, 2020, the IMF Executive Board approved US$110.4 million in emergency financial assistance under the Rapid Financing Instrument to support authorities' efforts in addressing the severe impact of the COVID-19 pandemic. As of December 2020, the World Bank had approved a total of US$66 million through three loan operations. The World Bank financing covers activities directly related to the public health response to COVID-19, as well as human capital development and economic recovery. The need for additional resources to expand the COVID-19 response was formally conveyed by the minister of finance on behalf of the Government of Eswatini on October 29, 2020, with the objective of providing the Ministry of Health with additional financing and technical assistance for planning and rollout of the COVID-19 vaccines, once available.

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6. Recommendations

This section provides recommendations on how to strengthen the DRF agenda in Eswatini with suggested timelines for implementation. These recommendations draw from the analysis in this DRF diagnostic report. Recommendations have been grouped into four sections: sovereign risk financing, public financial management, delivery channels, and non-life insurance.

Sovereign risk financing

Draft and adopt a National Disaster Risk Finance Strategy (short term). As an immediate priority, the GoE can focus on drafting and adopting a National Disaster Risk Finance Strategy. This strategy would set out the strategic priorities of the GoE in regard to financing disaster response. It would identify (i) the key segments of society whose support the government wishes to prioritize in the event of future shocks; (ii) the financing instruments it intends to use to support these households; and (iii) the delivery mechanisms through which it intends to disburse funds. This strategy is a deliverable under the Kingdom of Eswatini Water Supply and Sanitation Access Project and is captured in the procurement plan for the investment operation.

Design and implement a risk-layering strategy for financing disaster response (short to medium term). This step should swiftly follow the adoption of the DRF strategy. As highlighted in the discussion of economic and fiscal impacts of shocks in section 1, the GoE is highly exposed to the impacts of climatic shocks, in particular drought. With the macroeconomic situation predicted to continue worsening over the medium term, Eswatini will see a reduced ability to borrow, while ad hoc reallocations in the context of reduced fiscal space will have an increasing opportunity cost. Combined with the fiscal impacts of the COVID-19 pandemic, this situation will place the country in a vulnerable position; should another drought like the 2015/16 event occur, it would put significant fiscal strain on the budget and threaten both the COVID-19 recovery and the government's ultimate fiscal consolidation objectives. From this perspective, the utility of mitigating such risks is especially high for Eswatini. Implementing a risk-layering strategy consisting of multiple risk financing instruments would strengthen the fiscal resilience of the budget to shocks and enable the GoE to more effectively and cost-efficiently execute its disaster risk finance strategy.

Develop a national database of the financial, human, and ecosystem impact of natural disasters as an evidence base to continuously refine the DRF strategy (medium term). As part of the disaster risk finance strategy, a series of key performance indicators should be established to enable the GoE to track progress on the agenda. These indicators will require data to be collected, which will shape what actions can then be taken to strengthen financial resilience. In addition, the database could also be used to track disaster expenditure, which is critical for making informed decisions about allocating financing ex ante. Expenditures could be disaggregated by response, recovery, and reconstruction, with details on funding sources used.

Public financial management

Establish a budget line and adequately capitalize the Disaster Management Fund (short term). The PFM Bill in Eswatini creates a legal framework for the Disaster Management Fund, but the fund has not yet been operationalized or capitalized. Given the time required to mobilize funds through reallocations and Eswatini's decreasing ability to rely on external borrowing amid disaster, the fund will constitute the first-line source of funding for response activities in the future. Revenues from SACU could be used to capitalize the fund. Such an arrangement would create an additional benefit of reducing the vulnerability of the budget to revenue-side volatility. Thus, finalizing the regulations of the Disaster Management Fund and ensuring their adoption by the Cabinet should be prioritized.

Ensure that the centralized post-disaster decision-making process incorporates efficient communication channels with local stakeholders and line ministries (short-medium term). Experience with NDMA's strength and autonomy shows that in some cases localized knowledge may be underutilized. Moving forward, it would be advantageous if all stakeholders in the response process had clear guidance on their role and periodically reported to NDMA what areas they prioritize in the event of a shock.

Ensure that the four ministries with the strongest response mandate adhere to principles of good budget management (medium term). As discussed above, key response ministries show low levels of budget reliability, and in many years a large proportion of expenditures is conducted off budget. This reduces the ability to plan and in the event of a shock leads to delays, as additional funds need to be mobilized ad hoc through a lengthy legislative process. A key step toward improved budget management is to ensure that all expenditures are captured by the budget.

Strengthen procurement regulations to incentivize pre-arranged framework agreements for the purchase of goods and services needed in the aftermath of shocks (long term). The Public Procurement Regulation of 2020 has already addressed the need for special procedures for procurement in the event of shocks. However, the document explains only how single sourcing can be used in emergencies. Additional considerations—such as a database of vendors, framework agreements, financial thresholds for allowing government entities to procure based on simplified procedures, and establishment of reporting frameworks—would contribute to the efficiency and transparency of the procurement process.

Non-life insurance

Government could explore the feasibility of developing index-based agricultural insurance and assess its potential to help achieve multiple development policy objectives, including deepening of financial inclusion and increased insurance penetration (medium term). This scheme could potentially use the combined drought indicator that is currently under development. Index-based agricultural insurance could be developed through a public-private partnership. The government could contribute to the development of data as a public good, provide incentives for the insurance market, and develop an enabling regulatory framework for index-based insurance. The private sector would offer suitably designed and accurately priced products that meet the needs of this market and unlock more lending.

The recommended feasibility assessment could also establish the willingness of the private market to underwrite this risk. Multiple agriculture insurance products could be considered, including micro-level insurance for farmers and to meso portfolio-level insurance for key banks seeking to increase their lending to the agricultural sector. Importantly, products should be tailored to the market segment to which they are being sold. For example, large commercial farms would likely benefit most from a multiple-peril crop insurance product, whereas small- to medium-scale farmers, who produce to sell at market, would be best served by index insurance products (which are now sold to farmers in multiple African countries, including Zambia, Mozambique, South Africa, Kenya, Uganda, and Rwanda).

Explore the strengthening of public asset insurance and the expansion of cover to critical public infrastructure and services (long term). The first step would be to conduct a review of the existing database of key assets and public infrastructure. Gaps could then be identified, and a road map drawn up for how to strengthen the data. As the quality of data improves, the value for money and affordability of insurance also improves. The ultimate objective of the exercise would be to increase the value and reduce the cost of insurance of key assets. The database review would also estimate the potential cost savings, or increase in coverage, that the GoE could achieve if investments in strengthening insurance data were made; this would enable an informed decision about whether to pursue such investments.

Delivery mechanisms

Aligning with the objectives of the National Disaster Risk Finance Strategy, the GoE could consider the following activities to strengthen the delivery mechanisms for disaster expenditures, by increasing speed, reducing cost, and increasing transparency of disaster expenditures (medium term):

- **MSME database.** As discussed above, the GoE provided support to MSMEs impacted by COVID-19, but due to challenges in identifying MSMEs, a large percentage of which are informal, there were severe delays in disbursing funds. Moving forward, the Ministry of Commerce, Industry and Trade could establish an MSME database of all formal MSMEs; informal MSMEs are likely better protected through safety net programs. The database could include basic information on the MSMEs, including annual revenue, number of employees, sector/core activity, bank account details, etc. With the database established, identifying disaster affected MSMEs and disbursing funds/grants/loans to them would be more rapid and effective.
- **Shock-responsive safety nets.** Efforts could focus on issues of scale and coordination.
    - **The GoE could conduct a review of the readiness of their safety net programs to scale in response to shocks.** Similar reviews are being carried out in South Africa and Lesotho. Based on the findings of the review, recommendations can be made on how to strengthen the adaptive capacity of the national safety net programs to shocks. In the mid-term, the GoE could utilize its safety net programs as delivery mechanisms to support poor and vulnerable households impacted by shocks.
    - **Coordination between government assistance and nongovernment assistance during shocks could be strengthened across the entire intervention delivery chain.** Based on a review carried out by the World Bank Social Protection and Jobs Global Practice (Dhushyanth and Younger 2021), it is understood that there is some coordination between donors, NGOs, and the government is settling on criteria for identifying shock-affected households. However, coordination of subsequent stages (delivery, monitoring, etc.) becomes fractured.
- **Social registry.** The creation of a social registry, linked to the civil registry, would facilitate accurate targeting of both regular social protection support and disaster assistance to shock-affected households. Developing a national social registry would represent a key step toward better targeting of Eswatini's current social protection programs and would

lay the groundwork for shock-responsive social protection. In particular, the government of Eswatini could consider investing in the development of a social registry to serve as the basis for targeting of existing programs. The social registry should enable the pre-identification of vulnerable households that are likely to be pushed into poverty as a result of shocks. These households can then be targeted to receive disaster assistance when shocks occur, either by the NDMA or through social protection programs. In parallel to development of the social registry, the GoE could assess the feasibility of electronic payment modalities to deliver emergency assistance in the event of future shocks, including mobile money and e-banking.

- **Health care service delivery.** The analysis shows that although Eswatini's spending on health care is higher than the Sub-Saharan Africa average, the sector is overcentralized and there is limited capacity to institutionalize quality, particularly at the regional and facility levels; this situation motivates employers and citizens to seek private medical cover. At the same time, private medical cover has a low penetration rate, since it is considered expensive and depends on formal employment, making it unfeasible for a majority of the population. Given existing chronic disease–related vulnerabilities that are not insurable under private health care policies (i.e., the large proportion of people with suppressed immunity such as from HIV and tuberculosis), the GoE could restructure and reinforce the public health program to better target a larger share of the population and ensure equal access to higher-quality health care services.
- **Public-private partnerships for service delivery.** To ensure quality and equality of delivery of health care services, the country needs enough health care facilities that are equipped to a high standard and can cover all levels of health care (from primary to tertiary services). Currently, there is a significant discrepancy in quality between public health care facilities and private health care facilities, which pushes citizens to seek medical care abroad (in South Africa). Incentivizing and supporting planned public-private partnerships to build more health care facilities run by private health care providers could alleviate pressure on existing health facilities. it could also be a step toward improving the country's overall preparedness to prevent, detect, and treat both epidemic outbreaks and chronic health conditions that endanger the country's human capital.

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Annexes

Annex 1. NERMAP: Additional Information

Table 5. NERMAP expenditure by sector →

	2016–17	2018	2019	2020	Total E	Total US$
Education	8.51	.15			8.67	0.65
Food security	34.49	21.14	20.34	4.92	80.88	5.9
Housing	3.06	3.06	3.62	2.53	14	1
Water & sanitation	13.33	1.16	.14	3.7	18.34	1.33
Health & nutrition	3.42	.12		.02	3.56	0.27
Agriculture	4.95	.26	.08	.53	5.83	0.43
Projects and other	1.07				1.07	0.08
Coordination	2.18	1.01	.95	1.89	6.04	0.42
Operating expenses	2.77	.53	.40	.042	3.74	0.28
Total	73.79	29.14	25.53	13.64	142.11	10.36

Source: NERMAP audited financial statements.

Annex 2. Non-life insurance: Additional information

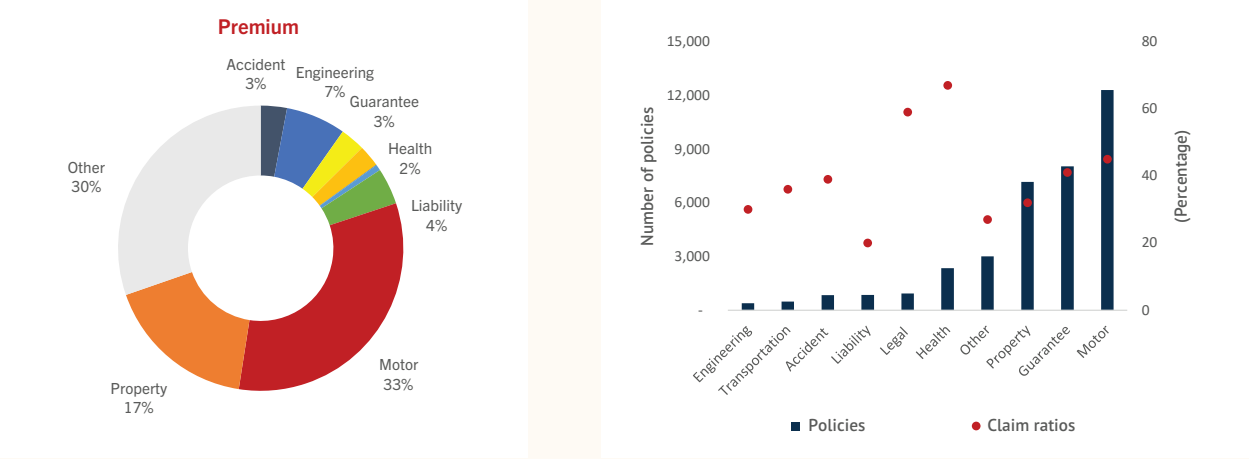
Table 6. Various performance ratios of the non-life insurance sector (Percentage)

	2014	2015	2016	2017	2018
Asset growth	9	-1	61	-9	-2
Retention ratio	61	61	63	63	63
Incurred claims ratio	33	34	32	32	33
Expense ratio	37	30	26	32	36
Combined ratio	70	64	58	64	69
Assets profitability ratio	15	24	22	12	14
Return on equity	35	58	47	38	36
Solvency ratio	97	97	184	149	171

Sources: Calculations by World Bank staff based on Fitch Solutions, Financial Services Regulatory Authority.

The short-term insurance market offers a wide range of products, but motor and property dominate, accounting for half of written premium and number of policies. Motor and property are characterized by "forced demand," as cover is mandated by creditors for car loans and mortgage finance. Health insurance premiums are less than half of property insurance premiums, yet coverage of the latter is three times higher, amounting to about 7,200 policies. Compulsion is thus a major driver for short-term insurance usage (Figure 44).

Figure 44. Premiums, number of policies, and claims ratios by insurance product, 2019



Source: Financial Services Regulatory Authority

Eswatini currently has 11 hospitals and five health centers that provide secondary care and offer an average of 2.1 hospital beds per 1,000 population (compared to an average of 2.4 beds in low- and middle-income countries and 4.1 beds in high-income countries). Only two hospitals have an intensive care unit (ICU): Mbabane Government Hospital, which is the national referral hospital, and Raleigh Fitkin Memorial Hospital (RFMH), a mission hospital. Together they provide a total of 14 ICU beds. Due to ICU demand from non-COVID-19 cases at Mbabane Government Hospital, the government has decided to increase ICU bed capacity in Raleigh Fitkin Memorial Hospital and introduce ICU services in the Lubombo Referral Hospital.

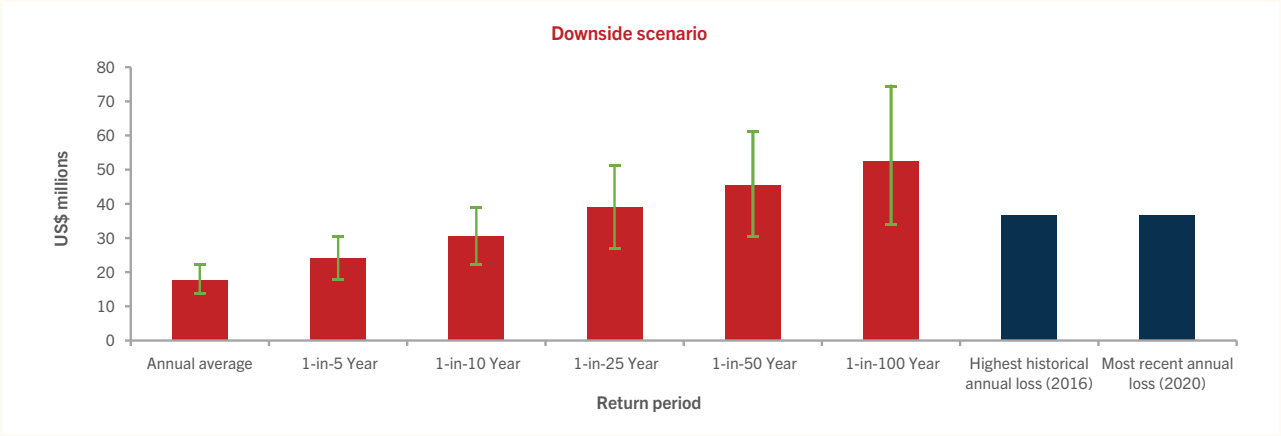
The health care sector is overcentralized and has limited capacity to institutionalize quality, particularly at the regional level (i.e., among Regional Health Management Teams) or facility level. Employers and citizens are generally motivated by the failure of government to provide good medical care and therefore opt to have some medical cover; this enables them to seek help within the private sector through medical schemes, which must be registered with and licensed by the Financial Services Regulatory Authority. The level of coverage bought depends on the disposable income of the main policyholder.

Annex 3. Fiscal gap analysis: Additional information

This section discusses the potential impact of climate change and other emerging crises on the expected cost of relief, as well as the potential benefits of a risk financing strategy using the losses simulated under the downside scenario.

The simulated average annual cost of disaster response increases from US$10.8 million under the current scenario to US$17.8 million under the downside scenario, and the cost of relief from the 2015/16 El Niño–induced drought is estimated to be exceeded once every 10 years, or with a probability of 10.1 percent (Figure 45.).

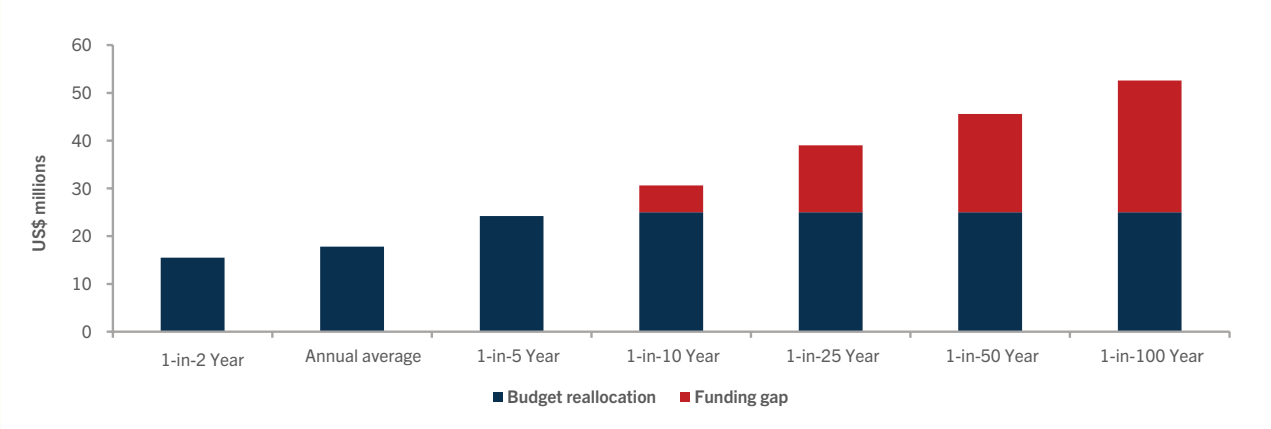
Figure 45. Simulated average loss due to disasters in Eswatini for various return periods under a downside scenario



Source: World Bank analysis.

Under the downside scenario, Eswatini faces a funding gap for less than moderate (1-in-10-year) events and a wider gap for events at higher return periods, as the amount of budget reallocation remains constant while losses intensify (Figure 46). It is worth noting that GoE capacity for reallocation has declined over the last few years due to the deteriorating fiscal space. Moreover, given the urgency with which resources are required during the relief phase, budget reallocation may prove inefficient.

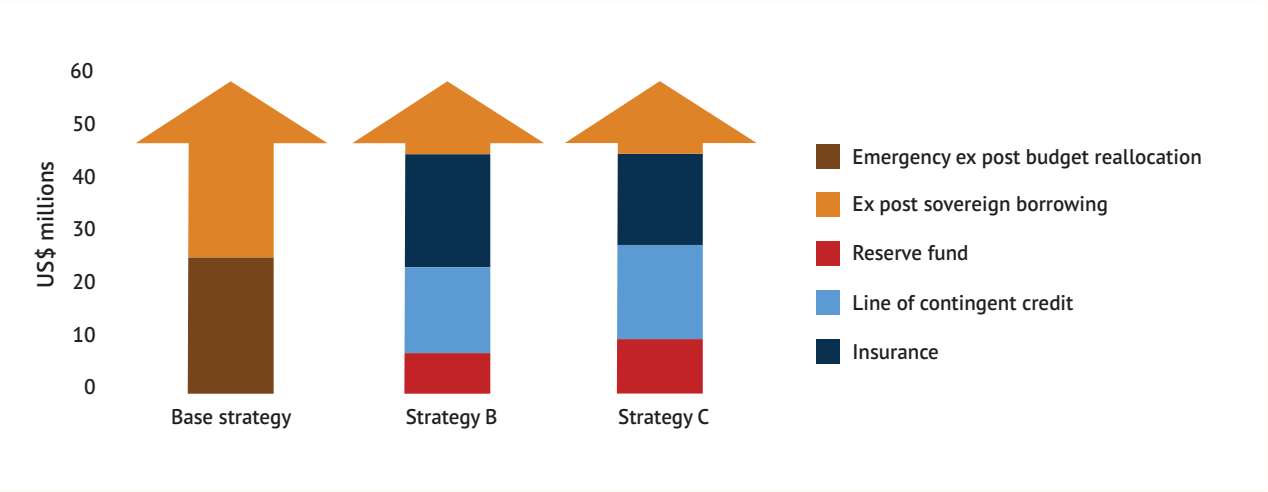
Figure 46. Funding gap at various return periods assuming US$25 million in budget reallocations under the downside scenario



Source: World Bank analysis.

Based on the estimated statistical distribution, the base strategy was compared to two alternative disaster risk financing strategies to demonstrate the potential benefit of risk layering (combining of financial instruments for risk retention and risk transfer in line with the estimated distribution of losses) (Figure 47).

Figure 47. Risk-layering strategies



Source: World Bank analysis.

The analysis indicates that a risk-layered financing strategy could be more cost-efficient on average and for more extreme shock events. Based on our illustrative distribution of losses under the downside scenario, Strategy B created annual average savings of US$5 million. Savings from a risk-layered strategy increase with the severity of loses, with the cost of funding extremely severe (1-in-100-year) events reduced by more than half (Figure 48).

The base strategy consists of budget reallocation of US$25 million and ex post borrowing based on the 2015/16 drought response.

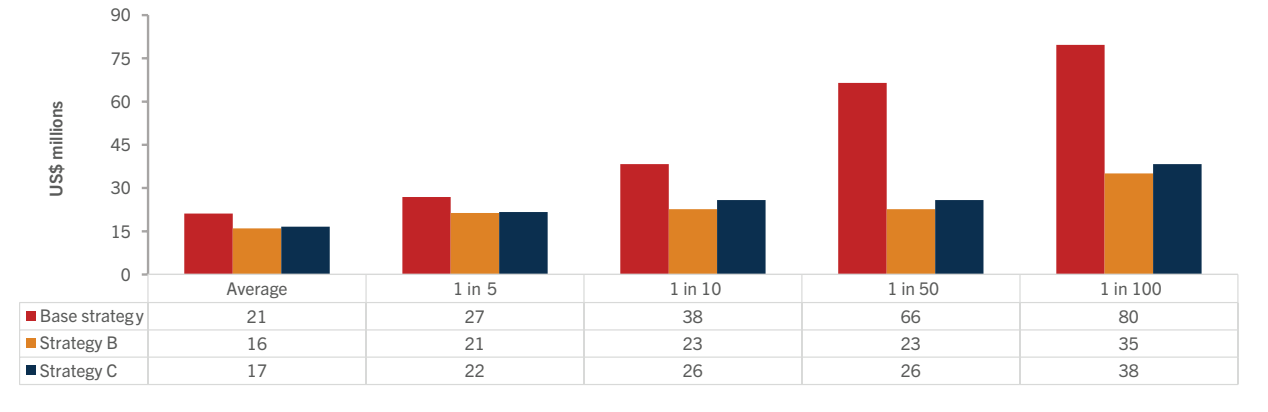
Strategy B consists of

1. A reserve fund of US$6 million
2. Contingent credit of US$20 million
3. Sovereign insurance with a maximum payout of US$20 million

Strategy C consists of

1. A reserve fund of US$10 million
2. Contingent credit of US$20 million
3. Sovereign insurance with a maximum payout of US$16 million

Figure 48. Expected cost of funding different loss events under the downside scenario

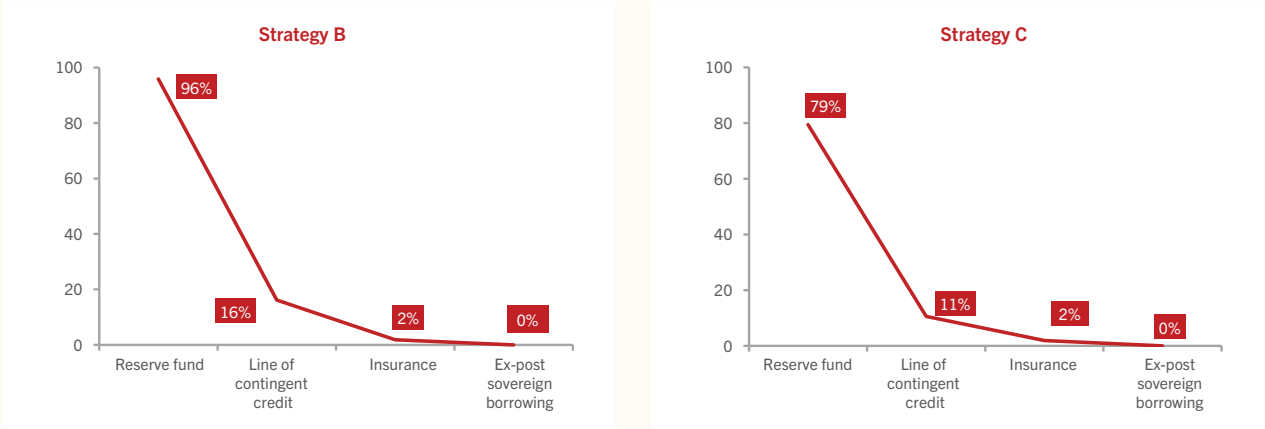


	Average	1 in 5	1 in 10	1 in 50	1 in 100
Base strategy	21	27	38	66	80
Strategy B	16	21	23	23	35
Strategy C	17	22	26	26	38

Source: World Bank analysis.

Based on the simulated costs, there is a 100 percent chance that budget reallocation will be exhausted, after which the GoE would be required to borrow to fund relief. Meanwhile, under Strategy B there is a 96 percent chance that the reserve fund would be exhausted; the chance is 79 percent under strategy C due to the larger amount available in the reserve fund. Combining a reserve fund with contingent credit plus insurance reduces the probability of budget reallocation to 2 percent, compared to 100 percent under the base strategy (see Figure 49).

Figure 49. Probability of instrument exhausting under each DRF strategy based on the downside scenario →



Source: World Bank analysis.

Data sources

EM-DAT—Global database of natural disasters

- Records 17 disaster occurrences between 1981 and 2019
- Provides number of lives affected for 14 of the 17 disasters

EVAC—Committee that estimates the number of people in need of food assistance using the Integrated Food Security Phase Classification (IPC)

- Swaziland Emergency Food Assessment Report for 2002
- Data shared by GoE counterpart (based on Eswatini vulnerability assessment) for 2003 to 2012
- The 2019 Regional Vulnerability Assessment and Analysis report for 2013 to 2019
- The 2017–2021 Eswatini Integrated Food Security Phase Classification report

IPC Classification—Population considered to be in IPC3 or higher used for analysis

- IPC Phase 2: Stressed condition facing a livelihood deficit
- IPC Phase 3: Crisis condition facing an immediate food deficit
- IPC Phase 4: Emergency condition facing an acute food deficit
- IPC Phase 5: Famine condition facing a survival food deficit

Data treatment

- From EVAC, we consider IPC3+ as the population provided with food assistance, in line with World Bank's Famine Action Mechanism (FAM).
- To estimate IPC3+ we used the IPC analysis report for Eswatini 2017–21 and calculated the ratio of the population in IPC3+ to the population in IPC2+ (ratio = 43%).
- Figures were validated against the implied number of lives based on humanitarian funding provided during that year.

Table 7. Description of funding gap data →

Year	Data source	Description	Treatment & validation
2002	Swaziland Emergency Food Assessment Report	Total population in IPC2+ for September 2002 to March 2003	Apply 43% to account for IPC3+.
2003–13	Emergency Food Security Assessment Reports	People in need of food assistance during the year/livelihood deficit (assumed to be IPC2+ over the year) People in need of immediate food assistance/acute/survival deficit (assumed to be IPC3+ over the year) for seven years	Apply 43% only for IPC3+.
2013–19	SADC Secretariat's Regional Vulnerability Assessment and Analysis Report	Total population in IPC2+ over the year	Apply 43% only for IPC3+. Figures for 2014 and 2017 unreasonable when compared against humanitarian funding; therefore the total population reported as food insecure was considered.
2020	Integrated Food Security Phase Classification Analysis Report for Eswatini, 2017–21	Population in all IPC levels for June to September 2020	Use the unadjusted 2020 IPC3+ figure.

Modeling assumptions

- We assume the population provided with food assistance is IPC3+ from EVAC and the entire affected population from EM-DAT.
- We assume the cost of relief per person is US$50 (based on the national poverty line of US$1.90 per day and relief for one month).

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