

ZIMBABWE DISASTER RISK FINANCE DIAGNOSTIC



**Disaster Risk Financing
& Insurance Program**



USAID
FROM THE AMERICAN PEOPLE



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

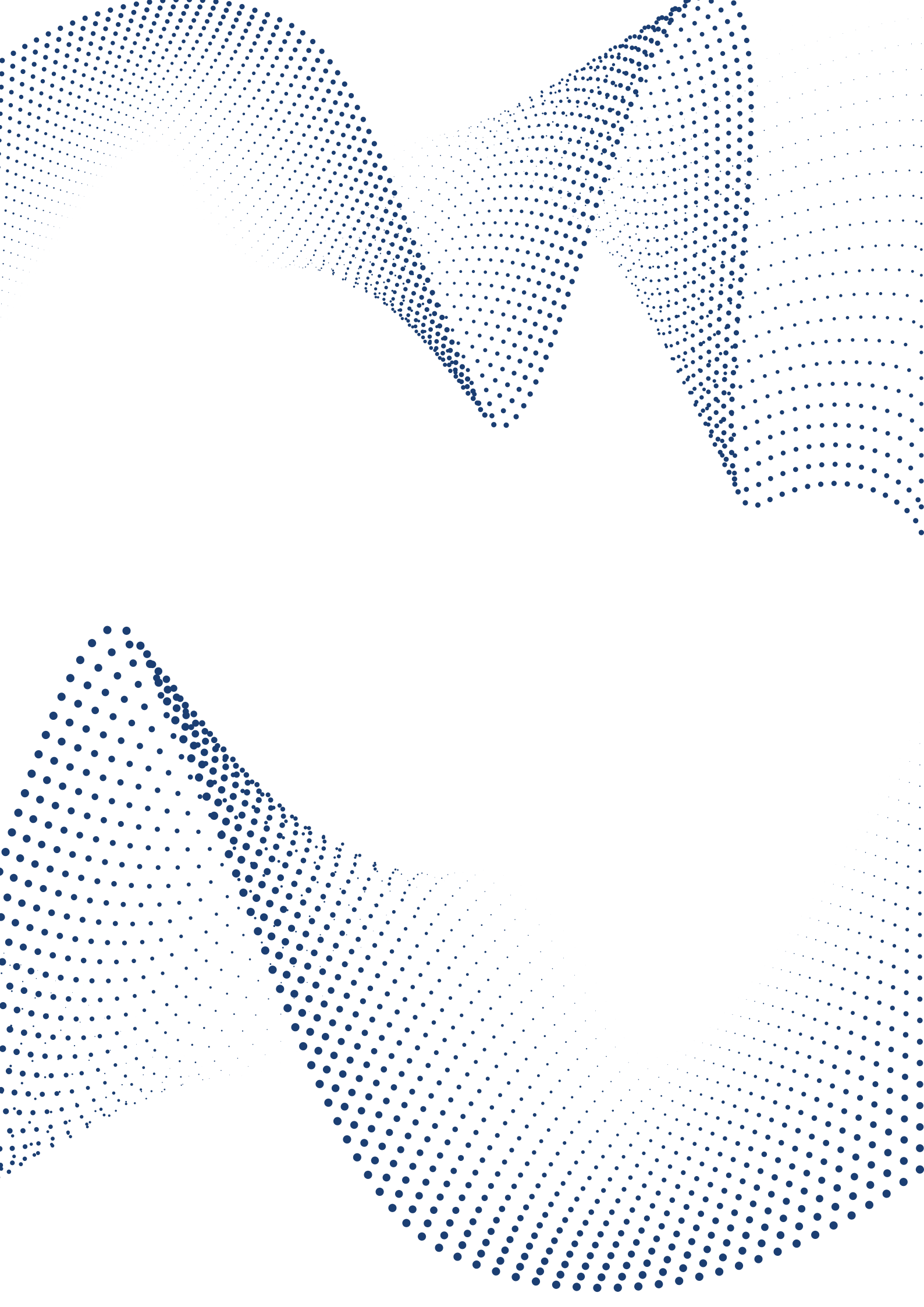


TABLE OF CONTENTS

Acknowledgments		06
Abbreviations		07
Executive summary		08
1	Assessment of climate risk and the impact of past disasters	14
	1.1 Overview of disasters	14
	1.2 Droughts	18
	1.3 Floods	23
	1.4 Impact of disasters on household poverty	26
	1.5 Impact of disasters on MSMEs	27
	1.6 Macroeconomic and fiscal impacts of disasters	28
2	Legal and institutional framework for DRF	32
	2.1 Overview of the legal framework for DRF	32
	2.2 Overview of the institutional framework for disaster risk finance	36
	2.3 Early warning system	38
3	Status of disaster risk financing instruments and mechanisms	39
	3.1 Ex ante funding	40
	3.2 Ex post funding	42
	3.3 Social safety nets and existing distribution mechanisms	49
4	Review of financial markets	52
	4.1 Insurance market	52
	4.2 Financial inclusion and financial protection	58
	4.3 Capital markets	62
5	Funding gap analysis and risk financing strategies	66
	5.1 Fiscal cost analysis	66
	5.2 Funding gap and comparison with risk-layered strategy	67
6	Recommended options to strengthen financial resilience	71
	6.1 Improve the policy framework, public financial management, and risk-informed decision-making	71
	6.2 Strengthen the financial sector and enhance the use of insurance	72
	6.3 Strengthen existing instruments and adopt new risk financing instruments	73

BOXES

Box 1:	Kenyan Hunger Safety Net Program	51
Box 2:	The Philippines' development and implementation of national public asset insurance program	56
Box 3:	Building resilience through financial inclusion	59
Box 4:	Risk layering: Key trade-offs and considerations when establishing a disaster risk finance strategy	69

FIGURES

Figure 1:	Status of risk financing instruments in Zimbabwe	11
Figure 2:	Funding gap at various return periods assuming pre-arranged funds of US\$32 million	11
Figure 3:	Zimbabwe's scores on World Risk Index 2022 (normalized score ranging from 0 to 100)	14
Figure 4:	Disaster risk profile of Zimbabwe, 1975–2022 (left) and population affected by drought (right)	16
Figure 5:	Cross-country comparison of vulnerability and readiness to improve climate resilience	17
Figure 6:	Provincial distribution of main crops in Zimbabwe	20
Figure 7:	Value of major crops grown in Zimbabwe over time (2016 constant US dollars)	20
Figure 8:	Provincial-level data on average drought intensity (left), duration (center), and return period (right)	21
Figure 9:	Provincial losses by crop and year	22
Figure 10:	On-grid electricity generation in Zimbabwe	23
Figure 11:	Average losses from flood at different return periods	24
Figure 12:	Residential and commercial property values at risk of flood damage (left) and loss and damage ratios (right)	24
Figure 13:	Annual number of recorded storms in East Africa	25
Figure 14:	Relationship between agricultural value added and overall GDP growth	29
Figure 15:	Annual inflation rate, 2010–2022	30
Figure 16:	Composition of budget revenue, 2017–2021	30
Figure 17:	Development partners' contribution to the 2020/21 budget (estimated)	31
Figure 18:	Disaster risk management institutional set-up	37
Figure 19:	Status of risk financing instruments in Zimbabwe	39
Figure 20:	Reallocations between votes following the drought of 2016	43
Figure 21:	Proposed use of SDR allocation in 2021	46
Figure 22:	Humanitarian aid as part of Zimbabwe's budget, 2012–2020	47
Figure 23:	Trends in official development assistance, 1990–2022 (left) and humanitarian funding gap, 2019–2022 (right)	47
Figure 24:	Total insurance written premium, 2009–2021	52
Figure 25:	Cross-country comparison of insurance penetration and density	53

FIGURES

Figure 26:	Trends in property insurance (left) and natural hazards insurance (right)	54
Figure 27:	Total agriculture insurance, 2009–2021 (left) and weather index insurance, 2019–2022 (right)	55
Figure 28:	Percentage of MSMEs that use insurance in Zimbabwe (left) and barriers to insurance uptake (right)	58
Figure 29:	Emerging evidence on building resilience through financial inclusion	59
Figure 30:	Proportion of adults with an account at a financial institution (left) and capacity to raise emergency funds (right)	60
Figure 31:	Dynamics of MSMEs' access to credit, insurance, and savings	62
Figure 32:	Zimbabwe Stock Exchange trends	63
Figure 33:	VFEX comparison of Q3 2021 and Q3 2022 turnover (left) and trend in number of trades (right)	64
Figure 34:	Simulated average annual costs of disaster response due to drought and flood in Zimbabwe over the next year for different return periods	65
Figure 35:	Funds under each financing strategy	67
Figure 36:	Funding gap at various return periods assuming pre-arranged funds of approximately US\$33 million	68
Figure 37:	Effect of risk-layered financing approach on cost of covering losses	69
Figure 38:	Framework for approaching disaster-related budget reallocations	70

TABLES

Table 1:	Recommendations to strengthen financial resilience in Zimbabwe	12
Table 2:	Impact of disasters in Zimbabwe by type of peril, 1975–2022	15
Table 3:	Summary of laws relevant to financial and operational preparedness	32
Table 4:	Funds with contingency mandates	41
Table 5:	Drought insurance from ARC for Government of Zimbabwe and Replica partners, 2019–2023	44
Table 6:	Summary of the main social protection programs in Zimbabwe	49
Table 7:	Recommendations for strengthening financial resilience in Zimbabwe	74

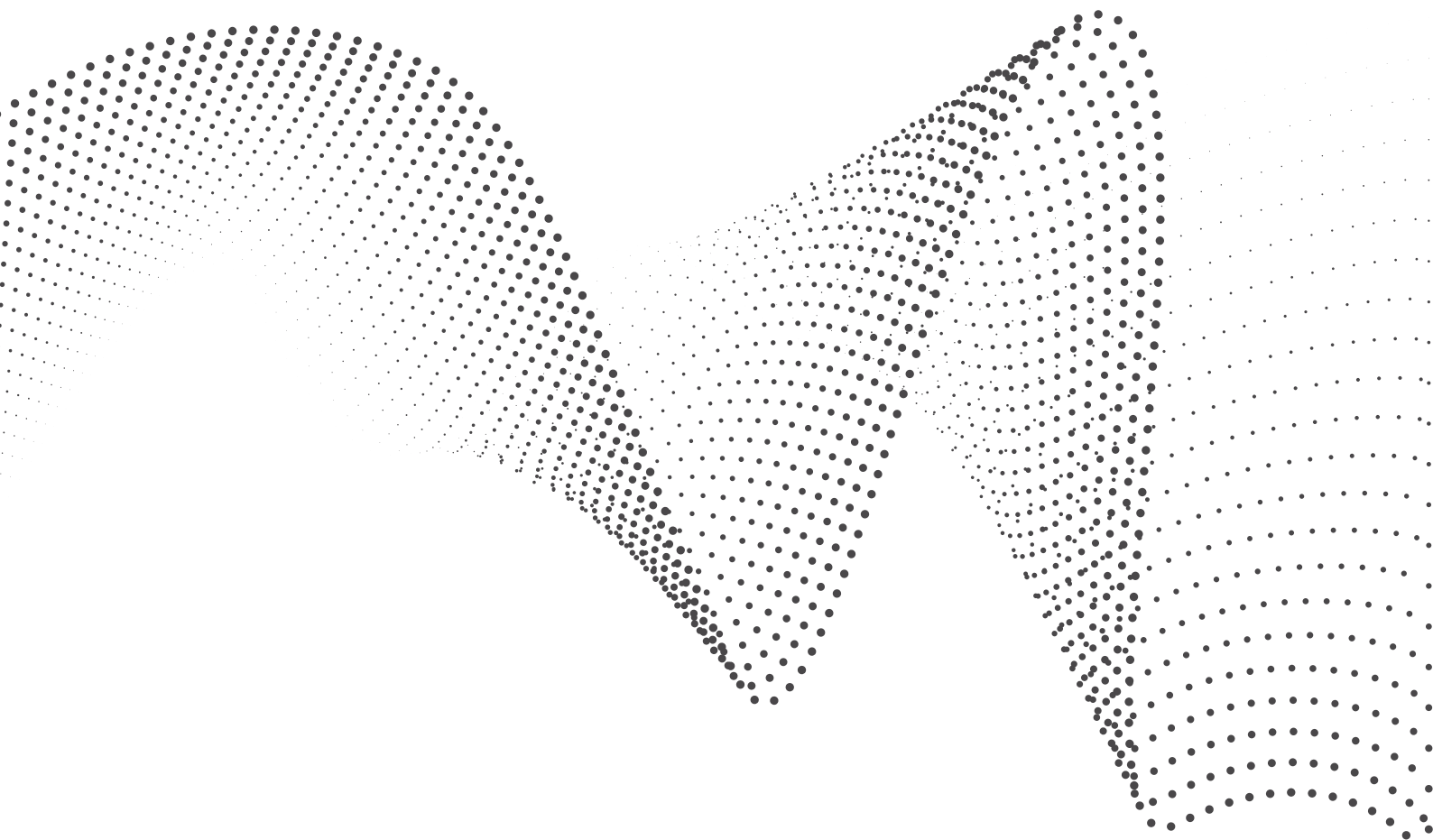
ACKNOWLEDGMENTS

This disaster risk finance report was prepared by a World Bank team led by Qhelile Ndlovu (Financial Sector Specialist) consisting of Michal Krzysztof Pietrkiewicz (Consultant) and Tawanda Chituku (Consultant) with operational assistance from Crispin Mawadza (Consultant).

The World Bank team would like to thank the Government of Zimbabwe, and especially the Ministry of Finance and Economic Development and the Civil Protection Department, for their support of this study. The team would also like to thank the many other public institutions that assisted in the study as well as the many development partners that provided useful input.

The team is also grateful to Marko Kwaramba (Country Economist) for macroeconomic input and guidance as well as the following World Bank colleagues who peer-reviewed the report, namely Isaku Endo (Senior Financial Sector Specialist), Ronald Rateiwa (Regional Economist, Southern Africa), Tatiana Skalon (Financial Sector Specialist) and Samantha Cook (Senior Financial Sector Specialist).

The diagnostic was financed through the Financial Resilience Program, a trust fund managed by the Crisis and Disaster Risk Finance team in the Finance, Competitiveness, and Innovation Global Practice. The program aims to enhance the capacity of policy makers to improve vulnerable households' and businesses' financial resilience to climate shocks and natural disasters and is kindly funded by the United States Agency for International Development (USAID).



ABBREVIATIONS

ARC	African Risk Capacity
BEAM	Basic Education Assistance Module
Cat DDO	Catastrophe Deferred Drawdown Option
DCP	Department of Civil Protection
DRF	Disaster Risk Finance
DRM	Disaster Risk Management
DRM Bill	Disaster Risk Management and Civil Protection Bill
FDM	Food Deficit Mitigation
GCF	Global Climate Fund
GDP	Gross Domestic Product
HDI	Human Development Index
HSCT	Harmonized Social Cash Transfers
HSNP	Hunger Safety Net Program (Kenya)
ICZ	Insurance Council of Zimbabwe
IDA	International Development Association
IMF	International Monetary Fund
IPEC	Insurance and Pensions Commission
MoFED	Ministry of Finance and Economic Development
MoPSLSW	Ministry of Public Service, Labor, and Social Welfare
MSMEs	Micro, Small, and Medium Enterprises
ND-GAIN	Notre Dame Global Adaptation Initiative
NFIS	National Financial Inclusion Strategy
PEFA	Public Expenditure and Financial Accountability
PFM Act	Public Financial Management Act
SDR	Special Drawing Rights
SECZ	Securities and Exchange Commission of Zimbabwe
SMEs	Small and Medium Enterprises
SPI	Standardized Precipitation Index
VAT	Value Added Tax
VFEX	Victoria Falls Stock Exchange
ZSE	Zimbabwe Stock Exchange

EXECUTIVE SUMMARY

This disaster risk finance (DRF) diagnostic was prepared by the World Bank Finance, Competitiveness and Innovation Global Practice in response to a request from the Government of Zimbabwe (GoZ) for a study to assess the institutional, legal, and financial planning for financing of disaster risk in Zimbabwe. The GoZ intends to use the diagnostic to inform the development of a comprehensive national DRF strategy. The diagnostic will also inform the Zimbabwe Country Climate and Development Report, which is a joint analytical product of the World Bank and the GoZ and will complement the ongoing Zimbabwe Country Private Sector Diagnostic.



The objective of this DRF diagnostic is to assess Zimbabwe's financial preparedness to disasters and crises. Zimbabwe is ranked a medium- to low-climate-risk country but faces high impacts due to high levels of socioeconomic vulnerability and a significant lack of coping and adaptive capacity. Between 1975 and 2022, disasters in Zimbabwe led to total economic losses of at least US\$7.5 billion, most of which were uninsured.¹ The increasing frequency and severity of climatic disasters exacerbates the challenge of improving resilience. This assessment entails analysis of (i) the economic and fiscal impact of disasters (chapter 1); (ii) the legal and institutional arrangements for DRF (chapter 2); (iii) pre-arranged funding available to the government for response (chapter 3); (iv) the domestic insurance and capital markets (chapter 4); and (v) the potential funding gap—that is, the difference between the amount of pre-arranged funding available to government and the estimated cost of response to disasters (chapter 5).² Based on this analysis, the diagnostic presents recommendations to strengthen the financial preparedness of Zimbabwe to disasters and crises (chapter 6). The broad set of

recommendations is complementary to other GoZ policies and initiatives, such as the National Financial Inclusion Strategy, and to tools like Guideline No. 01-2023/BSD: Climate Risk Management.

Zimbabwe is in a polycrisis, facing the impacts of frequent and increasing climate-related disasters, the COVID-19 pandemic, and a growing macro-fiscal and food crisis. Zimbabwe is a lower middle-income country with a gross domestic product (GDP) per capita of US\$1,267 a year and a macroeconomic context characterized by instability; GDP growth is highly volatile and declined for the entire first decade of the 2000s.³ This was a result of the challenges of land reform and consecutive droughts that began in 1999 and that by 2001 had led to deepening economic depression, correlating with hyperinflation and foreign currency shortages. Consequently, poverty rose from 32.2 percent in 2001 to 38.3 percent in 2019.⁴

1 - EM-DAT database 1975–2022, EM-DAT, CRED/UCLouvain, Brussels, Belgium, www.emdat.be; government reports; academic articles.

2 - The analysis combines desktop research and expert interviews in line with the good practice methodology developed by the World Bank and development partners; see World Bank and Asian Development Bank, “Assessing Financial Protection against Disasters: A Guidance Note on Conducting a Disaster Risk Finance Diagnostic,” 2017, <https://documents1.worldbank.org/curated/en/102981499799989765/pdf/117370-REVISED-PUBLIC-DRFIFinanceProtectionHighRes.pdf>

3 - <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=ZW>

4 - <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=ZW>

In recent years, the GDP has entered a modest growth phase, increasing an average of 2.4 percent a year over 2012 to 2022⁵. After years of relative stability, inflation has been at levels well above 100 percent a year since 2018, making budgetary planning, including for response efforts, extremely difficult. Achieving macroeconomic and price stability is crucial for improving the financial resilience of the country, including households and businesses.

Climate shocks, of which drought and storms are the most serious in Zimbabwe, have a significant impact on economic growth, food security, and the fiscal balance. GDP growth shrank by about 16 percent following the 2002/03 drought. On average, drought affected 27 percent of the population between 1981 and 2021; however, during severe drought years nearly half the population is affected. Based on available public data, droughts occur in one of every six years, and each occurrence results in economic loss of US\$790 million on average. Floods occur in one of every four years and result in economic loss of US\$94 million on average.⁶ Data on the impact of storms are scarcer, but losses appear to vary significantly, with total losses caused by Cyclone Idai in 2019 estimated at US\$1.152 billion.⁷

Disasters disproportionately affect the poorest and vulnerable, and Zimbabwe's micro, small and medium enterprise (MSME) sector, which is a source of livelihood for about 90 percent of the population, is extremely vulnerable to climate variability. The strong link between poverty and vulnerability to drought and floods relates to sources of livelihoods and quality of housing infrastructure. Approximately 80 percent of rural households in Zimbabwe depend on rain-fed agriculture. A majority are subsistence farmers who lack access to markets and financial products, which means that shocks to agricultural production push a large part of the population into food insecurity. Globally, Zimbabwe is one of six countries where the poor are much more exposed to flooding than nonpoor peers. Losses due to flood in Matabeleland North and Matabeleland South, the two poorest provinces, are over 42 percent higher than the national average loss, likely due to lower quality

of housing infrastructure. Despite widespread poverty, Zimbabwe spends only 0.4 percent of its GDP on social protection, less than a third of the Sub-Saharan average.⁸ Targeting of disaster response interventions has been weak—for example, there was no significant difference in the coverage rate of COVID pandemic emergency assistance between households that experienced and did not experience shocks.⁹ However, the Zimbabwe Social Registry (ZISO), for which coverage is expected to significantly increase in the next one to two years, holds the promise of enabling robust and rapid targeting for beneficiaries of crisis response programs.

The institutional framework for disaster risk management in the country is well developed and centrally coordinated by the Department of Civil Protection (DCP). Some roles are decentralized to the village level, but funds do not always follow. The Cabinet Committee on Environment, Disaster Prevention, and Management, which includes representatives from all 17 ministries, oversees disaster risk management (DRM). The National Civil Protection Coordination Committee coordinates ministries with development partners. The DCP coordinates strategic planning for emergencies at all government levels and ensures emergency preparedness and disaster prevention. DCP also manages the early warning system, working with both public and private institutions, including development partners. District-level DRM is coordinated by territorial commanders, and a policy has been approved to include village structures in DRM.

While the legal framework is relatively well developed and has decentralized numerous disaster response functions, the framework is inadequate for financial and operational preparedness, and some supporting regulations are still missing, which slows down response. The Civil Protection Act of 1989 sets out the roles at the national, provincial, and metropolitan levels and details how to declare a state of emergency. It does not provide for specific ex ante financing or allocation of resources to lower tiers of government and does not specify a disbursement mechanism for disaster response and recovery.

5 - <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=ZW>

6 - World Bank analysis based on data from EM-DAT database 1975–2022, EM-DAT, CRED/UCLouvain, Brussels, Belgium, www.emdat.be; government reports; academic articles.

7 - Insurance Council of Zimbabwe, 2019. Cyclone Idai Impact Study Report.

8 - Sharma, Dhiraj; Alwang, Jeffrey Roger; Chingozha, Tawanda; Hoy, Christopher Alexander; Kurasha, Flora Marvellous Nyasha; Paez Rodas, Ananda. Reversing the Tide : Reducing Poverty and Boosting Resilience in Zimbabwe - Overview (English). Washington, D.C. : World Bank Group.

<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099925110032237739>

9 - Ibid.

The Disaster Risk Management and Civil Protection Bill (DRM Bill) is under preparation to address these gaps and replace the Civil Protection Act. The principles of the DRM Bill were adopted by the Cabinet in 2022, but it is unclear when the bill will be finalized.

GoZ's risk financing instruments are inadequate for the scale of losses and range of perils Zimbabwe faces. While Zimbabwe has been using sovereign parametric drought insurance from the African Risk Capacity (ARC) since 2019/20, the amount of cover purchased is very small, and reallocations are the main source of funding. In 2020, Zimbabwe received a payout of US\$1.4 million from its drought policy, benefiting over 155,000 people through direct cash transfers. In comparison, following the drought in 2016, reallocations amounted to US\$600 million (12 percent of the budget), mostly from public services, labor, and social welfare, as well as education. GoZ also uses several ex ante budget lines (often referred to as funds¹⁰), statutory funds that are financed through dedicated levies, the National Civil Protection Fund, and a general contingency budget for unforeseen expenditures.¹¹ These risk retention instruments are complemented by the National Disaster Fund, a donor-funded multi-currency account under the Ministry of

Finance and Economic Development (figure 1).

Use of domestic insurance is limited and severely constrained by macroeconomic volatility.¹² Zimbabwe's non-life insurance market is smaller than the markets of regional peers but comparable to other middle-income countries, and it has proved resilient to macroeconomic and regulatory shocks such as hyperinflation and exchange rate and currency volatility. Cover against climate risk is included in property insurance, but available policies do not pay out when a state of disaster is declared. Agriculture insurance covers about 3.5 percent of agriculture GDP value added. Weather index insurance has been available since 2015 but has failed to reach scale without public support.¹³ Through its subsidiary, AFC insurance, GoZ has been piloting macro-level area yield index insurance cover for farmers under the Pfumvudza input scheme over the period December 2022 to July 2023. The design and cost efficiency of the pilot should be reviewed before it is scaled up. In addition, the Victoria Falls Stock Exchange (VFEX) could enhance the resilience of the insurance market through investments to preserve the value of policies and rebuild trust.¹⁴

10 - These include a drought mitigation fund, and Ministry of Finance officials interviewed by the World Bank team indicated that there is also a flood mitigation fund, but the funding amounts were not provided and the specific line item in the budget could not be verified.

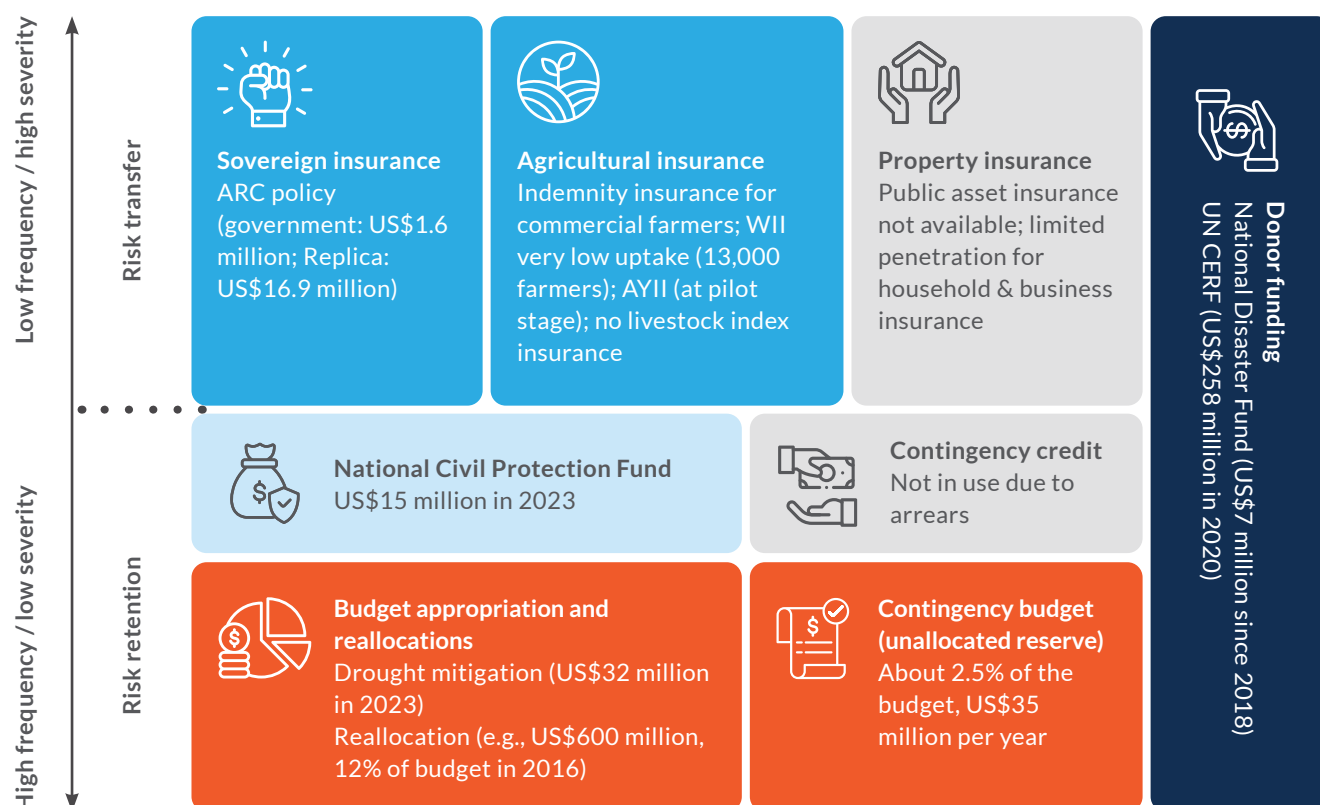
11 - The general contingency reserve is used for any unforeseen expenditures, including those from climate shocks, but it has mostly been used for the public service wage bill.

12 - Only 3 percent of adults have an insurance policy, excluding funeral cover, and only 4 percent of MSMEs have business insurance.

13 - On the non-technical side, insurers have noted four main issues: (i) premium affordability, (ii) farmer trust in the insurance provider, (iii) financial literacy, and (iv) the degree of correlation between the index and farmer outcomes (i.e., basis risk).

14 - The VFEX was launched in 2020 to attract foreign investors, and its market capitalization stood at US\$341 million in Q3 2022. It was established and is regulated by an act of Parliament, and funds through the exchange are accorded "free funds" status, which allows remittance out of Zimbabwe automatically.

FIGURE 1: STATUS OF RISK FINANCING INSTRUMENTS IN ZIMBABWE



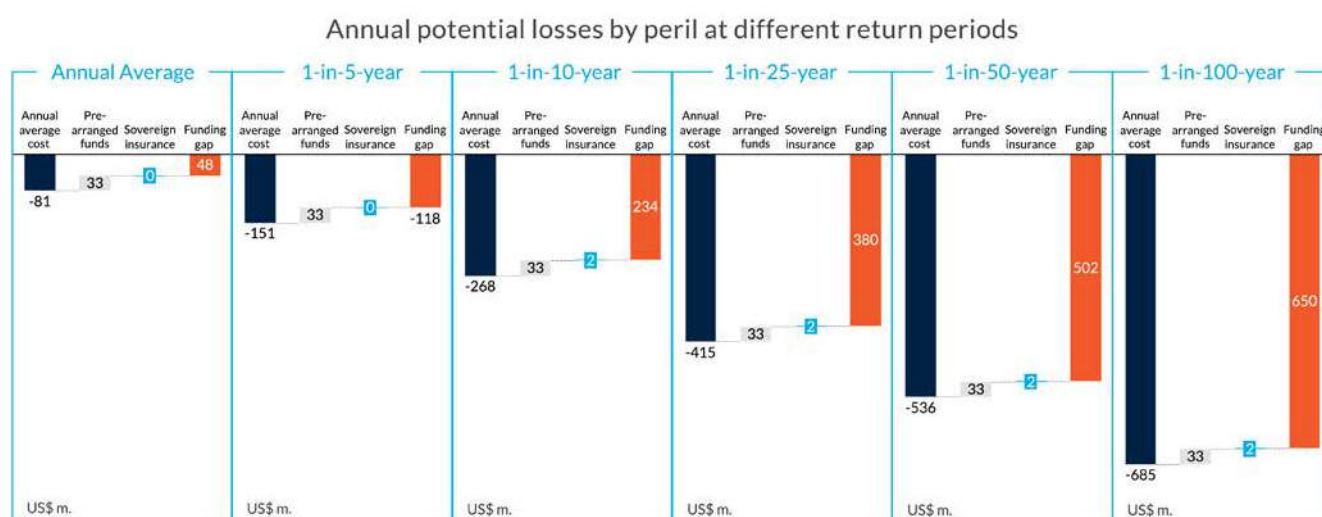
Source: World Bank analysis.

Note: ARC = African Risk Capacity; AYII = area yield index insurance; CERF = Central Emergency Response Fund; WII = weather index insurance.

There is a substantial gap between available pre-arranged funds and the average annual cost of disaster response. Findings from the funding gap analysis undertaken by the World Bank team estimate the average annual cost of disaster response is US\$81 million; the cost could reach US\$540 million for

1-in-50-year events. With only US\$33 million pre-arranged to finance disaster response, GoZ faces an annual funding gap of US\$48 million. The funding gap increases as the losses increase, given that the availability of finance remains constant (figure 2).

FIGURE 2: FUNDING GAP AT VARIOUS RETURN PERIODS ASSUMING PRE-ARRANGED FUNDS OF US\$33 MILLION



Source: World Bank analysis.

Strengthening the use of available instruments and expanding the range of risk finance instruments could increase efficiency in the use of limited public financial resources. Such efforts could generate savings of about US\$37 million for moderate loss events and up to US\$146 million for severe shock events, based on indicative analysis carried out by the World Bank. Under this analysis, the current risk-layering strategy—which consists of reserve funds of US\$33 million and budget reallocations—is compared against two more robust risk-layering strategies. The first (Strategy B) consists of a reserve fund of US\$60 million, contingent credit or grant of US\$142 million, and sovereign multi-peril insurance with a maximum payout of US\$338 million and a ceding share of 50 percent. In addition to protecting human capital against the impact of food insecurity, such a policy would be designed to protect the budget against the impact of physical risk on public assets. The second strategy (Strategy C) similarly consists of a reserve fund of US\$60 million to cover mild events, reallocation of up to US\$120 million for moderate events, and sovereign

insurance with a maximum payout of US\$360 million and 50 percent cession. A more in-depth financial modeling and technical analysis should be carried out to rightsize the potential financial instruments that the GoZ could consider.

GoZ recognizes that strengthening financial resilience is a key part of DRM, one that is complementary to physical resilience and critical to achieving the country's long-term development goals. Overall, creating a stable macroeconomic environment is a necessary condition for Zimbabwe's strengthening of financial resilience at all levels of society. A strategic approach to risk financing for climate-related disasters could help Zimbabwe emerge from the current polycrisis and prepare for other crises, such as economic shocks due to pandemics like COVID-19. Recommended options to strengthen financial resilience in Zimbabwe are summarized in table 1 and further described in chapter 6. The options are not mutually exclusive and can be implemented in parallel.

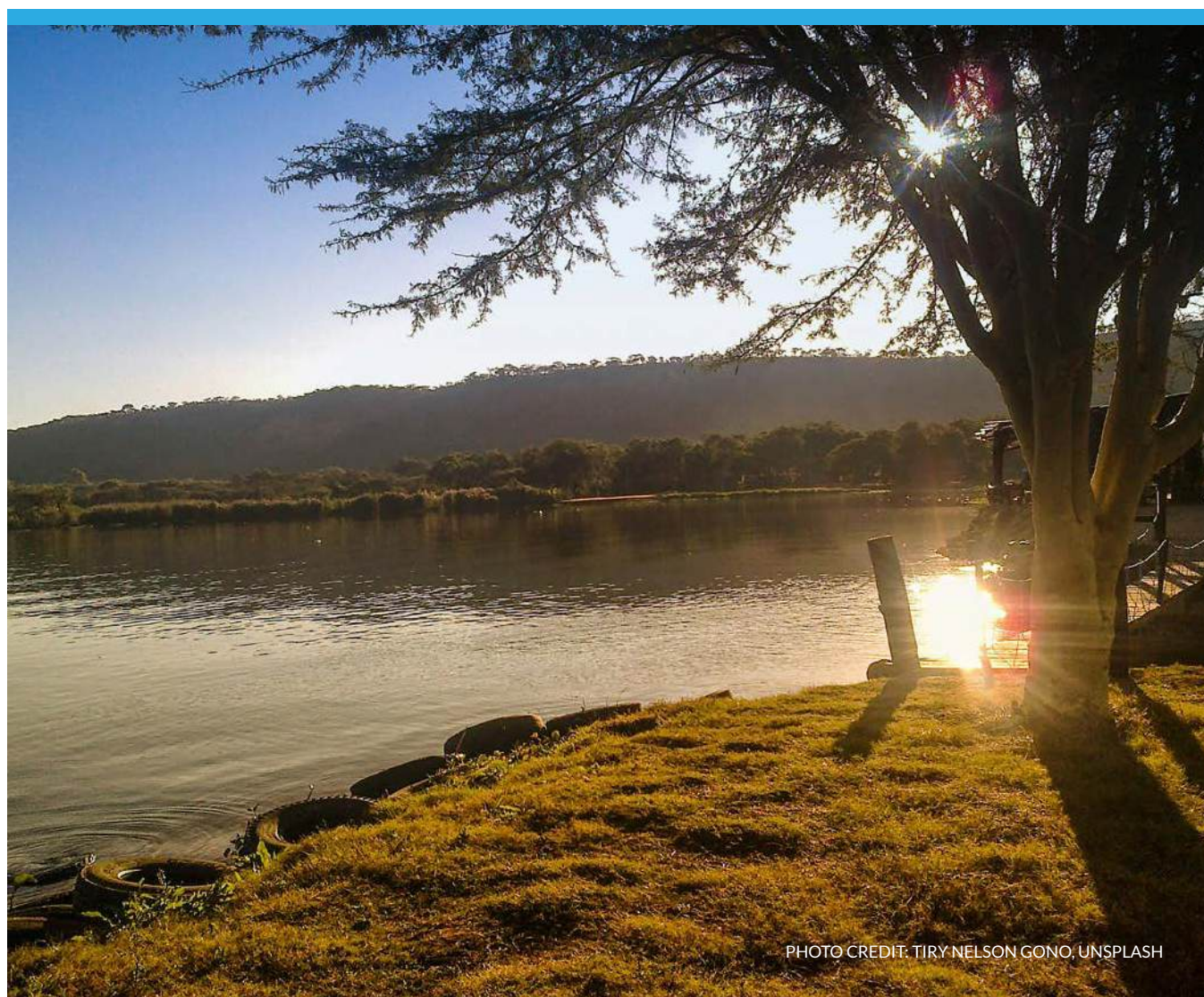


PHOTO CREDIT: TIRY NELSON GONO, UNSPLASH

Table 1: Recommendations to strengthen financial resilience in Zimbabwe

Time frame	Improve the policy framework, public financial management, and risk-informed decision-making	Strengthen the financial sector and enhance the use of insurance	Strengthen existing instruments and adopt new risk financing instruments
Short term	<ul style="list-style-type: none"> • Develop a comprehensive disaster risk finance strategy • Fast track the adoption of the DRM Bill and address gaps in regulations on emergency procurement • Strengthen the technical capacity of the MoFED on disaster risk finance through a dedicated capacity-building program 	<ul style="list-style-type: none"> • Scale up agriculture insurance review the AYII pilot design and cost-benefit ratio • Consider PPP approach to invest in key public goods like data, insurance awareness, and local insurance market's technical capacity for index agriculture insurance 	<ul style="list-style-type: none"> • Conduct a feasibility study on public asset insurance and review the national public asset registry
Medium term	<ul style="list-style-type: none"> • Develop a public expenditure tracking system for disaster and crisis response • Within the budgeting framework, develop a system for proactive planning for reallocations to minimize unintended negative consequences from delayed or canceled expenditures • Develop a public asset management policy that addresses insurance of public assets and critical infrastructure 	<ul style="list-style-type: none"> • Craft a capital market development strategy to grow and deepen the market by facilitating contingency and climate finance • Support insurance awareness creation among farmers and MSMEs • Conduct a review of the impact of aggregate exclusion due to national declaration of disaster on the insurance sector, households, and businesses; identify appropriate structural or regulatory interventions 	<ul style="list-style-type: none"> • Establish a dedicated multiyear disaster reserve fund for moderate-risk events in line with global good practice; this could be done by strengthening the National Disaster Fund and graduating it from donor dependence • Develop and implement a PPP-based public asset insurance program to protect the budget against flood and tropical cyclone
Long term	<ul style="list-style-type: none"> • Develop a national database on the occurrence and impact of natural disasters 		<ul style="list-style-type: none"> • Strengthen the institutional capacity and shock responsiveness of the social protection system • Consider risk transfer solutions to limit impact of drought on electricity and protect the national budget

Source: World Bank.

Note: short term = six months to one year; medium term = one to three years; long term = three to five years. AYII = area yield index insurance; MoFED = Ministry of Finance and Economic Development; MSMEs = micro, small, and medium enterprises; PPP = public-private partnership.

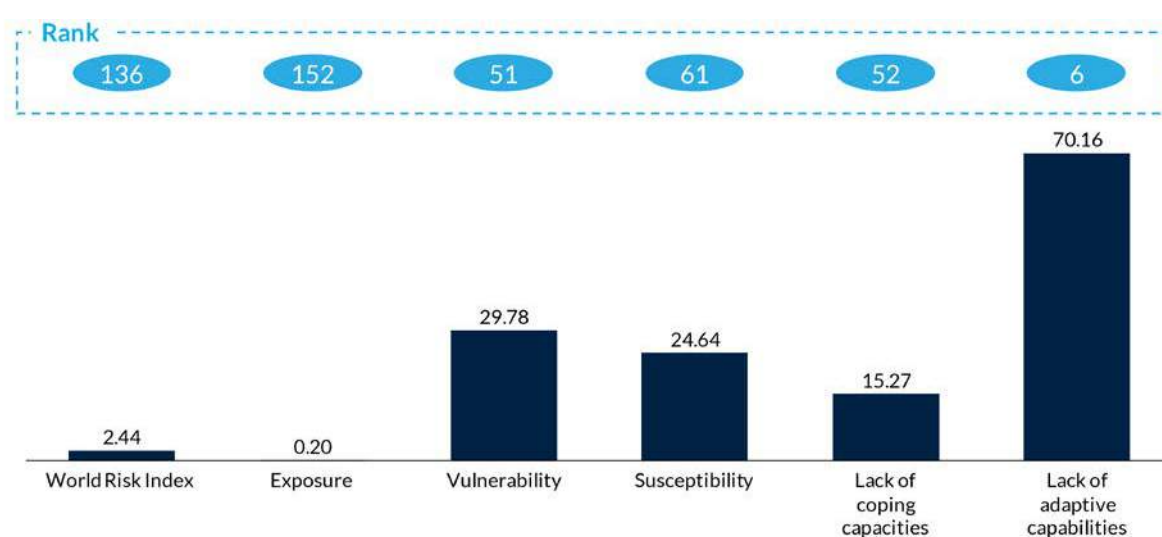
1. ASSESSMENT OF CLIMATE RISK AND THE IMPACT OF PAST DISASTERS

1.1 Overview of disasters

Zimbabwe's climate risk is ranked low by the World Risk Index (See figure 3) and medium by the Inform Risk Index.¹⁵ Zimbabwe's relatively low risk score is largely due to its low level of exposure to natural hazards; 151 countries have higher general

exposure levels.¹⁶ What drives the disaster risk score of Zimbabwe is the country's vulnerability, and in particular its lack of adaptive capacities. While the exposure of Zimbabwe is driven by largely exogenous factors, such as physical characteristics, almost all the components of its vulnerability are endogenous and can be positively influenced through policy.

FIGURE 3: ZIMBABWE'S SCORES ON WORLD RISK INDEX 2022



Source: Bündnis Entwicklung Hilft and Ruhr University Bochum–Institute for International Law of Peace and Armed Conflict (IFHV), “WorldRiskReport 2022—Focus: Digitalization,” 2022,

<https://reliefweb.int/report/world/worldriskreport-2022-focus-digitalization>

Note: Before calculating the World Risk Index, all indicators are normalized to the value range of 0 to 100, with higher values representing worse circumstances or initial conditions. Numbers in brackets refer to the ranking of the category relative to 193 countries. The higher the ranking the better it is for the country. The index is a function of exposure and vulnerability; vulnerability is a geometric mean of susceptibility, lack of coping capacities, and lack of adaptive capacities.

15 - Zimbabwe ranks 136th out of 193 countries in the 2022 World Risk Report; see Bündnis Entwicklung Hilft and Ruhr University Bochum–Institute for International Law of Peace and Armed Conflict (IFHV), “WorldRiskReport 2022—Focus: Digitalization,” 2022, https://weltrisikobericht.de/wp-content/uploads/2022/09/WorldRiskReport-2022_Online.pdf. On the Inform Risk Index for mid-2023, Zimbabwe ranks as “medium” and is 52nd out of 191 countries (83rd out of 191 in terms of hazard exposure). See European Commission, “INFORM Risk Index Mid 2023,” <https://drmhc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data/moduleId/1782/id/453/controller/Admin/action/Results>

16 - Bündnis Entwicklung Hilft and Ruhr University Bochum–IFHV, “WorldRiskReport 2022—Focus: Digitalization.”

From the policy perspective, it is more important to understand the absolute impact of different shocks (rather than how Zimbabwe compares to other countries). Overall, about 57 disaster events occurred in Zimbabwe between 1975 and 2022, with estimated total economic losses of at least US\$7.5 billion, the bulk of which were uninsured. Among the hazards that Zimbabwe is exposed to, drought is especially significant: of people affected by any disasters in the country, 95 percent were affected by drought, and drought has caused the most damage and losses due to extensive impact on productivity, livelihoods,

and food security. Storms account for a fifth of total damage but affect only 1 percent of people; their impact is largely through damage to physical assets and infrastructure¹⁷. Flood events occur more frequently than storms, but their impact tends to be localized, and damage is thus comparatively lower. Nearly half of all disaster events in Zimbabwe were localized epidemic outbreaks of cholera and typhoid. These are probably the deadliest perils; however, the number of deaths from drought is difficult to estimate, given its mostly indirect nature (table 2).

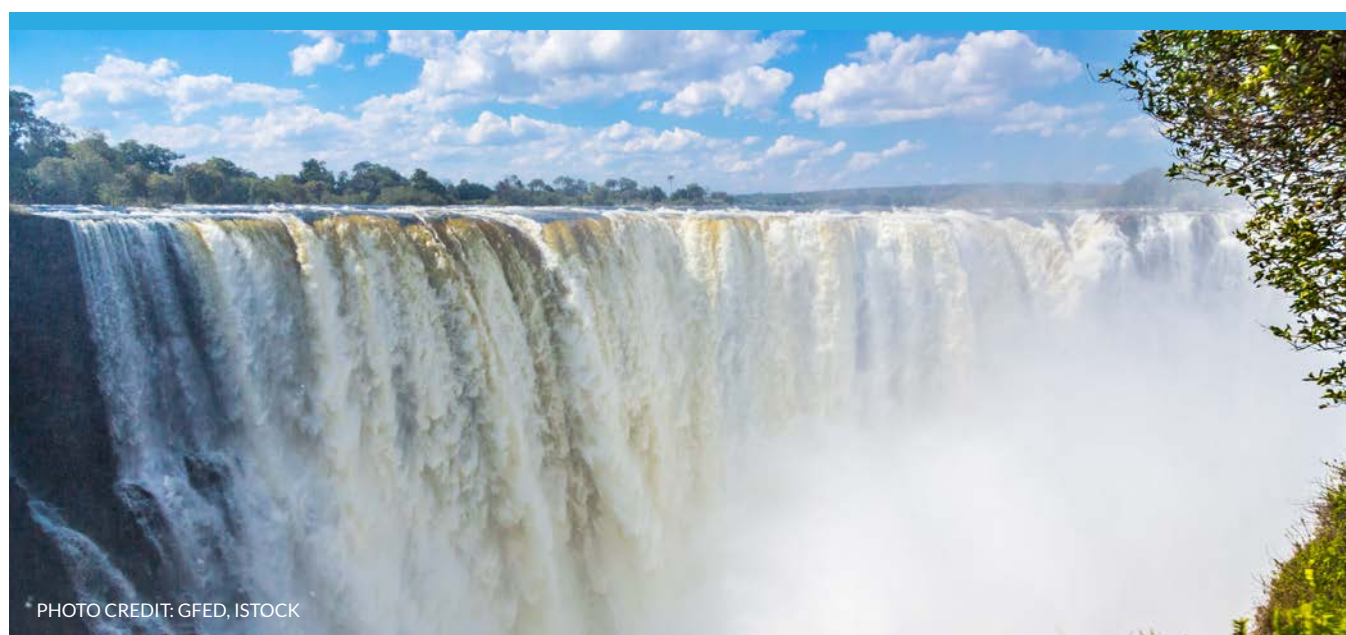
Table 2: Impact of disasters in Zimbabwe by type of peril, 1975–2022

Peril	Number of events	Number affected	Number of deaths	Total damage (US\$, millions)
Drought	9	28,835,118	NA	5,532
Epidemic	24	635,680	7,164	74
Flood	15	344,022	325	564
Storm	9	391,084	942	1,411
Total	57	30,205,904	8,431	7,581

Sources: EM-DAT database 1975–2022, EM-DAT, CRED/UCLouvain, Brussels, Belgium, www.emdat.be; government reports; academic articles.

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

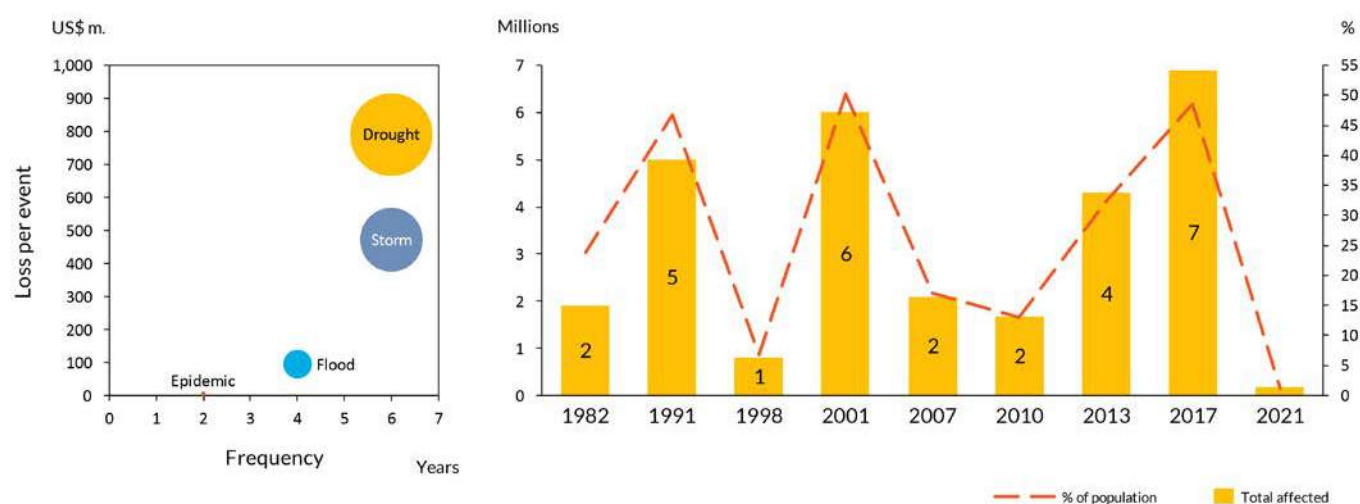
17 - EM-DAT database 1975–2022, EM-DAT, CRED/UCLouvain, Brussels, Belgium, www.emdat.be; government reports; academic articles.



Drought, storms, and floods are the most serious perils in Zimbabwe (figure 4). Droughts are of high severity and medium frequency, while storms are of medium severity and medium frequency. As shown in figure 4 droughts occur in one of every six years, and each occurrence results in economic loss of US\$790 million on average. However, these figures mask great variability. Losses and damage from the 2021/22 drought are estimated at US\$2.5 billion. Storms occur in one of every six years, and losses vary widely; losses

from Cyclone Idai were estimated at US\$1.2 billion. Floods occur in one of every four years and result in economic losses of US\$94 million on average, though again, the impact of a specific event can be more severe. For example, losses from the 2003 flood are estimated at US\$295 million. It is also important to consider the concentration of losses; floods and storms have a localized impact with much higher per capita losses, while drought is more broadly distributed over space and population.

FIGURE 4: DISASTER RISK PROFILE OF ZIMBABWE, 1975–2022 (LEFT) AND POPULATION AFFECTED BY DROUGHT (RIGHT)



Sources: World Bank analysis based on EM-DAT database, EM-DAT, CRED/UCLouvain, Brussels, Belgium, www.emdat.be; government reports; academic articles; others.

Note: This empirical analysis provides average estimates based on historical occurrence.

The share of the population affected by drought is staggeringly high. On average, drought has affected 27 percent of the population annually, but during severe drought years nearly half the population is affected. Notably severe droughts in 1991/92, 2001, and 2017 affected 47 percent, 50 percent and 49 percent of the population respectively (figure 4, right side). Floods and storms have affected 0.3 percent of the population on average, although an extremely severe flood in 2000 affected 2.2 percent and a storm in 2019 affected 1.8 percent.

Despite Zimbabwe's currently low exposure to hazards, climate change is rapidly increasing the risks faced by the country. Climate change is increasing the frequency and severity of disasters in Zimbabwe. The number of disaster events has doubled over the last 10 years (figure 5). By the end of the century, the average temperature in Zimbabwe is projected to increase by 3°C, with a reduction in rainfall of up to 18 percent. Droughts and floods are also expected to increase in frequency and intensity in the next decades.¹⁸

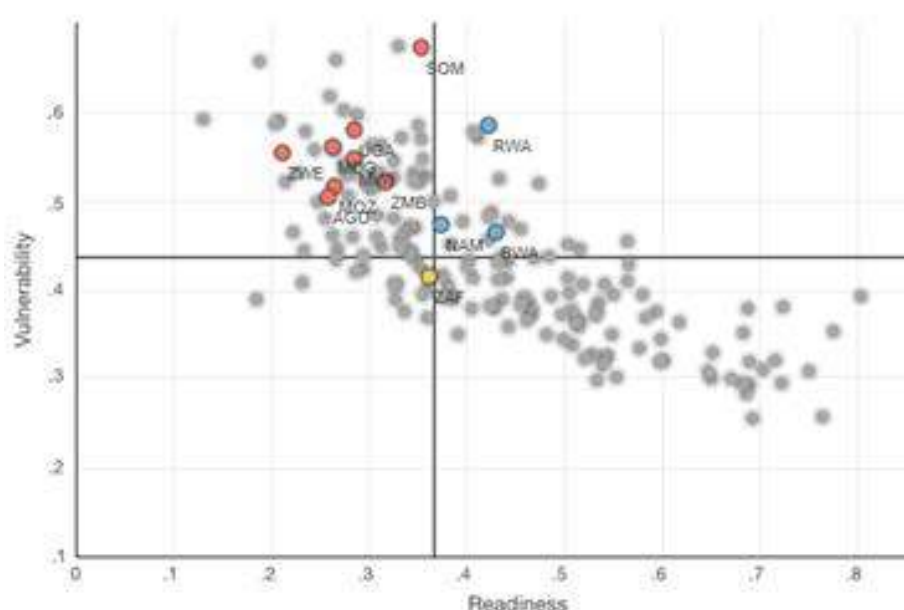
18 - Anna Brazier, Climate Change in Zimbabwe (Harare: Konrad-Adenauer-Stiftung, 2015), https://www.kas.de/c/document_library/get_file?uuid=6dfce726-fdd1-4f7b-72e7-e6c1ca9c9a95&groupId=252038

Under a no-adaptation strategy, the cost of climate change to the Zimbabwean economy could reach 2.3 percent of gross domestic product (GDP) by 2030.¹⁹ Given the existing vulnerabilities of the country, climate change is likely to rapidly increase the cost of shocks to the economy and will disproportionately affect the rural poor.

The high impact of climate-related disasters is driven by high levels of socioeconomic vulnerability and

lack of coping mechanisms (figure 5). Zimbabwe's readiness to improve resilience to disasters remains low according to the Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index.²⁰ Zimbabwe is in the top left quadrant, which represents countries that have the greatest challenges and urgently need to improve resilience. Zimbabwe's readiness to improve resilience is lower than that of regional peers, and of more at-risk countries like Mozambique and Somalia, ranked 7th and 14th most risky globally.

FIGURE 5: CROSS-COUNTRY COMPARISON OF VULNERABILITY AND READINESS TO IMPROVE CLIMATE RESILIENCE



Sources: ND-GAIN, "Matrix," <https://gain.nd.edu/our-work/country-index/matrix/>

19 - Pablo Benitez, et al., "Assessment of the Potential Impacts of Climate Variability and Shocks on Zimbabwe's Agricultural Sector: A Computable General Equilibrium (CGE) Analysis," World Bank, December 15, 2018, <https://documents1.worldbank.org/curated/en/525691552672839736/pdf/125979-REVISED-Final-Climate-AgReport-CGE-modeling-Dec-15-2018.pdf>

20 - The ND-GAIN Country Index summarizes a country's vulnerability to climate change in combination with its readiness to improve resilience. Countries are ranked from 1 (lower risk) to 184 (higher risk). Readiness is measured in three components—economic readiness, governance readiness, and social readiness. Out of 192 countries, Zimbabwe ranked 174 overall, with its vulnerability ranked 159 and readiness (which measures a country's ability to leverage investments and convert them to adaptation actions) ranked 187

Social vulnerability is primarily underpinned by general poverty and inequality as well as the prevalence of infectious diseases. The general inequality in Zimbabwe is the 15th worst in the world.²¹ Zimbabwe ranks 146th in terms of its Human Development Index (HDI) score; after years of improvement, its HDI score decreased over the past three years.²² Furthermore, the population of Zimbabwe is highly affected by HIV (in 2020 it had the fifth highest HIV/AIDS adult prevalence rate globally, with approximately 11.9 percent of the population HIV-positive).²³ This high HIV/AIDS prevalence rate increases the impact of shocks on individuals and also increases the cost of response for the health care system. Finally, a large proportion of the population in Zimbabwe is constantly food insecure and easily slips into hunger following shocks that affect disposable income of households or induce inflation.²⁴

Weak physical infrastructure further undermines resilience. In 2021, only 49 percent of the population had access to electricity²⁵; in 2019, improved water was available to only 77²⁶ percent of people. Only 25 percent of roads in the country are in good

condition,²⁷ making them vulnerable to shocks such as floods. Houses in Zimbabwe are also highly vulnerable, especially in rural areas, where 80 percent of houses are built with traditional materials that have low resilience.²⁸ However, the Government of Zimbabwe (GoZ) is making significant efforts to improve building standards—for example, it approved a Zimbabwe National Human Settlements Policy in 2020.²⁹

1.2 Droughts

Droughts impact Zimbabwe's economy and the livelihoods of people primarily through their impact on agricultural productivity and to a lesser extent through the impact on electricity generation.³⁰

Agriculture contributes approximately 11 of Zimbabwe's GDP and supports the livelihoods of about 67 percent of people. The country's losses, primarily drought-induced agricultural losses, stand at an average of 0.4 percent of GDP annually (7.3 percent of agricultural GDP), but in catastrophic years losses can reach up to 1.8 percent.³¹

21 - World Bank, "Gini Index," https://data.worldbank.org/indicator/SI.POV.GINI?most_recent_value_desc=true

22 - United Nations Development Programme, "Human Development Reports: Zimbabwe," September 8, 2022, <https://hdr.undp.org/data-center/specific-country-data#/countries/ZWE>

23 - CIA World Factbook, "HIV/AIDS-Adult Prevalence Rate," <https://www.cia.gov/the-world-factbook/about/archives/2021/field/hiv-aids-adult-prevalence-rate/country-comparison>

24 - Concern Worldwide and Welthungerhilfe, "2022 Global Hunger Index: Food Systems Transformation and Local Governance," 2022, <https://www.globalhungerindex.org/pdf/en/2022.pdf>

25 - World Bank. "Access to Electricity (% of Population)." World Development Indicators, The World Bank Group, 2020, data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=ZW. Accessed 2 Aug. 2023

26 - Zimbabwe National Statistics Agency (ZIMSTAT) and UNICEF. (2019). Zimbabwe Multiple Indicator Cluster Survey 2019, Survey Findings Report. Harare, Zimbabwe: ZIMSTAT and UNICEF

27 - United Nations Economic Commission for Europe, "Casualties on Zimbabwe's Roads Call for Stronger Political Commitment, According to UN Road Safety Review," January 12, 2022, <https://unece.org/sustainable-development/press/casualties-zimbabwes-roads-call-stronger-political-commitment>

28 - Tonderayi Mukeredzi, "New Construction Standards Push Zimbabweans to Swap Traditional Materials for Cement Bricks to Protect Homes from Extreme Weather, Curb Deforestation and Conserve Wetlands," Reuters Foundation News, May 10, 2022, <https://news.trust.org/item/20220510065821-jvslu/>

29 - Government of Zimbabwe Ministry of National Housing and Social Amenities, "Zimbabwe National Human Settlements Policy (ZNHSP)," September 16, 2021, <https://ucaz.org.zw/wp-content/uploads/2019/08/Final-Zimbabwe-National-Human-Settlements-Policy-2020.pdf>

30 - Puja Daya, "Addressing Drought in Zimbabwe: Applying Nuclear Science to Understand Groundwater and River Dynamics," International Atomic Energy Agency, October 11, 2021, <https://www.iaea.org/newscenter/news/addressing-drought-in-zimbabwe-applying-nuclear-science-to-understand-groundwater-and-river-dynamics>

31 - Global Facility for Disaster Reduction and Recovery, "Zimbabwe: Agriculture Sector Disaster Risk Assessment," March 2019, <https://www.gfdrr.org/sites/default/files/publication/Zimbabwe%20Agriculture%20Sector%20Disaster%20Risk%20Assessment%20Report.pdf>

The negative impact of droughts on electricity generation is mainly due to the grid's heavy reliance on the one hydropower plant that supplies most of Zimbabwe's electricity and that in drought years operates well under its capacity. For example, the 2022 drought lowered the plant's capacity to approximately 30 percent percent.³² As Zimbabwe is constantly undersupplied, and as it mainly relies on diesel generators in the face of shortages, the undersupply in 2022 would have led to an additional minimum of 570 million liters of diesel consumption.³³

1.2.1 National-level impact of droughts on crop production

Average annual losses in the agricultural sector, which are primarily due to droughts, amount to about US\$126 million a year. Droughts take a massive toll on the livelihoods of people; for instance, the 2015/16 El Niño-induced drought pushed 4 million people into food insecurity. Moreover, increasingly frequent and severe droughts are making regions in southern and western Zimbabwe increasingly unsuitable for rain-fed maize cultivation, the main source of nutrition for the poorest households.³⁴

Risks to the agricultural sector not only have a dramatic impact on the livelihoods of poor households but can have a significant impact on the macroeconomic situation of the country. Zimbabwe grows over 20 types of crops, which are unevenly distributed across the country (See figure 6). Key staple food grains that are central to food security are maize, wheat, millet, sorghum, groundnuts, and beans. The export crops, a significant source of foreign currency, are tobacco, cotton, and sugarcane. Tobacco contributes on average 36.1 percent of the agricultural

GDP, and in 2016 was responsible for over 50 percent of agricultural exports. Cotton is also strategically important, contributing 12.6 percent to agricultural GDP³⁵. Furthermore, as the nonagricultural and agricultural sectors are often closely linked, Zimbabwe sees a significant level of correlation between agricultural output and GDP growth.



PHOTO CREDIT: GERRIT RAUTENBACH, ISTOCK

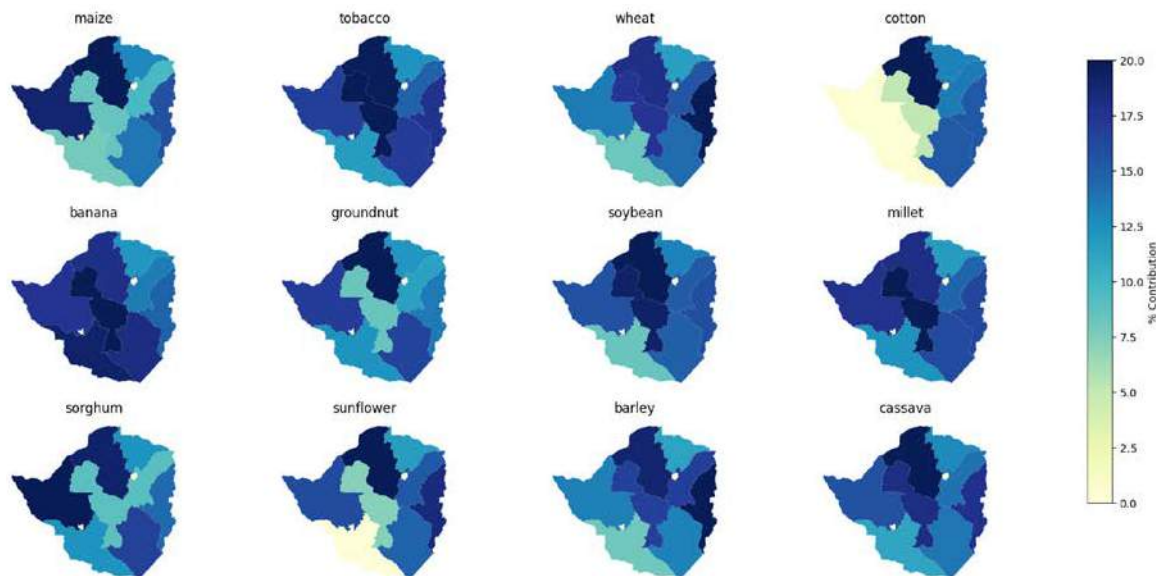
32 - The Herald. (2022, December 5). "National effort needed to fix power supply". The Herald, www.herald.co.zw/editorial-comment-national-effort-needed-to-fix-power-supply/

33 - This estimation assumes that the capacity is proportionate to output and takes a small generator as the alternative.

34 - Global Facility for Disaster Reduction and Recovery, "Zimbabwe: Agriculture Sector Disaster Risk Assessment," March 2019, <https://www.gfdrr.org/sites/default/files/publication/Zimbabwe%20Agriculture%20Sector%20Disaster%20Risk%20Assessment%20Report.pdf>

35 - World Bank. (2016). Zimbabwe Agriculture Sector Disaster Risk Assessment. World Bank, Washington, DC. <https://documents1.worldbank.org/curated/en/667021584421611242/pdf/Zimbabwe-Agriculture-Sector-Disaster-Risk-Assessment.pdf>

FIGURE 6: PROVINCIAL PRODUCTION OF MAIN CROPS IN ZIMBABWE

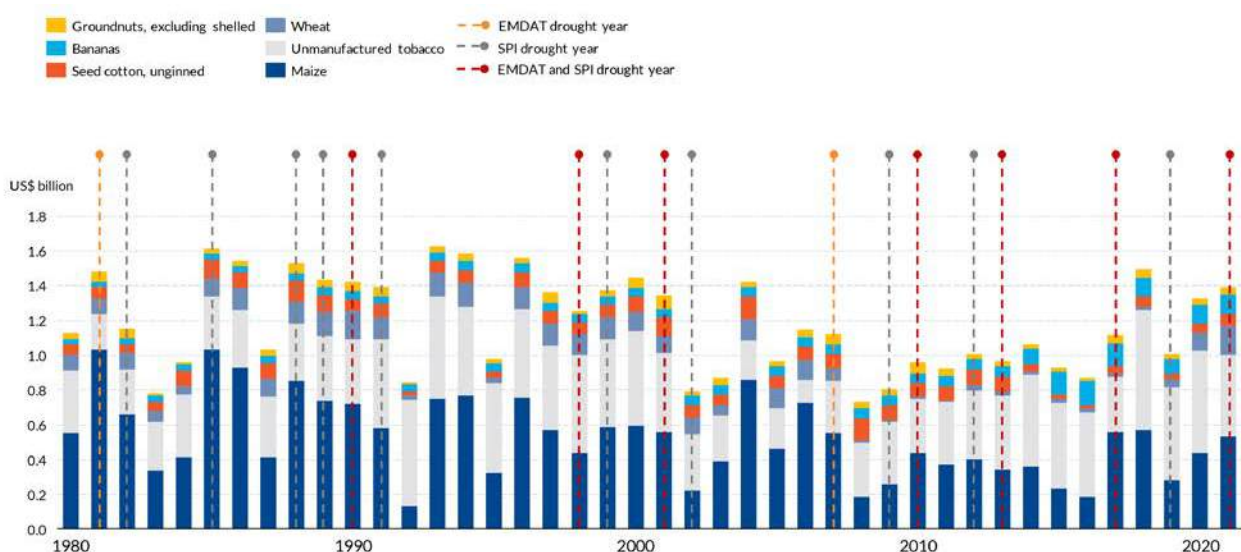


Source: World Bank analysis supported by RTLAB based on data from FAO and EM-DAT

Crops grown in Zimbabwe differ in their resilience to droughts and in the time it takes for the impacted crop to recover. These differences may be due to plants' inherent characteristics, locations where they are grown, and linkages to market, which enable a speedy and high-quality response. For example, tobacco, which is of strategic importance for the national budget, is often not negatively affected following prolonged droughts such as the ones in the early

1990s and mid-2000s. At the same time, maize values have fallen dramatically following almost all droughts. From the disaster risk finance (DRF) perspective, it is important to recognize that the recovery period for crops like maize can differ substantially and can be sped up with appropriate intervention. In the 1980s, maize values recovered quickly; but between 2008 and 2018, following prolonged periods of drought, maize remained persistently below average (See figure 7).

FIGURE 7: VALUE OF MAJOR CROPS GROWN IN ZIMBABWE OVER TIME (2016 CONSTANT US DOLLARS)



Source: World Bank analysis supported by RTLAB based on data from FAO and EM-DAT

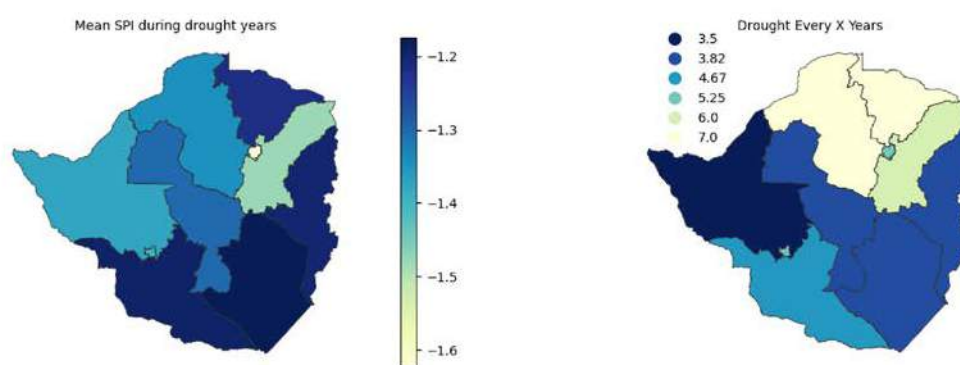
Note: SPI = Standardized Precipitation Index.

1.2.2 Subnational impact of droughts on crop production

Management of drought programs in Zimbabwe is largely conducted at the provincial level,³⁶ which is a desirable setup given the heterogeneity of drought patterns and the resulting impact on local jurisdictions. Droughts tend to be most severe in Matabeleland South, Manicaland, and Masvingo. However, those areas are not necessarily the most drought prone. Matabeleland North, Midlands, and

Manicaland have spent more time under drought conditions than the former provinces—approximately 30 percent of the previous 42 years. Matabeleland North experienced twice as many droughts (12) as Mashonaland Central and Mashonaland West (6). Mashonaland East experiences droughts every six years, but during drought years its Standardized Precipitation Index (SPI) values are the lowest on average among provinces, at -1.48. This contrasts with Matabeleland North, which is at the high end for drought onset and duration but which, on average, does not see extremely low levels of SPI (figure 8).

FIGURE 8: PROVINCIAL-LEVEL DATA ON AVERAGE DROUGHT INTENSITY (LEFT), AND RETURN PERIOD (RIGHT)



Source: World Bank analysis supported by RTLAB based on data from FAO, EM-DAT and NASA

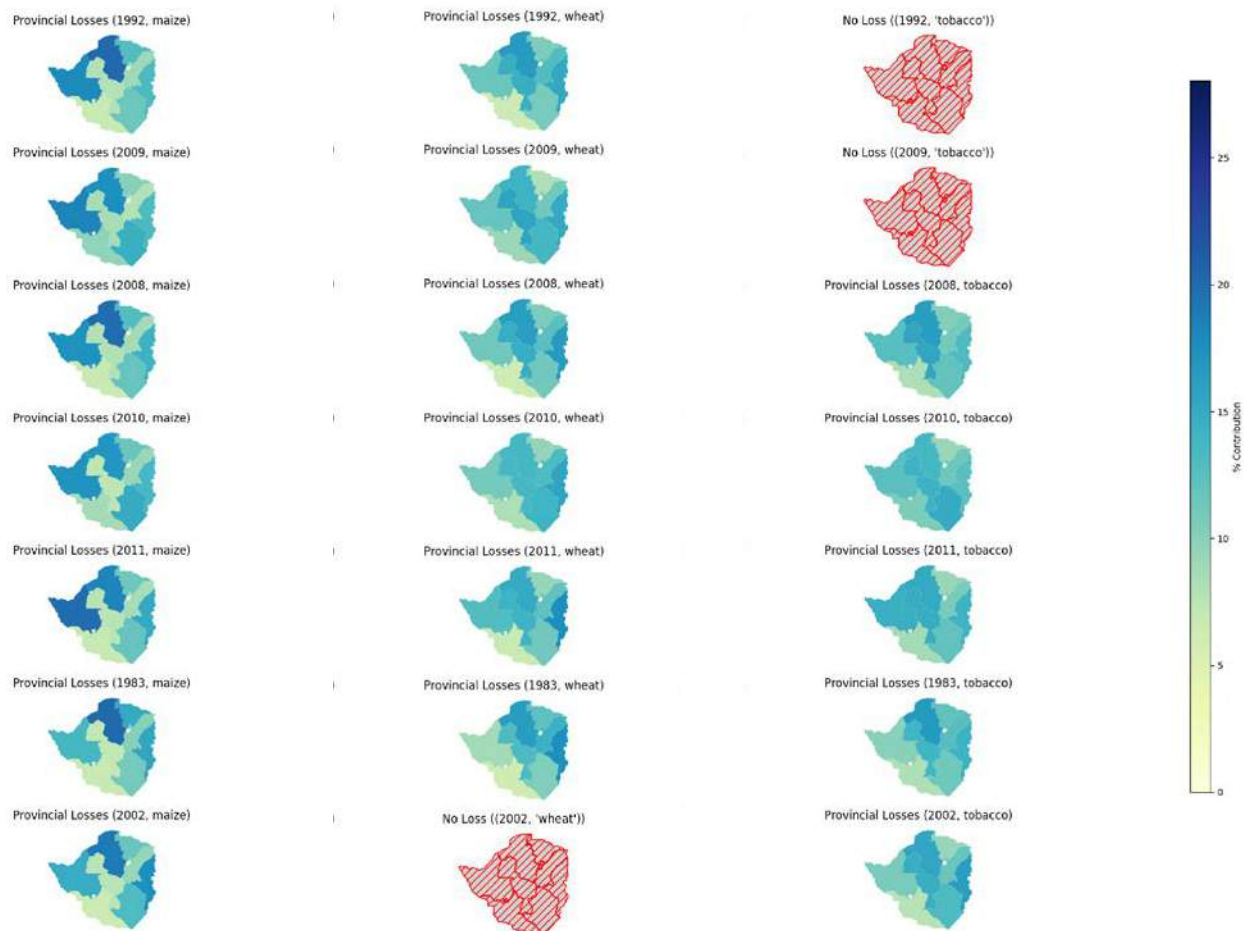
Note: The maps above depict drought hazard via three metrics: intensity, duration, and frequency based on the SPI (Standardized Precipitation Index). The SPI values are calculated for every three months from 1981 to 2022 at the provincial level using CHIRPS rainfall data. See C. Funk et al., “The Climate Hazards Infrared Precipitation with Stations: A New Environmental Record for Monitoring Extremes,” *Scientific Data* 2, 150066, <https://doi.org/10.1038/sdata.2015.66>. SPI values can be interpreted as follows: mildly dry ($0 > \text{SPI} > -0.5$), moderately dry ($-0.5 > \text{SPI} > -1$), severely dry ($-1 > \text{SPI} > -1.5$), and extremely dry conditions ($\text{SPI} \text{ less than } -1.5$). A drought is defined as a continuous period of negative SPI values reaching -1 or less and continuing until the SPI value becomes positive again. See T. B. McKee, N. J. Doesken, and J. Kleist, “The Relationship of Drought Frequency and Duration to Time Scales,” *Proceedings of the 8th Conference on Applied Climatology* 17, no. 22 (January 1993): 179–83.

In the case of maize, the northwest is the main source of yield; but depending on the spatial profile of the drought, the impact varies from year to year (figure 9). In some years, Matabeleland North drives 25 percent of total losses, while in other years, Mashonaland West contributes a larger proportion. For wheat, the highest contributor to loss is often the province of

Manicaland, where wheat is commonly grown but at a lesser concentration than maize. Losses in tobacco are comparatively evenly distributed and low, even in 1992, the year with the highest drought-related losses in the last five decades, which suggests resilience in the value chain. Underlying factors of resilience could be explored for adoption in other value chains.

36 - United Nations Convention to Combat Desertification, “National Drought Plan for Zimbabwe,” 2020, https://www.unccd.int/sites/default/files/country_profile_documents/1%2520FINAL_NDP_Zimbabwe.pdf

FIGURE 9: PROVINCIAL LOSSES BY CROP AND YEAR



Source: World Bank analysis supported by RTLAB based on data from FAO and EM-DAT

Note: Loss is the difference from the historical mean.

1.2.3 Impact of droughts on electricity production

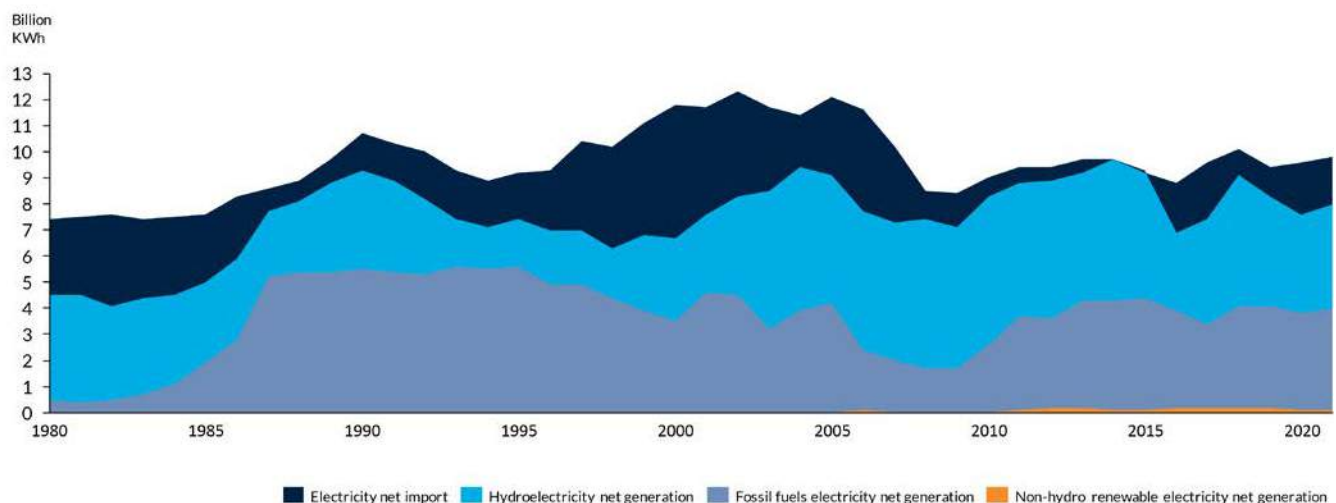
Zimbabwe faces a persistent power supply deficit, as the actual power capacity, which ranges between 1,300 MW and 1,500 MW, remains well below the installed capacity of approximately 2,470 MW. The gap is primarily due to the following factors: persistent

droughts leading to diminished water levels in the Kariba Dam, coal shortages, high fuel costs, and poor maintenance of power stations. The power deficit is counterbalanced through expensive electricity imports from Zambia and Mozambique (See figure 10) and through private generation with backup units.³⁷ However, the high price of sourcing electricity this way results in power outages.³⁸

37 - Florence Tan, "Zimbabwe to Start Operating New Coal Power Unit by March," Reuters, February 8, 2023, <https://www.reuters.com/markets/commodities/zimbabwe-start-operating-new-coal-power-unit-by-march-2023-02-08/>

38 - Jon Lane et al., "Mini-Grid Market Opportunity Assessment: Zimbabwe," Sustainable Energy for All Africa Hub, African Development Bank, Carbon Trust, and SNV, December 2018, https://greenminigrid.afdb.org/sites/default/files/gmg_zimbabwe-2.pdf

FIGURE 10: ON-GRID ELECTRICITY GENERATION IN ZIMBABWE



Source: Energypedia, "Zimbabwe Energy Situation," https://energypedia.info/wiki/Zimbabwe_Energy_Situation

1.3 Floods

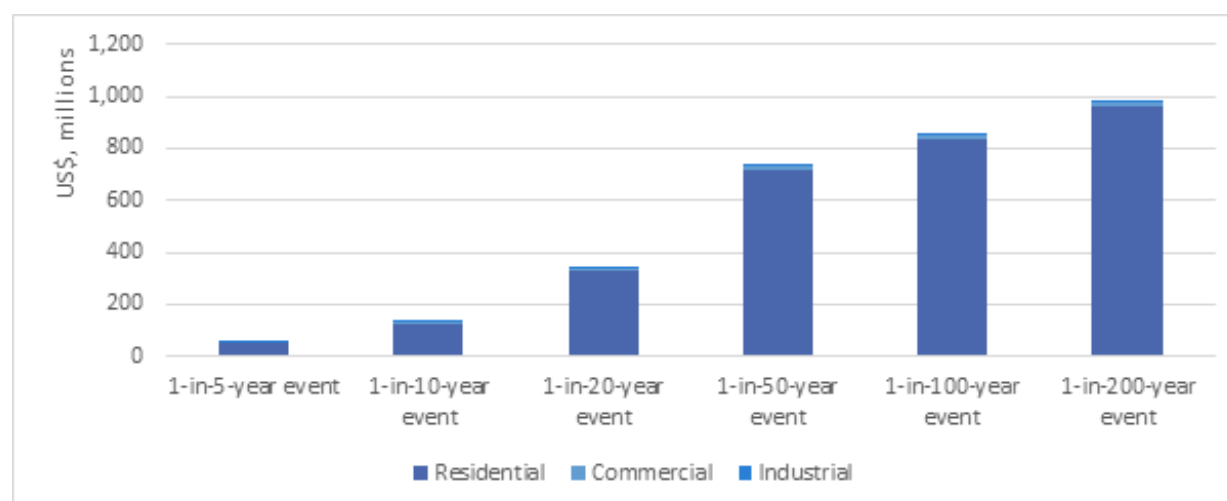
Floods are among the most damaging perils in Zimbabwe: on average, every five years a flood event causes losses estimated at US\$54 million. Zimbabwe has experienced three major floods in the last decade.³⁹ The risk of flooding is increased by the occurrence of tropical cyclones that form over the Indian Ocean. Mass floods were among the main reasons why Cyclone Idai in 2019 caused such widespread damage and loss.⁴⁰ Floods affect between 15,000 and 38,000 people a year and range from frequent but localized events to

those that are rarer but potentially catastrophic in scale (figure 11). Although sourcing funds for response to less costly and frequent events may be relatively easier, it is important to have transfer mechanisms that allow swift support to local governments and communities. A different approach is required for large flooding events, like those caused by cyclones or unusual precipitation that follows a drought. For those rare, twice-a-century events, the cost of damage can exceed US\$0.7 billion, creating a liability for the government that cannot be addressed through the budget.

39 - Over the past 10 years, Zimbabwe has experienced three major flooding events. In February 2022, heavy rains caused flooding across six provinces in Zimbabwe, with an especially severe impact in Manicaland, where over 1,000 people were affected. A much larger-scale event occurred between December 2016 and March 2017 in Matabeleland North and Masvingo. This flooding resulted in 250 fatalities and over 100 injuries, and caused 2,000 people to lose their houses. Property damage was estimated at over US\$100 million. Finally, in January 2015, the six most exposed provinces experienced floods due to precipitation that exceeded the average by 150 percent, causing at least 10 deaths and hundreds of damaged houses (JBA Risk Management, 2023).

40 - Zimbabwe receives most of its rainfall between November and April, with average annual precipitation ranging from 380 mm in the drier regions to 730 mm in the wetter regions.

FIGURE 11: AVERAGE LOSSES FROM FLOOD AT DIFFERENT RETURN PERIODS



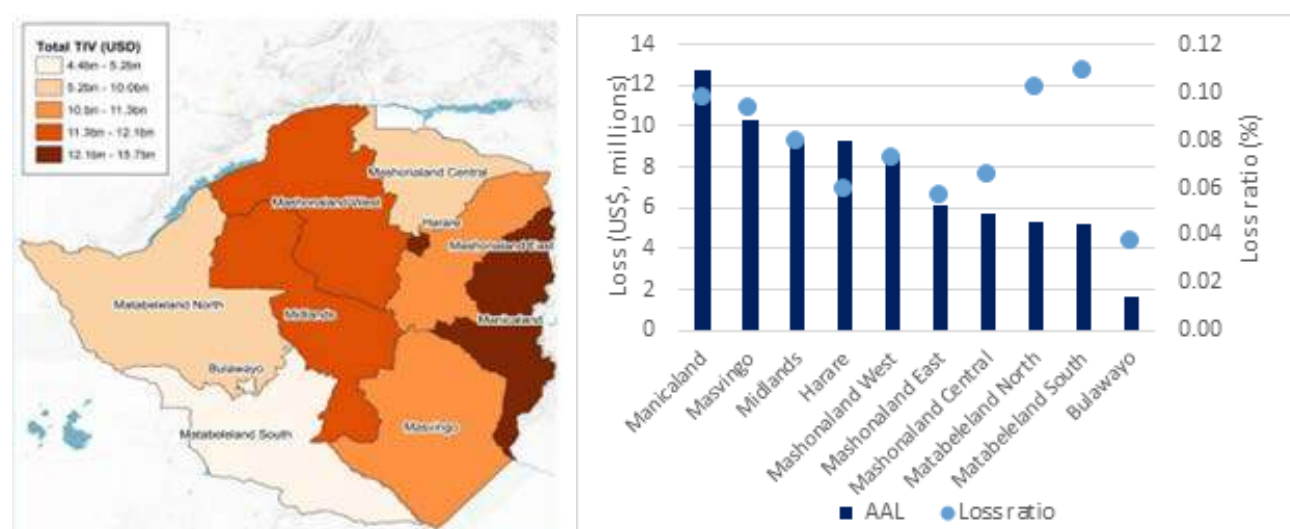
Source: JBA Risk Management, 2023. Zimbabwe Flood Risk Profile

Note: Occurrence Exceedance Probability (OEP), which considers the loss for the most damaging event per year.

The value of residential and commercial buildings and contents exposed to flood is concentrated in Mashonaland East and Manicaland and estimated at US\$97 billion, of which residential property accounts for 93 percent. The total expected cost of flooding is US\$74.3 million, with a loss ratio of approximately 0.08 percent.⁴¹ Manicaland has the highest loss (US\$12.7 million) followed by Masvingo, Midlands,

and Harare (at about US\$10 million each). Meanwhile, despite the relatively low value of their infrastructure, Matabeleland South and North Provinces have the highest loss ratios at 0.11 percent and 0.10 percent respectively (figure 12). River flood depths in Matabeleland South appear to be greater than for other provinces, which may explain the greater amount of damage when flooding occurs.

FIGURE 12: RESIDENTIAL AND COMMERCIAL PROPERTY VALUES AT RISK OF FLOOD DAMAGE (LEFT) AND LOSS AND DAMAGE RATIOS (RIGHT)



Source: JBA Risk Management, 2023.

Note: AAL = average annual loss; TIV = total insured value. AAL is the expected cost of flooding on average per year. This is calculated by averaging losses over each year of the simulation, in this case 10,000 years. TIV represents the total insured value or replacement value of assets or required exposure in the database to be modeled in US dollars. It can include buildings, contents, and business interruption values.

41 - This is calculated by averaging losses over 10,000 years of simulation.

In Zimbabwe, the link between poverty and vulnerability to floods is strong. The two poorest provinces, Matabeleland North and Matabeleland South,⁴² experience the highest percentage of infrastructure lost to floods (figure 12). On the one hand, floods hinder development and exacerbate poverty by displacing populations, damaging infrastructure, and negatively affecting education and livelihoods. On the other, poverty acts as a vulnerability amplifier, as poor families searching for sustainable livelihoods settle in flood-prone areas and build vulnerable structures.⁴³ Addressing post-shock costs of a flood, including the response, in a sustainable way requires breaking the cycle of poverty and flooding.

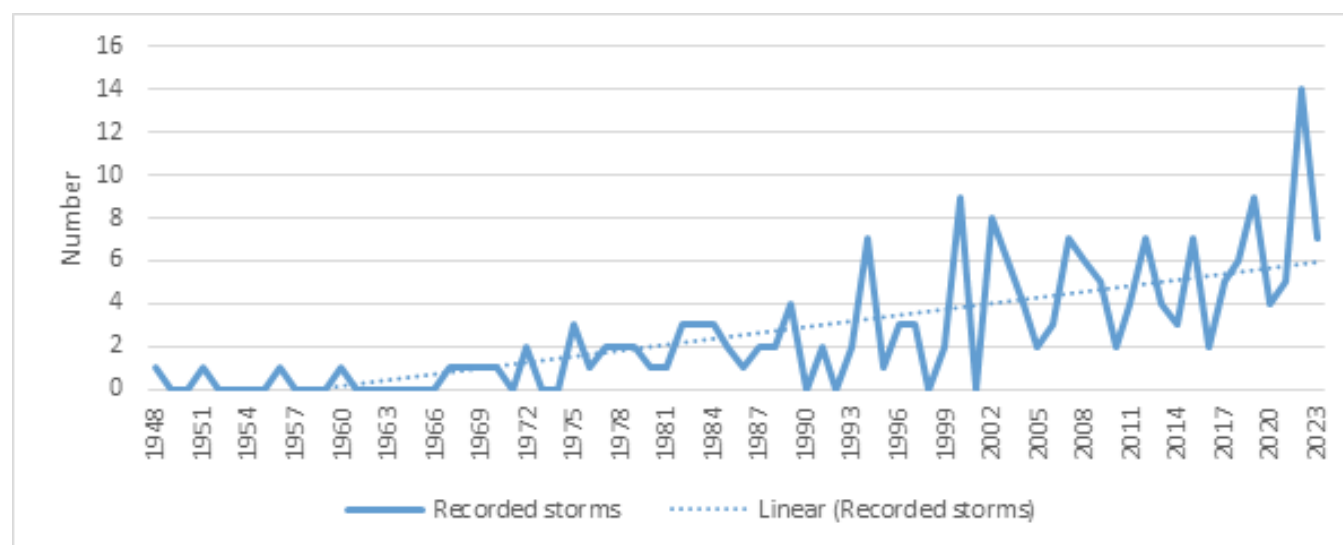
1.3.1 Storms

Over the past 20 years, Zimbabwe experienced at least six significant tropical cyclones, including Eline

in 2000, Japhet in 2003, Dineo in 2017, Idai in 2019, Chalane in 2020, and Eloise in 2021.⁴⁴ While the relative exposure of landlocked Zimbabwe to tropical cyclones remains relatively low, the absolute impact the country experiences is likely to greatly increase over the next decades. This is because there is a direct link between the intensity and frequency of tropical storms and climate change. Therefore, Zimbabwe must prepare for increasingly frequent and more extreme cyclones like Idai.⁴⁵

Cyclone Idai, which hit Zimbabwe and neighboring countries in 2019, was one of the most catastrophic weather-related disasters in the modern history of Africa.⁴⁶ Among countries experiencing a climate shock in 2019, Zimbabwe was the second most affected due to Idai's extreme impact.⁴⁷ Idai was also one of the deadliest and costliest tropical cyclones in the Southwest Indian Ocean.

FIGURE 13: ANNUAL NUMBER OF RECORDED STORMS IN EAST AFRICA



Source: EM-DAT database, EM-DAT, CRED/UCLouvain, Brussels, Belgium, www.emdat.be

42 - Zimbabwe National Statistics Agency, "Zimbabwe Poverty Atlas," August 2015, <https://www.zimstat.co.zw/wp-content/uploads/publications/Income/Finance/Poverty-Atlas-2015.pdf>

43 - Ernest Dube, Oliver Mtapuri, and Jephias Matunhu, "Flooding and Poverty: Two Interrelated Social Problems Impacting Rural Development in Tsholotsho District of Matabeleland North Province in Zimbabwe," *Jamba: Journal of Disaster Risk Studies* 10, no. 1 (2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6014082/>

44 - Solomon Mukwenha et al., "Health Emergency and Disaster Risk Management: A Case of Zimbabwe's Preparedness and Response to Cyclones and Tropical Storms: We Are Not There Yet!," *Public Health in Practice* 2 (November 2021), <https://www.sciencedirect.com/science/article/pii/S2666535221000562>

45 - Matthew Taylor, "Climate Change Making Storms Like Idai More Severe, Say Experts," *The Guardian*, March 19, 2019, <https://www.theguardian.com/world/2019/mar/19/climate-change-making-storms-like-idai-more-severe-say-experts>

46 - World Meteorological Organization, "WMO Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes (1970–2019)," https://library.wmo.int/doc_num.php?explnum_id=10989

47 - David Eckstein, Vera Künzel, and Laura Schäfer, "Global Climate Risk Index 2021: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2019 and 2000–2019," *Germanwatch*, January 2021, https://www.germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_2.pdf

The cyclone impacted approximately 270,000 people in Zimbabwe, displaced 51,000, and caused more than 600 fatalities. Significant agricultural losses adversely affected livelihoods and the entire economy, 1.4 million hectares of arable land were rendered unusable; and crop and livestock losses were estimated at US\$135.5 million, excluding stored grain. Damages to critical infrastructure and assets were severe and extensive; approximately 1,500 km of roads, 140 schools, and many health facilities were rendered unusable for several months, thereby disrupting basic services and market accessibility. Damages to nearly 17,000 houses were estimated at US\$205.3 million and damages to agricultural infrastructure, including irrigation systems were estimated at US\$4.9 million.⁴⁸ The GoZ recognized that the fragility of infrastructure was among the main drivers of impact and is working on policies to increase resilience.⁴⁹ These include construction standards in rural areas, where traditional building methods relying on timber and soil—used in some 80 percent of rural homes—heighten vulnerability.

1.4 Impact of disasters on household poverty

Approximately 80 percent of rural households in Zimbabwe depend on rain-fed agriculture.⁵⁰ Most households lack access to markets and to financial products, making them very vulnerable to the productivity fluctuations that are becoming more common due to climate change. The high exposure to climatic variability and drought means that shocks to agricultural production almost immediately push a large part of the population into food insecurity. For example, the drought of 2018/19 pushed 30 percent of the country into a food crisis or emergency.⁵¹ The number of extremely poor is estimated to have increased from 3 million in 2012 to around 4.4 million in 2018 due to the compound impact of drought, inflation, and shortage in foreign currency.⁵²



PHOTO CREDIT: JOHN HOGG, WORLD BANK

48 - In Buhera, Chimanmani, Chipinge, Mutasa, Makoni, and Mutare. ICZ, 2019. Cyclone Idai Impact Study Report.

49 - Kudzai Chatiza, "Cyclone Idai in Zimbabwe: An Analysis of Policy Implications for Post-Disaster Institutional Development to Strengthen Disaster Risk Management," Oxfam, July 11, 2019, <https://policy-practice.oxfam.org/resources/cyclone-idai-in-zimbabwe-an-analysis-of-policy-620892/>

50 - Johnson Siamachira, "Climate-Smart Farming Offers Hope to Zimbabwe's Smallholders and Livestock Keepers," ILRI News, March 23, 2022, <https://www.ilri.org/news/climate-smart-farming-offers-hope-zimbabwe%E2%80%99s-smallholders-and-livestock-keepers>

51 - Integrated Food Security Phase Classification, "Zimbabwe: Acute Food Insecurity Situation February–May 2019," February 28, 2019, <https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1151984/?iso3=ZWE>

52 - World Bank, Government of Zimbabwe, and Global Facility for Disaster Reduction and Recovery, "Zimbabwe– Rapid Impact and Needs Assessment (RINA)," May 2019, <https://reliefweb.int/report/zimbabwe/zimbabwe-rapid-impact-and-needs-assessment-rina-may-2019>

1.5 Impact of disasters on MSMEs

There are close to 2 million micro, small, and medium enterprises (MSMEs) in Zimbabwe, which add US\$14.2 billion to the economy, equal to around 50 percent of GDP.⁵³ The sector hires over 60 percent of all employed. Because shocks that affect the sector have a tremendous impact on both the economy and livelihoods, strengthening the resilience of the sector is of strategic importance to the country. MSMEs are often heavily exposed to shocks and present low levels of resilience.⁵⁴

Three characteristics of the MSME sector drive its vulnerability: small size, informality, and concentration in shock-prone sectors. The MSME sector in Zimbabwe is dominated by individual entrepreneurs and micro-businesses with one to five employees. Individual entrepreneurs and micro-businesses are jointly responsible for 96 percent of the ecosystem. The mean annual turnover of agricultural and wholesale/retail businesses is only US\$7,500 and US\$8,000, respectively. Furthermore, most businesses are informal, mainly individual entrepreneurs and micro-businesses (90 percent and 71 percent respectively); only businesses that hire over 31 staff operate formally, as most businesses currently perceive registering as too complicated or too costly. Finally, the MSME sector is dominated by businesses in the agricultural sector (39 percent) and wholesale and retail sector (37 percent). While

over the last decade, the former has been shrinking and the latter growing, the impact of disasters on the operations of many MSMEs remains significant.⁵⁵

Electricity is among the key inputs to production for many MSMEs, and its low reliability, which is partially due to droughts and partially due to poor infrastructure, undermines the MSME sector in Zimbabwe. Only 30 percent of businesses have access to electricity, and many rely on relatively expensive small solar systems.⁵⁶ The grid that supplies a vast majority of MSMEs is heavily impacted by droughts. As of 2023, 53 percent of Zimbabwe's electricity generation capacity is at the Kariba South hydropower station,⁵⁷ which in times of drought reduces or even fully shuts down production.⁵⁸ The dated thermal units are insufficiently maintained and are unable to make up for the shortages.⁵⁹ While Zimbabwe can import additional electricity, lack of foreign currency and limited fiscal space—required to subsidize prices—make such purchases difficult. At times of crisis, Zimbabwe struggles to finance electricity imports, so blackouts prevail.

In 2023, blackouts driven by drought lasted for up to 20 hours per day; such occurrences undermine businesses' productivity and force many to shut down, reduce production, work at night, or invest in backup capacity.⁶⁰ The companies that can afford backup generation face substantial investments in solar panels and storage or else need to rely on diesel generators.

53 - Finscope, "Micro, Small and Medium Enterprises (MSME) Survey Highlights: Zimbabwe," 2022, https://finmark.org.za/Publications/FinScope_MSME_Survey_Zimbabwe2022_Pocket_Guide.pdf. MSMEs are defined by the number of employees (according to the Small Enterprises Development Corporation Amendment of 2011), including individual entrepreneurs (0 employees), micro-businesses (1 to 5 employees), small businesses (6 to 30–40 employees, depending on the sector), and medium-size businesses (31–41 to 75 employees). MSMEs also include agricultural activities if 50 percent or more of the produced goods are sold.

54 - B. Dlamini and D. P. Schutte, "An Overview of the Historical Development of Small and Medium Enterprises in Zimbabwe," *Small Enterprise Research* 27, no. 3 (2020): 306–22, doi:10.1080/13215906.2020.1835.

55 - J. T. Chipika, "Financial Inclusion Strategy in Zimbabwe: Where From and Where To?" (slide presentation, NFIS II, 2022–2026 Launch, October 31, 2022), https://www.rbz.co.zw/documents/BLSS/FinancialInclusion/NFIS_II_LAUNCH_PRESENTATION_311022_-_DG_CHIPIKA.pdf

56 - Finscope, "Micro, Small and Medium Enterprises (MSME) Survey Highlights: Zimbabwe."

57 - Zimbabwe Power Company, "Kariba South Power Station," 2023, <https://www.zpc.co.zw/powerstations/2/kariba-south-power-station>

58 - Nyasha Chingono, "Zimbabwe Power Shortage to Worsen as Hydro Plant Halts Generation," *Reuters*, November 28, 2022, <https://www.reuters.com/business/energy/zimbabwe-power-shortage-worsen-hydro-plant-halts-generation-2022-11-28/>

59 - Nyasha Chingono, "Zimbabwe's New 300 MW Coal-Fired Plant Starts Feed into Grid," *Reuters*, March 21, 2023, <https://www.reuters.com/world/africa/zimbabwes-new-300-mw-coal-fired-plant-starts-feeding-into-grid-2023-03-21/>

60 - Andrew Mambondiyani, "In Zimbabwe, Drought Is Driving a Hydropower Crisis—and a Search for Alternatives," *Science*, March 8, 2023, <https://www.science.org/content/article/zimbabwe-drought-driving-hydropower-crisis-and-search-alternatives>

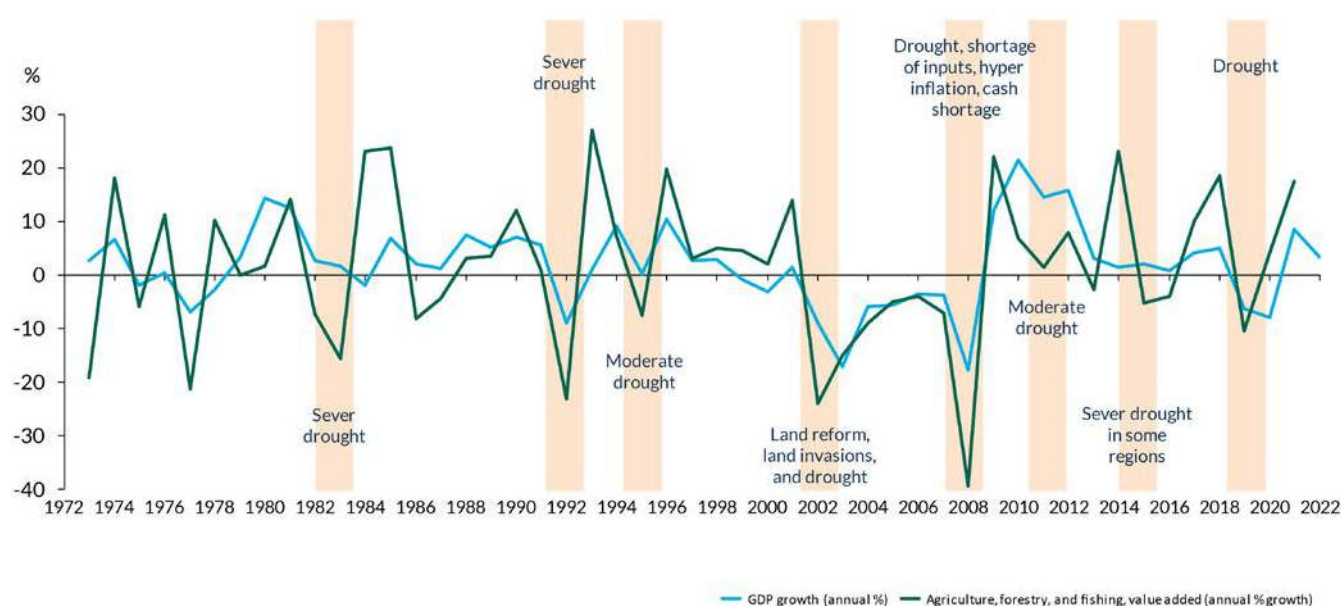
The inflationary pressure created by the need to provide backup power affects inputs to production for the entire economy. For example, the mobile network operator Netone reports using 450,000 liters of diesel a month, at a cost of US\$700,000, to sustain power.⁶¹ Such expenses partially explain the fall in the number of MSMEs active in high-input businesses such as manufacturing, which between 2012 and 2022 went from 9 percent of the total to just 5 percent.⁶²

1.6 Macroeconomic and fiscal impacts of disasters

The macroeconomic context of Zimbabwe is extremely unstable, and climatic shocks, particularly drought, exacerbate the already precarious conditions. The GDP growth in the country is highly volatile, and output declined for the entire first decade

of the 2000s. Both the challenges of the land reform and consecutive prolonged droughts—first in 1999 in parts of the country and then from 2001 to 2003 across the entire country—have contributed to this instability (See figure 14). Another severe drought in parts of the country from 2007 to 2009 deepened the depression, which correlated with hyperinflation and cash shortages that hindered trade and economic activity. During the first decade of the 2000s, inflation spiraled out of control, with prices doubling from one day to the other between 2007 and 2008 (See figure 15).⁶³ During that period, the Reserve Bank of Zimbabwe stopped producing macroeconomic data, making it difficult to study or isolate the impact of natural disasters from macroeconomic drivers.⁶⁴ In recent years, the GDP has been in a growth phase, but in 2022 growth was relatively low, at 3 percent, down from 8.5 percent growth a year earlier. The average in the past decade stood a low of 2.3 percent a year.⁶⁵

FIGURE 14: RELATIONSHIP BETWEEN AGRICULTURAL VALUE ADDED AND OVERALL GDP GROWTH



Source: Global Facility for Disaster Reduction and Recovery, "Zimbabwe: Agriculture Sector Disaster Risk Assessment," March 2019, <https://www.gfdr.org/sites/default/files/publication/Zimbabwe%20Agriculture%20Sector%20Disaster%20Risk%20Assessment%20Report.pdf>

61 - Farai Shawn Matiashe, "Zimbabwe: Telcos Econet, Netone Walk a Tightrope amid Power Crisis," Africa Report, January 24, 2023, <https://www.theafricareport.com/276774/zimbabwe-telcos-walk-a-tightrope-amid-power-crisis/>

62 - Chipika, "Financial Inclusion Strategy in Zimbabwe."

63 - Cato Institute, "The Hanke-Krus Hyperinflation Table," May 2013,

<https://www.cato.org/sites/cato.org/files/pubs/pdf/hanke-krus-hyperinflation-table-may-2013.pdf>

64 - Steve H. Hanke and Alex K. F. Kwok, "On the Measurement of Zimbabwe's Hyperinflation," Cato Journal 29, no. 2 (Spring 2009): 353–64, <https://www.cato.org/sites/cato.org/files/serials/files/cato-journal/2009/5/cj29n2-8.pdf>

65 - World Bank, Zimbabwe Country Economic Memorandum: Boosting Productivity and Quality Jobs (Washington, DC: World Bank, 2022), <https://documents1.worldbank.org/curated/en/09915010132227870/pdf/P1776070fe5e0c073087e00e3c04ec11f6e.pdf>

Zimbabwe's economy has been adversely affected by volatile exchange rate policies. In 2000–2008 and again in 2018–2021, the exchange system changed multiple times, including a ban on the use of US dollars. This volatility was not only disruptive but also led to the creation of a parallel exchange system. The resulting market uncertainty, coupled with weak economic fundamentals, has worsened productivity and further fueled inflation. The instability of the exchange rate has had a profound impact on the ability to respond to shocks, as sourcing of goods and services required for efficient response is difficult when importers and exporters cannot easily enter contracts with foreign agents.⁶⁶

Since 2018, inflation has once again reached levels well above 100 percent a year,⁶⁷ making budgetary planning, including for the purpose of disaster response, extremely difficult. During the current period of hyperinflation, prices have been particularly high for items relevant to response efforts, such as food and communication equipment (figure 15), creating a risk of substantial underbudgeting for response activities. Achieving macroeconomic stability, and especially price stability, is crucial for improving the country's financial resilience and capacity for long-term financial planning.

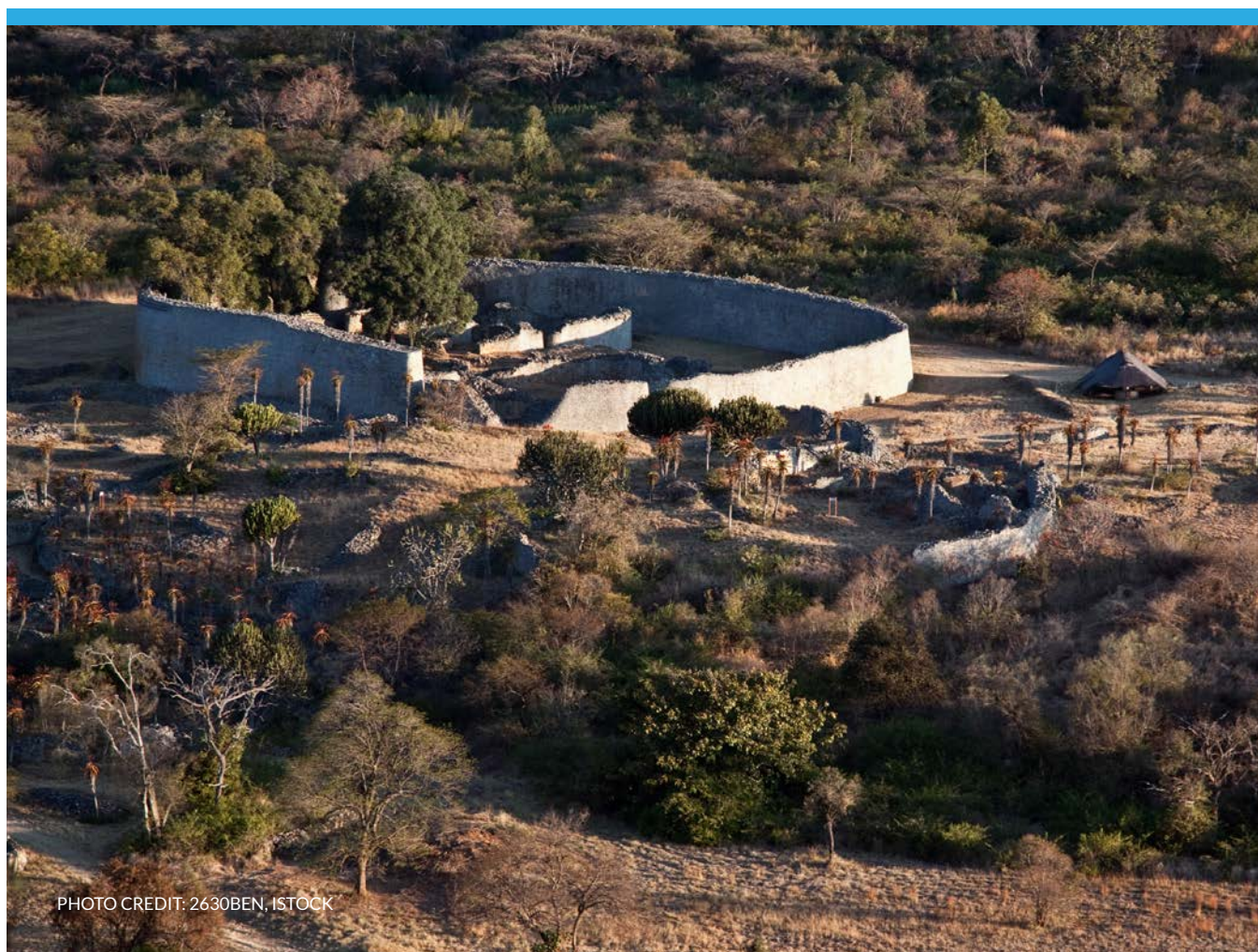
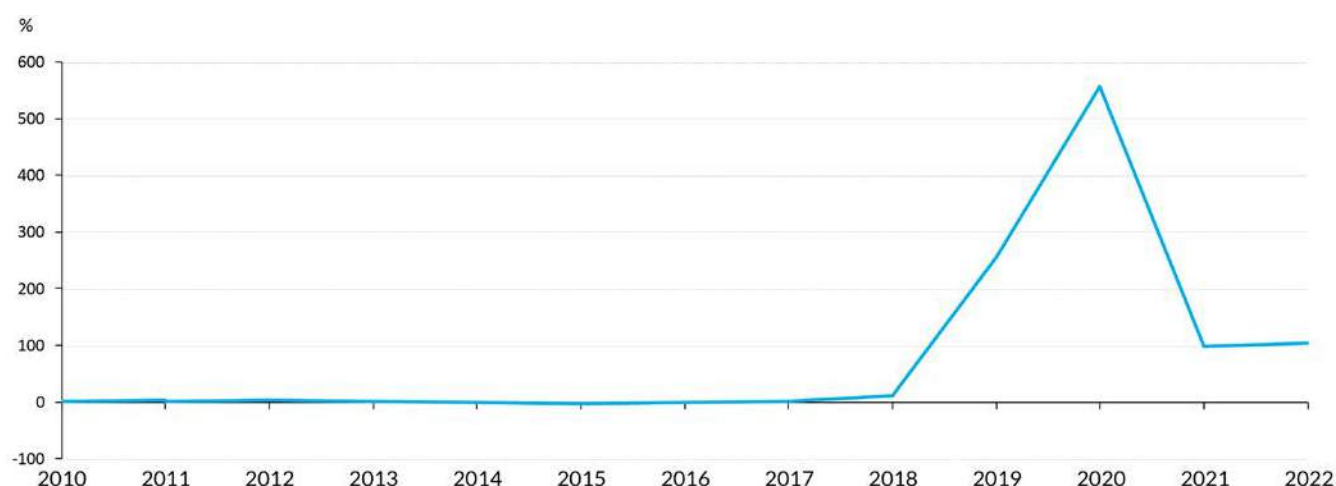


PHOTO CREDIT: 2630BEN, ISTOCK

66 - World Bank, Zimbabwe Country Economic Memorandum: Boosting Productivity and Quality Jobs (Washington, DC: World Bank, 2022), <https://documents1.worldbank.org/curated/en/099515010132227870/pdf/P1776070fe5e0c073087e00e3c04ec11f6e.pdf>

67 - World Bank, "Inflation, Consumer Prices (Annual %) - Zimbabwe," 2023, <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG?locations=ZW>

FIGURE 15: ANNUAL INFLATION RATE, 2010–2022

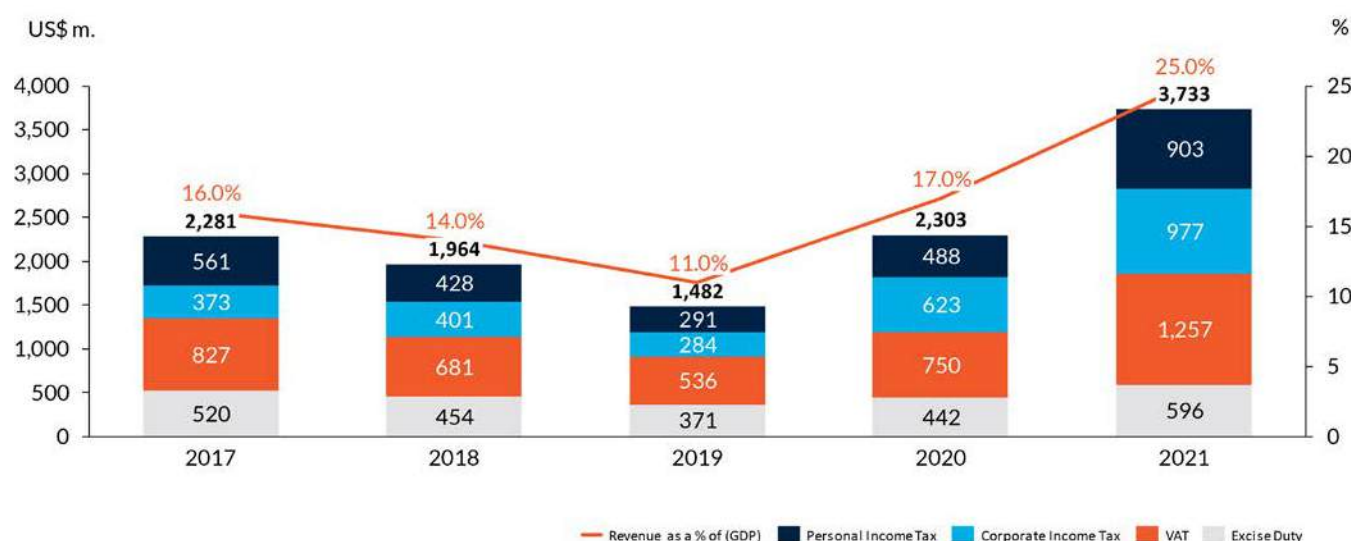


Source: Zimbabwe National Statistics Agency, <https://www.zimstat.co.zw/>

Shocks severely impact the fiscal base through reduced tax revenue. The ratio of budget revenue to GDP changed significantly between 2018, when it was 14.9 percent, and 2021, when it was an estimated 17.2 percent.⁶⁸ The top-four sources of tax revenue are value added tax (VAT; 25 percent), excise duty (20 percent), corporate tax (13 percent), and income

tax (13 percent) (figure 16). The share of informal employment, currently estimated at 76 percent, tends to expand during shocks, as the quality of jobs declines and the workforce shifts to the informal sector.⁶⁹ As key sectors are affected by disasters, the revenue from VAT and excise duty can fall very quickly.

FIGURE 16: COMPOSITION OF BUDGET REVENUE, 2017–2021



Source: UNICEF, “Zimbabwe: 2021 National Budget Brief,” July 2021, <https://www.unicef.org/esa/media/10201/file/UNICEF-Zimbabwe-2021-National-Budget-Brief.pdf>

Note: VAT = value added tax.

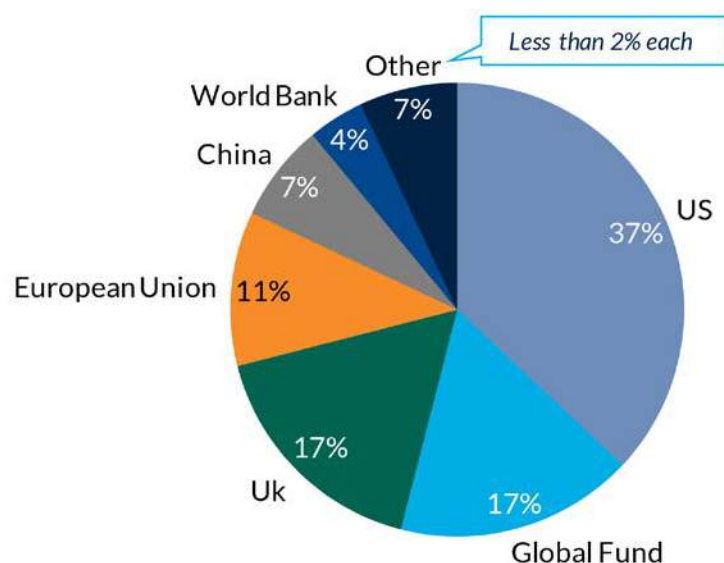
68 - International Monetary Fund, “Zimbabwe: Staff Report for the 2022 Article IV Consultation,” March 2, 2022, <https://www.imf.org/en/Publications/CR/Issues/2022/04/08/Zimbabwe-2022-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-516378>

69 - Afrobarometer. (2021). COVID-19 Lockdown a Crisis for Informal Traders Disadvantaged by Government Inaction. Afrobarometer, www.afrobarometer.org/publication/ad385-covid-19-lockdown-crisis-informal-traders-disadvantaged-government-inaction/

Zimbabwe is largely dependent on international donors to finance its budget, especially in response to shocks. In 2019, 26 percent of the budget was donor funded; the share was 15 percent in 2020 and 9 percent in 2021. Most aid comes from four bilateral arrangements—with the US (37 percent), UK (17 percent), the European Union (11 percent), and China (7 percent), as presented in figure 17. Humanitarian aid provides a cheap way to supplement

the budget, but the current geopolitical situation—specifically, increasing humanitarian needs in Europe and the worsening economic situation in all the main bilateral partners—may make it difficult for Zimbabwe to continue financing its budget deficit through aid. Significant dependence on international aid in financing response, such as to Cyclone Idai and COVID-19, comes with risks that must be mitigated.

FIGURE 17: DEVELOPMENT PARTNERS' CONTRIBUTION TO THE 2020/21 BUDGET (ESTIMATED)



Source: Government of Zimbabwe, “The 2020 National Budget Statement: Gearing for Higher Productivity, Growth and Job Creation,” November 14, 2019, https://www.veritaszim.net/sites/veritas_d/files/2020%20NATIONAL%20BUDGET%20FINAL.pdf

The overall reliability of the budget in Zimbabwe in normal years is relatively good, but disasters lead to significant overspending. In 2016 the actual expenditure was 23 percent above the approved budget, largely because of a major drought.⁷⁰ More critically, however, the budget composition varies a lot, with reallocations by administrative classification of 30.2 percent in 2016, once again largely because of

the drought. Unfortunately, the budget data remain incomplete and prone to errors, as some spending, such as the contingency budget expenditure, is not fully disclosed, and budget entry data are inputted manually. The limited ability to increase the budget, low quality of budget data, and exogenous shocks all result in significant, sometimes ad hoc, reallocations that undermine the efficiency of spending.

70 - Government of Zimbabwe, “Report on the Evaluation of the Public Financial Management System of Zimbabwe: Public Expenditure and Financial Accountability (PEFA) Assessment 2017,” August 2018, <https://www.pefa.org/sites/pefa/files/assessments/reports/ZW-Aug18-PFMPR-Public-with-PEFA-Check.pdf>

2. Legal and institutional framework for disaster risk financing

This section presents the current legal and institutional frameworks most relevant for disaster risk financing, and the DRF instruments currently in place. The discussion below is based on a series of interviews with representatives from several government institutions and on relevant laws and presidential decrees.⁷¹

2.1 Overview of the legal framework for DRF

The Constitution and the Civil Protection Act are the main anchoring laws for disaster response in

Zimbabwe. In addition, several other laws (shown in table 3) support operational and financial preparedness. The Public Financial Management (PFM) Act of 2009 establishes legal and operational frameworks to mobilize funds for disaster response and makes reallocations relatively easy. An annual Appropriation Act allows the finance minister to make decisions on how to allocate the Consolidated Revenue Fund. The Public Procurement and Disposal of Public Assets Act of 2017 lacks clear emergency procurement regulations, which may slow down response.

Table 3: Summary of laws relevant to financial and operational preparedness

Act	Operational relevance	Financial relevance
Constitution of 2013	Sets up three government levels—national, provincial, and metropolitan—and details how to declare a state of emergency.	Provides rules for budget adjustments, oversees changes to spending between votes or added funds, and ensures state responsibility for food reserves, basic health care, social welfare, and housing.
Civil Protection Act of 1989	Sets up a main Civil Protection Committee, organizes disaster management units by province and area, assigns the director of civil protection to coordinate disaster response with the relevant minister, allows the president to declare a state of emergency alone, and permits the minister to add regulations supporting the act.	Endows protection officers with significant authority, such as the ability to confiscate land or property; sets up the National Civil Protection Fund.
PFM Act of 2009	Designates the finance and economic development minister as the only authority who can approve public sector debt, loans, and guarantees.	Establishes legal and operational frameworks to mobilize funds for disaster response; empowers the National Treasury to make decisions regarding virements; stipulates that the House of Assembly must approve any reallocation of funds between votes, or if additional funds require appropriation. Further grants the president the authority to approve previously unauthorized expenditures, up to 5 percent of the last year's budget; also dictates that 30 percent of the previous year's total revenue can be earmarked for domestic borrowing without explicit authorization from the Assembly.

71 - The World Bank team held interviews with officials in the Ministry of Finance and Economic Development (in departments related to budget, debt management, macro-fiscal, and treasury).

Act	Operational relevance	Financial relevance
Private Dept Management Act of 2015	Designates the minister of finance and economic development as the sole authority for authorizing public sector debt, borrowings, and guarantees.	Outlines the rules for issuing public debt; places a cap on maximum public debt at 70 percent of GDP.
Appropriation Act (annual)	Tasks the minister of finance and economic development with making the decision to distribute the “Unallocated Reserve Vote.”	Explains how money from the Consolidated Revenue Fund is divided; allows money be moved between votes if a service’s responsibility shifts. Includes a special “Unallocated Reserve Vote” that can be used for anything.
Public Procurement and Disposal of Public Assets Act 2017	Sets up the Procurement Regulatory Authority of Zimbabwe. However, the absence of distinct emergency procedures could potentially lead to a lack of transparency in the decision-making process. The Procurement Regulatory Authority can permit direct procurement or simplify the bidding process.	

Source: Government of Zimbabwe, “The 2020 National Budget Statement: Gearing for Higher Productivity, Growth and Job Creation,” November 14, 2019, https://www.veritaszim.net/sites/veritas_d/files/2020%20NATIONAL%20BUDGET%20FINAL.pdf

The Constitution of 2013 includes provisions that are important from the perspective of disaster risk management (DRM) and DRF. It establishes three tiers of the government—national, provincial, and metropolitan (local)—which are governed by relevant councils. It also explains the process for the establishment of the state of emergency, which is initiated by the president but needs to be approved by the Parliament. Further, and importantly from the perspective of GoZ’s liabilities in relation to DRF, the constitution obliges the state to maintain food reserves. In a less binding manner, the Constitution obliges the state to take all reasonable and feasible measures to ensure access to basic health care, social welfare, and shelter.

The Constitution also provides high-level guidance on the process of budgetary changes. It requires a parliamentary vote for modification of the expenditure structures between votes or for additional appropriations.

The Civil Protection Act was implemented in 1989 and most recently revised in 2001. It is a high-level document that pertains to high-level concepts relevant to DRM and DRF. The act set up the Civil Protection Committee at the central level and established the notion of a civil protection province and civil protection area as organizational units for the purpose of DRM. These units sometimes correspond to administrative units but need not do so. Their responsibility relates to preparedness and response coordination. The main person responsible for the coordination of disaster response in Zimbabwe other than the minister of local government, rural and urban development is the director of civil protection. This person oversees the work of civil protection officers and ensures that they fulfill their extensive duties. The act is brief on the roles of various stakeholders in disaster risk management and response.

The Civil Protection Act gives the president the power to unilaterally establish a state of emergency; there is no requirement to consult with the Parliament but only to inform it. Despite the apparent simplicity of the declaration process, however, the process has seen significant delays in the past.⁷² The declaration of a state of emergency is usually brief, but in some

cases includes an overview of the planned activities, designates the entity (such as a specific ministry or department) charged with response, and may authorize the use of funds from the National Civil Protection Fund and other instruments, such as borrowing on the market in lieu of expected future revenue.⁷³

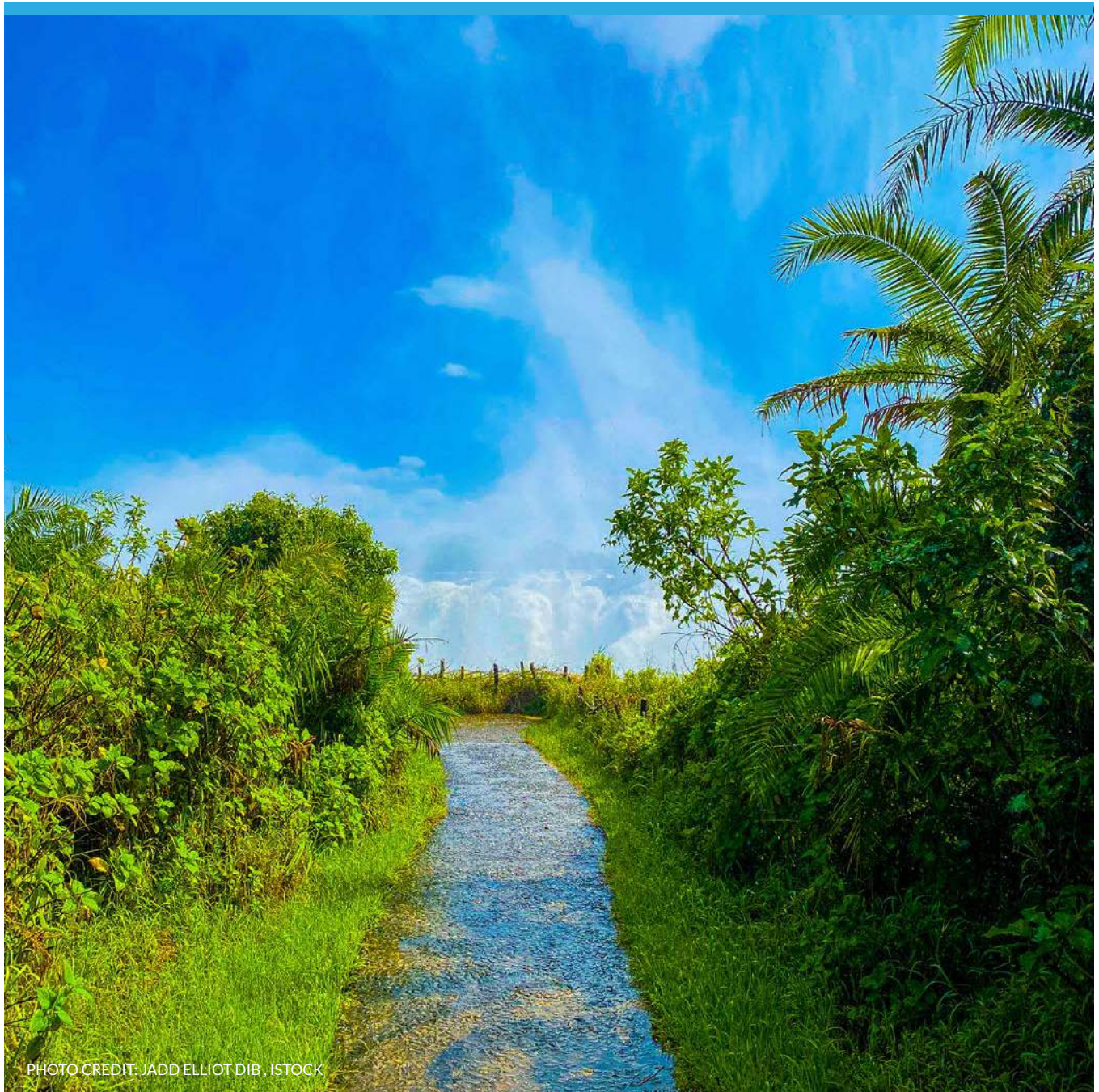


PHOTO CREDIT: JADD ELLIOT DIB, ISTOCK

72 - Emmanuel Mavhura, "Disaster Legislation: A Critical Review of the Civil Protection Act of Zimbabwe," *Natural Hazards* 80 (2015): 605–21, <https://link.springer.com/article/10.1007/s11069-015-1986-1>

73 - "Civil Protection (Declaration of State of Disaster: Rural and Urban Areas of Zimbabwe) (Road Infrastructure Network) Notice, 2021," *Zimbabwean Government Gazette Extraordinary (Supplement)*, February 23, 2021, https://www.veritaszim.net/sites/veritas_d/files/SI%202021-047%20Civil%20Protection%20%28Declaration%20of%20State%20of%20Disaster%20-%20Rural%20and%20Urban%20Areas%20of%20Zimbabwe%29%20%28Road%20Infrastructure%20Network%29%20Notice%2C%202021.pdf

The Civil Protection Act leaves out crucial components commonly found in similar documents, and a Disaster Risk Management and Civil Protection Bill (DRM Bill) is under preparation to replace the Civil Protection Act. The act does not reference disaster risk reduction or early warning systems, and does not thoroughly discuss disaster preparedness beyond aspects like equipment stocking and preparedness funding. Furthermore, response and recovery provisions are not covered. The act only minimally addresses financing of disaster response beyond the establishment of the dedicated funds for financing, and it neglects alternative sources. For example, it omits the significant role of international assistance in disaster response.⁷⁴ Furthermore, the act does not thoroughly address the necessity of decentralizing power and resources to local levels. It refers to the formulation of “civil protection plans” for specific regions, but the term is not defined. Lastly, by offering legal immunity to the responsible minister and civil protection officers, the act could inadvertently encourage resource misappropriation, inefficiencies, and malpractice during disaster response. The principles of the DRM Bill were adopted by the Cabinet in 2022, but it is unclear when the bill will be finalized.

The PFM Act of 2009 creates legal and operational frameworks that apply to the mobilization of funds for disaster response. Notably, it gives extensive powers to the National Treasury to make decisions regarding virements. While the virements are only allowed within one vote, the amount is not specified in the act or in the amendment of 2021,⁷⁵ and therefore is considered uncapped. Whenever money is to be reallocated between votes or additional funds need to be appropriated, the act requires approval from the House of Assembly. The act also authorizes the president to approve previously unauthorized

expenditures of up to 5 percent of the previous year’s budget in case of unforeseen circumstances. The act creates a cap of 30 percent of the total previous years’ revenue for domestic borrowing. If additional domestic debt issuance is required, it needs to be authorized by the Assembly.

The Appropriation Act is published annually and provides information on the allocation of funds from the Consolidated Revenue Fund. It allows the transfer of money between votes if responsibility for the provision of service is transferred to another vote. It also specifies a special vote, the Unallocated Reserve Vote. This reserve vote can be used for any purpose, and the decision on the disbursement is made by the minister of finance. While the fund can be used to finance disaster response, it is not ring-fenced and might be depleted by the time a shock occurs, especially one that takes place later in the financial year. In the budget for the financial year 2021, the allocation to the Consolidated Revenue Fund was 2.2 percent of the budget (US\$25 million),⁷⁶ and in 2020 it stood at 2.4 percent of the budget.⁷⁷

The Public Procurement and Disposal of Public Assets Act 2016 establishes the Procurement Regulatory Authority of Zimbabwe. While the act does not specify any special emergency procedures, the Procurement Regulatory Authority has the power to grant procurement rules exemptions.⁷⁸ Specifically, it can allow direct procurement or reduce the bidding process. This flexibility may be necessary during the response to a disaster, but the lack of special emergency procedures creates a risk of low transparency in the decision-making process. Following the outbreak of COVID-19, the lack of emergency procurement regulations resulted in significant irregularities and inefficiencies.⁷⁹

74 - IFRC, “Zimbabwe Civil Protection Act [Chapter 10:06],” July 2021, https://disasterlaw.ifrc.org/dmi/dmi_country/20

75 - “Public Finance Management Amendment Bill, 2021,” March 31, 2021, https://www.veritaszim.net/sites/veritas_d/files/Public%20Finance%20Management%20Amendment%20Bill%2C%202021%20%28H.B.%204%2C%202021%29.pdf

76 - “Appropriation (2021) Act,” 2020, https://www.veritaszim.net/sites/veritas_d/files/Appropriation%20%282021%29%20Act%20No.%2011%20of%202020.pdf

77 - “Appropriation (2020) Act,” 2019, https://www.veritaszim.net/sites/veritas_d/files/Appropriation%20Bill%202019%20No.%2022.pdf

78 - Procurement Regulatory Authority of Zimbabwe, “Annual Report 2018,” 2018, <https://www.praz.org.zw/wp-content/uploads/2022/01/Praz-2018-Annual-Report-Final.pdf>

79 - Economic Governance Watch, “Government Expenditure on COVID-19: Was There Looting?,” June 15, 2022, <https://www.veritaszim.net/node/6026>

It is crucial that the Procurement Regulatory Authority have strong guidelines on the use of its power, especially in the event of a shock. For example, only the most urgently needed goods and services should be single-sourced; framework agreements, which are currently not in use, should be adopted; and rules for the emergency procurement of goods and services in foreign currency should be considered.

The Public Debt Management Act of 2015 specifies the rules for the issuance of public debt. The act designates the minister of finance and economic development as the sole authority for authorizing debt, borrowings, and guarantees in the public sector. It caps public debt at 70 percent of the GDP but allows for exceeding this cap in the event of a shock, provided the National Assembly approves.

2.2 Overview of the institutional framework for DRF

The oversight of response activities is conducted by the **Cabinet Committee on Environment, Disaster Prevention, and Management**. The body meets weekly, and all 17 ministries are represented at the panel. The committee is chaired by the vice president, highlighting the importance of the body's mandate as well as ensuring a high level of actionability. While this committee is a high-level body that coordinates policy makers internally, the National Civil Protection Coordination Committee, currently chaired by the head of the Department of Civil Protection (DCP), is a body that coordinates ministries with development partners.

Zimbabwe established the DCP under the Ministry of Local Government, Public Works and National Housing. It coordinates strategic planning for emergencies at all levels of government and is expected

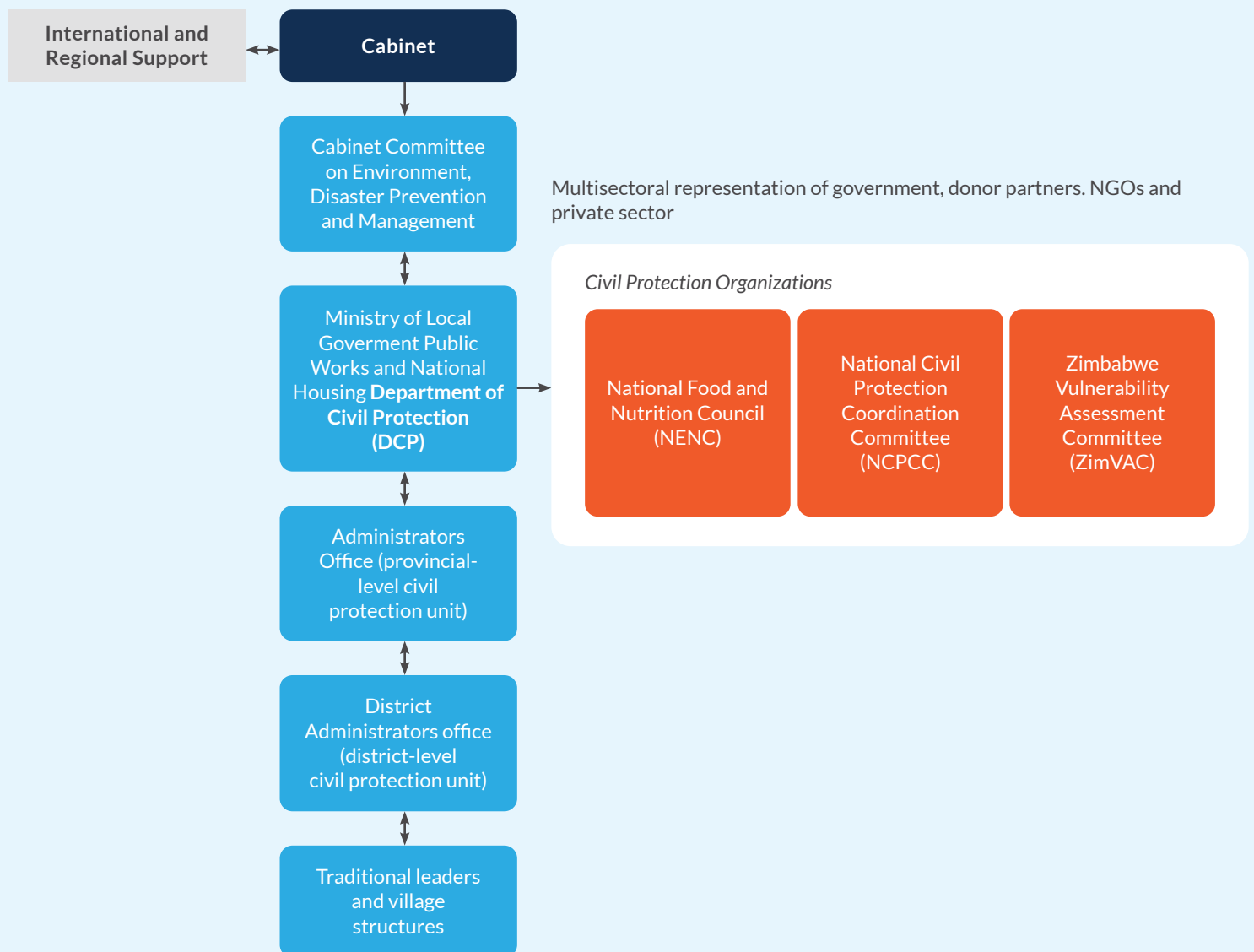
to ensure emergency preparedness and disaster prevention. It is also responsible for managing the early warning system and for response and rehabilitation in affected areas. However, according to the DCP, its number-one priority is lifesaving assistance in the aftermath of disasters. This approach is representative of the broader DRM approach in Zimbabwe, which focuses on instantaneous relief such as through the provision of medical care, food, water, and shelter. In their work, the DCP and line ministries cooperate with both public and private institutions to strengthen preparedness mechanisms in the country. Relevant development partners include the United Nations Office for Disaster Risk Reduction, United Nations Development Programme, International Organization for Migration, and Zimbabwe Red Cross Society, among others. The DCP is further responsible for policy making and for supervision and coordination of national DRM efforts. In these endeavors it is supported by the National Civil Protection Coordination Committee.

Some of the DRM activities in Zimbabwe are decentralized, even though the central government maintains overall control and governs most of the resources (See figure 18). District-level DRM is coordinated by territorial commanders. All local authorities are expected to have structures for disaster response and to develop laws and regulations for the use of first response resources, such as fire engines and ambulances. These laws are supposed to be aligned with central-level laws and policies.

The most localized DRM structure in Zimbabwe is at the village level. Following and building on the Indonesian example, the Parliament has approved a policy that mandates inclusion of village structures in DRM.⁸⁰ Traditional leadership and village assemblies do not have access to sustainable finance, though creation of a village fund has been discussed.

80 - DRF Training and Knowledge Exchange Workshop Program, Bulawayo, Zimbabwe (2022) . Organized by the World Bank and the African Development Bank

FIGURE 18: DISASTER RISK MANAGEMENT INSTITUTIONAL SET-UP



Source: Government of Zimbabwe, MoPSLSW presentation in DRF Training and Knowledge Exchange Workshop held in Bulawayo, Zimbabwe (2022).

The institutional weakness of the country significantly reduces the efficiency of response mechanisms as well as the willingness of donors and creditors to provide the funding required to finance response. Institutional weakness is driven by high levels of actual or perceived corruption; Zimbabwe is 157th of 180 countries on Transparency

International's Corruption Perception Index.⁸¹ While most governance indicators have improved over the past decade, the country's quality of regulation and rule of law place it in the bottom 10 percent of countries, and its voice and accountability place it in the bottom 20 percent. The country also scores low in political stability.⁸²

81 - Transparency International, "Corruptions Perception Index," 2021, <https://www.transparency.org/en/cpi/2021>

82 - World Bank, "Worldwide Governance Indicators," <https://info.worldbank.org/governance/wgi/Home/Reports>

2.3 Early warning system

The Meteorological Services Department is responsible for monitoring, forecasting, and providing warnings regarding natural hazards. It provides warnings using the internet, social media, and traditional media. It collaborates with the Department of Civil Protection, using its information to trigger response and to disseminate warnings via mobile phones and warning sirens. It also communicates directly with the population with updates on slow-onset disasters like droughts, and it plays an important role in advising farmers about planting and in warning the population of flood and cyclone risks.⁸³ However,

it suffers from very significant staffing and resource scarcities that significantly undermine its ability to fulfill its mandate.⁸⁴ This limitation is arguably one of the reasons why even though communication channels between the Meteorological Services Department and the DCP exist they are not effectively used. The collaboration with other units of the government or with local governments is also largely missing.⁸⁵ The country currently depends on many warning systems maintained by development partners, such as the Famine Early Warning Systems Network. The Zimbabwe Flood and Drought Monitor is an example of a promising flood-focused early warning system, but it stopped being updated in late 2021.⁸⁶

83 - Zimbabwe Situation, "MSD Advises Farmers to Delay Planting," November 8, 2022, <https://www.zimbabwesituation.com/news/msd-advises-farmers-to-delay-planting/>

84 - World Bank, Government of Zimbabwe, and Global Facility for Disaster Reduction and Recovery, "Zimbabwe–Rapid Impact and Needs Assessment (RINA)."

85 - Lynn Mafofo, Joseph Olanyo, and Tinashe P. Kanosvumhira, "Media Discourses on Natural Disasters and Management: A Case of Cyclones Idai and Kenneth and Floods in Four Southern African Countries," in *Cyclones in Southern Africa—Volume 2: Foundational and Fundamental Topics*, ed. Godwell Nhamo and Kaitano Dube (Cham: Springer, 2021), 243–57, https://link.springer.com/chapter/10.1007/978-3-030-74262-1_16

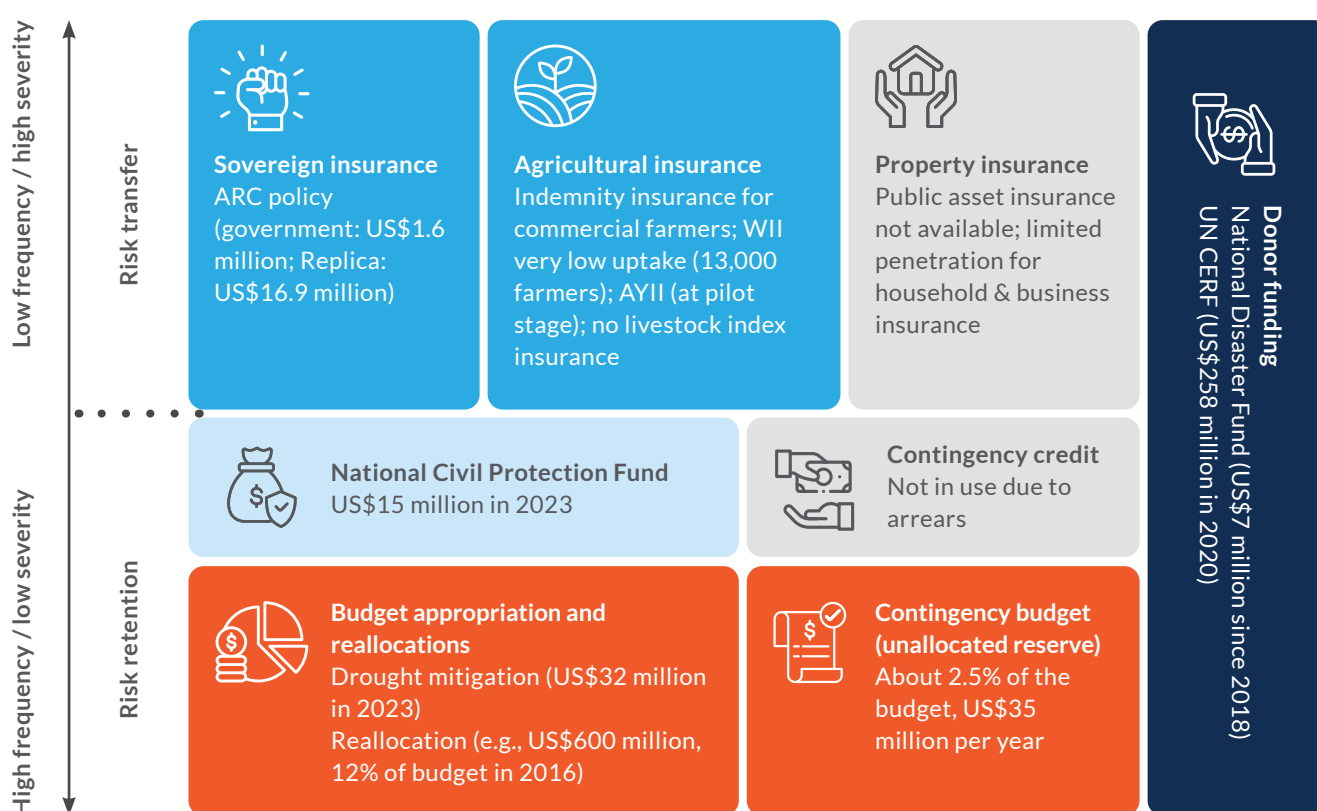
86 - Princeton Climate Institute, "Zimbabwe Flood and Drought Monitor," December 6, 2021, http://stream.princeton.edu/zim_app/

3. Status of disaster risk financing instruments and mechanisms

The main funding mechanisms for post-disaster interventions are ex post budgetary reallocations and supplementations. The country has several budget lines for disaster response, mainly for drought mitigation;⁸⁷ it also has a general contingency budget for unforeseen expenditures, including those related to climate shocks (See figure 19). The main gaps include limited public funds due to the prevailing

macroeconomic situation, centralization of funding at the national level that leaves communities with limited capacity as first responders, unpredictable and untimely humanitarian funding, lack of clear objective rules on release of funds, and lack of financing options for hazards like floods and cyclones that are becoming more frequent.

FIGURE 19: STATUS OF RISK FINANCING INSTRUMENTS IN ZIMBABWE



Source: World Bank analysis.

Notes: ARC = African Risk Capacity; AYII = area yield index insurance; CERF = Central Emergency Response Fund; WII = weather index insurance.

87 - Ministry of Finance and Economic Development officials interviewed by the World Bank team indicated that there is also budget for flood mitigation, but the funding amounts were not provided, and the specific line item in the budget could not be verified.

3.1 Ex ante funding






Zimbabwe has many versatile funds that either explicitly serve as contingency reserves or are routinely used for such purposes. Most of the funds are hosted at line ministries or within departments and are used as backup funds for specific contingencies that affect them. In addition to the specific-purpose funds, one fund, the National Disaster Fund, is hosted by the Ministry of Finance and Economic Development (MoFED). Funds vary in the type of legislation that established them and in the level and strength of the additional regulation that governs them. The sources of funding are also diverse: some funds rely entirely on development partners, some rely on budget capitalization, and some are financed with a dedicated levy that host ministries collect.

There is little oversight of many of the funds, which in some cases lack centralized accounts, reporting procedures, or even regulations (sometimes referred to as constitutions) to guide their use. The localized funds were created as a form of buffer funding or self-

reliance instruments, as delays in disbursing money from the Consolidated Revenue Fund lowered the quality of basic services provided by the government.⁸⁸ Although such localized special funds potentially create silos and result in inefficiencies, they could also have a significant positive impact on the timeliness of response to shocks, as funds from both the government and development partners are often delayed.

The Government of Zimbabwe is aware that a myriad of decentralized and often poorly regulated funds is a challenge for efficient public financial management (See table 4). One type of buffer fund that was discontinued in 2021 was retention funds, which allowed government departments to retain up to 100 percent of the funds they collected instead of returning them to the Consolidated Revenue Fund. The retention funds were not strictly regulated; in accordance with the PFM Act, their existence was mandated by the minister of finance.⁸⁹ The discontinuation of retention funds removes funds from silos and is a positive sign that shows the government's work toward transparency and efficiency.

Table 4: Funds with contingency mandates

	National Civil Protection Fund	<ul style="list-style-type: none"> • Funds both response and preparedness • Used for development and promotion of civil protection activities throughout the country • Managed by DCP
	National Disaster Fund	<ul style="list-style-type: none"> • Funded by donors • Retains funds • Managed by the auditor general, but disburses at the request of DCP • Used only for response
	Statutory funds	<ul style="list-style-type: none"> • Funded by dedicated levies • Attached to specific departments
	Contingency Reserve	<ul style="list-style-type: none"> • Acts as general purpose budgetary reserve • Represents about 2.5% of the budget
	Retention funds	<ul style="list-style-type: none"> • Mostly discontinued

Source: World Bank.

Note: DCP = Department of Civil Protection.

88- Pindula, "Retention Funds in Zimbabwe," https://www.pindula.co.zw/Retention_Funds_in_Zimbabwe

89 - Parliament Budget Office, "Analysis of Retention Funds," August 6, 2021, <https://parlzim.gov.zw/download/analysis-of-retention-funds-parliament-budget-office/>

3.1.1 Statutory funds

Statutory funds are established by specific acts passed by the Parliament—unlike the retention funds, which depend on an announcement from a minister. From the perspective of DRF, one of the most important funds in operation is the Health Levy Fund, which is financed through a dedicated levy imposed on airtime. This fund is used both for financing the normal operations of the

Ministry of Health and for response. Another such fund is the AIDS Levy Fund, which was established in 1999. This fund is financed by a three percent income tax for individuals and a three percent tax on profits of employers and trusts.⁹⁰ The Environment Fund, established in 2019, is also funded through a special levy. Neither of these funds is specifically dedicated to response or even broader DRF. However, both are considered by the DCP as a potential source of funds, sometimes referred to as a coffer, that the directorate may use for response.



PHOTO CREDIT: VV SHOTS, ISTOCK

90 - Nisha Bhat et al., “Zimbabwe’s National AIDS Levy: A Case Study,” SAHARA-J: Journal of Social Aspects of HIV/AIDS 13, no. 1 (2016): 1–7, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4762022/>

3.1.2 The National Disaster Fund

The National Disaster Fund is a deposit account managed by the MoFED with some important governance and accountability features in place. The fund was established in 2018, following a cholera outbreak. It is exclusively financed by international partners and private donors. Following the Cabinet's decision, it is hosted by the MoFED, which is expected to be best able to provide supervision and ensure transparency. Most of the external contributions to the fund were donated during the cholera outbreak and then following Cyclone Idai, with more limited transfers during COVID-19. Every time DCP needs money from the fund, it must request it through a letter to the MoFED. There seems to be a lack of clarity even within the government about the role of the MoFED and DCP in managing the fund and about the regulations that should govern it, with the DCP in favor of more flexibility and MoFED advocating for a more formal approach.

3.1.3 Contingency Reserve

The Contingency Reserve is annually allocated to the MoFED. The minister of finance and economic development has discretion over its immediate transfer and frequently uses it for emergencies, but it is not specifically designated for climate shocks or disasters. The allocation varies annually but remains close to around 2.5 percent of the budget. The minister of finance and economic development has full discretion to decide on the immediate transfer from the reserve vote to any other vote. The minister is also in charge of monitoring if the money allocated from the reserve is spent in accordance with the purpose agreed upon.⁹¹ This budgetary reserve is frequently used to address emergencies. However, it is not ring-fenced for climate-related shocks, and may be used for all originally unbudgeted spending.

Unfortunately, the data on the use of resources from the contingency vote remains incomplete. According to the Public Expenditure and Financial Accountability

(PEFA) report of 2019, the incomplete disclosure of the contingency vote in the financial statement makes it difficult to know what the contingency vote is used for, as the receiving vote is recorded only as an expense rather than a program or line item.⁹² Once the allocation has taken place it is not possible to establish what it was used for.

3.2 Ex post funding

3.2.1 Reallocations

Driven by the very high number of nonperforming projects, and the resulting availability of unutilized funds, reallocations are currently the go-to source of funding for response. The decision on where to source the funds is made using the database of capital projects maintained by the National Treasury. The database includes up-to-date information on the performance of projects, which is sustained by the monitoring Department at the National Treasury.

Reallocations within votes are easy to make and can be mandated by the relevant minister. While a government is justified in reallocating money from underperforming projects toward response, there are both moral hazards and efficiency risks associated with such a flexible approach. The general understanding that the money from underperforming projects will eventually be used for some unexpected events undermines the perceived need for rigor during the budgeting process. In fact, overbudgeting for projects is in some cases considered a way to create an emergency reserve, the management of which is at the full discretion of the ministry in charge. Unfortunately, little information is available on the exact amount or purpose of the virements.

Reallocations between votes require a parliamentary or presidential approval and therefore take time to conduct, yet they are also regularly used to finance response. For example, according to the PEFA report, in 2016 the expenditure composition variance by administrative classification was 30.2 percent.⁹³

91 - "Appropriation (2021) Act," 2020, https://www.veritaszim.net/sites/veritas_d/files/Appropriation%20%282021%29%20Act%20No.%2011%20of%202020.pdf

92 - Government of Zimbabwe, "Report on the Evaluation of the Public Financial Management System of Zimbabwe: Public Expenditure and Financial Accountability (PEFA) Assessment 2017," August 2018, <https://www.pefa.org/sites/pefa/files/assessments/reports/ZW-Aug18-PFMPR-Public-with-PEFA-Check.pdf>

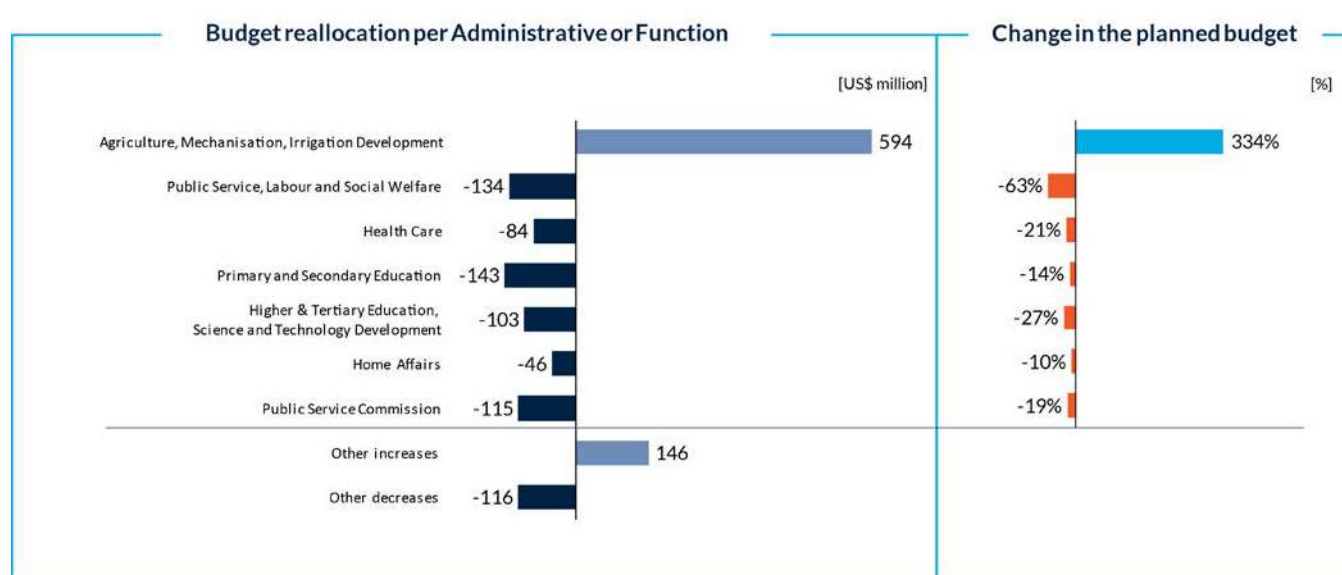
93 - Ibid.

While the exact use of money that has been reallocated between votes is difficult to determine, the example from 2016, when significant reallocations to the Ministry of Agriculture took place following a major drought (figure 20), indicates that financing response is a key driver of the budget's low reliability.

While it is currently difficult to track reallocations, the data that would allow for it exist, and efforts to improve procedures began in the aftermath of COVID-19.⁹⁴ The National Treasury maintains a database in Excel format that includes money movements, sources of funds, and their destination.

The database also has time tags and can refer transfers to specific documents requesting the reallocation, including the lengthy explanation of the need. It is therefore possible to vastly improve the traceability of reallocations, build an effective database to model future needs, and improve efficiency and transparency of reallocation. The GoZ has taken initial steps toward building a more comprehensive database for such purposes by engaging a data consultant. Once the data are compiled, they will form a very valuable asset for the government's budget planning process and will open the possibility of significant improvements in allocation following shocks.

FIGURE 20: REALLOCATIONS BETWEEN VOTES FOLLOWING THE DROUGHT OF 2016



Source: PEFA. (2018). Zimbabwe: Public Financial Management Performance Assessment.

3.2.2 Sovereign insurance

Zimbabwe has been a member of the African Risk Capacity (ARC) since 2015; due to financial constraints, however, the government did not take out a policy until 2019, and it continues to purchase inadequate cover for the scale of need. The drought insurance policy is designed to trigger at a 1-in-4-year loss and exit at about a 1-in-15-year loss, corresponding to a total cover of about US\$130 million, but the limited availability of funding for

premium results in a very small cession. As shown in table 5, the cession rate has yet to exceed 10 percent, having increased from about 2 percent in 2019 to 9 percent in 2021, then dropping to 1.7 percent (enough to cover only 42,000 people) in 2022.⁹⁵ In 2019, GoZ paid 100 percent of the premium, while donors have contributed 67–80 percent of the premium in the last three years. At the end of 2020, Zimbabwe received a payout of US\$1.4 million, which is estimated to have enabled support for over 155,000 people through direct cash transfers.⁹⁶

94 - In the aftermath of the COVID-19 pandemic, GoZ recognized the need for a structured approach to reallocations that minimized the opportunity cost. While the initial sources for reallocations were easy to identify, and included mainly travel-related spending, the scale of required funding led to the development of regulations to guide reallocation. However, the World Bank team was unable to verify these guidelines.

95 - Consequently, the number of people covered increased from 133,642 (2019) to 337,075 (2020), to 323,266 (2021), and then fell to 42,000 (2022).

96 - Information and data on ARC policy obtained from the Ministry of Finance and Economic Development

Humanitarian partners are increasingly extending the amount of drought cover through purchase of ARC's Replica policy, but resources for premium continue to be a constraint. The World Food Programme began purchasing Replica in 2019/20, and the Start Network, a group of humanitarian organizations, began in 2021/22. Although the levels of cession are

also below 10 percent, the decline in 2022/23 was modest compared to GoZ's cover. Replica has covered a cumulative total of more than 1.2 million people since 2019. In 2020, the World Food Programme received a payout of US\$0.3 million, which was used to provide unconditional food assistance to 40,300 people in prioritized wards.

Table 5: Drought insurance from ARC for Government of Zimbabwe and Replica partners, 2019–2023

	2019/20	2020/21	2021/22a	2022/23
GoZ policy				
Total policy limit (US\$)	258,244,840	141,479,538	146,934,525	97,147,342
Ceding percentage	2.07%	9.53%	8.95%	1.74%
Amount of cover purchased (US\$)	5,345,668	13,483,000	13,150,640	1,688,421
Number of people covered	133,642	337,075	323,266	42,211
Premium (US\$)	1,003,571	2,500,000	2,500,000	300,000
KfW	n.a	2,000,000	900,000	n.a
SDC	n.a	n.a	1,000,000	200,000
GoZ	1,003,571	500,000	600,000	100,000
World Food Programme Replica				
Total policy limit (US\$)	258,244,840	141,479,538	146,934,525	97,147,342
Ceding percentage	0.41%	7.62%	5.37%	11.59%
Amount of cover purchased (US\$)	1,065,329	10,780,741	7,890,384	11,256,285
Number of people covered	26,633	269,519	197,260	281,407
Premium (US\$)	200,000	2,000,000	1,500,000	2,000,026
Start Network Replica				
Total policy limit (US\$)	n.a	n.a	146,934,525	97,147,342
Ceding percentage	n.a	n.a	8.95%	5.79%
Amount of cover purchased (US\$)	n.a	n.a	13,150,640	5,624,831
Number of people covered	n.a	n.a	323,266	140,702
Premium (US\$)	n.a	n.a	2,500,000	1,000,000
Total premium (US\$)	1,203,571	4,500,000	6,500,000	3,300,026
Total payout (US\$)	1,755,000	-	-	-

Source: Ministry of Finance and Economic Development.

Note: n.a. = applicable; ARC = African Risk Capacity; GoZ = Government of Zimbabwe; KfW = Kreditanstalt für Wiederaufbau SDC = The Swiss Agency for Development and Cooperation.

a. By 2021/22, the total insured amount for all countries participating in ARC reached the historical high of US\$182 million, with Zimbabwe accounting for 19 percent of the entire pool. However, unlike in peer countries, most of the coverage has been purchased by the international community.

3.2.3 Credit

Public sector debt in Zimbabwe stood at 64 percent in 2021, down from over 100 percent the year before. This fluctuation can be largely explained by the changes to the exchange rate that impact the nominal GDP. The majority of the public debt is held by international lenders. Zimbabwe is currently in debt distress, as about 50 percent of the country's debt is in arrears.⁹⁷

The Government of Zimbabwe has recently taken significant steps toward repaying the debt that remains in arrears. These steps may allow the country to resume borrowing from multilateral organizations, which have restricted lending to Zimbabwe for over 20 years. In February 2023 the president committed to clearing over US\$6 billion of arrears.⁹⁸ The country had already started making small payment to all of its Paris Club lenders and is planning on issuing bonds to repay much of its outstanding commitments.⁹⁹ Many of the lenders are currently optimistic about the prospect of lifting restrictions, which would greatly improve Zimbabwe's ability to access liquidity and allow it to leverage concessional borrowing in response to shocks.

When the country's arrears have been cleared, one of the credit instruments it could consider is a contingency credit line. MoFED emphasized the government's determination to identify the cheapest possible sources of response finance, including

options like the World Bank's Catastrophe Deferred Drawdown Option (Cat DDO). However, with Paris Club lenders and international financial institutions still imposing lending restrictions on Zimbabwe, China remains the only significant lender the country can rely on.¹⁰⁰ Access to the capital markets is very restricted, as Zimbabwe does not have a credit rating from any of the major rating agencies.

The GoZ has not adequately assessed or monitored climate- and disaster-related contingent liabilities arising from debt issued to parastatals or otherwise guaranteed.¹⁰¹ The amount of guarantees provided to parastatals is not clear, and thus neither is the exposure of the government, but there are estimates that cumulative official and unreported exposure to China alone may amount to 21 percent of GDP.¹⁰² In recent years, China has faced several challenges with the performance of its loans under the Belt and Road Initiative, followed by a significant reduction in its lending.¹⁰³ As a result, it has become more cautious when assessing the risks posed by its development projects, especially in debt-distressed countries. In some cases, existing infrastructural lending is heavily collateralized. Natural disasters affect the performance of many parastatals and can negatively impact their solvency. To ensure the availability of bilateral finance in the future and to ensure that the performance of existing loans is not at risk, it would be prudent for Zimbabwe to assess the climate risk of indebted parastatals.

97 - International Monetary Fund. (2022, April 8). 2022 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Zimbabwe.

98 - Nyasha Chingono, "Zimbabwe Committed to \$6 Bln Debt Arrears Clearance, President Says," Reuters, February 23, 2023, <https://www.reuters.com/world/africa/zimbabwe-committed-debt-arrears-clearance-president-says-2023-02-23/>.

99 - Ibid

100 - Deborah Brautigam, Yufan Huang, and Kevin Acker, "Risky Business: New Data on Chinese Loans and Africa's Debt Problem," HKTDC Research, March 18, 2021, <https://research.hktdc.com/en/article/Njk1Nzc1NTQz>

101 - Economic Governance Watch, "Parliamentary Approval of Government Debt," May 17, 2023, <https://www.veritaszim.net/node/6318>

102 - A. Malik et al., "Banking on the Belt and Road: Insights from a New Global Dataset of 13,427 Chinese Development Projects," AidData at William & Mary, Williamsburg, VA, 2021, https://docs.aiddata.org/ad4/pdfs/Banking_on_the_Belt_and_Road_Insights_from_a_new_global_dataset_of_13427_Chinese_development_projects.pdf

103 - James Kynge et al., "China Reckons with Its First Overseas Debt Crisis," Financial Times, July 21, 2022, <https://www.ft.com/content/ccbe2b80-0c3e-4d58-a182-8728b443df9a>

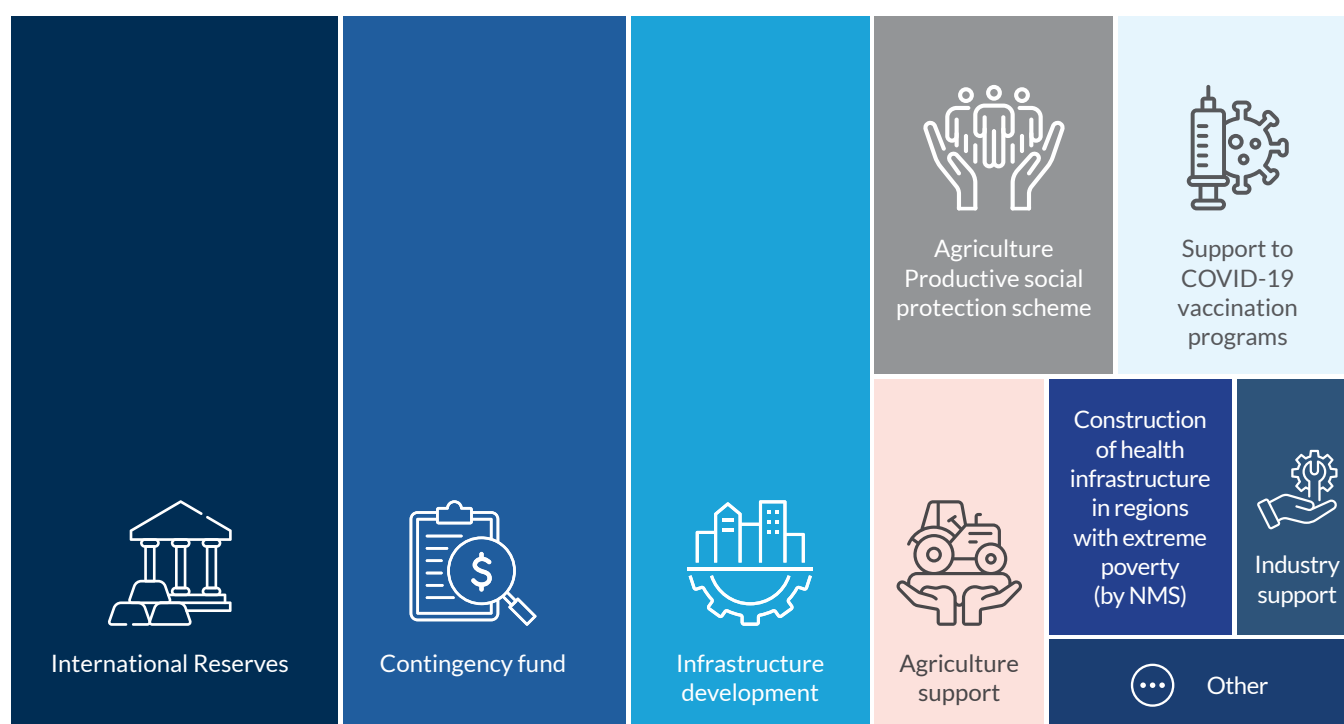
3.2.4 Special drawing rights

Like all member countries of the International Monetary Fund (IMF), Zimbabwe is allocated special drawing rights. Following COVID-19, in August 2021 the IMF allocated Zimbabwe an additional SDR 677.4 million (US\$960 million). As of February 2023, the total allocation to the country stood at over SDR 1.01 billion (US\$1.4 billion). Given its weak ability to affordably finance itself from debt and its low foreign reserves, Zimbabwe has depleted 97 percent of the allocation, on which it now pays interest. The record-breaking allocation is unlikely to be repeated unless the world sees another major crisis. Zimbabwe is not going to be able to access further resources from the

IMF to finance future responses until it reestablishes its holdings at the IMF.

Overall, a large proportion of the special drawing rights funding was dedicated to disaster response (figure 21). Zimbabwe used the allocation to finance its COVID-19 vaccination program and improve its health facilities. It further committed to channeling 8.4 percent of funds towards a social protection scheme to improve the productivity of households dependent on agriculture. About 15 percent was committed toward infrastructure, in particular emergency road repairs. Notably, GoZ planned for a third of the allocation to remain unused but has now almost exhausted the SDR allocation.

FIGURE 21: PROPOSED USE OF SDR ALLOCATION IN 2021



Source: International Monetary Fund, "Zimbabwe: Staff Report for the 2022 Article IV Consultation," March 2, 2022, <https://www.imf.org/en/Publications/CR/Issues/2022/04/08/Zimbabwe-2022-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-516378>

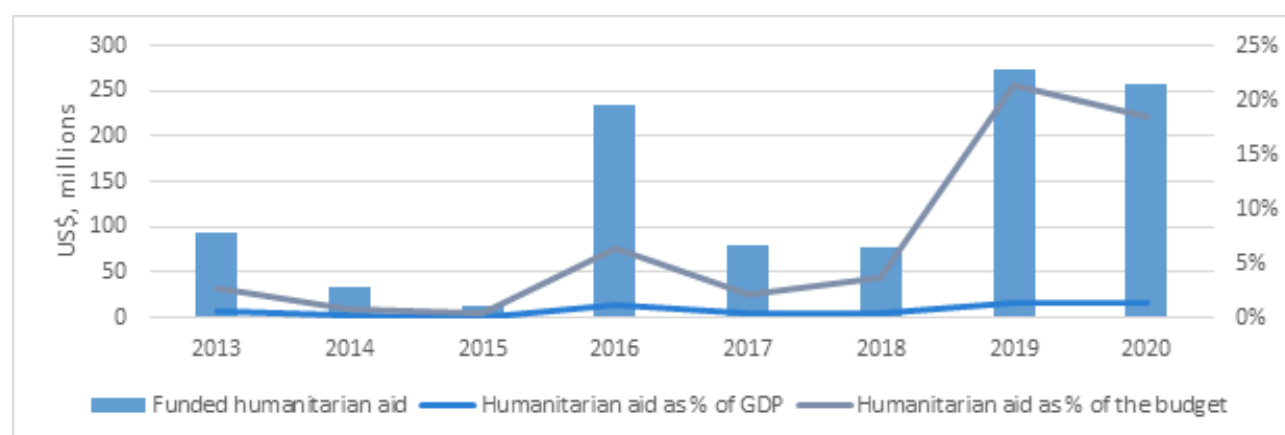
3.2.5 Humanitarian funding

Zimbabwe is heavily dependent on international aid, especially to respond to its persistent food insecurity problem. On average humanitarian support constitutes 0.7 percent of GDP; the share was as high as 1.4 percent in 2019.¹⁰⁴ The United States, European

Commission, and individual European countries are responsible for 88 percent of total humanitarian funding. The Russian invasion of Ukraine has had a significant impact on donor countries' economies and led to the reprioritization of aid toward Ukraine, which means support to Zimbabwe is likely to decrease.

104 - United Nations Office for the Coordination of Humanitarian Affairs (OCHA). "Financial Tracking Service (FTS), [View this on Financial Tracking Service](#); data on GDP are from the World Bank.

FIGURE 22: HUMANITARIAN AID AS PART OF ZIMBABWE'S BUDGET, 2013–2020

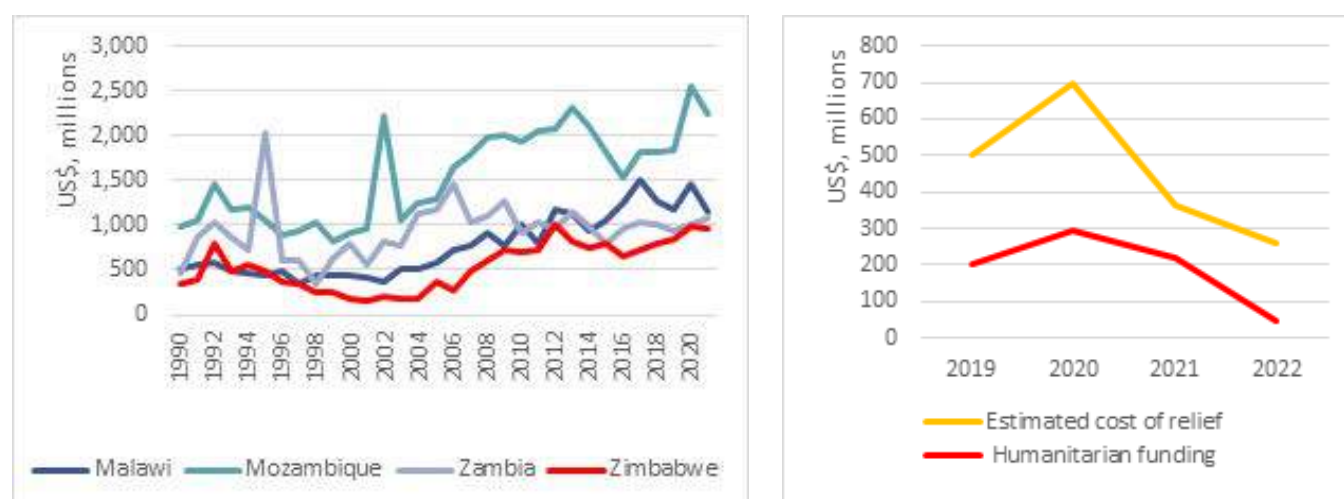


Source: Financial Tracking Service, United Nations Office for the Coordination of Humanitarian Affairs (FTS, UN OCHA).

Sanctions imposed on Zimbabwe in the early 2000s initially reduced and changed the modality of aid available, and to date a significant humanitarian funding gap persists (figure 22).¹⁰⁵ While most of the sanction-imposing states allow for emergency humanitarian aid to continue, the list of potential recipients is often restricted. For example, the current involvement of the World Bank in Zimbabwe remains impacted by sanctions. The GoZ cannot be the recipient of funds. Instead, eight UN agencies have been responsible for the implementation process. All the project financings were granted to Zimbabwe

through the UN system. The only element led by the government was post-disaster needs assessments, with the involvement of the UN and World Bank, aimed at informing the recovery and reconstruction efforts. While humanitarian funds can still be mobilized following shocks, donor countries and institutions impose restrictions on the government's access to the funds and the type of investments that are allowed. These restrictions have in turn reduced the ability of the government to rely on humanitarian aid as a disaster response instrument.

FIGURE 23: TRENDS IN OFFICIAL DEVELOPMENT ASSISTANCE, 1990–2022 (LEFT) AND HUMANITARIAN FUNDING GAP, 2019–2022 (RIGHT)



Sources: Left figure: Organisation for Economic Cooperation and Development, <https://www.oecd.org/dac/financing-sustainable-development/development-finance-data/>; right figure: humanitarian funding from Ministry of Finance and Economic Development. Cost of relief based on data from Ministry of Public Service, Labour & Social Welfare on population in IPC3+ and cost of US\$40 per person

105 - Cynthia Chipanga and Torque Mude, "An Analysis of the Effectiveness of Sanctions as a Law Enforcement Tool in International Law: A Case Study of Zimbabwe from 2001 to 2013," *Open Journal of Political Science* 5 (2015): 291–310, https://www.scirp.org/pdf/OJPS_2015102114012116.pdf

To continue providing support to Zimbabwe, the World Bank has created multiple dedicated trust funds, such as the Zimbabwe Reconstruction Fund (ZIMREF) and the Global Environmental Facility Trust Fund. In response to the unprecedented scale of Cyclone Idai, the World Bank also provided International Development Association (IDA) funding of US\$72 million through the IDA Crisis Response Window. The project had two components, immediate recovery

and rehabilitation. The immediate recovery phase focused on providing essential services and support to communities affected by the cyclone through conditional cash transfers, food assistance, unconditional transfers, and crop and livestock production support, among other interventions. The rehabilitation and construction phase focused on critical community infrastructure and irrigation networks and aimed at restoring the livelihoods of affected populations.

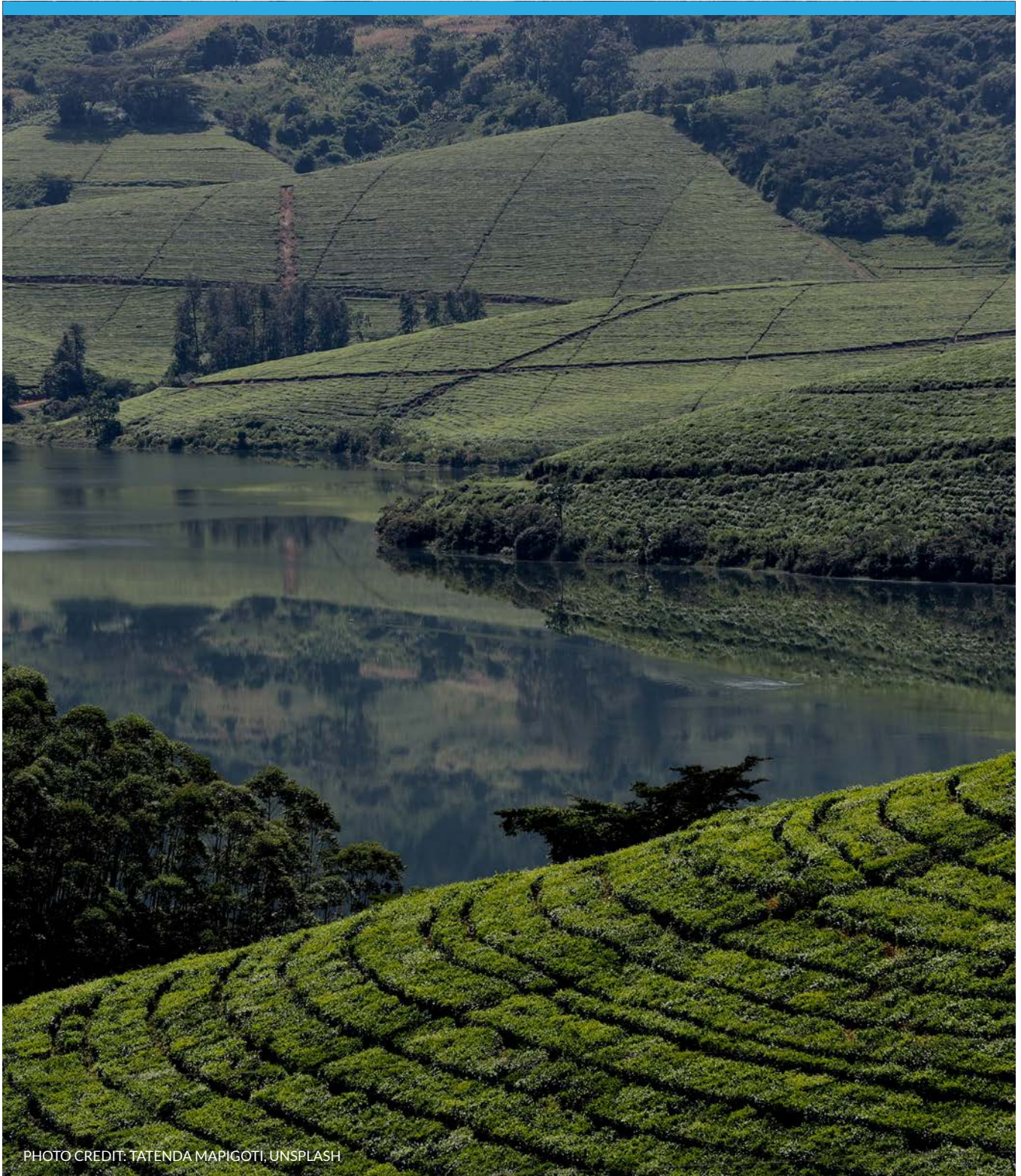








PHOTO CREDIT: TATENDA MAPIGOTI, UNSPLASH

3.3 Social safety nets and existing distribution mechanisms

Despite widespread poverty, in 2020 and 2021 Zimbabwe spent only 0.3 percent of its GDP on social protection, less than a third of the Sub-Saharan average. The administrative units under the Ministry of Public Service, Labor, and Social Welfare (MoPSLSW) are chronically underfunded and unable to provide adequate service to the core caseload of poor households.¹⁰⁶ Although shock-

responsive programs exist, there are gaps in the coverage of current social assistance programs and limited coordination between disaster response and social protection. The government has managed to provide significant disaster response support through Food Deficit Mitigation (FDM) program to households affected by the El Niño-related drought, for which a state of emergency was declared in April 2024. Still, adaptive social protection programs that go beyond short-term disaster response efforts have low coverage and, in some cases, lack the ability to scale up to respond to crises. Table 6 presents a summary of the main social protection programs in Zimbabwe, some of which can be leveraged for shock response.

Table 6: Summary of the main social protection programs in Zimbabwe

Program	Summary
 Basic Education Assistance Module (BEAM)	Purpose: Educational subsidy for vulnerable children Target: Primary and secondary education Coverage: 1.5 million children (2024)
 Assisted Medical Treatment Order (AMTO)	Purpose: Health subsidy for vulnerable individuals Target: Direct payment of medical bills from hospitals and health centers Coverage: 9,540 in the first quarter of 2022
 Harmonized Social Cash Transfer (HSCT)	Purpose: Unconditional cash transfer Target: Labor-constrained food-poor households Coverage: 60,000 households enrolled in 23 districts Note: The program was paused in 2024 pending a redesign and relaunch
 Monthly Maintenance Allowance (MMA)	Purpose: Discretionary grant for individuals lacking subsistence means Target: individuals lacking means of subsistence Coverage: 8,551 beneficiaries in 48 districts (2020) Note: The program will be merged with HSCT and relaunched as a combined program
 Food Deficit Mitigation (FDM) program	Purpose: Food distribution during peak lean season/drought Target: Labor-constrained food-insecure households Coverage: 9.2 million (2024)
 School Feeding Program	Purpose: In-kind food rations to households and children at school Target: Primary and secondary level students Coverage: 2.5 million children (2024)

Source: MoPSLSW, Zimbabwe Red Cross Society, "Shock Responsive Social Protection in Zimbabwe: Strengthening the Existing Social Protection System in Zimbabwe,"

https://cash-hub.org/wp-content/uploads/sites/3/2022/03/Shock-Responsive-Social-Protection_Zimbabwe_Report.pdf

106 - UNICEF, "2021 Social Protection Budget Brief," July 2021,

<https://www.unicef.org/esa/media/10216/file/UNICEF-Zimbabwe-2021-Social-protection-Budget-Brief.pdf>

3.3.1 Food Deficit Mitigation

Food insecurity in the country is primarily addressed through two programs led by different ministries: Food Deficit Mitigation (FDM), led by MoPSLSW; and the school feeding program, led by the Ministry of Primary and Secondary Education (MoPSE). Jointly, these programs consumed 30 percent of the budget allocated in 2021. While the allocations to these funds have been rising, they remain underfunded. Both programs focus on in-kind support and due to complex logistics require collaboration across spheres of government. The school feeding program, the smaller of the two, suffers from administrative challenges, and continuity between years is not always maintained.¹⁰⁷ While it does not have a dedicated scale up component, a total of 665,075 pupils from 3,085 schools are receiving food under the Emergency School Feeding Program, in response to the effects of the El Nino induced drought in 2024/2025.

The FDM program was developed following the food crisis of 2009/10 and is guided by the Food Deficit Mitigation Strategy, which describes the targeting model for the distribution of food in response to shocks. As FDM is funded from the Drought Relief Fund and the allocation is based on the anticipated severity of a drought, it can be considered a shock-responsive safety net. The FDM program is the government's largest response to the ongoing El Nino-related drought. As of November 2024, the government was providing in-kind food assistance to 9.2 million beneficiaries receiving 7.5 kg of grain per person in rural areas and 660,000 people were receiving cash transfers of US\$8 per person in urban areas.

3.3.2 Harmonized Social Cash Transfers

The Harmonized Social Cash Transfers (HSCT) is the third largest social protection program in the country. The program, implemented by MoPSLSW, was introduced in 2011 with a focus on food poor and labor constrained households. The primary objective of the unconditional HSCT program is to increase the purchasing power and thus the food consumption of the most food poor and labor-constrained members

of the population to reduce their reliance on risky coping behavior and improve their socioeconomic status. The identified households receive a monthly cash allowance calculated based on the number of dependents within the household which is capped at four members in a household. While this program would be a natural candidate for an emergency scale-up, it has suffered from structural challenges, most notably targeting, financing, and lack of defined approaches for vertical and/or horizontal expansion for crisis response. As of late 2024, Government has paused the implementation of HSCT pending a redesign of the program which would see it merged with the Monthly Maintenance Allowance Program, established in 1981 to support the chronically poor, or those people who, by reason of age, infirmity, disability and lack of family support, are permanently destitute.

3.3.3 Basic Education Assistance Module

In terms of coverage and budget, the Basic Education Assistance Module (BEAM) is one of the largest social protection programs in Zimbabwe. It focuses on vulnerable children across the country and provides them with tuition fee waivers. The BEAM program aims to reduce the number of children dropping out due to their economic situation. In its effort to address this negative coping mechanism, it has a significant potential role in mitigating the long-term economic effects of shocks. Many studies have shown that taking children out of school is a common coping mechanism in response to shocks, especially among poor families. Girls are affected more than boys.¹⁰⁸ The system BEAM uses for collecting information on eligible children, which is largely decentralized and gender-inclusive, is reportedly fair and robust. Assistance under the program is based on clearly defined criteria that target children who have never attended school, who have dropped out of school for economic reasons, or who face challenges such as a history of failing to pay fees and levies. BEAM also considers the employment status of the head of household, the health status of the head of household, children's orphaned status, and the assets owned by the household.

107 - "School Feeding to Resume," New Ziana, February 17, 2022,

<https://newziana.co.zw/2022/02/17/school-feeding-to-resume/>

108 - Keiko Inoue et al., "Why Do Sub-Saharan African Youth Drop Out of School?," chapter 2 in Out-of-School Youth in Sub-Saharan Africa: A Policy Perspective (Washington, DC: World Bank, 2015),

https://elibrary.worldbank.org/doi/epdf/10.1596/978-1-4648-0505-9_ch2

Several challenges undermine BEAM's potential as a successful response program, including delays in disbursing payments and the lack of financing to support all students in need. The number of selected children under the BEAM program in most cases exceeds the allocated budget, thus partners also complement Government efforts through assisting those not covered by BEAM.¹⁰⁹ As the program constitutes a potential mechanism for reaching disaster-affected populations, the GoZ could consider strengthening the monitoring system, speeding up the disbursement of funds, improving targeting, and linking the program to pre-arranged risk finance to allow for a rapid scale-up following shocks.

3.3.4 Zimbabwe Social Registry (ZISO)

A well-functioning social registry with adequate household coverage is essential both in normal and crisis periods for accurate targeting and the rapid rollout of key social programs. Zimbabwe currently

has the foundations of a social registry system; the Zimbabwe Social Registry (ZISO)¹¹⁰ is functional and houses data on approximately 70,000 households. These include households from districts that were affected by Cyclone Idai (Chikomba, Chipinge, Chimanimani, Mutare, Masvingo, Zaka, Chiredzi, Gutu, and Buhera) as well as Kwekwe. To reach its potential, enumeration of households to cover a significant share of the population is required. With development partner support, the government plans to reach coverage of approximately 20 percent of the population in the next two years, with priority on districts with the highest levels of poverty and vulnerability to shocks. To promote buy-in from ministries and development partners, a harmonized questionnaire for the social registry is expected to be finalized by April 2025. Once coverage is expanded, ZISO is expected to be a crucial resource in enabling rapid and well-targeted household level disaster response.

109 - All Africa, "Zimbabwe: Beam Essential to Leave No Child Behind," December 1, 2021, <https://allafrica.com/stories/202112010195.html>

110 - Formerly known as the Integrated Social Protection Management Information System (ISPMIS)

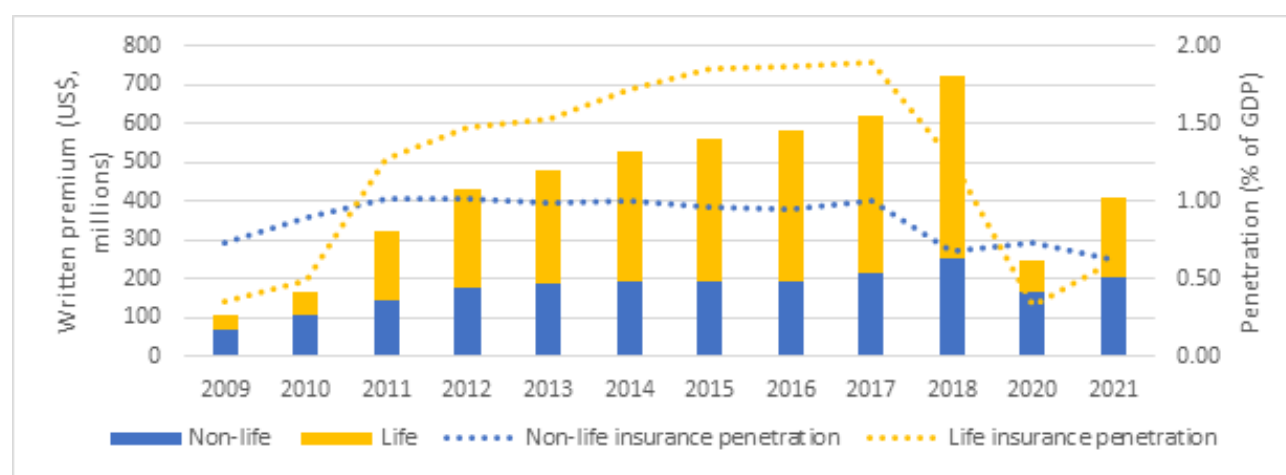
4. Review of financial markets

This chapter reviews the state of the financial markets and relevant legal and regulatory frameworks, given the sector's importance for financial resilience. The use of insurance by businesses, farmers, households, and government entities can help reduce government's disaster-related contingent liability by transferring disaster-related risk to insurance markets through property and agricultural insurance as well as microinsurance. In addition, provision of more diverse and long-term finance to MSMEs by financial institutions can enable investments in mitigation and adaptation, thereby strengthening the resilience of this key economic sector. This chapter also discusses constraints on and opportunities for climate finance.

4.1 Insurance market

The insurance sector in Zimbabwe is small, with a total gross premium of US\$330 million (or 1.5 percent of GDP) in 2021, and insurance penetration remains low (under 1 percent). The insurance sector in Zimbabwe registered promising growth from 2010 to 2019 but fell dramatically from 2020 onward. Historically the life insurance sector has dominated the market, but currency reforms of 2019, which devalued the Zimbabwean dollar, reduced confidence in life insurance products. The impact on the non-life sector was less severe because of mandatory insurance, for example motor third party (figure 24).

FIGURE 24: TOTAL INSURANCE WRITTEN PREMIUM, 2009–2021



Source: AXCO data, 2023.

Note: The year 2019 is excluded as an outlier due to currency distortion



PHOTO CREDIT: GAVIND, ISTOCK

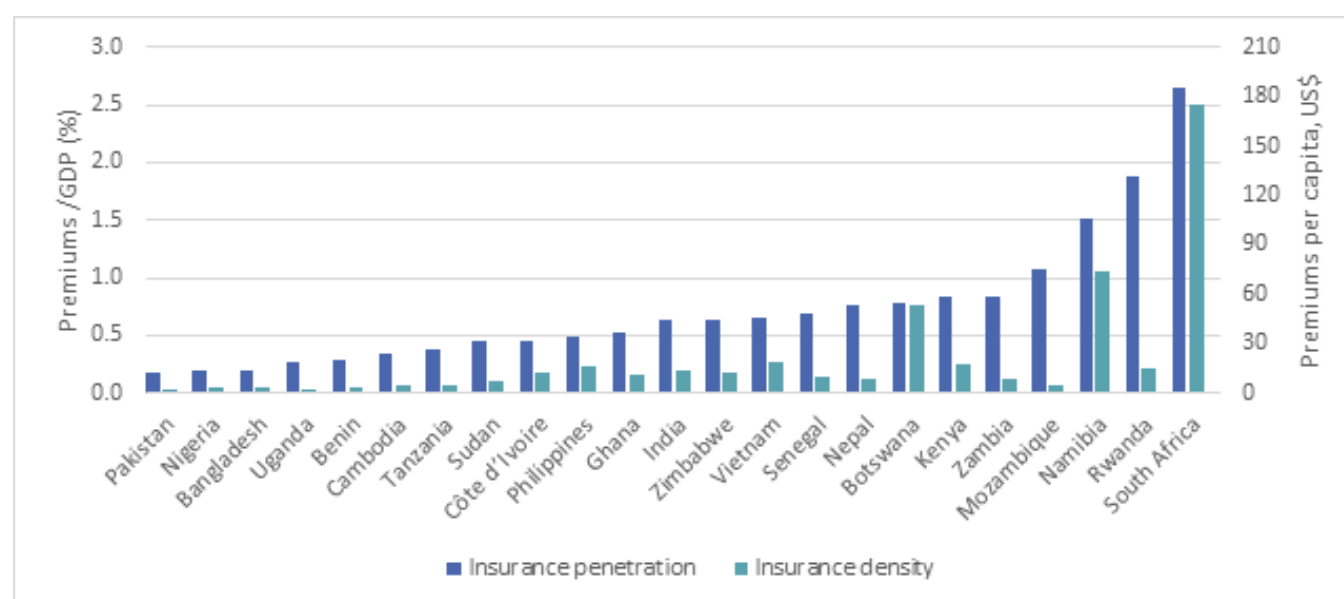
The insurance market is regulated by the Insurance and Pensions Commission (IPEC) and is dominated by a few large players, with limited competition among them. IPEC has a statutory mandate to register, regulate, monitor, and supervise insurance entities (insurers, reinsurers, funeral assurers, insurance brokers) and pension funds. As of December 31, 2021, there were 2,522 participants in the insurance industry, representing a 17 percent rise from the 2,156 reported at the end of 2020. Participants include 17 non-life insurers, five micro insurers, two composite insurers, five reinsurers including two government-owned insurers (ZB Insurance and the new agricultural insurer AFC Insurance).¹¹¹ All non-life insurance companies are members of the Insurance Council of Zimbabwe (ICZ), a representative and advocacy body that formulates and implements laws and policies that provide a conducive operating environment. ICZ

also administers special risk insurance pools on behalf of the industry.¹¹²

4.1.1 Non-life insurance

Despite demonstrating strong resilience to shocks (related to hyperinflation and foreign exchange), the non-life insurance sector lags regional peers as measured by insurance spending per capita and insurance penetration (figure 25). Insurance penetration shrank from 1 percent of GDP in 2010 to 0.63 percent in 2021. The insurance expenditure per capita is only US\$10 annually, significantly below the minimum needed to provide meaningful coverage. Total non-life sector assets stood at US\$218 million (almost a 1-to-1 ratio with the premium) at the end of 2021, which indicates capacity to underwrite more risk.

FIGURE 25: CROSS-COUNTRY COMPARISON OF INSURANCE PENETRATION AND DENSITY



Source: AXCO data, 2023.

4.1.1.1 Property insurance

Property insurance in Zimbabwe accounts for a quarter of the non-life insurance sector by premiums and typically covers climate related perils. Cover

includes fire, lightning, thunder, explosion, non-political riot and strike¹¹³, malicious damage, storm, flood, earthquake, theft, impact, aircraft, falling trees, and accidental collapse of aeriels and masts.

111 - AXCO, 2023

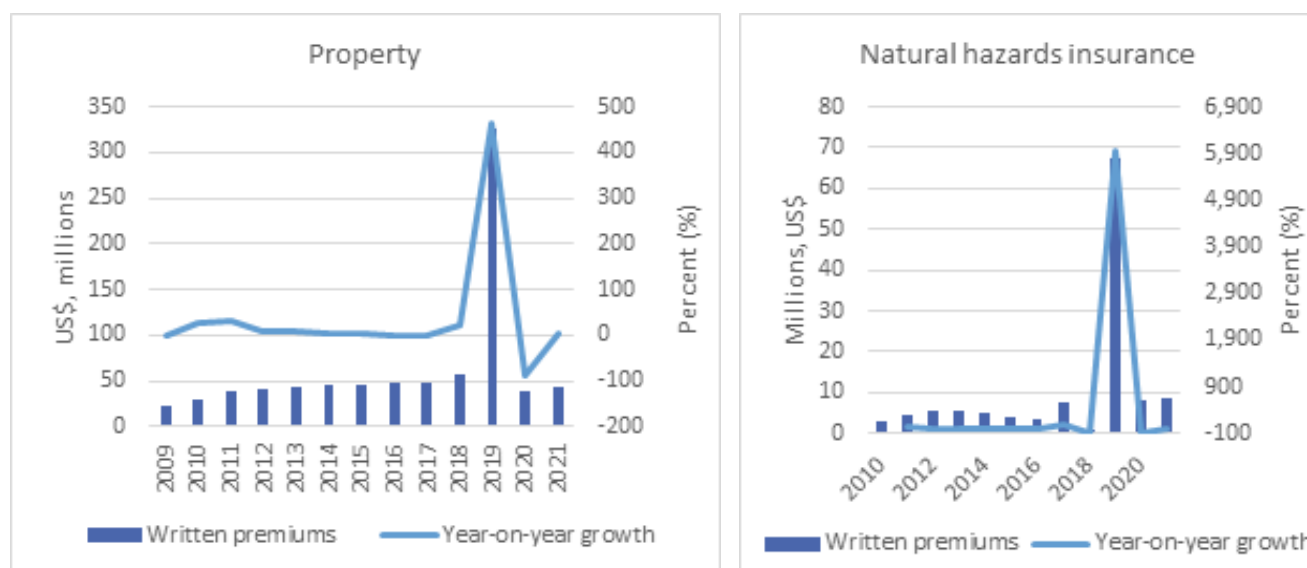
112 - <http://icz.co.zw/insurance-pools/>

113 - It is important to note that property insurance policies in Zimbabwe have specific exclusions or limits to coverage regarding strikes, riots, civil commotion, and terrorism.

The cost of property insurance varies depending on various factors, such as the value of the property, the location of the property, and the level of coverage required. Property business continues to be the second largest class of business in Zimbabwe after motor, representing nearly 24 percent of gross written

premium income in 2019. Farming and hail premiums increase property insurance premiums' total share to 30.55 percent. The bulk of premiums in this class of business are either from commercial property risks or from mandatory insurance required by banks and building societies for individual mortgages

FIGURE 26: TRENDS IN PROPERTY INSURANCE (LEFT) AND NATURAL HAZARDS INSURANCE (RIGHT)



Source: Axco data, 2023

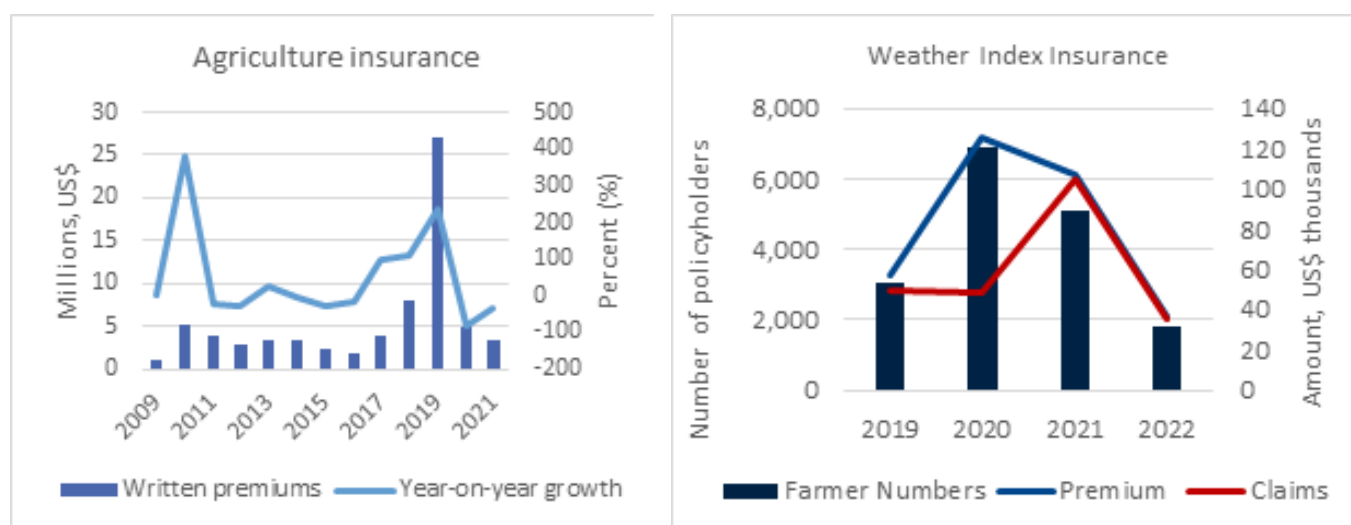
4.1.1.2 Agricultural insurance

Agricultural insurance provides coverage for risks faced by farmers, agribusinesses, and other entities engaged in agriculture. In Zimbabwe it is dominated by tobacco hail insurance, due to its strategic importance as a foreign currency earner. Tobacco is also largely produced under contract farming, which provides smallholder farmers inputs bundled with insurance. The common risks covered by agricultural insurance policies in Zimbabwe include crop losses due to weather events, pest infestations, and diseases, as well as losses due to theft or damage to agricultural equipment and infrastructure. Commercial agricultural/farming covers tend to be written on dedicated package policies. These policies have sections covering fire and perils, livestock, crops (field to floor), burglary, money, business all risks, goods in transit, public liability, personal accident, and motor. Political riot, natural disasters, and strikes are no longer covered by local policies. The main crops

insured are sugar, maize, tobacco, cotton, and wheat. Coverage against the perils of fire, storm, and malicious damage applies from the time of harvesting to the point of sale.

Several insurance players have piloted index insurance over the last nine years; some have exited the market. Zimnat Insurance piloted weather index insurance between 2014 and 2015. In 2018 Econet Wireless Insurance wrote microinsurance covers for small-scale farmers that paid out 10 times the amount of the premium if rainfall was below 2.5 mm (1 inch) for 24 consecutive days during the rainy season. Old Mutual currently provides weather-based index insurance against drought and excess rainfall. Figure 27 (right) shows the performance of weather index insurance in Zimbabwe over the last four years. The program is supported by Blue Marble, which is responsible for index design, product pricing, index monitoring, and calculation of end of season payouts.

FIGURE 27: TOTAL AGRICULTURE INSURANCE, 2009–2021 (LEFT) AND WEATHER INDEX INSURANCE, 2019–2022 (RIGHT)



Sources: AXCO, 2023; World Bank interviews with industry, 2023.

Insurance providers indicated several key challenges in scaling up agriculture index insurance. Market-level support for data provision, technical product design, and ongoing product review are needed to improve the index and product, based on wide consultation with farmers and consideration of changing weather patterns. Some possible interventions at the policy level include the use of ground weather data for independent verification of losses. This would require investment in agricultural and weather data, and at aggregate or national level would require the use of agricultural extension services to increase insurance awareness and establish regular communication about the cover on an ongoing basis.

4.1.1.3 Public asset insurance

Although there is currently no insurance for public assets and critical infrastructure, in 2022 the ICZ proposed a national public asset insurance program based on a public-private partnership. The Insurance Council of Zimbabwe proposed to underwrite the risk and manage the program.¹¹⁴ The proposed structure involves layering conventional insurance with alternative risk transfer and would require a capital injection from the government and possibly development partners. To implement such a program, the GoZ would need to address policy gaps (lack of asset registry and management policy, lack of

The state-owned agricultural insurer, AFC Insurance, is implementing a pilot macro-level area yield index insurance on the back of GoZ's successful Pfumvudza input scheme. The pilot covers four districts—Chivi, Bulilima, Makonde, and Nkayi—from December 2022 to July 2023. Government has paid 100 percent of the premium for a sum insured of US\$4 million, which is equivalent to the cost of inputs provided. The index used was 60 percent of historical crop yields. Key lessons emerging from the pilot include the need to address the high cost of crop cutting experiments, which could affect sustainability, and the need to review the design, which does not include direct payout to farmers and thus limits the ex ante benefits of insurance and delays payment.

public asset insurance guidelines/policy), technical gaps (lack of up-to-date asset registry or database to define insurable risk and quantify exposure), and operational constraints (the need to raise premium finance). The accountant general is the main custodian of the national asset registry; however, the status of the registry is unclear. Line ministries and other government entities (ministries, departments, and agencies) are responsible for maintaining up-to-date information on assets under their management and for obtaining insurance on these assets. The proportion of assets insured is reported to be insignificant. Box 2 presents the experience of the Philippines, which could inform an action plan for the GoZ to take forward.

114 - One of the strategic goals of the ICZ is to “co-operate with government on national development efforts. This includes disasters/pandemics responsiveness.”

Box 2: The Philippines' development and implementation of national public asset insurance program

Post disaster annual spending in the Philippines currently takes up nearly 0.7% of GDP with significant contingent liability to the Government. A Public Expenditure Review estimated the post-disaster spending of the government was approx. 60% of the total cost of reconstruction. Due to the rising frequency and severity of extreme events, large disaster losses are expected going forward. The government being a steward of public assets and responsible for public service delivery, including after disasters has employed several strategies to better prepare for responding to the needs of post disaster financial needs.

The government of the Philippines mandated the state insurance company of the Philippines, the Government Service Insurance System (GSIS) to develop the National Indemnity Insurance Program (NIIP) for critical public assets to manage the large contingent liabilities GoPH faces due to disasters and to enhance transparency in disaster related expenditures. GSIS was created by law as a social insurance institution and is also the administrator of Philippines' General Insurance Fund by virtue of RA 656 (Property Insurance Law), which provides insurance coverage to government assets and properties that have government insurable interests.

Under the NIIP, insurance cover for the public is placed through GSIS to international reinsurance markets with the premium being funded from the national budget with US\$34 million budgeted for 2023/24. The NIIP has received significant technical assistance from development partners. The list below highlights key features of the NIIP:

- A national asset registry system (NARS) was established under the Bureau of Treasury in 2018 for comprehensive asset management; it currently has over 400,000 assets valued at US\$10 billion and is used for insurance underwriting. This initial phase of the NARS targeted key sectors including education, health, water as well as roads and bridges. The second phase is expected to cover trains, major ports (air and sea), power plants and transmission lines as well as governmental agencies' science and technology equipment
- A comprehensive Philippines Government Asset Management Policy which was adopted in 2020 to improve financial risk management and enhance service delivery. The policy requires local government units to set aside 5% of their revenues for relief and recovery programs
- Indemnity insurance directly protects the affected asset as claims paid are clearly identifiable and earmarked for reconstruction of a specified asset. This prevents challenges of macro-level parametric insurance where (i) there may be basis risk (payout based on an index may not equal the underlying loss) and (ii) proceeds paid to the national treasury do not necessarily prioritize the affected assets
- GoPH plans to scale up NIIP to cover more assets and ensure the NIIP is mainstreamed into a regular government undertaking
- The World Bank has provided technical assistance and support on policy and institutional development over multiple years with funding from UK FCDO (Disaster Protection Program) and Switzerland (SECO)

Source: Authors

4.1.1.4 Micro small and medium enterprise insurance

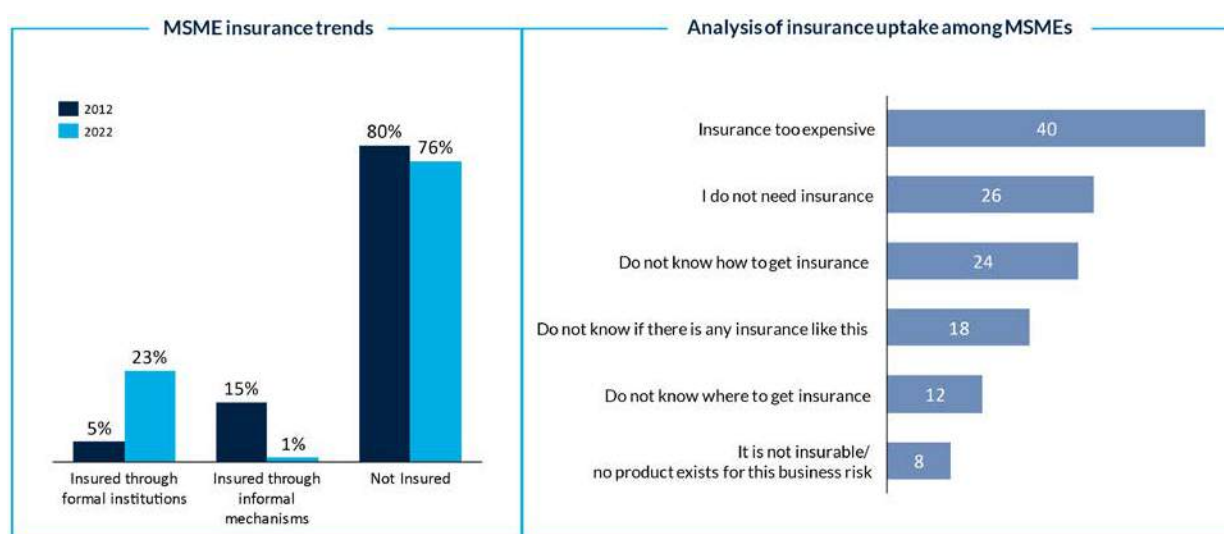
Medium small and medium enterprise (MSME) insurance policies in Zimbabwe typically cover a range of risks, including property damage, liability, theft, and business interruption. Liability insurance is an important component of insurance in Zimbabwe, as it provides coverage for legal liability arising from (for example) bodily injury or property damage caused to third parties, as well as other liabilities that may arise from the insured's operations. Business interruption insurance is another type of MSME insurance product in Zimbabwe and provides coverage for loss of income due to natural disasters, power outages, or other events that may cause a temporary shutdown of the business.

Although the use of formal insurance by MSMEs has increased significantly over the last 10 years, only four percent of MSMEs have business insurance, and 74 percent of these policies are compulsory cover. In 2022 about one in four MSME businesses in Zimbabwe was formally insured, compared to 1 in 20 in 2012. However, this coverage is dominated by business owners' personal funeral and medical cover. The main barriers to business insurance for MSMEs are lack of affordability, lack of information on types of insurance relevant to the MSMEs, and lack of information on how to purchase insurance (figure 28).



PHOTO CREDIT: DMBAKER, ISTOCK

FIGURE 28: PERCENTAGE OF MSMEs THAT USE INSURANCE IN ZIMBABWE (LEFT) AND BARRIERS TO INSURANCE UPTAKE (RIGHT)



Source: World Bank, Global Index Database, <https://www.worldbank.org/en/publication/globalindex>

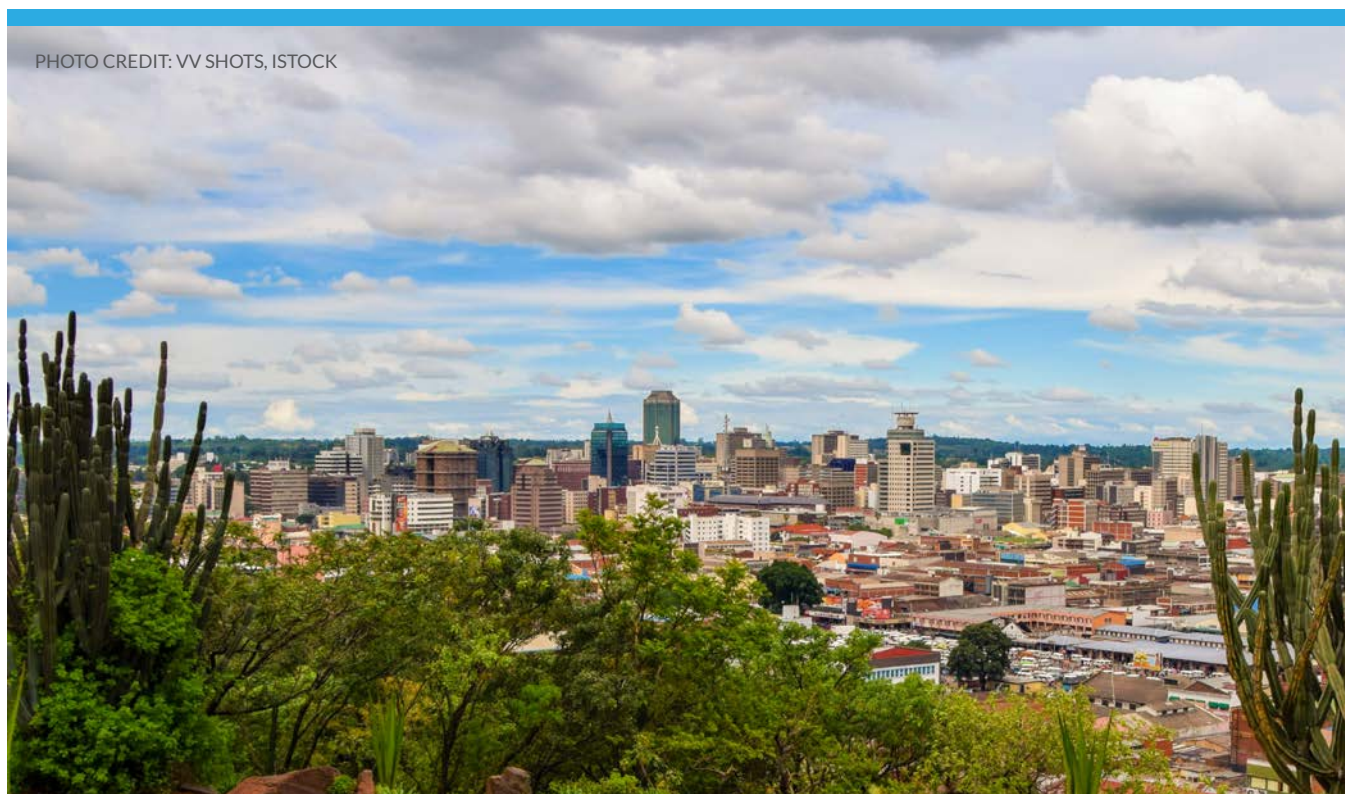
4.2 Financial inclusion and financial protection

Evidence shows that financial inclusion contributes to financial resilience by enabling households and communities to build assets and cope with shocks (box 3).

The level of financial inclusion in Zimbabwe remains lower than the Sub-Saharan African average, and a gender as well as a wealth gap persists. In 2021, about

8.5 percent of adults held an account at a financial institution—a much lower share than the Sub-Saharan African average of almost 40 percent. Only 12 percent of the poorest in Zimbabwe had an account, compared to over 20 percent of the poorest in Sub-Saharan Africa as a whole. In addition, a higher proportion of women than men are unable to raise emergency funds. Overall, compared to the average adult in the region, more Zimbabweans struggle to come up with emergency funding (figure 30).

PHOTO CREDIT: VV SHOTS, ISTOCK



Box 3: Building resilience through financial inclusion

Low-income households are particularly vulnerable to shocks, but also the least prepared to cope with and recover from the impact of shocks. The effects of climate change exacerbate vulnerability. Financial inclusion can enable households to manage risk before a shock and to recover after a shock occurs. It thus helps to build resilience—the ability to mitigate, cope with, and recover from shocks and stresses without compromising future welfare. Evidence suggests well-designed financial products and services can play a role in increasing low-income families’ resilience by helping them prepare for risks, reduce risks, increase investment in the face of risks, and respond when a shock occurs (figure 29).

FIGURE 29: EMERGING EVIDENCE ON BUILDING RESILIENCE THROUGH FINANCIAL INCLUSION



Source: D. Moore et al., “Building Resilience through Financial Inclusion: A Review of Existing Evidence and Knowledge Gaps,” Innovations for Poverty Action, 2019, <https://www.poverty-action.org/publication/building-resilience-through-financial-inclusion-review-existing-evidence-and-knowledge>

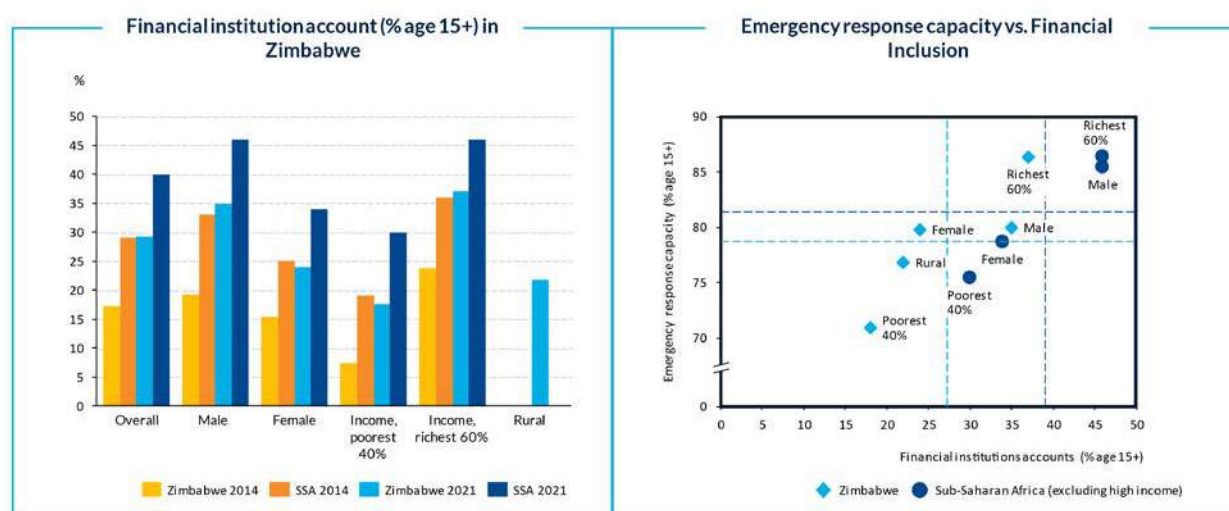
Financial inclusion remains a key priority for promoting sustainable livelihoods, creating wealth and employment, and facilitating gender equality—goals that are in line with the Vision 2030 goal of becoming an upper-middle-income economy. Zimbabwe has already developed and implemented its first National Financial Inclusion Strategy (NFIS I)

(2016–2020). The overarching objective under NFIS I was to increase the overall level of access to formal financial services from 69 percent in 2014 to at least 90 percent by 2020, and to increase the proportion of banked adults from 30 percent in 2014 to at least 60 percent by 2020.

Zimbabwe registered significant progress in increasing access to formal financial services; 83 percent of adults as of 2020 are formally served and 95 percent of MSMEs are formally served (up from 18 percent in 2012), despite the disruptive effects of the COVID-19 pandemic. Women's financial inclusion increased from 68 percent in 2014 to 83 percent in 2022, and men's

increased from 70 percent to 85 percent on the back of increased access to mobile banking products. The financial exclusion gap narrowed from 23 percent in 2014 to 12 percent in 2022. Source: Financial Inclusion Strategy in Zimbabwe: where from and where to?, Reserve Bank of Zimbabwe, October 2022.¹¹⁵

FIGURE 30: PROPORTION OF ADULTS WITH AN ACCOUNT AT A FINANCIAL INSTITUTION AND CAPACITY TO RAISE EMERGENCY FUNDS



Source: World Bank, Global Findex Database (accessed 2022), <https://www.worldbank.org/en/publication/globalfindex>

Note: SSA = Sub-Saharan Africa; Emergency response capacity= The percentage of respondents who say it is possible – whether “difficult,” “somewhat difficult,” or “not very difficult” – for them to come up with the emergency funds (1/20 of GNI per capita in local currency units) in 30 days; FI= Financial institutions; Financial institutions accounts= The percentage of respondents who report having an account (by themselves or together with someone else) at a bank or another type of financial institution.

Despite notable progress in increasing access to finance and expanding digital financial services under NFIS I, challenges were noted in implementing the strategy.¹¹⁶ Zimbabwe developed and is implementing NFIS II to incorporate strategies and stakeholder partnerships that address and mitigate these challenges. While the effort to increase access to finance will continue, NFIS II focuses on usage, quality of financial services, and financial innovation.¹¹⁷

Insurance utilization in Zimbabwe is low, but efforts are being made to promote insurance uptake, particularly for low-income households and individuals. The government, in collaboration

with insurance companies, has introduced various initiatives aimed at expanding access to insurance products and services. One such initiative, the Zimbabwe Microinsurance Trust (Zimnat Microinsurance), provides low-cost insurance products to low-income individuals and families. The products offered by Zimnat Microinsurance include funeral insurance, health insurance, and micro savings plans and are designed to meet the specific needs of low-income households. Insurance companies in Zimbabwe have also adopted various technologies to increase access to insurance products and services, particularly in rural areas.

115 - Reserve Bank of Zimbabwe, October 2022. Financial Inclusion Strategy in Zimbabwe: where from and where to?

116 - These challenges were structural (related to financial infrastructure, internet connectivity, informal nature of the economy), regulatory (value chain finance), and operational (high cost of last-mile delivery, low financial literacy and capability).

117 - Reserve Bank of Zimbabwe, “Zimbabwe National Financial Inclusion Strategy II (2022–2026),” https://www.afi-global.org/wp-content/uploads/2022/11/Zimbabwe_National_Financial_Inclusion_Strategy_II_2022-2026.pdf

Mobile-based insurance products, for example, allow individuals to purchase insurance policies and make premium payments using their mobile phones.

Overall, Zimbabwe's effort to increase access to insurance products and promote financial inclusion more generally is important for reducing the vulnerability of low-income households to various risks and improving their financial resilience. Efforts to expand access to insurance products and services through microinsurance, simplified policies, and the use of technology are key steps in this regard.

The level of financial inclusion among MSMEs has greatly improved over the past decade, and as at 2022 are fully excluded, down from 43 percent in 2012. The depth of inclusion is low, however. explanation for this situation is that nearly all accounts (97 percent) are registered in the name of the owner rather than the business,¹¹⁸ so businesses do not have their own credit scores. While informal sources of credit or borrowing from friends and family are available to a larger number of businesses, these MSMEs too have limited reach. Among smaller MSMEs, 62 percent of individual entrepreneurs and 43 percent of micro-businesses are not able to borrow from any source.¹¹⁹ Sectors with lowest levels of inclusion are natural resources and mining, business services, and wholesale and retail,

where under 30 percent of MSMEs are banked. This low level of inclusion puts the country behind peers such as Eswatini or Lesotho and well below South Africa.¹²⁰ With over 70 percent of MSMEs reporting fragility, lack of finance is by far the main challenge.

Saving and insurance have the potential to boost resilience, but unfortunately only a small fraction of businesses use them. Among MSMEs in Zimbabwe, 60 percent do not have any savings, a dramatic increase from 28 percent a decade earlier. Of those that save, virtually all rely on informal and often unregulated mechanisms. Between 2012 and 2022 the percentage of MSMEs that trust banks with their savings dropped from 13 percent to zero, primarily due to lack of disposable cash. The insurance uptake marginally improved over the decade 2012–2022; at its end, 24 percent of MSMEs had some form of insurance, an increase of four percentage points. A switch from informal insurance mechanisms to use of formal insurers also occurred during this time. Despite this positive trend, however, most insurance covers only the owner of the business, with products such as medical insurance or a funeral plan. Business insurance is bought by only 4 percent of the sector (see Figure 31), as the majority of MSMEs cannot afford it.¹²¹

118 - Finscope, "Micro, Small and Medium Enterprises (MSME) Survey Highlights: Zimbabwe."

119 - Chipika, "Financial Inclusion Strategy in Zimbabwe."

120 - Finscope, "Micro, Small and Medium Enterprises (MSME) Survey Highlights: Zimbabwe."

121 - Ibid.



PHOTO CREDIT: RUTENDO PETROS, UNSPLASH

FIGURE 31: DYNAMICS OF MSMEs' ACCESS TO CREDIT, INSURANCE, AND SAVINGS



Source: Finscope, "Micro, Small and Medium Enterprises (MSME) Survey Highlights: Zimbabwe," 2022, https://finmark.org.za/Publications/FinScope_MSME_Survey_Zimbabwe2022_Pocket_Guide.pdf

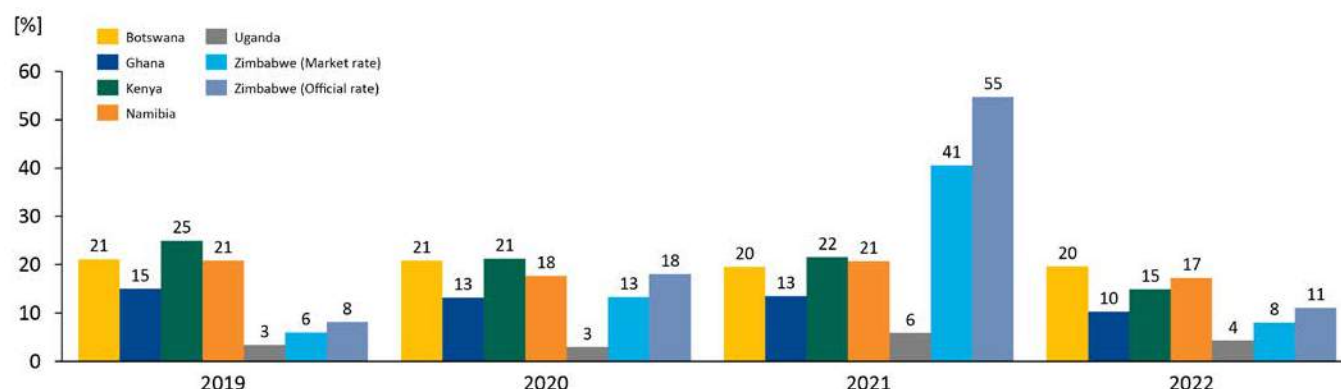
4.3 Capital markets

This section provides an overview of the status of capital markets and assesses climate-related opportunities to grow and deepen the market, which will benefit the insurance sector while also stimulating climate finance. The section also assesses investment options to strengthen the resilience of the domestic insurance market to multiple shocks, including climate-related, currency-related, and inflation-related shocks. Robust capital markets allow insurers to recapitalize should a disaster severely affect insurers' capital. Capital markets tend to be deeper than corresponding insurance markets for the same risk, and the investors on many exchanges have higher risk appetites than insurance companies.

4.3.1 Overview of the capital markets

In Zimbabwe, the capital market consists of a sophisticated but small stock market and a small bond market. The Zimbabwe Stock Exchange (ZSE), which was founded in 1894, is the main platform for trading stocks and other securities, and has been expanding and modernizing. The ZSE is regulated by the Securities and Exchange Commission of Zimbabwe (SECZ) and has 65 listed companies, including financial institutions, mining companies, and telecommunications companies. The ZSE also provides a regulated platform for secondary market buying and selling of securities; regulates stockbrokers, market makers, and security issuers; and facilitates the raising of long-term capital for companies, government, and semigovernmental institutions.

FIGURE 32: COMPARISON OF STOCK MARKET CAPITALIZATION TO GDP FOR ZIMBABWE AND SELECTED COUNTRIES



Source: <https://www.zimrates.com/category/historical-rates/>; Zimbabwe Stock Exchange website, and annual reports¹²², Botswana Stock Exchange annual reports¹²³, Ghana Stock Exchange reports on Equity¹²⁴, Namibia Stock Exchange annual reports¹²⁵, Capital Markets Quarterly Bulletin (CMA, 2022)¹²⁶, World Bank development indicators, <https://databank.worldbank.org/source/world-development-indicators?Series=PA.NUS.FCRF>, <https://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS>, Ghana Central bank - Inter-Bank Exchange Rate¹²⁷, CEIC data, <https://www.ceicdata.com/en/indicator/kenya/market-capitalization--nominal-gdp>

Note: All figures are calculated and estimated for the end of the year, Market rate figures have used market rate for the exchange rate in calculating the market cap in \$US, Official rate figures have used “Willing Buyer Willing Seller Official Mid Rate” for exchange rates

The ZSE is extremely volatile and concentrated and declined significantly in the estimated real market capitalization in 2022 (see figure 33). Market capitalization ended at US\$2.2 billion in Q4 of 2022, with a total turnover of Z\$ 132 billion for the year

2022. Foreign investor participation accounted for 19 percent of 2022 trades and 12 percent of 2021 trades. The total turnover for the top-five companies contributed 78 percent of the total turnover for Q3 2022.

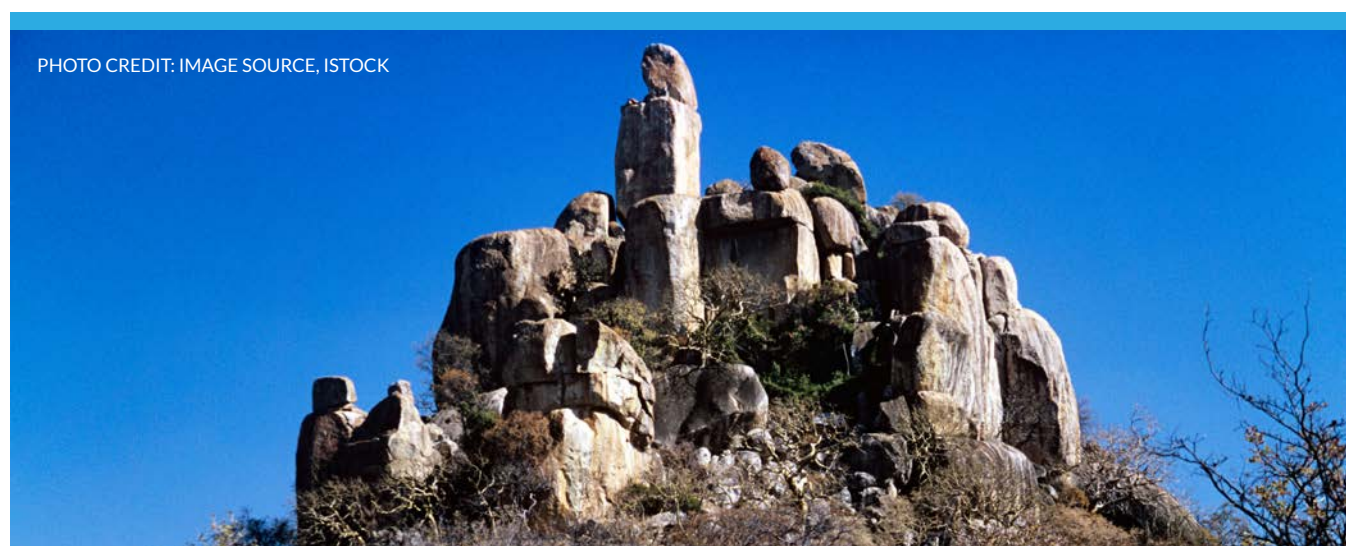


PHOTO CREDIT: IMAGE SOURCE, ISTOCK

122 - <https://www.zse.co.zw/annual-reports/>

123 - <https://use.or.ug/content/market-performance>

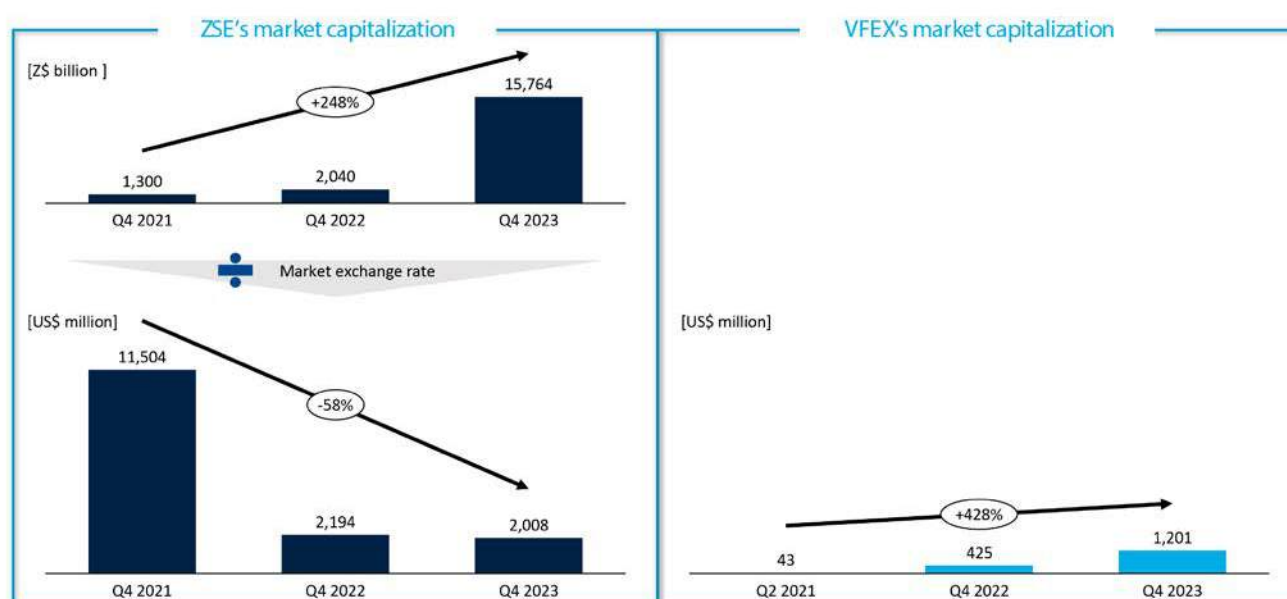
124 - <https://gse.com.gh/market-reports/>

125 - <https://nsx.com.na/index.php/data/annual-reports-for-the-nsx>

126 - <https://cmauganda.co.ug/wp-content/uploads/2022/08/Capital-Markets-Quarterly-Bulletin-4Q.2022.pdf>

127 - <https://www.bog.gov.gh/economic-data/exchange-rate/>

FIGURE 33: ZSE MARKET CAPITALIZATION GROWTH IN COMPARISON TO VFEX MARKET CAPITALIZATION GROWTH



Source: Victoria falls newsletters: <https://www.vfex.exchange/wp-content/uploads/2022/10/VFEX-Newsletter-Q3-2022.pdf>; <https://www.vfex.exchange/wp-content/uploads/2022/07/VICTORIA-FALLS-STOCK-EXCHANGE-NEWSLETTER-Q2-2022.pdf>; <https://www.vfex.exchange/wp-content/uploads/2021/05/VFEX-Newsletter-May-2021.pdf>; <https://www.vfex.exchange/>; <https://www.chronicle.co.zw/new-listings-boost-vfex-market-capitalisation/#:~:text=NEW%20listings%20on%20the%20Victoria,a%20202%2C51%20percent%20increase.>; Zimbabwe Stock Exchange website, and annual reports¹²⁸

Note: VFEX = Victoria Falls Stock Exchange, Exchange rates taken for the end of the year as 1 \$US to \$Z equals 22.7, 111, 113, 930 from 2019 to 2022, respectively.

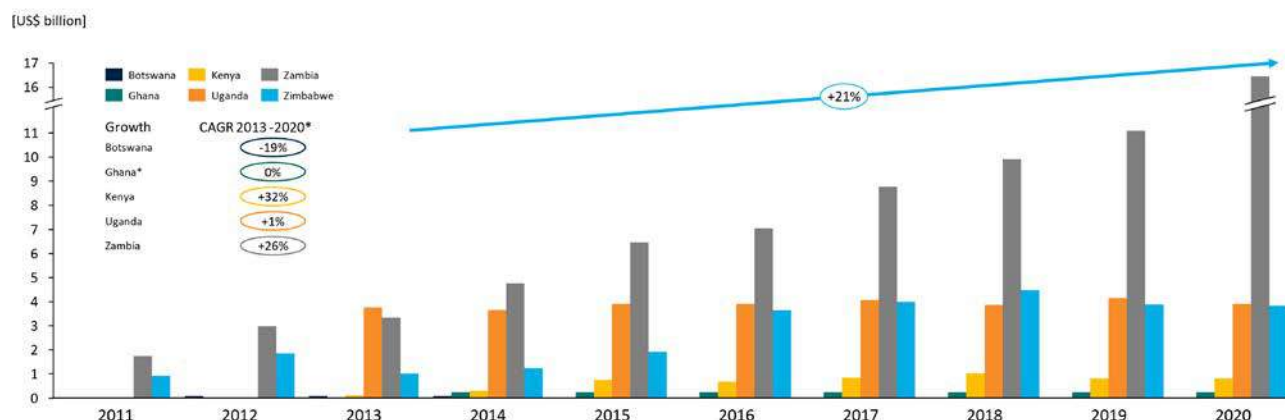
A new securities exchange, the Victoria Falls Stock Exchange (VFEX), was launched in 2020 to attract foreign investors. VFEX currently has seven listed companies and offers a platform for companies to list their shares and bonds. Established and regulated by an act of Parliament, the VFEX operates as a subsidiary of the ZSE and provides a secure platform for US dollar transactions. Once funds are remitted through the exchange, they are accorded “free funds” status, and remittance out of Zimbabwe is automatically approved under exchange control approval from the Reserve Bank of Zimbabwe. Key incentives applicable to VFEX include lower trading fees, hard currency trading, no capital gains withholding tax, and lower dividend withholding tax for foreign investors.

The launch of VFEX has had a significant impact on capital markets in Zimbabwe. Market capitalization increased tremendously with a CAGR of 428% between Q2 2021 and Q4 2023 (See figure 34 above), when it reached US\$1,201

million. It has increased foreign investment, provided local companies with increased access to capital, stimulated improvements in the regulatory framework, and provided investment diversification opportunities for households and businesses. VFEX offers a range of investment opportunities, including stocks, bonds, and exchange-traded funds (ETFs). The VFEX market had a high growth rate, probably because it was more attractive to hedge and protect investors from inflation and exchange rate fluctuations. However, in sum, the equity market size relative to its GDP is small, and the equity financing capacity can be further developed to address the need for access to capital. On the debt financing side, bond issuance has grown by 21% in CAGR from 2013 to 2020, highlighting it as a desired means to finance required capital for businesses. Zimbabwean corporate bond issuance relative to its GDP is higher or comparable to its peers except Zambia, which is an outlier among the benchmarked countries (See figure 34).

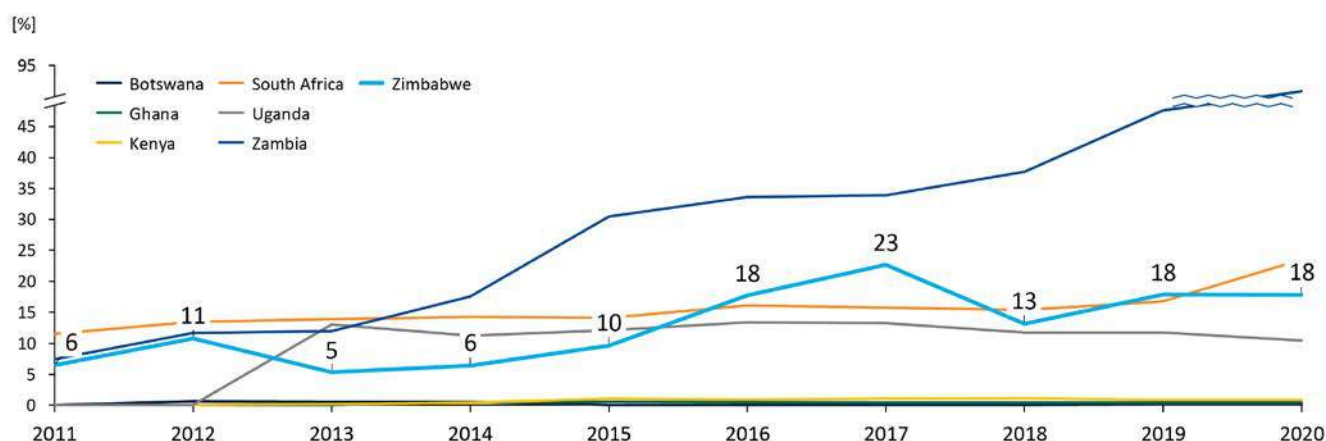
128 - <https://www.zse.co.zw/annual-reports/>

FIGURE 34: CORPORATE BOND ISSUANCE (TOP) CORPORATE BOND ISSUANCE TO GDP (BOTTOM)



Source: Capital markets in sub-Saharan Africa (Githinji Njenga 2022); <https://www.wider.unu.edu/sites/default/files/Publications/Working-paper/PDF/wp2022-112-capital-markets-sub-Saharan-Africa.pdf>

Note: CAGR= Compound annual growth rate, *CAGR calculated from 2014 not 2013



Source: World Bank development indicators, <https://databank.worldbank.org/source/world-development-indicators>; Capital markets in sub-Saharan Africa (Githinji Njenga 2022),

<https://www.wider.unu.edu/sites/default/files/Publications/Working-paper/PDF/wp2022-112-capital-markets-sub-Saharan-Africa.pdf>

Note: CAGR = Compound annual growth rate, *For Ghana, the CAGR was calculated from 2014 to 2020.

The government and regulator could increase efforts to promote the development of the capital markets and stimulate climate risk finance solutions like catastrophe (cat) bonds. Desktop research shows that there have been efforts in the past to introduce cat bonds—e.g., the Grande Re bond that was issued by IMARA in 2020. Ongoing efforts, including the introduction of new policies and regulations aimed at promoting transparency and accountability in the markets, as well as efforts to stabilize the economy

and address currency shortages, are commendable. The ZSE recently introduced circuit breakers that help to cool down the market once the daily movement is more than 10 percent. The government also recently introduced a punitive capital gains tax of 40 percent for traders who use fictitious devices, such as speculative trading to manipulate the markets. The government could take a more sustained and systematic approach through a capital market development strategy.

5. Funding gap analysis and risk financing strategies

Statistical analysis was conducted to estimate the costs of disaster relief to the Government of Zimbabwe. The analysis excluded costs of recovery and reconstruction as governments tend to have more time to plan for these later phases. It estimated the historical cost of relief and then conducted statistical analysis to derive indicative expected future costs of relief. These were compared to the available funding to determine the funding gap.

5.1 Fiscal cost analysis

In the first step of the analysis, two distinct estimation methods were used to derive relief costs from the economic losses: one for the impact of droughts through food insecurity, and the other for the impact of flood through physical damage to property and assets. For droughts, the number of people in need of emergency food relief or affected by drought between

2012 and 2021 was multiplied by an average cost of relief per person.¹²⁹ For floods, the uninsured economic loss value was multiplied by an emergency relief factor. The uninsured loss was based on the results of a flood catastrophe model.¹³⁰ The relief factors were based on international reinsurance practice. The analysis assessed a range of different statistical distributions and selected the one that best fit the empirical data. Monte Carlo simulation was then carried out to simulate 15,000 years of losses from the fitted distribution. These simulated relief costs indicate the frequency and severity of future relief costs. For GoZ to make decisions, the analysis would need to be refined, particularly with better information on historical costs going forward. the GoZ could develop a national database on economic and fiscal impact and expenditure related to disasters to strengthen the evidence base on disaster risk financing and disaster risk management more broadly.



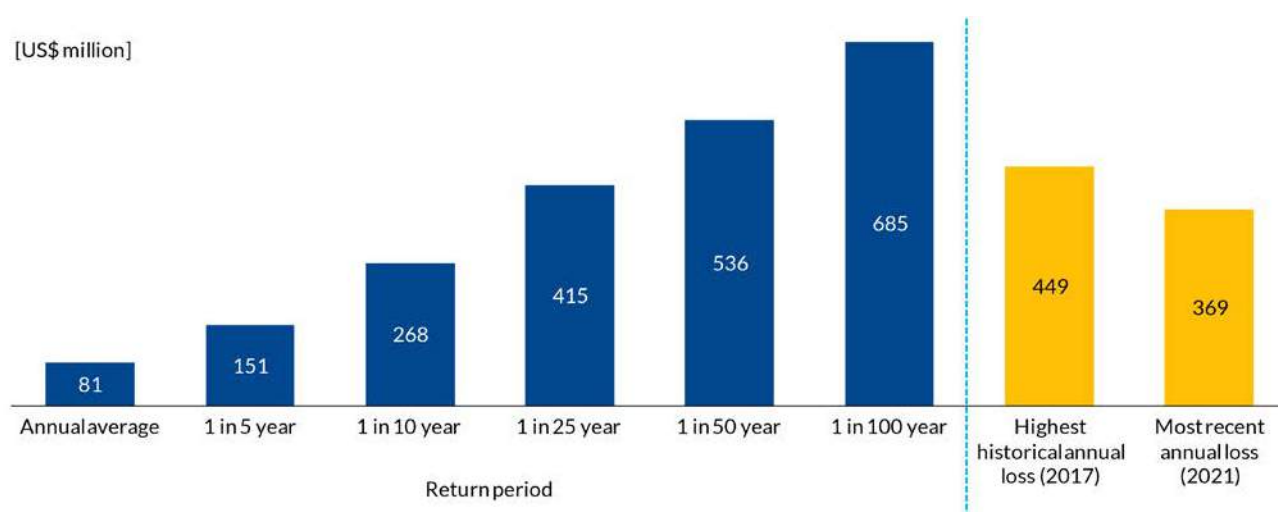
129 - The number of people was as reported through the Integrated Food Insecurity Phase Classification (IPC) Acute Food Insecurity analysis. The cost of relief per person was assumed to be US\$40.

130 - The catastrophe model covers residential and industrial property and excludes public assets and infrastructure due to lack of a public asset and infrastructure database.

The fiscal cost of emergency disaster response in Zimbabwe is conservatively estimated at US\$81 million per year and could reach US\$540 million in a year with a 1-in-50-year event. As shown in figure 35, the distribution is highly positively skewed, which suggests a substantial likelihood of having

very large relief costs. Damage to public assets and infrastructure is excluded; hence costs are expected to increase once damage to public assets and infrastructure are accounted for. This analysis is indicative due to the limited availability of data on economic losses and fiscal costs of disasters.

FIGURE 35: SIMULATED AVERAGE ANNUAL COSTS OF DISASTER RESPONSE DUE TO DROUGHT AND FLOOD IN ZIMBABWE OVER THE NEXT YEAR FOR DIFFERENT RETURN PERIODS



Source: World Bank analysis.

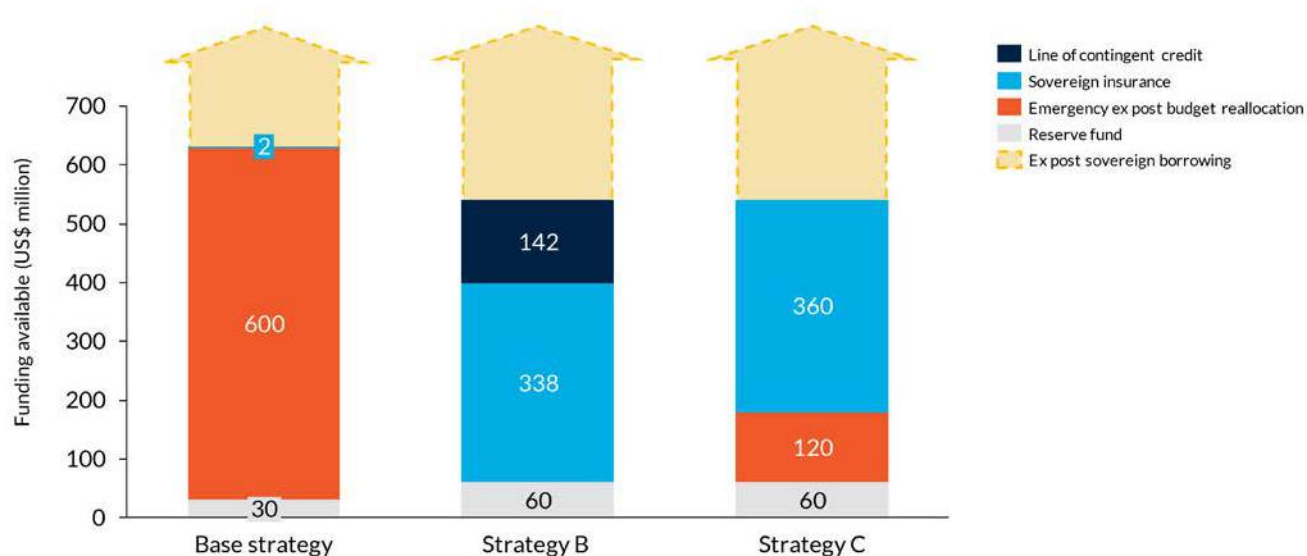
Note: The return period is the duration over which a loss of the same or greater magnitude should be expected. A 1-in-5-year return period is the estimated annual loss expected to be exceeded once every five years on average; in other words, in any given year there is a 20 percent probability of a loss 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.

5.2 Funding gap and comparison with risk-layered strategy

To assess the funding gap at various return periods, the indicative distribution of fiscal costs of relief presented in the preceding section is compared to the funding currently available to the GoZ. The analysis also compares potential coverage provided by alternative risk financing strategies that the GoZ could consider. The analysis therefore demonstrates how the government could develop

a risk financing strategy consisting of multiple financial instruments that balance risk retention and risk transfer (risk layering) and compares this strategy to the current financing approach (base strategy). The total available funding under each strategy is presented in figure 36. GoZ would need to consider key trade-offs (box 4), its risk appetite, and overall macroeconomic context when developing its strategy.

FIGURE 36: FUNDS UNDER EACH FINANCING STRATEGY



Base strategy

- Reserve fund of US\$33 million (drought mitigation 2023)
- Budget reallocation of US\$600 million (reallocation in 2016)
- Sovereign insurance (ARC drought insurance with a maximum payout of US\$1.7 million; cession of about 2 percent; protects only human capital assets)

Strategy B

- Reserve fund of US\$60 million to cover mild events
- Contingent credit or grant of US\$142 million for moderate to severe events
- Sovereign insurance (multi-peril) with a maximum payout of US\$338 million and cession of 50 percent to protect human capital and physical assets

Strategy C

- Reserve fund of US\$60 million to cover mild events
- Reallocation of up to US\$120 million for moderate events
- Sovereign insurance with a maximum payout of US\$360 million and 50 percent cession

All strategies include unlimited ex post borrowing for residual risk.

Note: ARC = African Risk Capacity. The instruments in Strategies B and C are layered to cover 1-in-50-year and less severe events. The analysis assumes that the reserve fund is exclusively for disaster relief and incurs small administrative costs. The contingent credit used for illustrative purposes is a World Bank Cat DDO. The sovereign insurance is assumed to cover all perils and has a 100 percent ceding share, which means all losses in the sovereign insurance layer are protected. The attachment is set such that insurance pays out when costs of relief exceed US\$232 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 nearly US\$630 million, would not be covered by the insurance. In such a rare event, GoZ would raise additional funds through borrowing.

Box 4: Risk layering: Key trade-offs and considerations when establishing a disaster risk finance strategy

In developing a national DRF strategy, it is important to decide on the level of risk that the national balance sheet can retain and the level to transfer to private financial markets, which will be limited by the costs of the various instruments.

GoZ would need to consider the following trade-offs and considerations:

1. Different risk financing instruments have different costs and differ in cash flows—for example, reserves incur a delayed opportunity cost while insurance has an up-front cost of premiums.
2. Holding large reserves entails an opportunity cost; but if a major event occurs in the absence of reserves, mobilizing funding through budget reallocation and borrowing can result in avoidably high response costs.
3. Budget reallocations carry a high opportunity cost, as resources are channeled away from planned high-yielding social and capital investments.
4. Ex post borrowing is especially time-consuming, and many countries face challenges raising debt after a shock which results in high time costs. Furthermore, a disaster event can result in a credit downgrade and trigger a debt crisis.
5. Insurance is suited for relatively extreme events—that is, events occurring less frequently than every 5–10 years, on average.

With the current pre-arranged funding of US\$33 million, the annual funding gap is estimated to exceed US\$48 million on average. The funding gap is the difference between the available government budget and the probable loss for a given event size. The funding

gap increases as the losses increase (with higher event return periods) because the pre-arranged funds and amount of cover from the sovereign insurance are constant (figure 37).

FIGURE 37: FUNDING GAP AT VARIOUS RETURN PERIODS ASSUMING PRE-ARRANGED FUNDS OF APPROXIMATELY US\$33 MILLION

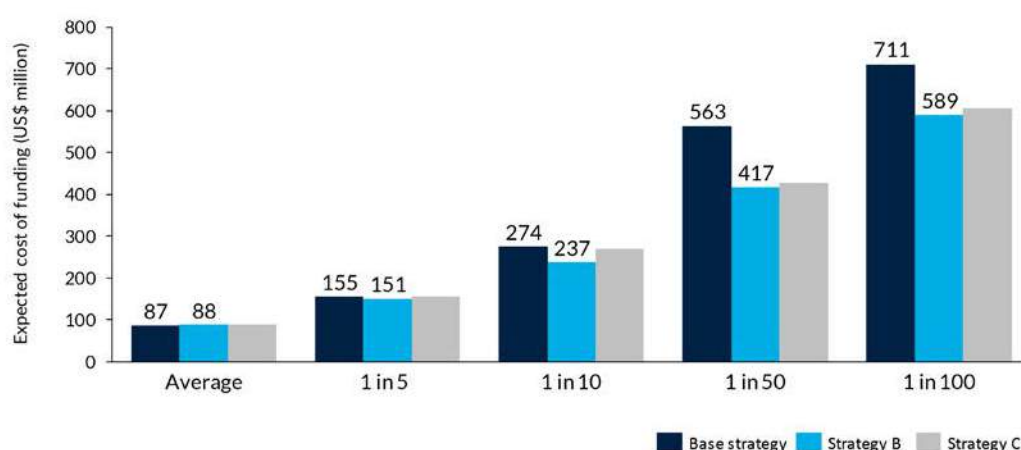


Source: World Bank analysis.

A risk-layered financing strategy would be more cost-efficient, for both moderate shocks and more extreme events, than Zimbabwe's current approach. As shown in figure 38, compared with the base strategy, a risk-layered approach could create modest savings for regular 1-in-5-year loss events; for moderate 1-in-10-year events, severe 1-in-50-year events, and extreme 1-in-100-year events, it could generate savings of US\$37 million, US\$146 million, and US\$122 million, respectively. Strategies B and C are more cost-effective than the base strategy for funding moderate to extreme loss events, which demonstrates the effectiveness of an expanded risk-layering approach. Budget reallocations and ex post borrowing carry high opportunity costs, may be slow

and unpredictable, and divert resources away from higher-yielding social and physical investments. These financing instruments are used less frequently under Strategies B and C, which creates significant savings compared to using the base strategy. In addition, the significant savings generated for severe to extreme events demonstrate the ability of insurance to mitigate the financial impact of larger costs as the premium leverages additional capital. Under Strategy B, the GoZ would have a wider range of risk financing options, including multi-peril insurance, that could be triggered after disasters to protect the budget against severe events and significantly reduce the likelihood of emergency borrowing.

FIGURE 38: EFFECT OF RISK-LAYERED FINANCING APPROACH ON COST OF COVERING LOSSES



Source: World Bank analysis.

Considering that the GoZ currently does not have access to contingent lines of credit from multilateral lenders, Strategy C is designed to mimic the costs of Strategy B while using reallocation, which is not ideal but is unavoidable in the case of Zimbabwe. Historically, Zimbabwe has had a large capacity for reallocation (up to US\$600 million could finance a severe 1-in-50-year loss), but large reallocations

may be less feasible given tighter fiscal space arising from the prevailing macroeconomic challenges and polycrisis context following COVID-19 and the Russia-Ukraine war. Further cost efficiencies could be generated by optimizing use of reallocations. More in-depth financial modeling and technical analysis should be carried out to rightsize potential financial instruments for Zimbabwe.

6. Recommended options to strengthen financial resilience

This chapter provides options for strengthening financial resilience against crises and disasters in Zimbabwe. Options are grouped into three areas: the policy framework and public financial management, the financial sector and use of insurance, and the set of risk financing instruments. For each area, an indicative timeline is given to support the Government of Zimbabwe with prioritization over the next five years (table 7). These options are not mutually exclusive and can be pursued in parallel. Overall, creating a stable macroeconomic environment is a necessary condition for Zimbabwe to strengthen financial resilience at all levels of society.

6.1 Improve the policy framework, public financial management, and risk-informed decision-making

Develop a comprehensive DRF strategy under the leadership of MoFED in collaboration with DCP. A comprehensive strategy would help avoid fragmentation and ensure the different mechanisms complement each other and support other relevant policy initiatives. It would also strengthen the government's ability to carry out planning and financial preparation for both social and climate-related disasters by determining (ex ante) the priorities and the optimal risk-layering approach for addressing disasters and crises of different severities and frequencies.

Develop a public expenditure tracking system for disaster and crisis response. This effort could be led by MoFED and should include integrated tracking of spending (disaggregated by response, recovery, and reconstruction) into a government financial system. Tracking could cover spending from budget appropriations, the contingency budget reserve, and budget reallocations as well as disaster expenditures that usually remain embedded in the budget, such as operations and maintenance. Given the extent of the COVID-19 impact and budget spending on the response and recovery, the GoZ could also consider reviewing how much was spent and how financing decisions were made. This step would help clarify gaps to improve the DRF process in the future.

Consider proactive planning for reallocations in the budgeting framework to minimize unintended negative consequences from delayed or canceled expenditures. The first step would be to conduct an in-depth study to understand sectors or projects that generally underperform or are cut, as well as to quantify the opportunity cost of reallocation, which seems large but is unknown. Such a study would inform development of a tiered framework for approaching disaster-related budget reallocations based on the potential costs (See figure 39 for an example). This framework should be implemented jointly by the MoFED and line ministries; the former should set guidelines and grant final approval of which spending to reallocate under each tier of the framework, and the latter should propose spending to be cut or protected, in line with the guidelines and based on staff's technical expertise and understanding of implementation. To ensure the greatest returns, this proactive reallocation strategy should be embedded within the broader DRF strategy.

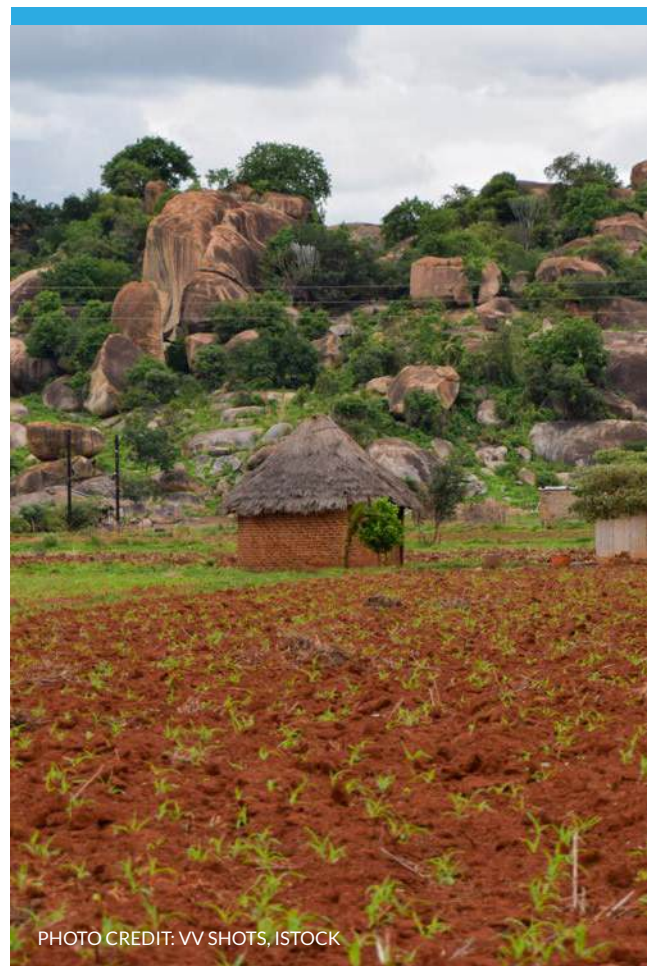
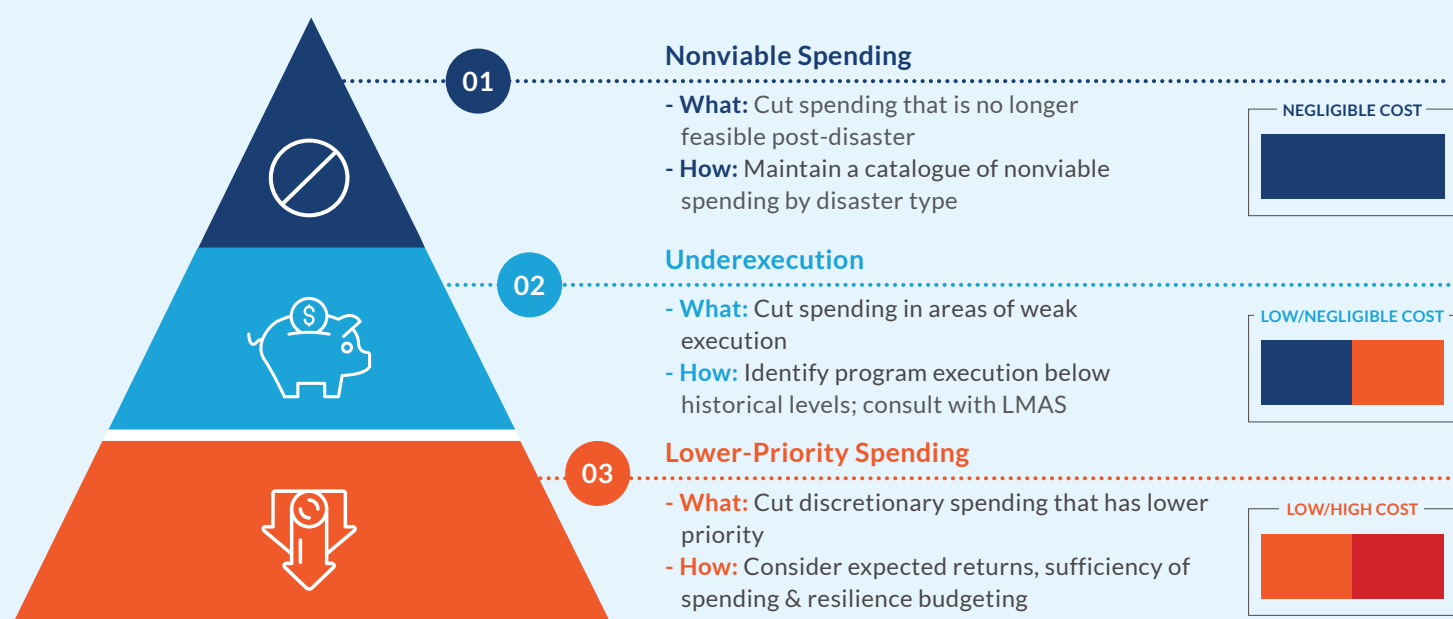


PHOTO CREDIT: VV SHOTS, ISTOCK

FIGURE 39: FRAMEWORK FOR APPROACHING DISASTER-RELATED BUDGET REALLOCATIONS



Source: World Bank, Albania: The Impact of COVID-19-Related Budget Reallocations (Washington, DC: World Bank, 2021), <https://documents1.worldbank.org/curated/en/099505006202299116/pdf/P17481105fbb4f03f0a5400e6abe9e0952a.pdf>

Note: LMA = line ministries and agencies.

Strengthen the technical capacity of the MoFED on disaster risk finance through a dedicated capacity-building program. This could also include key stakeholders in the implementation of GoZ's DRF strategy, including the DCP, the Ministry of Agriculture, and Ministry of Public Service, Labor, and Social Welfare.

6.2 Strengthen the financial sector and enhance the use of insurance

Scale up agriculture insurance. This option could entail creation of a technical working group at industry level to invest in public goods such as data and to address a range of common issues affecting the growth of the industry, notably the tax on transfers of premium and payout, which affects affordability; issues with ID documents, which affect use of mobile money-based products; and limited awareness of insurance among farmers, which affects trust. A robust insurance awareness campaign as part of the National Financial Inclusion Strategy II could be led by and implemented with the insurance regulator and involve partnership between insurers and agriculture extension services.

Review the area yield index insurance design and analyze the cost-to-benefit ratio before scaling it up. The current design, in which a payout is made to the government rather than directly to farmers, limits ex ante benefits of insurance and delays payment to farmers. Furthermore, the high cost of crop cutting experiments potentially compromises sustainability. To increase ex ante benefits, the program could require a contribution from farmers for the cost of the package of inputs and insurance.

Craft a capital markets development strategy to grow and deepen the market by facilitating disaster risk and climate finance. The development of the capital markets in Zimbabwe is essential for the growth and resilience of the insurance sector. The government could work with the industry to create a strategy that addressed macro-fiscal constraints and also facilitated development of risk and climate finance products for MSMEs and investment options for insurance companies to improve their financial resilience. Insurance regulations could allow insurance entities to issue contingent capital such as cat bonds, which could be sold to the international market through the VFEX. The SECZ could lead on such an initiative, working closely with IPEC and the Reserve Bank of Zimbabwe.

6.3 Strengthen existing instruments and adopt new risk financing instruments

Establish a multiyear disaster reserve fund that draws funds from internal sources (budgetary allocation, levies, etc.) and external sources (multilateral and bilateral assistance, etc.). This could be done by strengthening the National Disaster Fund and graduating it from donor dependence to more effectively finance response to high-frequency shocks that have low to moderate impact. However, the value of such a fund for risk financing could be undermined by a very broad mandate if it includes funding of state-owned enterprises and non-disaster events. The fund would need to be underpinned by a legal provision and would require a robust governance framework and operational regulations and guidelines. Regulations would need to define the end use of funds, establish clear triggers and guidelines for accessing the fund, and establish rules for immediate recapitalization of the fund following disbursement, or purchase of catastrophe insurance to protect the fund. Establishment of such a fund would be subject to appropriate safeguards, such as appointment of a fiduciary manager for financial management or a third party to oversee the fund's day-to-day operations. Indeed, such safeguards would be consistent with donors' cautious approach to supporting the GoZ.

Develop a risk-based asset management system and implement a public-private partnership for insurance of public assets and critical infrastructure in the medium to long term. In the short term, the

government could assess the technical, operational, and financial feasibility of designing and implementing a public asset insurance program and carry out a detailed review of the public asset registry. An asset registry would empower asset owners with relevant and accurate underwriting information to inform competitive terms and conditions, particularly cost-effective premiums. The feasibility study would map what type of data exist and what data are missing (for insurance purposes); it would identify priority assets to begin with as well as potential financial sources for premium costs. The proposal presented by the Insurance Council of Zimbabwe presents a good basis for assessing viable operational models for risk transfer and risk sharing between the public and private sector. IPEC and ICZ could work closely on this under the oversight of the accountant general, whose mandate includes management of public assets.

Strengthen the institutional capacity and adaptiveness of the social protection system to allow for timely disbursement of funds to affected household. Evidence shows that social protection can be used effectively to channel funds quickly and securely to poor households affected by shocks. Such shock-responsive systems require setting out operation procedures in advance. A shock-responsive safety net would support people at risk of falling into poverty and provide additional assistance to poor and vulnerable people affected by disasters. Further, GoZ could consider linking risk financing to anticipatory-action mechanisms to allow for interventions in anticipation of a hazard. This approach would help minimize the impact on lives and livelihoods and reduce the humanitarian caseload and associated cost.

Table 7: Recommendations for strengthening financial resilience in Zimbabwe

Time frame	Improve the policy framework, public financial management, and risk-informed decision-making	Strengthen the financial sector and enhance the use of insurance	Strengthen existing instruments and adopt new risk financing instruments
Short term	<ul style="list-style-type: none"> • Develop a comprehensive disaster risk finance strategy • Fast track the adoption of the DRM Bill and address gaps in regulations on emergency procurement • Strengthen the technical capacity of the MoFED on disaster risk finance through a dedicated capacity-building program 	<ul style="list-style-type: none"> • Scale up agriculture insurance review the AYII pilot design and cost-benefit ratio • Consider PPP approach to invest in key public goods like data, insurance awareness, and local insurance market's technical capacity for index agriculture insurance 	<ul style="list-style-type: none"> • Conduct a feasibility study on public asset insurance and a review of national public asset registry
Medium term	<ul style="list-style-type: none"> • Develop a public expenditure tracking system for disaster and crisis response • Within the budgeting framework, develop a system for proactive planning for reallocations to minimize unintended negative consequences from delayed or canceled expenditures • Develop a public asset management policy that addresses insurance of public assets and critical infrastructure 	<ul style="list-style-type: none"> • Craft a capital market development strategy to grow and deepen the market by facilitating contingency and climate finance • Support insurance awareness creation among farmers and MSMEs • Conduct a review of the impact of aggregate exclusion due to national declaration of disaster on the insurance sector, households, and businesses; identify appropriate structural or regulatory interventions 	<ul style="list-style-type: none"> • Establish a dedicated multiyear disaster reserve fund for moderate-risk events in line with global good practice; this could be done by strengthening the National Disaster Fund and graduating it from donor dependence • Develop and implement a PPP-based public asset insurance program to protect the budget against flood and tropical cyclone
Long term	<ul style="list-style-type: none"> • Develop a national database on the occurrence and impact of natural disasters 		<ul style="list-style-type: none"> • Strengthen the institutional capacity and shock responsiveness of the social protection system • Consider risk transfer solutions to limit impact of drought on electricity and protect the national budget

Source: World Bank.

Note: short term = six months to one year; medium term = one to three years; long term = three to five years. AYII= area yield index insurance; MoFED = Ministry of Finance and Economic Development; MSMEs = micro, small, and medium enterprises; PPP = public-private partnership.



Disaster Risk Financing & Insurance Program



SUPPORTED BY

WORLD BANK GROUP