

Ethiopia

Climate and Disaster Risk Finance Diagnostic

2022



Disaster Risk Financing
& Insurance Program



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Acknowledgements

This diagnostic was prepared as part of a broader engagement between the World Bank and the Government of Ethiopia on strengthening disaster risk financing (DRF). This effort was led by the World Bank Group's Global Practice for Finance, Competitiveness, and Innovation (FCI). The report was written by Evie Calcutt (Financial Sector Specialist), Simeon Abel (Disaster Risk Finance Consultant), Michal Pietrkiewicz (Disaster Risk Finance Consultant), Marlon Rawlins (Senior Financial Sector Specialist) and Charles Stutley (Disaster Risk Finance Consultant). The team would like to thank the Building Resilience in Ethiopia (BRE) program, most notably, Fantahun Belew Asfaw, Jo Kemp, and Stephanie Allan, for providing substantive contributions to the report and for organizing a workshop with key government officials to validate the team's findings. The team would also like to acknowledge the input of World Bank consultants Catherine Fitzgibbon and Chris Mahony and would like to thank peer reviewers Barry Maher (Senior Financial Sector Specialist) and Ko Takeuchi (Senior Urban Development Specialist), whose comments greatly strengthened the report.

Finally, the World Bank Group team would like to thank the Government of Ethiopia and in particular, representatives from Ministry of Finance, Ministry of Agriculture, and Ethiopia Disaster Risk Management Commission.

The diagnostic was delivered with financial support from the Disaster Protection Program, a trust fund managed by the Crisis and Disaster Risk Finance global team in the FCI Global Practice and funded by the UK government (Foreign, Commonwealth & Development Office).

Abbreviations

ARC	African Risk Capacity
AU	African Union
BLW	Bridge Lending Window
Cat DDO	Catastrophe Deferred Drawdown Option
CERC	Contingent Emergency Response Component
DRF	Disaster risk financing
DRFS	Disaster Risk Finance Strategy
DRM	Disaster risk management
DRMC	Disaster Risk Management Council
EDRMC	Ethiopia Disaster Risk Management Commission
EIC	Ethiopian Insurance Corporation
EWS	Early warning system
FCI	Finance, Competitiveness and Innovation
FSCD	Food Security Coordination Directorate
GDP	Gross domestic product
GDI	UN Gender Development Index
GoE	Government of Ethiopia
ISD	Insurance Supervision Directorate
IMF	International Monetary Fund
MFI	Microfinance institution
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MoH	Ministry of Health
MSMEs	Micro, small, and medium enterprises
NBE	National Bank of Ethiopia
NGO	Nongovernmental organization
ODA	Official Development Assistance
PEFA	Public Expenditure and Financial Accountability
PFM	Public financial management
PSNP	Productive Safety Net Program
SMEs	Small and medium enterprises
SOE	State-owned enterprise

Executive Summary

The objective of this disaster risk financing (DRF) diagnostic is to assess Ethiopia's financial preparedness to disasters and crises at the sovereign, firm, and household level. At the request of the Ministry of Finance (MoF) of the Government of Ethiopia (GoE), this report focuses on the direct impacts of climate shocks and provides recommendations to support the development of a credible strategy for how costs from potential future disasters can be met. This assessment reviews and analyzes the following:¹ (i) the historical socioeconomic and fiscal impact of disasters in Ethiopia; (ii) the role of the private sector relevant to DRF; (iii) the key legal and institutional arrangements relevant to DRF; and (iv) the existing pre-arranged and ex post sources of funding and opportunities for enhancing the use of DRF instruments. It also makes recommendations to the government for strengthening the financial preparedness of Ethiopia to disasters and crises. This document is intended as a starting point from which to conduct further technical, legal, institutional, financial, and policy work and consultations as necessary.

Over the past 15 years, Ethiopia has had one of the fastest-growing economies in the region, with average annual gross domestic product (GDP) growth of 9.5 percent; but this achievement is threatened by climatic, health, and social risks. The share of the population living below the national poverty line dropped from 30 percent to 24 percent between 2011 and 2016, but recent shock events are estimated to have increased poverty levels, demonstrating the country's vulnerability (World Bank 2022c). Ethiopia is currently facing two extreme crises: the most severe drought in 40 years in southern and eastern areas; and the recent conflict in northern Ethiopia (FEWSNET 2022a). Across most of these areas, Integrated Food Security Phase Classification (IPC) Phase 4 outcomes (or worse) are likely to persist through at least January 2023, and 10 to 15 million people (10–15 percent of the population) are projected to require food assistance by April 2023 (20 percent of the population required food assistance in 2022) (FEWSNET 2022b). These simultaneous shocks follow multiple earlier shocks, including the COVID-19 pandemic, which reduced economic growth and volumes of trade. Such shocks require the government to intervene, leading to increased fiscal spending (Br 52.4 billion, or 2.6 percent of GDP in financial year (FY) 2019/20), as fiscal space decreases and the difficulty and cost of raising debt increase.

Ethiopia's economy, firms, and households are highly exposed to the impacts of climatic shocks, with women and girls being disproportionately affected. Droughts, floods, and related food insecurity are the primary drivers of disaster response costs, and the number and magnitude of these drivers are projected to further increase, as average temperatures and periods of extreme rainfall are projected to increase by the end of the century. Drought currently has the most significant impact on vulnerable populations. The government prepared a Fiscal Risk Statement (dated August 30, 2019, and still in draft as of November 2022²) which noted that the FY2015/16 El Niño–induced drought resulted in additional fiscal support of Br 18 billion (US\$1.4 billion, around 8 percent of the country's FY2016/17 budgeted expenditure and equivalent to Br 30.5 billion in 2022³); electricity export earnings from hydropower were reduced by 26.5 percent⁴, creating the need for significant budget reallocations and external support. Recent modeling shows that the humanitarian assistance costs from droughts reach as high as US\$1 billion on average every 10 years, this is around 10 percent of the federal budget in FY2021/22 and four times the government's contingency reserve allocation in FY2020/21, which is not restricted to disasters. In addition to agricultural losses of US\$204 million and imported food costs of US\$341 million (Vivid Economics, 2021). Women and girls are disproportionately affected by disasters due to social and economic inequalities. Their needs have increased due to violence, insecurity, and climate shocks, while their access to basic services, including sexual and reproductive health care, has been severely disrupted.⁵ It is therefore important to strengthen the financial resilience of women, girls, and women-owned businesses through gender-targeted programs and products.

¹ The analysis is based on a methodology developed by the World Bank and Asian Development Bank for assessing financial protection to disasters; see World Bank and ADB (2017).

² It is not clear if the intention was to publish the statement, and why no updates have been prepared since 2019.

³ Converted based on the average exchange rate for 2016 using ExchangeRates.org.uk, <https://www.exchangerates.org.uk/USD-ETB-spot-exchange-rates-history-2016.html>

⁴ Ministry of Finance data, 2019.

⁵ <https://reliefweb.int/report/ethiopia/ethiopia-conflict-climate-shocks-women-and-girls-are-disproportionately-affected>

The vulnerability of small and medium enterprises (SMEs) to shocks was evident during the COVID-19 pandemic, when many SMEs were reported to be in crisis or at risk of permanent business closure. SMEs can be impacted by climatic shocks through direct damage (e.g., damage to their premises and stock due to floodwaters, reduced yields due to drought) and indirect impacts (e.g., reduced demand, business interruption resulting from electricity supply disruptions). Such impacts have a compounding effect for SMEs because they reinforce existing challenges, which include lack of relevant skills, lack of knowledge about international markets, nontariff barriers, cumbersome regulations, and border procedures, and most fundamentally a limited access to finance. There are several reasons why small businesses have difficulty obtaining financing, including presenting reliable financial statements and collateral, as well as exposure and vulnerability to shocks like droughts and floods. To identify recommendations to increase access to finance, it is necessary to conduct additional, targeted analyses of the current constraints.

To respond to disaster shocks, Ethiopia is largely reliant on ex post financing—primarily official development assistance (ODA) and humanitarian appeals, budgetary reallocations, and emergency borrowing. Between 2005 and 2016, Ethiopia’s average humanitarian response plan was estimated to account for 1.3 percent of GDP per year (Drechsler et al. 2017); between 2017 and 2021, the appeals ranged from US\$844.5 million to US\$2.8 billion (the latter representing 27 percent of the federal budget for FY2021/22), and 47–76 percent of these amounts were actually received (OCHA 2022c). While support from humanitarian and development partners has been a key resource, it has created dependency for funding and led to a humanitarian appeals system that often provides uncertain, insufficient, or delayed resources. This financing approach undermines the credibility of the budget, leading to frequent ad hoc reallocations away from infrastructural projects to the sectors most affected by disasters. The ability to quickly reallocate resources to crisis-affected sectors is a positive feature of the Ethiopian budget, but the systematic overbudgeting in some sectors and underbudgeting in others undermines efficacy and is against best practices in public financial management. Currently the government’s only ex ante contingency instrument is a small general purpose contingency budget, accounting for 2–3 percent of the proclaimed budget. In the case of the COVID-19 pandemic, this was already fully depleted when required, and analysis from the Public Expenditure and Financial Accountability (PEFA) program suggests that between FY2015/16 and FY2017/18 the fund was underutilized. Further analysis of the use of the contingency budget is required.

The declining global economic outlook is reducing the availability of ODA resources for Ethiopia, exacerbating funding gaps for disaster response efforts. The IMF forecasts that about one-third of the world economy will be in recession in 2023, and this trend is already affecting Ethiopia with rising inflation and food insecurity. The rising frequency and intensity of climate-related disasters is creating a compounding shock vulnerability that is increasing the cost of disaster response. Ethiopia and other low-income countries are particularly vulnerable to funding shortages due to their reliance on external funding support.

Currently, policies such as the 2013 National Policy and Strategy on Disaster Risk Management (Federal Democratic Republic of Ethiopia 2013) as well as budgetary practice show that DRF is largely omitted within the broader disaster risk management (DRM) context, even though the Ministry of Finance has a substantial role in DRM. The coordination and financing of disaster response is centralized with the federal government. Following shocks, the MoF can authorize reallocations between line ministries and controls the use of debt issuance for regions and use of the contingency budget. The MoF also has a unique capacity to provide analytics on the expected cost of shocks and propose budgetary instruments to finance these risks, given that it monitors and reports budget and expenditure. The DRM policy is currently being revised by the Ethiopia Disaster Risk Management Commission (EDRMC), and policy objectives are expected to refer to the need for specific financing allocations. However, taking a centralized approach to disaster response ignores the decentralized structure of the Ethiopian government and may miss opportunities for a more timely and precise response delivered through local governments. Currently regional governments have extremely limited fiscal space, as about 85 percent of spending is dedicated to recurrent spending such as salaries (European Commission, n.d.). This diagnostic focuses on DRF analysis at the federal level but acknowledges that in the longer-term DRM and DRF policies need to identify opportunities for regional ownership.

In recent years, the GoE has increasingly acknowledged the need to quantify and prepare for disaster-related fiscal risks. The Fiscal Policy Directorate within MoF has committed to developing a framework to quantify disaster-related fiscal risk, as acknowledged by the 2019 draft Fiscal Risk Statement. The implementation of this framework should be priority, as it will increase the capacity of government to understand, analyze, and manage these risks. The government is also starting to invest in DRF instruments that build household resilience; in pastoral communities, for example, it is committing funds to deliver a package of blended finance (index insurance, savings, and payment accounts) to build resilience to climatic shocks.

Were the GoE to adopt a DRF risk-layering strategy and expand its DRF portfolio with ex ante instruments, it could improve the quality of public financial management of disasters, speed up disaster response, and facilitate the human and economic recovery. Such a strategy must be based on data-informed costings, managed through preestablished institutional arrangements, and distributed via disbursement mechanisms that guarantee a timely delivery of aid to beneficiaries. The risk-layering strategy would be designed to provide a combination of risk financing instruments tailored to address specific government objectives and different post-disaster needs. Having such a strategy in place would reduce the need for emergency borrowing and budget reallocation, lessen delays and uncertainty associated with external financing, facilitate more effective use of public funds, attract private sector funding to post-disaster recovery and reconstruction, and make response and recovery faster and more cost-effective. To achieve this, it is necessary to understand the relationships and roles among various levels of government (federal, regional, zones, and woredas) as well as their financial capacity, budgetary authority, disaster response authority, and operational capacity.

This diagnostic makes several recommendations for strengthening the country's financial preparedness to disasters moving forward; these are summarized in table 1 and detailed in section 6 of this report. These measures are not mutually exclusive and can be implemented in parallel.

Table 1: Recommendations for strengthening financial preparedness to disasters in Ethiopia

Recommendation	Time frame
INCREASE THE USE OF DRF INSTRUMENTS & MECHANISMS	
1. Formulate and adopt a national Disaster Risk Finance Strategy, which integrates with the revised DRM policy.	Short term
2. Strengthen Ethiopia's prearranged financing instrument portfolio to enhance the country's disaster response capacity, in part by including a dedicated disaster fund.	Medium term
3. Intensify ongoing efforts to make existing social protection mechanisms shock-responsive, in part by developing a financing plan for the flagship Productive Safety Net Program (PSNP).	Short term
4. Review DRF policy and implementation frameworks at lower levels of government (regions, zones, and woredas).	Medium to long term
ENHANCE INSTITUTIONAL AND PFM STRUCTURES FOR SHOCK RESPONSE	
5. Establish a comprehensive disaster expenditure tracking system and align associated budgeting processes across government levels, especially by incorporating budgetary tagging for DRF channel 1 and channel 2 spending and improving the accounting for channel 3 spending.	Short to medium term
6. Enhance the reliability of the federal government's budget for disaster-exposed programs by strengthening forecasting for normal and contingency expenditure and including contingency allocations.	Short to medium term
7. Enhance budget reallocation processes by investing in data management tools (including databases of development projects).	Short to medium term
8. Continue to strengthen and harmonize the early warning systems to improve response capacity.	Short to medium term
STRENGTHEN THE PRIVATE SECTOR FINANCING ECOSYSTEM	
9. Reform financial sector regulations to increase investments and product offerings in the insurance sector.	Medium to long term
10. Conduct analysis of the constraints of credit provision to SMEs.	Short term
11. Stipulate a policy on agricultural insurance to establish a regulatory and policy framework and incentivize investments in the private insurance market.	Short term

Source: World Bank.

Note: DRF = disaster risk financing; DRM = disaster risk management; PFM = public financial management; SMEs = small and medium enterprises.

1. Background

Ethiopia's goal of becoming a lower-middle-income country is put at risk by various economic and political uncertainties, including the country's vulnerability to climatic disasters. Ethiopia, a landlocked country located in eastern Africa, is one of the fastest-growing economies in the region, with an average gross domestic product (GDP) growth of 9.4 percent a year from financial year (FY) 2010/11 to FY2019/20. But recent shocks, including COVID-19, locust infestations, flooding, and drought, have exposed the country's vulnerability to shocks. In 2022 the INFORM risk index ranked Ethiopia 12 out of 191 countries in terms of risk related to disaster and humanitarian crises.⁶ This economic vulnerability jeopardizes poverty reduction efforts and the government's goal of achieving lower-middle-income status by 2025. Drivers that further amplify the impact of shocks and climate risk include political instability, limited macroeconomic competitiveness, and an underdeveloped private sector (World Bank 2022c).

Ethiopia's vulnerability to reoccurring hazards is illustrated by the unfolding food security crisis in 2022, which was triggered by a climatic hazard event, aggravated by pre-existing ecological and social factors, and compounded by other shock events. The current drought is the most severe climatic event in over a decade, following three consecutively failed rainy seasons. Extreme food insecurity, which was already experienced by northern regions, is now spreading to the south (FEWSNET 2022a). Over 8 million people had already been affected by April 2022, and 10–15 million people are projected to require food assistance by April 2023 (OCHA 2022a; FEWSNET 2022b). The impact of climatic hazards is exacerbated by a decreasing availability of natural resources due to climate change and simultaneous population growth. In the case of the drought, the impact is further compounded by the lingering effects of the COVID-19 pandemic, the ongoing conflict in the Tigray region, and disrupted supply chains due to the war in Ukraine, which continues pushing global food prices to record highs.⁷

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

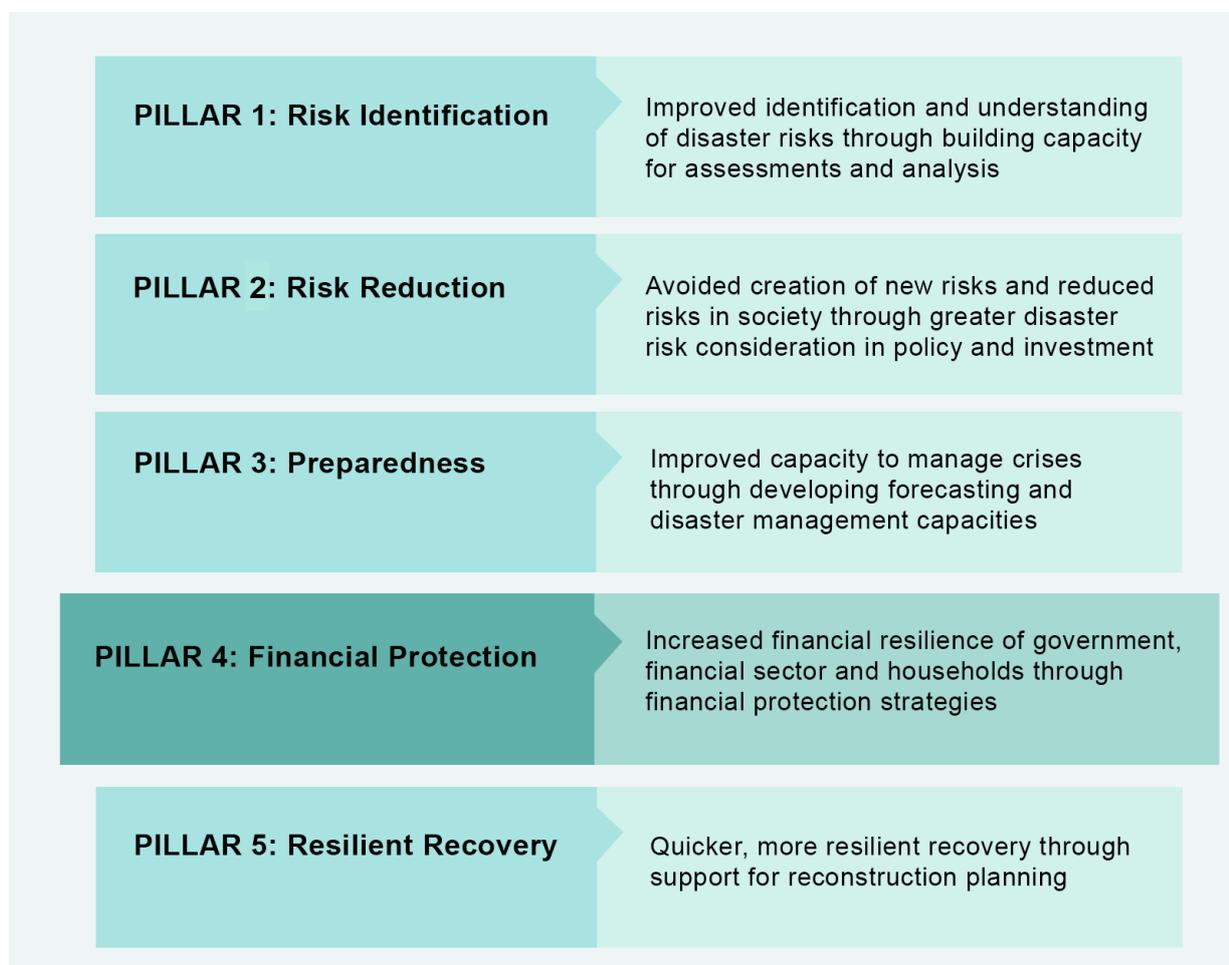
Evidence from Ethiopia demonstrates that early shock response has significant benefits for the government, economy, and private households. The macroeconomic impact and subsequently the fiscal impact of disasters can be enormous, and these are further magnified when response efforts are delayed. Between 2005 and 2016, the average annual requirements for humanitarian interventions have been estimated to total 1.3 percent of Ethiopia's GDP (Drechsler et al. 2017). Responding early reduces the need for government to divert scarce resources from other public services. Research on previous response efforts in Ethiopia found the cost of late humanitarian response to be approximately seven times that of an early response (Cabot Venton et al. 2012). This finding also has critical implications for humanitarian aid spending, as earlier provisions from donors through existing response systems such as the Productive Safety Net Program (PSNP) could save up to 30 percent of overall costs (USAID 2018). Benefits from early responses further extend to the household level, decreasing the need of individuals to adopt negative coping strategies, which have long-term adverse impacts on socioeconomic development. Research has found that 85 percent of Ethiopian households cope with drought and other shocks by reducing food consumption, and 39 percent sell assets, including productive assets such as livestock (Dercon 2004).

⁶ European Commission, "INFORM Risk," <https://drm.kc.jrc.ec.europa.eu/inform-index/INFORM-Risk>.

⁷ FAO (Food and Agriculture Organization of the United Nations), "World Food Situation," <https://www.fao.org/worldfoodsituation/foodpricesindex/en/>.

Disaster risk financing (DRF) underpins the financial protection pillar of the disaster risk management (DRM) framework (figure 1), which aims to help countries become more effective risk managers. By working with and improving existing processes as much as possible, governments can manage disasters more efficiently and avoid creating additional work for themselves.

Figure 1: Disaster risk management framework



Source: Financial Protection Forum/DRF Forum, "Tools and Principles of Financial Protection," https://www.financialprotectionforum.org/third-party/microsite_1/subpage02.html.

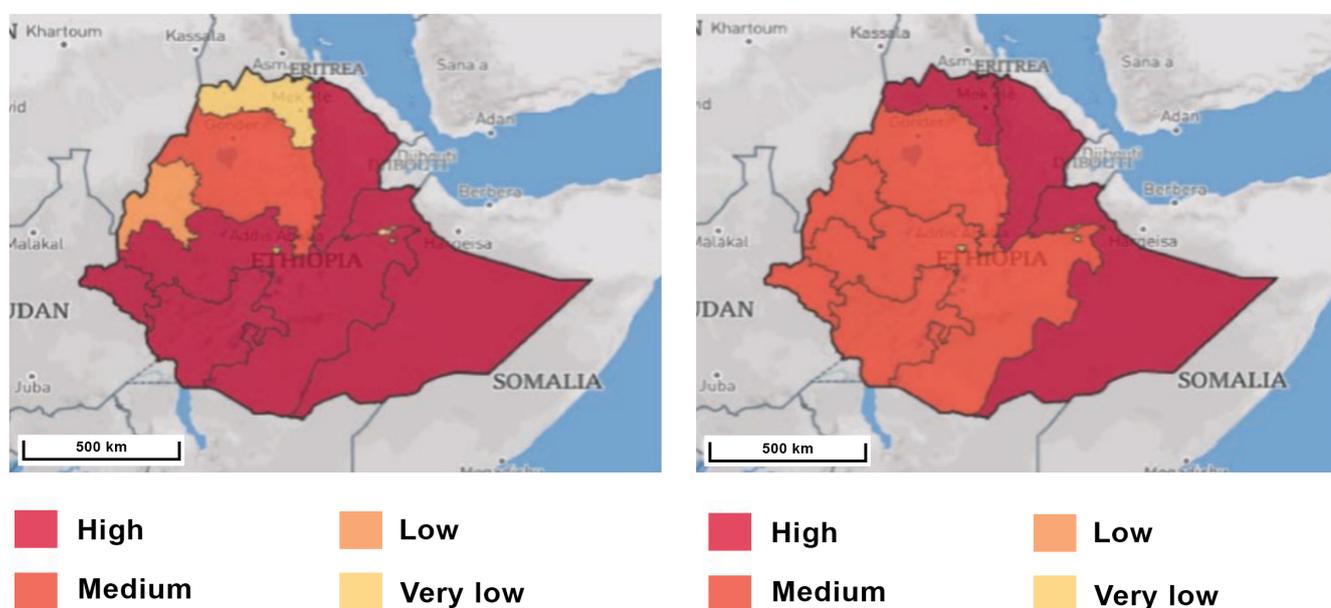
The Ministry of Finance (MoF) of the Government of Ethiopia (GoE) requested the World Bank to conduct a diagnostic study of the country's DRF landscape and provide recommendations for developing a risk-layering strategy to minimize costs and maximize benefits in managing post-disaster response. This assessment reviews and analyzes the following:⁸ (i) the historical socioeconomic and fiscal impact of disasters in Ethiopia; (ii) the role of the private sector relevant to DRF; (iii) the key legal and institutional arrangements relevant to DRF; and (iv) existing pre-arranged and ex post sources of funding and opportunities for enhancing the use of DRF instruments. It also makes recommendations to the government for strengthening Ethiopia's financial preparedness to disasters and crises. This document is intended as a starting point from which to conduct further technical, legal, institutional, financial, and policy work and consultations as necessary.

⁸The analysis is based on a methodology developed by the World Bank and Asian Development Bank for assessing financial protection to disasters; see World Bank and ADB (2017).

2 Risk exposure and vulnerability

Ethiopia's topographic profile is characterized by stark variations in climate, terrain, and precipitation, resulting in varying climatic risk exposures and vulnerabilities across regions. The country can be divided into five topographic areas: the Western Highlands, the Western Lowlands, the Eastern Highlands, the Eastern Lowlands, and the Rift Valley (an active continental rift that runs through the country from southwest to northeast). The diverse geography results in a highly varying risk exposure profile across and within regions (figure 2). Droughts and prevalent water scarcity, for instance, have the most severe impact in the regions of Tigray, Afar, and Somalia in the eastern part of the country. Large-scale river flooding occurs most frequently in the lowland areas, whereas flash floods are more likely in the highlands and particularly in the Awash basin in the Rift Valley (GFDRR 2019). Parts of Ethiopia are vulnerable to earthquakes, as the country straddles two major tectonic plates, the African plate and the Somali plate. Several cities and towns, including Addis Ababa, Nazret, Dire Dawa, Awassa, Arba Minch, Dessie, and Mekele, are situated in areas vulnerable to earthquakes. Localized windstorm events also occur from time to time, though these are not a major hazard (AXCO 2021).

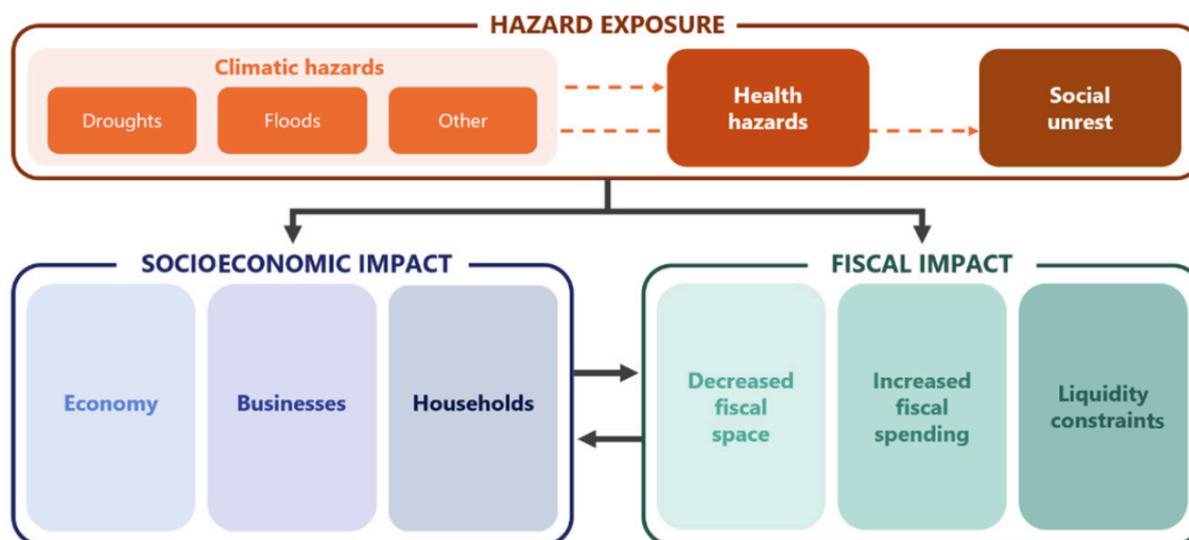
Figure 2: Geographic distribution of river flood risk (left) and extreme heat risk (right) in Ethiopia



Source: World Bank 2021a using data from ThinkHazard! 2020a, 2020b.

The various hazard types (box 1) cause different and often compounding socioeconomic and fiscal impacts (figure 3). For instance, climatic hazards such as droughts negatively impact output and trade in the broader agriculture sector as well as businesses alongside the value chain and households' livestock- or crop-dependent livelihoods. This impact leads to a fiscal impact, as it creates the need for increased fiscal spending for humanitarian relief efforts that may be financed through budget (re)allocations or new debt. Similar dynamics exist for health and social hazard types. The socioeconomic impact of COVID-19 on the economy, businesses, and households required the government to increase fiscal spending for social security programs, while the fiscal space simultaneously decreased, in part due to reduced income tax revenue. Impact channels can further reinforce each other in the opposite direction: decreased fiscal space given shock-reduced tax revenue restricts government's ability to respond, thereby limiting the support it can provide to the private sector and further jeopardizing the stability of affected businesses and households.

Figure 3: Overview: Socioeconomic and fiscal impact of different hazard types



Source: Authors own

2.1 Hazard exposure

Climatic shocks are leading risk drivers in Ethiopia, causing severe and increasing impacts on society while also amplifying health and social risks. Exposure to weather and climatic shocks (as described in the next paragraph) are anticipated to further increase. Average temperatures are projected to go up, with some models predicting mean monthly temperature increases of 1.8°C by the 2050s and of 3.7°C by 2100. In addition, models project a 20 percent increase in extreme rainfall by the end of the century, leading to more frequent and severe flash floods and seasonal rivers (World Bank 2021a). Climatic hazards can also trigger or amplify other shock types. Research by the World Health Organization suggests that children born during a drought are 36 percent more vulnerable to diseases and malnourishment than they would be otherwise (World Bank 2021a). Climate-triggered land degradation can also lead to social unrest and conflicts over scarce natural resources. While this document focuses on climatic disasters, it acknowledges that environmental degradation, demographic expansion, and the progressing impact of climate change are creating competition for increasingly scarce resources, which can further contribute to social tensions and increased conflict risk. Assessing conflict-related risk and the use of risk financing tools to manage it requires further assessment beyond this report.

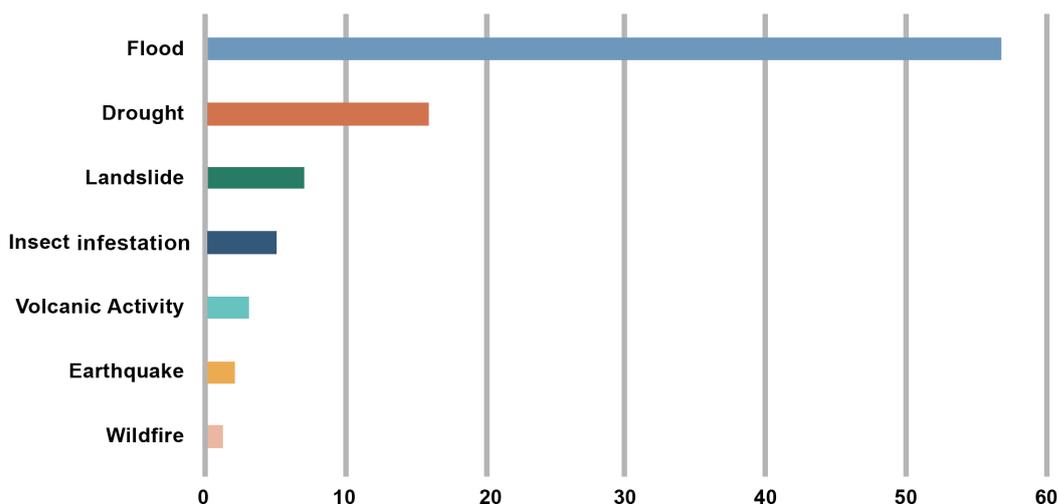
Box 1: Hazard shock profiles

Assessing the specific nature of a hazard type is key to understanding its impact on exposed populations and tailoring response instruments accordingly. Hazards can be understood in terms of their magnitude (severity or geographic reach) and their timing (speed of onset or frequency).

- **Magnitude (severity):** The intensity of a shock, measured either in event strength (e.g., amount of precipitation) or impact (e.g., caused financial damage)
- **Magnitude (geographic):** Geographic scope of a shock event (e.g., impact on woreda versus nationwide impact)
- **Timing (anticipation):** Distinguishes between fast-onset shocks (e.g., floods or earthquakes), which occur with limited or no warning, and slow-onset shocks (e.g., drought), which are gradual and hence easier to detect and predict
- **Timing (frequency):** Determines how often and when (seasonality) a hazard type on average occurs

Droughts and floods are the major climatic hazards in Ethiopia, and their number and magnitude are projected to further increase. Drought is the most significant hazard given Ethiopia's arid and semi-arid climate in lowland regions, its uneven geographic access to water resources, and its reliance on rain-fed agriculture for food security, economic growth, and fiscal stability. Floods have historically been the most frequent hazard type (figure 4). This is in part due to floods' shorter duration and smaller geographic reach, increasing the number of possible occurrences compared to continuous, region-wide droughts. By contrast, droughts tend to be long-lasting and cross-regional events. The greatest flood risk occurs during the kiremt rainfall season in June, July, and August (GFDRR 2019). Weather-related locust outbreak is another hazard type that has affected many areas in recent years. Other hazard types—including earthquakes, windstorms, volcanic activity, and wildfires—have occurred less often.

Figure 4: Recorded number of natural and climatic hazard events in Ethiopia, 1961–2020



Source: D. Guha-Sapir, R. Below, Ph. Hoyois, EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, Belgium (accessed 2022), www.emdat.be.

Ethiopia faces several public health vulnerabilities, which are often triggered and exacerbated by climatic hazards. Primary health challenges include maternal mortality, malaria, tuberculosis, and HIV/AIDS. Such risks are exacerbated by high levels of food insecurity and the lack of access to public services such as water, sanitation, and hygiene infrastructure. Public health concerns are expected to significantly worsen in the context of climate change, as the increased frequency and variation of extreme weather events will also increase the risk of severe malnutrition as well as climate-sensitive, water-borne, and vector-borne diseases (World Bank 2021a). Independent public health shocks like the COVID-19 pandemic take an extreme toll on the country's population, economy, and government alike.

2.2 Areas of vulnerability

Box 2: Chronic versus acute needs

When analyzing needs, chronic and shock-induced needs must be distinguished.

- **Chronic (permanent) needs result from preexisting adverse conditions.** They are not associated with specific shock events, but instead resemble the stakeholders' status quo. For such needs, regular government social protection programs should be in place.
- **Shock-induced needs result from events associated with residual risk, meaning the risk of a shock that remains even when effective disaster risk reduction measures are in place.** For such needs, emergency response and recovery capacities, including disaster risk financing, must be established, and maintained.

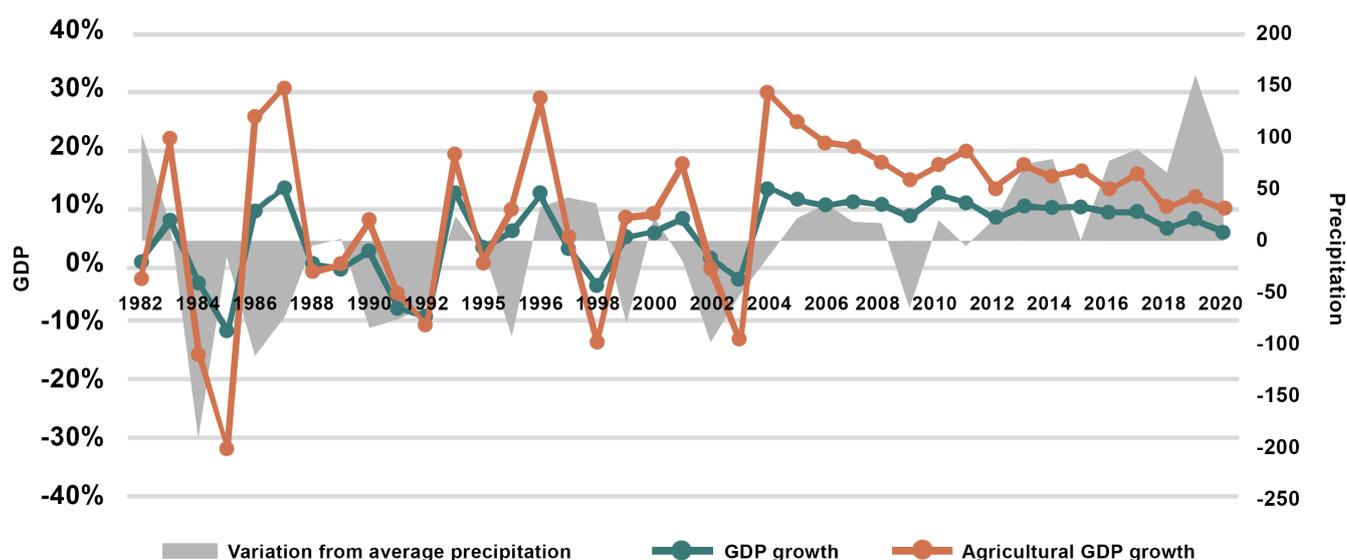
2.2.1 Socioeconomic impact

The vulnerability of Ethiopian society to shocks (box 2) is evident in broader economic, firm-specific, and household-level impact channels, all of which are interlinked with each other. Ethiopia's socioeconomic vulnerability to climate-related shocks is illustrated by its low placement—161nd of 182 countries—on the ND-Gain vulnerability index, which measures countries' exposure, sensitivity, and ability to adapt to the negative impact of climate change in the food, water, health, ecosystem service, human habitat, and infrastructure sectors.⁹

2.2.1.1 Economy

The macroeconomic impact of climatic shocks in Ethiopia is enormous, particularly when response efforts are delayed. Macroeconomic risks include adverse impacts on debt levels and debt servicing costs, labor markets, the public and private investment climate, and the trade balance. Direct economic impacts include decreased production levels or damage to assets. Indirect impacts may result from impacts on value chains or external trade. For example, a drought may reduce hydropower electric output, directly reducing output in the energy sector, while also indirectly affecting sectors such as manufacturing. Climate change damage in the agricultural sector is particularly significant for countries like Ethiopia that are specialized in food and agricultural products; compared to countries with larger domestic markets and more diversified trade patterns, they have much more trouble absorbing climate shocks (Dellink et al. 2017). Ethiopia's economy is heavily dependent on the agricultural sector, which contributed 35.5 percent to the country's (GDP) in 2020, twice as much as the Sub-Saharan average. The sector further accounted for 70 percent of households' livelihoods, illustrating the dependence of most of the country's population on agriculture. Figure 5 below highlights the positive correlation between economic growth and rainfall. The FY2015/16 drought, for instance, led to higher inflation and reduced export earnings, resulting in real GDP growth of 8 percent, compared to 10.4 percent in the previous year (Vivid Economics 2021).¹⁰ Overall, climate-related impacts on agricultural productivity are projected to reduce the country's GDP by up to 10 percent by 2045.¹¹

Figure 5: Correlation between economic growth and rainfall experienced in Ethiopia, 1982–2020



Source: Authors own developed using World Bank Open Data

⁹ ND-GAIN (Notre Dame Global Adaptation Initiative), "Country Index Rankings," <https://gain.nd.edu/our-work/country-index/rankings/>.

¹⁰ The analysis by Vivid Economics (2021) was paid for by the Building Resilience in Ethiopia (BRE) program, which is funded by the UK Foreign, Commonwealth & Development Office (FCDO) and the United States Agency for International Development (USAID).

¹¹ GFDRR, "Ethiopia Overview," 2021, <https://www.gfdr.org/en/region/ethiopia>

The unprecedented COVID-19 pandemic reduced economic growth and volumes of trade. Ethiopia's real GDP growth decreased from 9 percent in FY2018/19 to 6.1 percent in the subsequent year and is expected to slightly increase to 6.3 in FY2020/21. World Bank forecasts anticipate a sharp decrease to 3.3 percent in FY2021/22, before rebounding to 5.2 percent in 2022/23 and 5.9 percent in 2023/24 (World Bank 2022a). In FY2020/21 the pandemic was expected to reduce the GDP by at least 6.6 percent compared to a benchmark scenario (Geda 2021); it was expected that the service sector would be hit hardest and coffee exports would decline. As predicted, volumes fell by 8.3 percent. However, this was offset by a 15.9 percent rise in global coffee prices (NBE 2021).

Trade, infrastructure, and urbanization, key contributors to a recent reduction in poverty, are vulnerable to climatic disasters. Weather and climate hazards affect the trade sector both directly, by damaging infrastructure and transport routes, and indirectly, by disrupting demand and production systems. As indicated above, the damage inflicted by natural shocks is particularly significant for countries like Ethiopia that specialize in agricultural production, as countries with larger domestic markets and more diversified trade patterns can absorb climate shocks better (Dellink et al. 2017).¹² For instance, the Lake Tana region and valleys in the highlands, which produce crops like cereals, legumes, root crops, oil crops, vegetables, fruit crops, and other cash crops, face high flood risk.¹³ Heavy seasonal downpours lead to water surges in dry riverbeds or flood plains, potentially putting settlements and infrastructure at risk.¹⁴

2.2.1.2 Businesses

As the number and intensity of climatic and other shock events increase, Ethiopian firms become more vulnerable. This was evident during the onset of the COVID-19 pandemic, when many firms were in crisis or at risk of permanent closure (Endris and Kassegn 2022). SMEs are of relevance for the manufacturing, trade, and agriculture sector in Ethiopia. Microenterprises account for a staggering 97 percent of the Ethiopian manufacturing sector (Endris and Kassegn 2022). Indeed, SMEs make up nearly all of the wholesale and logistics segments in Africa (AGRA 2019). In the case of trade SMEs, shocks can have both direct effects, such as damage to infrastructure and transport routes, and indirect effects, which result from changes in demand and production patterns (Dellink et al. 2017). Shock-induced blockages of transport routes and hubs can lead to interruptions or delays in supply chains, higher and volatile prices and transaction costs, shortages in critical inputs, production setbacks, and payment delays (Biggs and Shah 2006).

The financial stress for small enterprises following shocks can have rippling effects, as other market stakeholders—like suppliers, producers, and consumers—must adjust. Economies like Ethiopia's that are dependent on rain-fed agriculture for production and trade are hit hardest by shocks, given agriculture's growing vulnerability to climate change (Keane et al. 2021). Because shocks such as heat stress or diseases reduce crop yields and hamper labor productivity, climate damage is projected to severely impact trade in agricultural commodities (Dellink et al. 2017). These climate risks further spread within regional markets and across international supply chains. For instance, when droughts destroy harvests in producer countries, commodity prices in importing countries can be directly affected.¹⁵ For SMEs participating in trade, climatic hazards can have a compounding effect as they reinforce existing challenges, which range from lack of relevant skills and lack of knowledge about international markets to non-tariff barriers, cumbersome regulations and border procedures, and limited access to finance. These challenges tend to disproportionately affect smaller companies.¹⁶

¹² OECD, "International Trade Consequences of Climate Change," OECD Trade and Environment Working Papers, vol. 2017/01, OECD Trade and Environment Working Papers, April 29, 2017, <https://doi.org/10.1787/9f446180-en>.

¹³ Merkez Abera, "Agriculture in the Lake Tana Sub-basin of Ethiopia", <https://www.springerprofessional.de/en/agriculture-in-the-lake-tana-sub-basin-of-ethiopia/12204030>.

¹⁴ ICPAC and WFP 2018. <https://www.icpac.net/publications/greater-horn-africa-climate-and-food-security-atlas/>.

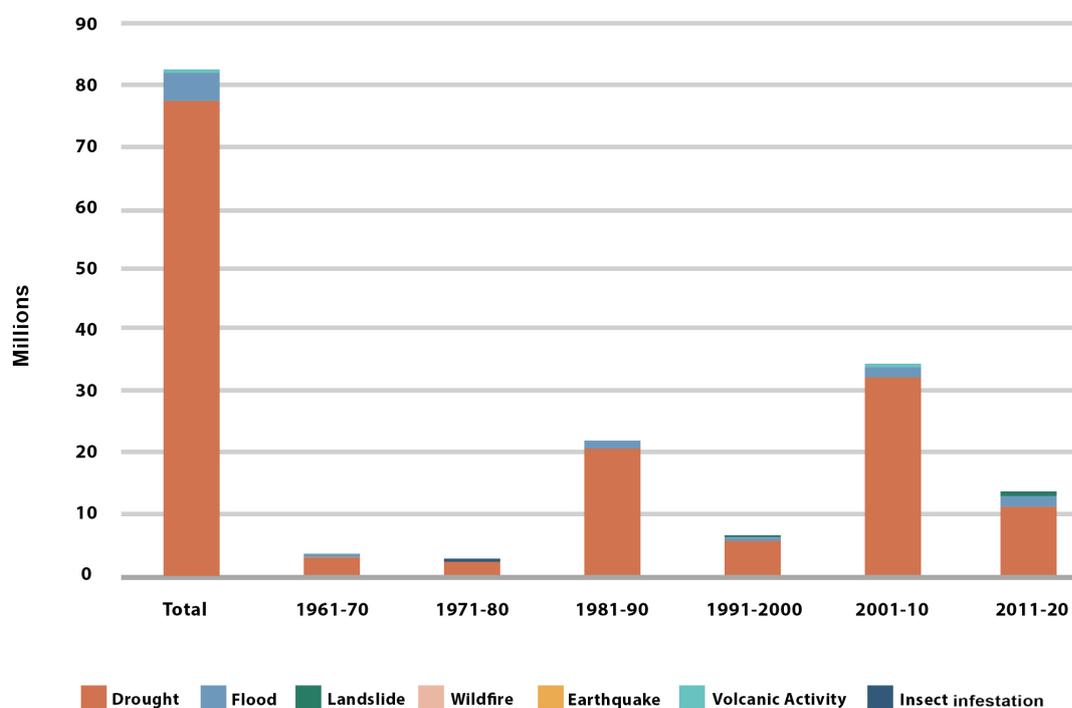
¹⁵ WeADAPT, "Adaption Without Borders—Indirect Impacts of Climate Change," <https://www.weadapt.org/knowledge-base/adaptation-without-borders>.

¹⁶ World Trade Organization, "Small Business and Trade," https://www.wto.org/english/tratop_e/msmesandtra_e/msmesandtra_e.htm.

2.2.1.3 Households

Ethiopia's population is extremely vulnerable to climate uncertainty and disasters; droughts are the most severe disaster event the population faces, while floods are the most common. Droughts affected over 2 million people on average per year over the past two decades. This number is substantially higher during major shock years. The 2011 drought, the 2016/17 drought, and the 2020 drought (still ongoing) left millions of people in need of food assistance—more than 4.5 million in 2011 (Glopolis 2010), 5.6 million in 2016/17 (FAO 2017), and 7.2 million in 2020 and after (OCHA 2022b). Poor harvests and recurrent instability in some regions of Ethiopia have frequently led to food insecurity and falling food reserves across the country. Seasonal riverine flooding, occurring almost every year in many parts of the country, affects on average over 250,000 people annually. Severe events can have a substantially larger impact; floods in 2006 caused 1,000 deaths and affected over half a million people (GFDRR 2019). In many cases, the flood-incurred damage is neither insured nor reported (AXCO 2021). Other hazard types, including landslides, pests, earthquakes, volcanic eruptions, and urban and forest fires, have less severe and more local impacts (GFDRR 2019); see figure 6.

Figure 6: Annual aggregated number of people affected by climate-related shocks in Ethiopia, 1961–2020



Source: D. Guha-Sapir, R. Below, Ph. Hoyois, EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, Belgium (accessed 2022), www.emdat.be.

Globally, women and children are 14 times more likely to die in a disaster (Peterson 2007) and face greater vulnerability to some of the longer-term impacts of climate change. This is due to various socio-cultural inequities and factors that determine roles, expectations, and behaviors of women and men. For example, women may have less access to information from early warning systems and may prioritize their children's safety over their own. After a disaster, women are more likely to be victims of domestic and sexual violence and may avoid using shelters for fear of being sexually assaulted (Davis et al. 2005). Unpaid care responsibilities and gendered patterns of economic participation limit women's time to participate economically as employees or entrepreneurs, contributing to a gender wage gap and the formality of their work. This reduces women's asset accumulation and resilience to climate and disaster risks, highlighting the importance of strengthening resilience of women and girls, and women-owned businesses.

In 2021, Ethiopia ranked 175th out of 191 countries on the UN Gender Development Index (GDI).¹⁷ The GDI measures gender gaps in human development by accounting for disparities between women and men in three dimensions: health, knowledge, and living standards. Women in Ethiopia experience high rates of unemployment (6.5 percent), seasonal employment (37 percent), and temporary employment (13 percent), which have been exacerbated by COVID-19.¹⁸ Experience suggests that women have less access to formal credit than men due to challenges such as lack of assets, limited awareness of credit and insurance products, lack of collateral, and limited trust in society.

Climate-induced health vulnerabilities and independent events like the COVID-19 pandemic further intensify pressure on the limited shock-response capacity of households and the health care system. The health care sector in Ethiopia faces many challenges, including insufficient funding, a limited number of facilities, an inefficient supply distribution, and stark regional disparities between rural and urban communities. In 2019, 38 percent of total health care expenditure was paid by individuals and households rather than a government or aid organization program.¹⁹ Hence Ethiopia's increasing exposure to climatic hazards could not only directly trigger public health shocks but also simultaneously reduce the coping ability of private households. Direct health impacts of climatic hazards include an increase in climate-related diseases and decreased agriculture output, subsequently leading to food shortages and ultimately poorer nutrition and health. Similar adverse effects on the livelihoods of vulnerable rural households further contribute to increased malnutrition rates and constrained coping abilities.

The impact of COVID-19 on the socioeconomic situations of poor households illustrates the need to focus development interventions on resilience and inclusiveness. About 30 percent of people lost their jobs during the early months of the pandemic.²⁰ While levels of employment have recovered over time, many of the stable, higher-quality jobs have been replaced by less stable, casual employment. Given that a reduction in high-quality employment frequently follows periods of uncertainty, and that this reduction tends to have long-lasting impacts, some lower lower-middle-income countries have established numerous job protections (World Bank Group, n.d.).²¹ However, job protection programs were not implemented in Ethiopia. In contrast to the experience with more frequent shocks, the impact on jobs was disproportionately higher in urban areas (Geda 2021).

2.2.2 Fiscal impact

The government recognizes that it should be the key actor in providing timely relief and undertaking recovery. Yet its disaster response efforts often strain fiscal resources and may overwhelm delivery systems. Increased and competing spending needs of the federal government are amplified by decreased fiscal space due to economic downturns and subsequent fiscal revenue reductions. According to some international benchmark estimates, natural disasters can raise government expenditure by an average of 15 percent and decrease revenue by about 10 percent over the five years following a disaster, leading to a substantial increase in the overall budget deficit (Melecky and Raddatz 2011).

2.2.2.1 Decreasing revenue

Disasters can have a significant impact on the level and source of government revenue. Macro-fiscal impacts of droughts include agricultural sector losses, food import costs, and hydropower sector losses. For floods, there are also GDP losses through business interruption, public asset losses, and transport

¹⁷ <https://hdr.undp.org/gender-development-index#/indicies/GDI>

¹⁸ FAO. National gender profile of agriculture and rural livelihoods. 2019. <https://www.fao.org/3/ca3224en/ca3224en.pdf>

¹⁹ World Bank, "Out-of-Pocket Expenditure (% of current health expenditure)–Ethiopia," <https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?locations=ET>.

²⁰ Contreras-González, I. et al. (2022) "Less-educated workers among the most affected by the COVID-19 pandemic: Evidence from Sub-Saharan Africa", World Bank Blog <https://blogs.worldbank.org/developmenttalk/less-educated-workers-among-most-affected-covid-19-pandemic-evidence-sub-saharan>

²¹ World Bank Group (n.d.) analyzed over 1,300 COVID-19 social protection and jobs policies, spanning 55 countries that represent 80 percent of the population in low- and middle-income countries. It found that labor policies have played a key role in efforts to mitigate COVID-19's economic effects in developing countries; these policies comprise 55 percent of all crisis-related social protection and jobs policies. For instance, 35 percent of countries have adopted wage subsidies to avoid mass layoffs or help job seekers.

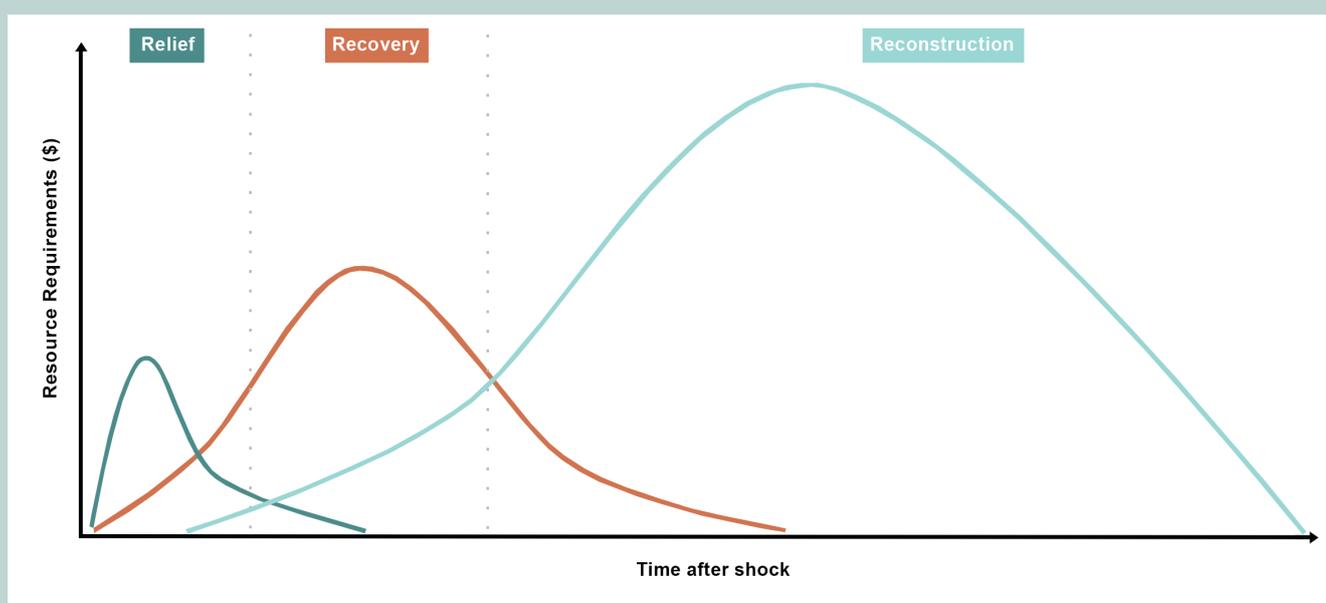
disruptions. The effects of most climatic shocks on the GDP and subsequently the tax base tend to be time deferred. Droughts are an exception, as they tend to have a fast and severe impact on public finances. Tax revenue levels in Ethiopia are already among the lowest on the continent at 10.7 percent of GDP as of 2018, and they are further falling (IMF 2020b). Shocks reduce economic activity, affecting revenues from local value added tax (26 percent of tax revenue²²) as well as trade. While these tax sources are likely to recover relatively quickly, others tend to remain affected for longer. Corporate taxes from the particularly vulnerable micro, small and medium enterprise (MSME) sector account for 14 percent of government's tax base, but they may fall quickly and recover slowly, as numerous companies go out of business. The experience of COVID-19, which led to labor shifting to the informal sector (Silva et al. 2021), illustrates that shocks can reduce both the quality of employment and the tax base. This shift has lasting adverse effects on the tax base because it hampers the collection of income taxes, which account for 6 percent of tax revenue in Ethiopia.²³

2.2.2.2 Increasing expenditure

Different levels of post-disaster funding need to be available to government, businesses, and households at the appropriate time to cover immediate relief, response, and reconstruction efforts. Response stages can be distinguished by the amount of funding required and the speed with which it is needed (see box 3).

Box 3: Size and timing of financial response

- **Relief:** Rapid mobilization of some funds to support relief efforts is crucial to limit humanitarian costs.
- **Recovery:** Early recovery operations for affected populations require more funds but with less immediate urgency than during the relief stage.
- **Reconstruction:** The government has more time to mobilize the majority of resources for the reconstruction program.



Source: Ghesquiere and Mahul (2010).

²² Ministry of Finance "2013 E.C Budget Year GOE Federal Budget Proclamation Part Two Excel" <https://www.mofed.gov.et/resources/budget/>.

²³ Ministry of Finance "2013 E.C Budget Year GOE Federal Budget Proclamation Part Two Excel" <https://www.mofed.gov.et/resources/budget/>.

Between 2005 and 2016, the average humanitarian needs in Ethiopia accounted for 1.3 percent of GDP per year (Drechsler et al. 2017). From 2017 to 2022 these needs ranged from US\$844.5 million to US\$2.8 billion (the latter representing 27 percent of the federal budget for FY2021/22). Only 47 percent to 76 percent of these amounts were actually received (table 2) (OCHA 2022c). While much of the cost can be explained by chronic needs, the bulk of the variance is due to disasters such as droughts, the COVID-19 pandemic, or locust infestation. If post-disaster needs are not promptly addressed, they increase the chronic burden. While emergency responses, especially for humanitarian and food security needs, are supported by the international community, the long-term burden in the form of reduced productivity and government income remains the responsibility of the government.

COVID-19 led to an increase in government spending of 13 percent of the federal budget in FY2019/20. The additional spending included both health-related expenditure, such as increased medical capacity and equipment, and non-health-related expenditure, including emergency food distribution and other protection measures for vulnerable populations. In FY2019/20 additional spending amounted to Br 52.4 billion (IMF 2021), equivalent to 13 percent of the federal government's budget (according to MoF data)²⁴ and 2.6 percent of real GDP (NBE 2020).

Table 2: Ethiopia's appeals for international assistance, 2017–2022

Year	People in need	People targeted	Requirements (US\$)	Funding coverage
2022	25.9M	22.3M	2.8B	
2021	19.0M	14.8M	1.5B	49%
2020	8.0M	6.5M	973.0M	58%
2019	8.9M	8.3M	844.5M	76%
2018	7.0M	7.0M	1.2B	56%
2017	5.6M	5.6M	1.4B	47%

Source: OCHA 2022c.

Following immediate relief and recovery efforts, the government faces pressure to mobilize additional resources for reconstruction programs. The flood damage to public assets can include government buildings, urban and transportation infrastructure, and public service facilities. The risk of such damage is increased by the urbanization trend and is especially high in small towns, which tend to have higher rates of substandard housing and lower investment in public infrastructure.

Government's financial obligations to support publicly owned or partly publicly owned entities following shocks are particularly relevant for Ethiopia. Contingent liabilities for state-owned enterprises (SOEs) and public-private partnerships pose a significant risk for the government in the face of decreasing revenues and increasing costs arising from climatic or other shocks (Vivid Economics 2021). Public ownership is particularly high in risk-exposed industries, including telecommunications, power, banking, insurance, air transport, shipping, railway, industrial parks, and petroleum importing (US Department of State, n.d.). SOE's high debt levels create an additional liability layer; the total debt of SOEs amounts to at least 26 percent of GDP, and much of this debt is guaranteed by the government (IMF 2020b).

²⁴ Ministry of Finance "2013 E.C Budget Year GOE Federal Budget Proclamation Part Two Excel" <https://www.mofed.gov.et/resources/budget/>.

2.2.2.3 Fiscal risk assessments and funding gaps

Vivid Economics, in collaboration with the MoF Fiscal Policy Directorate, developed drought and flood risk assessments that highlight the likelihood of fiscal funding gaps arising due to humanitarian needs related these shock types (table 3 and table 4). This modeling shows that the humanitarian assistance costs from droughts are far greater than for floods and are expected to reach as high as US\$1 billion on average every 10 years. This is around 10 percent of the federal budget in FY2021/22, and far exceeds the contingency reserve which currently stands at 2-3 percent of the budget or around \$US250 million, and the annual PSNP budget of around US\$400 million; alongside this are agricultural losses of US\$204 million and imported food costs of US\$341 million. In 2016, the drought related to El Niño conditions resulted in needs amounting to US\$1.4 billion (Br 30.5 billion²⁵), or 8 percent of the country's FY2016/17 budgeted expenditure. According to Vivid Economics (2021), approximately Br 18 billion was disbursed from the budget. The government pleaded for additional financial support from international donors to cover the gap, but only part of the request was subsequently met (GoE and Humanitarian Partners 2017). Over the last decade, approximately 40 percent of the humanitarian assistance needs have been unmet, which inevitably has resulted in significantly reduced health, education, and nutrition outcomes (Vivid Economics 2021). With price inflation and population growth, the annual losses are also expected to increase.

Table 3: Estimated annual losses for drought, by return period

Cost (US\$, millions)	Return period (years)				
	5	10	30	50	100
Humanitarian assistance	797	1,017	1,353	1,485	1,630
Imported food costs	236	341	533	618	740
Agricultural (crop land) losses	92	204	406	496	625
Hydropower losses	11	27	52	64	82
Additional Number of people in need of assistance*	7,464,880	9,522,784	12,668,642	13,904,835	15,262,800

Source: Ministry of Finance's disaster-related fiscal risk quantification model developed with Vivid Economics (Vivid Economics 2021). * In addition to the PSNP safety net recipients under a typical year

Table 4: Estimated annual losses for flood, by return period

Cost (US\$, millions)	Return period (years)				
	5	10	30	50	100
Humanitarian assistance	19	33	60	75	99
Agricultural (crop land) losses	170	189	221	235	261
GDP losses (business interruption)	111	201	344	441	760
Education/health buildings losses	69	81	100	110	130
Transport losses	9	11	13	14	16

Source: Ministry of Finance's disaster-related fiscal risk quantification model developed with Vivid Economics (Vivid Economics 2021).

Shocks, especially fast-onset shocks like floods, also expose the government to liquidity challenges. Among factors that influence the scale of the potential problem is the time in the budgetary cycle at which a disaster strikes; for example, contingency reserves in Ethiopia are often exhausted in the first few months of a financial year. The liquidity risk in the case of Ethiopia is further influenced by the country's tax-to-revenue ratio, which is one of the lowest on the continent. With a tax base of only around 10 percent²⁶, increasing

²⁵ Converted based on the average exchange rate for 2016 using ExchangeRates.org.uk, <https://www.exchangerates.org.uk/USD-ETB-spot-exchange-rates-history-2016.html>.

revenue from domestic sources at short notice is difficult. Similarly, the country has seen a reduction in its credit rating and does not have DRF instruments it could quickly access. Federal government policy decisions tend to prioritize risk reduction spending on regions that are more economically productive and to rely on concessional funding and humanitarian aid to finance first response for low-rainfall and pastoral areas (see annex 1). Humanitarian aid is prone to delays, as support is usually triggered only a long time after a disaster's onset. This situation persists despite numerous declarations that response should be triggered based by forecasts (Save the Children International and Oxfam International 2022).

²⁶ UNICEF Ethiopia 2020-2021 National Budget Brief, <https://www.unicef.org/esa/media/10431/file/UNICEF-Ethiopia-2020-2021-National-Budget-Brief.pdf>

3. Private Sector Financial Ecosystem

Access to finance is a critical building block for disaster risk finance, enabling households and businesses to meet their post-shock monetary needs as well as to participate in government or development partner response schemes. To cope with shocks, households and businesses require access to financial products and services that meet their monetary needs in a fast, tailored, and predictable way. Financial inclusion therefore strengthens their resilience in the face of severe and increasing shock risk. If low-income households cannot access financing to respond to and recover from shocks, they may rely on adverse coping mechanisms—like selling productive assets—that jeopardize future income streams. Firms face similar needs in mitigating the impact of shocks on their business operations. MSMEs in particular must increase their financial resilience given that they are more vulnerable to shocks than larger enterprises.

3.1 Penetration of financial services

Ethiopian households tend to have limited access to financial services and products (table 5), with varying adoption rates between rural and urban areas. Relevant financial services include money transfers (including for remittances) as well as savings, credit, and insurance products. Financial institutions range from commercial banks and microfinance institutions (MFIs) to less formal or informal models like Savings and Credit Cooperative Organizations (SACCOs) and Village Savings and Lending Associations (VSLAs). Financial access is further determined by the financial sector’s distribution infrastructure, including the availability of branches, ATMs, agent networks, and mobile/digital banking networks. There is only limited data on access to finance for firms (such as the use of bank accounts, mobile money accounts, digital payments, savings, credit, and insurance) as well as the resulting constraints faced by these firms.

Table 5: Financial inclusion for Ethiopian population over age 15, 2017 (percent)

Access to financial service/product	Percentage
Had a financial institution account	34.8%
Borrowed any money in the past year	41.2%
Borrowed from a financial institution or used a credit card	10.7%
Borrowed from a savings club	7.5%
Saved any money	62.2%

Source: World Bank Databank, “Global Financial Inclusion” (accessed 2022), <https://databank.worldbank.org/reports.aspx?source=1228>.

Both rural households and firms that are part of the agriculture value chain have limited access to financial services and products. Savings services by financial institutions often fail to gain traction, and products are not tailored to rural and mobile herder communities. Credit products are increasingly being offered in line with Sharia law, making them more accessible for households following Islamic practices (though further education and awareness creation in this area is needed), but poorer households often lack the collateral to borrow. Insurance products have struggled to reach scale, with recent research highlighting a lack of awareness creation by insurance providers and lack of financial understanding in communities. Limited availability of financial products often results from financial institutions’ perception of rural households being at high risk of loan default. There are further cross-regional differences in product availability, with financial institutions tending to provide their services only in urban areas because of higher rates of repayment and lower rates of default (Ouma 2016).

Distribution infrastructure for financial services tends to underserve rural communities. Most branches of financial institutions, including ATMs, and most financial services providers are concentrated in urban areas. Agent banking in pastoralist areas is neglected because of poor road infrastructure, poor mobile phone network coverage, and, in some areas, security concerns. ATMs are found in town centers within pastoralist areas but are often used only by upper-level livestock value chain actors, not herder households (Ouma 2016). Evidence suggests that the average distance to the closest financial institution is 1 km for an urban dweller and 5 km for a rural dweller. The resulting disparity in financial inclusion for urban and rural areas can for instance be observed in the greater likelihood that urban dwellers will open a bank account (Amha et al. 2013). Vast differences exist even between rural areas; for example, expert surveys suggest that Borena zone and parts of Somali region enjoy relatively better access to financial services than Afar and SNNPR (Southern Nations, Nationalities, and Peoples' Region) (Lung et al. 2021).

In rural areas, MFIs have the largest outreach, with more than 40 MFIs licensed to operate by National Bank of Ethiopia (NBE). Most MFIs provide only credit and saving products to low-income clients; most of their lending consists of group loans, individual loans, and cooperative loans, and their major credit products include agricultural loans, micro-business loans, small enterprise loans, employee loans, package loans, and housing loans. Their savings products are designed to be mandatory for borrowers, who are supposed to save a minimum of 10 percent of the loan requested (WFP 2022).

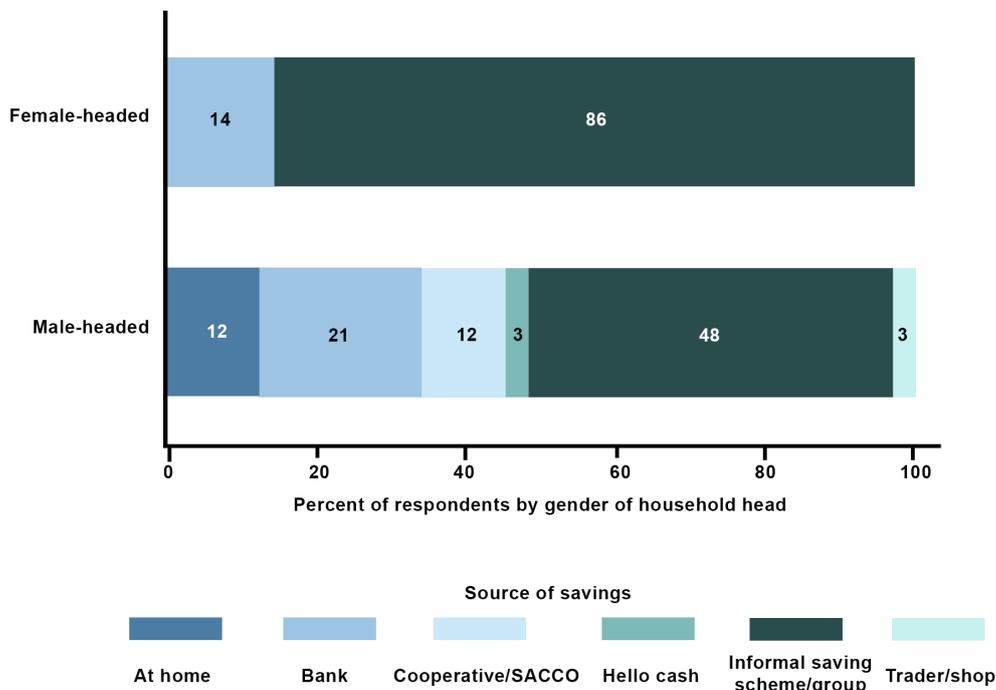
Though still limited, penetration and use of digital finance is improving with the expansion of telecommunication networks. By the beginning of 2022, over 50 percent of the total population had a mobile connection. In major urban areas, access to a 4G mobile data connection is available, and many rural areas now have access to 3G networks following the expansion of rural electrification (WFP 2022; Adame 2021). The share of pastoralists with access to mobile phones in 2021 is estimated at 10–30 percent (Lung et al. 2021). The increased access to telecommunication services, however, has not translated into access to digital financial services. In 2019, there were only 2.3 registered mobile money accounts per 1,000 adults, with total mobile money transactions accounting for only 0.17 percent of GDP.²⁷ Digital finance barriers include low literacy levels, especially among the rural population, an inadequate and restrictive regulatory environment, insufficient coverage of agent networks, capacity constraints among service providers, and a lack of linkages between banks and mobile money services. Like usage of other financial services and products, mobile money usage remains low in rural areas in comparison to urban ones (WFP 2022).

Gender inequalities in disaster contexts can be exacerbated by preexisting gender gaps in financial inclusion. Data suggests that women have less access to formal credit compared to men. Despite a slight increase in the number of microfinance and financial cooperatives, credit utilization in the country remains low, with only 15 percent of female landholders and 21 percent of male landholders reported taking out loans (FAO 2019). Although there are no official barriers to women's access to credit, women face challenges due to a lack of assets owned, limited awareness about credit and insurance products, a lack of collateral, and a societal mistrust of women.

A recent study in the Oromia and Somali regions identified access to mobile services, bank accounts, savings, insurance, and credit services among pastoralists (ILRI 2022). Surveyed pastoralists had low levels of education, with only 7 percent having completed primary education. Their primary source of income was from livestock related activities. Male-headed households generally had more savings options than female-headed households, and potentially as a result, male-headed households had a higher level of cash savings (42 percent) than female-headed households (28 percent). Female-headed households were more likely to save via informal saving schemes or groups (figure 7). A considerable proportion of the households surveyed owned a mobile phone (71 percent), with slightly higher ownership among female-headed households (79 percent) compared to male-headed households (66 percent). Almost all of the phones had mobile money access. Around 60 percent of surveyed pastoralists had borrowed money (figure 8). On average, they borrowed around 2.9 times a year with a median amount borrowed of Br 11,000 (US\$ 200). The main sources of credit were microfinance institutions and traders (figure 9).

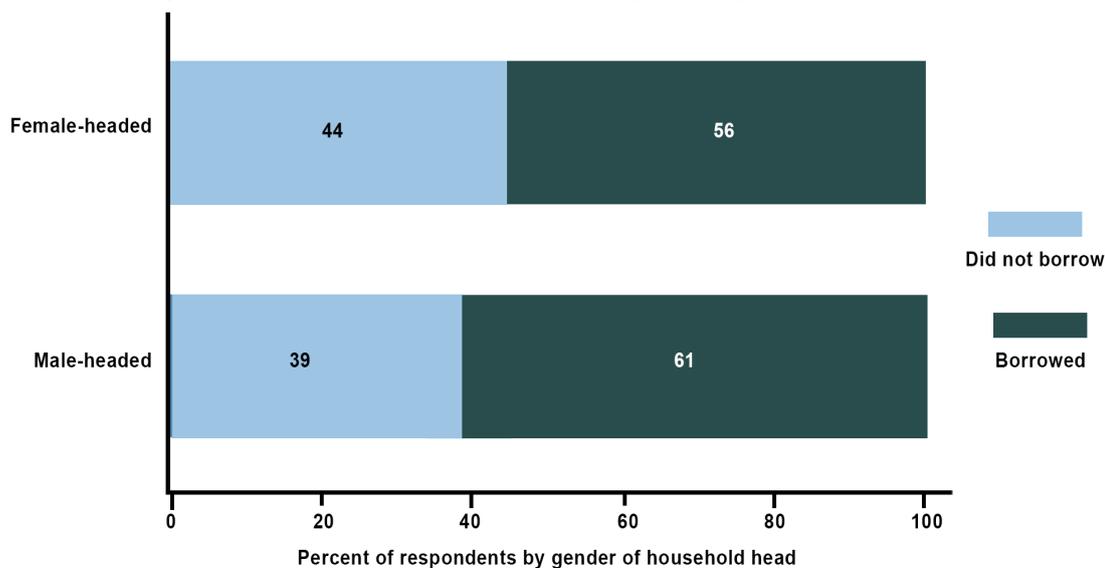
²⁷ International Monetary Fund, Financial Access Survey, <https://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C>.

Figure 7: Sources of cash savings for pastoralist households in Ethiopia



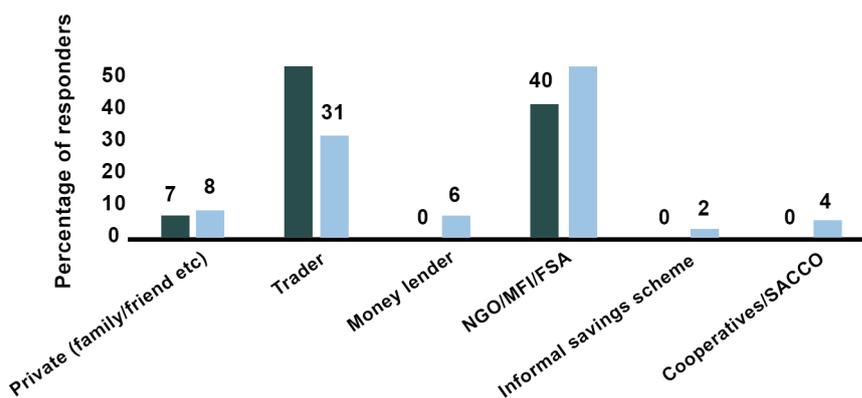
Source: ILRI, 2022.

Figure 8: Percentage of pastoralist households borrowing money



Source: ILRI, 2022.

Figure 9: Sources of credit for pastoralist households in Ethiopia



Source: ILRI, 2022.

3.2 Insurance sector

The still underdeveloped Ethiopian private insurance markets could play an important role in strengthening the country's fiscal resilience against shocks by offering risk transfer products to households and firms (see box 4 for a brief explanation of risk transfer versus risk retention). Property catastrophe insurance and disaster microinsurance for businesses and homeowners are still underdeveloped in Ethiopia, as is agricultural insurance. This is the result of challenges on both the supply side (such as weak product development, limited delivery channels, and lack of technical capacity) and the demand side (such as low levels of product awareness, low levels of insurance education, and insufficient disposable income to afford insurance). These challenges have been discussed in various studies, including World Bank Group (2018). Further, there is a pressing need to strengthen financial and regulatory systems, including adherence to building construction codes. A more detailed analysis of the insurance market, including the legal and regulatory framework, can be found in annex 2.

Box 4: Risk transfer versus risk retention

Risk finance instruments at the disposal of governments, businesses, and households can be distinguished according to whether they transfer or retain risk:

- **Risk transfer:** Risk transfer involves assumption by a third party of the liabilities of the entity at risk for an agreed price. Insurance is a common example: it transfers risk from an individual or entity to an insurance company.
- **Risk retention:** Risk retention involves an entity's decision to take responsibility for a particular risk by paying for losses out of pocket rather than transferring the financial burden of a loss to a third party.

Table 6: Snapshot of the Ethiopian insurance market

Legal and regulatory basis	
Legal basis	Proclamation No. 746/2012
Historic origin	French civil law with local variations
Supervisory authority	Insurance Supervision Directorate of the National Bank of Ethiopia*
Market and growth indicators (2017)	
International benchmarking	Non-life insurance premium income ranked 95th (globally)
Total market premium	Br 7,494 million (US\$314 million)
Non-life premium volume	Br 6,873 million (US\$288 million)
Annual market growth	14 percent
Market penetration	0.4 percent of GDP / US\$2.99 per capita

Source: AXCO 2021.

*Efforts are under way to turn the supervisory authority into an independent body; see Endale (2022).

Insurance penetration is very low in Ethiopia and lags in comparison to regional peer countries.

Total market penetration was equivalent to 0.4 percent of GDP and only US\$2.99 per capita in 2017. The very low insurance penetration in Ethiopia can be explained by the rural population's limited awareness of and limited access to insurance. In 2017 the total market premium was Br 7,494 million (US\$314 million). Non-life premium accounted for Br 6,873 million (US\$288 million), while life insurance, personal accident, and health accounted for only 8 percent of total premium. Non-life business is dominated by motor insurance (55.8 percent of total premium), followed by aviation, marine, and transit (13.9 percent);

construction and engineering (7.1 percent); and property (6.8 percent). The insurance market has grown at an average of 14 percent a year over the past five years—well above the inflation rate. In 2017, the Ethiopian non-life insurance industry was ranked at number 95 in the world in terms of premium income. Insurance penetration is for instance considerably higher in Kenya (2.64 percent of GDP, with expenditure of US\$40.67 per capita) (AXCO 2020, 2021). South Africa has the largest non-life insurance industry in Africa and is ranked 21st in the world, followed by Morocco at 46th, Algeria at 56th, and Kenya at 63rd. (AXCO 2020; AXCO 2021).

There are 18 licensed insurers operating in the Ethiopian market and distributing their services directly through branch networks. Up to now, the market has been closed to foreign investment and ownership. Ethiopian Insurance Corporation (EIC) is still by far the largest non-life insurer, with a share estimated at around 40 percent of the market premium. As a state-owned insurance company, EIC places most of the government's insurance programs, including for state-owned property, infrastructure, and the immense dam construction and engineering risks. Most insurance business is distributed (transacted) on a direct basis by insurers through their extensive networks of branch offices. In 2017, 83 percent of insurance by premium volume was conducted on a direct basis, 12 percent through approved brokers, and 5 percent through approved agents. No other entities or alternative distribution channels are permitted to sell insurance without the approval of NBE. The internet and mobile phone technology are currently not widely used for distribution,²⁸ but microinsurers recognize the potential of digital technology for marketing policies to rural communities, which make up 85 percent of the population (AXCO 2021).

Several international reinsurers support the Ethiopian insurance market, especially for property, construction and engineering, and agricultural insurance. Ethiopian Reinsurance (Ethiopian Re), established in 2016, is the first local reinsurance company. However, Ethiopian insurers tend to place their reinsurance cessions with regional reinsurers with local offices. In particular, Africa Re and ZEP-RE, with branches in Addis Ababa, are preferred by most local insurers (AXCO 2021).

There is currently no utilization of sovereign-level insurance for climatic shock risks. In FY2006/07, the Government of Ethiopia purchased a macro-level sovereign risk index insurance cover for drought. The product was designed by the World Food Program (WFP) and placed directly with Axa Re as a derivative cover, with a total sum insured of US\$7.1 million and premium of US\$0.93 million financed by the US Agency for International Development (USAID). No payouts were triggered, and the government declined to renew cover the following year (Mahul and Stutley 2010).

Various index-based agricultural crop and livestock insurance products have been pioneered for small-scale farmers and livestock herders over the past 15 years (see table 7), but market penetration is still very low, and the programs require external financial support. Index-based insurance products have the potential to play an important role in reducing disaster risk for groups exposed to the most frequent and impactful shocks. In the past, a handful of Ethiopian insurers—including EIC and Nyala Insurance Share Company, a private insurer—offered indemnity-based crop, livestock, and poultry insurance products and programs on a limited basis. But the introduction of index-based insurance in the past two decades has transformed the agricultural microinsurance market in Ethiopia. Crop and livestock index insurance have been introduced with the support of international donors, development agencies, and index insurance specialists. By 2021, the programs had insured more than 100,000 small-scale farmers and pastoralists. However, despite some progress in developing suitable agricultural insurance for small-scale farmers and livestock herders, market penetration is still very low. There are a few key challenges: insurers do not have an established presence or branch networks in rural areas, and most farmers and rural dwellers are unaware of agricultural insurance, lack access to financial and insurance services, and continue to rely on informal risk coping strategies. The government does not have a policy in place that specifies the use of insurance to de-risk agricultural activities in Ethiopia.

²⁸ In 2017, however, one local insurer—United Insurance Company—opened a web portal to sell travel and motor third-party insurance online.

Table 7: Agricultural index-based insurance initiatives in Ethiopia

R4 RURAL RESILIENCE INITIATIVE						
Implementation	Commodity	Area	Coverage:	Financing	Underwriting	
- WFP - Oxfam America - Relief Society of Tigray	Crop	- Kola Tembien - Gonder	- 50,000 households (2021)	- WFP - Oxfam (until 2018) - Potentially: Insurance-for-work	- Africa Insurance Company - Nyala Insurance Share Company	
INDEX-BASED LIVESTOCK INSURANCE (IBLI)						
Implementation	Commodity	Area	Index	Coverage (2013–20)		
- International Livestock Insurance Institute (ILRI) - Oromia Insurance Company (OIC)	Livestock	Borena, West Guji zones	Normalized difference vegetation index (NDVI)	- 16,000 pastoralists - 60,000 TLUs - Sum insured: Br 113 million - Total premium: Br 11.0 million - Payouts: Br 12.9 million		
SATELLITE INDEX INSURANCE FOR PASTORALISTS IN ETHIOPIA (SIPE)						
Implementation	Commodity	Area	Financing:	Coverage (2021)	Payouts (2021)	Disbursements channel
- WFP - Somali region government	Livestock	Somali region	- WFP - Potentially: insurance-for-work	- 30,000 households - 150,000 TLUs	- US\$981,000 - 28,297 households	- HelloCash (mobile money platform)
OTHER PROGRAMS AND PILOTS						
Name	Time period	Commodity	Area			
Index-based Crop Insurance Promotion (ICIP) project	Since 2019	Crop	Oromia			
MRRD (Promoting Microinsurance Innovations)	Since 2019	Crop	Amhara, Tigray			
Vegetation Index Crop Insurance	2013–16	Staple crops	Arsi, East Shewa, West Shewa, Gurage Zone			
Insurance with environmental protection	2013–16	Crop	Adami Tulu and Assosa areas			
Pilot livestock indemnity insurance	2010–12	Cattle and sheep	Debreberhan and Debrezeit areas			
Weather index insurance	2010–12	Staple crops	East Shewa, West Shewa, Southwest Shewa, and West Arsi			
Linking weather index insurance and credit	2010–12	Staple crops	49 kebeles in Amhara region			
Linking formal and informal insurance – Iddirs	2010–12	Crop	Dodota, Shashemene, Bako areas			
Weather Risk Management: An Ethiopian Pilot	2006–09	Maize	Alaba woreda			
Double Trigger Multiple Peril Crop Insurance	2006–09	Staple crops	Modjo, Adama, and Debrezeit areas			
Micro-level weather index insurance	2006–09	Haricot bean	Bofa kebele			
Weather index crop insurance	2006–09	Crop	SNNPR			

Sources: Ethiopian Agriculture Transformation Agency and World Bank.

Note: SNNPR = Southern Nations, Nationalities, and Peoples' Region; TLU = tropical livestock unit; WFP = World Food Program.

Between 2022-2027 the government has committed US\$45 million to helping pastoral communities build their resilience to climate risk through increased access to index-based livestock insurance. Drawing on the lessons of products and programs already tested in the region, this effort includes partial subsidy for index-based livestock insurance products. Key challenges for such programs have been poor targeting, delayed premium payment and payouts, problems with financial sustainability, and limited awareness creation. In response, the GoE, along with the governments of Kenya, Somalia, and Djibouti, has committed to a regional program, the De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa (HOA DRIVE) project. This project seeks to develop more cost-effective ways of marketing and delivering coverage and reaching scale, in part by linking the package of financial services and integrating pastoralists into the value chains.

Currently the GoE does not invest in sovereign insurance products for climatic risks, but it is eligible for products and capacity development from the African Risk Capacity (ARC) Group. The ARC Group is a specialized agency of the African Union (AU) established to help African governments improve their capacities to plan, prepare, and respond to extreme weather events and natural disasters. Currently, 35 AU countries are members of the ARC Group; though Ethiopia has not signed the treaty, a requirement for membership, it is in discussions with ARC over potential membership. ARC provides a three-pronged approach to management of climate risk:

- Early warning delivered through Africa RiskView, ARC's in-house early warning and modeling platform for drought risk managed by ARC Agency
- Contingency planning through capacity building, peer review, and standard setting, delivered by ARC Agency with the goal of driving preparedness for climate disasters
- Access to financing through parametric insurance offered by African Risk Capacity Limited (ARC Ltd.), a hybrid mutual insurer that provides parametric insurance services to AU member states and farmer organizations and that employs innovative financing mechanisms to pool disaster-related risk across Africa and transfer it to international risk markets. In 2022, ARC Ltd. paid out over US\$60 million in coverage, benefitting 18 million individuals in countries including Malawi, Mali, and Madagascar.

4 Legal and institutional foundations of DRF in Ethiopia

The GoE's framework for shock response is built on an early warning system (EWS) that triggers institutional response dependent on the type and severity of the shock event; national-level emergencies are coordinated by the Ethiopia Disaster Risk Management Commission (EDRMC) and financed by the MoF. The DRM policy of 2013—the National Policy and Strategy on Disaster Risk Management (Federal Democratic Republic of Ethiopia 2013)—reformed the initial policy from 1993, shifting the approach away from a focus on food insecurity and adopting a multi-agency, multi-hazard approach. The reform also changed the mandate of the EDRMC (known until recently as the National Disaster Risk Management Commission) to make it the leading coordinating agency rather than a responding agency. The policy stipulates Ethiopia's current institutional shock response system (figure 10), which is informed and triggered by a comprehensive EWS that triggers institutional response. Responsibilities depend on the impact of the shock, with subnational governments responsible for responding to and financing lower-severity impacts. National-level shocks were initially the responsibility of 10 “operating” line ministries, but the 2013 DRM policy has shifted some responsibility and made each ministry responsible for a specific shock type. The EDRMC serves as the coordinating body but steps in operationally if the severity of a shock surpasses the impact threshold of a line ministry. The financing of all national-level shock responses is the responsibility of the Ministry of Finance. The system as just described is only partially operationalized because of several issues, including inadequate EWS data coordination and an unclear legal mandate for the EDRMC as the coordinating agency. The EDRMC is currently revising the DRM policy and seeks to address these challenges.

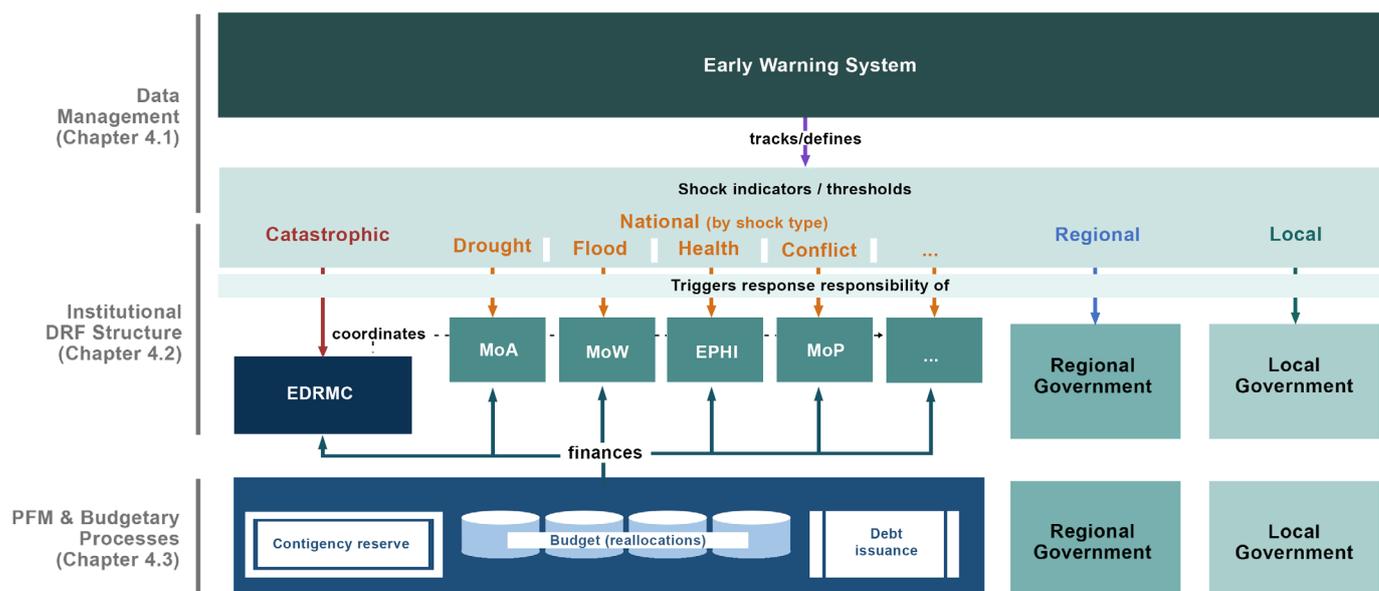
Ethiopia's shock response framework has substantial policy gaps in terms of risk management and disaster risk finance. While the work is currently under way, Ethiopia still does not have a DRF strategy in place. There is also little mainstreaming of DRF in other policy documents. For example, policies related to agriculture do not reference development of an agricultural insurance market, and the latest 10-year development plan (for 2021 to 2030) refers to developing the insurance sector—and to increasing access to agricultural insurance specifically—in a very limited manner.

The second Growth and Transformation Plan (GTP II) of 2016 is one of few examples of policies addressing DRF, yet it too has only a limited focus on DRM. The flagship program considered in the context of DRF is the Productive Safety Net Program (PSNP), which the government has been gradually expanding. Some attention is also given to building up food reserves. While the plan discusses increasing the contingent budget allocation for emergency food purchases, it neglects the importance of financial planning for the PSNP. In recognition of the recurrent need to temporarily expand the number of beneficiaries in response to shocks, the current fifth phase of the PSNP comprises an explicit shock-adaptive element.²⁹ As such a scale-up constitutes a contingent liability for the budget, the policy would benefit from a consideration of the PSNP's financial resilience.

In the context of DRM, the Constitution obliges the entire government to undertake preventive measures and provide timely assistance in the event of a disaster; it does not distinguish between federal and regional obligations (see annex 3). Both the federal and regional executives can declare a state of emergency. The Constitution mandates that state constitutions address the conditions and implications of a state of emergency, resulting in varied legal implications of announcing an emergency.

²⁹ World Bank, “Ethiopia Rural Productive Safety Net Project,” <https://projects.worldbank.org/en/projects-operations/project-detail/P163438>.

Figure 10: Overview of the shock response structure of the Government of Ethiopia



Source: Authors, based on consultations with EDRMC

4.1 Data management

Historical data on the frequency, severity, location, and cost of shocks are fundamental for financial planning for future shocks (see box 5). Both the public sector, during the process of budgeting and designing financial mechanisms for response, and the private sector, when designing financial products and services for households and businesses, require access to reliable data. Currently, Ethiopia has significant gaps in terms of risk data availability that make it difficult for the government to appropriately plan for shocks and negotiate humanitarian aid with development partners. Lack of complete data further restricts the private sector from offering appropriate risk transfer and other financial risk-reducing instruments.

Box 5: Data for DRF purposes

Public and private decision-makers require different types of data to anticipate the underlying risk of shocks, assess their impact, and facilitate the response to them.

- **Risk data:** Appropriate risk information that measures and quantifies the exposure to hazards. Examples of data indicators include precipitation levels or vegetation conditions. Risk data can be used for early warning systems and to inform risk transfer instruments.
- **Impact data:** Information that determines the “price” of risk, clarifying its costs to different stakeholder groups. Examples of data indicators include financial damage, IPC (Integrated Food Security Phase Classification) levels, and welfare and nutrition indicators. Impact data can guide investments decisions for risk financing instruments.
- **PFM data:** Data used by the government to inform and coordinate fiscal spending. Data indicators include budgetary spending and reallocations in response to shocks. PFM data can be used for government Medium-Term Expenditure Frameworks (MTEFs).

4.1.1 Budgetary data

In Ethiopia, all federal government expenditure is reported and audited using the Integrated Financial Management Information System (IFMIS) and Integrated Budget and Expenditure System (IBEX). The Ministry of Finance is responsible for the management of budgetary information. However, there is currently no tracking system to distinguish expenditures that are allocated for response. Further, nongovernmental organizations (NGOs) and other development partners do not always report clearly on their expenditures, meaning funds that go under channel 3 as well as other public contributions are not well documented. Without such historical data, it is difficult to forecast the cost of future responses and create appropriate financial plans.

4.1.2 Early warning systems

Already in 2013, the National Policy and Strategy on Disaster Risk Management had found that response activities in Ethiopia did not sufficiently use data from EWSs (Federal Democratic Republic of Ethiopia 2013). An ambitious plan to create a reliable and trustworthy multi-hazard EWS was articulated in the 2013 policy, but it has suffered from a silo approach that leads to data duplication and lack of coordination. This in turn undermines the credibility of the system and the reporting that is based on data. Reporting and interviews with representatives of the EDRMC suggest that while there are gaps in the spatial coverage of data collected and some equipment and software are outdated, the largest problem is lack of coordination and ownership.³⁰

EDRMC recognizes that the lack of coordination between EWSs, along with the limited ability of the commission to enforce appropriate reporting, leaves collected data largely unactionable, and the commission will aim to address these issues in the new DRM policy. Currently, there are no clear action triggers associated with collected data. EDRMC has completed a draft of a new DRM policy that is expected to increase its power over relevant line ministries to ensure that they submit data in a timely manner. Moreover, the policy is expected to create decision triggers that will automate the process of allocating response management roles to specific levels of government and line ministries. Automated triggers are also expected to trigger transfers to specific government bodies. These improvements are in line with recommendations for improving the EWS in Ethiopia proposed in a three-part report by Kimetrica. However, while the policy is a welcome sign of work toward high-level agreement on the direction for the EWS and includes organizational and institutional changes that were proposed in the Kimetrica document, it remains unclear whether it will include a plan for implementing the technical recommendations related to quality and integration of software and hardware used by the systems.

4.2 Institutional DRF structure

4.2.1 Ethiopian Disaster Risk Management Commission

The EDRMC plays a central role in coordinating the country's DRM activities and is mandated to consolidate data from numerous early warning systems in the country. It has a broad mandate, including the implementation of the DRM decentralization strategy and coordination among all levels of government: federal, regional, zone, woreda, and kebele city administrations (Biru and Dibaba 2018). The institution was established through Proclamation number 363 of 2015 as part of the strategy laid out in the DRM policy of 2013. EDRMC is overseen by the Disaster Risk Management Council (DRMC), an executive body that supervises all DRM activities in the country, including drafting legislation, deciding on response budget allocations, and declaring a state of emergency, although in doing so it is bound by the process laid out in the Constitution.

³⁰ Relevant reporting is by Kimetrica (2020). EDRMC representatives were interviewed on September 4, 2022.

³¹ Such fund does not currently exist.

The proclamation establishing the commission states that it is the highest-level coordinating organization and that it assumes full coordination control in the event of a disaster that is beyond the capacity of the appropriate lead sector institution. The proclamation also states that whenever necessary the commission distributes food from food reserves and administers the relief fund.³¹ According to conversations with EDRMC representatives, EDRMC has appropriate response equipment (such as vehicles and warehouses) to undertake operational activities.

For example, the commission manages payouts to many humanitarian food assistance beneficiaries, including many who have been receiving payouts from the commission for the past five years. This is an example of an activity that creates an overlap with the work of the Ministry of Agriculture (MoA) and in particular the Food Security Coordination Directorate (FSCD). Lack of clear boundaries between the role of the EDRMC and that of line ministries, especially concerning operational activities and administration of funds, may dilute responsibility, increase the time needed to take decisions in the face of a crisis, and make it difficult to negotiate with development partners. According to the PSNP Phase 5 2020–2025 design document, the duplication of activities between humanitarian response and PSNP would be addressed by giving the MoA oversight over both, but this change has not yet been implemented (MoA, FSCD 2020).

The decentralization efforts and the commission’s assumption of a coordinating role for EWSs have also been slow. According to EDRMC, among the reasons for slow progress in these areas is the commission’s lack of enforcement capability. This in turn prevents it from forcing line ministries and units of local government to introduce disaster response plans and improve their collaboration under the EWS. The new DRM policy is expected to address these challenges.

4.2.2 Disaster Risk Management Council

The DRMC was established by the DRM policy of 2013 and is a high-level policy and oversight body. Apart from its role in policy-related guidance, it has two objectives that are important from the perspective of DRF. First, the council is responsible for declaring disasters. Second, it makes decisions on the allocation and supervision of additional resources for disaster response. However, except for the declaration of emergency, these powers are largely exercised by EDRMC.

4.2.3 Line ministries

The DRM policy of 2013 identified lead sectoral institutions responsible for managing the response to disasters (table 8). The policy also specifies that response should be decentralized, and all levels of government should be included. However, many of the line ministries do not have response plans and infrastructure in place. The level of preparedness among line ministries varies, with some well prepared—such as the Ministry of Health (MoH), which has shown a high capacity for addressing shock-induced malnutrition—and others still lacking basic structures. Further, the level of post-disaster responsibility accorded to line ministries is not matched by their capacity and preparedness to respond to shocks. Now, even if a ministry lacks the necessary capacity to respond, there is no legal procedure for passing the responsibility to another body. This lack of clarity on line ministries’ readiness and responsibilities makes allocation of response funds challenging.

Table 8: Disaster response mandate of Ethiopian line ministries

Line ministry	DRM role
Ministry of Finance	<ul style="list-style-type: none"> - Analysis of fiscal risks of disasters - Coordination of direct aid, including humanitarian support - Drafting and monitoring of budget, including ensuring transparency of post-disaster expenditure
Ministry of Agriculture	<ul style="list-style-type: none"> - Response to animal diseases and crop pests such as locusts - Provision of feed for animals and seeds in response to droughts - Provision of food security support services through the Food Security Coordination Directorate - Implementation and management of the Productive Safety Net Program - Implementation of government-supported agricultural insurance programs
Ministry of Health	<ul style="list-style-type: none"> - Prevention and response management during epidemics - Coordination of nutrition programs, including in the aftermath of shocks
Ministry of Peace	<ul style="list-style-type: none"> - Prevention of internal conflict in Ethiopia - Action to ensure dialogue between pastoral communities and across states
Environment, Forest, and Climate Change Commission	<ul style="list-style-type: none"> - Bush fire prevention and response coordination
Ministry of Water, and Energy	<ul style="list-style-type: none"> - Dam safety coordination and response to dam-related disasters - Flood control and response
Ministry of Urban and Infrastructure Development	<ul style="list-style-type: none"> - Response to construction disasters
Ministry of National Defense	<ul style="list-style-type: none"> - Emergency response, maintaining peace and order, and coordination
Ministry of Mines	<ul style="list-style-type: none"> - Response to earthquakes

Source: National Policy and Strategy On Disaster Risk Management of 2013 and Government Interviews

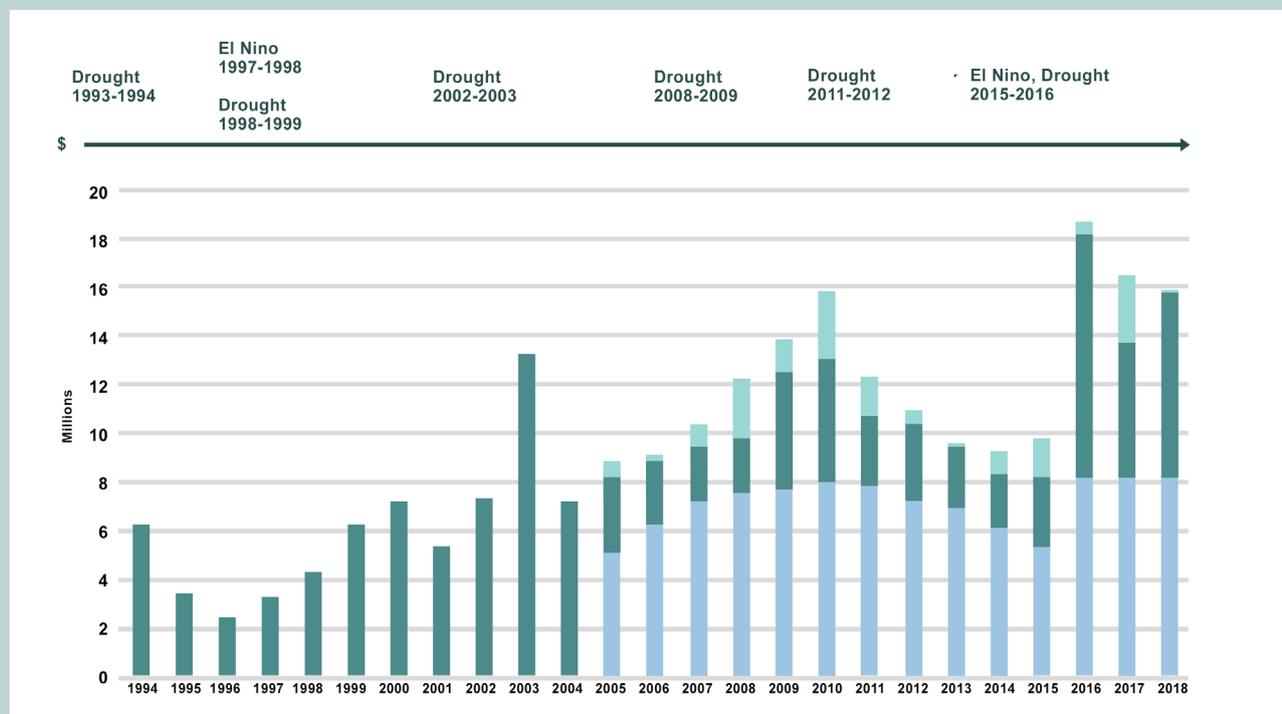
4.2.3.1 Ministry of Agriculture

The MoA plays a central role in DRF in Ethiopia—most notably through its overall responsibility for the implementation and management of the flagship PSNP (MoA, FSCD 2020). The program, which is described in box 6, constitutes over 50 percent of the overall MoA budget (figure 11, figure 12). The majority of the PSNP funding is contributed by development partners, with the GoE currently providing only 14 percent of the budget, from only 3 percent in 2015/16. To achieve GoE’s goal of funding 25 percent by 2025 and eventually reaching financial self-sufficiency, the ministry will require a robust financial plan, especially if the government intends to strengthen the disaster-responsive element of the PSNP, which is currently unfunded.

Box 6: Productive Safety Net Program

The PSNP was launched in 2005 to support chronically food-insecure households via cash transfers. Preexisting delivery mechanisms that allow GoE to swiftly and precisely reach affected populations are as important for efficient response as funds mobilization. One of the largest social protection programs in Sub-Saharan Africa, the PSNP is currently in its fifth phase, and the GoE together with development partners have pledged US\$2.2 billion over the next five years; the aim is to leverage these funds to reach 9 million food-insecure people annually.³² PSNP’s main principle is to provide a pathway to food security by offering food and cash transfers for a limited period to pre-identified vulnerable households. Most transfers are provided in exchange for work, and only households without able-bodied members are eligible for unconditional support. Since its inception, building resilience to shocks has been among the main premises of the program, as even moderate shocks can force households to divest themselves of productive assets and lower their productive capacity, pushing them further down the spiral of poverty.³³

Figure 11: PSNP’s contribution to food assistance efforts following shocks



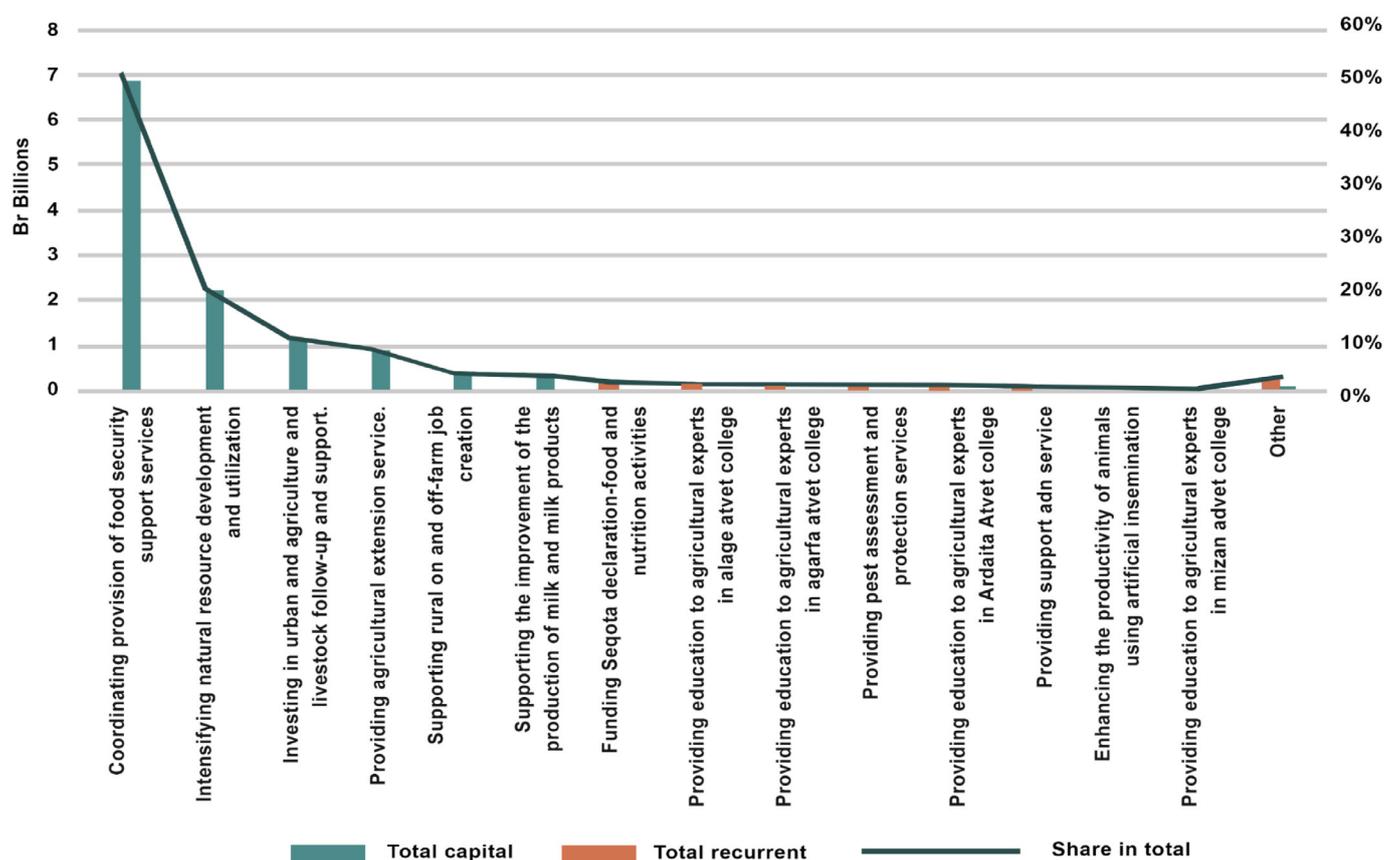
Source: World Bank 2021.

³² U.S. Embassy in Ethiopia (2021), “U.S. and Ethiopia Launch New \$2.2 Billion Phase of the Productive Safety Net Program”, <https://et.usembassy.gov/u-s-and-ethiopia-launch-new-2-2-billion-phase-of-the-productive-safety-net-program/>

³³ Béné, C., Devereux S. and Sabates-Wheeler R. (2012) “Shocks and Social Protection in the Horn of Africa: Analysis from the Productive Safety Net Programme in Ethiopia”

The Food Security Coordination Directorate, which is part of the MoA, has a central operational role in managing food security in the country. The FSCD's main responsibility is the coordination of the service delivery under the PSNP (MoA, FSCD 2020), though it is also responsible for all food security–related programs. The directorate does not have sufficient equipment for managing food security, such as trucks and warehouses, and therefore many of the response activities are conducted by EDRMC.

Figure 12: Composition of the MoA budget, FY2019/20



Source: Ministry of Finance, “Budget for FY2013 (Ethiopian calendar) FY2019/20 (Gregorian calendar). <https://www.mofed.gov.et/resources/budget/>

4.2.3.2 Ministry of Health

The MoH is responsible for responding to epidemiological disasters and addressing some of the consequences of drought, including malnutrition among children. The response process combines dedicated disaster response programs with a scale-up of routine activities. Following the El Niño drought of 2015, the MoH was widely praised for the efficacy of its response, which included the timely scale-up of its children-focused severe acute malnutrition (SAM) and community-based nutrition (CBN) programs (Tucker Brown and Ategebo, n.d.).

The MoH is heavily reliant on donors, and its budget is therefore exposed to delayed or insufficient support. Currently, as much as 93 percent of MoH’s capital budget is provided by international assistance.³⁴ This means that the ability of the institution to plan for and respond to disasters is almost fully reliant on external support. Interestingly, representatives of the GoE suggested that MoH’s disproportionate dependency on aid is the result of relative ease with which support can be mobilized for public health compared to other sectors.³⁵

³⁴ Ministry of Finance, “Budget for FY2013 (Ethiopian calendar) FY2019/20 (Gregorian calendar). <https://www.mofed.gov.et/resources/budget/>

³⁵ Comment at Building Resilience in Ethiopia (BRE) workshop, September 2021.

4.2.3.3 Ministry of Finance

The role of the MoF is not discussed in the 2013 DRM policy, which reflects the document's light touch on the DRF aspect of disaster risk management. Nonetheless, the role of the ministry in shock response is substantial—and arguably more significant than in some peer countries. Following shocks, the minister of finance can authorize reallocations between line ministries and projects. Furthermore, through the Government Accounts Directorate, the Ministry of Finance monitors and reports budget and expenditure using the Management Information System (IFMIS) and Integrated Budget and Expenditure System (IBEX). Therefore, it has unique capabilities to provide analytics on the expected cost of shocks and propose budgetary instruments to finance these risks.

Concerning reallocations, the Ministry of Finance controls two other DRF instruments: the debt issuance and contingency budget. In terms of borrowing by the federal government, the MoF's role is limited, as the decision on the amount of allowed debt issuance is determined by the House of People's Representatives, while the MoF authorizes lending to regions. The amount of debt is capped by the amount of subsidy a region is eligible for, but it is the minister of finance who can disburse additional funds through this channel in the event of a shock. The MoF also has significant discretion in deciding on the amount disbursed from the contingency budget, as the reserve is not earmarked in any way (PEFA 2019b).

4.3 Public financial management and budgeting process

4.3.1 Public financial management proclamation

Ethiopia has four tiers of government with budgetary powers: federal, state, zone, and woreda.³⁶ One can also distinguish kebeles, or neighborhoods, but they do not have budgetary powers and are therefore less relevant for the DRF process, though their role in DRM remains important (PEFA 2019b). Almost all revenue collection powers are held by the two top tiers of the government. However, woredas still have significant responsibilities over expenditure management, including the prioritization of public services funding. The mismatch between revenue collection capabilities and spending obligations may pose a challenge (Alam and Gerbaba 2019). Nonetheless, the significant level of self-governance of both woredas and states makes Ethiopia's budgeting process one of the most decentralized in Africa next to Nigeria and South Africa (Hobdari et al. 2018). For example, in FY2019/20 over 37 percent of the federal budget was channeled through subnational regional governments (UNICEF, n.d.). Moreover, Ethiopian subnational governments have a substantial ability to raise their own revenue, as approximately 30 percent of the total government budget is raised locally³⁷, a much larger proportion than in peer countries.

The entire PFM process in Ethiopia is decentralized, with transfers to regions provided as block subsidies that are formula based and praised for their transparency (PEFA 2019b). There are two types of grants that are provided to regions in Ethiopia: (i) general purpose subsidies, mainly intended to equalize differences in the revenue-raising capacity of regions, and (ii) specific purpose subsidy, a conditional subsidy intended to incentivize regions to undertake specific investments. There is also joint revenue sharing, a population-based redistribution of taxation that is raised from unevenly shared resources, such as mines or control over ports of entry.³⁸

The PFM process in Ethiopia provides substantial flexibility to the minister of finance. The minister can use an uncapped number of virements to finance response to shocks, with the exception of transfers from capital projects to finance recurrent spending. This ability makes reallocations easy and potentially fast, but it may undermine the credibility of the budget and reduce incentives for robust planning and forecasting. This budgetary rule contrasts with laws in peer countries such as Uganda, Kenya, and South Africa, where both percentage caps and limits in terms of categories are applied.³⁹ If the transfer is between recurrent items, the minister, without Parliament's approval, should only authorize transfers within one public body

³⁶ Law Ethiopia, "Proclamation No. 1250/2021: A System for the Determination of the Division of the Federal Subsidy and Joint Revenues," <https://www.lawethiopia.com/index.php/volume-3/6644-proclamation-no-1250-2021-a-system-for-the-determination-of-the-division-of-the-federal-subsidy-and-joint-revenues>.

³⁷ Hobdari N., Nguyen V., Dell'Erba S., and Ruggiero E. 2018 "Lessons for Effective Fiscal Decentralization in Sub-Saharan Africa"

³⁸ Ibid.

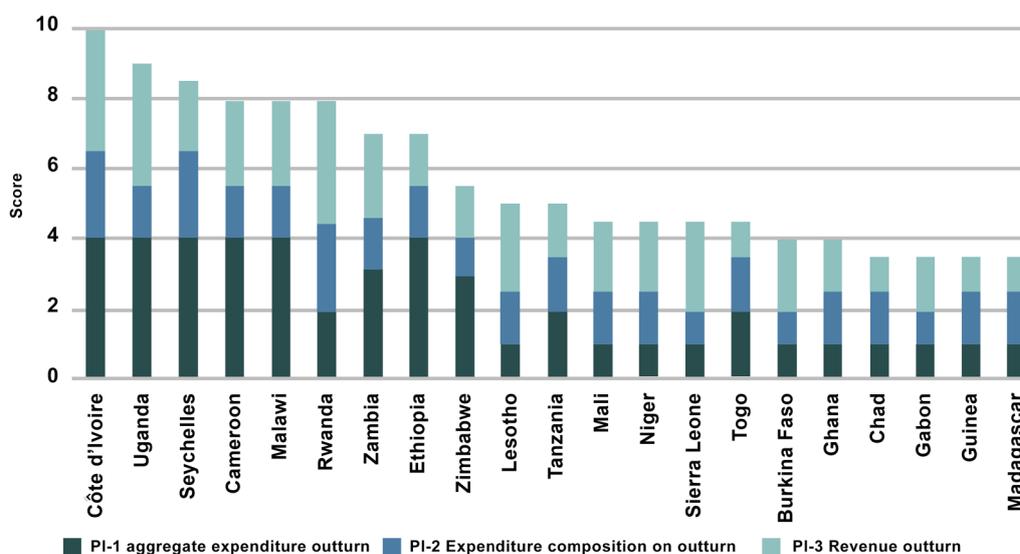
and within one item of expenditure, unless the minister can prove that there is some appropriated budget within a body that will not be able to use it—for example, due to a shock that has made an investment unviable. In such a case, the transfer can be made to the body in need. However, this power to issue an unlimited number of virements with limited actual constraints is arguably overused in Ethiopia, reducing the reliability of the budget composition (PEFA 2019a). Despite the relative flexibility of the budget, transfers are not allowed from capital to recurrent expenditure, though they can flow in the opposite direction. This provision is not unique to the Ethiopian law and is designed to reduce subsidization of wages at the expense of development projects.

The PFM proclamation also authorizes the minister of finance to use the contingency budget for expenditures that could not have been foreseen. The proclamation itself does not specify further what constitutes unforeseen circumstances and does not limit them to disasters. In the past the government was careful not to use the contingency budget excessively; but in FY2019/20, by the time funds were required as part of the response to COVID-19, they had been depleted. The contingency budget is currently small, accounting for 2–3 percent of the proclaimed budget. The unallocated money cannot be directly transferred to a new project or a vendor, only to the line ministry that experiences a funding shortfall.

Only the federal government can issue debt, and only when it has been approved by the House of People’s Representatives. The lower spheres of the government have limited ability to borrow; they can borrow only from the national government, and the loan amount is capped at the amount of subsidy allocated to the state. As parliamentary approval is required for any borrowing, the efficiency of the legislative process and the ability of the Parliament to assemble and swiftly pass legislation determine the effectiveness of borrowing as an instrument to finance disaster response.

Overall, the credibility of Ethiopia’s federal budget is high (figure 13). According to the Public Expenditure and Financial Accountability (PEFA) report from 2019, between 2015 and 2018 the actual spending ranged between 98.9 percent and 105.7 percent of the originally approved budget (PEFA 2019b). This level of budget credibility places Ethiopia among regional leaders. However, the country’s performance is behind its peers when looking at the composition of expenditure (figure 13). Adjustments through reallocations in the Ethiopian budget are very frequent and significant in size, a result of the minister of finance’s ability to shift funds between projects, whose only limitation (as indicated above) is a restriction on virements between capital and recurrent expenditures.

Figure 13: Performance of Ethiopia’s budget ranked on three main criteria relative to peer countries



Source: Public Expenditure and Financial Accountability (PEFA), “Assessments,” <https://www.pefa.org/assessments/>.

Note: The three criteria shown are the three indicators under PEFA pillar 1, budget reliability. Each criterion is scored 0 to 4.

³⁹ For the Ugandan Public Finance Law, see The Acts Supplement No. 2 to the Uganda Gazette No. 11, Vol. CVIII, March 6, 2015, <https://s3.amazonaws.com/rji-documents/e65ad80f08f622e5773533efcc44f8f832c556d8.pdf>. For the Kenyan Public Finance Act, 2012, see the Kenya Law website, <http://kenyalaw.org/8181/exist/kenyalex/actview.xql?actid=No.%2018%20of%202012>.

4.3.2 Procurement proclamation

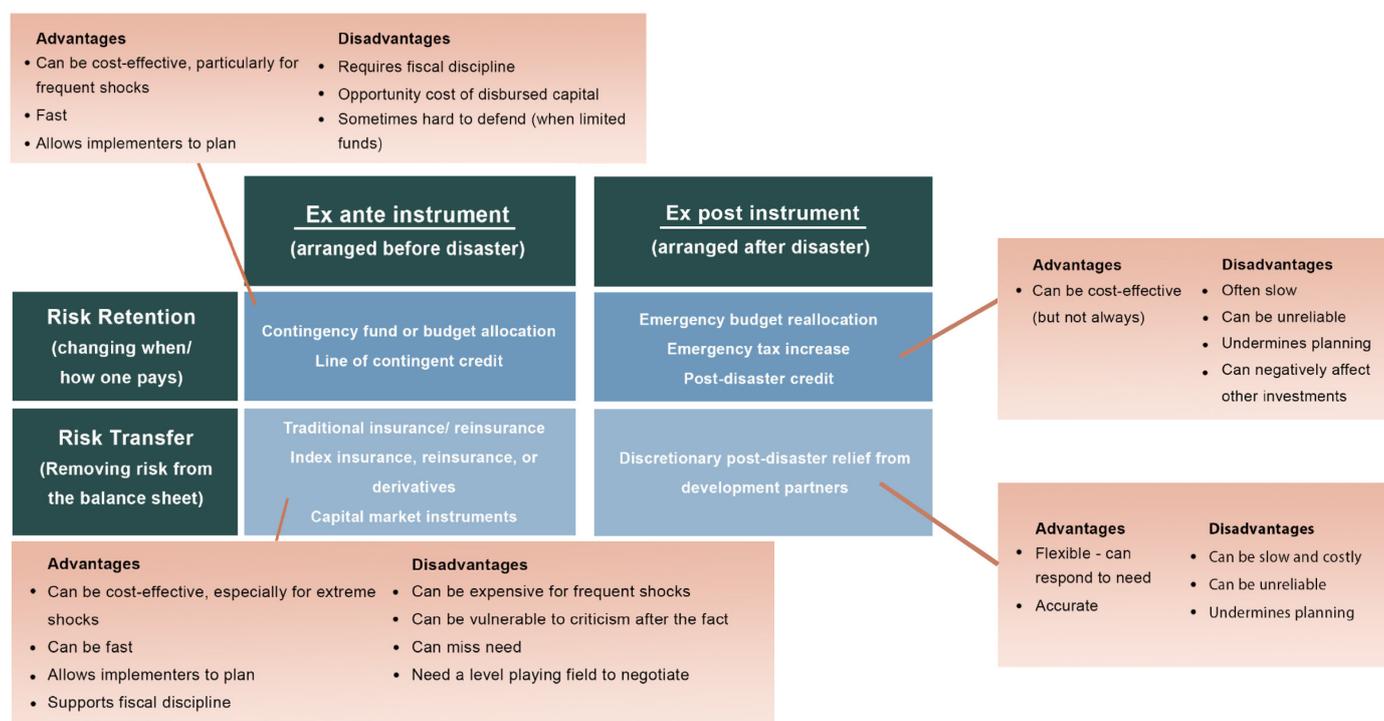
The Procurement and Property Administration Proclamation No. 649/2009 does not include a direct reference to emergency procurement procedures (see annex 4 for more information on the proclamation). However, it grants significant power to heads of public bodies, allowing them to opt for direct procurement in cases of “pressing emergency,” when “delay would create serious problems and therefore [be] injurious to the performance of that public body” (Marchés Publics Afrique 2009, chap. 6, no. 51f). The ability of institutions addressing disasters to procure necessary resources in a timely manner, while ensuring transparency of transactions and appropriate quality of purchased goods, is crucial for the efficiency of response. The experience of numerous countries shows that procurement in the event of an emergency is frequently a significant bottleneck in the response efforts. Common challenges include lengthy public tender procedures, slowed operations, and insufficient funds; these may force responders to resort to provisional solutions rather than allowing them to adhere to the gold standard of building back better. Finally, when adequate procedures for emergency procurement are not in place, actors responding to a shock may resort to ad hoc decisions that result in the abuse of power and misuse of public resources. This challenge was faced by governments around the world during the COVID-19 pandemic.

5 Opportunities for enhancing the use of DRF instruments and mechanisms

DRF instruments can be categorized by whether they are arranged before a shock occurs (**ex ante**) or after (**ex post**). Their characteristics and requirements determine the trade-offs and opportunity costs of choosing each of them (figure 14). Currently Ethiopia has a very limited portfolio of DRF instruments, whether at the sovereign, business, or household level. There are almost no ex ante arrangements that are specifically designed to improve the quality of fiscal management. Arguably, the broad-mandate contingency budget can be used as a DRF instrument; however, experience has shown that lack of ring-fencing leads to its unreliability as a response tool. Ex post instruments can be used, but their availability, timing, and cost are difficult to predict due to the country's macroeconomic and political challenges, making planning hard. However, the government is making efforts to change this situation. This chapter discusses the work that the Government of Ethiopia is conducting to improve access to insurance of pastoral communities, through a government-led program. It also looks at the experience of some of the regions in piloting local contingency funds. The following chapter provides more details and discusses some instruments that the government could consider in the short to medium term, as it develops and operationalizes the DRF strategy and builds a comprehensive risk-layering strategy (see box 7).

Macro, meso, and micro-level instruments should be designed and implemented in a way that considers gender and promotes gender equality. It is also important to involve women in diverse roles in the implementation of these instruments to ensure their effectiveness and inclusivity. Instruments should consider and address the gender-specific risks, vulnerabilities, and needs by incorporating gender-sensitive planning and gender-responsive actions in their design and implementation.

Figure 14: High-level overview of instruments that can be used to build a disaster risk financing strategy

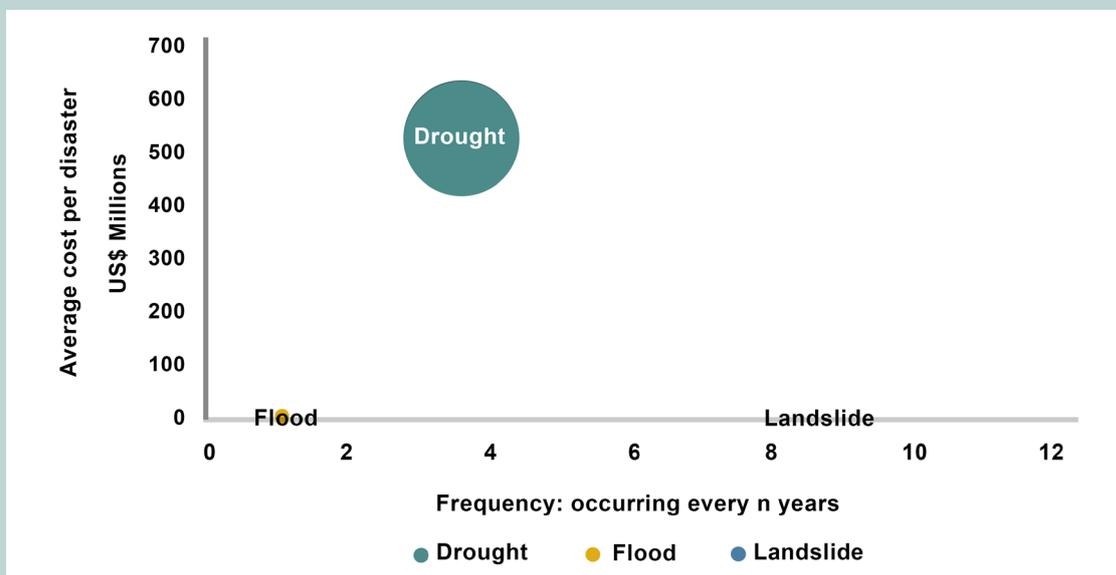


Source: World Bank

Box 7: Risk-layering strategy for governments

Governments can combine different instruments to protect against shocks to ensure that cheaper sources of money are used first and that the most expensive instruments used only in exceptional circumstances. The optimal mix of instruments depends on the specific risk profile, urgency of funding needs, and characteristics of instruments available. It requires a cost benefit analysis, using data on expected future disaster expenditures.

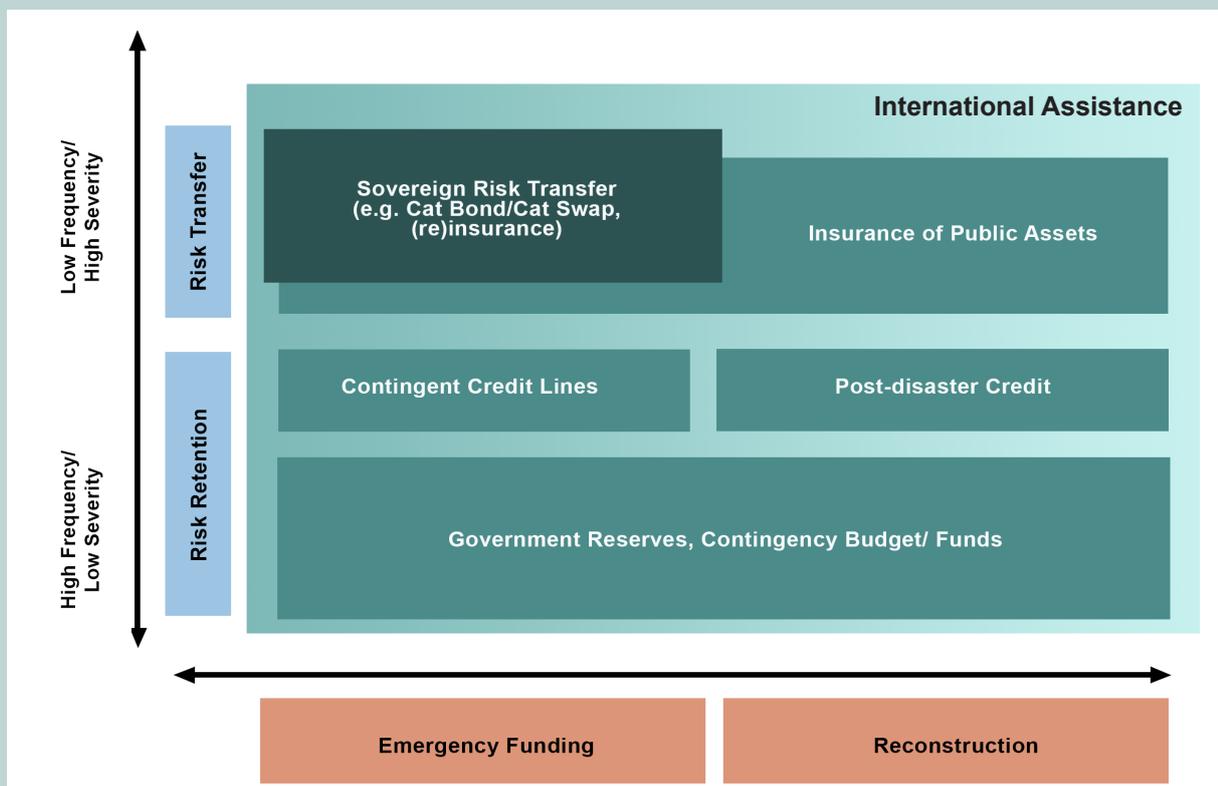
Figure 15: Frequency and impact profiles of shocks affecting Ethiopia



Note: The size of the bubble corresponds to the average number of affected people per event. The average cost per flood is \$600,000, landslide is US\$6,000 and earthquake is US\$1.1 million.

Source: EM-DAT (1961-2021), World Bank authors

Figure 16: Example of a risk layering strategy



Source: World Bank

5.1 Ex post funding

5.1.1 Humanitarian appeals

Ethiopia relies on significant international assistance: annual aid requests amount to US\$0.85 billion to US\$2.8 billion, with needs increasing following shocks. In contrast to the case of ex ante instruments, it is not possible to fully predict the effectiveness, amount, timeliness, or conditions attached to this source of finance. In many cases, allocated funds do not come as direct budget support because spending is governed by receiving organizations, such as United Nations agencies or NGOs. This situation can reduce the ability of the government to make decisions about spending priorities. Reliance on aid may create a distortion in Ethiopia's budgeting process, as donor-prioritized sectors, such as health care, are routinely underfunded in the government budget. Aid also may take a long time to activate, for both internal and external reasons. The former include inefficient EWSs and bureaucratic processes that slow down the appeal process, which may take as long as eight months and almost always results in funding well below needs estimated by the government. The latter include internal processes of donors. For example, some development partners do not pre-allocate funds but wait until official appeals are made.

International aid has been increasing steadily, but the sectoral composition of available funds is changing, and reliability is likely to decrease. Globally, between 2000 and 2019, the value of official financial assistance increased by 188 percent. Financing of emergencies grew the most, while direct support to the budget and debt relief fell proportionally (World Bank 2021a). COVID-19 and the war in Ukraine have shown that changes in the global situation can rapidly affect development partners' priorities, as they reduced the aid available to countries like Ethiopia (Hemberg 2022). Hence, while aid will remain a crucial part of Ethiopia's budget, it is increasingly important for the country to both mitigate the risk of sudden shortfalls in aid and create strategies for maximizing the benefits derived from the available assistance.

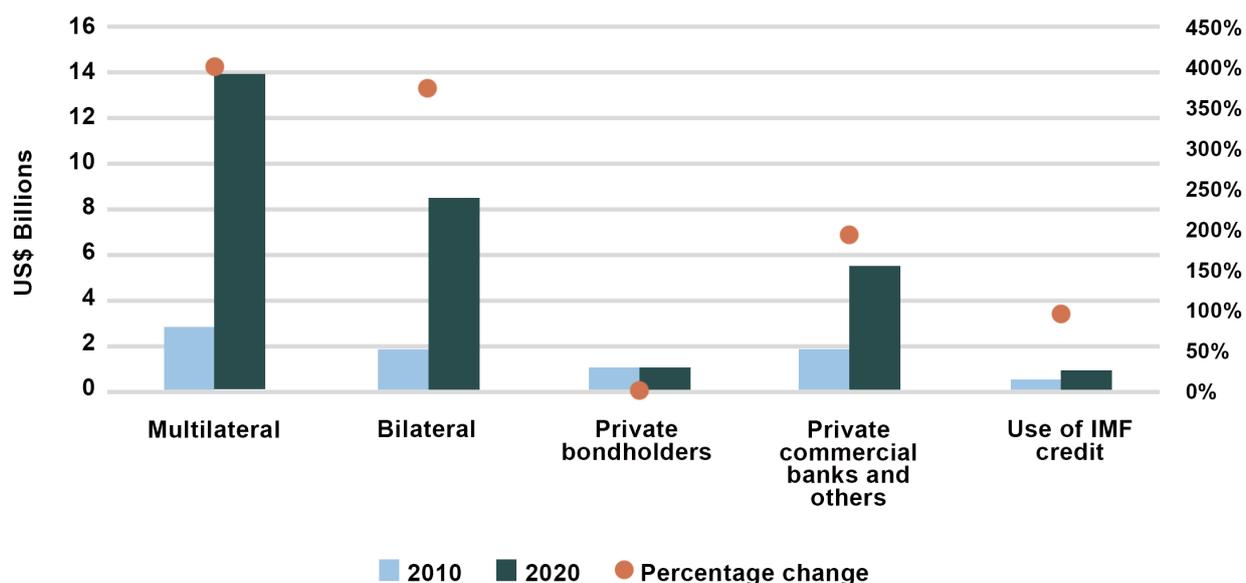
5.1.2 Post-disaster borrowing

Debt, a common method to finance post-disaster expenditure, avoids potential opportunity cost associated with ex ante instruments but has uncertain conditions and availability. In Ethiopia, the level of debt has decreased relative to forecasts before the pandemic—from 52.0 percent of GDP forecast before COVID-19 for FY2021/22 (IMF 2020b) to the actual 50.3 percent of GDP after COVID-19 (Debt Management Directorate 2022). The decrease was largely driven by the conflict in the Tigray region (Tadesse and Nyambura 2022) and the downgrading of government debt, which increased the cost of borrowing (Ghosh 2021). While the International Monetary Fund (IMF) deemed debt levels sustainable at the start of the pandemic, independent agencies downgraded Ethiopia's foreign currency debt to highly speculative in 2021. This may make further borrowing difficult and will increase the country's reliance on concessional lending and debt restructuring (Reuters staff 2021).

Ethiopia's COVID-19-related appeal to its creditors to restructure the debt further lowered creditors' confidence, potentially doing long-term damage to the country's ability to borrow (Fitch Ratings 2022). The uncertain terms and prolonged negotiations of credit restructuring conditions have already made borrowing on the capital market almost impossible (Moody's 2021). Should a new need arise, for instance due to a climatic shock, Ethiopia would very likely be unable to mobilize debt-based finance in a timely and cost-effective manner.

Over the past 10 years, the composition of Ethiopia's external debt has changed, with the largest growth seen in multilateral and bilateral borrowing (figure 17). China is currently the largest creditor of Ethiopia (32 percent of total external debt), almost on par with the second largest lender, the World Bank (31 percent of total external debt) (Calabrese, Huang, and Nadin 2021). The increased reliance on an individual bilateral donor combined with significant reduction in the attractiveness of Ethiopian debt will make borrowing much more difficult, especially in the face of a potential shock—internal or external. In fact, following the COVID-19 pandemic, China's willingness to lend decreased, and the country's lending to Africa was the lowest in over 15 years.

Figure 17: Change in the source of Ethiopia's external debt: 2010 versus 2020

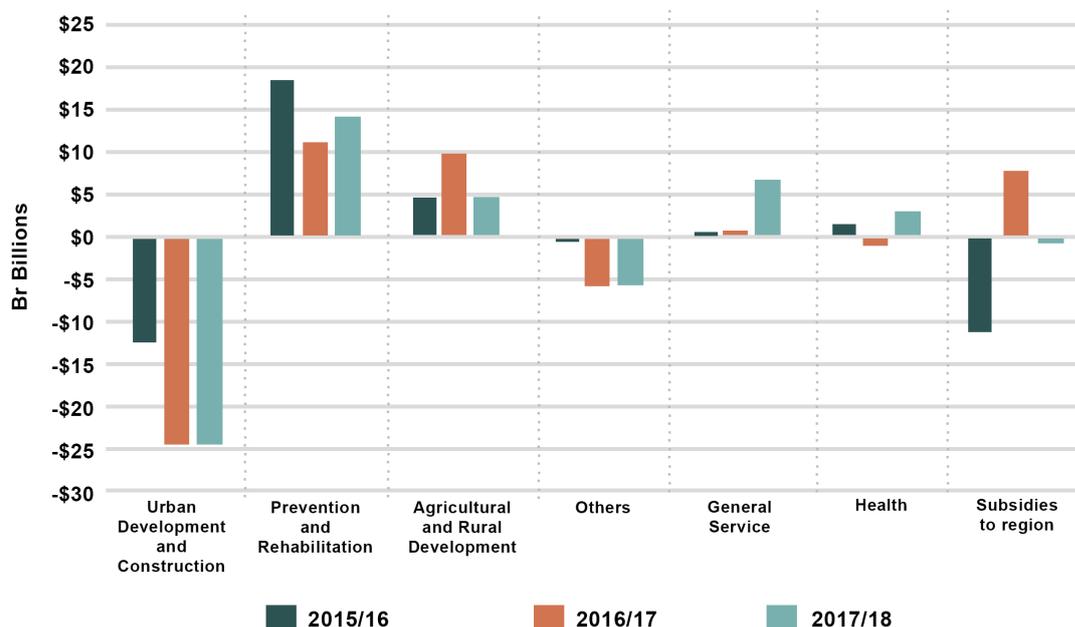


Source: World Bank 2022b.

5.1.3 Budgetary reallocations

Ethiopia's frequent virements, including those resulting from shocks, are a result of the substantial discretion granted to the minister of finance. For example, FY2017/18 in-year transfers amounted to staggering 38 percent of the total budget. Further, trends in FY2015/16 to FY2017/18 show a clear pattern of reallocations away from infrastructural projects to sectors most affected by disasters. It seems likely that the overall good execution levels of the Ethiopian budget result from the poor performance of infrastructure projects, which allows for the unspent resources to be transferred to sectors affected by shocks (figure 18). The ability to quickly reallocate resources to crisis-affected sectors is a positive feature of the Ethiopian budget, but the systematic overbudgeting in some sectors and underbudgeting in others undermines efficacy and is against PFM best practices.

Figure 18: Inter-year adjustment to the budget (Br, billions)



Source: PEFA (Public Expenditure and Financial Accountability). 2019b.

5.2 Ex ante funding

5.2.1 Contingency reserves

Contingency reserves (or budgets) are a budgetary instrument that puts aside resources intended to finance unforeseen expenditures. They are used by most countries, but vary in size, purpose, and structure. They can have a general purpose or be earmarked for specific types of spending, such as disaster response. They have the benefit of fast mobilization, and their use is determined internally. They do, however, pose two major challenges. First, they are associated with high opportunity costs, as money put aside is kept either in cash or in highly liquid and low-yielding instruments and is unavailable for utilization elsewhere. In a fast-growing country like Ethiopia, idle cash is especially costly. Second, without strong regulation, such funds can be easily depleted and used to make up for poor planning rather than true emergencies. On the other hand, strict regulation may defeat the purpose of flexibility by imposing a lengthy decision-making process before activation. The good practice is to keep reserves modest (not more than 3 percent of total budget), allocate the power to administer them to the Ministry of Finance, and ensure that strong and clear rules govern the application process (IMF, n.d.).

Ethiopia has a contingency budget without an explicit limit on the size of the allocation, but its size is usually between 2 percent and 3 percent of the total budget and its use is not earmarked for disaster response only. The reserve is controlled by the Ministry of Finance at the national level, and the MoF has the authority to release funds from the reserve. The allocation to the budget in FY2020/21 was Br 13.36 billion, which at 3.5 percent of the total budget remains relatively prudent. Analysis conducted by the PEFA program suggests that between FY2015/16 and FY2017/18 the fund was underutilized, with average charges to it below 0.04 percent of total expenditure (PEFA 2019b). More clarity is needed on the use of the contingency budget to understand if this level of utilization is accurate. Such a low utilization despite shocks would suggest that the government prefers to do budget reallocation from stagnant capital projects without using the contingency budget.

In FY2019/20, when COVID-19 was first detected, there was a departure from this discipline, and the reserve was already depleted by the time the pandemic took hold in March 2020 (BRE 2022). Going forward, the reserve would benefit from a stronger regulatory framework, one specifying the nature of expenditures the reserve can cover and limiting them to unpredictable disasters whose funding cannot be postponed to the next budgetary cycle.

5.2.2 Contingency funds

The Government of Ethiopia passed legislation establishing a National Disaster Prevention and Preparedness Fund.⁴⁰ The regulation establishing the fund was passed over 20 years ago, but the fund has never been capitalized; according to other government officials, it was initially capitalized but it has not been operational for some years. The fund, as specified in the legislation, is a broad mandate “contingency fund” that focuses on disaster response but also allows for funding of prevention projects. The legislation establishing the fund does not specify the minimum allocation that should be made to the fund or the type of shocks that this fund can be used for. It is intended to be administered at the federal level and source funds from budgetary allocations and donations.

Contingency funds for disaster response costs are often the least expensive ex ante financial instruments to deal with recurrent disasters, and they can also be a vehicle to finance extreme disasters. It is critical to ensure that the contingency fund has a consistent source of funding, ideally through a legally mandated annual budget allocation. To maximize efficiency and transparency, the scope of the fund should be limited to preparation and immediate response efforts, and to establish clear guidelines for spending. To finance more extreme disasters, the fund could be used to fund sovereign insurance products. The government of Mozambique recently established a ring-fenced contingency fund to manage disaster response costs for this purpose (case study 1).

⁴⁰ Law Ethiopia, “Proclamation No. 212 /2000 National Disaster Prevention and Preparedness Fund Establishment,” <https://www.lawethiopia.com/index.php/volume-19/155-federal-legislations-by-number/1395-proclamation-no-212>.

Two regional governments, Oromia and Amhara, have established local disaster contingency funds. Local and regional governments in Ethiopia have very low financial capacity for introducing DRF measures, with about 85 percent of the funds received through grant transfers and used to cover recurrent spending, primarily salaries (European Commission, n.d.). However, given the importance of decentralized DRF planning for enabling local governments to act quickly following shocks, these existing regional contingency funds enjoy significant support from development partners, primarily the European Union, which matches existing funds with subsidies. The audit of the performance of these funds is currently under way, and first findings are very positive, showing local funds disbursed to finance well-identified needs. For the European Union, this is the first DRF support provided at the regional level, but it reflects the general trend among development partners, who are moving toward financing risk over response.

Case study 1: Capitalizing and operationalizing a contingency fund in Mozambique

In February 2019, the World Bank approved a US\$96 million Disaster Risk Management and Resilience lending operation for Mozambique. The Project Development Objective is to strengthen the Government of Mozambique's program to finance and prepare for disaster response, and to increase the climate resilience of vulnerable education infrastructure in risk-prone areas. The financial protection objectives will be achieved through the program's support for (i) developing a DRF strategy; (ii) capitalizing and operationalizing a disaster management fund (a 'contingency fund'); and (iii) developing and placing risk transfer products to provide coverage against tropical cyclone and/or drought, this will act as a backstop for the fund.

The government has since set up the disaster management fund by decree, which stipulates that the fund is capitalized with 0.1% of the state budget annually. To date, this allocation has been matched by equivalent contributions from the World Bank lending operation. The Fund is managed by a dedicated fund management unit Disaster Management Institute and governed accordingly to rules set out in a manual of operational procedures. Among other things, this manual specifies the Fund's beneficiaries and eligible expenditures.

Source: World Bank

5.2.3 Contingent credits and grants

A contingent credit facility is an ex ante instrument designed to provide budget support that can be accessed quickly during and following an eligible event. When offered by development partners, it is usually characterized by low arrangement costs and concessional interest rates if triggered.

The World Bank Development Policy Loan with a Catastrophe Deferred Drawdown Option (Cat DDO) is a contingent financing line that provides countries with immediate liquidity to address shocks related to natural disasters and/or health-related events (World Bank Treasury 2021). It serves as early financing while funds from other sources such as bilateral aid or reconstruction loans are being mobilized. A Cat DDO enhances the capacity of countries to plan for and manage crises by securing access to financing before disaster strikes and strengthening DRM policy and institutional reforms (see Case study 2). The credit is approved prior to the disaster and disburses quickly once the event occurs and the drawdown trigger is met, but eligibility requires the country to have an adequate macroeconomic policy framework and a satisfactory DRM program in place (or under preparation).

Case study 2: Catastrophe Deferred Drawdown Option (Cat DDO) in Kenya

In Kenya, a Cat DDO strengthened the government's institutional, technical, and financial capacities to manage the impact of climate and disaster risks. Like Ethiopia, Kenya is vulnerable to climatic shocks, which annually affect an estimated 3 to 4 million people; droughts and floods alone have an average economic cost of 2.0 –2.4 percent of GDP. To strengthen its financial resilience, the Government of Kenya in 2018 pursued a US\$200 million Cat DDO, the first one for an IDA (International Development Association) country approved by the World Bank. Over the next two years, two payouts in response to shocks were made: On December 3, 2019, the government requested a US\$70 million payout in response to severe flood events, which was approved by the World Bank on December 5, 2019. An additional request of US\$130 million was made on April 30, 2020, to support the response to COVID-19; this was approved by the World Bank on May 8. Such instruments are not currently active in Ethiopia but have been successfully implemented and used not only in neighboring Kenya but also in Malawi.

As part of the policy reforms under the Cat DDO program the government of Kenya committed to building national financial capacity to advance climate adaptation and mitigation and respond to the impacts of natural hazards. This included disaster expenditure tagging and an annual post-disaster expenditure report delivered to National Treasury.

Source: World Bank

As an IMF member state, Ethiopia has access to the recently reformed Rapid Financing Facility (RFF). The quota allocated to Ethiopia amounts to SDR 300.7 million (US\$415 million) (IMF 2022b).⁴¹ Funds can be rapidly activated to address any sudden shocks affecting the balance of payments, including those caused by disasters. In cases of large natural disasters, the entire quota can be accessed in one year, and 133.33 percent can be accessed on a cumulative basis. In case of less severe shocks, affecting less than 20 percent of the country's GDP, 50 percent can be accessed each year and 100 percent on a cumulative basis (IMF 2022a). In some instances, these quotas may be increased. In April 2020, for example, following the outbreak of COVID-19, Ethiopia accessed 100 percent of its quota (IMF 2020a).

World Bank financing for the latest phase of the PSNP includes a pre-allocated Crisis Response Window Early Response Financing (CRW-ERF) Contingent Emergency Response Component (CERC). This grant will facilitate an early response to emerging food insecurity crises in the case of an eligible event.⁴² The project has an Emergency Operations Manual specifying the ex ante conditions for triggering and utilizing a pre-agreed (US\$12.5 million) allocation and potential additional (US\$37.5 million) CERC allocation (World Bank 2021b).

5.2.4 Risk transfer

As a risk transfer mechanism, insurance allows governments to transfer some of their risk to the market, potentially using regional risk pools (see figure 19 for benefits of risk pooling). At a sovereign level this makes planning for contingent liabilities easier since budgeting involves predictable insurance premiums rather than uncertain costs. Sovereign insurance is a risk transfer product that is purchased by the Ministry of Finance in order to protect the budget against the financial impacts of severe climatic shocks. The insurance provides rapid liquidity in the form of a payout when a severe shock occurs. Multiple countries, both in the Africa region and internationally, use sovereign insurance to serve these objectives (World Bank, 2019). If introduced in Ethiopia, it could strengthen the liquidity position of the budget during shock years, enabling a more rapid shock response. For drought response, there is a sound body of

⁴¹ The SDR (special drawing rights) is an international reserve asset, created by the IMF to supplement its member countries' official reserves. The value of the SDR is based on a basket of five currencies—the US dollar, the euro, the Chinese renminbi, the Japanese yen, and the British pound sterling.

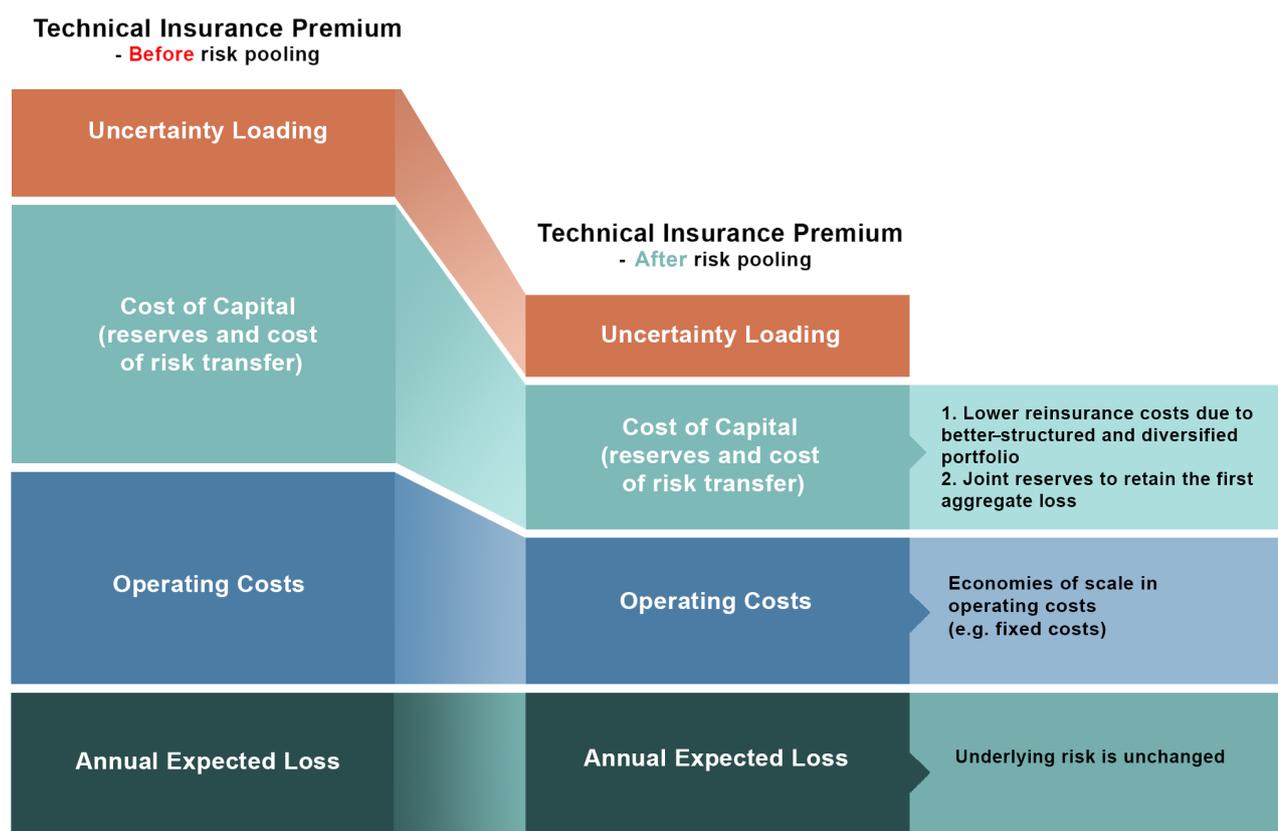
⁴² World Bank, "Strengthen Ethiopia's Adaptive Safety Net" [Project P172479], <https://projects.worldbank.org/en/projects-operations/project-detail/P172479>.

evidence demonstrating that indexes can accurately predict drought occurrence and can therefore be used as the basis for sovereign insurance products.

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

In addition to sovereign insurance, agriculture insurance at the micro and meso level offers an opportunity for Ethiopia to address and manage the risks associated with agriculture. However, insurance alone will not help build resilience; rather the government, businesses, and households (i.e., farmers) need a package of blended financial instruments, including savings and credit, to build a robust financing strategy.

Figure 19: Benefits of risk pooling



Source: World Bank, 2019.

The GoE would be eligible for some of the insurance products offered by the African Risk Capacity if it signed the ARC membership treaty. ARC Ltd. provides parametric insurance products—that is, products based on a pre-defined trigger and not actual loss—for drought, flood, and tropical cyclone. In the past these were primarily sovereign-level products, but ARC now also underwrites micro and meso insurance programs, for example, targeted at agricultural value chain stakeholders. As the government is not currently a treaty member of ARC, there is no technical working group in place to analyze the value of the parametric insurance products ARC offers. The government could also engage the insurance market through other providers.

5.2.5 Instruments targeted at private firms

Private firms can manage the financial impacts of shocks using a range of financial risk management tools, including savings accounts, credit-related instruments (e.g., contingent credit, partial credit guarantees), and insurance (e.g., catastrophe insurance, business interruption insurance). To inform the development of disaster risk finance instruments that strengthen the resilience of MSMEs to such shocks it is important to conduct an analysis of the constraints to credit provision. A data analysis is needed to understand the current capacity of firms; how they are impacted by climate shocks (e.g., due to direct damage, supply chain disruptions, productivity losses, business disruptions); what existing financial risk mechanisms are used to manage these shocks; what finance is needed to support MSMEs in coping (e.g., cost of repairs and reconstruction, costs to maintain business continuity, financial impacts associated with business disruptions); and what opportunities are available for developing risk finance instruments to de-risk MSMEs and to invest in adaptation measures.

Ethiopian MSMEs are highly vulnerable to shocks and have very few instruments available to them for managing shocks, especially women-owned businesses. Deposit guarantees, which reduce the risk of loans, are among the more accessible and affordable DRF instruments for small and medium-size businesses. They help de-risk private sector lending to the MSME sector and could be operated by the government or as a public-private partnership. Blended finance is another approach that may increase MSMEs' liquidity and reduce their default risk after a shock by providing loans to cover the credit servicing cost of vulnerable MSMEs affected by pre-defined shocks. Loans, equity, guarantees, and grants can be leveraged by the public sector or development partners to reduce vulnerability of businesses during shocks. Currently, Ethiopian businesses have extremely limited access to such instruments. Still, there are some examples found in peer countries that Ethiopia could build on to enhance the resilience of its MSME sector (see case study 3).

The GoE is exploring options for increasing access to finance to MSMEs by setting up a de-risking facility to share risks associated with new lending, which could extend to cover climate shocks. The proposed facility would mitigate credit risk for lenders by taking on a portion of losses on defaulted loans MSMEs. This could improve the financial capabilities of MSMEs and support economic stability, particularly in the lingering aftermath of the COVID-19 pandemic. Additionally, the facility could potentially be expanded to address climate-related risks faced by MSMEs, although further analysis of the impact of these shocks and the existing coping strategies of MSMEs would be required.

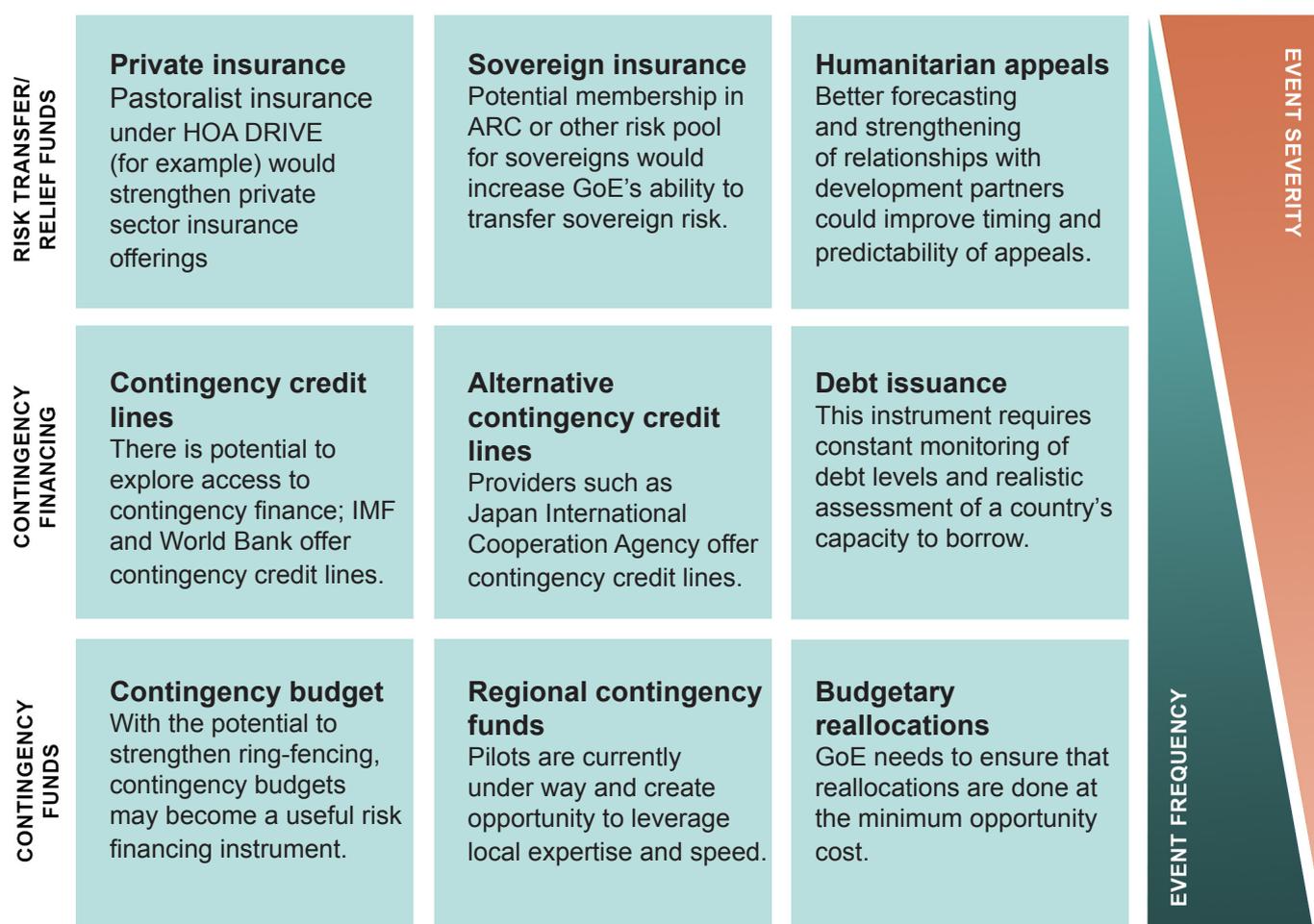
Case study 3: Bridge Lending Window (BLW) in Rwanda

To incentivize lending to climate-exposed sectors, a new mechanism called a Bridge Lending Window (BLW) will enable short-term ("bridge") lending to shock-affected vulnerable MSMEs. MSMEs receive relatively little credit in Rwanda, partly because they are so vulnerable to climatic shocks. The new BLW, operated by the Business Development Fund, seeks to increase credit extensions by offering interim bridge loans to financial institutions that lend to exposed MSMEs. Bridge loans cover debt servicing costs on behalf of borrowing MSMEs that are temporarily unable to meet their credit obligations due to external shock events like droughts. The BLW mechanism will be complemented by an insurance backstop, which will trigger payouts to the BLW following severe shocks to provide surge capital and to hedge against the risk of increased bridge loan defaults among MSMEs. Together, both instruments will seek to reduce borrowing MSMEs' financial vulnerability to shocks and thereby encourage greater extension of credit to shock-exposed MSMEs from financial institutions. The cost of the instrument will depend on commercial pricing aspects.

Source: Project Appraisal Document "Access to Finance for Recovery and Resilience Project (P175273)", World Bank (2021)

The Disaster Risk Finance Strategy (DRFS) that is currently being developed by the government should consider the trade-offs among the instruments that can be employed. The government and BRE are planning to conduct a value for money assessment of potential future disaster-related expenses and the existing portfolio of the GoE (figure 20) and its ability to balance the cost of ex ante instruments with the unpredictability of ex post ones. In developing the DRFS, the government should focus on utilizing a risk-layering approach that realistically assesses what instruments are affordable and available to the country in the short term (such as strengthened contingency fund legislation or sovereign insurance instruments) and what instruments will require strengthening of the country's macroeconomic and political standing and can become valuable over the medium term (such as contingency credit lines from the World Bank).

Figure 20: DRF instruments available and potentially available over short term to the GoE



Source: World Bank. Note: ARC = African Risk Capacity; GoE = Government of Ethiopia; HOA DRIVE = De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa; IMF = International Monetary Fund.

6 Recommendations

The recommendations formed as part of this diagnostic fall broadly into the three areas below and are summarized in table 9 at the end of this section.

6.1. Increase the use of DRF best practices and instruments

1. Formulate and adopt a national Disaster Risk Finance Strategy (DRFS), which integrates with the revised DRM policy. There is currently no policy agenda or structured institutional arrangement on DRF in place. There is significant potential to improve financial protection to protect the fiscal balance, sub-national governments, households, and businesses in the event of shocks. A DRFS outlines the strategic priorities of a government regarding the fiscal risks from disasters. In the case of Ethiopia, such priorities should include the protection of the fiscal budget, robust protection of the poorest and the agricultural sector, and efforts to leverage the private sector by further developing the domestic insurance market. The strategy should build on the technical analysis from this diagnostic report and preexisting government and third-party intelligence. It should further be aligned with, complement, or replace existing legislation and policy plans and ensure that its development is coordinated with the current revision of the DRM policy. To ensure widespread support for the adoption of the DRFS, it is important that MoF consults with all relevant government agencies responsible for the DRM reform, including EDRMC. To determine the responsibilities for implementing the strategy, the roles of different government stakeholders across the different levels need to be agreed upon and then established through legal and regulatory mandates and frameworks.

2. Strengthen the prearranged financing instrument portfolio to enhance disaster response capacity at the federal level through a risk layered approach. Building on the exposure and risk finance analysis provided in this report and on the policy objectives as defined in the DRFS, the government should pursue a cost-optimal selection of risk retention and risk transfer instruments as part of a risk-layering framework. This portfolio should reflect how the government will cope with insufficient aid appeals, especially in the context of a global recession constraining humanitarian funding, aiming to increase the government's budget contribution. Multiple risk financing instruments could be included to cost-efficiently fulfill the plans and priorities laid out in the DRFS. For high-frequency, low-severity events, the government should focus on budgetary instruments by (i) strengthening the regulatory framework for the management of the contingency budget and potentially for operationalizing the national contingency fund; (ii) better accounting for chronic needs and frequent humanitarian shocks in the budget; and (iii) avoiding opportunity costs when reallocating funds from other projects following shocks. For contingency financing instruments, the government should continue exploring the feasibility of contingency credit products such as a Cat DDO in the future. For low-frequency, high-severity events, the government should consider further pursuing insurance solutions for agriculture risk and potentially infrastructure damage from floods. To evaluate the relative effectiveness of different financial instruments, the government should compare the value for money of risk-layering options in the context of available funding and expected future expenditures, drawing on historical data. A review of the feasibility of implementing DRF instruments, including assessments of the operational and legal requirements and incentives offered by the international community, will be required.

3. Continue pursuing efforts to make risk financing mechanisms shock-responsive, focusing on the flagship program PSNP. The appeal process for humanitarian aid should be made more efficient, as well as based on data-informed cost estimates and pre-agreed arrangements. Additionally, disbursement mechanisms should be optimized for quickly distributing aid, both monetary and in-kind, to the most vulnerable. Efficient, preexisting financial mechanisms are as important as fund mobilization schemes when responding to shocks. The PSNP provides an infrastructure to offer shock-responsive support to affected households, and potentially agriculture businesses, immediately after they have been exposed to shocks, thereby reducing socioeconomic costs. Specifically, the government should intensify its ongoing

efforts to finance and operationalize shock response for drought under the PSNP. This includes building on the annual DRF plans that establish the DRF resources available and on the quarterly Drought Response and Assistance Plans (DRAPs), which provide resourced distribution plans for the PSNP. The DRF plans for scaling up PSNP in response to drought and other shocks should be integrated into the government's national DRFS.

4. DRF policy and implementation frameworks need to be reviewed across all levels of government in line with the updated DRM policy and national DRFS. Ethiopia's diverse geography and climate combined with varying coping abilities of households and state governments lead to varying levels of vulnerability across regions, therefore requiring locally tailored risk finance solutions. Region-specific understanding of risk exposure and existing response systems is vital to build solutions that address local idiosyncrasies appropriately. Technical analysis should be conducted to clarify the relationships and roles among various levels of the government (federal, regional, zones and woredas) as well as their financial capacity, budgetary authority, and disaster response authority, and operational capacity. For example, it will be important to understand how federal level instruments can be used for smaller, regional response needs. In the longer term, the federal Ministry of Finance could consider providing guidance to subnational counterparts on the formulation of regional-level DRF policy frameworks, as has been done in countries such as Colombia

6.2 Enhance institutional and PFM structures for shock response

5. Establish a comprehensive disaster expenditure tracking system and align associated budgeting processes across government levels. The government lacks a comprehensive system for tracking expenditures, including a mechanism for disaster response expenditure tagging. Subnational government agencies further use line-item budgeting rather than program-based budgeting. These arrangements make it difficult to predict and plan for future expenses and decide on the required scale of budget reallocations. The government should consider creating a database of past disaster response costs to allow for data-informed nowcasting and forecasting of costs in the event of a shock. Alternative data sources, such as multidimensional social risk models, can be leveraged when traditional data is unavailable. Such models have been tested in peer countries with promising results. To further improve tracking and transparency, the government should consider incorporating budgetary tagging for DRF channel 1 and channel 2 spending and improving the accounting for spending through channel 3.

6. Enhance the reliability of the federal government's budget for disaster-exposed programs by strengthening forecasting for normal and contingency expenditure and include contingency allocations. Ethiopia experiences constant underbudgeting for programs with significant risk exposure, such as agricultural programs or disaster prevention and rehabilitation. This increases the country's fiscal vulnerability to disasters by creating further financial constraints in the aftermath of shocks. The federal budgeting process should be based on robust forecasting and include designated contingency allocations within line ministry budgets specifically earmarked for disaster response. This will reduce the need for reallocations, building upon the improved tracking of post-shock expenses (recommendation 5).

7. Proactively manage budget reallocations by investing in databases of development projects to guide swift budget reprioritization following future disasters. The GoE's current shock-response funding approach heavily relies on budget reallocations from underperforming development projects. This can be an efficient method to finance response, as it allows for timely mobilization of readily available funds. However, it is critical that the government maintain an up-to-date list of development projects that can guide the decision-making process for fund reprioritization to minimize opportunity cost. The government should establish a comprehensive database of development projects to allow for swift reprioritization.

8. Continue to strengthen and harmonize the early warning systems to support more integrated and timely response. Currently there is a lack of coordination between EWSs, and the limited ability of the Ethiopia Disaster Risk Management Commission to enforce appropriate reporting make collected data largely unactionable. The new DRM policy is expected to include a plan for increasing the EDRMC's power over relevant line ministries to ensure they submit EWS data in a timely manner. Moreover, the new policy is expected to create decision triggers that will automate the process of allocating response management roles to specific levels of government and line ministries. The government should develop a plan for the implementation of the technical recommendations as set out in the recent three-part report by Kimetrica.⁴³

6.3 Strengthen the private sector financing ecosystem

9. Review and reform financial sector regulations to incentivize more investments and product offerings in the insurance sector. Proclamation No. 746/2012 prohibited foreign ownership of local insurance companies, but the law has recently been relaxed, and under Proclamation No. 1163/2019 (which became effective in 2020), foreign nationals of Ethiopian origin may now invest in financial institutions, including local insurance companies, so long as the investment is made in foreign currency. This measure is designed to ease the country's acute shortage of foreign currency and boost the capital available for financial sector growth (AXCO 2021). However, other restrictions remain in place. Foreign exchange transactions must be made through authorized dealers and commercial banks, that is, institutions under the control of the NBE. All payments abroad require licenses, with a view to ensuring the surrender of all proceeds. Local insurers therefore have to obtain foreign exchange with which to pay their international reinsurance premiums, and in some cases this requirement has forced them to cancel their treaties and replace cover with a locally registered/licensed local reinsurer. There is further a restriction of microinsurance product sales to only larger and microinsurance specialist providers, which disallows brokering and agency-based selling insurance, further impeding rollout of financial services. Regulations like the above should be reviewed and put to test from a private sector perspective to better crowd in external resources and incentivize the offering of new products in the market.

10. Conduct an analysis of the constraints of credit provision to MSMEs. There are multiple reasons for the lack of finance extended to small businesses, including not only their difficulty in presenting reliable financial statements and collateral, but also their exposure and vulnerability to shocks such as droughts and floods. To improve access to finance for firms, it is important to first better understand their current use of financial services (e.g. bank accounts, mobile money accounts and digital payments, savings, credit, and insurance) and the obstacles they face. A qualitative and quantitative data analysis can be used to identify specific constraints and develop targeted recommendations to address them. For example, a partial credit guarantee could address a lack of collateral, a bridge lending window could mitigate liquidity constraints, insurance mechanisms could reduce risks faced by firms, and capacity development efforts could address limited financial understanding and skills.

11. Develop a policy on agricultural insurance and incentivize investments in the private insurance market. Any policy will clarify the regulatory and policy framework and encourage investing more in the private insurance market and pursuing the development of an agriculture insurance program that builds on existing initiatives. The high exposure of Ethiopia's agriculture sector and livelihoods to climatic shocks needs to be a priority area for the DRFS to reduce the socioeconomic costs of disaster events. Existing efforts that focus on insurance for farmers, microfinancing, and income support to affected people are mostly financed externally by international partners and still tend to be limited in scope. An agriculture insurance policy will serve as the conceptual framework for addressing the challenges in the agriculture insurance sector and exploiting the opportunities to bring greater competitiveness and spur economic growth. This policy will inform the national government's broader DRFS. The government, spearheaded by the Ministry of Agriculture, should lead the policy formulation for agriculture-focused financial resilience, clarifying (for instance) which commodities to focus on, which financial mechanisms to use, and which part of the population to support. As part of this process, the government should consider existing programs (such as the HOA DRIVE project focused on pastoralists) and other products that can be scaled up

⁴³ Kimetrica. 2020. "EWS Final Report Policy Brief and Summary."

(i.e., microinsurance products for crop farmers, meso products for aggregators, and macro policies for government). The government should further consider supporting public-private partnership schemes to incentivize corporate product development as well as to ensure beneficiary-focused product design and access.

Table 9: Recommendations for strengthening financial preparedness to disasters in Ethiopia

Recommendation	Time frame
INCREASE THE USE OF DRF INSTRUMENTS & MECHANISMS	
1. Formulate and adopt a national Disaster Risk Finance Strategy, which integrates with the revised DRM policy.	Short term
2. Strengthen Ethiopia's prearranged financing instrument portfolio to enhance the country's disaster response capacity, in part by including a dedicated disaster fund.	Medium term
3. Intensify ongoing efforts to make existing social protection mechanisms shock-responsive, in part by developing a financing plan for the flagship Productive Safety Net Program (PSNP).	Short term
4. Review DRF policy and implementation frameworks at lower levels of government (regions, zones, and woredas).	Medium to long term
ENHANCE INSTITUTIONAL AND PFM STRUCTURES FOR SHOCK RESPONSE	
5. Establish a comprehensive disaster expenditure tracking system and align associated budgeting processes across government levels, especially by incorporating budgetary tagging for DRF channel 1 and channel 2 spending and improving the accounting for channel 3 spending.	Short to medium term
6. Enhance the reliability of the federal government's budget for disaster-exposed programs by strengthening forecasting for normal and contingency expenditure and including contingency allocations.	Short to medium term
7. Enhance budget reallocation processes by investing in data management tools (including databases of development projects).	Short to medium term
8. Continue to strengthen and harmonize the early warning systems to improve response capacity.	Short to medium term
STRENGTHEN THE PRIVATE SECTOR FINANCING ECOSYSTEM	
9. Reform financial sector regulations to increase investments and product offerings in the insurance sector.	Medium to long term
10. Conduct analysis of the constraints of credit provision to SMEs.	Short term
11. Stipulate a policy on agricultural insurance to establish a regulatory and policy framework and incentivize investments in the private insurance market.	Short term

Source: World Bank.

Note: DRF = disaster risk financing; DRM = disaster risk management; PFM = public financial management; PSNP = Productive Safety Net Program.

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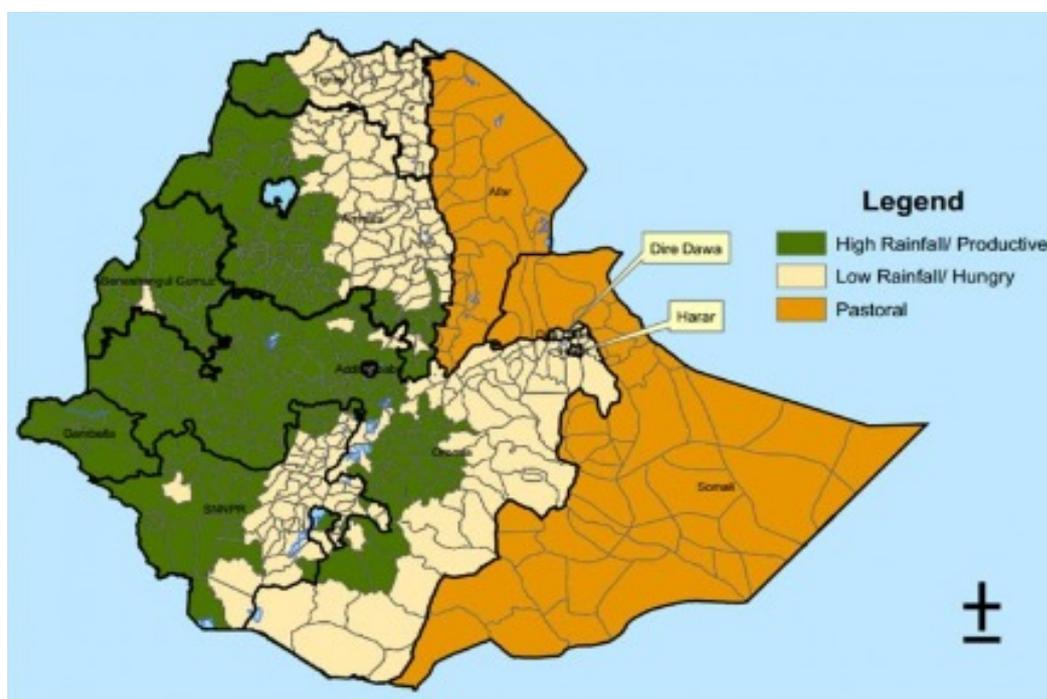
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Annex 1: Correlation between availability of water, economic growth, and tax revenue in agriculture areas

Ethiopia's fiscal exposure to shocks is reflected in federal government policy decisions that prioritize risk reduction spending on regions that are more economically productive. The diversity of Ethiopia's climate includes high-rainfall areas that generate fiscal revenue through agriculture earnings as well as low-rainfall and pastoral areas that tend to incur substantial fiscal cost for humanitarian relief efforts (Figure 21). The majority of Ethiopia's agricultural output is generated in the western parts of the country, where the risk of food insecurity tends to be lower. The eastern part of Ethiopia, including the regions of Dire Dawa, Afar, and Somali, suffers from frequent and prolonged periods of food insecurity. There is correlation between availability of water, economic growth, and consequently tax revenue in high-productivity agriculture areas. In contrast, this correlation is very weak in less productive and pastoral areas. This discrepancy has an impact on resource allocation decisions from the federal government—for instance, the decision to invest in large irrigation schemes primarily in productive regions of the country.⁴⁴

Figure 21: Productive, vulnerable, and pastoralist zones in Ethiopia



Source: USAID, "Feed the Future," <https://2012-2017.usaid.gov/ethiopia/agriculture-and-food-security/feed-future>.

By focusing investments in resilience on productive areas, the government has reinforced the country's reliance on the international community to finance humanitarian responses. The vulnerability of food-insecure areas to shocks tends to be left unaddressed until relief efforts, predominantly financed by the international community, are required. The rationale of this approach is based on the fiscal earning potential of productive areas as well as the international community's preference to finance humanitarian appeals over capital investments.⁴⁵ For example, the United States, the main bilateral aid provider, provides the lion share of its assistance in kind for food security purposes (Hughes 2009).

⁴⁴ Nile Basin Water Resources Atlas, "Irrigation in the Nile Basin: Irrigation Areas in Ethiopia," <https://atlas.nilebasin.org/treatise/irrigation-areas-in-ethiopia/>.

⁴⁵ This conclusion is based on consultations with government officials.

Annex 2: Domestic Insurance Market

The still underdeveloped Ethiopian private insurance markets could play an important role in strengthening the country's fiscal resilience against shocks by offering risk transfer products to households and firms. Property catastrophe insurance and disaster microinsurance for businesses and homeowners are still underdeveloped in Ethiopia, as is agricultural insurance. This is the result of challenges on both the supply side (such as weak product development, limited delivery channels, and lack of technical capacity) and the demand side (such as low levels of product awareness, low levels of insurance education, and insufficient disposable income to afford insurance). These challenges have been discussed in various studies, including World Bank Group (2018). Further, there is a pressing need to strengthen financial and regulatory systems, including adherence to building construction codes.

This annex provides a more detailed discussion of the issues affecting the Ethiopian private insurance markets.

Legal and regulatory framework for the insurance sector

The current legal basis for the insurance industry is Proclamation No. 746/2012. It initially prohibited foreign ownership of local insurance companies, but the law has recently been relaxed, and under Proclamation No. 1163/2019 (which became effective in 2020), foreign nationals of Ethiopian origin may invest in financial institutions, including local insurance companies, if the investment is made in foreign currency. This measure is designed to ease the country's acute shortage of foreign currency and boost the capital available for financial sector growth (AXCO 2021).

The Insurance Supervision Directorate (ISD) of the National Bank of Ethiopia is the insurance supervisory authority. The supervision of banks and insurers is governed by the National Bank of Ethiopia Establishment (as amended) Proclamation No. 591/2008 (AXCO 2020). However, there are advanced efforts under way that aim to create an independent insurance regulatory body separate from the central bank. The ISD is responsible for licensing, supervising, and regulating the activities of all approved life and non-life insurance companies, microinsurance institutions, and reinsurers. Insurance intermediaries, including agents and brokers, must obtain a license from ISD, and currently no other distribution channels are permitted to sell insurance. Most insurance companies are members of the Association of Ethiopian Insurers (AEI).

Microinsurance may be offered only by insurers that are licensed to cover other classes of insurance, by a specialist microinsurer, or by a microfinance company. For the latter two categories, new legislation came into effect in February 2015 under the Licensing, License Renewal and Product Approval for Microinsurance Providers Directive No. SIB/1/2015. Weather index microinsurance is in its infancy, with several pilot schemes in operation (AXCO 2020). Brokering and agency-based selling of insurance are not allowed for microinsurance operations.

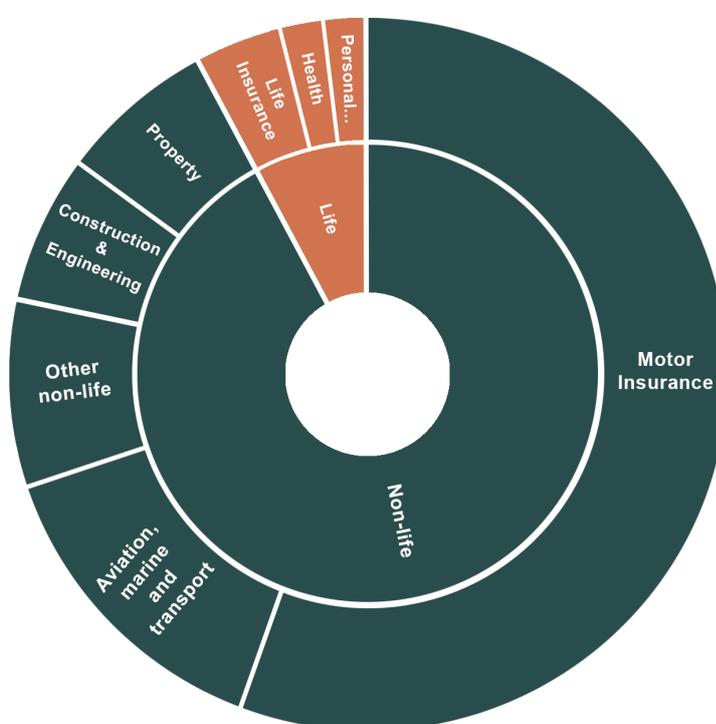
Takaful (Islamic) banking and insurance are now operating in Ethiopia. In 2020, Global Insurance Company became the first insurer in the market to offer takaful insurance, and subsequently the NBE issued Directive STB/1/2020 on takaful business (AXCO 2021). Other insurers are now opening takaful windows to offer Sharia-compliant insurance products and services. Takaful insurers must ensure a separation of takaful and conventional insurance business. This is a significant development for farmers and pastoralists in the eastern and southern regions of Ethiopia who identify as Muslims and prefer to purchase takaful insurance.

Reinsurance company operating requirements are governed by legislation under the Reinsurance Company Establishment Directive No. SRB/1/2014.

Status of non-life insurance market

Insurance penetration is very low in Ethiopia and lags in comparison to regional peer countries. Total market penetration was equivalent to 0.4 percent of GDP and only US\$2.99 per capita in 2017. The very low insurance penetration in Ethiopia can be explained by the rural population's limited awareness of and limited access to insurance. In 2017 the total market premium was Br 7,494 million (US\$314 million). Non-life premium accounted for Br 6,873 million (US\$288 million), while life insurance, personal accident, and health accounted for only 8 percent of total premium. Non-life business is dominated by motor insurance (55.8 percent of total premium), followed by aviation, marine, and transit (13.9 percent); construction and engineering (7.1 percent); and property (6.8 percent). The insurance market has grown at an average of 14 percent a year over the past five years—well above the inflation rate. In 2017, the Ethiopian non-life insurance industry was ranked at number 95 in the world in terms of premium income. Insurance penetration is for instance considerably higher in Kenya (2.64 percent of GDP, with expenditure of US\$40.67 per capita) (AXCO 2020, 2021). South Africa is the largest non-life insurance industry in Africa and has a world ranking of 21, followed by Morocco at 46, Algeria at 56 and Kenya at 63. (AXCO 2020; AXCO 2021)

Figure 22: Distribution of insurance premium volume (%) by sector



Source: AXCO (2021)

There are 18 licensed insurers operating in the Ethiopian market and distributing their services directly through branch networks. Up to now, the market has been closed to foreign investment and ownership. Ethiopian Insurance Corporation (EIC) is still by far the largest non-life insurer, with a share estimated at around 40 percent of the market premium. As a state-owned insurance company, EIC places most of the government's insurance programs, including for state-owned property, infrastructure, and the immense dam construction and engineering risks.

In Ethiopia most insurance business is distributed (transacted) on a direct basis by insurers through their extensive networks of branch offices: in 2017, 83 percent of insurance by premium volume was conducted on a direct basis; 12 percent through approved brokers, and 5 percent through approved agents. In Ethiopia, no other entities or alternative distribution channels are permitted to sell insurance without

the approval of NBE. While the internet⁴⁶ and mobile phone technology is currently not widely used to distribute insurance, micro insurers recognize the potential of digital technology for marketing policies to rural communities which make up 85 percent of the population (AXCO 2021).

Several international reinsurers support the Ethiopian insurance market, especially for property, construction and engineering, and agricultural insurance. Ethiopian Reinsurance (Ethiopian Re), the first local reinsurance company, was established in 2016. Mandatory treaty cessions are required at a minimum of 25 percent for life and non-life insurers. Furthermore, there is a 5 percent per policy compulsory cession. Facultative offerings must be made to Ethiopian Re, which has the right of first refusal under law. Most Ethiopian insurers reinsure with Africa Re because of its A-rating as the NBE initially required only A-rated and above reinsurers to lead the reinsurance program, however, in the recent directive it is amended that A-rated and above, ZEP-RE or Ethiopian Re can lead a reinsurance program. Ethiopia is also a member of the Common Market for Eastern and Southern Africa (COMESA) but the 10 percent cession to PTA Re/ZEP-RE that is usually applied to insurers operating in COMESA countries does not appear to be uniformly applied in Ethiopia (AXCO 2021). Ethiopian insurers tend to place their reinsurance cessions with regional reinsurers with local offices: Africa Re and ZEP-RE have a contact office in Addis Ababa and is the preferred leader for most local insurers: other actors include Arab Re, East Africa Re, Kenya Re and Ghana Re (AXCO 2021).

To develop the local insurance market ISD-NBE actively promotes a policy of premium retention. The Manner and Criteria Directives No SIB/44/2016 issued by the NBE, requires insurers to develop a reinsurance risk management policy that seeks to optimize premium retention while ensuring that the company remains financially sound. Furthermore, insurers are required to utilize local capacity (from local insurers and reinsurers) before approaching reinsurers overseas. Thus, local non-life premium retention has increased from a low of 67 percent in 2013 to a high of 74 percent in 2017, with range from a low of 48 percent for both property and construction & engineering to a high of 95 percent for workers' compensation (AXCO 2021).

Several international reinsurers support the Ethiopian insurance market, especially for Property, Construction and Engineering, and Agricultural Insurance. Overseas reinsurers are required to have the following credit ratings: A- for lead reinsurer(s) and BB for follower reinsurer(s). Munich Re leads EIC's reinsurance treaties and Swiss Re is lead reinsurer for another company. For many years, Swiss Re led the reinsurance treaty for the Oxfam America-World Food Program R4 microinsurance crop weather index insurance program, but in recent years an international reinsurance broker has placed this business with a large panel of mainly European specialist agricultural reinsurers. Africa Re leads the reinsurance of the Oromia Insurance Company insured Index Based Livestock Insurance (IBLI) program in Oromia Province and SCOR reinsurance company leads the reinsurance of the SIIPE program. With the crisis over foreign exchange availability in 2021, local crop and livestock insurers have faced major difficulties in placing their reinsurance requirements with international reinsurers (see next section for further details).

Table 10: Snapshot of the Ethiopian insurance market

Legal & regulatory basis	
Legal basis	Proclamation No. 746/2012
Historic origin	French civil law with local variations
Supervisory authority	Insurance Supervision Directorate (ISD) - National Bank of Ethiopia
Market and growth indicators (2017)	
International Benchmarking	95th non-life insurance premium income (globally)
Total market premium	Br 7,494 million / US\$ 314 million
Non-life premium volume	Br 6,873 million / US\$ 288 million
Annual market growth	14 percent
Market penetration	0.4 percent of GDP / US\$ 2.99 per capita

Source: AXCO (2010)

⁴⁶ In 2017, however, one local insurer United Insurance company opened a web portal to sell travel and motor third party insurance online.

Exchange Control

Foreign exchange transactions must be made through authorized dealers and commercial banks, that is, under the control of the National Bank of Ethiopia (NBE). All payments abroad require licenses, with a view to ensuring the surrender of all proceeds. Insurers have reported a scarcity of foreign currency with which to pay external reinsurance premiums (AXCO 2021). This problem has manifested itself on agricultural insurance programs through the inability of local insurers to obtain foreign exchange with which to pay their international reinsurance premiums led to them having to cancel their treaties and to replace cover with a locally registered/licensed local reinsurer.

Property Insurance (Businesses and Homeowners)

The property (reported as fire) insurance market in Ethiopia is relatively small but is quickly growing. In 2017, the market sector accounted for only 6.8 percent of total non-life market premium volume or Br 487.4 million (US\$17.7 million). The market is however growing rapidly with an increase in premium of 27 percent in 2017 despite on-going commercial pressures on premium rates charged (AXCO 2021). The property insurance market is divided into (a) industrial and commercial business and (b) domestic or homeowners accounts.

Over 95 percent of the property class premium relates to industrial and commercial business. The major issue facing property underwriters is the competitive environment in which they operate. With 17 insurers in the market, ongoing price competition and a profitable⁴⁷ property account, despite some large losses, it is unlikely that rates will harden soon (AXCO 2021). Policies usually cover only fire, lightning, and explosion, with all other perils including earthquakes available as optional extensions at the request of the policyholder. It is thought that less than 20 percent of Insureds take up extended cover, which can include impact, bush fire, earthquake, spontaneous combustion, burst water pipes and tanks, aircraft, explosion, SRCC, subsidence and collapse, storm, tempest, and flood. Deductibles are not usually applied to commercial and industrial property risks. Business interruption cover is charged as a proportion of the property rate, based on the period of indemnity. No more than 15 percent of fire policies are extended for earthquake risks (which include volcanic eruption) without qualification. Cover is bought by government organizations, industrial concerns with risks spread around the country, or for mortgaged private property. (AXCO 2021).

There is no tradition of personal property insurance in Ethiopia, with domestic homeowner insurance accounting for less than 5 percent of the total property (fire) account. Property owners do not buy insurance cover unless such policies are required by mortgage lenders. As a result, personal property is almost entirely uninsured. In many tribes and rural communities, it is custom to support the rebuilding of fire-affected houses, so insurance does not constitute a traditional role. Household fire policies are normally sold as either basic standard fire policies or as comprehensive policies covering special perils. Standard policies cover fire, lightning, and domestic explosion. Special perils include riot, strikes, malicious damage, earthquake, flood, storm, inundation, bursting or overflowing of water tanks, impact damage, and similar. Legal expenses cover is not available. General market pressures have affected the homeowner's account in recent years and rates have softened. The fire and perils rate for a property policy covering a residential building would usually range between 2.25% and 2.75%. Household contents would be rated at much the same level with an additional premium if theft cover was required (AXCO 2021).

The Ethiopian Building Code Standards, introduced in 1995, cover most construction issues including building standards necessary given the risk of earthquake. The dramatic increase in urbanization in Ethiopia has been accompanied by an equally strong growth in the number of high-rise buildings, residential houses, and infrastructure projects. Many buildings, however, including some relatively new construction, are said not to conform fully to the regulations. Most are alleged not to conform strictly to earthquake design guidelines and are likely to suffer damage or collapse in the event of a major earthquake (AXCO 2021).

⁴⁷ Loss ratios remain very low and the last few years of account available show loss ratios of 25% or less despite a continuing softening of rates. Frequency and severity of claims remain under control.

Agriculture and livestock insurance market

There have been several significant innovations in index-based agricultural crop and livestock insurance in Ethiopia over the past 15 years, targeting mostly small resource-poor farmers and vulnerable pastoralists. These have the potential to play an important role in reducing disaster risk for these groups against the most frequent and impactful shocks. Traditionally a handful of Ethiopian insurers including Ethiopian Insurance Corporation EIC, and Nyala Insurance Share Company, a private insurer, offered indemnity-based crop, livestock and poultry insurance products and programs on a limited basis. The introduction of index-based insurance in the past 20 years has transformed the agricultural microinsurance market in Ethiopia. Crop and livestock index insurance have been introduced mainly by international donors and development agencies and or index insurance specialists. By 2021 the programs are insuring more than 100,000 small scale farmers and pastoralists. To date in Ethiopia, programs which have scaled-up beyond the pilot phase have been very dependent on donor support, especially in the form of premium subsidies. The ISD-NBE has been supportive to these index-based insurance programs.

Index-based crop insurance initiatives

In FY2006/07 the Government of Ethiopia purchased a macro-level sovereign risk drought index insurance cover which was designed to support financing of humanitarian food aid emergency response. The rainfall-deficit product was designed by the World Food Program (WFP) and placed directly with Axa Re as a derivative cover with a total sum insured of US\$7.1 million and premium of US\$ 0.93 million, which was financed by USAID. No payouts were triggered in 2006/07 and the government declined to renew cover the following year (Mahul and Stutley 2010). The Government of Ethiopia at this time elected to invest heavily in a national drought and flood early warning system, termed Livelihoods, Early Assessment and Protection (LEAP), to trigger timely cash or food payouts from contingency funds/social protection programs such as the Productive Safety Net Program (PSNP) to affected populations.

In 2011 WFP and Oxfam America joined forces to launch the R4 Rural Resilience Initiative for poor farmers located in drought-prone areas of Tigray and Amhara provinces: the program includes a micro-level weather index insurance cover which protects against drought. R4 is based on four pillars: (i) risk reduction whereby participating farmers provide their labor on public sector drought-reduction works; (ii) creation of risk reserves through the promotion of savings groups; (iii) prudent risk-taking through access to seasonal crop credit to invest in improved seeds and fertilizers; and (iv) risk transfer through a satellite drought weather index insurance product designed by the International Research Institute for Climate and Society (IRI) and more recently area yield index insurance (AYII) has also been offered.⁴⁸ R4 is a voluntary insurance program which is implemented by the Relief Society of Tigray and insured by Africa Insurance Company and Nyala Insurance Share Company. Oxfam America (up to 2018) and WFP finance the bulk of the drought premiums, but insured farmers are expected to contribute towards the costs of their weather index insurance policy through Insurance-for-Work (IFW) schemes by providing their labor on risk reduction works. These IFW schemes are built into PSNP-aligned assets which promote resilience by steadily decreasing vulnerability to climate-related disaster risks over time. In the past decade, R4 has scaled up in Ethiopia and in 2020 more than 67,000 farmers (42 percent women) purchased crop index insurance in Amhara and Tigray Provinces.⁴⁹ In 2021, R4 almost doubled the number of households insured, with nearly 50,000 households in 16 woredas now having access to insurance policies for the short and long cropping seasons.⁵⁰

There are several other crop insurance initiatives which are in a pilot stage of implementation in Ethiopia. At the request of the Ethiopian government, the Japanese International Cooperation Agency (JICA) launched a five-year “Index based Crop Insurance Promotion (ICIP) project” in 2019 that bundles index-based insurance with improved agricultural inputs and agricultural technologies. The crop index insurance policy is based on a satellite Vegetation Index cover and the program is insured by Oromia Insurance Company. In the first insurance cycle in 2020, a total of 1,125 farmers were insured in selected locations in Amhara and Oromia regions, of which 999 received insurance payouts. It is expected that the

⁴⁸ Earth Institute, Colombia University.

⁴⁹ <https://www.wfp.org/r4-rural-resilience-initiative>

⁵⁰ WFP: Climate Risk Insurance Annual Report 2021 (2022)

program will expand to insure 20,000 farmers in Oromia region over the next 5 years.^{51,52} Since 2019, IFAD has been supporting the Microinsurance Centre at Milliman to pilot crop index insurance products under the Managing Risks for Rural Development: Promoting Microinsurance innovations (MRRD) project which is linked to the IFAD-financed Participatory Small-scale Irrigation Development Programme – Phase II (PASIDP II) in selected locations in Amhara and Tigray Provinces. MRRD is working to increase access to agricultural insurance solutions and to create a market for insurers in rural areas through identifying clusters of target population and creating efficient delivery processes: EIC is insuring the crop weather index insurance program and two products are being piloted for rainfed crops (sorghum, maize, teff) including a satellite rainfall index and an enhanced vegetation index (EVI). The pilot does not include any form of premium subsidies.⁵³

Index-based livestock insurance (IBLI) initiatives

De-Risking, Inclusion and Value Enhancement of Pastoral Economies (DRIVE) Project

Ethiopia is participating in the DRIVE project, a regional effort to scale up financial protection for pastoralists across the HoA through a package of financial products and services, including drought index insurance. The project enables governments to better manage their drought-related contingent liability by leveraging private risk capital. It makes pastoralists more resilient to drought with a suite of financial services and enhances the competitiveness of the livestock value chains, including the scale-up of the IBLI drought insurance product to protect pastoral producers against drought. Ethiopia is one of the participating countries of DRIVE, which is designed as a regional intervention to benefit from economies of scale, specialization, support for trade facilitation and enhanced collaboration. The project is part of the Horn of Africa (HoA) Initiative, a regional cooperation between Djibouti, Eritrea, Ethiopia, Kenya, and Somalia, to collaborate on mitigating the region's exposure to climatic disasters. The project is built on the rationale that providing drought insurance/risk financing at a regional level, reduces the cost for individual countries by pooling risk, data, and infrastructure.

DRIVE consists of two project components, with the first one focusing on financial resilience of pastoralists, including the scaling of livestock insurance offerings. The first component seeks to scale up financial protection for pastoralists across the HoA with a cost-effective package of financial products and services, including insurance, savings and (contingent) credit. The existing IBLI drought index insurance will be scaled up under the program. The component is centered around a private sector driven approach, with consortia made of private financial institutions, insurance companies, and distributors bidding for premium and finance grants based on their proposed estimates on the number of groups they intend to reach and the type of services they plan to provide. The second DRIVE project component focuses on the enhancement of livestock value chains and trade facilitation.

Micro-level Index Based Livestock Insurance (IBLI)

In 2012, the International Livestock Insurance Institute (ILRI) assisted the Oromia Insurance Company (OIC) to launch a micro-level IBLI program with pastoralists located in Borena zone of Oromia Region. This followed on from the earlier launch of IBLI in Kenya in 2010. The IBLI product is based on remote sensed Normalized Difference Vegetation Index (NDVI), and the cover is designed to make early payouts when severe drought leads to forage depletion to enable pastoralists to purchase fodder and feed supplements and water to keep their core breeding stock alive and to thereby contribute towards drought reliance building and livelihoods protection. Various international organizations have supported field operations, contract design, product pricing, extension, and awareness creation through to subsidies on the operational overheads of OIC to maintain premiums at affordable level to pastoralists. Donor-funded projects to bolster the private sector commitment shown by Oromia Insurance Company. Over the past eight years, OIC has sold IBLI to over 16,000 pastoralists with nearly 60,000 insured Tropical Livestock

⁵¹ <https://www.jica.go.jp/ethiopia/english/office/topics/190419.html>

⁵² <https://www.jica.go.jp/ethiopia/office/topics/210521.html>

⁵³ http://www.microinsurancecentre.org/images/News/MRRD-Ethiopia-Fast-Facts_April-2020.pdf

Units (TLUs) and a total sum insured of Br 113 million: over this period total premium has amounted to Br 11.0 million against drought payouts of Br 12.9 million equivalent to a long-term average loss ratio of 117 percent (Zewdie et al 2020; Lung et al 2021).

Farm Africa is working with Nyala Insurance Company to pilot both livestock indemnity insurance and satellite drought microinsurance in the pastoral areas of Afar, Somali regions and North and South Omo zones. This initiative is being implemented under the Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) program funded by the UK government.⁵⁴

Modified meso-level social protection – Satellite Index Insurance for Pastoralists in Ethiopia (SIPE)

SIPE is an initiative of WFP and the regional government of Somali Region Ethiopia. Somali Region is an important pastoral region of south-eastern Ethiopia, which is very exposed to drought. SIPE is an NDVI drought index designed to trigger timely payouts to vulnerable pastoralists to purchase livestock feed supplements to keep their animals alive (asset protection) in times of severe drought. SIPE beneficiaries are selected on the basis that they participate in the PSNP and own between 5 and 11 TLUs, and it also insures 5 TLUs per beneficiary. Currently WFP finances the costs of premiums in full, but it is examining the introduction of an insurance-for-assets approach whereby pastoralists provide their labor to cover part or all of their premium costs.⁵⁵ The SIPE program is insured by a co-insurance pool of four companies: the Ethiopian Insurance Corporation, Africa Insurance Company, Oromia Insurance Company and Nyala Insurance Share Company. SCOR Zurich was the lead reinsurer for SIPE until 2021 when foreign exchange constraints forced the pool coinsurers to reinsure through a local reinsurer.⁵⁶ SIPE was launched in the Gu season 2018 with 5,001 pre-selected vulnerable pastoralists (25,005 TLUs in four woredas in Somali region) and has now in 2021 scaled-up to eleven woredas and nearly 30,000 beneficiaries and 150,000 insured TLUs. In 2021, severe drought conditions triggered a payout of over US\$ 981,000 to policy holders, which totaled 28,297 pastoralist households.⁵⁷ SIPE insurance payouts are made through the mobile money platform HelloCash provided by the company Belcash directly to the mobile accounts of registered beneficiaries (Zewdie et al 2020; Lung et al 2021).

Despite major progress over the past 15 years to develop suitable agricultural insurance for small scale farmers and livestock herders in Ethiopia, market penetration is still very low and the programs are very dependent on donor support. Key challenges include the fact that insurers do not have an established presence or branch networks in rural areas, most farmers and the rural population are not aware of agricultural insurance, they lack access to financial and insurance services and continue to rely on informal risk coping strategies.

Insurance for social unrest and violence

External private insurers, such as Dentons, provide some cover for businesses for strikes, riots, and civil commotion (SRCC) as a stand-alone policy or clause covering physical loss or damage directly caused by strikers, locked out workers, participation in labor disruption, and riots. In other countries, for example in South Africa, novel state-supported risk financing approaches are being employed to respond to the increasing number and severity of social unrest incidents.

In South Africa, state-owned Sasria provides insurance products for social unrest related risk, a major threat to the country's economic and fiscal situation. The economic costs of social unrest in South Africa are estimated at \$US45.6 billion or 13 percent of GDP and is expected to increase given the compounded nature risk of social violence, including factors like climate change and urbanization. Sasria, a state-owned entity, is the only insurer authorized to offer cover for special risks, namely civil commotion,

⁵⁴ <https://www.farmafrica.org/latest/news/post841-microinsurance-for-pastoralists->

⁵⁵ SIPE is a five-year WFP funded project. The total budget for SIPE is USD 5.6 million and is co-financed by the Government of Sweden and the Swiss Agency for Development and Cooperation (C4ED 2019).

⁵⁶ <https://www.scor.com/en/expert-views/using-satellite-index-protect-ethiopian-pastoralists>

⁵⁷ WFP: Climate Risk Insurance Annual Report 2021 (2022)

public disorder, strikes, riots, lockout, rebellion and revolution, and terrorism. Its fiscal position includes gross written premiums reaching R 2.2 billion (US\$ 152.2 million), while assets and equity reached R 8.5 billion (US\$ 588.2 million) and R 6.6 billion (US\$ 456.7 million) respectively in 2019. Its fiscal position continues to strengthen despite the difficulty of forecasting social phenomena, a critical feature for designing robust insurance products. Technology advancements, including artificial intelligence, present opportunities to enhance these designs and thereby further pioneering state-led risk financing approaches to social resilience.

Annex 3: DRF context created by Ethiopian Constitution

The Constitution of 1995 is the highest law in Ethiopia. From the perspective of DRF, the main provisions of the document pertain to the division of power and responsibilities—concerning financial matters and operations under the state of emergency—between the two main spheres of government in the country: the federal government and the country’s nine regional states. Crucially, both the federal and regional state governments have the power to levy and collect taxes and administer their own budgets. However, according to the Constitution, only the federal government is explicitly allowed to source funds through external borrowing.

States are expected to self-finance the fulfillment of their mandate as delegated to them by the federal law and introduced through their own policies. However, the Constitution states that, when necessary, they may be granted emergency, rehabilitation, and development assistance in the form of grants and loans. The Constitution stipulates the forms of taxation that can constitute state and federal income. While the federal government has a generally broader range of tax instruments at its disposal, states may tax sales, a potentially significant source of revenue. State governments are entitled to block grant transfers from the federal government, which are allocated based on a periodically adjusted formula.

The Constitution of Ethiopia does not explicitly specify the division of financial and operational responsibilities between spheres of government. As the ability to raise revenue and the exposure to natural disasters are often inversely correlated, states that most need to put in place robust DRF plans may be the least able to do so. The Constitution creates legal space for factoring in disaster exposure to the calculation of the state transfer. Article 94, no. 2 of the Constitution emphasizes that the national government can financially support states if it does not interfere with proportionate development of states. From the perspective of DRF planning, it is crucial to better define the understanding of “proportionate development,” which should consider vast differences in risk exposure of states. The formula used to allocate funds to regions could be updated to include disaster risk exposure and to incentivize resilience building, but this aspect is not now captured in the formula.

Annex 4: Procurement regulations in Ethiopia: Procurement and Property Administration Proclamation No. 649/2009

Ethiopia's Proclamation No. 649/2009 on procurement established a central authority responsible for overseeing procurement procedures for the entire government.⁵⁸ The Public Procurement and Property Administration Agency is responsible for both the issuance of tendering procedures and authorization of deviation from procurement procedures—including at times of emergency. The agency is also mandated to maintain a roster of companies eligible for bidding in public procurement processes and to conduct research, and it should maintain a reference price list for commonly purchased goods and services. Given its significant role in disaster response, it is important for the agency to have in place robust emergency procurement regulations.

The proclamation does not include a direct reference to emergency procurement procedures. However, it grants significant power to heads of public bodies, allowing them to opt for direct procurement in cases of “pressing emergency,” when “delay would create serious problems and therefore [be] injurious to the performance of that public body” (Marchés Publics Afrique 2009, chap. 6, no. 51f). Further, the proclamation includes provisions regarding framework contracts, which should be used as part an efficient system for procurement in the event of disasters.

To support the implementation of the procurement proclamation, the minister of finance has also issued a Federal Public Procurement Directive (Ministry of Finance & Economic Development 2010), which stipulates the process for public tenders. The process for public procurement that it describes is complex and aims at avoiding misconduct rather than prioritizing timeliness. Procurement following disasters is often prone to misconduct and therefore requires strong monitoring. However, as timeliness is crucial, procedures need to be efficient. Therefore, some peer countries such as South Africa have put in place dedicated emergency procurement procedures that build on framework agreements, include shorter deadlines, and periodically adjust thresholds.

⁵⁸ For the text of the law, see Marchés Publics Afrique (2009).



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