Somalia

Disaster Risk Finance Diagnostic

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Suggested citation: *Somalia Disaster Risk Finance Diagnostic*

Credits: The World Bank Group

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Street sellers at Baidao market offer goods to passers-by in the city on March 1, 2021. UNDP Photo/Said Fadheye
Pupils in class at the 26 June Secondary School in Hargeisa, 7 December 2019. UNDP Photo

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Acknowledgments

This disaster risk finance diagnostic was produced jointly by the World Bank Urban, Resilience and Land (URL) Global Practice and the Finance, Competitiveness and Innovation (FCI) Global Practice, in partnership with the Federal Government of Somalia's Ministry of Finance. It was developed with inputs from federal and subnational authorities, development partners, and bilateral agencies.

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This report would not be possible without interest and collaboration of the Federal Government of Somalia (FGS). The team is particularly grateful to Abdiqai Farah, Abdirisak Said and Abdi Tawane, the Project Implementation Unit of the Somali Crisis Recovery project within the Ministry of Finance for operational support through numerous consultation meetings and validation workshops.

This diagnostic was made possible thanks to generous support from the Global Facility for Disaster Reduction and Recovery and technical support from the Financial Resilience Program (FRP). The FRP is managed by the Crisis and Disaster Risk Finance team in the FCI Global Practice. The FRP aims to enhance the capacity of policy makers to improve vulnerable households' and businesses' financial resilience to climate shocks and natural disasters and is kindly funded by the United States Agency for International Development (USAID).

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Abbreviations

ARC	Anticipatory Action
ARC	African Risk Capacity
BAZNAS	Amil Zakat National Agency (Indonesia)
BRIC	Building Resilient Communities in Somalia
Cat DDO	Catastrophe Deferred Drawdown Option
CBS	Central Bank of Somalia
CERC	Contingent Emergency Response Component
CERF	Central Emergency Response Fund
DRF	Disaster Risk Finance
DRIVE	De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa
EWS	Early Warning System(s)
FAO	Food and Agriculture Organization of the United Nations
FCI	Finance, Competitiveness and Innovation (Global Practice)
FCV	Fragility, Conflict, and Violence
FEWS NET	Famine Early Warning System Network
FGS	Federal Government of Somalia
FMS	Federal Member State(s)
FNS	Food Security and Nutrition
FRP	Financial Resilience Program
FSCPP	Food Security Crisis Preparedness Plan
GCF	Green Climate Fund
GDP	gross domestic product
HIPC	Heavily Indebted Poor Countries
ICPAC	IGAD Climate Prediction and Applications Centre
IDP	internally displaced person
ITCZ	Intertropical Convergence Zone
MDAs	Ministries, Departments, and Agencies
NEOC	National Emergency Operation Center
NGO	Nongovernmental Organization
OCHA	UN Office for the Coordination of Humanitarian Affairs
OIC	Organization of Islamic Cooperation
PFM	Public Financial Management
PPP	Public-Private Partnership
SHF	Somalia Humanitarian Fund
SoDMA	Somalia Disaster Management Agency
SWALIM	Somalia Water and Land Information Management
TLU	Tropical Livestock Unit
URL	Urban, Resilience and Land (Global Practice)
WFP	World Food Programme
WRSI	Water Requirements Satisfaction Index

Executive Summary

Somalia ranks second globally in exposure to natural hazards and 14th in overall disaster risk;[1] its extremely low ability to cope with recurrent catastrophes has resulted in prolonged adverse impacts on lives, livelihoods, and the economy. The frequency of droughts, floods, and other climate-related disaster events in Somalia has tripled since 1980,[2] and the impact of these events has intensified in recent years. This trend aligns with rising temperatures and increasingly erratic weather patterns across the Horn of Africa. Somalia is also vulnerable to geophysical risks like earthquake. Limited capacity to cope with natural disasters is compounded by fragility and political insecurity. Thus disasters have devastating consequences for the Somali people and their economy, leading to loss of life, loss of livelihoods, displacement, food insecurity, and economic disruption. The agricultural sector is the backbone of the Somali economy, contributing more than 50 percent of gross domestic product (GDP) and 50 percent of export earnings, and it employs an estimated 80 percent of the country's labor force;[3] but it is severely exposed to climate risk. Losses arising from the 2016–2017 drought are estimated at US$3.25 billion (65 percent of GDP),[4] with agricultural crop production and livestock hardest hit. GDP growth fell from 4.7 percent in 2016 to 2.2 percent in 2017. Prolonged drought from 2020 to 2022 resulted in a 1.7 percent decline in GDP.[5]

The Federal Government of Somalia (FGS) recognizes the urgency of strengthening its capacity to manage the financial and economic impact of climate shocks and disasters. The need for stronger fiscal resilience is included in the country's strategies, specifically the Somalia National Development Plan 2020 to 2024 (Ministry of Planning, Investment and Economic Development, n.d.), the Drought Impact & Needs Assessment (World Bank 2018b), and importantly the Recovery and Resilience Framework (FGS 2018) as well as the Somalia Public Financial Management Roadmap Action Plan (2021–2024) (Ministry of Finance 2021b). In addition, the World Bank Group (2024a) Country Partnership Framework has a strong climate change adaptation and mitigation agenda, and among its objectives is the establishment of national disaster preparedness and response mechanisms. This disaster risk finance (DRF) diagnostic report was prepared by the World Bank during the period from December 2023 to June 2024 in response to a request by the FGS Ministry of Finance for support in strengthening its financial resilience to climate shocks and disasters. The report provides a comprehensive assessment of (i) Somalia's climate and disaster risk profile, (ii) the economic and financial impact of past disasters, (iii) the status of DRF instruments, (iv) data and Early Warning Systems for risk-informed decision-making, along with humanitarian and other delivery channels for reaching affected populations and sectors, (v) the domestic financial sector and potential opportunities to leverage Islamic social finance, and vi) a funding gap analysis and exploration of risk-layering strategies. The diagnostic concludes by providing recommendations to the FGS and its humanitarian and development partners for strengthening the financial resilience of households, businesses, and the government against future disasters and climate shocks.

Somalia is a low-income country facing critical development challenges owing to the central government's collapse in 1991 and a protracted civil war. The country has made progress toward stability since the establishment of a central government in 2012. However, with a GDP of US$11.7 billion in 2023 and population of 18.1 million, its GDP per capita is among the lowest globally.[6] Protracted conflict has destroyed the economy's productive capacity, while disrupted investments in human capacity and repeated shocks have eroded households' assets and livelihoods. The World Bank (2018a) Risk and Resilience Assessment refers to interlinked cycles of fragility, where high vulnerability and low resilience on the one hand, and low revenue and low trust in government on the other, reinforce each other in a difficult-to-break cycle. Consequently, more than half of the population (54.4 percent as of December 2023) lives below the poverty line.[7] About 40 percent of Somali households depend on remittances from abroad (World Bank Group 2019).

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[1] *Throughout this report, "Somalia" refers to the Federal Government of Somalia, the five federal member states and Banaadir. For the country's ranking in natural hazard exposure, see EC DRMKC (n.d.); for ranking in overall disaster risk, see Bündnis Entwicklung Hilft/IFHV (2023).*

[2] *The analysis is based on data for 1980 -2023 from EM-DAT: The International Database, CRED/UCLouvain, Brussels, Belgium, www.emdat.be/*

[3] *https://www.afdb.org/sites/default/files/documents/publications/somalie_country_food_and_agriculture_delivery_compact.pdf*

[4] https://www.undp.org/publications/somalia-drought-impact-and-needs-assessment

[5] *World Bank interview with Ministry of Finance, 2024.*

[6] *World Bank DataBank, World Development Indicators, https://databank.worldbank.org/source/2?country=SOM*

The FGS's response to disasters is significantly constrained by its limited domestic revenue, which stood at less than 3 percent of GDP as of 2023. This is significantly below the average for fragile states, which typically generate between 11.5 percent and 12.5 percent of GDP in domestic revenue (World Bank 2023b; Akitoby et al. 2020). Limited fiscal space restricts the government's ability to invest in financial and operational preparedness or resilience building ahead of future disasters; the result is a heavy reliance on international humanitarian aid, which operates on short-term project-based cycles. This reliance on partners for the financing and implementation of disaster response further undermines the government's efforts toward restoring the social contract and transitioning out of a context of fragility, conflict, and violence (FCV).

In spite of these circumstances, the path of sustainable resilient economic development looks promising. Somalia reached the Heavily Indebted Poor Countries (HIPC) Initiative Completion Point in December 2023. This significant economic milestone resulted in savings of US$4.5 billion in debt servicing, which reduced Somalia's external debt from 64 percent of GDP in 2018 to less than 6 percent of GDP by the end of 2023 (World Bank 2023a). Overall, this achievement will enable Somalia's access to additional financial resources, which are critical for enabling its transition from reliance on humanitarian aid to sustainable development approaches.

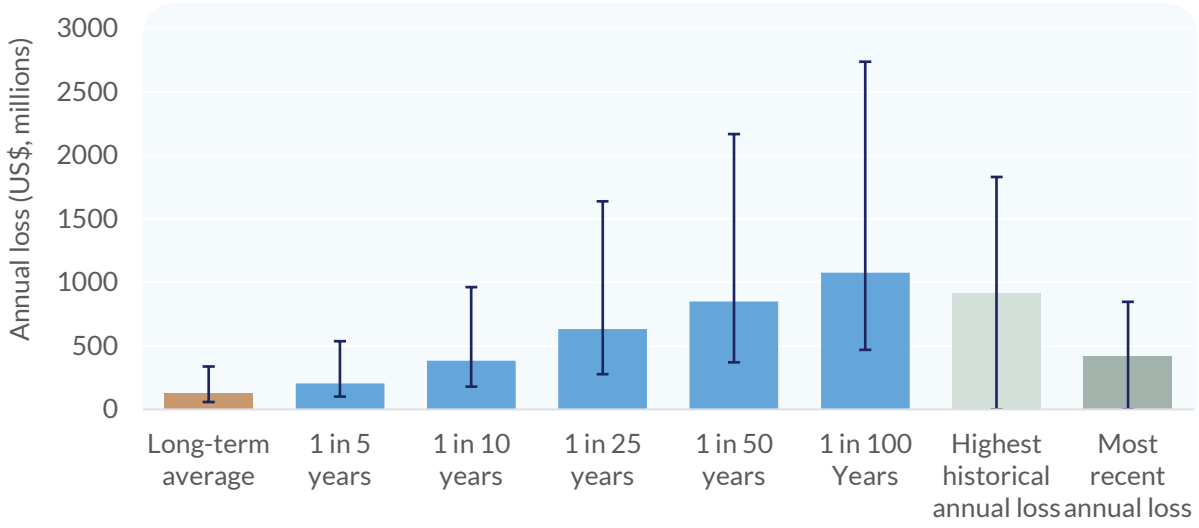
Somalia has made notable progress in governance and institutional development over the past decade, but implementation lags amid a nascent federalism framework with partially defined functional and revenue assignment. The establishment of formal government structures, improved fiscal management, and strengthened legislative frameworks has created a foundation for building financial resilience. However, challenges remain in implementation, coordination, and capacity. Along with humanitarian partners, the Somalia Disaster Management Agency (SoDMA) should play a central role in coordinating disaster response efforts; but its effectiveness is limited by resource constraints and overlapping mandates with other ministries and agencies. This fragmentation leads to inefficiencies and delays in disaster response and recovery efforts. The Constitution provides a basis for DRF, but further legislation is needed to specify roles and responsibilities for disaster response and financing, to address intergovernmental emergency transfers, and to clarify implementation of a state of emergency. The Public Financial Management Act allows for a contingency budget, but this so far has been used only in response to conflict- and security-related shocks. The SODMA Act of 2016 provides for the establishment of National, regional and district level Emergency Disaster Response Funds but these are yet to be operationalized. The national Procurement and Concessions Act provides for emergency procurement, but implementation remains a challenge. The establishment of the Auditor General's Office is a positive step toward transparency and accountability.

Substantial data limitations for Somalia obscure the underlying patterns of disaster risk and may present an incomplete picture of the true costs. Consequently, the estimated costs presented within this report should be considered as minimum expected values, and findings should be interpreted with caution. The estimation of the funding gap has been constrained by limited availability of reliable disaster data, including on occurrence of events, economic losses and damage, and costs of response, emergency repair, and epidemic treatment. Lack of information on insured values has hindered accurate assessment of the protection gap and of the government's explicit contingent liabilities. A detailed account of the data used and the funding gap modeling assumptions is provided in Chapter 6 of the main report with further details in Annex IV.

[7] *World Bank DataBank, World Development Indicators, "Poverty Headcount Ratio at National Poverty Lines (% of population) – Somalia," https://data.worldbank.org/indicator/SI.POV.NAHC?locations=SO.*

The annual cost of disaster response (including emergency response and early recovery) in Somalia including Somaliland[8] is conservatively estimated at US$129 million (or 12 percent of the FY24 budget), but this total could increase significantly in the event of a severe disaster (Figure 1). For example, the cost increases sixfold for a 1-in-25-year event. The estimated cost includes emergency cash relief and costs of transfers in the event of drought, flood, and storm; emergency relief shelter in the event of flood or storm; emergency health service in the event of an epidemic; as well as the cost of livestock export loss. It is worth noting that the costs of medium- to long-term recovery and rehabilitation are much higher and are excluded from this estimate.

Figure 1: Simulated average annual costs of disaster response in Somalia for different return periods



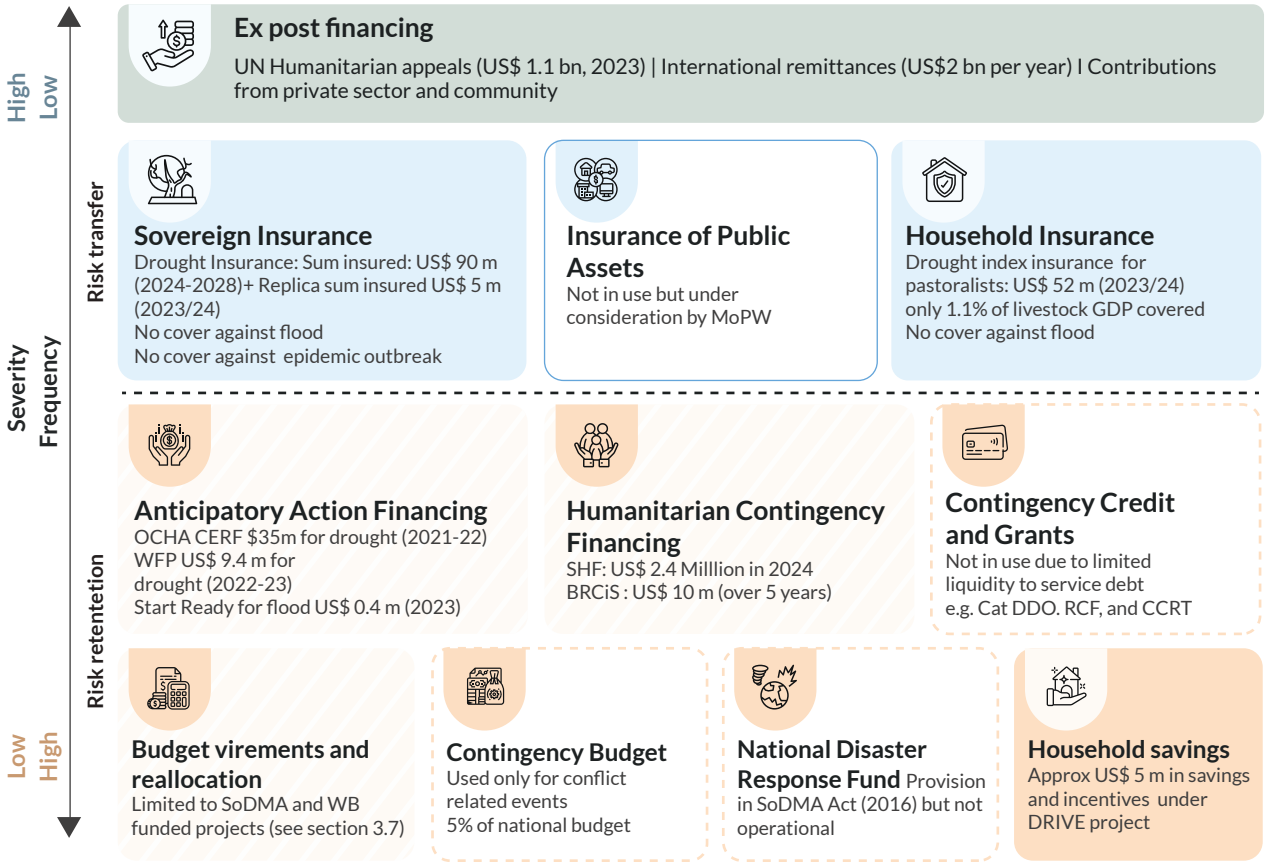
Source: World Bank.


Photo Credit: UNDP Photo / Said Fadhaye

[8] *This is due to primary data source used, which reports number of people affected in Somaliland.*

Somalia's response to disasters is heavily reliant on ex post funding, which is not cost-effective or predictable and leaves a significant funding and protection gaps. Specifically, there is little to no protection for frequent recurrent events and no protection for households and public assets against flood. These key gaps are denoted in blank boxes in Figure 3. Between 2019 and 2024, budget reallocation across existing World Bank programs amounted to US$687.3 million, while US$887.8 million was mobilized through emergency projects (see Section 3.7). Humanitarian appeals mobilized US$8.3 billion through UN- coordinated Humanitarian Response Plans between 2013 and 2023. It should be noted that humanitarian appeals include chronic needs, which has a substantial humanitarian funding gap of 31.2 percent. However, based on a trend analysis, which shows spikes in years with disaster events, between US$1 billion and US$1.3 billion is mobilized for disaster response per year, with a notable lag between disaster occurrence and commitment and disbursement. International remittances, estimated at about US$2 billion (22 percent of GDP), are another crucial source of development finance, though disaster-related remittances often flow through unofficial channels and are difficult to quantify. Meanwhile, in response to floods in Beledweyne, FGS mobilized US$1.4 million in 2019 and US$1.2 million in 2021 from the diaspora and donors.

Figure 2 : Status and use of risk finance instruments by FGS and partners



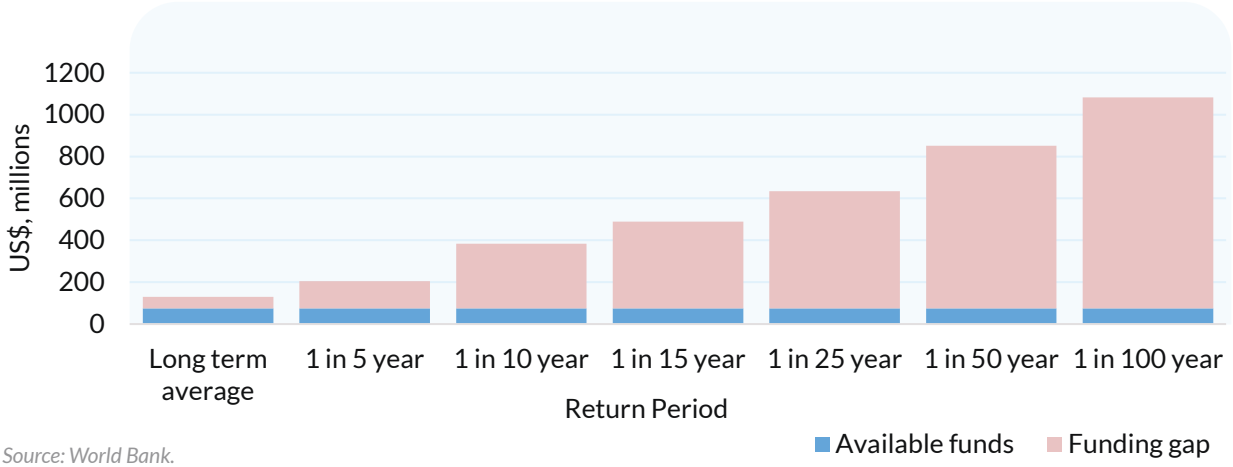
Source: World Bank.

Note: BRCiS = Building Resilient Communities in Somalia; Cat DDO = Catastrophe Deferred Drawdown Option; CCRT = Catastrophe Containment and Relief Trust; CERF = Central Emergency Response Fund; DRIVE = De-risking Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa; MoPW = Ministry of Public Works; OCHA = UN Office for the Coordination of Humanitarian Affairs; RCF= Rapid Credit Facility; SHF = Somalia Humanitarian Fund; SoDMA = Somalia Disaster Management Agency; WFP = World Food Programme. Financial instruments listed in shaded boxes are in use; instruments in striped boxes have been used sparingly; instruments in unshaded boxes have not been used.

FGS has started to adopt risk transfer mechanisms but without better use of budgetary mechanisms for risk retention, insurance may be too costly and unsustainable. Humanitarian partners are slowly adopting prearranged funding but this is often undisclosed and remains low for the scale of need (see Figure 2). The use of risk transfer mechanisms—sovereign drought insurance, micro-level takaful (sharia-compliant insurance) for pastoralists—and anticipatory action financing demonstrates a growing commitment to proactive financial management for disaster response. However, the coverage and scale of these mechanisms remain very low, in part due to substantial ongoing humanitarian needs and frequent seasonal events. Since 2020, an estimated US$44 million has been released through international organizations from trigger-based funding systems for anticipatory action and early response. Often, prearranged funding is not disclosed to the government and other partners ahead of time, and this limits the role that it can play in supporting coordination and predictability. FGS has funding to purchase drought insurance cover of about US$18 million per year from 2024 to 2028. ARC (African Risk Capacity) Replica partners have about US$5 million in drought cover, and total cover for pastoralists as of August 2024 amounted to about US$56 million. There is no flood insurance at either sovereign or micro level. Furthermore, the non-use of budgetary mechanisms by FGS and limited amounts of funding from partners for frequent and moderate shocks means the use of insurance may be unsustainable.

Overall, the FGS faces a significant funding gap for response to disasters (Figure 3). The annual gap is conservatively estimated at US$54m; the gap more than doubles to US$130m for an event with a 20 percent chance of occurrence (1-in-5-year) and increases to US$776 million for an event with a 2 percent chance of occurrence (1 in 50-year). FGS does not have a risk financing strategy, but to illustrate the funding gap, this analysis uses 2024 as a base year. In 2024, FGS had an estimated US$45million available in contingency and prearranged funding and US$29.7 million in drought insurance cover.

Figure 3: Funding gap for response to disasters of different severity

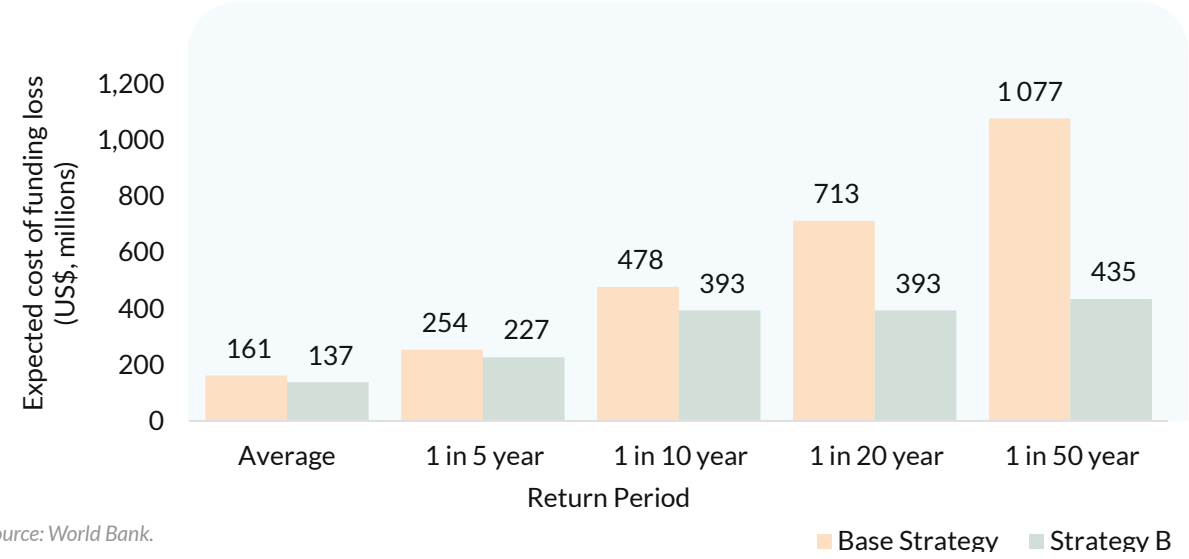


Source: World Bank.

Photo Credit: UNDP Somalia/Gardo_Rangeland_-6

A risk-layering strategy, which combines different financial instruments for events of different severities and frequencies, could be more cost-effective on average and for severe to catastrophic events (see Figure 4). Risk layering combines risk retention instruments (e.g., reserve funds) and risk transfer instruments (e.g., insurance) and allows for a more efficient allocation of resources—that is, ensures that funds are available for both frequent, low-impact events and rare, high-impact events. Compared with the current approach (base strategy), FGS and partners could save nearly US$24 million on average annually with risk layering —up to US$85 million for events with a 10 percent chance of occurrence, up to US$320 million for events with a 5 percent chance of occurrence and nearly US$642 million for events with a 2 percent chance of occurrence Strategy B combines reserve funds (US$60 million), anticipatory action, project contingency and prearranged humanitarian financing (US$320 million) for moderate to severe events and sovereign insurance (US$440 million) for severe to catastrophic events.

Figure 4 : Effect of risk-layered financing approach on cost of disaster response for events of different severity



Source: World Bank.

Somalia has made significant progress in establishing early warning institutions and systems, most notably for floods and food security, which can be used to establish trigger-based prearranged funding systems. The National Multi-Hazard Early Warning Center and the Somalia Water and Land Information Management (SWALIM) system are notable examples of progress in this area. However, systems such as these need to be integrated into decision-making processes to enable timely and effective early action, response, and recovery. Two promising frameworks have emerged that are linking early warning to pre-identified actions: the SoDMA-led Flood Anticipatory Action Framework and the Food Security Crisis Preparedness Plan (FSCPP). These offer significant potential as coordinated, government-led, risk-informed operational response mechanismsthat could be leveraged for DRF.

The government-owned and -led Baxnaano National Safety Net Programme is a promising channel for delivering funds after a disaster; while it lacks prearranged funding and relies on nonstate actors to reach beneficiaries, innovative hybrid delivery arrangements are emerging and facilitating coordination and state-building efforts. Opportunities to strengthen government's involvement through hybrid delivery arrangements, where the government manages projects and contracts with UN agencies or NGOs for implementation, ought to be leveraged. There are further opportunities to institutionalize shock responsiveness within Baxnaano, which was designed with a shock-responsive window. Baxnaano has been used to respond to disasters over the last three years, but the lack of prearranged funding and lack of an information system for rapid and efficient targeting have kept its responses slow. Using the newly established Unified Social Registry, Baxnaano is now strengthening its targeting system and undertaking payment system reforms that will allow rapid delivery of support across all five federal member states and Banaadir.


Photo Credit: UNDP Somalia/09 2020 UNDP Puntland -33

Domestic risk finance markets can offer risk management solutions that help households and businesses cope with disasters; but in Somalia, the use of financial services remains limited, owing to an underdeveloped financial sector and low levels of financial literacy. Somalia's financial sector is nascent, with low penetration rates in banking services, insurance, and capital markets. The Central Bank of Somalia is making significant efforts to strengthen the regulatory and enabling environment. Households and micro, small, and medium enterprises (MSMEs) have limited access to financial services and have difficulty affording them. Although takaful includes a range of products that cover climate risk, penetration remains low. This is because financial awareness and capability are limited (on the demand side) and because neither retakaful (comparable to reinsurance) nor sharia-compliant investments are widely available (on the supply side). The capital market sector lacks a history of issuing sukuk (Islamic bonds).

Opportunities to leverage Islamic social finance mechanisms have yet to be fully explored. The recent achievement of the HIPC Initiative Completion Point opens new opportunities for accessing international finance. Islamic social finance could also be leveraged through mechanisms such as zakat (mandatory alms tax) and shadaqah (voluntary alms), managed through sustainable structures like waqf (an endowment fund). These mechanisms can complement traditional financing sources and provide sustainable funding for disaster preparedness and response efforts. However, FGS will need to address similar challenges to those faced in connection with efficient tax collection, like low trust in government and preference for informal, clan-based risk sharing. A robust regulatory and institutional framework and capacity building in Islamic finance are crucial to harness the full potential of these instruments.

The FGS can better protect its people and economy from the devastating impacts of climate-related disasters by adopting a proactive and comprehensive approach to DRF, one entailing better collaboration with partners and facilitating a role for the domestic financial sector. Building financial resilience for sustainable economic growth in Somalia will require concerted efforts from the government, development and humanitarian partners, the private sector, and civil society. This report presents a set of recommendations, aimed primarily at the FGS, for enhancing the country's financial resilience by strengthening institutional frameworks, investing in public goods, mobilizing private risk capital, and supporting financial inclusion and adaptation efforts. The report also presents recommendations targeted at Somalia's partners and aimed at maximizing the humanitarian and development nexus. To facilitate implementation, these recommendations are grouped thematically across a short- to long-term time horizon. FGS will need to further prioritize its actions through its national DRF strategy and implementation plan. See the summary of recommendations in Table 1.

Table 1: Recommendations for building financial resilience to climate shocks and disasters in Somalia

Time frame	Strengthen institutional capacity, coordination, and use of government systems	Invest in public goods to inform policy, build domestic finance markets, and leverage Islamic social finance	Increase prearranged funding and mobilize private risk capital	Support efforts to deepen financial inclusion and increase climate adaptation
Short term	✦ Develop and implement a comprehensive DRF strategy ✦ Establish an institutional and governance framework to formalize and increase the scale, efficacy, and impact of support from the diaspora community.	✦ Fast-track the adoption of the National Takaful Bill and Financial Institutions Bill; fast-track implementation of the takaful roadmap. ✦ Develop a digital national database on the occurrence and impact of disasters.	✦ Establish a national disaster response fund linked to clear delivery channels (e.g., Baxnaano, FMS) based on objective trigger mechanisms (e.g., FSCPP) with clear and transparent financial management and operational procedures to manage recurrent shocks. ✦ Advance shock-responsive social protection by linking prearranged funds to Baxnaano and aligning humanitarian cash transfer programs.	✦ Embed insurance (takaful) in a national financial inclusion strategy and financial literacy and awareness campaigns.
Medium term	✦ Implement a capacity-building program to increase technical and operational capacity on DRF across relevant line ministries in FGS, FMS, and city/local government states; build the capacity of FGS to transfer emergency funds to FMS and local governments. ✦ Review of FGS PFM Act to improve funding, transparency and accountability on disaster related expenditures and include disaster financing in the new cycle of the PFM Action Plan	✦ Develop an expenditure tracking system for disaster response across government and partners. ✦ Conduct feasibility assessment of Islamic social finance in line with ongoing tax reforms and potential for FGS catastrophe sukuk issuance.	✦ Expand and institutionalize use of the World Bank Crisis Preparedness and Response Toolkit. ✦ Foster the scale-up of anticipatory action and prearranged finance by partners under government-led frameworks. ✦ Explore nontraditional donors like the Gulf Cooperation Council. ✦ Expand sovereign cover against drought and adopt cover against flood in line with risk layered approach.	✦ Explore contingent financing solutions to enhance financial inclusion and resilience of the MSME sector.
Long term	✦ Consider implementation of DRF mechanisms at city level. ✦ Lobby for use of FGS public financial management systems by development and humanitarian partners.	✦ Introduce risk management and insurance programs in higher education institutions to close skills gap.	✦ Develop a public asset management policy and assess feasibility of a public asset insurance pool.	✦ Explore potential for climate-linked housing finance targeted at IDPs.

Source: World Bank.

Note: DRF = disaster risk finance; FGS = Federal Government of Somalia; FMS = federal member state(s); FSCPP = Food Security Crisis Preparedness Plan; IDPs = internally displaced persons; MSMEs = micro, small, and medium enterprises. Short term = six months to one year; medium term = one to three years; long term = three to five years.

Introduction

This report provides a comprehensive assessment of (i) Somalia's climate and disaster risk profile, (ii) the economic and financial impact of past disasters, (iii) the status of DRF instruments, (iv) data and Early Warning Systems for risk-informed decision-making, along with humanitarian and other delivery channels for reaching affected populations and sectors, (v) the domestic financial sector and potential opportunities to leverage Islamic social finance, and (vi) a funding gap analysis and exploration of risk-layering strategies. The diagnostic concludes by offering a funding gap analysis and providing recommendations to the FGS and its humanitarian and development partners for strengthening the financial resilience of households, businesses, and the government against future disasters and climate shocks.

Photo Credit: UNDP Somalia/Gardo_Rangeland_-10

1. Assessment of the impact of past disasters

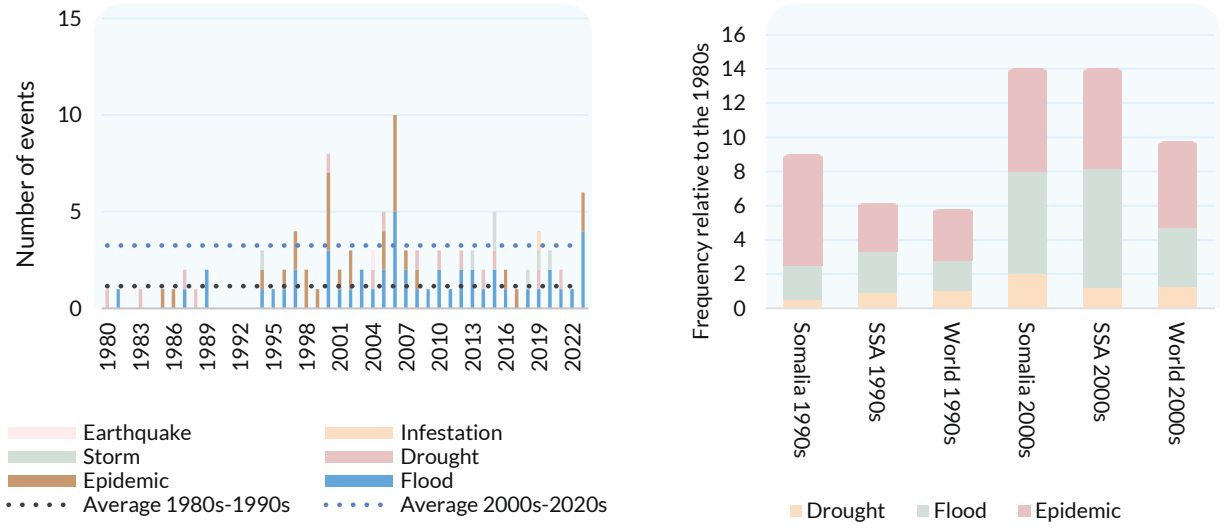
1.1 Occurrence of disaster

Somalia is ranked second globally in exposure to natural hazards (EC DRMKC (n.d.) and 14th globally in disaster risk (Bündnis Entwicklung Hilft/IFHV 2023); since the 1980s, the frequency of disasters in the country has tripled, driven by droughts, floods, and epidemics.[9] Rainfall is influenced by the Intertropical Convergence Zone (ITCZ), which is interrupted by the El Niño Southern Oscillation (ENSO); the result is floods during El Niño and droughts during La Niña. Since the 2000s, La Niña dips and El Niño peaks have been more frequent. Overall, the frequency of disasters in Somalia is growing at a faster pace than both the Sub-Saharan African average and the world average (Figure 5). Since 1980, Somalia has experienced 101 disasters, which have cycled between droughts, floods, and epidemics, with occasional locust infestations and rare earthquakes. The EM-DAT database shows that since the year 2000, floods have occurred once every two years, epidemics once every three years, and droughts once every four years. Storms have begun to occur more frequently; five storms took place between 2013 to 2020.[10]

[9] *World Risk Index https://weltrisikobericht.de/wp-content/uploads/2024/01/WorldRiskReport_2023_english_online.pdf*

[10] *The analysis is based on data for 2000–2023 from EM-DAT: The International Database, CRED/UCLouvain, Brussels, Belgium, www.emdat.be/.*

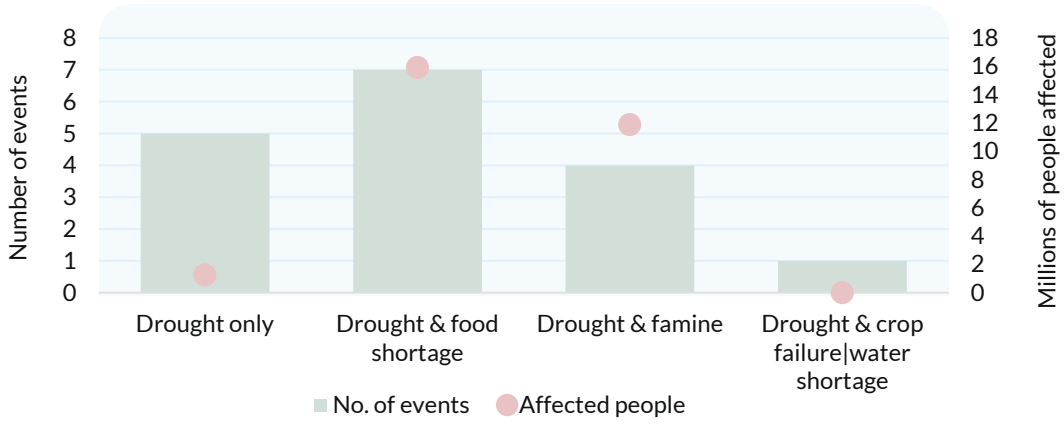
Figure 5 : Occurrence of disasters in Somalia, 1980–2023 (left), and compared to Sub-Saharan Africa and the world (right)



Source: World Bank analysis based on EM-DAT: The International Database, CRED/UCLouvain, Brussels, Belgium, www.emdat.be/; IMF 2020.
Note: SSA = Sub-Saharan Africa. The bars in the left chart should be interpreted as multiples of the sum of disasters that occurred during 1980–1989. For example, all the floods in Somalia during 2000–2009 were about six times the floods during 1980–1989.

Droughts and floods are the most serious perils; they develop in interrelated ways and affect nearly half the population in an average year. Protracted droughts have been associated with other risks such as food shortages, famines, crop failures, and water shortages (Figure 6). Droughts weaken vegetation and soil, making it more likely that heavy rains will cause surface floods. Additionally, during droughts, communities that lack alternative coping methods may resort to harmful agricultural and land use practices that exacerbate the effects of floods, such as animal overgrazing and deforestation. Flooding, including surface flooding and riverine flooding, is often triggered by heavy rains. Floods are impacting more people than in the past; this is especially true for surface flooding, likely due to more intense rainfall spells combined with rapid population growth in flood zones with underdeveloped drainage systems. Flash floods have affected over half a million people in the 2020s and represent a growing threat. While riverine floods remain significant, their impact has decreased slightly since the 2000s (Figure 6).

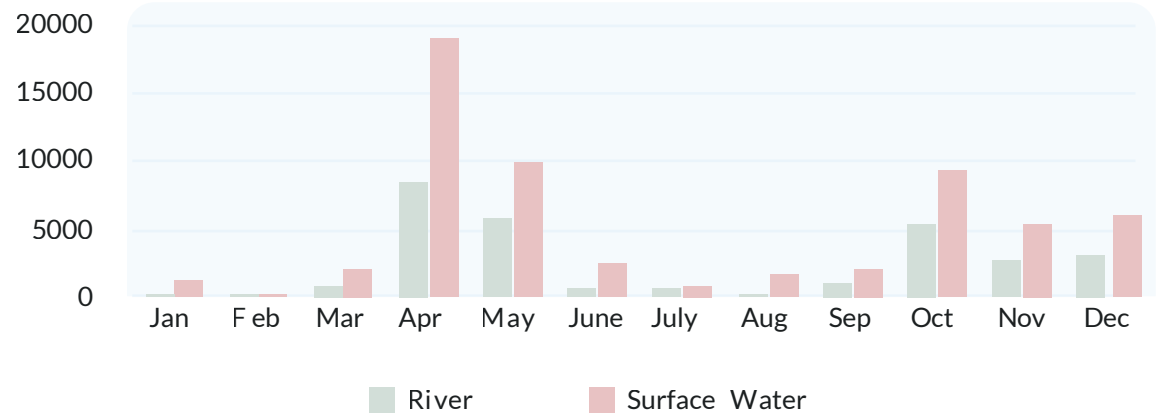
Figure 6 : Historical occurrence and numbers of people affected by drought and associated disasters



Source: World Bank analysis based on EM-DAT: The International Database, CRED/UCLouvain, Brussels, Belgium, www.emdat.be; JBA Risk Management.

The Juba and Shabelle rivers are prone to flooding, and low-lying coastal areas are vulnerable, especially during heavy rainfall and cyclone seasons. Impacted regions include Hiraan, Middle Shabelle, Lower Shabelle and Gedo; as well as parts of Mogadishu. During June 2020 alone, flooding impacted 700 000 people; and before this event, 450 000 people were displaced by flooding earlier in the year. The Flood catastrophe modelling was based on JBA Global Flood model which estimates losses to buildings, contents and business interruption from river and surface water flooding. JBA's model contains over 60,000 stochastic river and surface water flood events that impact Somalia over a 10,000-year simulation. Most events fall in the April-May period with a smaller peak in October-December (Figure 7).

Figure 7 : Occurrence of flood and people affected



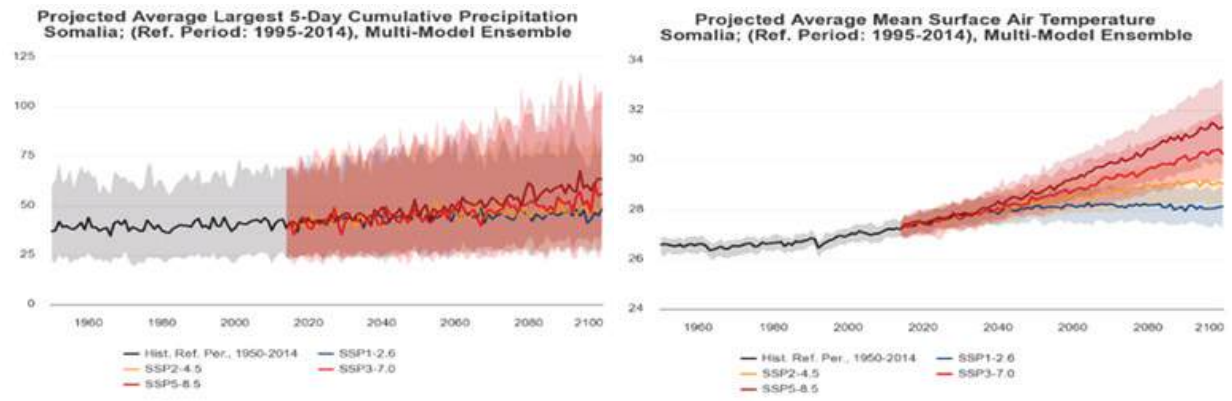
Source: JBA Risk Management, unpublished report commissioned by the World Bank for the Somalia disaster risk finance diagnostic.
Note: Not all of these events will produce losses

The repeated occurrence of droughts and floods and their impact on human and physical capital have historically increased susceptibility to epidemics, which in turn have had a higher mortality rate than the original hazard event. Drought leads to water scarcity and low agricultural productivity, which result in food and nutrition insecurity and high susceptibility to infectious diseases. Floods displace communities and result in infrastructure damage and water contamination, which fuel waterborne infectious diseases. Between 1980 and 2024, half the disaster events were due to floods (49 percent) and under a third (29 were due to epidemics (29 percent); yet the share of deaths due to epidemics (22 percent) was more than twice the share due to flooding (9 percent). The most recent cholera outbreak, which occurred between November 2023 and February 2024, impacted over 1,000 people along the Juba River and is widely linked to flooding in October–December 2023; that flooding displaced nearly 900,000 people and affected a total of 2.48 million people (OCHA 2023a, 2024b). The possible link between severe floods and epidemics highlights the need for data and robust statistical analysis to inform integrated risk management of flood and public health. Comparison of the number of people affected by flooding (as reported by the UN Office for the Coordination of Humanitarian Affairs, OCHA) with catastrophe flood modeling undertaken by JBA Risk suggests that the flooding was equivalent to an event with a return period of 75 years.[11]

Climate change is expected to bring more extreme weather to Somalia and to increase both the frequency and severity of disasters. Strong historical and scientific modeling suggests that while average rainfall may increase slightly, the Horn of Africa region will likely become hotter and experience more erratic weather patterns. Projections anticipate an increase in average annual temperature of between 3.2°C and 4.3°C by the end of the century (Climate Centre 2021; NUPRI and SIPRI 2021). Higher levels of average annual rainfall are also expected; modeling projects an increase of 1 percent by 2030 (Directorate of Environment and Climate Change, Office of the Prime Minister 2022) and of about 3 percent by 2050 (NUPRI and SIPRI 2021). This change aligns with Somalia's rising temperatures since 1991 (Directorate of Environment and Climate Change, Office of the Prime Minister 2022) and the increased frequency of disasters over the past 50 years (Figure 5).

[11] *JBA Risk Management, unpublished report commissioned by the World Bank for the Somalia disaster risk finance diagnostic*

Figure 8 : Projected rainfall (left) and temperature patterns (right) due to climate change



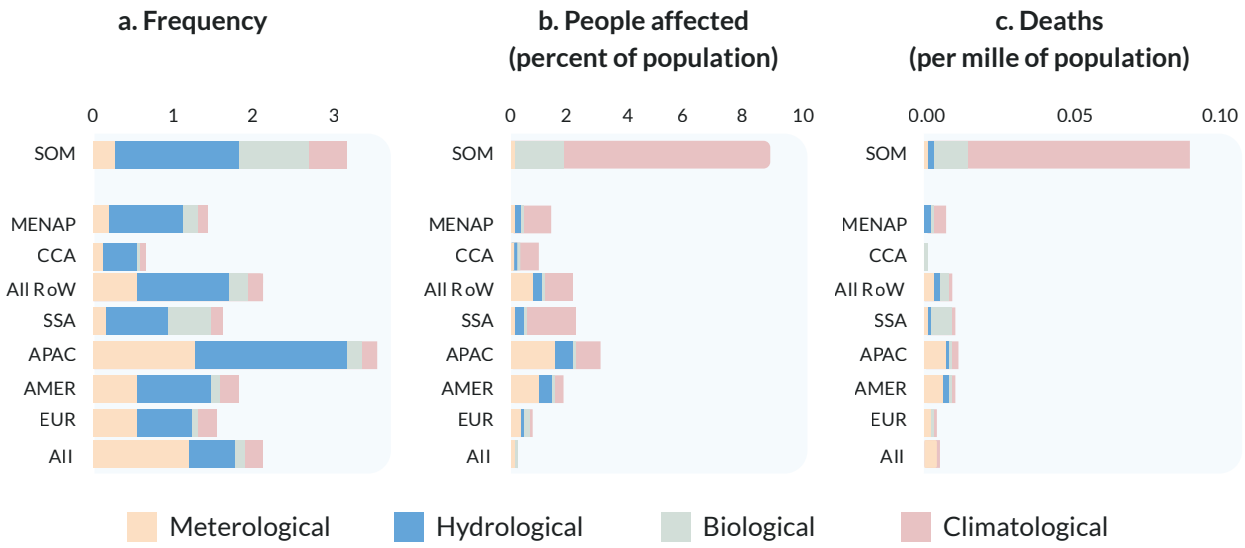
Source: World Bank analysis based on EM-DAT: The International Database, CRED/UCLouvain, Brussels, Belgium, www.emdat.be; Climate Change Knowledge Portal, "Somalia," https://climateknowledgeportal.worldbank.org/country/somalia/climate-data-historical.
Note: SSP = Shared Socioeconomic Pathway.


Photo Credit: UNDP Somalia/Burtinle Women's Training Centre 7

1.2 Humanitarian Impact

The worsening impacts of climate change, fragile agricultural ecosystems, and weak social services infrastructure, coupled with conflict and weak governance, lead to a disproportionate humanitarian burden in Somalia relative to the humanitarian burden in other countries. An estimated 9 percent of the population is affected by climate shocks every year, compared to less than 3 percent of the population in other regions. Deaths per million people significantly surpass other regions (Figure 9).

Figure 9 : Comparison of impact of disaster in Somalia and other regions, 2000–2021: Impact (left), people affected (center), and deaths (right)



Source: IMF 2022a, citing Duenwald et al. 2022.
Note: AMER = Americas; APAC = Asia and Pacific; CCA = Caucasus and Central Asia; EUR = Europe; MENAP = Middle East, North Africa, Afghanistan, and Pakistan; RoW = rest of the world; SOM = Somalia; SSA = Sub-Saharan Africa. Meteorological includes extreme temperature and landslides; hydrological includes floods and landslides; biological includes insect infestation and epidemics; climatological includes drought and wildfire.


Photo Credit: UNDP Somalia/Qardho Market 11

Somalia's displacement crisis, one of the largest in the world, is fueled more by climatic shocks than by ongoing conflict.[12] Between 2016 and 2024, climatic shocks have consistently triggered more displacements than conflict has, and the impact of shocks has been increasing over the years. In 2022, the number of people displaced due to climatic shocks was almost double the number of people displaced due to conflict and four times higher than numbers displaced due to conflict in 2017, 2020, and 2023 (Figure 10). The Internal Displacement Monitoring Centre (IDMC) estimates that there are 3.9 million internally displaced persons (IDPs) in Somalia[13] , representing 21 percent of the total population. Since 2016, there have been over 9.3 million[14] new internal displacements, equivalent to more than half of Somalia's 2023 population. Displacement disrupts planning as well as disaster response. Notably, the number of IDPs is highest in the most fragile/insecure areas in the southern part of Somalia, and lower in the northern regions of Somaliland and Puntland, which are more secure. Factors such as recurrent violence, drought, and famine have forced large numbers of people to flee their homes in the south and to seek refuge in IDP camps and informal settlements. The latter often lack basic infrastructure, security, and essential services, making residents particularly vulnerable to displacement.

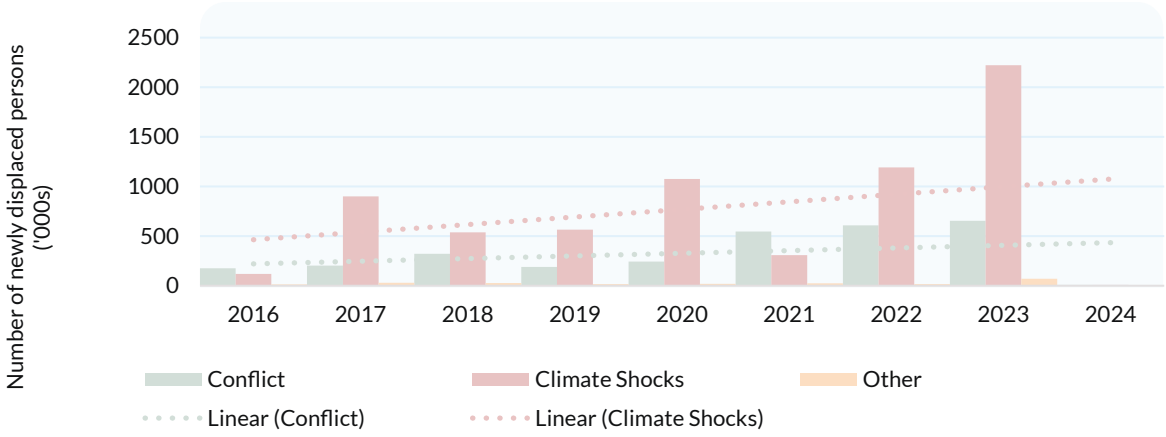
Photo Credit: UNDP Photo / Said Fadheye

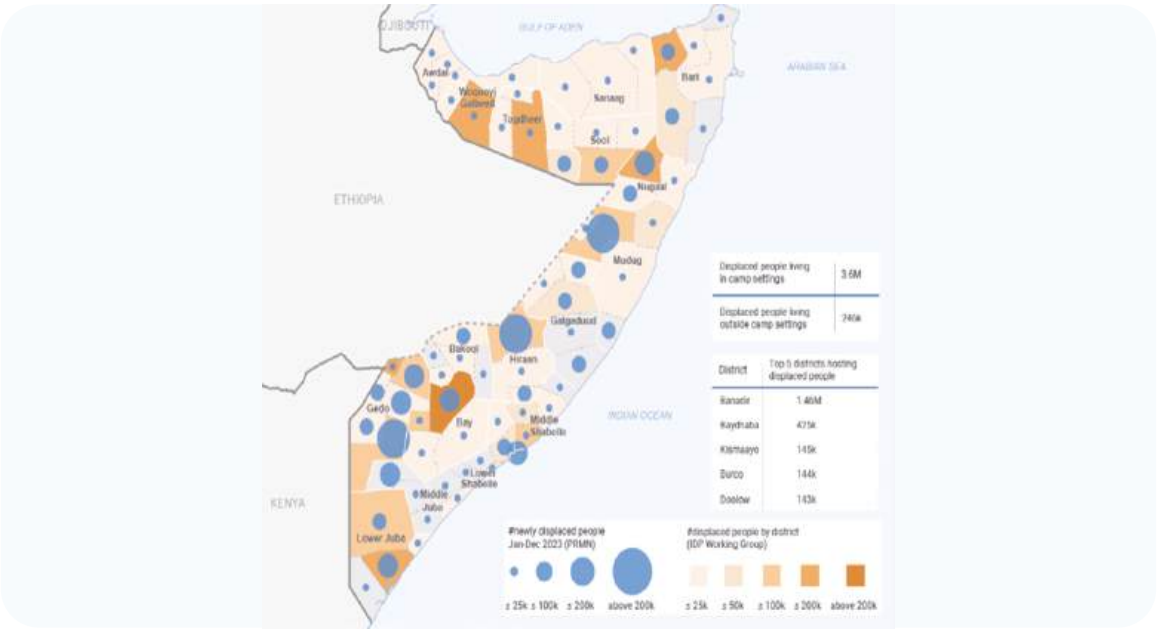
[12] *IOM/Global Data Institute Displacement Tracking Matrix, "Somalia: East and the Horn of Africa," https://dtm.iom.int/somalia.*

[13] *https://www.internal-displacement.org/countries/somali/#:~text= Around%203.9%20million%20people%20were,number%20of%20conflict%20IDPs%20globally.*

[14] *Analysis of new internal displacement databank from Somalia Joint Monitoring Report 2023*

Figure 10 : Newly displaced persons in Somalia: Trend and drivers (top) and location (bottom)





Sources: IOM/Global Data Institute Displacement Tracking Matrix, "Somalia: East and the Horn of Africa," https://dtm.iom.int/somalia; OCHA 2024a.

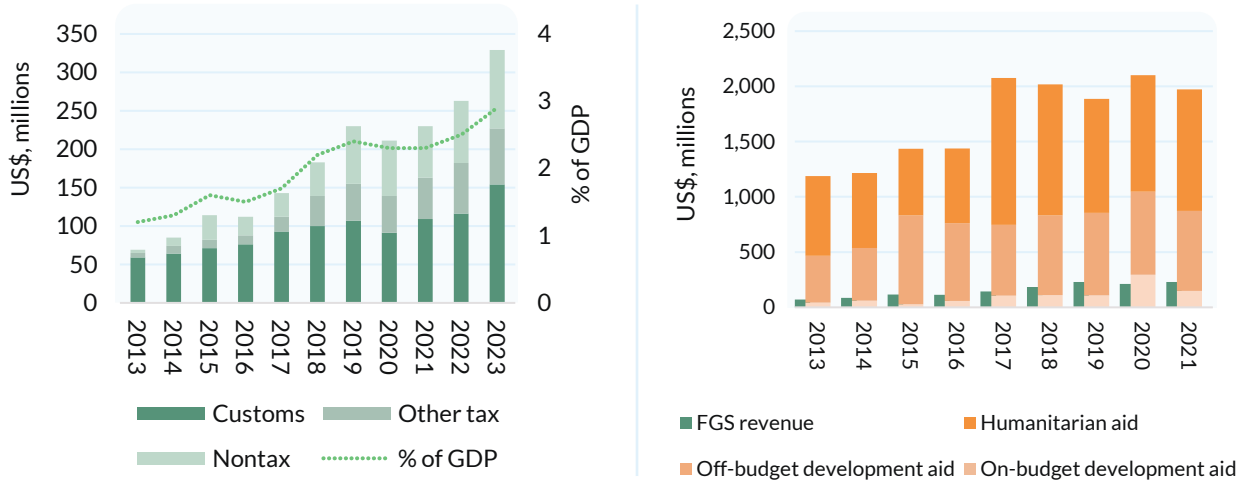
Photo Credit: UNDP Photo / Said Fadheye


Photo Credit: UNDP Somalia/Bilan 1-year anniversary

1.3 Fiscal impact

The Federal Government of Somalia (FGS) recognizes its role in funding disaster relief and recovery. However, domestic revenue is severely limited, which leaves the government highly reliant on development and humanitarian funding to meet its budget needs. FGS domestic revenue is increasing but remains under 3 percent of gross domestic product (GDP) and far below the norm for fragile states, which averaged between 11.5 percent and 12.5 percent in the 2010–2019 period (World Bank 2023b; Akitoby et al. 2020). This harsh reality makes it difficult for the government to adequately respond to disasters. International partners provide substantial levels of disaster response funding—on average 21 percent of GDP. Notably, most international funding does not go through government systems due to perceptions of relative fiduciary risk and an assumption that bypassing government systems is more efficient (World Bank 2023b).

Figure 11 : Government sources of revenue, 2013–2023



Source: Somalia Ministry of Finance, 2023; Somalia Financial Governance Report 2023: Harnessing Financial Governance for Economic Development and State Building. World Bank Group.
Note: FGS = Federal Government of Somalia; GDP = gross domestic product.

The FGS Ministry of Finance recognizes that its ability to collect revenue is undermined by disasters, often due to their impact on production and, consequently, on imports. The tax base in Somalia is very limited, and the revenue growth is driven by donor funding rather than domestic revenue, the majority of which comes from import duties (Table 2).

Table 2: Summary of revenue, 2020–2022

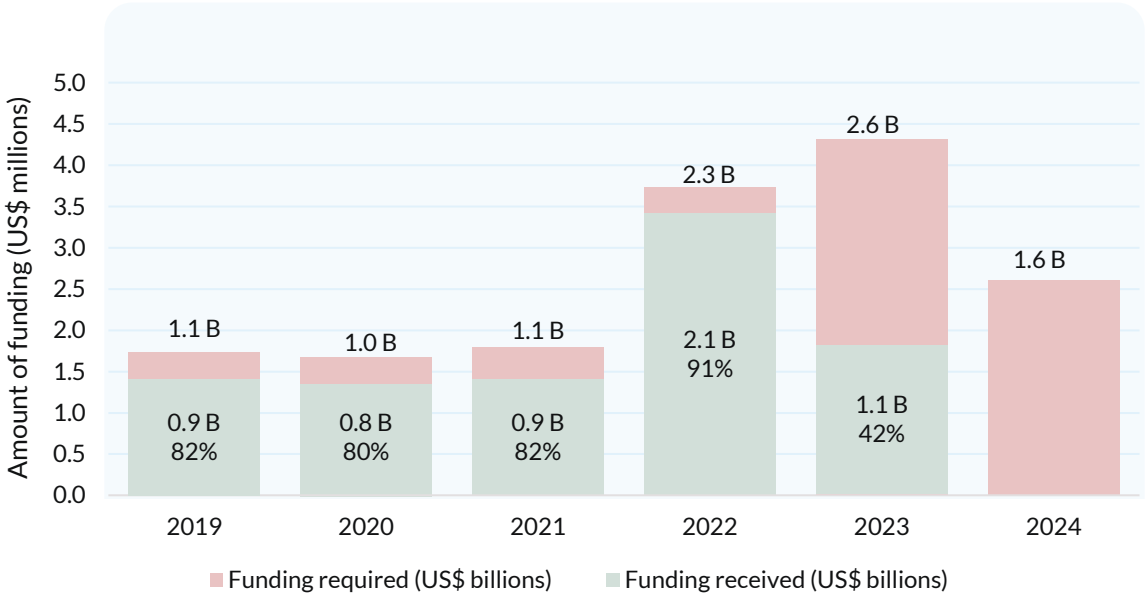
Description	2020 Actual	2021 Budget	2022 Budget	Change	Change (%)
Revenue and receipts	496.6	376.5	941.7	565.2	150.10%
Domestic revenue	211	229.6	247	17.4	7.60%
Taxes	139.3	162.8	173.7	10.9	6.70%
✦ Tax on income, profit, and capital gains	15.4	15.2	15.1	-0.1	-0.60%
✦ Tax on property	0.6	0.6	0.7	0.1	12.10%
✦ Tax on goods and services	21.3	23.4	30.8	7.3	31.30%
✦ Tax on international trade and transactions	91.1	109	111.3	2.3	2.10%
✦ Other taxes	11	14.6	15.9	1.3	8.90%
Other revenue	71.7	66.8	73.3	6.5	9.70%
Donor revenue	285.6	147	694.8	547.8	372.70%
Budget support	153.5	38.4	209.3	170.9	445.70%
Project support	132.1	108.6	485.5	376.8	346.90%
Proportion of domestic funds	42.50%	61.00%	26.20%		

Source: FGS Budget Department 2022.

Photo Credit: UNDP Somalia/Burtinle Women's Training Centre 20

Somalia often faces a significant humanitarian funding gap, which results in a lack of predictability and delayed disaster response. Humanitarian needs between 2017 and 2024 ranged from US$1.8 billion to US$2.6 billion, representing approximately 27 percent of the 2021–2022 federal budget (Figure 12). Unmet needs translate into a high chronic humanitarian burden, depressed economic productivity, and constrained tax revenue, all of which further limit the government's ability to respond effectively. This cycle highlights the critical need for a more anticipatory approach, enhanced climate adaptation, and increased resilience in the long term alongside emergency response in the short term. Note: The rise in need in 2022 was due to the impact of drought. The number of people requiring assistance escalated from 5.9 million in 2021 to a critical 7.8 million in 2022, representing nearly half the country's population. The drop in 2024 is due to impact of prioritizing extreme and catastrophic needs. Hence the 2024 Humanitarian Needs and Response Plan targets 32 percent fewer people and requires 40 percent less funding than 2023.

Figure 12 : Rising trend in average humanitarian needs vs. humanitarian funding gap, 2019–2024

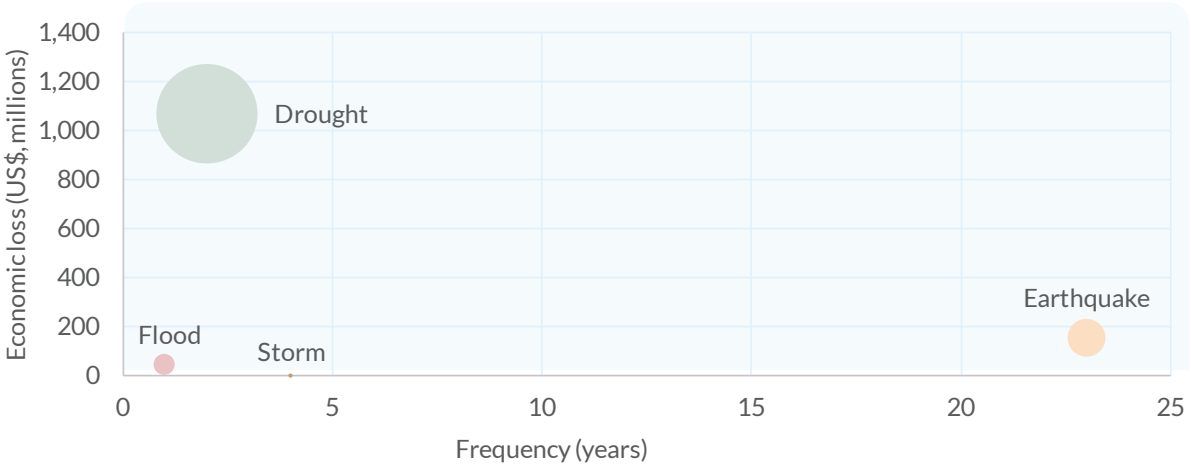


Source: OCHA 2024a.

1.4 Economic impact

Somalia's predominantly agriculture-based economy is highly susceptible to disaster and climatic shocks. Agriculture contributes more than 50 percent of GDP and 50 percent of export earnings, accounts for an estimated 80 percent of the country's labor force[15] , and is highly vulnerable to climate variability and shocks as well as conflict. The 2016–2017 drought caused an estimated US$3.25 billion in losses[16] (65 percent of GDP), with agricultural crop production and livestock hardest hit. GDP fell from 4.7 percent in 2016 to 2.2 percent in 2017. Prolonged drought from 2020 to 2022 resulted in a 1.7 percent decline in GDP. Impact on agriculture, livestock, fisheries, health, and infrastructure is chronic (Directorate of Environment and Climate Change, Office of the Prime Minister 2022; Interactive Country Fiches, n.d.), with strong impact on poverty (Figure 13).

Figure 13 : Economic impact of disaster between 2000 and 2023



Source: World Bank analysis based on EM-DAT: The International Database, CRED/UCLouvain, Brussels, Belgium, www.emdat.be;

1.4.1 Impact on agriculture: livestock and crop sectors

The livestock sector is dominated by nomadic pastoralism and agropastoralism and consistently faces significant damage and losses due to drought and flood.[17] Livestock mortality has increased by around 30 percent as a result of increased drought conditions, while heat stress has decreased livestock productivity through reduced food intake, weight loss, and a reduction in fertility. Rising temperatures and changes in water runoff patterns compromise future yield of groundwater and shallow water as well as forage quantity and quality; they also increase the outbreak of pests and diseases (World Bank Group 2024b). Overall, exports have declined significantly during or following major drought years, notably 2008–2010, 2016–2017, and 2020–2023. The 2017 drought killed an estimated 6.4 million head of livestock (valued at more than US$350 million) and resulted in a 42 percent decline in exports in 2018 (Figure 14). Pastoralists also suffered productivity losses of approximately US$1.2 billion related to milk yield and body weight. Camel milk yields declined by more than half and cow and goat milk yields by as much as two-thirds (World Bank and FAO 2018). Livestock losses among poor families were extremely high, averaging 40–60 percent in the north and 20–40 percent in the center and south (World Bank 2018b).

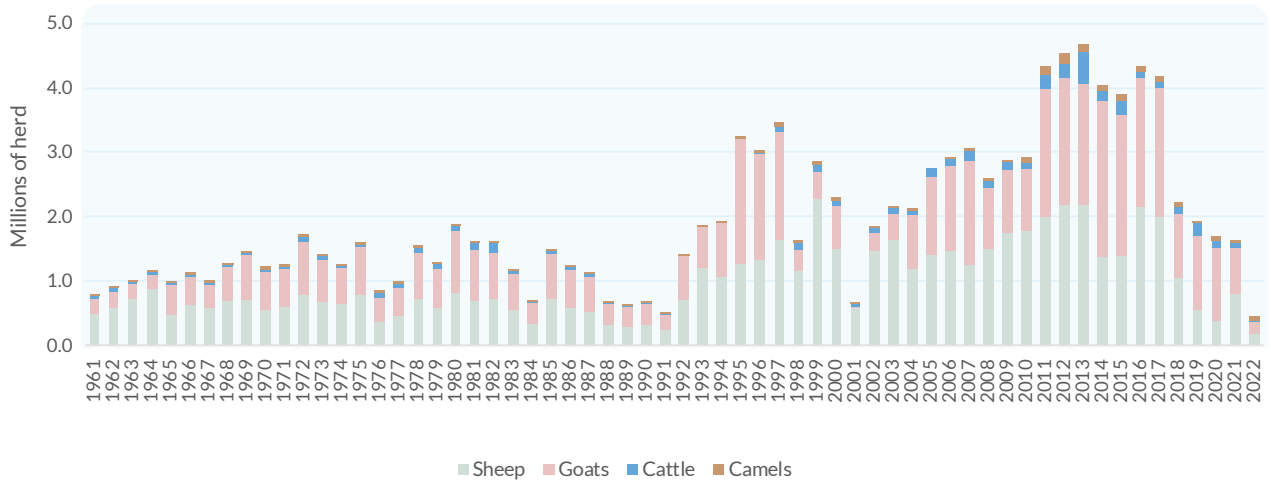
[15] *https://www.afdb.org/sites/default/files/documents/publications/somalie_country_food_and_agriculture_delivery_compact.pdf*

[16] *https://www.undp.org/publications/somalia-drought-impact-and-needs-assessment*

[17] *Damage refers to the death of animals due to lack of water, lack of pasture, and disease, while loss refers to the effect on the production and productivity of livestock.*

Despite high climate risk exposure, the livestock sector showed remarkable resilience in decades leading up to the first half of the 2010s. Following a sharp decline due to flood in 1988 and the start of the civil war, the national herd reached a peak of about 52.9 million in 2014, well above the peak of 40 million registered in the late 1980s. Increase in livestock exports was mainly driven by substantial investment in quality improvements and breeding stock by the diaspora, Saudi-controlled companies, and donor-funded programs. Both volumes and values (peaking at US$533 million in 2015) were higher than before the civil war (Figure 14).

Figure 14 : Livestock exports from Somalia by type, 1961–2022



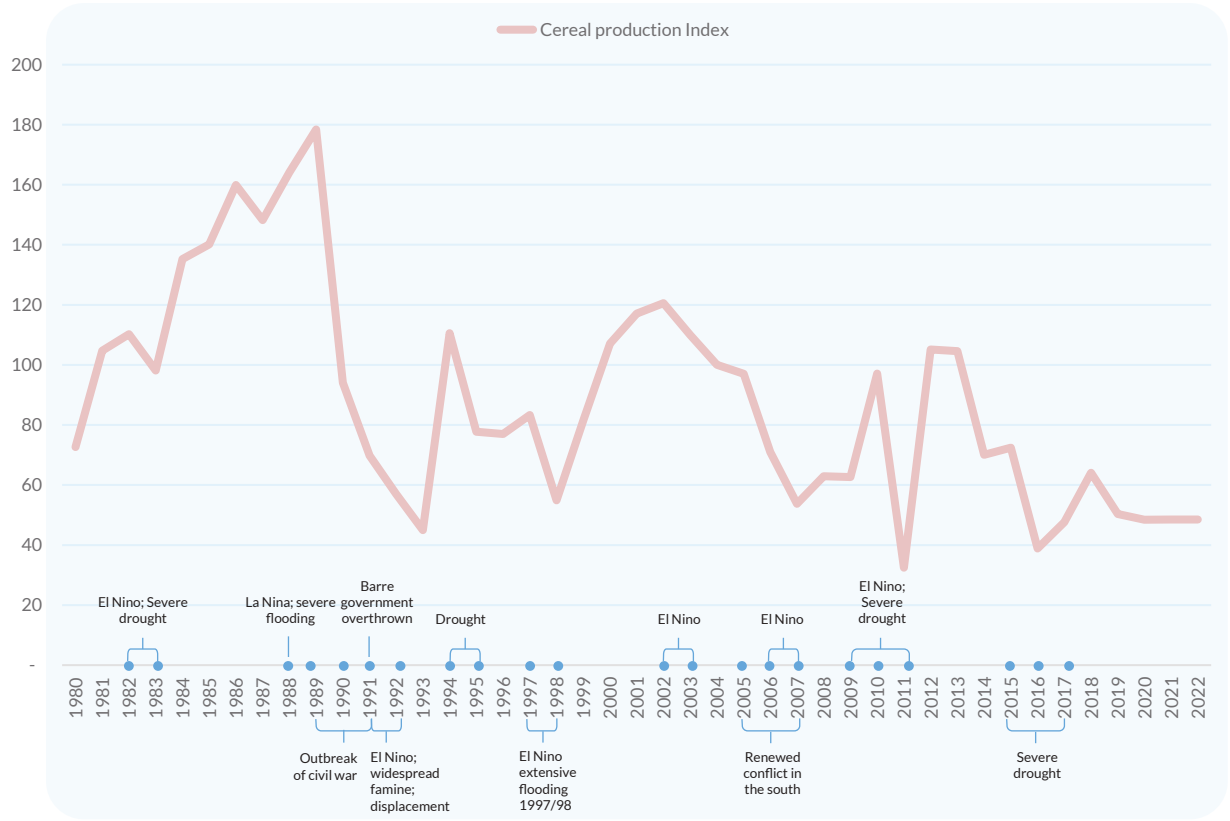
Source: World Bank analysis based on FAOSTAT database, https://www.fao.org/faostat/en/#data.

Crop production has been less resilient. Recurrent drought and floods have caused long-term decline in the land area suitable for cultivation. Climate change–induced grain losses in southern Somalia exceed 20–30 percent of total harvest volumes (World Bank and FAO 2018). In the irrigated fertile southern region, droughts significantly reduce water levels in rivers like the Shabelle and Juba, compromising the effectiveness of irrigation systems. During the 2023 drought, 80 percent of water sources dried up, and the water level of the Shabelle River and Juba River fell 30 percent below average. The 2017 drought alone caused an estimated US$311.5 million in losses and damage,[18] and the 2021–2023 drought resulted in widespread crop failure—exceeding 40 percent for both irrigated and rain-fed crops (IMF 2022b).

The compound impact of war, climate-induced production decline, and yield volatility contributes to high food insecurity. Flood in 1988 and civil war in 1989 resulted in a decline in crop production by over a half, and production has yet to recover (Figure 15). While Somalia was close to cereal self-sufficiency in the late 1980s, since the civil war it has become a chronic food crop–deficit country (World Bank and FAO 2018). In 2018, Somalia's cereal yield was around one-fifth of the median yield in lower-middle-income countries and just over half the median yield of fragile and conflict-affected states. In addition, food insecurity in Somalia is much higher than the median level of food insecurity across fragile states (IMF 2022b). The proportion of food imports has been increasing since 2002; in 2022, 1 million tons of cereal had to be imported to meet the shortfall in cereal production, which was 15 percent above the average for the previous five years (FAO 2022) see Figure 16. Nevertheless, the agricultural crop sector remains both viable and critical to the country's economic recovery and long-term development.

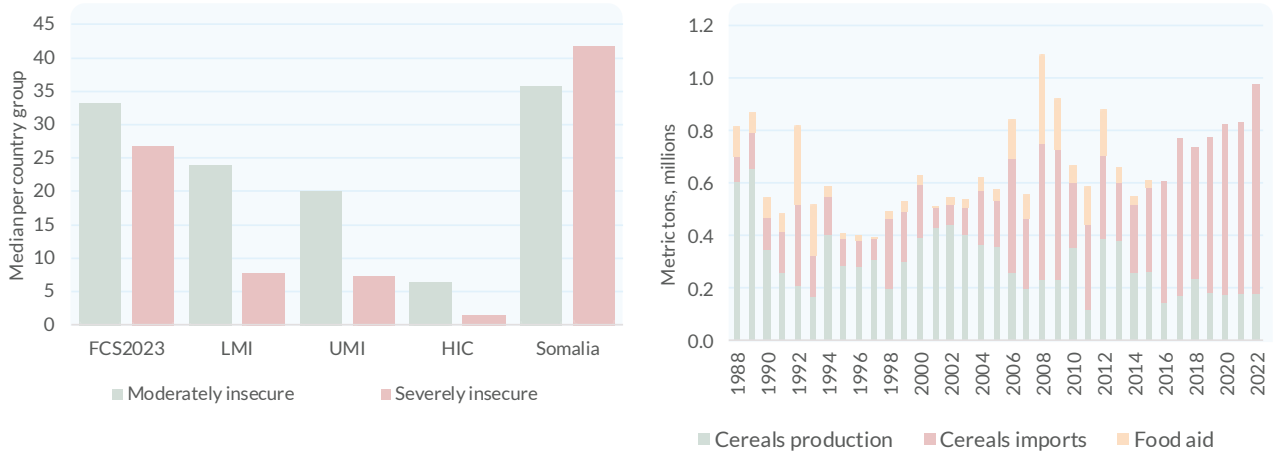
[18] *The sum comprised US$247.7 million in losses and US$63.8 million in damages; see World Bank (2018b).*

Figure 15 : Trend in crop production, 1980–2017



Sources: World Bank and FAO 2018, citing FAOSTAT database, https://www.fao.org/faostat/en/#home (through 1997); Food Security and Nutrition Analysis Unit (FSNAU), https://fsnau.org/ (1998 and after).

Figure 16 : Food insecurity (Average between 2019-2021) (left) and cereal production, cereal imports, and food aid in Somalia, 1988–2022 (right)

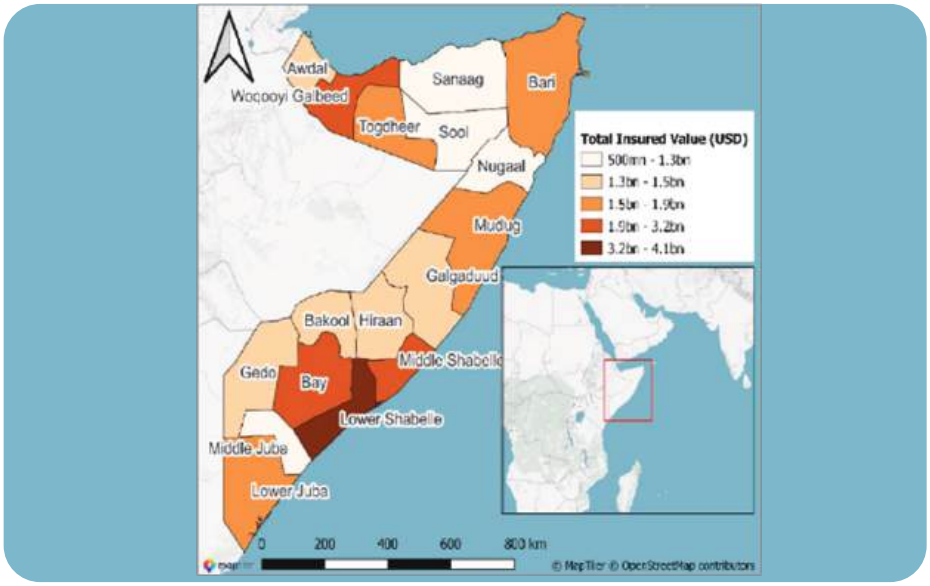


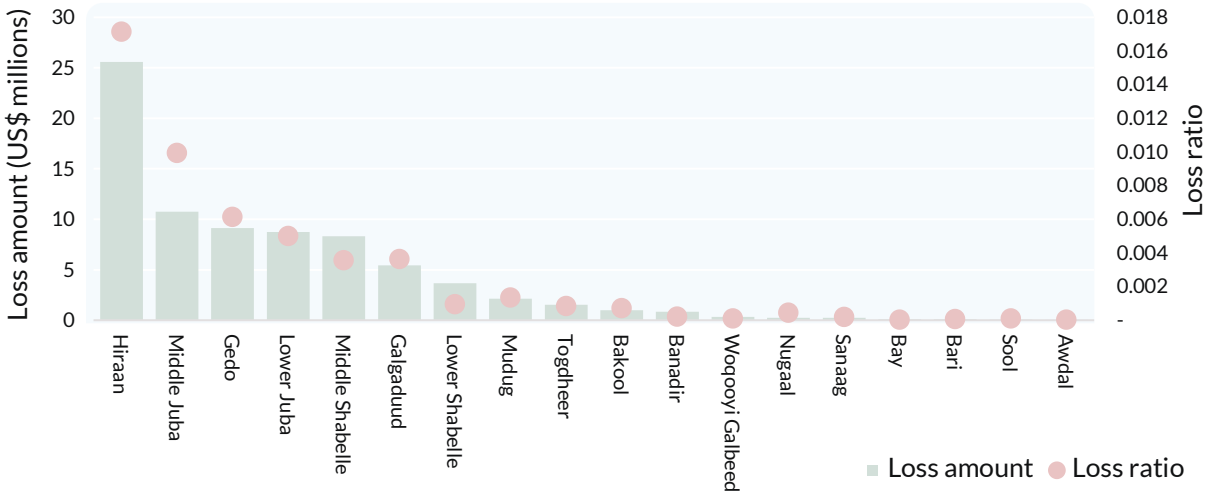
Sources: IMF 2022b (left); World Bank analysis based on FAOSTAT database, https://www.fao.org/faostat/en/#data/TCL (right); World Food Programme, https://www.wfp.org/ (right); Food Security and Nutrition Analysis Unit (FSNAU), https://fsnau.org/ (right)
Note: FCS = fragile and conflict-affected state; HIC = high-income country; LMI = lower-middle income; UMI = upper-middle income. Compilation of data series for food aid provided by World Food Programme was discontinued in 2015.

1.4.2 Impact on residential commercial and private property

The value of residential and commercial buildings and contents exposed to flood is concentrated in Lower Shabelle and estimated at US$33 billion, of which residential property accounts for 94 percent. The total expected damages due to flooding is US$78.3 million, with a loss ratio of approximately 0.0023[19]. Hiraan has the highest loss (US$25.6 million), followed by Middle Juba, Gedo, Lower Juba, and Middle Shabelle (at about US$10 million each). Hiraan and Middle Juba have the highest loss ratios at 0.017 percent and 0.01 percent respectively (Figure 17). The Juba and Shabelle Rivers are particularly prone to flooding, which affects regions such as Hiraan, Middle Shabelle, Lower Shabelle, and Gedo; Given that the value of residential and commercial buildings and contents exposed to flood is concentrated in these areas, this may explain the greater amount of damage when flooding occurs. The estimated damage from flooding is much lower in the northern part of the country.

Figure 17 : Residential and commercial property values at risk of flood damage (top); average annual loss and loss ratios (bottom)





Source: JBA Risk Management, unpublished report commissioned by the World Bank for the Somalia disaster risk finance diagnostic.
Note: AAL = average annual loss. AAL is the expected cost of flooding on average per year, calculated by averaging losses over each year of the simulation, in this case 10,000 years. Total insured value or replacement value of assets requires exposure in the database to be modeled in US dollars. It can include buildings, contents, and business interruption values.

[19] *This is calculated by averaging losses over 10,000 years of simulation.*


Photo Credit: UNDP Somalia/ Bilan 1-year anniversary

1.4.3 Impact on urban areas and the housing sector

As a result of climate shocks and displacement, Somalia's cities are experiencing rapidly increasing population growth and are straining to meet the surging demand for housing and basic services. The country's population of 16.6 million is growing at a rate of 3.07 percent annually; [20] the urbanization rate was 4.3 percent per year between 2015 and 2020, above the African average of 4 percent (CIA World Factbook, n.d.). This rapid growth is concentrated in Mogadishu (population 2.4 million) and Hargeisa (population 1.2 million) (CIA World Factbook), but smaller cities are also experiencing demographic booms.[21] By 2040, the urban population is projected to reach nearly 60 percent of the total, and then tripling by 2050[22] from 2020 position. Housing supply struggles to keep up with demand, leaving an estimated 4.8 million people in need of shelter (Centre for Affordable Housing in Africa 2023). In 2023 alone, 2.9 million people were newly displaced, highlighting the urgent need for coordinated housing and infrastructure development to meet this growing challenge.

Somalia's urban areas are particularly ill-equipped to handle the consequences of heavy rainfall, and the country's rapid urbanization has led to significant challenges in managing flood risks. Inadequate drainage systems and infrastructure in urban areas result in poor absorption of rainwater during heavy rainfall events. This, in turn, leads to increased surface flooding, which poses a significant threat to the lives and livelihoods of residents. The 2019 floods in Somalia, attributed in part to poor drainage in urban areas, displaced over 700,000 people, most of them in rapidly developing cities like Beledweyne (Parvez et al. 2020). Displaced people often end up living in informal settlements in flood-prone areas, where the lack of proper infrastructure, including drainage systems, further increases their vulnerability.

The rapid urban growth is fueling a dangerous environment where competition for limited resources and social pressures can easily escalate into conflict. Mogadishu's population, for instance, is surging at 4.3 percent annually (World Bank, n.d.). The influx of new residents concentrates large numbers of people in close quarters, straining already limited resources for housing, sanitation, and basic services. These pressures in turn exacerbate existing social tensions, particularly among Somalia's youth, where the unemployment rate is a staggering 75 percent (World Bank 2024a). Poverty—affecting 60 percent of the population (World Bank 2024a)—along with lack of education and limited access to information further hinder households' abilities to adapt to these challenges and create a breeding ground for frustration and potential conflict.

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[20] *World Bank Data, "Population, Total – Somalia," 2022, https://data.worldbank.org/indicator/%20SP.POP.TOTL%20?locations=SO.*

[21] *Somalia Africa Housing Finance Yearbook 2023; chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://housingfinanceafrica.org/app/uploads/2023/11/SOMALIA.pdf*

[22] *https://reliefweb.int/report/somalia/identifying-climate-adaptive-solutions-displacement-somalia-assessment-report*

2. Governance and legislative and institutional frameworks for disaster risk finance

2.1 State of governance

Governance in Somalia is divided by the Constitution into two spheres: the federal government and the federal member states (FMS). While not so designated in the Constitution, local governments can be considered a third sphere. The deliberate lack of a clear division of powers between these spheres under the Constitution, and the requirement that the FMS establish the division of power and responsibilities through negotiations, have slowed down the ongoing decentralization process. At the end of 2022, the federal government and member states had agreed on the new allocation of powers and competences.[23]

Progress in federalism is contributing to more efficient financing responses, and past shocks have accelerated the decentralization process; but policies focused on coordinating disaster response, specifically with regard to financing, are lacking. During the COVID-19 pandemic, the FGS increased transfers to the FMS, and the size of subnational transfers has been increasing ever since. This increase in transfers has been accompanied by better coordination in fiscal legislation, which was also driven by the Heavily Indebted Poor Countries (HIPC) Completion Points. For example, the new Revenue Administration Law has been foundational in creating a framework that allows federal tax collection to coexist with subnational revenue mobilization. Additionally, an agreement on an interim fiscal transfer policy has been reached, and data sharing between the FMS and FGS has allowed for consolidated fiscal reporting. However, few policies focus on coordinating efforts by the federal government and federal member states to finance shock responses. The Fiscal Federalism Technical Committee, which has already supported donor revenue sharing between different spheres of government and other key agreements, would be well suited to lead work in this area.

Besides making progress toward federalism, FGS has improved its governance arrangements—a step that is crucial for building financial resilience to disasters. In 2012, following decades of insecurity, the first formal parliament was sworn in, the first president was elected, and the Constitution was adopted. Before that, the legislative and institutional setup of the country was dated and inadequate, with the notable exception of Puntland, which initially had stronger governance systems than other FMS. The institutional setup remains in progress, with basic functions still missing and institutional capacities still low; but in many areas FGS has stronger legislation and institutional setup for disaster risk finance (DRF) than the FMS.

Over the past decade, numerous legislative and institutional developments crucial for strengthening DRF have been implemented and have improved fiscal capacity and transparency (see Table 3 for a summary). The tax authority established by the FGS only a decade ago has increased domestic revenue by 400 percent. Yet the work ahead is still considerable, as Somalia's domestic revenue as a share of GDP remains among the lowest in the world, at just 3 percent (World Bank 2023b), making Somalia dependent on donors. The government's accounts are now largely consolidated under one account with the central bank, are operated in an automated way, and can be tracked. These changes reduce leakages and create a basis for more confidence among development partners, who are slowly increasing their willingness to channel funds through government's systems. Disaster response finances are often perceived as most prone to leakages, as standard transparency and efficiency measures are suspended (officially or unofficially) or not enforced in times of crisis. Hence improving the transparency of the budget is important for increasing the use of government systems to finance response.

[23] *Somali Public Agenda, "Agreements on power allocation and the judiciary through Somalia's National Consultative Council: how to move beyond the current political impasse," Governance Brief, February 2023, Somali Public Agenda.*

Somalia recently passed a suite of procurement laws that makes it an example for peer FCV countries, but a gap between legislation and practice persists. The Procurement Act (2015) is robust and mandates competitive bidding as the default; it is supported by additional regulations, including those on emergency procurement. Unfortunately, strong legislation is often not implemented, and such is the case with this law. Many of the contracts continue to be awarded without due process, and institutional capacity and culture favor single-sourcing, to the detriment of transparency.

Establishment of a central procurement agency would increase efficiency and transparency. Currently, almost all ministries and departments have their own procurement departments; this arrangement makes it difficult to build efficiencies for emergency procurement through (for example) framework agreements or to implement bulk purchases (US International Trade Administration 2024). From the perspective of transparency, the establishment and strengthening of the auditor general's authority is an important step toward reducing leakages. The Office of the Auditor General has started producing robust audits of procurement processes, including uncovering irregularities in emergency procurement procedures.

Table 3: Overview of DRF legislative context

Legislation	Summary
Constitution of Somalia (2012)	Serves as the supreme law: mandates sharia compliance, defines government spheres, and imposes state liabilities in disasters. Lacks clarity on disaster response and financing.
Public Financial Management Act (2019)	Governs financial management, allows contingency appropriations, and mandates budget transparency. Implementation is partial, with issues in unauthorized accounts and aid management.
Procurement and Concessions Act (2015)	Sets rules for public fund use and procurement, including emergency provisions. Implementation is insufficient, with issues in single-source contracting.
Federal Audit Law (2013)	Establishes the Office of the Auditor General for financial oversight; aims to enhance accountability and transparency, including in DRF.
Somalia Disaster Management Authority Act (2016)	Formalizes SoDMA, which took over the responsibilities of the Ministry of Humanitarian Affairs and Disaster Management in 2022. A disaster response fund is mandated but not yet established.
National Meteorological Agency Bill (2023)	Establishes the National Meteorological Agency for weather forecasting and disaster warnings, with a focus on flight security and agricultural resilience. Coordination with existing data providers is crucial.

Source: World Bank compilation

Note: DRF = disaster risk finance; SoDMA = Somalia Disaster Management Agency.

2.1.1 Constitution

The Constitution of Somalia, adopted in 2012, is still considered provisional. This means that although it is the supreme source of law and provides reference for all legislation adopted after 2012, it is expected to undergo changes once conditions allow a popular referendum to be held. Areas that are expected to undergo amendments include the division of power between the central government and member states, which would impact the legislation on public financial management and therefore DRF arrangements. Further, the constitution declares Islam as the state religion and mandates that all laws comply with sharia.[24] This requirement significantly impacts the financial markets and the types of DRF instruments that can be offered. For example, conventional insurance is prohibited, and only takaful, a sharia-compliant form of insurance, is permitted. The same restrictions apply to issuance of bonds, which both makes borrowing harder and creates a strong argument for ex ante contingency arrangements that comply with sharia law and are available in the event of a shock.

The Constitution recognizes two spheres of government and assigns some functions to the FGS and some to FMS; but many functions, including disaster response, remain undefined. Article 50 states: "Power is given to the level of government where it is likely to be most effectively exercised," and "the responsibility for the raising of revenue shall be given to the level of government where it is likely to be most effectively exercised" (Federal Republic of Somalia 2012). As responsibilities for disaster response or financing are not defined elsewhere in the Constitution, they should be mandated by other legislation. The recent series of agreements on dividing roles and revenue between FGS and FMS has contributed toward efforts to pass a new constitution, where previously undefined aspects of governance would be defined. Certainly improvements have been made—for example, agreements on vertical and horizontal sharing of donor funds have been reached, and the amount of funding transferred to member states has been increasing; but these changes do not extend to emergency transfers, and it is therefore critical to continue improving those systems (Issa et al. 2019).

The Constitution imposes significant liabilities on the state in the event of a disaster. It mandates provisions for universal emergency health care, access to water, and full social security. It also legally obligates the state to care for children and mothers. Given the limited fiscal space, the state is unlikely to be able to meet these liabilities in the short to medium term.

Photo Credit: UNDP Somalia/Bilan 1-year anniversary

[24] *Sharia-compliant disaster risk finance tools in Somalia include takaful for mutual insurance, sukuk for investment returns without interest, qard hasan for benevolent loans, waqf for charitable endowments, and Islamic microfinance for small-scale finance.*

2.1.2 Public Financial Management Act (2019)

The 2019 Public Financial Management (PFM) Act is the main act governing financial management matters of the FGS. Government representatives have indicated in conversations that some of its provisions are still awaiting full implementation. These include some fundamental provisions of the act, such as the establishment of a consolidated single fund designated for all government revenue. Some audits carried out by the Auditor General's Office show that numerous ministries have open unauthorized and undisclosed accounts (Office of the Auditor General 2023). According to interviewed officials, some ministries, departments, and agencies (MDAs) use them to shield their revenue, as they fear that funds allocated by the central government are inadequate for their operations. One type of revenue that is consistently unaccounted for is revenue from the Somali diaspora and business community for financing disaster response.

The PFM Act allows for a contingency appropriation of up to 5 percent of the total domestic revenue, a large share compared to Somalia's peers; in recent years, however, the actual appropriation for contingencies has been much smaller or nonexistent. The contingency fund should be replenished with the passing of the next supplementary budget (which can occur multiple times in a year); in theory, this would ensure that emergency finance is always available in the budget. The contingency budget cannot be used to finance salary increases but can be utilized for all unexpected expenditures, without earmarking for shocks or any other defined contingency. The minister of finance has the power to immediately disburse the funds to agencies, based on sufficient and documented justification and urgency. The minister should inform the Parliament of expenditures made from the contingency fund.

Under the PFM Act, the minister of finance may at his or her discretion implement virements and reallocations. These are uncapped in Somalia, unlike in peer countries where only a limited percentage of a vote's budget can be transferred within the vote, and where even more restrictive rules limit transfers outside the vote. The only restriction imposed by the Somali PFM Act is a prohibition on funding recurrent expenditures with the capital budget. The issuance of domestic debt by federal member states is allowed but requires approval from the minister. Only the federal government can issue foreign debt.

The PFM Act requires that all aid be recorded in the budget and supported by an agreement with the minister of finance and the auditor general. All donor funding is meant to be appropriated in the budget and should not be managed through undisclosed accounts. As noted in several audits, much of the aid does not comply with these requirements; these deviations undermine transparency, facilitate corruption in some cases, and reduce opportunities for institutional learning. To support donors in increasing the amount of aid channeled through the budget, in 2015 a Use of Country Systems Working Group was established, in 2019 the Ministry of Finance provided a guidance note that specifies reporting and other procedural steps for ensuring compliance with the PFM Act. The act is also supported by the Public Financial Management Regulation 2022 (Ministry of Finance, n.d.). The act refers to PFM legislation of member states as currently prevailing over the act, until consolidation of the system is achieved.

Photo Credit: UNDP Photo/Said Fadheye

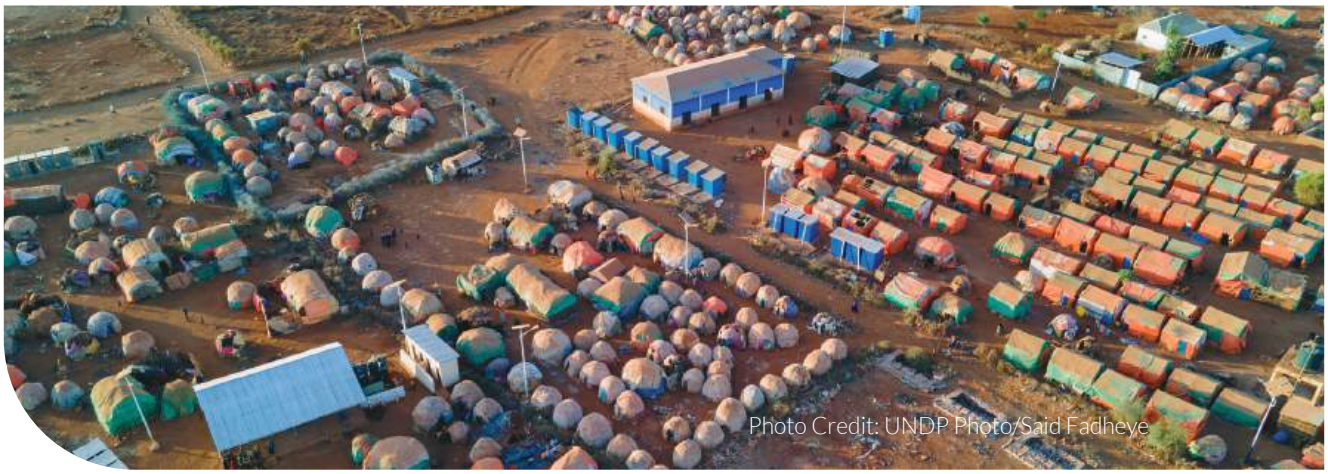


Photo Credit: UNDP Photo/Said Fadheye

2.1.3 Procurement and Concessions Act

The Procurement and Concessions Act provides detailed rules for contracting with vendors and using public funds. It favors competitive bidding, which can in some cases slow down emergency procurement. However, the act has provisions that enable government to swiftly procure necessary items to respond to shocks. Specifically, it legislates framework agreements that, if used properly, would allow the government to prearrange agreements with verified vendors that can be leveraged in the event of a shock. Such agreements are currently used rarely, although the government did enter into such arrangements in response to the COVID-19 pandemic (Ministry of Finance 2021a) and could build on this experience going forward. Furthermore, the act is supported by the Circular on Emergency Procurement and Guidance on Emergency Procurement, issued by the Prime Minister in 2023. The latter was issued in 2023 and provides detailed information on procurement modalities under emergencies. It explains that the prime minister declares that an emergency has occurred and that emergency procurement is justified; according to the guidance, the president does not have to declare a state of emergency for emergency procurement to be allowed. The circular identifies different phases of disaster and provides guidelines for simplified procurement based on the phase and the funds required. For response and recovery phases, single-sourcing is authorized for contracts valued under US$1 million.

Unfortunately, the implementation of procurement legislation is still insufficient. There are still numerous single-source legacy contracts (World Bank 2023b), and sole-sourcing continues to be used, especially for smaller purchases. While some major tenders have been awarded on a competitive basis, the emergency procurement rules are sometimes used to justify single-sourcing, even when the justification is unclear. For example, in 2023, the president's travels were considered an emergency and were single-sourced (Office of the Auditor General 2023).

2.1.4 Federal Audit Law

The Federal Audit Law, enacted in 2013, established the auditor general as the highest authority for inspection and guarantee of accountability, transparency, and integrity within the government's financial management system. This law creates an opportunity for the government to build a stronger case to humanitarian organizations for managing response funds. As the Auditor General's Office has a mandate to oversee all transactions, including donor funds for response activities, and to conduct financial audits across all government agencies, it is crucial strengthening oversight, accountability, and transparency. This mandate should increase confidence that DRF funds are being spent appropriately.

While the Auditor General's Office does not have full jurisdiction over federal member states, it is mandated to provide support for subnational governments. It also maintains professional work relationships with all FMS Offices of General Auditing and ensures that an audit is conducted annually for all grants, donations, and international debts provided to FMS for which the FGS has entered into agreements. The office publishes audit reports on its website.[25]

[25] *The Auditor General's website is available at https://oag.gov.so/.*

2.2 Policy context

2.2.1 Somalia National Development Plan 2020 to 2024

The Somalia National Development Plan is a comprehensive policy focused on identifying drivers of poverty and proposing strategies for economic growth. It unequivocally identifies natural disasters and conflict as the main sources of socioeconomic challenges, followed by weak rule of law and weak institutional capacity. However, while the plan indeed mentions natural disasters throughout, it gives less prominence to actions focused on building resilience, including financial resilience, than on actions focused on addressing conflict. Nonetheless, the plan recognizes the importance and potential of leveraging safety nets to improve social resilience; it also recognizes the need for improved governance in disaster management, the need to protect infrastructure (especially water and roads), and the need to increase focus on disaster preparedness (Ministry of Planning, Investment and Economic Development, n.d.). The plan also mentions a plan to implement the National Disaster Management Policy, though this policy has not yet been created.

Photo Credit: UNDP Photo/Puntland aerials 3

2.2.2 The Somalia Drought Impact & Needs Assessment and Recovery & Resilience Framework

The Framework focuses on improving governance and strengthening institutions as the means to enhance government ownership of drought response. It emphasizes Early Warning Systems (EWS) and advocates a proactive approach to managing the risk of drought. The framework underscores the absence of government-led EWS or drought response plan. Currently, EWS rely on external sources such as FAO-SWALIM (Food and Agriculture Organization of the United Nations–Somalia Water and Land Information Management), while ad hoc drought response relies on plans generated by donor partners (such as the Humanitarian Response Plan led by OCHA) and on infrastructure operated largely beyond the government's purview. Although this approach allows significant resources to be directed toward drought response, often quite efficiently over the short term, it does not result in much institutional learning, and long-term opportunities are consequently missed. This problem is exacerbated by inadequate clarity regarding the division of roles across MDAs and between spheres of government. As MDAs have emphasized in conversations with the World Bank team, this lack of clarity leads to fragmentation and inefficacy in the allocation of scarce capacity-building resources.

Notably, the Framework is largely silent on how to strengthen financial preparedness for drought. The strategy recognizes that financial resources are inadequate and that the funds transferred from federal to state governments are insufficient to fulfill FMS mandates; but it does not propose solutions that could increase the availability and predictability of financial resources for response while improving speed and targeting.

2.2.3 Somalia Public Financial Management Roadmap Action Plan (2021–2024)

The successful implementation of the Somalia Public Financial Management Roadmap Action Plan is fundamental for strong implementation of DRF instruments and practices. The first pillar of the plan is to improve budget reliability (which includes increasing the percentage of aid delivered on budget), increase revenue, and strengthen expenditure forecasting. Because natural disasters impact revenue and expenditures and trigger aid that is often delivered off budget, this pillar can be successfully achieved only if a sound DRF plan is implemented. The second pillar aims to improve tracking and transparency of intergovernmental transfers and subnational expenditures. The pillar also seeks to improve rules for subnational transfers. The formulation and implementation of intergovernmental revenue-sharing systems are crucial from the perspective of DRF, as subnational governments should play the role of first responders and are often responsible for the delivery of basic services to the population. The third pillar aims to improve management of public assets by creating a consolidated asset register, establishing management frameworks, and forming committees that protect and recover public property. A strong asset registry is the prerequisite for estimating governments' contingent liabilities and creating a well-informed system for financing contingencies affecting public assets, either through insurance or appropriate budgeting for recovery. Pillars 4 to 6 aim to strengthen guidance for budget formulation through better forecasting, better controls, and audit of budgetary processes such as revenue collection, expenditure, and procurement.

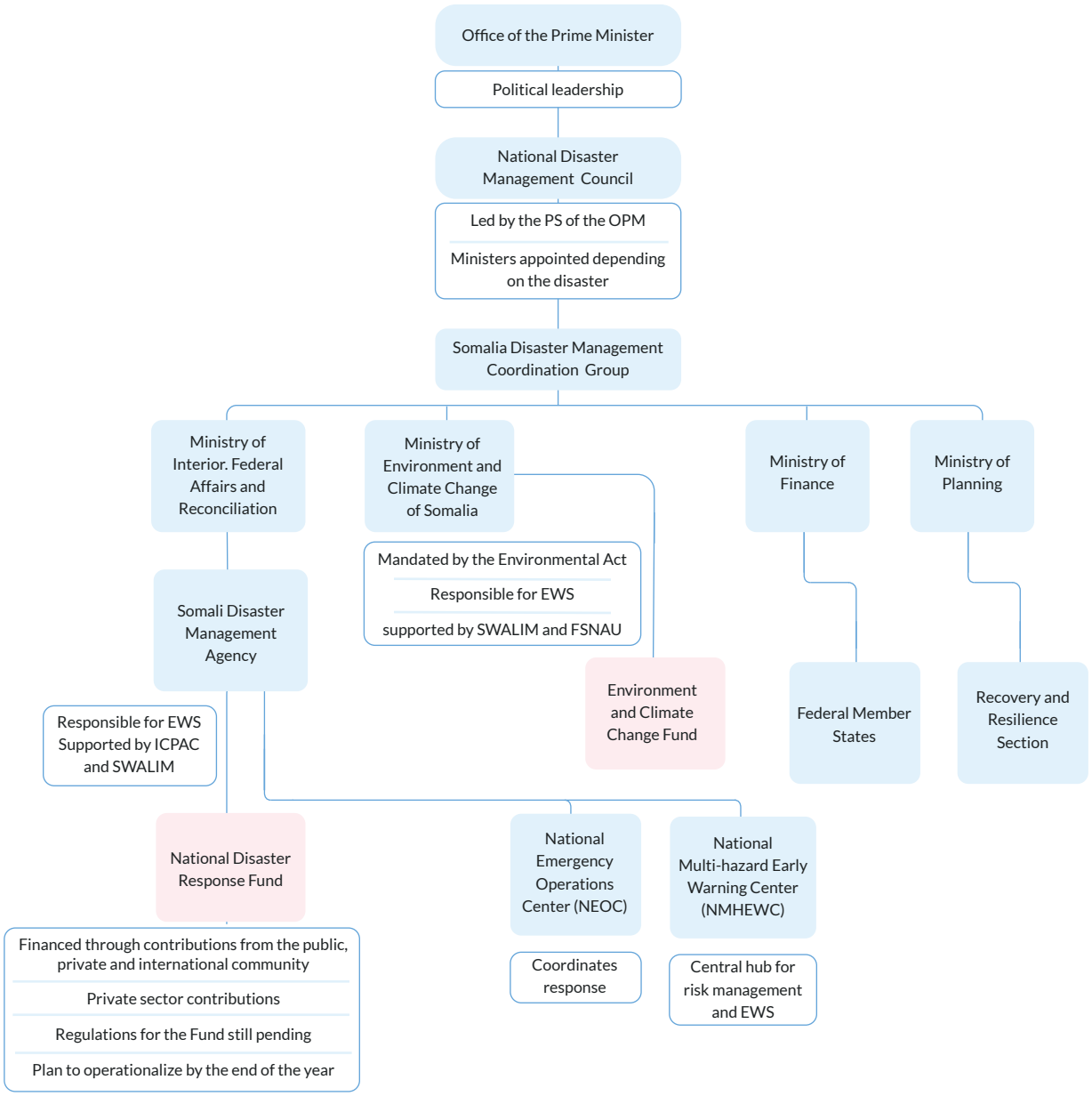
Notable successes have been achieved in implementing the plan. Among them are the increasing transfers to subnational governments, consolidated financial disclosures between the FGS and FMS, and external revenue-sharing agreements between spheres of government. Gains have also been made in procurement. However, an asset registry that would allow for better understanding and management of exposure has yet to be established, and much of the aid continues to be delivered off budget (World Bank 2022).

Photo Credit: UNDP Photo/Gardo_Rangeland_-24

2.3 Institutional framework

The institutional setup for disaster risk management and disaster risk finance in the FGS has undergone significant changes over the past decade. This section outlines the roles of the most critical federal line ministries and agencies in funding and responding to climate shocks and disasters (summarized in Figure 18) and assesses the roles and challenges of key institutions in disaster risk management (summarized in Table 4) with additional relevant line ministries for disaster response are outlined in Annex III: Institutional framework: Additional relevant line ministries for disaster response. This assessment is limited to the FGS level. Going forward, it will be important to assess institutional arrangements, capabilities, and gaps at the FMS level as well as intergovernmental-level coordination.

Figure 18: Institutional setup for disaster response



Source: World Bank compilation
Note: EWS = Early Warning System(s); FSG = Federal Government of Somalia: ICPAC = IGAD Climate Prediction and Applications Centre; OPM = Office of the Prime Minister; PS = Permanent Secretary SWALIM = Somalia Water and Land Information Management; FSNAU = Food Security and Nutrition
Analysis Unit.

Table 4 : Institutional responsibilities and challenges across disaster risk management in Somalia

Institution	Main programs and responsibilities	Challenges
Somalia Disaster Management Agency (SoDMA)	✦ Emergency response ✦ Humanitarian aid ✦ Disaster risk reduction ✦ National Emergency Operation Center (NEOC) management	✦ Lack of funds and comprehensive plan ✦ Unclear division of roles with other agencies
Ministry of Finance	✦ Revenue mobilization ✦ Budgeting ✦ Debt management ✦ Public procurement ✦ Asset and property management	✦ Limited tax base, reliance on donor funding
Ministry of Planning, Investment and Economic Development	✦ Recovery and Resilience Section ✦ Coordination of resilience and recovery efforts	✦ Potential overlap with SoDMA's activities ✦ Focus on resilience building rather than response
Ministry of Public Works and Reconstruction	✦ Maintenance of public infrastructure ✦ Needs assessment after shocks ✦ Public asset insurance advice and implementation	✦ Underfinanced ✦ Overlaps with SoDMA and Ministry of Finance mandates
Ministry of Health	✦ Response to epidemics and public health emergencies ✦ Mobilization of resources after shocks	✦ Limited financial and technical capacity for managing health emergencies ✦ Challenges in managing financial flows and coordination
Ministry of Labour and Social Affairs	✦ Management of safety net programs (Baxnaano and Sagal)	✦ Lack of prearranged funding for shock-responsive social protection ✦ Challenges in targeting and reaching vulnerable populations
Ministry of Livestock, Forestry and Rangelands	✦ Livestock management projects ✦ Coordination of livestock-related development partner programs	✦ Lack of funding for large-scale events

Source: World Bank.

2.3.1 Somalia Disaster Management Agency

The Somalia Disaster Management Agency was formalized through the SoDMA Establishment Act under Law No. 17 on June 27, 2016. SoDMA's capacity was severely tested by COVID-19 (Office of the Auditor General 2021) and is still limited. The agency lacked budget and a comprehensive plan. Moreover, it failed to clarify division of roles between agencies, including the Ministry of Health; consequently, neither SoDMA nor the Ministry of Health established the Emergency Operation Center called for under the law, making emergency response difficult. Initially, the agency operated under the Federal Ministry for Humanitarian Affairs and Disaster Management, but in 2022 that ministry was abolished, and SoDMA assumed all its responsibilities.[26]

The SoDMA Act mandates the creation of multiple emergency response funds at the central, regional, and district levels. These funds have not yet been operationalized, however. They are to be capitalized by a combination of public contributions and private contributions from businesses. The creation of multiple emergency funds at different levels of government will very likely lead to uncoordinated silos, which in turn will lead to financial and operational inefficiencies. A better alternative would be operationalization of a National Disaster Response Fund. Based on global experience across economies characterized by fragility, conflict, and violence (FCV), operationalizing such a fund would require a clear and robust governance framework and operational procedures, prudent financial management to minimize opportunity costs, and a strict limit on the scope of the fund.

SoDMA manages five main programs: Emergency Response, Humanitarian Aid, Disaster Risk Reduction, Resilience, and the National Emergency Operation Center. NEOC serves as the central disaster/emergency response and contingency hub in Somalia. It was initially established and funded by the Swedish embassy in Somalia, and SoDMA took over full control of the center at the end of 2022 (Facility for Talo and Leadership 2022). NEOC acts as both an implementer and a coordinator and is responsible for resource mobilization and response activities. As the first-responder agency, NEOC collects and shares information with relevant stakeholders and provides coordinated support to incident command, on-scene personnel, and FMS emergency operations. NEOC leads state emergency management and facilitates local emergency management committees.

SoDMA has a central role in issuing early warnings to at-risk communities and providing life-saving assistance to the most vulnerable (SoDMA 2024). It manages the Somalia National Multi-hazard Early Warning Center (NMHEWC), which is intended as the central hub for risk management and management of EWS (IOM 2024). This center draws data from national and international sources, including SWALIM, although much of the disaster response and risk data are currently gathered and processed outside governmental systems. SoDMA's mandate suggests that it should be central in the development of a national DRF strategy.


Photo Credit: UNDP Photo/Said Fadheye

[26] *Somali Disaster Management Agency (SoDMA). 2023*

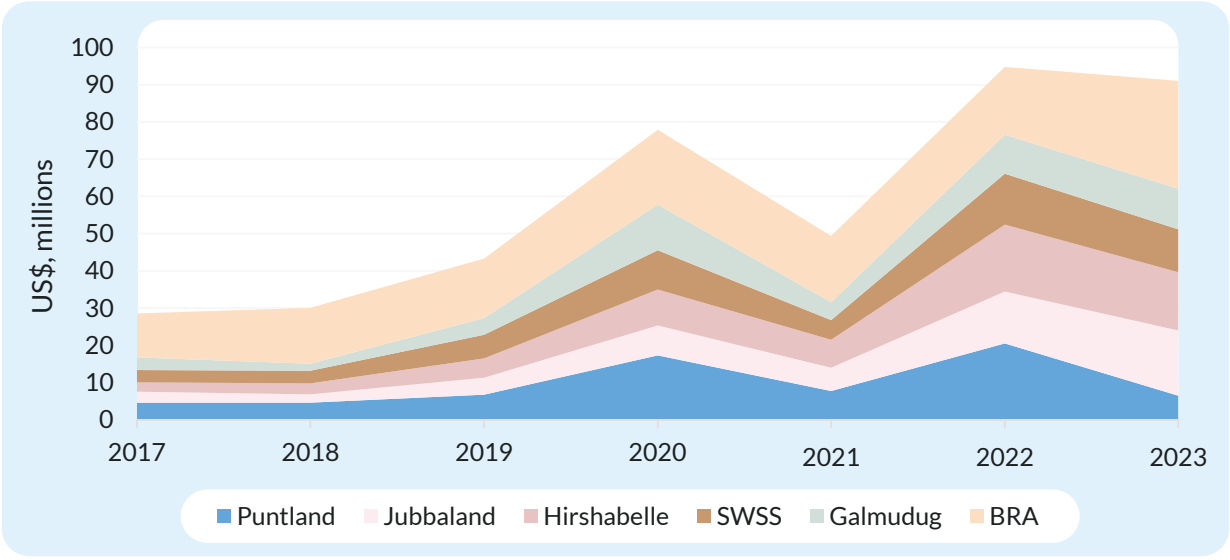

Photo Credit: UNDP Photo/Gardo_Rangeland_-24

2.3.2 Ministry of Finance

The Ministry of Finance in Somalia plays a key role in DRF. It is responsible for revenue mobilization, budgeting, debt management, and public procurement—all critical functions for response financing. Additionally, the ministry has the mandate to conduct asset and property management services for the FGS, which includes developing policies and procedures related to the management and maintenance of properties in line with national laws. The ministry also seeks to improve procurement practices to close gaps that allow corruption; one aim of this effort is to increase the share of on-budget and on-treasury donor assistance specifically for disaster response efforts. The Office of the Accountant General is responsible for tracking all government spending, including spending on disasters.

Under the Constitution and the Public Financial Management Act, the Ministry of Finance is responsible for transfers to federal member states. These transfers are guided by increasingly robust regulations, including the formula for intergovernmental transfers agreed upon in 2023 and partially implemented in 2024. In 2023, the Ministry of Finance transferred approximately 10 percent of the budget to member states, which in 2023 amounted to approximately U$91 million (Figure 19). This share is small compared to peer countries (Hobdari et al. 2018). As response activities are most efficiently conducted by subnational governments, such small allocations hinder the ability of FMS to effectively plan for and respond to disasters. However, according to the Ministry of Finance, the lack of transparency in expenditure makes it challenging to increase subnational transfers. No data on transfers made to FMS in response to shocks are currently available.

Figure 19: Transfers form Federal Government of Somalia to federal member states and Banaadir, 2017–2023



Source: Ministry of Finance.
Note: BRA = Banaadir Regional Authority; SWSS = South Western State of Somalia

Transfers to local governments in response to shocks are also low; they tend to be even more informal than transfers to FMS and are therefore difficult to track. Support to enhance local governance structures is provided by the UN Joint Programme on Local Governance, but these structures are still rudimentary (UNDP Somalia, n.d.). Some of the federal member states are supporting local governance. For instance, Puntland and Somaliland have adopted local government structures and legislation for public financial management, but southern states have yet to establish similar frameworks. Development partners like the World Bank and the UN are increasingly supporting local governments' capacity through various programs. Examples include the Somalia Urban Resilience Project Phase II, which aims to strengthen public service delivery capacity at the local government level, increase access to urban infrastructure, and provide effective responses to drought-triggered displacement in selected areas; and the UN Joint Programme on Local Governance, which provides grants that empower communities and community organizations to actively participate in local governance.

Data and information on how subnational structures are financed are very limited. However, analysis of governmental transfers from 2019 to 2023 revealed two, unbudgeted transfers of U$1.4 million and U$1.2 million to local governments. These are not from domestic revenue, but rather funds from donors and the public that the federal government has informally mobilized. These funds were transferred to the regional treasury and subsequently to the Beledweyne district, which created a committee responsible for spending the funds under FGS oversight. The example mentioned is an exception; almost all such activities occur outside the system through UN agencies.

Photo Credit: UNDP Photo/Gabiley Community Liaison 10

2.3.3 Ministry of Planning, Investment and Economic Development

The Ministry of Planning, Investment and Economic Development has a responsible for overseeing all resilience and recovery efforts. This section acts as a central coordinating body and ensures effective collaboration among government entities and partner organizations involved in relevant interventions. While its mandate is like that of SoDMA, the ministry focuses on resilience building rather than response; see Table 5, which summarizes programs managed by the ministry.

Table 5 : Resilience programs managed by the Ministry of Planning, Investment and Economic Development

Program	Objectives
Kobicye Project	✦ Strengthen producer groups. ✦ Expand production capacity. ✦ Improve production quality. Diversify livelihoods.
Biyoole/Barwaaqo	✦ Improve human health and well-being. ✦ Develop resilient water, agriculture, and environmental se for rural communities in Somalia's drylands. ✦ Expand services in Somaliland, Puntland, Galmudug, South State, and new areas in Hirshabelle and Jubbaland.
Joint Resilience Program	✦ Promote health and nutrition for children at pre-primary a primary levels. Reduce micronutrient deficiencies among young children pregnant and breastfeeding women. ✦ Enhance food security and livelihoods through diversified agricultural production and income generation. ✦ Strengthen government systems to promote high-quality health, nutrition, education, and WASH services in schools health facilities.

Source: World Bank.
Note: WASH = water, sanitation, and hygiene.

There is the potential for overlap in activities undertaken by SoDMA and the Ministry of Planning, notably in the coordination of work with donors. It is not clear what distinguishes the partner engagements undertaken by SoDMA, line ministries, and the Ministry of Planning. In 2019, the ministry established the Donor Engagement Office; the aim was to provide effective coordination and engagement mechanisms that would enhance the effectiveness of external resources and better align them with Somalia's national priorities. Yet much of the collaboration with partners is in fact coordinated by SoDMA, which holds numerous bilateral meetings with representatives of partner governments. [27]

[27] *Somali National News Agency (SONNA). (n.d.). SoDMA Commissioner Meets Swedish Ambassador in Nairobi to Discuss Humanitarian Efforts.*

2.3.4 National Meteorological Agency

The National Meteorological Agency and a Meteorological Training Center were established though the National Meteorology Agency Act in October 2023 (Ministry of Environment and Climate Change 2023). The new agency will be hosted by the Ministry of Environment and Climate Change. It will be responsible for weather and climate forecasts, warnings, and related information and have a strong focus on flight security. The agency will have branches in all state governments of the republic. The success of the new agency will largely depend on its ability to coordinate with multiple stakeholders. Somalia already hosts several international agencies that collect meteorological and climate-related data and provide forecasts (see Annex III). Their systems are often fragmented, partly because they focus on specific disasters or regions.

While the strategic documents of the agency are yet to be established (as mandated by law), the law recognizes the agency as a key player in Early Warning Systems. Its core mandate includes forecasting floods, tsunamis, and other disasters. The law also emphasizes the importance of the agency in financial sector activities, including insurance, and highlights its role in building the resilience of the agricultural sector.

3. Status of risk financing

FGS recognizes its role in funding disaster relief and recovery, but significant financial strain and the pressure to address conflict-related disasters leave no fiscal space for response to natural disasters. Consequently, disaster response is largely funded ex post through development and humanitarian aid. As illustrated in figure 20, prearranged funding through insurance and anticipatory action (AA) programs is increasing, though prearranged funding amounts remain small and are often undisclosed; they will need further investment and coordination to become a reliable and predictable means of financing disaster response in Somalia. The various line ministries have no budget appropriations for disaster response, although SoDMA's budget includes very limited, and volatile, funding (U$1.2 million in 2021, U$3.2 million in 2022, U$6.2 million in 2023). FGS has mobilized nearly US$880 million through World Bank projects for emergency response. However, most of these funds were not disbursed until 6–18 months after the specific disaster event occurred, delayed by several factors: unfunded Contingent Emergency Response Components (CERCs) within the project,[28] bureaucratic processes entailed in accessing Crisis Response Window funding, and lack of pre-identified delivery mechanisms, necessitating design of new projects in some cases. (See Section 0 for an assessment of World Bank projects used to mobilize funding for disaster response between 2020 and 2024, excluding response to COVID-19). The general contingency budget is used only for conflict-related emergencies. While a National Disaster Response Fund is provided for in the SoDMA Act (2016), it has yet to be operationalized. HIPC completion means that the FGS can now access sovereign contingent grants, such as the International Monetary Fund (IMF) Rapid Credit Facility and Catastrophe Containment and Relief Trust (see Box 2), as well as contingent credit, such as the World Bank Catastrophe Deferred Drawdown Option (Cat DDO).[29] However, use of such grants requires careful consideration for sustainable debt management.

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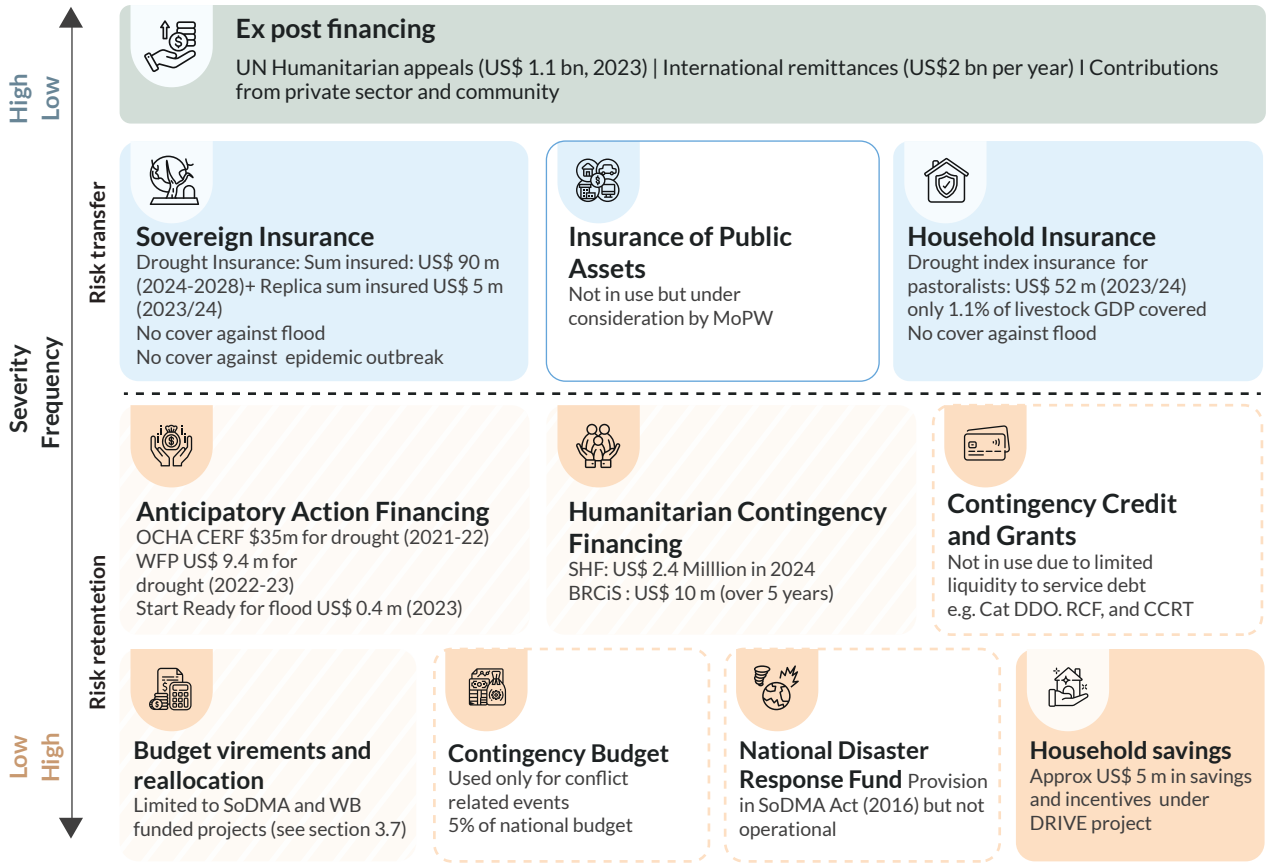
[28]The CERC is a mechanism within World Bank–financed projects that allows for rapid reallocation of project funds to respond to emergencies. An unfunded CERC is one where no initial allocation has been made for emergencies, though money can be redirected to it from undisbursed project resources under other components.

[29]The Catastrophe Deferred Drawdown Option (Cat DDO) is a credit line provided by the World Bank that offers immediate liquidity to countries in the aftermath of a natural disaster or health-related emergency. It is prearranged, and disbursement is conditional on the occurrence of an objective trigger.

Note: BRCiS = Building Resilient Communities in Somalia; Cat DDO = Catastrophe Deferred Drawdown Option; CCRT = Catastrophe Containment and Relief Trust; CERF = Central Emergency Response Fund; DRIVE = De-risking Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa; MoPW = Ministry of Public Works; OCHA = UN Office for the Coordination of Humanitarian Affairs; RCF= Rapid Credit Facility; SHF = Somalia Humanitarian Fund; SoDMA = Somalia Disaster Management Agency; WFP = World Food Programme. Financial instruments listed in shaded boxes are in use; instruments in striped boxes have been used sparingly; instruments in unshaded boxes have not been used.

Figure 20: Status and use of risk finance instruments by FGS and partners



Source: World Bank.
Note: BRCiS = Building Resilient Communities in Somalia; Cat DDO = Catastrophe Deferred Drawdown Option; CCRT = Catastrophe Containment and Relief Trust; CERF = Central Emergency Response Fund; DRIVE = De-risking Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa; MoPW = Ministry of Public Works; OCHA = UN Office for the Coordination of Humanitarian Affairs; RCF= Rapid Credit Facility; SHF = Somalia Humanitarian Fund; SoDMA = Somalia Disaster Management Agency; WFP = World Food Programme. Financial instruments listed in shaded boxes are in use; instruments in striped boxes have been used sparingly; instruments in unshaded boxes have not been used.

Photo Credit: UNDP Photo/Burtinle Road 2

Box 2: IMF opportunities for Somalia

Reaching HIPC status and gaining access to IMF funding opened substantial opportunities for Somalia to receive concessional financing, including for disaster response. The current quota[a] with the IMF is SDR 163.4 million (approximately US$220 million); there is a general maximum annual borrowing limit of 200 percent and a cumulative borrowing limit of 600 percent of this quota outstanding at a time. Additional maximum quotas are available under specific facilities, subject to approval. Limits available under each facility vary (Tran 2024).

Somalia is already utilizing the newly available IMF facilities to implement its long-term policies. Immediately after the conclusion of HIPC negotiations in December 2023, the IMF approved a US$100 million facility, which allowed an immediate disbursement of US$40 million to support the national budget under the Extended Credit Facility. This zero-interest facility has a limit of 435 percent of the quota, requires extensive macroeconomic and structural policies, and sets quantitative targets (IMF 2023b). Although this facility is not designed for emergency response, it has reduced the general availability of finance for such purposes.

In addition to facilities intended for investments, the IMF provides an important and newly accessible source of concessional contingency financing, which could constitute a crucial part of the country's risk-layering strategy. This includes a Rapid Credit Facility (RCF), which is intended for financing preparedness and response, and the Catastrophe Containment and Relief Trust (CCRT), which provides grants for debt relief. The RCF has less stringent macroeconomic reform requirements but comes with lower borrowing limits than standard facilities. For the facility to be accessible, Somalia must have available limits. In some cases, the IMF also offers partial or full debt forgiveness to countries affected by natural shocks (see Annex IV: IMF opportunities Somalia for more details).

Sources: IMF 2023a, 2023c.
a. The IMF quota is a financial contribution that each member country is required to make to the IMF. It is used to determine voting power and as an index for IMF financing. Countries with larger quotas can borrow more from the IMF in times of economic need.

3.1 Budgetary mechanisms

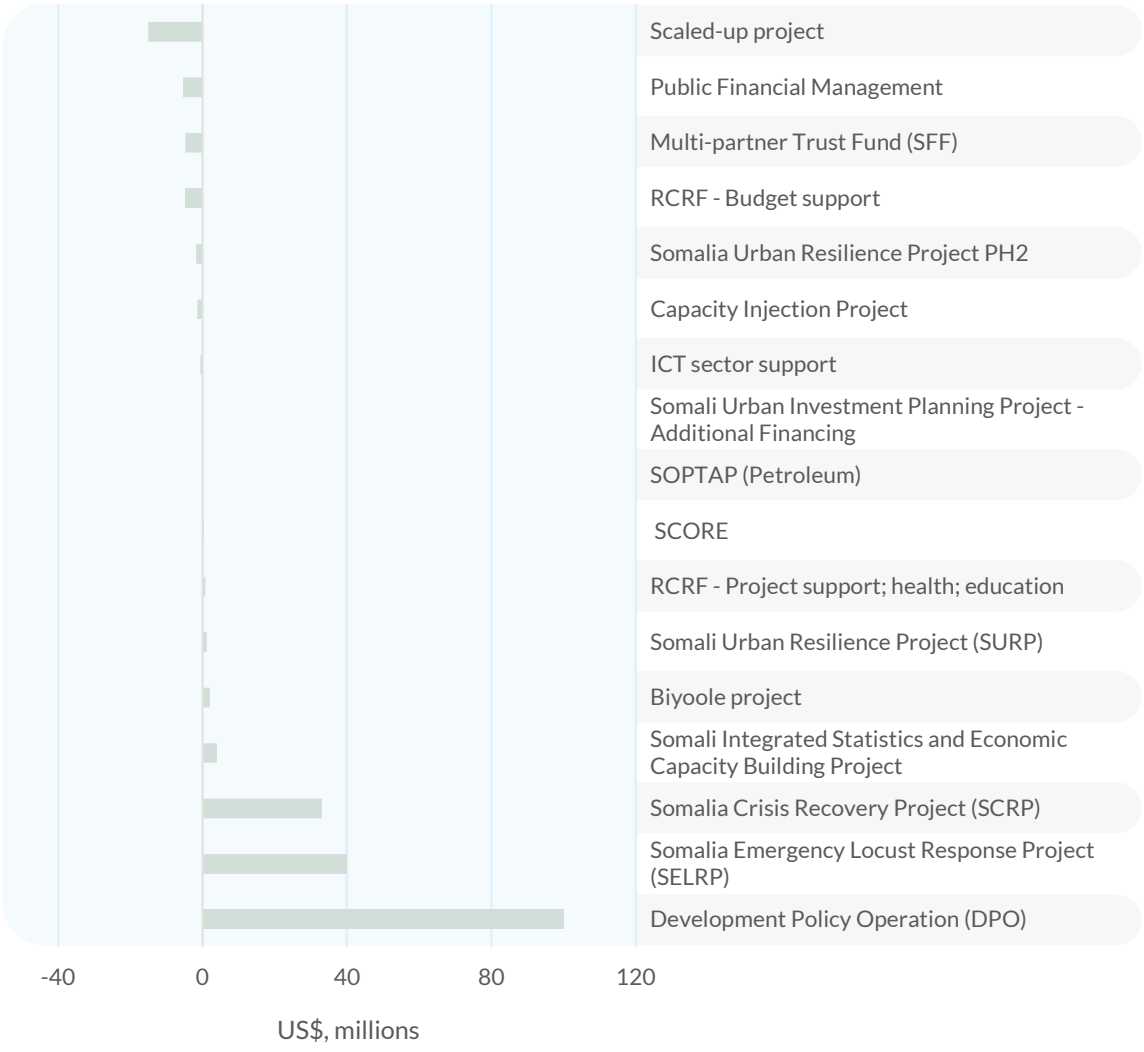
The PFM Act provides for virements and reallocations in response to emergencies, including disasters, but in fact the FGS has very limited fiscal space for reallocation in the event of a shock. Its budget for the year 2023 amounted to US$977 million, 51 percent of which was dedicated to recurrent expenditures. The large share of the budget allocated to basic government operations leaves little room left for reallocations, and in the event of a shock the government either extends a new appeal to development partners or utilizes clauses in existing projects that allow for redirecting funds toward response.

Reallocations of the on-budget partner-funded projects were behind the supplementary budget issued in 2023. The 4 percent reduction in the government's revenue was entirely due to the reduced grant support from partners (see: Box 1). This reduction affected donor-funded programs, most of which were originally financed as part of the COVID-19 response. Given the reduced epidemiological threat, these programs—in particular the COVID-19 vaccine rollout—could be scaled down. Another program scaled down through the supplementary budget was the Somalia Urban Resilience Project Phase II; this program had been increased by US$50 million to a total of US$70 million in response to drought and aimed at supporting IDPs driven by drought into urban centers (World Bank 2023e). Additional funds from the African Development Bank, the European Union, Türkiye, and Qatar were included in the budget (Ministry of Finance 2020).

Box 1: Reallocations due to COVID-19

In response to COVID-19, the World Bank made significant adjustments to allocations and added funding in Somalia (Figure 22). Notably, it scaled up budget support with a US$100 million top-up. It also channeled an additional US$40 million through a locust response program and US$33 million through a crisis recovery program. Projects financed by the World Bank underwent significant reallocations, as funds from seven projects were redirected to projects suitable for response (see: Figure 22).

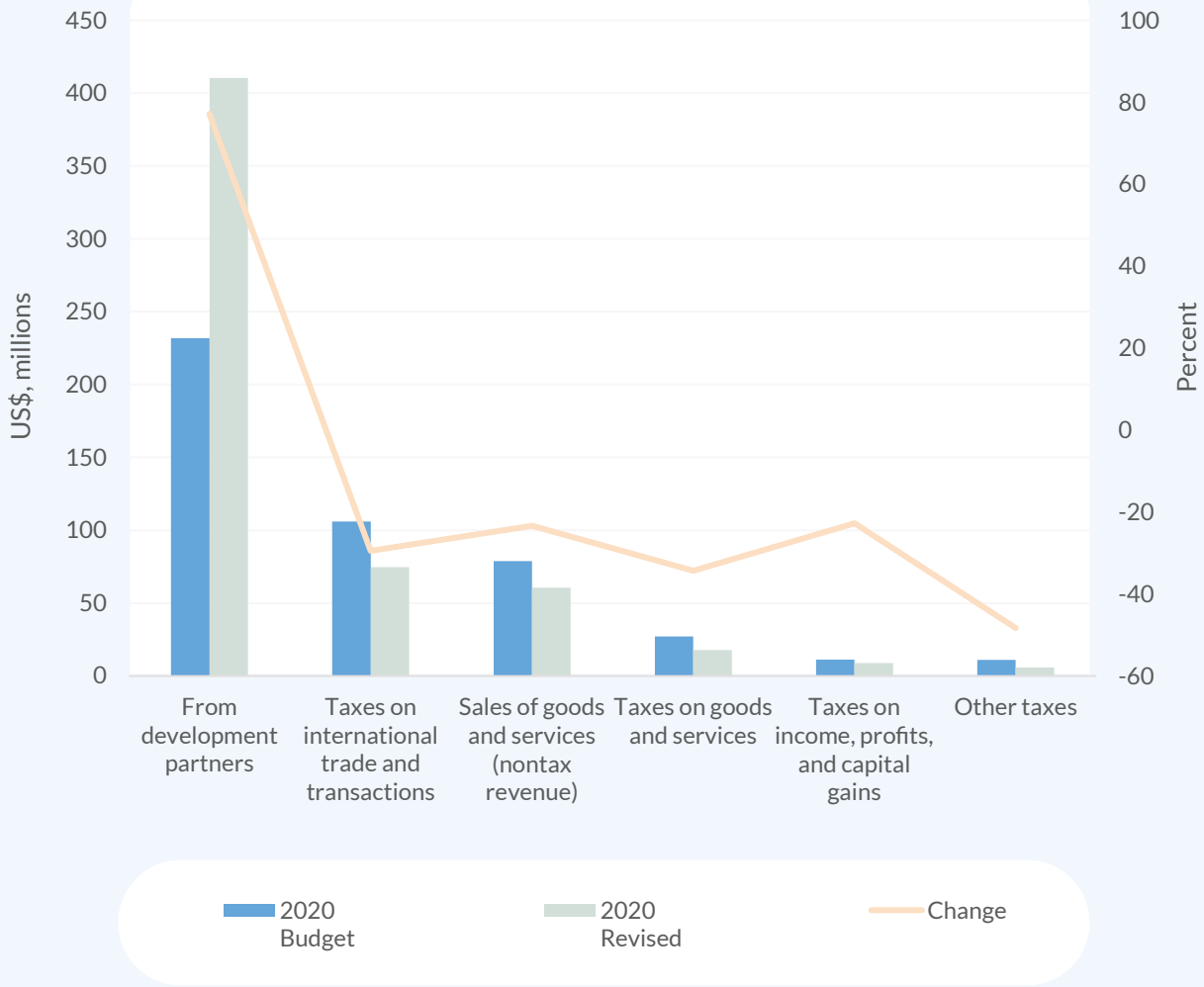
Figure 21: Changes in World Bank–financed projects and budget support following outbreak of COVID-19 and locusts



Source: FGS 2020.
Note: RCRF = Recurrent Cost and Reform Financing; ICT = information and communications technology; SFF = Somalia Stability Fund; SOPTAP = Somali Petroleum Technical Assistance Project.

The budgetary processes that occurred in response to the crisis involved leveraging donor money partially channeled through budget support (referred to as on-treasury) and partially channeled through World Bank projects registered and monitored by the Ministry of Finance (on-budget) in accordance with the PFM Act (see: Figure 23). This approach allowed for significant learning, which would have been lost if the money had been channeled off-budget (as was the case with much of the aid finance). Lessons were learned about the importance of having dedicated response programs, the scalability of existing programs, and the ability to reallocate funds (in this case the ICT and capacity-building projects) with minimal opportunity costs.

Figure 22 : Change in revenue of the FGS due to COVID-19, 2020



Source: FGS 2020.

Disaster Reserve or Response Funds can be an effective instrument to cover the costs of frequent low severity events like localized floods and seasonal acute food insecurity. The objective of a Fund may vary but the main principles for successful Funds include 1) clearly defined, objectives , 2) pre-defined sources of funding. Ideally, dedicated budget lines to ensure sustained funding, 3) pre agreed payout criteria, 4) strong involvement of the Ministry of Finance, and cooperation of national and local governments, and 5) robust accountability and reporting. See Box 1 on the Mauritania fund for an example.

Box 1: Mauritania National Fund for Food and Nutrition Crisis Response

The World Bank has provided technical assistance in several FCV countries to establish disaster response funds. In Mauritania, the National Fund for Food and Nutrition Crisis Response (FNRCAN) was formally established in 2022 as part of a broader effort to prevent and respond to cyclical food crises. Funds are released based on the annual national plan for response to food insecurity, ensuring timely response and reducing affected communities' recourse to negative coping strategies. Set up as a special account within a World Bank project, the fund supports the government in managing variable financing requirements linked to food insecurity, while also improving coordination and monitoring of expenditure. The fund has successfully secured financial contributions from key development partners such as the French Development Agency (AFD) and the World Bank. While Somalia's situation differs in scale and institutional setup from Mauritania's, the FNRCAN demonstrates the possibility of investing in an ex ante fund that is rooted in a national system, has robust and transparent governance, attracts external donors, and could thus move the country from cycles of short-term aid to investment in national capacity.

Source: Van de Borght et al. (2023)

3.2 Sovereign or macro-level insurance

The first macro-level drought insurance policy in Somalia was placed in 2022. This was a US$1.5 million drought cover for pastoral and crop production areas bought by Start Network under the ARC (African Risk Capacity) Replica scheme (Table 7). FGS was closely involved in the scheme but due to the government transition, it was able to purchase its own policy only in 2023. The Start Network policy paid out US$3.3million in 2023, following a fifth failed consecutive rainfall season in the country. The product uses the Water Requirements Satisfaction Index (WRSI) for the crop insurance and the Normalized Difference Vegetation Index (NDVI) for the pastoral insurance, and it is designed to trigger for moderate events.

FGS's use of drought insurance is meant to strengthen macroeconomic resilience, but the protection the insurance offers is extremely limited in scale and coverage. FGS is receiving premium financing support under the African Development Bank (AfDB) Climate Risk Development Project, which provides grants of US$15 million over the 2024–2030 period (US$3 million per year) to enable cover of around US$18.6 million per year (estimate based on the previous policy). The policyholder is the Ministry of Finance, and the executing entity is SoDMA. The estimated US$18 million of cover a year does not include floods and is small, even if doubled by Replica partners (the World Food Programme [WFP] will join Start Network as a Replica partner in 2024). The small cover size is particularly salient when compared to the estimated annual cost for drought response of US$77.8 million.

[30] *Under the ARC Replica scheme, nonstate actors (Start Network and the World Food Programme) take out policies that match those of governments ("replica" policies) to expand the coverage of ARC. The replica partner and government jointly customize the risk model, pre-plan actions, and take out separate but matching policies. Any payouts are implemented in close coordination.*

[31] *Africa RiskView uses the WRSI—an operational crop model originally developed by FAO and used widely throughout Africa and by many early warning institutions—as a meaningful indicator of how a shortage of rainfall may impact crop yields and the availability of pasture. The WRSI monitors water deficits throughout the growing season and captures the impact of timing, amount, and distribution of rainfall on staple annual rain-fed crops.*

[32] *The Climate Risk Development Project is a regional project covering Somalia, Comoros, Djibouti, and South Sudan.*

Table 6 : ARC Replica macro-level drought insurance cover purchased by Start Network in Somalia

	2022/2023 Deyr season		2023 Gu season		2023/2024 Deyr season	
Type of policy	Crop	Pastoral	Crop	Pastoral	Crop	Pastoral
Ceding percentage	36.83%	3.00%	24.55%	None	29.76%	1.01%
Amount of cover purchased (US$)	6,850,000	2,273,370	6,209,833	None	3,484,411	1,420,722
Number of people covered	152,222	50,519	137,996	None	77,431	31,572
Premium (US$)	974,481	525,515	1,000,000	None	750,000	250,000
Donor support	FCDO & KfW	FCDO & KfW	FCDO & KfW	None	FCDO & KfW	FCDO & KfW

Source: Key informant interview with Start Network staff.
Note: ARC = African Risk Capacity; FCDO = UK Foreign, Commonwealth and Development Office.

3.3 Household or micro-level insurance

Climate risk insurance for households and businesses is available, but use is extremely limited and is geared to specific projects. Uptake of insurance tends to be enabled through projects supported by development partners or NGOs. Notable projects include the DRIVE (De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa) project, which has enabled index-based livestock takaful for up to 113,431 pastoralists with coverage of about US$80.7 million between 2022 and 2024. However, this coverage is equivalent to only 1.1 percent of livestock GDP for the year 2023–2024. Financial Sector Deepening (FSD) Somalia has facilitated over 17,000 insurance policies through its programs. [33]

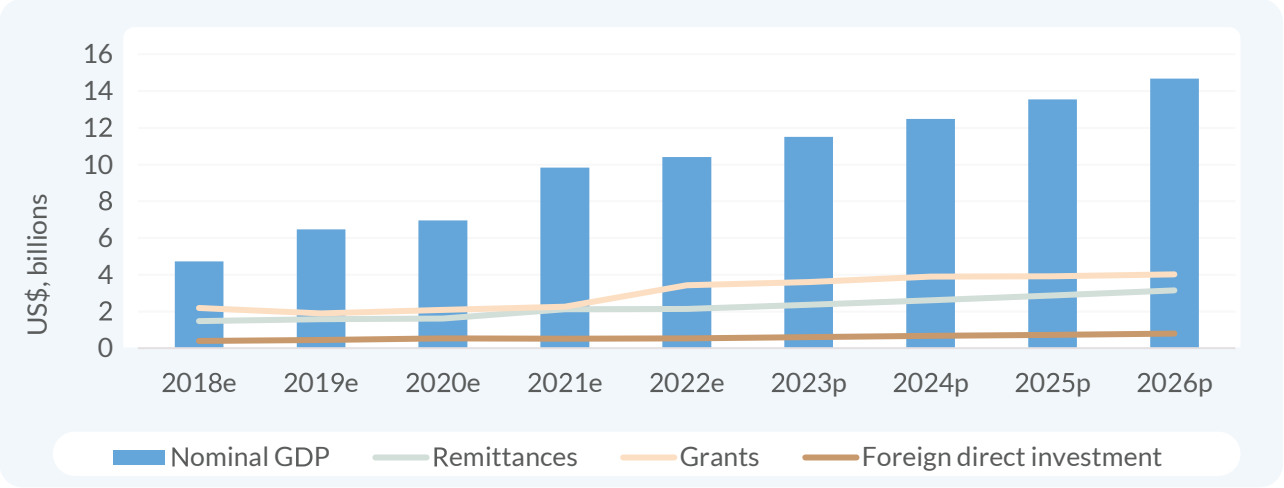
The DRIVE project provides pastoralists with a package of integrated financial services, including index-based livestock takaful. This product is designed to enable pastoralists to keep their livestock alive rather than to provide indemnity in the event of livestock loss (that is, it offers asset protection rather than asset replacement). The product uses a parametric approach, whereby the payout is based on the amount of vegetation shortfall (as indicated by the NDVI) during the rainy season. The vegetation is monitored using satellite technology throughout both the Gu and Deyr seasons. The payout is made early during the lean season to allow pastoralists to purchase fodder, water, and veterinary services. To increase affordability, the FGS provides a premium subsidy of 80–90 percent for up to 5 TLUs (Tropical Livestock Units),[34] each of which is insured for up to US$150, equivalent to the cost of keeping the livestock alive.

[33] *See the FSD website at https://www.fsdsomalia.org/.*
[34] *A TLU is equivalent to four camels, five cows, or 50 shoats.*

3.4 Remittances

External remittances to Somalia are proving to be a crucial source of development and disaster risk finance; at over US$2 billion annually, or 22 percent of GDP (Figure 24), the volume of remittances exceeds foreign direct investment. Somalia is one of the most remittance-reliant countries in the world, with a remittance-to-GDP ratio that ranks around 14th (Lionell 2023), though these rankings cannot be considered exact given that remittances are often channeled through unofficial and unaudited accounts. About 40 percent of households in Somalia depend on remittances, some for regular sustenance and others for support after shocks. Actual remittance inflows likely exceed estimates, and there is a need for better data collection. Remittances are also 10 times greater than the tax revenue of the government and three times greater than overall revenue of the government. It is in this context that they should be considered as a potential means of financing disaster response or of establishing prearranged DRF instruments. With better coordination and government support, remittances could be used systematically and efficiently to finance part of the government's response efforts and reduce some of government's contingent liabilities.

Figure 23 : Comparison of remittances, grants, and foreign direct investment relative to GDP estimates and forecasts, 2021–2027



Source: IMF 2023d.

Remittances have been growing steadily (Figure 24) and providing countercyclical funding thanks to a geographically diverse diaspora community, which is not affected by local crises; in contrast to foreign direct investment and official aid. Somalia also has one of the most dispersed populations, with well over 10 percent of its population living abroad (DRC, n.d.). Diaspora organizations are distributed globally across developed and emerging economies, which reduces the risk of correlation with shocks in Somalia and sending nations, and thus allows these organizations to be used more effectively as a source of response. During the COVID-19 years, the availability of fast and effective stimulus packages in developed host countries in North America and Europe increased remittance flows to developing countries. In 2020, flows to Sub-Saharan Africa (excluding Nigeria) grew 2.3 percent (World Bank 2021). The growth of remittances flowing to Somalia was in line with this trend. In contrast, donor aid typically comes from a concentrated group of organizations, and internal changes in the donor countries can lead to fluctuations in the volume of aid. Following the outbreak of war in Ukraine, for example, many Western countries diverted aid away from Sub-Saharan Africa (McAllister 2022), so that diaspora funds were the more reliable. However, economic trends in diaspora sending countries can affect remittances, thereby creating an imported shock for the economy. Thus, high inflation rates in many of the countries where remittances originate have reduced the growth in transfers. After a 29 percent increase in 2021, remittance growth remained largely flat in 2022 and the first half of 2023, a trend that can be explained in part by the impact of global inflation on the purchasing power of the diaspora community (Figure 24) (IMF 2023d).

Diaspora organizations display agility in fundraising, but their efforts are often uncoordinated, and funds may be difficult to track. Most diaspora organizations fundraise through vast networks of members who respond to calls to action via crowdfunding and WhatsApp campaigns; these appeals are similar to humanitarian organizations' appeals but are less structured and less bureaucratic, allowing for a fast response. While there are initiatives like the Turkish government–supported Global Somali Diaspora, which aims to coordinate the activities of diaspora players, the coordination role also presents an opportunity for the FGS. Some diaspora organizations increase the stability of their income through memberships, but this is not common. Grants and governmental support for such organizations are also uncommon, although in 2022, in response to the massive fire in Hargeisa, the Canadian diaspora created a lobby group to urge the Canadian government to provide immediate aid to the country (Hiiraan Online 2022).

Diaspora organizations have the agility to reach areas that are hard for the government reach, given the lack of subnational infrastructure and capacity. During the Beledweyne flood response in 2023, multiple diaspora organizations leveraged their specific expertise to coordinate with local volunteers, manage evacuations, track the movement of people, and build on existing formal and informal links with local governments. Some local diaspora organizations have full-time staff ready to be deployed, while those with an international presence hire consultants through their networks or other channels. At the same time, these organizations struggle to leverage traditional humanitarian funds or work closely with the government.

Photo Credit: UNDP Photo/Said Fadheye


Photo Credit: UNDP Photo/Said Fadheye

3.5 Ex ante humanitarian financing

With some exceptions, most donors channel most funds through nongovernmental organizations (NGOs) and humanitarian organizations that are not included in the budget. While these organizations conduct budgetary adjustments in response to crises, such as reallocating funds when faced with revenue shortages or new needs, the government is not involved. This arrangement not only leads to duplication of tasks and inefficiencies typical of siloed systems, but also undermines learning. Much of this funding is mobilized and released through traditional appeals-based processes in reaction to crises as they evolve. However, a small but growing proportion of funding is being pre-arranged, which is opening up opportunities for new forms of coordination.

3.5.1 Anticipatory action financing

Several AA programs have been established in Somalia with the aim of facilitating earlier humanitarian response to forecasted events (see Table 8). AA programs act ahead of predicted hazardous events to prevent or reduce acute humanitarian impacts before they fully unfold. These programs typically (i) rely on forecasts, (ii) are linked to short-term actions that aim to prevent or reduce impacts, and (iii) require finance that is identified or arranged ahead of time (Choularton et al. 2023). Evidence from evaluations has shown that anticipatory action (for example, providing cash transfers ahead of a forecasted flood) can help to maintain household food consumption and prevent recourse to costly borrowing.[35] Funds for AA are typically prearranged through ring-fenced allocations in contingency funds, such as the OCHA Central Emergency Response Fund (CERF) or the WFP Climate Trust Fund.

Since 2020, at least US$44.8 million of prearranged finance has been released based on trigger thresholds to fund anticipatory assistance in Somalia. AA financing peaked after the 2020 and 2021 droughts triggered funding of US$15 million and US$20 million, respectively, from the OCHA CERF pre-agreed envelop for drought. Despite continued drought in 2022 and severe flood in 2023, AA funding was modest at US$6.7 million from WFP and US$3.1 million from Start Network (Table 8). The OCHA CERF pre-agreed envelope has been fully "spent," and negotiations are underway concerning if or how it will be replenished. This situation highlights the challenge for AA funding which can be exhausted by multiple successive or prolonged crises, and suggests the need to complement AA funding with other financing instruments.

Efforts to coordinate AA triggers are progressing faster than strategic attention to available financing. Initiatives such as the Food Security Crisis Preparedness Plan (FSCPP) and the SoDMA Flood Anticipatory Action Framework (see Section 4.3) are promoting government leadership on determining what constitutes a crisis and defining thresholds for action.[36] However, such initiatives are not accompanied by finance. SoDMA does not have sight of the details of available prearranged finance; greater transparency and closer linking of AA systems to government-led frameworks would allow such mechanisms to play a more useful role in Somalia's DRF strategy.

[35] *For example, see Pople et al. (2021).*
[36] *The FSCPP is a national operational plan that defines what constitutes a major food and nutrition security (FNS) crisis in Somalia. This is further described in section 7.3.*

Table 7: Prearranged humanitarian financing in Somalia

Organization	Project/ instrument	Value of funds prearranged/ coverage	Data/triggers	Triggered to date
World Food Programme	Flood Anticipatory Action	An allocation of funds is annually prearranged (ready to be triggered when thresholds are met) by the WFP Climate Trust Fund; value is unknown	Geospatial Streamflow Forecast Model, run by the IGAD Climate Prediction and Applications Centre	In 2023, WFP disseminated early warning messages to 440,000 people; delivered US$2.7 million in cash transfers to 219,000 people
World Food Programme	Drought Anticipatory Action through the Baxnaano Safety Net Programme	From WFP Climate Trust Fund; value is unknown	Unknown	In 2022, WFP delivered US$6.7 million in anticipatory cash transfers to over 200,000 climate-vulnerable people
START Network	Flood Anticipatory Action (under SoDMA Flood Anticipatory Action Framework)	For 2023–2024, US$400,000 was prearranged (ready to be triggered when thresholds were met)	Readiness trigger: Weekly forecast (ICPAC WRFv4.0 model with more than 90 percent probability of heavy rainfall) Activation trigger: Water levels in Shabelle and Jubba Rivers are forecasted to cross high risk level	In October 2023, US$400,000 was released for rapid assistance when SoDMA Flood Anticipatory Action Framework was triggered
BRCiS (NRC)	Building Resilient Communities in Somalia, crisis modifier	Around US$10 million (15 percent of budget over a 4.5-year program)	Indicators and thresholds are identified and monitored at community level; when breached they raise alarm, which triggers action at program level	Unreported
ARC Replica	African Risk Capacity Replica (WFP and Start Network), parametric insurance	US$1–3 million in policies bought annually, coverage TBC	Africa RiskView drought model based on modeled rainfall deficits over key periods of crop growth	At the start of 2023, Start Network Replica policy for Deyr season triggered and paid out US$3.3 million
OCHA	Anticipatory action through the Central Emergency Response Fund/Contingency Fund (drought)	None at present; funds are "spent" for Somalia until the AA framework is updated	FEWS NET IPC predictions (OCHA 2020)	Drought Anticipatory Action triggered twice: US$15 million in 2020 and US$20 million in 2021

Source: World Bank based on key informant interviews.

Note: AA = anticipatory action; ARC = African Risk Capacity; BRCiS = Building Resilient Communities in Somalia; FEWS NET = Famine Early Warning System Network; ICPAC = IGAD Climate Prediction and Applications Centre; IPC = Integrated Food Security Phase Classification; OCHA = UN Office for the Coordination of Humanitarian Affairs; NRC = Norwegian Refugee Council; SoDMA = Somalia Disaster Management Agency; WPF = World Food Programme; WRFv4 = Weather Research and Forecasting version 4.

3.5.2 Crisis modifiers

Due to the dynamic risk environment in Somalia, many longer-term resilience-building programs embed crisis modifiers. These are budgetary mechanisms that are prearranged within wider development or resilience programs, such as a contingency line, and that disburse funding to scale up or adjust the program in the event of a crisis when pre-agreed thresholds are met. This funding is then implemented through the existing structures of the development program to rapidly scale up assistance ahead of traditional appeals-based funding.

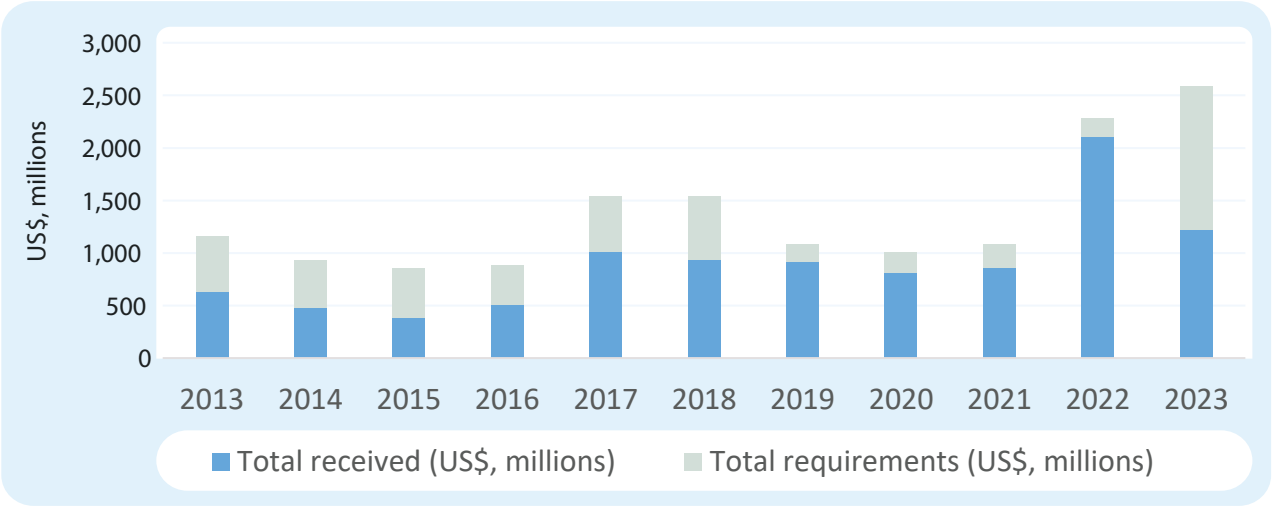
Collectively, the value of crisis modifiers in Somalia is likely to represent a significant volume of prearranged finance that could provide valuable early assistance to crisis-affected communities. The value of the funds could be significant in the context of larger programs—more than US$10 million in some cases—but the programs operate on relatively short-term project-based cycles. Crisis modifiers such as those in the Building Resilient Communities in Somalia (BRCiS) program are triggered based on community alerts, thereby facilitating bottom-up approaches to risk identification, early warning, and early action. Other crisis modifiers are triggered using more common indicators such as the Integrated Food Security Phase Classification (IPC). Greater visibility of such finance, or coordination of such finance within wider government-led AA or DRF strategies and frameworks, would increase its contribution to wider national financial preparedness.

3.6 Ex post humanitarian financing

Disaster relief in Somalia is mainly carried out by nonstate actors, who coordinate extensively through a complex UN cluster system and are funded by international donors. At the center is the UN Humanitarian Country Team, a collaborative body (including both UN and wider stakeholders) with a mandate to ensure that the activities of humanitarian organizations are coordinated, and that humanitarian action in Somalia is effective. Coordination is managed by the United Nations Office for Coordination of Humanitarian Affairs (OCHA) through the cluster system, in which groups of UN and non-UN humanitarian organizations work around a common theme (shelter, nutrition, health, food security, etc.). Representation of government ministries within these groups is limited.

Most donor funding is mobilized through appeals; over the past 10 years, US$12.1 billion has been requested under Somalia's UN-coordinated Humanitarian Response Plans and US$8.3 billion has been received, representing an average funding gap of 31.2 percent.[5] Average annual funding requirements have fluctuated between US$1 billion and US$2.6 billion, with consecutive years of drought (such as in 2016–2017 and 2022–2023) driving the most significant spikes in humanitarian appeals (Figure 25).

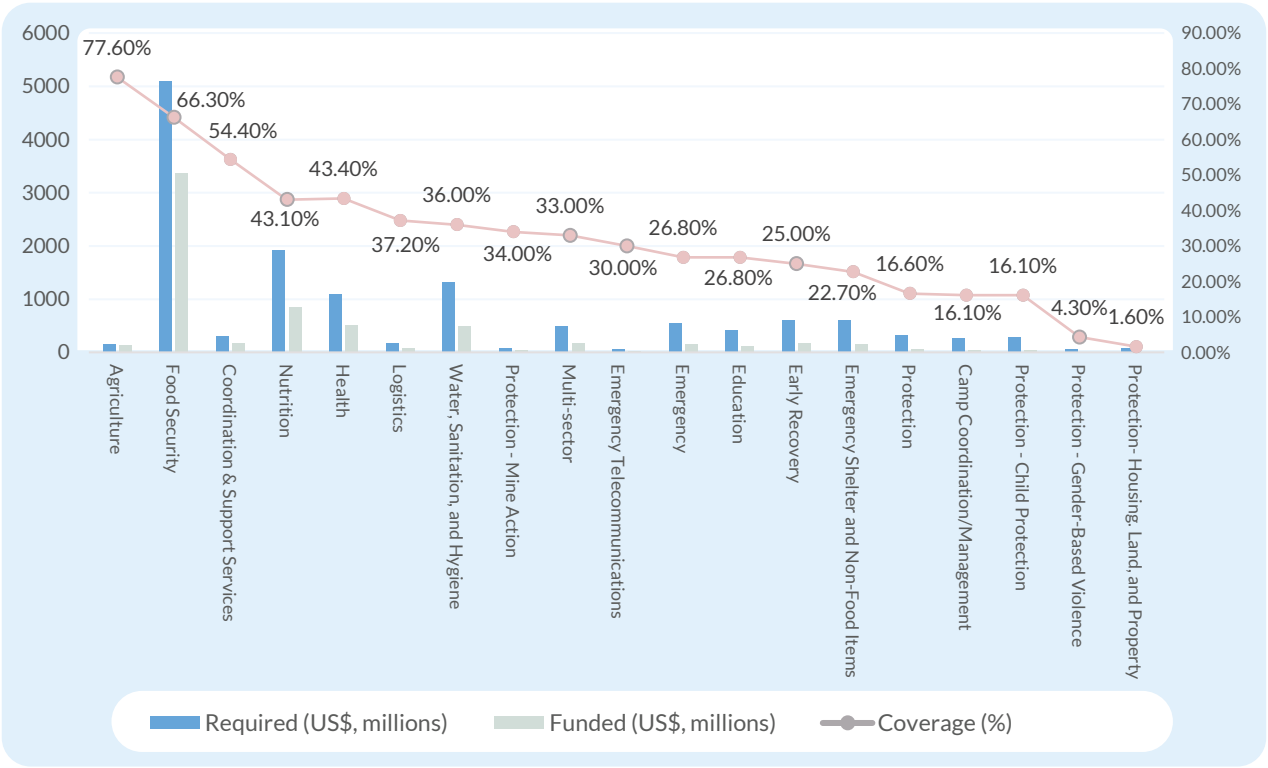
Figure 24 : UN humanitarian appeals for Somalia based on coordinated humanitarian response plans, 2013-2023



Source: World Bank, using OCHA Financial Tracking Service (accessed June 2024), https://fts.unocha.org/countries/206/summary/2024.

Most funding has been requested for food security and nutrition (FNS) activity, while emergency shelter and protection are the most underfunded (Figure 26). Funding requested by sectoral clusters over the past 10 years has been dominated by food security (US$5 billion) nutrition (US$2 billion), water, sanitation, and hygiene (US$1 billion), and health (US$1 billion). Almost half (47 percent) of funding within Humanitarian Response Plans comes from the US government. The top recipient is the World Food Programme, which receives 37 percent of funding.

Figure 25 : Funding gap for UN-coordinated humanitarian response plans by sector, 2019-2024

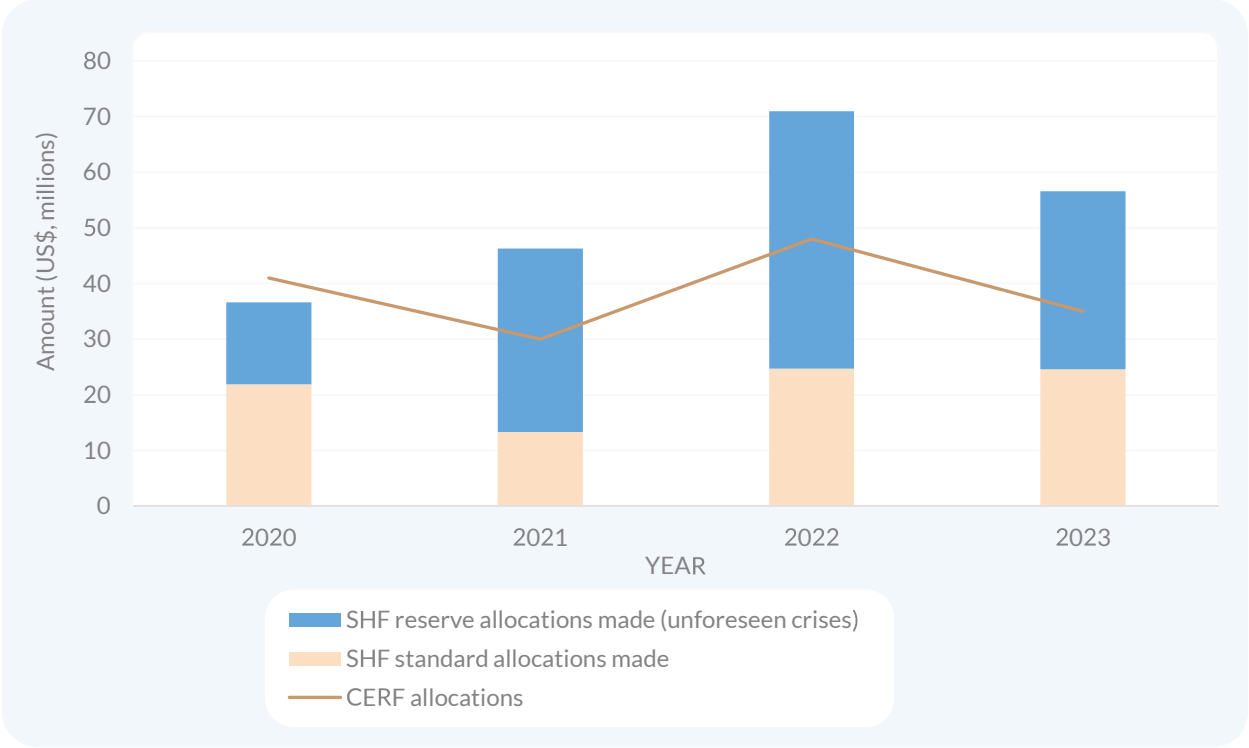


Source: OCHA Financial Tracking Service (accessed March 2024), https://fts.unocha.org/countries/206/summary/2024.
Note: NFI = nonfood items.

In addition to appeals-based funding, at country level there is contingency financing in the form of the Somalia Humanitarian Fund (SHF), a UN country-based pooled fund. This multi-donor fund managed by OCHA received US$45–70 million per year over the past four years. Compared to other UN funds, the SHF is distinctive in directly allocating half its funding to national NGOs operating across the FMS and Somaliland. The SHF has two windows: "standard allocations," which are linked to the annual coordinated Humanitarian Response Plan, and "reserve allocations," which go toward "unforeseen" events that were not included in the plan, such as cholera outbreaks, floods, and conflict-induced displacement. Reserve allocations are intended to be rapid and flexible; they are awarded to implementing partners within 15–20 working days, and funding is disbursed within another 10 days (OCHA 2023c). In recent years, such reserve allocations have accounted for over half of funds released by the SHF (see figure 24); in 2023 most of the reserve allocation (US$24.6million) went toward early response to El Nino-induced flooding.

SHF funding decisions are made by the Humanitarian Coordinator for Somalia, assisted by advisory bodies that include representation of national NGOs (but not the FGS), and with a faster protocol for reserve allocations. The SHF coordinates with the CERF on funding allocations and is exploring collaboration on anticipatory actions ahead of flooding (OCHA 2023b), which could potentially help integrate more rigorous climate risk analytics and triggers into decision-making. If linked to existing government-led frameworks such as the SoDMA Flood Anticipatory Action Framework or to the FSCPP, this integration of triggers has the potential to be very impactful. Increased predictability on the risks for which funds would be released, along with greater visibility and/or involvement of FGS, would allow for ex ante and better use of the SHF, in turn giving it a role in a national DRF strategy.

Figure 26 : UN pooled allocations for Somalia



Source: OCHA, Somalia Humanitarian Fund annual reports, various years, https://www.unocha.org/somalia-humanitarian-fund.
Note: CERF = Central Emergency Response Fund; SHF = Somalia Humanitarian Fund.

3.7 World Bank instruments and modalities for crisis response

Under the World Bank's enhanced Crisis Preparedness and Response Toolkit, which is designed to facilitate fast response to shocks, Somalia is gaining access to newly established prearranged contingency finance options. To fully benefit from these instruments, Somalia should build on lessons available from existing and past facilities. The key lesson about the use of such instruments since 2020 is that a lack of institutional disbursement capacity undermines the effectiveness of prearranged funds. Table 9 summarizes use of the World Bank's crisis response financing mechanisms. Notably, very few of the available mechanisms were actually used, and available financing was not fully disbursed due to a lack of institutional capacity.

Contingent Emergency Response Components are the only prearranged financial instruments offered by the World Bank that have been used in Somalia. Two projects used them: the Somalia Urban Resilience Project Phase II and the Somalia Crisis Recovery Project. In both cases, financing amounted to approximately US$20 million. The timeframe for disbursement and implementation was unsatisfactory mainly due to the lack of prearranged distribution mechanisms and slow initiation processes by the FGS. In the case of the locust crisis, the lack of a database of beneficiaries—the poorest households—extended the disbursement time from the eight months it took to mobilize finance to almost a year before funds reached beneficiaries. The CERC that activated in September 2020 in response to COVID-19 was approved and made available quickly, but issues arose with utilization of the funds. Despite the involvement of the Ministry of Health and development partners, only part of the money was spent; and after two and a half years, the 20 percent remaining was reallocated to other programs. Except for the CERC, response finance from the World Bank was available in an ex post manner, though in some cases expedited. As with prearranged finance, the efficiency of response largely depended on the availability of efficient disbursement mechanisms, such as scalable safety net programs.

Table 9: Application of World Bank's crisis response financing - instruments and modalities in Somalia, 2019-2014

Instrument/modality	Application in Somalia	Commitments	Bank approval	Status
Public sector contingent financing				
Catastrophe Deferred Drawdown Option (Cat DDO)	Not used, but future application is being explored as per Country Partnership Framework FY24–28			
Development Policy Financing Deferred Drawdown Option (DPF DDO)	Not used			
Investment Project Financing with Contingent Emergency Response Component (IPF CERC)	Somalia Water for Rural Resilience Project ("Barwaaqo")	US$70 million CERC: US$0	December 9, 2022	Project active CERC not triggered
	Somalia Water for Agro-Pastoral Productivity and Resilience Project ("Biyoole")	US$31.5 million CERC: US$0	July 1, 2019	Closed (February 28, 2023) CERC not triggered
	Improving Healthcare Services in Somalia Project ("Damal Caafimaad")	US$104.25 million CERC: US$0	June 28, 2021	Project active CERC not triggered
	Somalia Crisis Recovery Project (SCRP)	US$187.5 million CERC: US$20.5	May 15, 2020	Project active CERC triggered for COVID-19
	Somalia Urban Resilience Project Phase II ("Nagaad")	US$253.5 million CERC: US$20 million[a]	December 9, 2019	Project active CERC triggered for drought response
IPF with DDO feature	Not used			
Public sector emergency response financing				
Supplemental and Special DPF	Somalia Re-engagement and Reform Supplemental Development Policy Financing	US$55 million	June 23, 2020	Closed (July 15, 2021)
Emergency IPF	Numerous examples of projects processed under condensed procedures provided under Operational Policy 10.00, paragraph 12: Projects in Situations of Urgent Need of Assistance or Capacity Constraints (e.g., Shock Responsive Safety Net for Human Capital Project (SNHCP), Somalia Urban Resilience Project (SURP,) and SCRP)			
Multiphase Programmatic Approach (MPA) for crisis response	Somalia COVID-19 Emergency Vaccination Project under the COVID-19 Strategic Preparedness and Response Program (SPRP)	US$71 million (US$45 million + US$26 million additional financing)	September 28, 2021	Active
	Shock Responsive Safety Net for Locust Response Project under the Emergency Locusts Response Program (ELRP) Phase 2 of MPA	US$115 million (US$40 million + US$75 million additional financing)	June 29, 2020	Closed (March 31, 2024)

Source: World Bank.
a. This sum (US$20 million) was originally allocated under the CERC but was later rolled into a component to address municipal responses to urban forced displacement.

4. Early warning systems and delivery mechanisms

Several early warning structures have been put in place in the last five years, most notably the National Multi-Hazard Early Warning Center in 2020, but also including systems to monitor and forecast flood as well as food and nutrition security. Notwithstanding, forecast services are typically not well-coordinated with each other, and few are fully integrated into disaster management systems. However, two notable frameworks, the FSCPP and Flood Anticipatory Action Framework, have emerged that link early warning to pre-agreed actions and thus offer promising DRF delivery channels. The national social safety net program Baxnaano is also designed to be shock-responsive and would be greatly strengthened if linked to formal prearranged financing. This chapter discusses the status of these systems and ongoing efforts to link early warning, decision-making, and timely delivery channels for crisis response. It also identifies opportunities to leverage these systems for risk financing.

4.1 Overview of data and Early Warning Systems

Currently, there are over 100 manual rainfall stations and more than 10 automatic weather stations installed across the country. These stations measure various weather parameters, such as rainfall, temperature, and wind speed and direction, that are crucial for monitoring and predicting droughts, flood risks, and landslides. Forecast bulletins produced by SWALIM consist of three- or seven-day rainfall total forecasts on a 10 km grid. A seasonal outlook is also issued ahead of the Gu (April to June) and Deyr (October to December) rainy seasons. Daily rainfall data for 117 manual rainfall stations are available on the SWALIM website. However, as weather stations were installed only in recent years, they lack a historical data set to use in risk analysis.

One of the most significant developments in recent years is flood risk monitoring and modeling, which is largely carried out by SWALIM in coordination with SoDMA. This work has resulted in a draft Flood Anticipatory Action Framework, which was activated in 2023. SWALIM has licensed its own hydrological model from a global provider for the Shabelle River and Juba River systems, which includes flow modeling and forecasting. This modeling is enhanced by in situ river gauges, which have been installed through wider World Bank engagement, and an SMS alert system known as Digniin (from a Somali word meaning "warning"), which allows designated observers across Somalia to report flood-related incidents to supplement traditional early warning mechanisms. Through its website, SWALIM provides real-time monitoring data from telemetered stations, forecasting maps from third parties, and data on river characteristics, including warning of breaches. Despite a scarcity of historical data on flooding and its impacts, these recent investments in partnerships and modeling place Somalia in an advantageous position to leverage flood early warning in operational frameworks that can trigger finance and assistance ahead of floods (see section 4.3).

Monitoring of drought conditions is carried out by several parties, but the Combined Drought Index (CDI) developed and managed by SWALIM is the most widely used. The CDI is a statistical index that compares the present hydrometeorological conditions with the long-term average characteristics in the same seasonal period. The system shows the spatial or point distribution of drought conditions in the country, ranging from mild to extreme. The Famine Early Warning System Network (FEWS NET) also carries out regular monitoring and analysis to forecast household-level food insecurity.

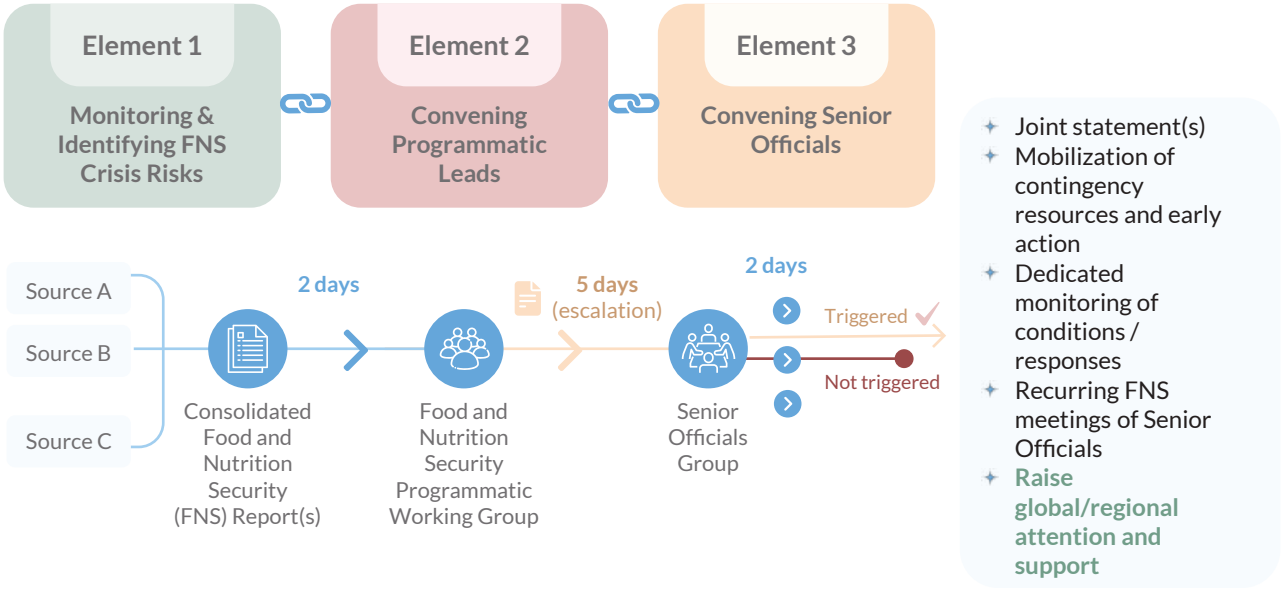
Food security is monitored using the Africa RiskView model and more recently the Joint Monitoring Report. Africa RiskView is managed by ARC and is used to help FGS develop drought contingency plans as well as to underwrite macro-level drought insurance by ARC Limited. The Joint Monitoring Report is prepared by the World Bank based on publicly available data sources. The Early Warning Alert and Response Network (EWARN) developed by the World Health Organization has been operational since 2017; it collects information from health facilities and medical professionals to monitor disease outbreaks and issue timely alerts to prevent or respond to them.

4.2 Food Security Crisis Preparedness Plan

The Somalia FSCPP is a national operational plan that defines what constitutes a major food and nutrition security (FNS) crisis in Somalia (FGS 2023). The plan explains how FNS crisis risks are actively monitored, and it details protocols, roles, and timelines for triggering a series of activities and engagements that (depending on the size of the funding requirement) could culminate in funding requests for early action to prevent FNS crises. The plan, launched at the end of 2023, has been formally endorsed by the Federal Government of Somalia. It was developed in consultation with relevant ministries and stakeholders and is widely considered to be under government leadership.[37]

The FSCPP includes an automated and sustainable monitoring system that provides monthly updates on food insecurity indicators at district level. The Joint Monitoring Report has a success rate of 77 percent in predicting IPC3+ food crises in testing, utilizing five core indicators as the primary indicators of a developing crisis.[38] The results of the Joint Monitoring Report are used to inform decision-making within the FSCPP Food and Nutrition Security Programmatic Working Group and Senior Officials Working Group at national level, regarding operational activation of the FSCPP. This part of the process is not automated, a fact that should be considered in linking any financing instruments to the process.

Figure 27 : FSCPP Joint Monitoring Report and triggering process at national level



Source: World Bank. Unpublished

Note: FNS = food security and nutrition; FSCPP = Food Security Crisis Preparedness Plan.

The implementation of the FSCPP is challenged by the complexity of tracking FNS funding and programming in Somalia. The plan refers to severe challenges in accessing and maintaining regular information on either available financing for FNS or ongoing FNS programming. Existing reporting systems are said to be limited and not kept sufficiently up to date, and there are logistical challenges associated with consolidating such information across the multitude of partners involved in response, who use various reporting standards and systems. At present, the FSCPP has relied on a manual approach. In the absence of information on funding and programming, the FSCPP has limited ability to elaborate on the actions to be scaled up in an emerging FNS crisis and limited ability to assign responsibility for scaling up actions.

[37] *The development of FSCPPs is supported by a coalition of actors, including the World Bank as part of the Global Alliance for Food Security, Global Network Against Food Crises, FAO, UN OCHA, UNICEF, United Nations Development Programme, WFP, and UN Famine Prevention and Response Coordinator.*

[38] *The IPC3+ classification refers to phase 3 (crisis) and above. The five core indicators used are drought, displacement, conflict, food and fuel prices, and the exchange rate.*

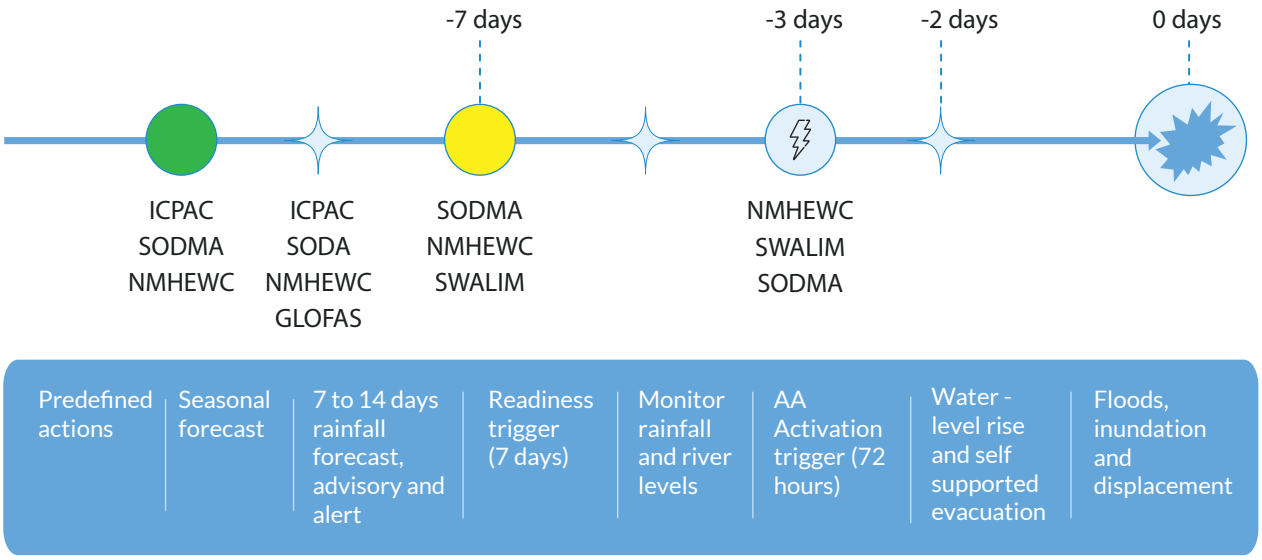
Financing of the FSCPP is currently arranged ex post. According to FSCPP protocols, if the plan is triggered (thresholds of emerging FNS crisis are met), government and its international partners assess activities to be scaled up and determine the amount of funding required. An appeal is then made to external entities such as the international donor community.

There is significant potential to strengthen the FSCPP through prearranged financing. To ensure that when triggered the plan can be rapidly operationalized to enable early, coordinated action, FGS and humanitarian partners should have prearranged finance in place, linked to detailed costed actions under the FSCPP. This would also promote government oversight of FNS crises, and would increase the visibility and coordination of actions planned by humanitarian partners under a government-led process. By assuming a more prominent and visible role in the planning and oversight of response to FNS crises, the government could also support its ongoing efforts to deepen the social contract for state building.

4.3 Flood Anticipatory Action Framework

An operational framework to connect flood forecasts to timely relief activities has emerged under the leadership of the Somali Disaster Management Agency. However, the plan is technically still a draft and lacks prearranged funding for implementation when trigger thresholds are met. With the support of WFP and other partners, SoDMA has put in place a Flood Anticipatory Action Framework detailing specific indicators of forecasted floods, thresholds for actions, and types of action required (Figure 29). The framework was activated in response to the 2023 floods. Evaluations are still underway, but early feedback suggests that SoDMA's leadership was strong; it helped mobilize humanitarian actors and promoted information sharing with communities, which led to a reduction in the impact of the flood. While the draft framework indicates that ex-ante funding instruments are essential to guarantee anticipatory action, it does not specify the funding available, and SoDMA has little sight of the finances available to operationalize the framework.

Figure 28 : Flood Anticipatory Action Framework under SoDMA



Source: SoDMA (2023)

Note: AA = Anticipatory Action; GLOFAS = Global Flood Awareness System; ICPAC = IGAD Climate Prediction and Applications Centre; NMHEWC = National Multi-hazard Early Warning Center; SODMA = Somali Disaster Management Agency; SWALIM = Somalia Water and Land Information Management;

The Flood Anticipatory Action Framework depends on daily flood forecast reports from the IGAD Climate Prediction and Applications Centre (ICPAC) that are reviewed by SoDMA and SWALIM. The forecasts are reviewed to identify the probability of exceeding pre-agreed risk thresholds (depth of river level in meters) at seven river gauge sites along the Juba and Shabelle Rivers. The system is primed to trigger when forecasted river levels indicate that risk thresholds will be exceeded, typically offering partners about 7 days (between 5 to 10) in lead time for implementing pre-agreed mitigation actions (Figure 29). It is not entirely clear how the different sources of data from ICPAC, including the river flow forecasts and rainfall forecasts, are consolidated into activation decisions. This uncertainty is partly due to the duplication of mandates in the management of EWS. While standard operational procedures and a governance framework between SWALIM and SoDMA allow for decisions to trigger the framework, data protocols would need to be strengthened to trigger prearranged finance.

SoDMA leadership of flood planning and response under the AA framework is notably stronger than its role in "normal" ex post humanitarian response. Strengthening of state leadership in disaster response is widely acknowledged as a key priority, and providing services is a key element of the pathway toward state legitimacy. Nascent evidence from the Flood Anticipatory Action Framework (and from some previously described instruments such as ARC Replica) indicates how prearranged approaches can create opportunity for greater government oversight of humanitarian assistance, in particular approaches that coordinate data management, model risks, and pre-plan assistance spanning anticipatory actions, response, and early recovery. There is significant opportunity to scale such approaches and strengthen them through prearranged finance.

Photo Credit: UNDP Photo/Garowe Local Govt 22

4.4 Scalable social safety nets

In 2019, with support from the World Bank, the FGS established its first national safety net program, Baxnaano. The program supports around 200,000 vulnerable households (estimated to be around 10 percent of the population) with predictable (quarterly) cash transfers delivered through mobile money.

Baxnaano's long-term objective is to enable the transition from protracted humanitarian relief to a state-led shock-responsive safety net system that addresses chronic poverty, fosters human development, and builds households' resilience to shocks. The program integrates shock-responsive features that enable it to scale up vertically (to increase support to existing beneficiaries) or horizontally (to include new beneficiaries). A key feature is the Unified Social Registry, which is in the process of adding beneficiaries with the aim of reaching 15 million people (an estimated 90 percent of the population).

To date, Baxnaano has successfully scaled up twice in response to shocks: for locusts and for drought. The locust scale-up took place within the first six months of the project; working together with WFP, Ministry of Agriculture, and now-SoDMA, the Ministry of Labour and Social Affairs identified the crisis-affected districts and facilitated both vertical and horizontal scale-up. The speed of the response was somewhat lacking, however. It took around eight months for beneficiaries to receive support, in part due to nascent project systems and lack of prearranged finance, which necessitated those additional funds be secured. The subsequent drought scale-up was reportedly much faster, achieved in part by front-loading project funding.

Baxnaano currently lacks prearranged finance to enable scale-up and does not undertake risk modeling to determine the potential costs of scale-up. While the program benefits from several features that allow it to be shock-responsive (such as a social registry with dynamic update mechanisms), it lacks clear protocols linking early warning information to scale-up, including release of prearranged DRF. There is significant potential to strengthen the shock-responsiveness of Baxnaano through DRF instruments.

Baxnaano currently does not coordinate with wider humanitarian cash transfer programming—and thus is missing an opportunity to enable the gradual transition from protracted humanitarian relief to a state-led shock-responsive safety net system. A recent study suggests that humanitarian safety net programs are evolving from a model in which stand-alone activities are carried out with no reference to other programs, to a model in which humanitarian activities are referred to the national social protection policy and its implementation framework, and the alignment of cash values and targeting is explored (Al-Ahmadi and Zampaglione 2022).

Under the Baxnaano operational model, the overall responsibility for project implementation is with the government, while implementation is conducted by WFP. In the short-term, partnering with the United Nations is effective to leverage implementation support and as a risk-mitigation measure, although it also introduces additional operational costs. This type of delivery arrangement is discussed in the next subsection.

Photo Credit: UNDP Photo

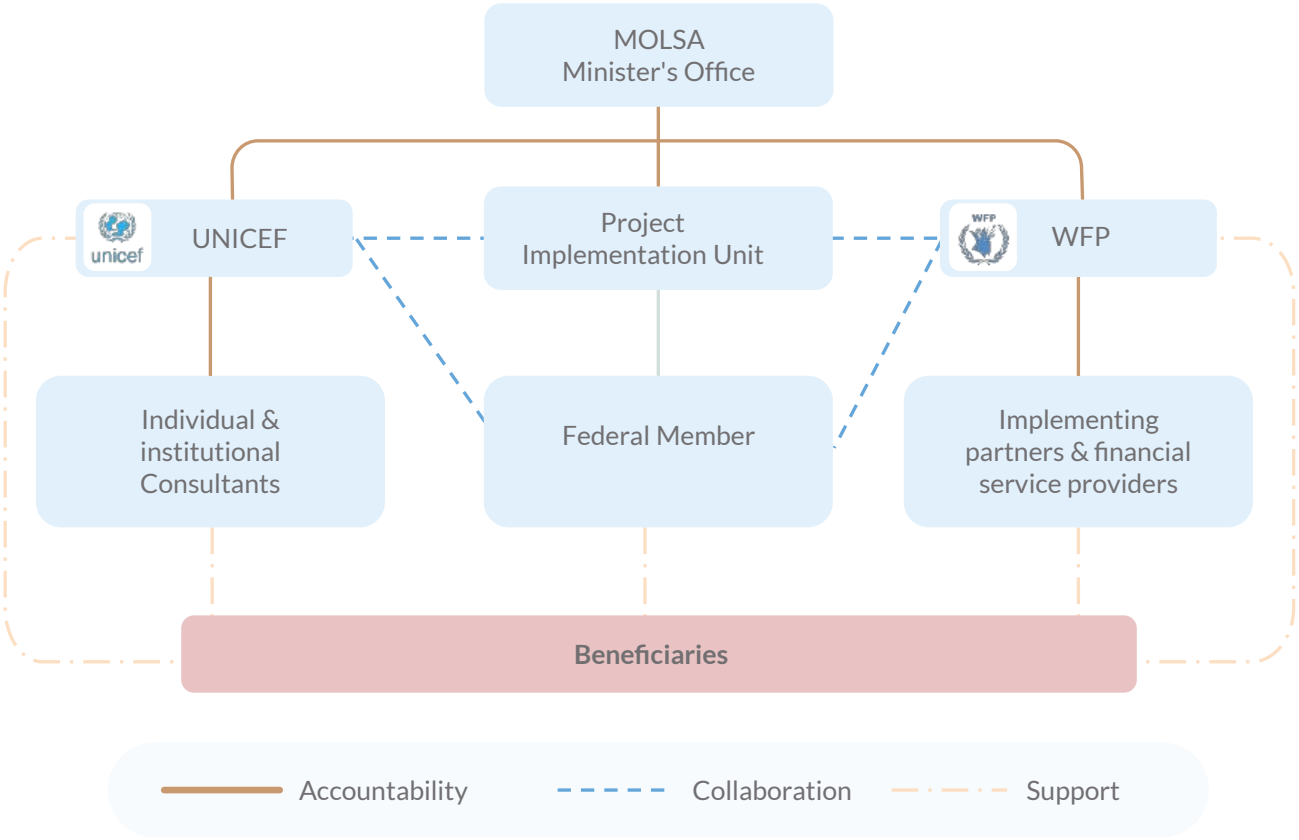
4.5 Hybrid delivery arrangements

Between 2020 and 2024, US$478 million in funding flows from FGS to UN agencies was recorded, reflecting innovative hybrid delivery arrangements (depicted in figure 29) that built fiduciary capacity while also leveraging the implementation capabilities of humanitarian partners.[39] Under this approach, spearheaded by the World Bank, the government managed projects and issued service contracts for specific components to UN agencies or NGOs. In 2023, about one-quarter of investment projects relied on UN implementation (5 of 22 projects). Over the past four years, over half of the funding flows from FGS to UN agencies (around US$278 million) was 'inside the Humanitarian Response Plan', indicating that this modality is increasingly being leveraged for disaster response programs. There is significant potential for this approach to be leveraged for other uses, including for DRF projects.

Yet while this arrangement has helped deliver assistance—particularly with regard to social services and crisis preparedness and response—it can present some challenges. For example, in situations where there is a mismatch between the contractor's and service delivery agent's expectations, this presents a challenge, as government is both contract holder and ultimate authority. An additional challenge is to build donor confidence; outside of the World Bank, development partners have not yet adopted such approaches.

[39] *OCHA Financial Tracking Service (accessed March 2024), https://fts.unocha.org/countries/206/summary/2024*

Figure 29 : Hybrid delivery arrangements of the Shock Responsive Safety Net for Human Capital project, Somalia



Source: Ministry of Labour and Social Affairs (2021)
Note: MoLSA = Ministry of Labour and Social Affairs; UNICEF = UN Children's Fund; WFP = World Food Programme.

4.6 Wider considerations related to distribution channels

In an FCV context like Somalia, project design and implementation require sensitivity to aspects of access and to dynamic and changing risk profiles. As of 2024, significant portions of Somalia, particularly in the central and southern regions, remain under the control of the militant group Al-Shabab so that government access is restricted. This situation also limits the possibility for physical missions to better understand needs and the performance of risk models (e.g., use of rain gauges). In addition, limited access necessarily means a reliance on implementing partners, particularly community-based organizations embedded in the most crisis-affected areas. NGO consortia (such as BRCiS and Somalia Resilience Program [SomReP]) have previously been leveraged by the World Bank Somalia Crisis Recovery Project; they are well-established groups of international NGOs operating under umbrella arrangements. With their broad geographical footprints and a successful track record of working together, they present a strong partnership for the delivery of services.

Experience from previous World Bank projects suggests that simple, focused projects (rather than complex, multi-sectoral investments) are likely to be most successful in the Somali context because they can grow and adapt as the context changes (World Bank 2023d). In the context of DRF, this may mean adjusting risk models over time to account for new ground-sourced risk information if access improves, as well as building on tried and tested implementation modalities that leverage the capacities of partners.

Aid diversion in Somalia has been a key topic in recent years, one that reflects interest in direct methods of programming, including mobile money transfers. A confidential UN report leaked to the media in 2023 raised concerns of "widespread and systematic" diversion of food aid. This possibility has prompted increased interest in use of cash programming via mobile money transfer (already widespread among humanitarian partners), as well as less targeting through community leaders and more reliance on referrals through service delivery points. The Cash Working Group, co-led by Concern Worldwide and the Somali Cash Consortium, is an active forum for operational collaboration. It plays a particular role in ensuring harmonization of cash transfer values across partners, based on the minimum expenditure basket tool.[40] Cash transfer values are updated periodically; after a disaster, for example, the Cash Working Group will issue cash guidelines recommending the value per household and length of support (one to six months). At present these values are not coordinated with FGS-led mechanisms like the Baxnaano safety net (see Section 4.4), but there is interest from both sides in increasing alignment between humanitarian cash programming and shock-responsive social protection.

Photo Credit: UNDP Photo/Hargeisa GVs 2

5. Review of domestic financial markets and opportunities for financial resilience

This chapter reviews the state of the financial markets and relevant legal and regulatory frameworks. Financial inclusion gives households and businesses access to a range of financial services and solutions for risk management. For instance, insurance, helps businesses, farmers, households, and government entities manage their risk by transferring it to private and international financial markets through property and agricultural insurance.; This not only mitigates risks for these stakeholders but also reduces the government's contingent liabilities related to disasters. Going forward, the insurance sector could also play a bigger role as an investor in the real economy. In addition, by providing more diverse and long-term finance to micro, small, and medium enterprises (MSMEs), financial institutions could enable investments in climate adaptation, thereby strengthening the resilience of the MSME sector, which is a key economic sector.

[40] *For information on this methodology, see CALP Network (2021).*

The financial markets in Somalia are nascent and face significant and persistent challenges despite positive trends and developments. Total financial sector assets to GDP stood at 16.9 percent as of 2023 (World Bank 2023c). Public confidence in banks is increasing; bank deposits reached US$650 million in March 2021, compared to US$350 million recorded in March 2019 (Abdi 2022). However, Somalia still lacks basic services like those offered by correspondent banks. Shortages of qualified personnel also persist, along with weaknesses in financial management and the legal framework (Abdi 2022). Unlike the financial sector in other countries, Somalia's financial sector is dominated by money transfer and mobile money operators (Table 9), which means physical climate shocks are unlikely to completely disrupt access to financial services. However, digital financial services remain at risk of disruption to network or infrastructure services.

Table 9 : Financial sector in Somalia 2023: Market participants and assets

Type of business	Number[a]	Assets (US$, millions) [c]
Domestic banks	13	1,479
Foreign banks	2	—
Mobile money operators	7	—
Money transfer businesses	20	—
Microfinance institutions	11	21
Takaful operators	12	78
Total	65	1,578

Source: World Bank 2023c.
Note: — = not available.
a. Figures include financial sector actors that are not registered with the Central Bank of Somalia.
b. Figures are estimations based on the latest data available from the Central Bank of Somalia (August 2023) and other sources.

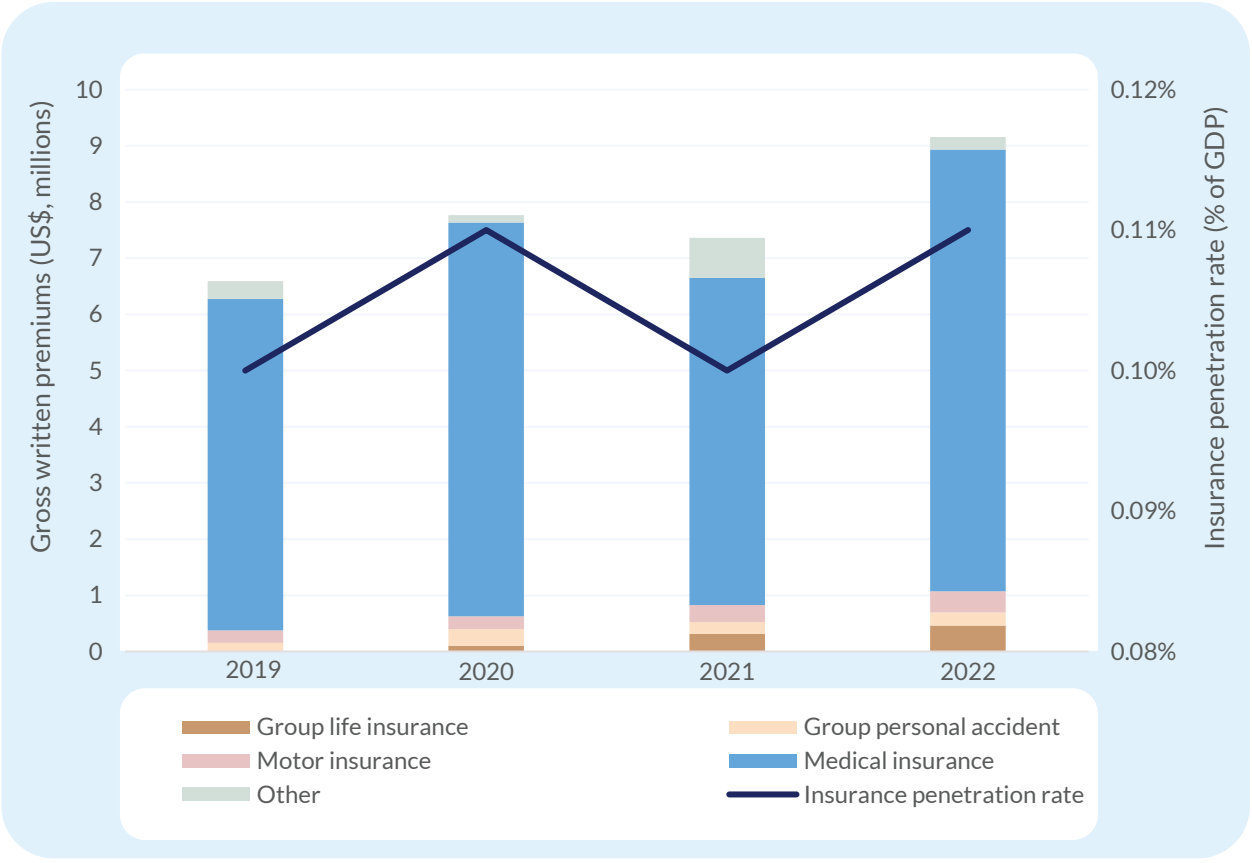
5.1 Takaful sector

Takaful[41] for protection against disasters—including property insurance and agricultural insurance—is available but underutilized; hence penetration remains low, at around 0.11 percent of GDP in 2022 (Figure 30). Operators offer products across life, non-life, and personal accident and health, but medical cover for expats dominates the market. The low penetration has a twofold root cause: constraints on the supply side, including weak product development, limited distribution channels, and lack of financial resources and technical capacity, and constraints on the demand side, including low levels of financial capability and awareness as well as limited disposable income. Hence there is a need to expand financial awareness and capability while addressing binding demand-side constraints (World Bank and CBS 2023). Parametric takaful offers a promising model for financial protection that addresses the protection gap in countries with sizable Muslim populations and where conventional insurance coverage has remained limited. Organisation of Islamic Country member nations with a higher takaful market share exhibit higher insurance penetration and density than countries with a lower takaful market share. (See Box 4).

[41]As a sharia-compliant product, takaful cannot charge interest and must meet certain requirements for certainty and purity. Purity is preserved by segregating sharia premium donations from non-sharia premiums. Sharia funds must also be kept in an account separate from the insurer's capital funds in order to assure sharia clients that their donations are not used to derive interest revenue from on-lending or used to conduct any business, like the sale of alcohol, that contravenes the sharia precepts of community and purity.

Limited retakaful options and suitable sharia-compliant investments present binding constraints for the nascent takaful sector. Without a strong Islamic banking sector and Islamic capital markets, takaful struggles to offer competitive products. Moreover, the absence of sukuk and other sharia-compliant instruments World Bank and CBS 2023) weakens local companies' capital base. Both TIASOM (Takaful Insurance of Africa) and FISO (First Somali Takaful and Retakaful) currently rely on overseas reinsurers such as Kenya-Re, Africa-Re, and Tunis-Re, which may not accept all local risks; this constraint further restricts takaful's growth (Abdi 2022). This situation is common in the region, where insurers often coinsure or cede larger risks to reinsurers because of limited capacity, and it suggests the need for a regional retakaful solution.

Figure 30 : Gross written premium in Somalia, 2019–2022



Source: World Bank and CBS 2023.

Authorities are making progress in addressing regulatory and capacity gaps, which is essential for deepening the banking sector and for growing takaful and capital markets to unlock private risk capital. Championed by the Central Bank of Somalia (CBS), the National Takaful Bill was adopted in October 2023 and is expected to be passed into law in 2024. The Financial Institutions Bill is also expected to become law in the current parliamentary session. When enacted, the National Takaful Law will empower the CBS to regulate and supervise the takaful market, while the Financial Institutions Law will bring a range of new providers under the regulation and supervision of CBS, including deposit-taking microfinance institutions, money transfer companies, leasing companies, foreign exchange bureaus, and Savings and Credit Cooperatives (SACCOs), among others. These steps are critical to foster investor confidence and consumer protection for a vibrant financial industry. The National Takaful Law will necessitate establishment of a national sharia council. This is critical for market certainty and assurance of sharia compliance, which are required to attract investors and to allow Somalia to participate in the international Islamic financial markets.


Photo Credit: UNDP Photo/Hargeisa GVs 2

Box 4 : Case study on takaful markets in Organization of Islamic Cooperation

The growth of parametric insurance to manage climate risks has largely excluded climate-vulnerable Muslim communities because conventional insurance is not compliant with Islamic law. Consequently, Organization of Islamic Cooperation (OIC) member nations continue to experience a significant protection gap, with an average of just 2.7 percent of losses covered by insurance between 2011 and 2020 compared to a global average of 26 percent (Table 10).

Table 10 : Trend in disaster impact and protection gap for OIC member nations, 1971–2022

Period	Disasters (no.)	Yearly average (no.)	Deaths ('000)	People affected (million)	Damage (US$, billions)	Share of OIC damage insured (%)	Share of global damage insured (%)
1971–1980	225	23	119	117	35	0	0.2
1981–1990	425	43	354	207	49	0.5	9.7
1991–2000	790	79	260	202	111	3.4	17.0
2001–2010	1,173	117	363	185	80	3.7	27
2011–2020	908	91	43	214	53	2.6	26.3
2021–2022	213	107	14	97	24	1.3	29.4

Source: Muhammad Ali Khan, Building Climate resilience through Takaful, UNDP, IsDB, IsDBI, 2023; data source: CRED (2023) EM-DAT)

Insurance penetration in the 10 countries with a sizable Muslim population remains remarkably low at 1 percent, in sharp contrast to the global average of 4 percent, as shown in Table 11:

Table 11 : Insurance penetration rates for Top-10 Muslim populations

Country	Population rank (no. of Muslims)	Insurance penetration (non-life premium as % of GDP, 2022)	Insurance density (non-life premium per capita, US$, 2022)
Indonesia	1	0.5	26
Pakistan	2	0.3	4
India	3	1	22
Bangladesh	4	0.1	3
Nigeria	5	0.2	4
Egypt, Arab Rep.	6	0.3	14
Iran	7	1	40
Türkiye	8	1.3	133
Sudan[a]	9	0.4	7.89
Algeria	10	0.6	24
Top 10		**1**	**22**
Global		**4**	**500**

Source: Swiss Re Institute 2023.

a. Data for Sudan were extrapolated from 2021 and were retrieved from Africa Reinsurance Corporation, "Country Dashboard: Sudan," https://www.africa-re.com/dashboards/SD.

Parametric takaful offers a promising model for financial protection that addresses the protection gap in countries with sizable Muslim populations and where conventional insurance coverage has remained limited. Notably, OIC member nations with a higher takaful market share exhibit higher insurance penetration and density than countries with a lower takaful market share. For example, in Malaysia, takaful accounts for a fifth of the market and insurance penetration stands at 1.3 percent, compared to Indonesia, where takaful accounts for less than 4 percent of the market and penetration is 0.5 percent.

Global experience with parametric takaful solutions suggests their potential for enhancing climate resilience, as well as the need for community-oriented design and partnerships to expand them. See Box 5.

Box 5: Select examples of Islamic finance and takaful programs that enhance climate resilience

The following examples offer valuable insights into approaches that have effectively promoted climate resilience. They suggest best practices and lessons for expanding takaful solutions customized to local conditions in countries with sizable Muslim populations.

- In 2017, to support Pakistan's smallholder farmers against increasing climate risks, the Global Index Insurance Facility (GIIF) launched an **area yield index takaful scheme covering major crops against floods, droughts, and other perils.** The pilot product, which was designed to pay out after climate shocks to secure incomes and resilience, grew rapidly; by 2019 more than 227,000 farmers were participating. **Further detail: GIIF 2020.**
- In 2021, to protect wheat farmers in Pakistan against climate risks, Salaam Takaful introduced a **hybrid parametric crop takaful** product that uses satellite data to trigger automatically when specific weather conditions are met. The parametric design eliminates the need for loss assessment of individual farms and ensures prompt payouts, which increase farmers' climate resilience. The product is now being expanded nationwide with the aim of protecting 33,000 households by 2026. This project is making a significant contribution to expanding inclusive climate risk protection for vulnerable communities. **Further detail: Kareem 2022.**
- The Climate Risks Finance project (2014–2020) in Sudan supported rain-fed farmers and pastoralists through a **sharia-compliant risk financing solution**, which included micro loans with flexible repayment terms contingent on weather shocks, and parametric insurance for residual risk. The program, funded by the Global Environment Facility, United Nations Development Programme, and private sector, had a total budget of US$24 million and targeted 45, 000 households. Of these, it had direct impacts on 12,000 and indirect impacts on an additional 16,500 via microfinance and weather-index insurance products. The government increased its budget allocation for weather monitoring organizations by 140 percent during the project years and doubled its early warning system coverage in the project states. The project was successful in protecting rural livelihoods and promoting long-term resilience. **Further detail: Fobissie and Fadelmula 2021.**

The examples above show how climate-vulnerable populations can be protected with sharia-compliant products that meet various needs. They offer several lessons: (i) engage stakeholders and the community in designing products to ensure they meet needs and are adopted; (ii) build stakeholder capacity to improve distribution of products and access to markets; and (iii) develop partnerships involving the public sector, private sector, and communities to promote leadership and accountability and strengthen climate information systems.

Source: Khan, 2023.

Photo Credit:UNDP Somalia/DJI_0221

5.2 Capital market sector

In line with the trend across Africa, Somalia has an opportunity to grow its capital market and tap into international Islamic finance to unlock additional disaster risk financing. Islamic finance in Africa tends to grow through private or sovereign bonds rather than brick-and-mortar banking. African governments see Islamic finance as a tool to raise development funds from international markets and diversify their pool of investors (Domat 2024). According to Moody's rating agency, before 2012 average annual sukuk issuance was almost absent in Africa, but it was US$433 million in the period from 2013 to 2019.[42] This trend was driven by the need for African economies to diversify funding sources and reduce funding. However, recent growth has been slow but steady. Total sukuk issuance in Africa increased to US$3.0 billion (or less than 2 percent of global volumes) in 2023, up from US$950 million (0.5 percent) in 2022, while global sukuk issuance decreased in 2023 to US$168.4 billion, down from US$179.4 billion in 2022.

The Arab Republic of Egypt, South Africa, and Nigeria were the only African sovereigns that issued sukuk in 2023 (S&P Global 2024).

To advance both physical and financial resilience, Somalia could consider resilience-linked sukuk or climate risk contingent sukuk (like a conventional catastrophe bond). Achievement of the HIPC Initiative Completion Point creates opportunities for government sukuk issuance. Islamic bonds are an advantage for Somalia because they do not require payment of interest. However, they require payment of return, which is derived through investing in a real asset that could be linked more directly to development outcomes. Somalia faces significant infrastructure needs, and sukuk proceeds could be earmarked for resilient infrastructure projects; this approach would promote transparency and attract investors seeking social impact alongside financial returns.

The growing international Islamic finance market offers a large pool of potential investors seeking sharia-compliant instruments. Somalia's issuance of Sukuk could attract significant interest from these investors. The global Islamic capital markets, valued at over US$3 trillion, have been growing at an exponential rate of 10–12 percent per year over the past decade (Domat 2024). Somalia's substantial inflow of remittances, totaling over US$2 billion annually, indicates a potential investor base (IMF 2023d). A dedicated strategy to leverage Islamic finance could significantly enhance remittance flows. By introducing alternative channels such as hawala-compliant services,[43] Islamic financial institutions could improve efficiency and security for remitters. The development of profit-sharing remittance accounts could attract a broader customer base. Channeling these remittances into productive investments through Islamic financial instruments could be a catalyst for economic growth and job creation, fostering sustainable development.

For a country without a history of issuing sukuk, significant efforts would be required to establish the regulatory and shariah governance framework needed for investor confidence. The government might require technical assistance in structuring and issuing sukuk, and partnering with experienced institutions could help navigate this process. Lessons could be learned from Malaysia, which strategically developed its Islamic capital market through a multipronged approach. This included government support, a robust regulatory structure, development of sharia-compliant instruments, and economic drivers catering to Muslim investor needs (Figure 31).

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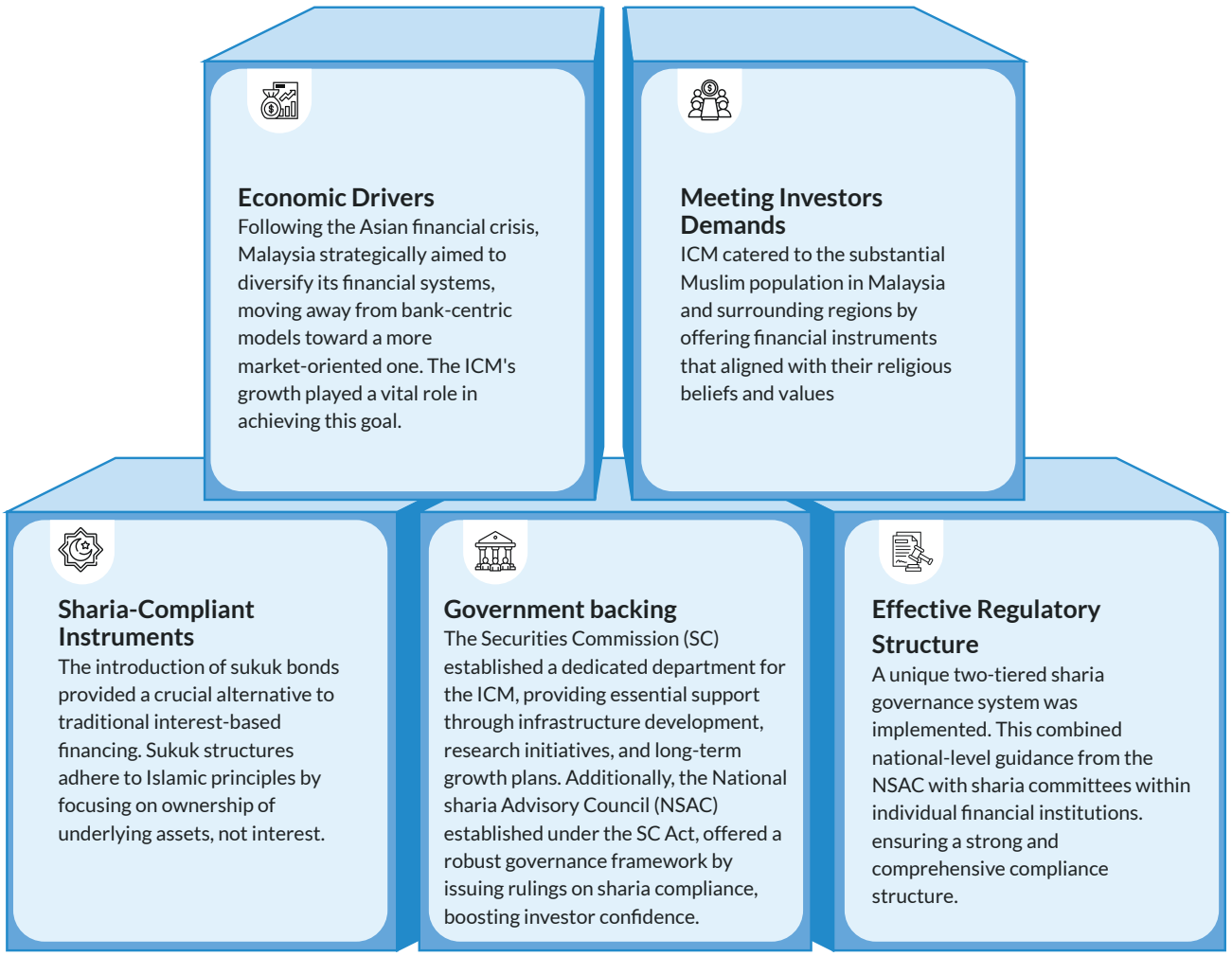
[42] *Cited in IFN Islamic Finance News (2020).*

[43] *Hawala is an informal money transfer system that operates outside of traditional banking channels. It relies on a network of agents, known as hawaladars, who facilitate the transfer of funds based on trust and reputation rather than formal contracts. A person wanting to send money to another location deposits funds with a local hawala agent. The agent then contacts a corresponding agent in the recipient's location, who pays out the equivalent amount to the intended recipient. This system is often used in regions with underdeveloped banking systems or where trust in formal financial institutions is limited. While hawala can be efficient and convenient, it also carries risks, including fraud, money laundering, and lack of regulatory oversight. Following the trend in other countries, stricter regulations can be implemented to monitor and regulate hawala operations.*

Figure 31 : Key building blocks for the creation of a thriving Islamic capital market in Malaysia



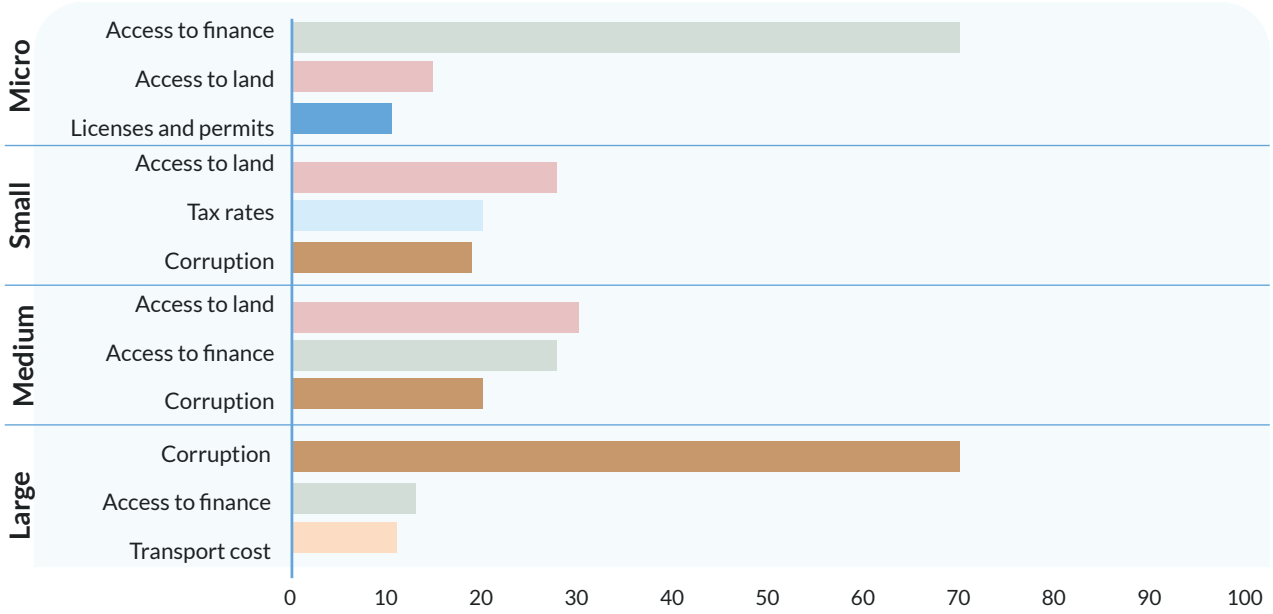
Source: World Bank analysis based on Abdullah et al., n.d.; Central Bank of Malaysia 2023; Securities Commission Malaysia, n.d.
Note: ICM = Islamic capital market.

5.3 Financial inclusion and resilience of MSMEs

MSMEs' limited access to finance limits their financial resilience to disasters and remains a key challenge. Financial inclusion fosters resilience against disasters, especially for vulnerable small and medium businesses, by enabling access to financial solutions to manage risk, including liquidity to cope with shocks and financial protection to recover from shocks. Lack of access to finance is the most significant obstacle for 70 percent of micro-size firms, compared to 10 percent of larger firms (Figure 32). While 94 percent of firms in Somalia have a bank account, only 4 percent have a bank loan or a line of credit, and only 2 percent of firms have their needs met by banks (compared to the average of 8 percent in Sub-Saharan Africa). Disasters make access to finance even more difficult because they increase lenders' concerns about default risk. For example, due to the COVID-19 pandemic, about 63 percent of formal firms were finding access to credit difficult by early 2021, and a much larger proportion of informal firms had no access to credit. [44] Such situations leave MSMEs with little financial capacity to prepare for or respond to business disruptions caused by disasters.

[44] *https://documents1.worldbank.org/curaed/en/600851623549624900/pdf/Somalia-Capacity-Advancement-Livelihoods-and-Entrepreneurship-through-Digital-Uplift-Project-Additional-Financing.pdf*

Figure 32 : Top three obstacles reported by firms of various sizes in Somalia (percent)



Source: World Bank 2019a.

Access to finance seems to be a good determiner of resilience. According to a study on the provision of aid to MSMEs after climate shocks, firms that were randomly allocated a grant recovered within a year, while those that received no grant had a longer recovery time (UNDP 2013). Studies also show that financial institutions tend to restrict financing following a shock (Collier 2014; Mamonov et al. 2024), and some MSMEs resort to harmful coping mechanisms. Businesses may refrain from "risky" investments in anticipation of a disaster in the foreseeable future, and they may either hold onto large volumes of inventory or reduce inventory if they anticipate flooding or other climate disasters. One means of enabling business continuity is providing MSMEs with contingent credit or flexible loans; see the example of the case of BRAC in Bangladesh, which has been providing businesses emergency loans triggered by flood (Russell 2018).

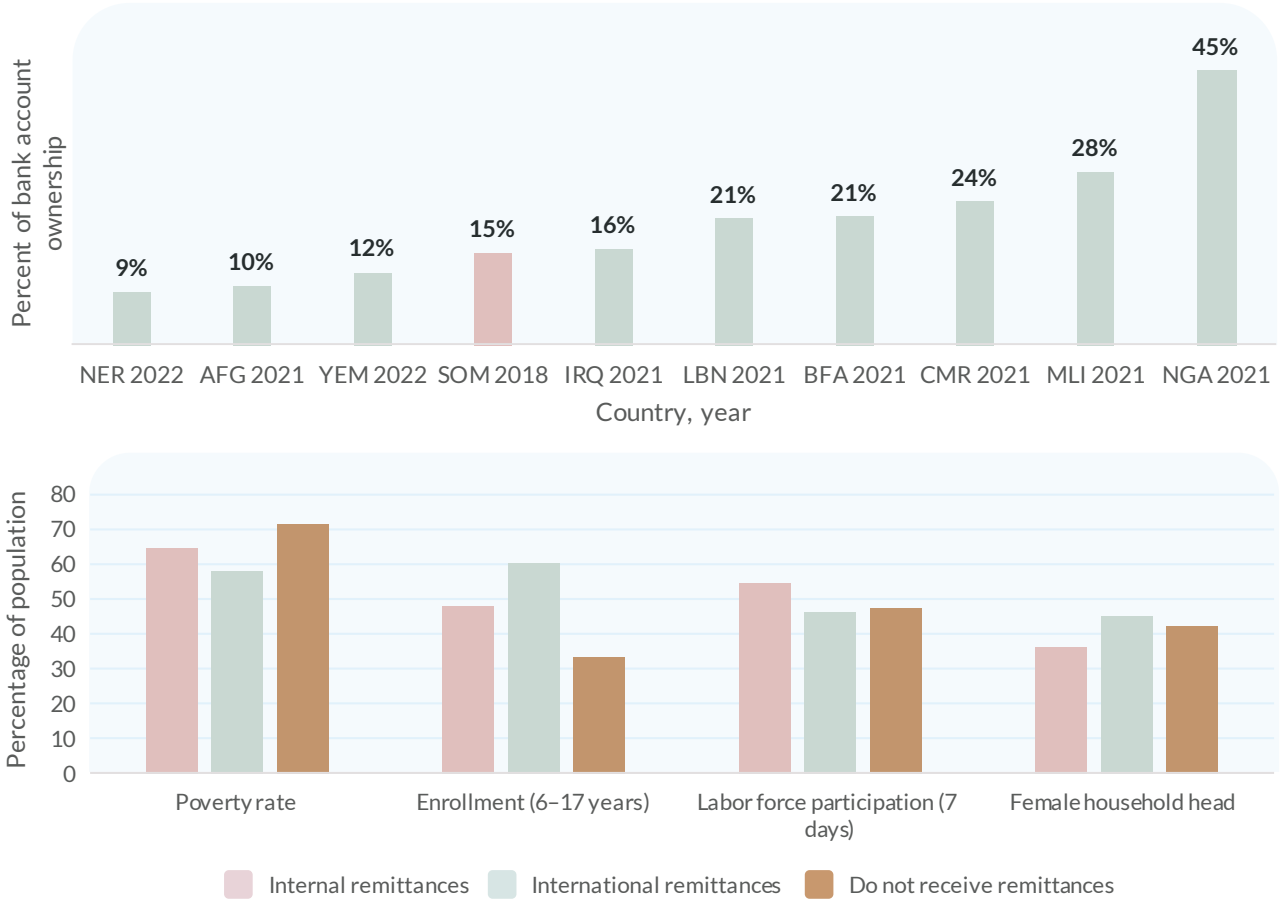
Private sector credit continues to be limited despite growth in deposits, as banks prefer to hold cash rather than provide unsecured lending. Deposits have increased in recent years, though at a slowing pace: by 41 percent in 2021, 23 percent in 2022, and 1 percent during the first eight months of 2023 (World Bank 2023c). Credit grew by 19 percent between January and August 2023; but at the end of August 2023, the share of cash to total assets was 33 percent versus credit of 24 percent. Private sector credit as a percentage of GDP remains low at around 4 percent. Commercial banks' loans are concentrated in three sectors, with 60 percent of loans in trade financing (28 percent), real estate (19 percent), and construction (13 percent). Lack of collateral is the main constraint to private sector lending, as commercial banks are reluctant to lend to individuals and companies that cannot provide significant, quantifiable collateral. This demonstrates a concerning lack of diversification and underscores the need for further financial inclusion (World Bank 2023c).

Improving access to data on MSMEs and their financial performance over time would enable more data-based assessments of the impact of shocks on MSMEs and improve understanding of funding needs. The impact of disaster risk on MSMEs and financial institutions is not well understood due to lack of data and research focused on the extensive risks they face. Most available evidence pertains to severe disasters, leaving a significant gap regarding the effects of less intense but more frequent disasters, which often go unnoticed and unaddressed (UNDRR 2023). The World Bank Enterprise Surveys could be expanded to include questions about DRF. Two interesting developments, climate-related risk disclosures for financial institutions and climate risk stress-testing, present the opportunity for more granular bottom-up modeling of the impact of climate shocks on financial institution portfolios.

5.4 Financial inclusion and resilience of households

While financial inclusion in Somalia is increasing, the average levels in the country still lag behind the averages in Sub-Saharan Africa and in most FCV states (Figure 33), with gender and wealth gaps that limit the ability of households to cope with shocks. Despite the growing ecosystem of financial actors in Somalia, there are geographical, gender, and age disparities in access to finance. For instance, substantial loans are mainly limited to better-off and urban residents due to high collateral requirements (AFI 2024). Financial inclusion nearly doubled from 8 percent in 2014 to 2018. By the end of 2018, 15 percent of adults (and just 7 percent of women) had a bank account, but less than 5 percent of people with bank accounts were active users (UNIDO 2020). This is in contrast to countries like Mali, where 28 percent of adults have a bank account, 41 percent of them women; and Burkina Faso, where 21 percent of adults have a bank account, 35 percent of them women. Households that receive remittances had a lower poverty rate which helps improve financial resilience. (Figure 33)

Figure 33 : Financial account ownership in Somalia compared to other FCV OIC member states (top) and impact of remittances on household resilience (bottom)



Sources: World Bank, Global Findex Database (accessed 2022), https://www.worldbank.org/en/publication/globalfindex; UNIDO 2020; World Bank 2019b; DEMAC 2024.
Note: AFG = Afghanistan; BFA = Burkina Faso; CMR = Cameroon; IRQ = Iraq; LBN = Lebanon; MLI = Mali; NER = Niger; NGA = Nigeria; SOM = Somalia; YEM = Yemen.

The official launching of the national digital biometric ID system in September 2023 is expected to support efforts to deepen financial inclusion. Establishing the ID system is a significant milestone for Somalia, given the lack of a unified national framework for domestic identification. The program is expected to facilitate people's access to public and financial services. Once fully operationalized, the ID system will also link with a customer verification system. This linkage will allow financial institutions to verify the identity of their customers and will improve the integrity of the Somali financial system.

Savings play a crucial role in coping with shocks, but use of savings in Somalia is limited; men who use savings report relying on informal channels, while women who use savings report using mobile savings accounts (ILRI, n.d.). A survey in Puntland in 2021 found that less than half of households (41 percent) had any cash savings, and that the share was higher among household headed by men (45 percent) than among households headed by women (39 percent). More women than men reported using mobile saving accounts (26 percent versus 18 percent), while more men than women reported saving at home or using informal saving schemes (25 percent versus 13 percent). A study among pastoralists in Somalia found that savings levels ranged from 0 percent in Sanaag to 65 percent in Galgadud, and that respondents saved their cash at home, with traders, or in the bank (ACRE Africa, n.d.).

Behavioral science could suggest how to incentivize use of financial savings in a culturally sensitive way. Studies show that due to sociocultural factors, pastoralists tend to save in the form of livestock (Abdirahman 2016), making them vulnerable to loss of livestock during droughts. According to a 2018 study covering Badhan, Erigawo, Eyl, Luuq, and Odweyne districts, households that were better able to liquidate livestock earlier in the drought cycle achieved higher scores on welfare measures related to resilience (SomReP 2018). With such information, and with the understanding of how pastoralists tend to save, it should be possible to design culturally sensitive programs to incentivize saving among pastoralists.

5.5 Opportunities to leverage Islamic social finance

This section details a range of Islamic social finance mechanisms that Somalia could consider to simultaneously increase prearranged funding for disaster response and further social development. Pursuit of any of these mechanisms would need to be informed by a better understanding of the current practices and to be in line with the ongoing inland tax reforms to avoid double taxation.

Muslim communities across developed and emerging countries use a range of Islamic finance mechanisms to manage adverse aggregate impact on the poorest and most vulnerable. The most notable mechanisms are zakat, shadaqah, and waqf (see Box 6 for definitions). A number of countries, including Afghanistan, Pakistan, Maldives, Saudi Arabia, Indonesia, Kuwait, and Malaysia, have been able to leverage significant resources for social development and disaster response. Overall, global experience indicates the need for a well-managed zakat institution and regulations. In Indonesia, for example, zakat as an instrument for poverty alleviation is mandated in Article 3 of Law No. 23 of 2011. The Amil Zakat National Agency (Badan Zakat Nasional Indonesia, BAZNAS) manages zakat; it is tasked with collecting zakat to reduce the burden on public expenditure and optimizing the distribution and utilization of zakat to reduce extreme poverty. BAZNAS runs eight programs, including BAZNAS Disaster Response, to support those affected by natural disasters. In Malaysia, zakat is managed at subnational level with strong private sector involvement. For example, Sadaqa House was set up in 2020 to collect various types of social welfare funds from the private sector (such as shadaqah, waqf, and hibah) and distribute them to the disadvantaged. Contributions are collected and invested in different types of funds, including a perpetual fund that pays out only 20 percent of the proceeds and retains the remaining 80 percent to build up the fund. Among others, Sadaqa House distributes support to underbanked microentrepreneurs. See Hammad 2022 II for a review of global practices on zakat management.

Box 6: Definition of key Islamic finance terms

Zakat is an obligation to donate a certain proportion of wealth each year to charitable causes. It is a fixed, prespecified amount of wealth in the form of goods or money, used predominantly to take care of the most poor and vulnerable.

Shadaqah is a voluntary gift of assets or goods issued by a person or business entity outside of zakat for the public benefit.

Waqf is an endowment trust fund, whereby participants provide contributions that are considered as seed capital for the fund. It is governed by a trust deed and qualified professionals are appointed to manage it based on Islamic finance law. Only the investment returns and not the capital are used, which allows the waqf to be a sustainable financial vehicle.

Hibah is voluntarily giving away of an asset or property to another person during one's lifetime.

Because sukuk constitute an equity-based finance instrument, they would support FGS's effort to continue on the path of sustainable debt management amid a tight fiscal space. Sukuk provide investors with ownership rights in assets: sukuk holders purchase a share of an asset that is linked to a specific project or investment, and they receive a portion of the returns from the asset. Returns are generated by investing in a real asset, and investors are guaranteed their share of the return at a specific time. Sukuk are typically used to mobilize large volumes of funding due to the high cost of structuring and placing them. Sukuk also require strong sharia governance.

Photo Credit: UNDP Somalia

6. Funding gap analysis and risk-layering strategies

This chapter details the analysis conducted to estimate the costs of disaster response in Somalia. The analysis excluded costs of recovery and reconstruction, as governments tend to have more time to plan and prepare for these later phases. It estimated the historical cost of relief and then conducted statistical analysis to derive indicative expected future costs of relief. These were compared to the available funding to determine the funding gap.

6.1 Limitation of analysis

The extent and depth of analysis carried out should be clearly understood so that appropriate confidence can be placed in the results. The estimation of the funding gap was constrained by significant data limitations, detailed in Annex VI. The most reliable and comprehensive data source identified was the EM-DAT platform, while government-provided data were often sparse. However, EWS data were valuable in validating the results of flood analysis. A notable data gap was the absence of specific information on epidemic treatment costs. To address this, estimates were derived from regional studies conducted in comparable countries on the African continent. These data limitations obscure the underlying patterns of disaster risk and present an incomplete picture of the true costs.

Given these data limitations, the estimated costs of disaster response should be considered as minimum expected values rather than precise representations of potential financial burdens. The modeled cost of disaster response includes (i) emergency relief and temporary shelter due to drought, flood, storm, and epidemics; (ii) emergency treatment in response to epidemic outbreak; and (iii) cost of livestock export value losses due to drought. No further data were available in enough quantity and quality to estimate physical damage to public assets and infrastructure. Flood catastrophe modeling by JBA Risk Management assessed estimated physical damage to residential and commercial property, but these results were excluded from the cost of response based on the constitutional limit of government's disaster-related contingent liability, which prioritizes emergency health care, access to water, and social security. The analysis did not assess the impact of systemic risk where the occurrence of a given disaster has knock-on effects on other aspects of the economy, population, and occurrence of other disasters.

Similarly, the proposed risk-layering strategy that follows should be taken as illustrative of how various financial and risk instruments could be leveraged to optimize the cost of DRF. The development of a national DRF strategy, tailored to Somali's unique FCV context, would require more investment in catastrophe risk modeling. It is crucial for the FGS, development and humanitarian partners, and other risk holders, risk managers, and decision-makers to adequately understand the strengths and weaknesses of the modeling work to make appropriate decisions.

6.2 Modeling methodology and assumptions

The analysis was conducted in two steps. First, the historical cost of response between 1980 and 2023 was estimated using the number of people affected by disasters and an assumed cost of relief per person. Relief costs consisted of cash transfers of US$60 per household for six months (equivalent to the Baxnaano shock-responsive social protection program) in the event of drought, flood, or storm; emergency shelter relief of US$38 per shelter in the event of flood or storm; and total health service relief per person affected of US$136 in the event of epidemics. An additional sum of US$29 per person (equivalent to Baxnaano operational costs per person) was included to cover operational costs (see Annex VI for detailed description of assumptions and choice of cost basis). Damage to livestock due to drought was calculated as export losses to the FGS based on FAO export statistics between 1980 and 2022; this is a comprehensive measure that covers both the input costs and profit margin.

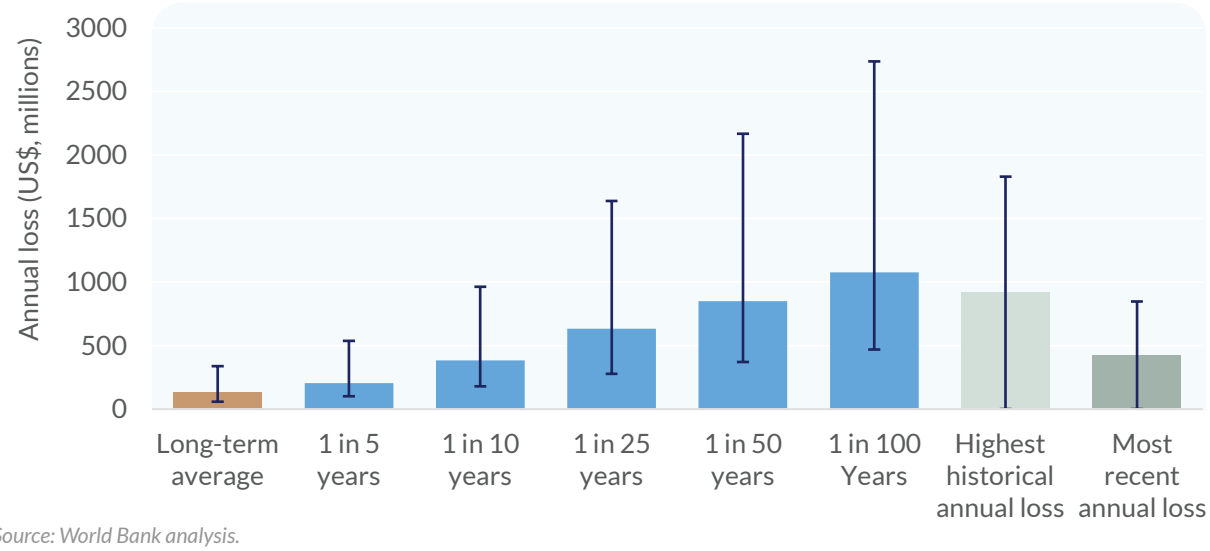
Second, the estimated historical cost of disaster response was scaled for population growth; historical loss of exports was scaled for inflation; and a statistical distribution was fitted. The fitting exercise assessed several distributions prior to selecting a distribution that best fit the relief cost data. Based on this fitted distribution, a Monte Carlo simulation was carried out to simulate 15,000 years of losses. These simulated relief costs are indicative of future costs of relief in Somalia. In a final step, the indicative expected costs of relief were compared to the available funding to determine the funding gap. Overall, this analysis is indicative only. For FGS to make decisions, the analysis would need to be refined, with better information on historical and projected fiscal costs, the cost of insurance, etc. The current analysis is limited by scant data on economic losses and fiscal costs of disasters. To strengthen the evidence base on disaster risk financing and management more broadly, the FGS could invest in a national database on economic and fiscal impact and expenditure related to disasters.


Photo Credit: UNDP Photo / Said Fadhaye

6.3 Estimated cost of disaster response

The fiscal cost of emergency disaster response in Somalia including Somaliland is conservatively estimated at US$129 million per year and could reach US$851 million in a year with a 1-in-50-year event. As shown in Figure 35, the distribution is highly positively skewed, which suggests a substantial likelihood of very large response costs. Damage to public assets and infrastructure is excluded; hence costs are expected to increase once damage to public assets and infrastructure is accounted for. This analysis is indicative due to the limited availability of data on economic losses and fiscal costs of disasters.

Figure 34 : Simulated average annual costs of disaster response in Somalia over the next year for different return periods



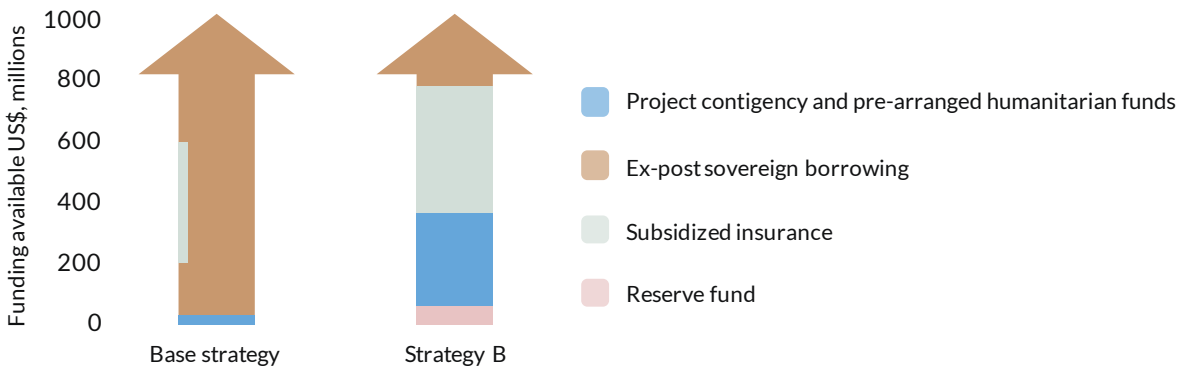
Source: World Bank analysis.

Note: Emergency response costs include cash transfer, relief shelter, and health services. These are additional needs created by climate-induced crises and do not account for ongoing chronic humanitarian needs in Somalia (hence they are lower than estimated requirements in annual UN humanitarian response plans).

6.4 Funding gap and comparison with alternative risk-layered strategies

To assess the funding gap at various return periods, the indicative distribution of fiscal costs of relief presented in the preceding section is compared to the funding currently available to the FGS. The analysis also compares potential coverage provided by alternative risk financing strategies that the FGS could consider. The analysis therefore demonstrates how the government could develop a risk financing strategy consisting of multiple financial instruments that balance risk retention and risk transfer (risk layering), and it compares this strategy to the current financing approach (base strategy). The total available funding under each strategy is presented in Figure 35. In developing its strategy, FGS would need to consider key trade-offs (Box 7), its risk appetite, and the overall macroeconomic context.

Figure 35 : Funds assumed under each financing strategy



Base strategy

- Project contingency financing of US$45 million
- Drought insurance: sovereign cover with annual cover of US$23 million (ARC policy); micro-level cover for pastoralists taken out in October 2024 with maximum payout of US$6.8 million (DRIVE project); and macro-level cover for pastoralists and farmers with maximum payout of US$4.9 million (Replica policy)

Strategy B

- Reserve fund of US$60 million to cover mild events (primarily funded by the private sector and diaspora)
- Project contingency financing of US$100 million and prearranged humanitarian funding of US$220 million for moderate to severe events
- Sovereign insurance with a maximum payout of US$440 million and 100 percent cession

Source: World Bank analysis.
Note: AA = anticipatory action; ARC = African Risk Capacity; DRIVE = De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa. The instruments in Strategy B are layered to cover 1-in-50-year and less severe events. The analysis assumes that the reserve fund is exclusively for disaster relief and incurs small administrative costs. The sovereign insurance is assumed to cover all perils and has a 100 percent ceding share, which means all losses in the sovereign insurance layer are protected. The attachment is set such that insurance pays out when costs of relief exceed US$380 million, which is the cost of a 1-in-10-year loss event. Insurance would cover losses above those covered by the other three funding instruments (reserve fund, project contingency, and prearranged humanitarian funding). Any losses beyond the insurance exhaustion point, which has been set at a 1-in-50-year loss of nearly US$820 million, would not be covered by the insurance. In such a rare event, FGS would raise additional funds through borrowing.

Box 7: Risk layering: Key trade-offs and considerations when establishing a DRF strategy

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

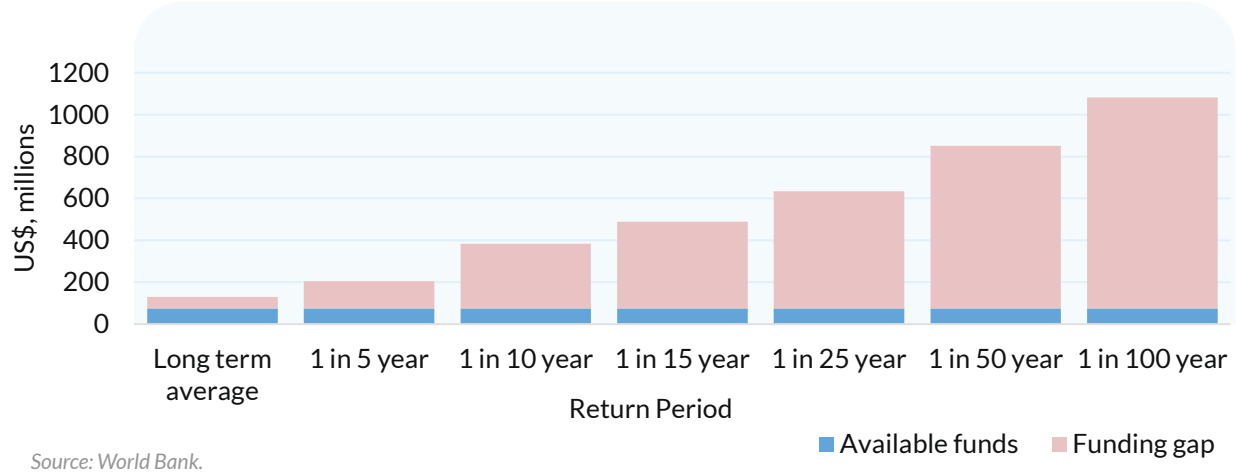
FGS would need to consider the following trade-offs and issues:

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

   See Annex I for further discussion on potential instruments

With the current pre-arranged funding of US$74.7 million, the annual funding gap is estimated to exceed US$54.5 million on average. The funding gap is the difference between the available government budget and the probable loss for a given event size. The funding gap increases as the losses increase (with higher return periods) because the reserve funds are constant (Figure 36).

Figure 36 : Funding gap for response to disasters of different severity

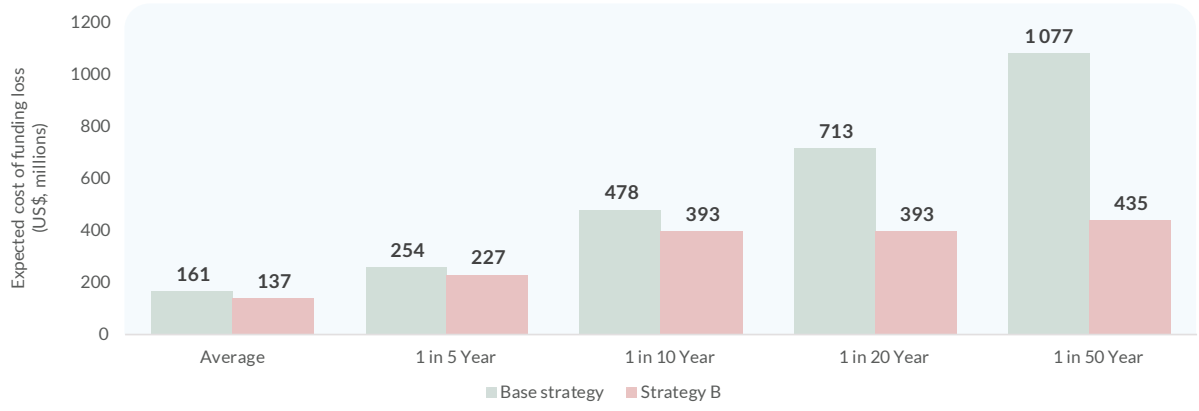


Source: World Bank.

A risk-layered financing strategy would be more cost-efficient than Somalia's current approach, for both moderate shocks and more extreme events. As shown in Figure 37, compared with the base strategy, a risk-layered approach could create modest savings for regular 1-in-5-year loss events; for moderate 1-in-10-year events, severe 1-in-20-year events, and extreme 1-in-50-year events, it could generate savings of US$85 million, US$320 million, and US$642 million, respectively. Strategy B is more cost-effective than the base strategy for funding moderate to extreme loss events; this result demonstrates the effectiveness of an expanded risk-layering approach. Budget reallocations and ex post borrowing carry high opportunity costs may be slow and unpredictable and divert resources away from higher-yielding social and physical investments. These financing instruments are used less

frequently under Strategy B, which creates significant savings compared to using the base strategy. In addition, the significant savings generated for severe to extreme events demonstrate the ability of insurance to mitigate the financial impact of larger costs, as the premium leverages additional capital. Under Strategy B, the FGS would have a wider range of risk financing options, including prearranged humanitarian funding and full cession of insurance, which could be triggered after disasters to protect the budget against severe events and significantly reduce the likelihood of emergency borrowing. Further cost efficiencies could be generated by optimizing use of reallocations. More in-depth financial modeling and technical analysis should be carried out to right size potential financial instruments for Somalia.

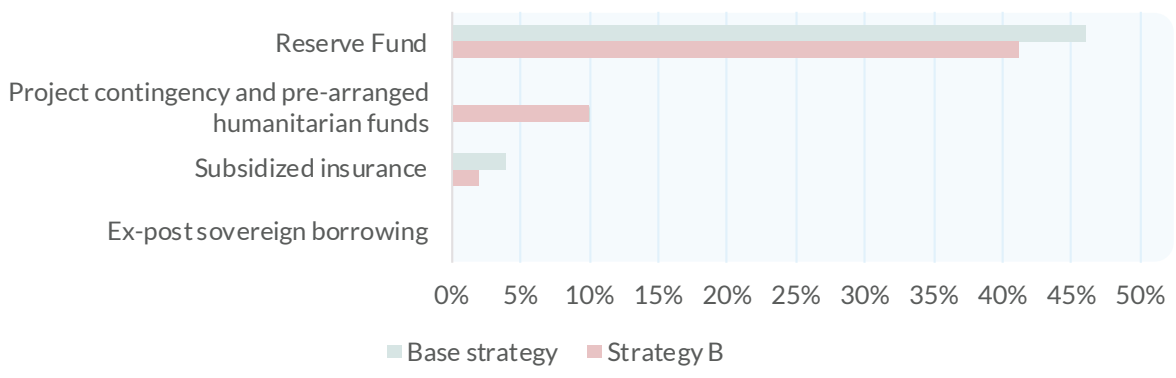
Figure 37 : Effect of risk-layered financing approach on cost of disaster response for events of different severity



Source: World Bank analysis.

The government of Somalia can stabilise its fiscal budget and minimize the chance of exhausting all ex-ante financial instruments by implementing a DRF strategy. An appropriate DRF strategy should ensure available funding is effectively and efficiently used by minimizing the chance that pre-arranged instruments will be utilized in full too early. When all ex-ante financial instruments are depleted, the FGs will have to source additional ex-post resources to cover the outstanding disaster response costs. This necessity would increase the time of response, affect the well-being of people, and reduce the cost -effectiveness of using public funds. Of the two strategies evaluated, Strategy B is least likely to exhaust all ex-ante instruments. This also helps to decrease reliance on ex-post emergency budget reallocation and ex-post sovereign borrowing. (Figure 38).

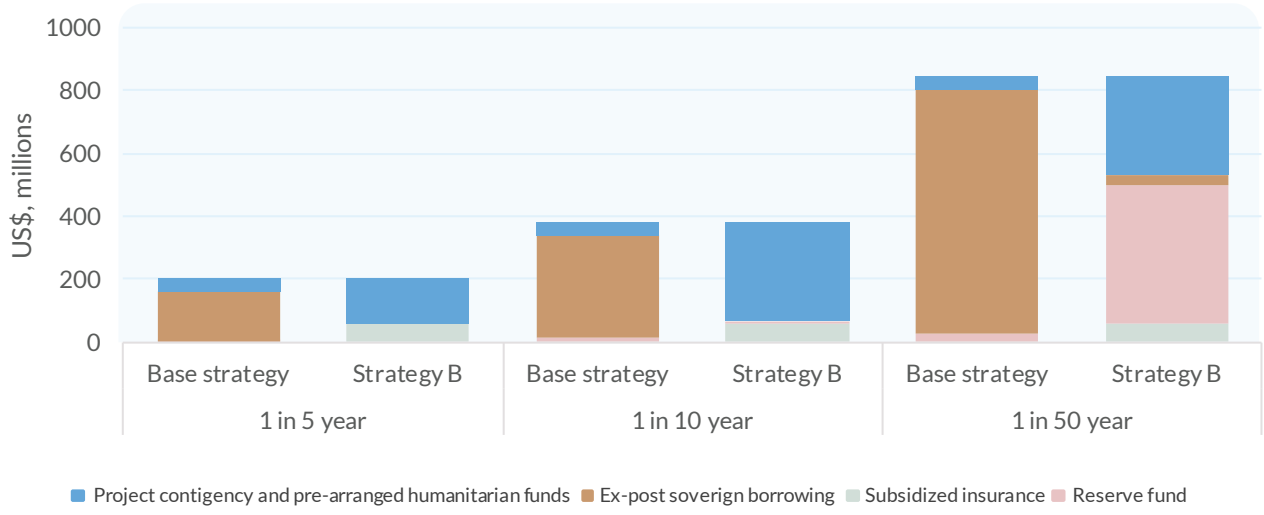
Figure 38 : Chance of each instrument being exhausted over next year



Source: World Bank analysis

Under the Base Strategy Somalia has no reserve funds or budget reallocations to resort to for small (around 1-in-3-year) events. Figure 39 illustrates a breakdown of instruments used under the base and alternative strategies for annual average loss events, 1-in-5-year events, 1-in-10-year events, and 1-in-50-year events. The grey layer could be interpreted as the funding gap; no prearranged funding exists for this layer, and instead emergency ex-post funding is required. Under the current approach FGS resorts to ex post humanitarian appeals and possibly ex-sovereign borrowing almost every year, which poses a challenge for resilient and sustainable long term development (Figure 39).

Figure 39 : Breakdown of instruments used to fund different magnitudes of loss under each DRF strategy



Source: World Bank analysis


Photo Credit: UNDP Somalia/Gabiley Tuk Tuk 15

7. Recommendations

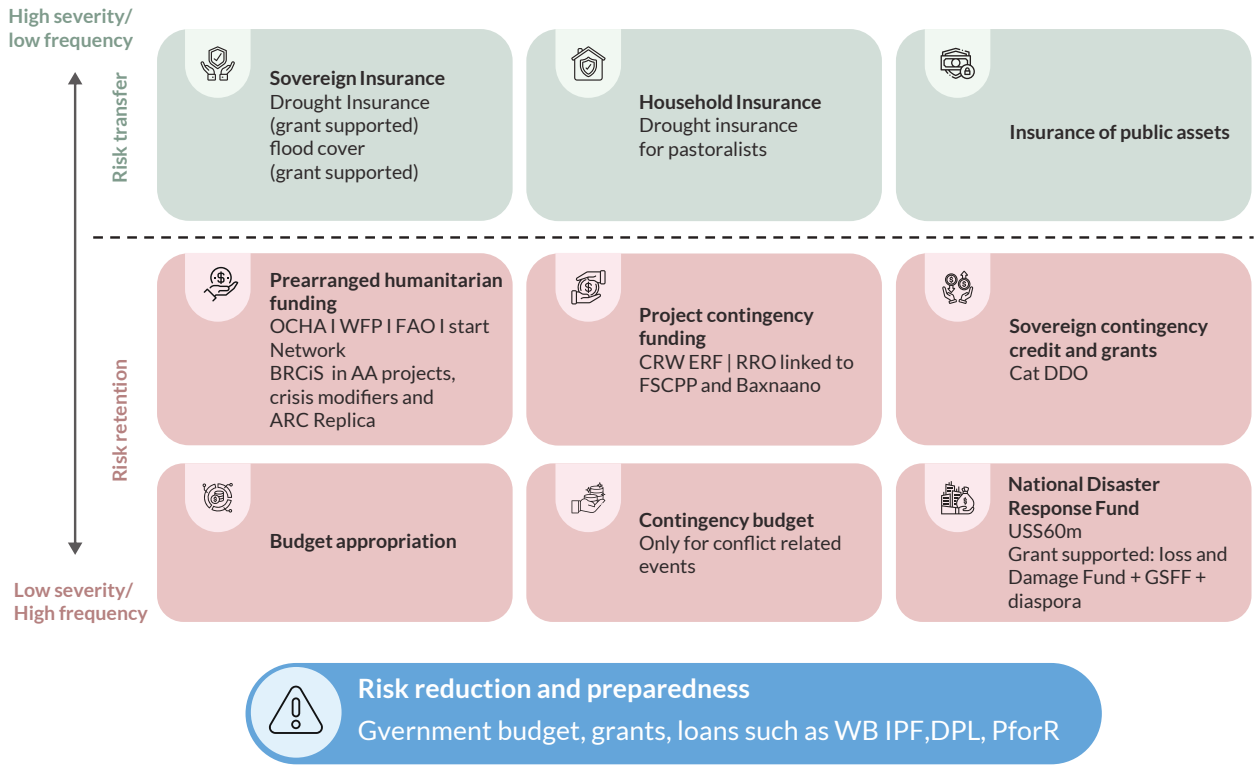
This chapter suggests a series of options to strengthen financial resilience against crises and disasters in Somalia. Options are grouped into four areas: (i) strengthened institutional capacity and coordination, (ii) investment in public goods, (iii) increased prearranged funding through pooling of financial resources and mobilization of private risk capital, and (iv) support for adaptation efforts in high-risk and productive sectors. For each area, an indicative timeline is given to support the Federal Government of Somalia with prioritization over the next five years (Table 12). These options are not mutually exclusive and can be pursued in parallel. Overall, creating a stable sociopolitical environment is a necessary condition for Somalia to strengthen financial resilience at all levels of society.

7.1 Strengthen institutional capacity, coordination, and use of government systems

Adopt and implement a comprehensive disaster risk financing strategy under the leadership of the Ministry of Finance and in collaboration with SoDMA.

While use of risk financing mechanisms is emerging, this is happening in parallel uncoordinated ways, which inhibits effective risk layering. A comprehensive strategy would help avoid fragmentation and ensure the different mechanisms complement each other and support other relevant policy initiatives. A DRF strategy would enable prioritization of specific financing sources for specific disaster events and delivery channels (see list of potential instruments in annex I). This would ultimately improve efficiency, timeliness, and transparency of disaster response. The strategy would also clarify roles and responsibilities of various ministries and agencies to minimize ongoing and potential overlaps across institutions with mandates relevant to DRF. To develop such a comprehensive DRF strategy, the government could consider establishing a multisector working group consisting of different ministries and agencies as well as key humanitarian and development partners. Doing so would help ensure wide stakeholder buy-in and strengthen coordination. Figure 40 shows how the proposed risk-layering strategy could be implemented across the public, development, and humanitarian sectors. Implementation should be accompanied by a capacity-building program to increase technical and operational capacity on DRF across relevant line ministries at FGS, FMS, and city levels including on intergovernmental transfers of emergency funds.

Figure 40 : Risk-layering strategy across public, development, and humanitarian sectors



Source: World Bank.

Note: Cat DDO = Catastrophe Deferred Drawdown Option; CRW = Crisis Response Window; ERF = Emergency Response Fund; FAO = Food and Agriculture Organization of the United Nations; FSCPP = Food Security Crisis Preparedness Plan; GSFF = Global Shield Financing Facility; MDTF = Multi-Donor Trust Fund; MoF = Ministry of Finance; MoPW = Ministry of Public Works; OCHA = UN Office for the Coordination of Humanitarian Affairs; RRO = Rapid Response Option; WFP = World Food Programme.

Establish an institutional and governance framework to formalize support from the diaspora community, including mobilization and delivery of resources, and increase its scale, efficacy, and impact.

Currently, a substantial disaster response is financed and coordinated by diaspora organizations, which can reach areas where the government has limited access. The government could leverage this unique infrastructure by cofinancing some response activities currently funded by the diaspora. Diaspora organizations, embedded in local structures, often work with volunteers and can rapidly mobilize on-the-ground support. Many diaspora organizations leverage their international presence to conduct research on fundraising opportunities, fundraise internationally, and lobby foreign governments. Some of these organizations have experience distributing cash and other forms of support to individuals, whether directly or through clans and religious leaders. Their vast experience in mobilizing and disbursing funds, along with the versatility and diversity of their work, makes them a natural source of scalable solutions for the government, especially in regions where the FGS has a limited presence.

Assess city-level gaps and opportunities for financial preparedness and consider implementation of DRF at city level. While transfers have occurred in response to some events, the legislation mandating such transfers is very limited, and institutional capacity is lacking. Some federal member states are working toward strengthening the capacity of local governments, and such efforts should be accelerated. Local governments are at the front lines of response and can efficiently leverage traditional governance structures as well as local knowledge of vulnerabilities that may not be available at the national level. Therefore, in the medium to long term, FGS and partners should consider implementing DRF at local government or city level, in addition to central government level. It would be critical to learn from the experience of pilot cities before expanding this approach to multiple cities.


Photo Credit: UNDP Photo / Said Fadhaye

7.2 Invest in public goods to inform policy, build domestic finance markets, and leverage Islamic social finance

Develop a digital national database on the occurrence and impact of climate shocks and disasters.

A national climate shock database could be built through collaboration between government, research institutions, and NGOs. Standardized data collection from reports, emergency records, satellite imagery, and crowdsourced apps would feed a user-friendly online platform that tracked events, impacts (social, economic, and environmental), intensity, location, and date of occurrence, thus allowing analysis of climate vulnerability. This centralized tool would be vital for risk assessment, resource allocation, and adaptation strategies and could be supported through the ongoing World Bank Somalia Statistical Capacity Building project.

Fast-track adoption of the Financial Institutions Bill and the National Takaful Bill and implement the takaful sector roadmap.

To develop the domestic financial markets, build confidence among consumers, and attract private sector investors, it is crucial to strengthen the regulatory framework. Partnership with private sector–focused international financial institutions like the International Finance Corporation (IFC) and bilateral development banks could help identify high-impact potential investments to increase the financial and technical underwriting capacity of the takaful sector. This effort should be in line with the implementation of the takaful sector roadmap, which is being led by the Central Bank of Somalia.

Develop an expenditure tracking system for disaster and crisis response across all funders, including those in the public, development, and humanitarian sectors.
Led by the Ministry of Finance, the expenditure tracking system should integrate seamlessly with the government's financial platform and should capture spending across all sources—from regular budgets to emergency reserves and donor aid. The system should categorize expenditures by specific disaster, response phase (response, recovery, reconstruction), and spending type (relief items, personnel, infrastructure repairs) to allow detailed analysis of resource allocation and identification of funding gaps. Review of spending patterns during the COVID-19 pandemic, for example, would help identify areas of the DRF process in need of improvement, in turn leading to more effective and efficient handling of future crises.

Assess the feasibility of using Islamic social finance to address the funding gap for disaster response and of using catastrophe sukuk to mobilize resources for climate-resilient development.
To leverage these key Islamic finance instruments, it would be crucial to determine the regulatory gaps, sharia governance framework requirements, and optimal institutional arrangements. Islamic social finance would limit the burden on state resources while enabling the vast Muslim population to meet religious and ethical giving needs. Efforts to explore use of Islamic social finance would need to consider planned inland revenue reforms to avoid double taxation. To ensure sustainability, Islamic social finance could be managed under an endowment structure like waqf. Catastrophe sukuk would enable FGS to continue its efforts on sustainable debt management amid tight fiscal space.

Introduce risk management and insurance programs in higher education institutions to address the skills gap for the growth of the financial markets, including the takaful sector.
This effort could be led by the Central Bank of Somalia and could be done in partnership with national universities, financial sector associations, and international institutions like the International Center for Education in Islamic Finance University, a Malaysian Islamic university established in 2005 by Bank Negara Malaysia.

7.3 Increase prearranged funding by pooling public, private, and development resources and mobilizing private risk capital

Operationalize the National Disaster Response Fund for emergency response to recurrent shocks while strengthening state capacity.
The fund should be linked to pre-identified delivery channels (e.g., Baxnaano, FMS, or local governments), with funds released based on objective trigger mechanisms (e.g., FSCPP). Protocols for emergency transfers to FMS and local government would need to be developed in collaboration with the Fiscal Federalism Technical Committee. Based on global experience across FCV economies, these protocols would require a clear and robust governance framework and operational procedures, and a strict limit on the scope of the fund. Given Somalia's limited fiscal space, the fund would need a dedicated fundraising strategy to access global climate and disaster risk funds, available through entities like the Loss & Damage Fund, the Global Shield Financing Facility, private donors, the diaspora, and strategic partners like the Gulf Cooperation Council. In line with prudent financial management, the amount of the fund could be set at a reasonable level (e.g., triggered by a 1-in-2-year event to minimize opportunity costs of having funds lying idle). Adequate fiduciary capacity would be required for accountability and transparency (including regular reporting and annual auditing). The fund would improve coordination and predictability of disaster response, consolidate and optimize use of limited public sources, increase use of government's public financial management processes, improve expenditure tracking, and maximize Somalia's chances of accessing available global climate risk funds. Further detail on types of fund structures is provided in Annex V. Contingency fund structures. .

Advance shock-responsive social protection by linking prearranged funds to the Baxnaano social safety net program and aligning humanitarian cash transfer programs.
This step would require risk modeling to determine horizontal and vertical scale-up costs, as well as design of a trigger mechanism and operational procedures to enable transparent and objective decision-making on release of funds. Humanitarian cash transfer programs could also be aligned with triggers and operational procedures (cash values, targeting) to maximize coverage and impact.

Foster the scale-up of anticipatory action financing by development and humanitarian partners under government-led frameworks.
Trigger-based approaches—where management of data is coordinated, risks are modeled, and assistance is planned before the event—create the opportunity for greater government oversight of humanitarian assistance. Such oversight is an important pathway toward state legitimacy. The effort to foster the scale-up of anticipatory action financing could start with the Flood Anticipatory Action Framework, in which SoDMA leadership is notably stronger than it is in 'normal' ex post humanitarian response. It could then be extended to the Food Security Crisis Preparedness Plan, with funding linked to detailed costed actions so that when triggered, the plan could be rapidly operationalized to enable early coordinated action. This would also promote government oversight of FNS crises.

Expand and institutionalize use of the World Bank Crisis Preparedness and Response Toolkit.
Key instruments to consider include a Contingency Emergency Response Project (CERP) and Catastrophe Draw Down Option (Cat-DDO), which would enable FGS to activate a Rapid Response Option, which allows the government to reallocate 10 percent of its entire uncommitted funding from the World Bank. The ability to do so would address some of the challenges experienced with the use of CERCs in the past and prevent the need for emergency projects. See Annex VII: Selected instruments under the World Bank Crisis Response Toolkit.

Strengthen public asset management and expand sovereign insurance to cover flood so that in a severe flood event, the government can access rapid liquidity and can continue providing critical infrastructure services and replacing damaged assets. FGS is completely exposed to flood risk from both recurrent low-impact events and rarer severe events. Modeled losses to residential, commercial, and industrial property suggest that losses to government could also be significant. For example, the annual average loss is US$78.3 million (34 percent of domestic revenue) while events with a 10 percent chance of occurrence would result in losses and damage of US$216 million (90 percent of domestic revenue). FGS should develop and adopt a public asset management policy and build a national public asset registry that identifies and quantifies loss exposures. This effort could be led by the Ministry of Finance working closely with the Ministry of Public Works and should be complemented by ongoing flood risk reduction and risk monitoring.


Photo Credit: UNDP Somalia/20150723_092028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7.4 Support efforts to deepen financial inclusion and adaptation in high-risk and productive sectors

Embed insurance (takaful) in a national financial inclusion strategy and in financial literacy and awareness campaigns.
FGS could create informed demand and empower households to manage risk and build financial security by leveraging the private and financial sector, including mobile money operators, microfinance institutions, and takaful operators, to scale up consumer education and financial capability training. FGS could complement this effort by collaborating with takaful operators to design affordable micro-takaful products, simplify product approvals, and offer tax breaks. The development of clear and transparent communication materials on takaful policies, including claim procedures, could build trust and prevent mis-selling.

Explore contingent financing solutions to enhance financial inclusion and resilience of the MSME sector.
The private sector, including the financial sector, is willing to partner with the government to implement options that increase the financial resilience of businesses and society. Such a partnership could involve working with the publicly supported credit guarantee scheme/fund, Gargaara, or with the association of banks to design appropriate climate risk finance products, including contingent credit, whereby insurance embedded in loans pays off the outstanding balance of the loan when triggered. Emergency loans could also be designed, whereby borrowers are preapproved and loans are triggered or disbursed when a defined trigger is met (as in the case of BRAC).

Explore potential for climate-linked housing finance, including finance targeted at IDPs. Working with financial institutions such as the Green Climate Fund (GCF), the FGS could create grant-based housing finance programs. GCF funds would be used to provide grants directly to IDPs or local NGOs for the construction or renovation of flood-resilient homes. Public-private partnerships with construction companies could be established to expedite building, with GCF funds used to incentivize participation. Local IDP communities would have to be central to the planning and implementation process to ensure the program addressed their specific needs and fostered a sense of ownership for a sustainable future. However, a needs assessment and housing finance feasibility study should first be conducted to assess the extent of the climate financing gap and potential remedies and solutions. Thorny issues and challenges that might threaten feasibility, such as land tenure and title, should also be investigated.

Table 12: Recommendations for building financial resilience to climate shocks and disasters in Somalia

Time frame	Strengthen institutional capacity, coordination, and use of government systems	Invest in public goods to inform policy, build domestic finance markets, and leverage Islamic social finance	Increase prearranged funding and mobilize private risk capital	Support efforts to deepen financial inclusion and increase climate adaptation
Short term	✦ Develop and implement a comprehensive DRF strategy ✦ Establish an institutional and governance framework to formalize and increase the scale, efficacy, and impact of support from the diaspora community.	✦ Fast-track the adoption of the National Takaful Bill and Financial Institutions Bill; fast-track implementation of the takaful roadmap. ✦ Develop a digital national database on the occurrence and impact of disasters.	✦ Establish a national disaster response fund linked to clear delivery channels (e.g., Baxnaano, FMS) based on objective trigger mechanisms (e.g., FSCPP) with clear and transparent financial management and operational procedures to manage recurrent shocks. ✦ Advance shock-responsive social protection by linking prearranged funds to Baxnaano and aligning humanitarian cash transfer programs.	✦ Embed insurance (takaful) in a national financial inclusion strategy and financial literacy and awareness campaigns.
Medium term	✦ Implement a capacity-building program to increase technical and operational capacity on DRF across relevant line ministries in FGS, FMS, and city/local government states; build the capacity of FGS to transfer emergency funds to FMS and local governments. ✦ Review of FGS PFM Act to improve funding, transparency and accountability on disaster related expenditures and include disaster financing in the new cycle of the PFM Action Plan	✦ Develop an expenditure tracking system for disaster response across government and partners. ✦ Conduct feasibility assessment of Islamic social finance in line with ongoing tax reforms and potential for FGS catastrophe sukuk issuance.	✦ Expand and institutionalize use of the World Bank Crisis Preparedness and Response Toolkit. ✦ Foster the scale-up of anticipatory action and prearranged finance by partners under government-led frameworks. ✦ Explore nontraditional donors like the Gulf Cooperation Council. ✦ Expand sovereign cover against drought and adopt cover against flood in line with risk layered approach.	✦ Explore contingent financing solutions to enhance financial inclusion and resilience of the MSME sector.
Long term	✦ Consider implementation of DRF mechanisms at city level. ✦ Lobby for use of FGS public financial management systems by development and humanitarian partners.	✦ Introduce risk management and insurance programs in higher education institutions to close skills gap.	✦ Develop a public asset management policy and assess feasibility of a public asset insurance pool.	✦ Explore potential for climate-linked housing finance targeted at IDPs.

Source: World Bank.

Note: DRF = disaster risk finance; FGS = Federal Government of Somalia; FMS = federal member state(s); FSCPP = Food Security Crisis Preparedness Plan; IDPs = internally displaced persons; MSMEs = micro, small, and medium enterprises. Short term = six months to one year; medium term = one to three years; long term = three to five years.

Annexes

Annex I: Summary of disaster risk transfer mechanisms

DRF opportunity	Description	Leverage	Challenges	Mitigations	Critical success factors
Index-linked/ parametric insurance/ micro-takaful	Product triggers payouts based on predefined parameters (e.g., wind speed for storm, rainfall and river flow levels for flood, vegetation level for drought) regardless of actual damage. Example: Somalia DRIVE project	Scale up DRIVE project. Use mobile money platform and new national social registry system to preregister potential beneficiaries.	Limited coverage for complex losses. Difficulty setting accurate parameters. Limited risk pool, potentially leading to high premiums. Difficulty reaching and educating communities.	Develop hybrid insurance combining parametric and indemnity elements. Run strong consumer education and awareness campaigns. Partner with NGOs and community leaders for financing and distribution. Pivot to risk contingent credit (insurance embedded to pay off loan on disaster).	Strong data infrastructure and risk modeling capabilities Trustworthy third-party verification of triggers Strong community engagement and trust Effective risk communication and claims management Strong retakaful arrangements
Public asset insurance	Product transfers risk to insurance or capital market to protect critical infrastructure and public assets against earthquakes, floods, or cyclones Example: Philippine Local Disaster Risk Reduction and Management Funds (PrepareCenter.org 2016)	Partner with CBS to develop quality assurance codes. Develop public asset register. Partner with regional established takaful /regional insurance pools to provide access to expertise, risk assessment tools, and claims processing infrastructure.	Premiums can be significant, especially for high-risk areas. May not be readily available in all regions or for all types of public assets. Navigating the claims process with insurers after a disaster can be complex and time-consuming.	Develop or participate in regional or national risk pools to spread risk and potentially lower premiums. Develop clear protocols for claim filing and disbursement to expedite the post-disaster recovery process.	Comprehensive risk assessment for tailored coverage and competitive premiums Strong financial management through efficient budgeting and allocation of funds for maintaining assets Transparency and accountability regarding policy details and claims processes to foster trust and efficient implementation
Catastrophe bond or Sukuk	Product transfers risk to capital markets through tradable bonds that pay out after specific events. Resilience bonds capture added value of resilience in the form of lower premiums for catastrophe bonds. Example: Jamaica catastrophe bond providing US$150 million in cover against storms (World Bank 2024b)		High transaction costs and complexity. Limited market appetite and capacity for high-risk regions.	Develop or participate in regional risk pools to spread exposure. Explore bond structures tailored to specific risks.	Strong institutional capacity and risk management expertise Supportive regulatory environment for capital markets
Insurance-backed public-private partnership (PPP)	Product is a resilience service company, which functions like an energy service company by covering initial capital costs in exchange for a share of future insurance premium savings. Example: Philippine flood control PPP supported by a US$303 million loan from ADB to reduce flood and climate risks and protect people and livelihoods in three major river basins (ADB 2023)	Leverage the AfDB-led Somalia Infrastructure Fund (SIF), which develops and rehabilitates key infrastructure in the housing and energy sector.	Government has limited ability to assure investors about the physical security of infrastructure in the face of continued conflict and terrorism in Somalia.	Bundle PPP financing with catastrophe insurance.	Robust PPP legislation and regulation

Source: World Bank based on Guibert 2019; academic research; idea generation using Gemini AI.

Note: ADB = Asian Development Bank; AfDB = African Development Bank; CBS = Central Bank of Somalia; DRIVE = De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa.

Annex II: Early warning initiatives in Somalia

Early Warning System	Role/responsibility
SWALIM (Somalia Water and Land Information Management)	Monitor hydrological data, satellite imagery, real-time data; manage Somalia Water Sources Information Management System (SWIMS), early action, data/maps for preparedness and response
FSCPP (Somalia Food Security Crisis Preparedness Plan)	Undertake automated monitoring, predict food crises, analyze data for financing and activation
ICPAC (IGAD Climate Prediction and Applications Centre)-GeoSFM flood model	Undertake flood modeling, forecasts, daily reports
Digniin (SMS alert system) – SWALIM/FAO	Send out SMS alerts, real-time warnings
Combined Drought Index (CDI) – SWALIM/FAO	Monitor drought conditions, statistical index, severity levels
EWARN (Epidemic Surveillance System) – Ministry of Health	Monitor health trends, disease outbreaks, health plans, information dissemination, medical services, epidemic response
FRRIMS (Flood Risk and Response Information Management System) – SWALIM/FAO	Monitor and share real-time river gauge data, early warning levels
SWIMS (Somalia Water Sources Information Management System)	Undertake data management for water sector, national database
FEWS NET (Famine Early Warning System) – SWALIM/FAO	Forecast household needs, food insecurity metrics
PRMN (Protection and Return Monitoring Network) – UNHCR	Monitor displacement levels
MOECC (Ministry of Environment and Climate Change)	Disseminate weather forecasts, disaster policies; coordinate early warning
UNDRR (United Nations Office for Disaster Risk Reduction)	Undertake systemic impacts analysis, disaster risk support
State emergency management agencies	Declare state of emergency, request resources
SWALIM – ICPAC – SoDMA (Somali Disaster Management Agency) partnership	Enhance flood modeling, early warning systems, operational decision-making

Source: World Bank compilation.

Note: FAO = Food and Agriculture Organization of the United Nations; GeoSFM = Geospatial Stream Flow Model; UNHCR = UN Refugee Agency.

Photo Credit: UNDP Somalia/DSC_9880

Annex III: Institutional framework: Additional relevant line ministries for disaster response

The **Ministry of Public Works and Reconstruction** is responsible for the maintenance of public infrastructure and is crucial in conducting response and reconstruction activities, especially for public buildings and roads. The ministry is expected to undertake assessments of needs in the aftermath of shocks and should have dedicated personnel for this purpose. It is also expected to advise and implement public asset insurance. These mandates appear to overlap with those of SoDMA, which coordinates response to disasters, and the Ministry of Finance, which according to the Public Financial Management Roadmap Action Plan is responsible for creating a registry of public assets through the National Asset Department.

The ministry appears to be severely underfinanced and therefore unable to effectively act on its mandate. In addition to the lack of budget, the ministry cites significant capacity constraints in the implementation of technically demanding activities, such as loss assessment and the use of financial instruments. If appropriately funded, the ministry could be a source of information on contingent liability related to roads and other public infrastructure. It could also work closely with the Ministry of Finance in establishing a public assets registry and formulating insurance needs for key public infrastructure.

The **Ministry of Health** focuses on responding to epidemics and public health emergencies through a dedicated unit under the Directorate of Public Health (Ministry of Health and Human Services, n.d.). In the aftermath of a shock, this unit is responsible for mobilizing resources from the government and partners, distributing any medical supplies available in its central warehouse, convening coordination meetings, and disseminating relevant information. The ministry has limited financial capacity to respond to shocks and very limited technical capacity to manage health emergencies. These limitations came into focus during the COVID-19 pandemic, when the ministry was responsible for distributing first-response aid and for managing substantial in-kind and financial aid. During this time, the ministry's ability to manage financial flows in accordance with the Public Financial Management Act was deemed inadequate. Among the issues noted were the direct disbursement of funds from donors to the ministry, the use of unaudited accounts, and a lack of administrative capacity that led to weak coordination and impeded the transfer of funds to subnational governments (Office of the Auditor General 2022).

The **Ministry of Labour and Social Affairs** manages safety net programs, which are a major mechanism for reaching affected populations with post-disaster relief. Currently, the ministry manages two main safety net programs: Baxnaano and Sagal. Together, these programs support just under 300,000 households; both are designed to be shock-responsive. The ministry is working to improve coordination among organizations in disaster response by aligning transfers originating from different programs to ensure fair distribution and avoid situations where households benefit from multiple programs. According to the ministry, lack of prearranged funding and targeting remains a critical challenge for shock-responsive social protection. Difficulties in identifying and reaching the most vulnerable populations during and after disasters are being addressed through the recently established Unified Social Registry, but there is no prearranged funding linked to safety nets.

The **Ministry of Livestock, Forestry and Rangelands** coordinates projects related to livestock management. Hence it is of crucial importance to the country, as livestock forms the cornerstone of Somalia's economy. The funding available for response comes entirely through provisions in programs implemented by development partners. The ministry is an implementer and recipient of capacity building under the De-risking, Inclusion, and Value Enhancement of Pastoral Economies in the Horn of Africa (DRIVE) project, which provides pastoralists with drought insurance and other financial services. The ministry also oversees parts of the World Bank–financed Food Systems Resilience Project and the African Development Bank–financed Resilience in Food Security and Nutrition Project for the Horn of Africa. The ministry is unable to respond to large-scale events due to lack of funding and would like to build on the experience with the DRIVE project to strengthen pastoralists' resilience to climate shocks.


Photo Credit: UNDP Somalia/DSC_9790

Annex IV: IMF Contingency Facilities

Table 13 : Facilities potentially available to Somalia from the IMF following the completion of HIPC

Facility	Cost	Timeline for access/duration	Conditions to access	Maximum borrowing
Extended Credit Facility (ECF)	Concessional interest rates (currently zero), service charge, commitment fee	Medium to long term	Conditional on structural reforms and medium-term policy adjustments	Up to 145% of quota annually, 435% cumulatively
Rapid Credit Facility (RCF)	Concessional interest rates (currently zero), service charge of 0.5% Grace period: 5.5 years Final maturity: 10 years	Rapid (within weeks)	- The country must commit to policies that address the immediate crisis. - Unlike other facilities, it entails no ongoing performance criteria or reviews. - The facility is designed for urgent needs and quick disbursement.	Up to 50% of the member's quota annually and a cumulative limit of 100% of the quota; larger quotas for large disasters exceeding 20% of country's GDP and for food shocks.
Standby Credit Facility (SCF)	Concessional interest rates (currently zero), service charge, commitment fee	Short to medium term	Conditional on policy adjustments and structural reforms	Up to 145% of quota annually, 435% cumulatively
Catastrophe Containment and Relief Trust (CCRT)	Grant for debt relief, no cost to the country	Expedited approval process; approval in a few weeks. Debt service relief for up to 2 years	Conditional on catastrophic natural disasters or public health disasters	Provides grants rather than loans, so there is no specific borrowing limit. No additional funds are made available; rather, some or all obligations toward the IMF are canceled.

Source: World Bank compilation

Note: HIPC = Heavily Indebted Poor Countries.

Annex V. Contingency fund structures

Table 14: The pros and cons of different contingency fund structures

Type of fund	Pros	Cons
Extrabudgetary fund	✦ Allows earmarking of resources for specific purposes ✦ Can accumulate other years ✦ Can be linked with other risk financing instruments, such as insurance ✦ Can provide a more consistent source of funds for expenditures that yield high benefits yet do not get much recognition (e.g., road maintenance expenditures)	✦ Can result in a loss of aggregate expenditure control, as expenditure may be outside the control of ministry of finance ✦ Can distort allocation of resources by circumventing the budget process and review of priorities ✦ Can result in funding that is no longer based on priority needs if earmarked revenues become entrenched ✦ May lead to inefficiency and/or misuse of funds given lack of transparency ✦ Can facilitate rent-seeking and abuse of monopoly power ✦ Leads to less flexibility at the margin to reallocate when budget is under stress ✦ Is incompatible with good cash management practices
On-budget contingency line	✦ Is subject to the same rules and regulations as wider budget expenditure therefore subject to government control and monitoring ✦ Lends itself to transparency through regular budget reporting and audit	✦ May not be able to accumulate resources over years if accruing budgeting is not practiced ✦ Is usually designed for other contingencies as well ✦ Is subject to fiscal year constraints (lapse at year-end; exhaustion of resources by the end of the year)
On-budget pass-through account	✦ Can facilitate flash appeals for donor aid ✦ Can help channel this aid to government priorities ✦ Facilitates tracking of expenditures	✦ Does not allow earmarking of resources ✦ Cannot accumulate over years ✦ Depends on external inflow of funds ✦ Does not improve financial preparedness to disasters

Source: Swiss Economic Cooperation and Development (SECO),

Annex VI: Funding gap analysis modeling assumptions and data

Assumptions for the funding gap analysis modeling are shown in Table 15. The cost of cash transfer is based on the payout provided under the national shock-responsive scheme Baxnaano. The payout under Baxnaano was chosen so that the modeling retains the current relief support provided by the government under Baxnaano. Given that a Household Economy Survey was completed in 2022, a review of the suitability of current Baxnaano payout amounts is recommended. While the Ministry of Health tracks and carries out risk assessments following epidemic outbreaks, no information was readily available to estimate the cost of epidemic due to disaster. Scholarly analysis carried out in comparable regions was therefore used to provide proxy estimates for epidemic cost in Somalia. More detailed scenario testing is required to assess the impact under various scenarios.

Table 15: Assumptions for estimating the cost of emergency and health relief costs

Assumption category	Cost per person (US$)	Additional notes
Total flood/storm relief	**127**	
Cash transfer	60	Based on Baxnaano scheme
Temporary shelter	38	Based on Parvez et al. 2020.
Operational cost	29	Based on Baxnaano project costs
Total drought relief	**89**	
Cash transfer	60	Based on Baxnaano scheme
Operational cost	29	Based on Baxnaano project costs
Total health service relief	**136**	Modeled cost of cholera, 90 percent of cases hospitalized
Household hospitalization cost	74	
Household outpatient cost	11	
Health facility hospitalization cost	76	
Health facility outpatient cost	3	Based on Mogasale et al. 2021
Baxnaano program		
Baxnaano payout per household (US$)	60	
Household size (no. of persons)	6	
Relief period (months)	6 (all perils)	
Operational cost factor per household (%)	49%	

Source: Swiss Economic Cooperation and Development (SECO),

Table 15 summarizes the assumptions made about the funding available to the FGS. The base strategy represents the funding that is assumed available to the FGS. Strategy B presents potential funding arrangements, assuming a mix of funding instruments and different funding levels, from both the private and public sectors. Somalia recently achieved the Heavily Indebted Poor Countries (HIPC) completion milestone, which gives it access to contingency credit. For modeling purposes, maximum access to this credit is assumed, although the actual amount that Somalia will be able to access largely depends on its ability to service the debt.

Table 15: Summary of assumptions about available funding

Instrument	Base strategy		Strategy B	
	Loss return period	Amount	Loss return period	Amount
Budget Reallocation		-		-
Reserve		-	1-in-3 year	60,000,000
Project contingency financing	1-in-3-year	45,000,000		100,000,000
Ex ante humanitarian funding		-	1-in-10 year	220,000,000
Ex post humanitarian funding		unlimited		unlimited
Insurance	1-in-25-year	55,423,133	1-in-50 year	440,000,000

Photo Credit: UNDP Somalia/Baligubadle 35

Additional Assumptions:

- The maximum funds that are available under the Cat DDO IDA can be no more than 0.5% of GDP
- GDP of US$11.6 billion was assumed in calculating the maximum funds available under the Catastrophe Draw Down Option
- The insurance attachment point under Base Strategy is US$150 million and US$380 million under Strategy B.
- The insurance exhaustion point under Base Strategy is US$645 million and US$820 million under Strategy B.
- The cession level under the Base Strategy is 11% of total insurance cover and 100% of total insurance under Strategy B
- More ex ante private and humanitarian funding are available under Strategy B. This includes funds mobilized from diaspora remittances, the private sector, and Islamic finance.
- Ex-post sovereign borrowing is never exhausted due to the simplifying assumption that it is unlimited. A more realistic assumption for the limit on ex-post sovereign borrowing could be derived from detailed discussions with the FGS.

Explanation of technical terms

- The **return period** is the duration over which a loss of the same or greater magnitude should be expected. A 1-in-5-year return period loss is the estimated annual loss expected to be exceeded once every five years on average; in other words, in any given year there is a 20 percent probability of a loss at least as great as this. Similarly, a 1-in-10-year return period loss is the annual loss expected to be exceeded once every 10 years on average, i.e., a loss with a 10 percent probability in any given year. The estimates do not mean these disasters will occur only once every 5 (or 10) years.
- The **insurance attachment point** represents the minimum level of damage at which the proposed insurance cover is provided. The insurance cover will kick in only after this minimum damage level has been reached. Below this trigger level, other forms of disaster risk instruments are more suitable.
- The **insurance exhaustion point** represents the maximum level of insurance cover that can be purchased. This capacity is often determined both by the purchaser's financial resources (i.e., maximum ability to pay premium) and by the insurance provider's financial position and security (i.e., ability to back any insurance liability it takes on). The higher the ability of the purchaser to pay premiums and the higher the ability of the insurance provider to back its liabilities, the larger the insurance cover that can be obtained.
  Cession represents the portion of insurance cover that is paid for by the premium. A higher cession level represents a higher level of coverage of loss that is secured.

Photo Credit: UNDP Somalia/Berbera GVs 1

Table 16: Summary of data used for the funding gap analysis and its limitations

Data type	Required information	Purpose	Available sources used	Criteria met by source	Limitations in source data
Historical disaster data	Records of past disasters with data on frequency, type, location, and severity	To identify historical trends and patterns in disaster occurrences	EM-DAT IMO SWALIM and other early warning systems	Frequency Type Location Between years 1980 and 2024	No insured damage Limited credible data points available, disaster history before 1980 unreliable
Economic data	Information on GDP, sectoral contributions, and income distribution impacted by disaster	To assess the economic vulnerability of different sectors and populations	CBS Ministry of Finance and other sectoral ministries PDNAs Humanitarian partners—e.g., FAO, WHO, OCHA	Drought and flood impact for specific years covered by PDNA Loss of livestock exports	No statistics available for disaster years not covered in PDNAs Data collected by humanitarian partners available in silos and not in format that can be readily consolidated across different sources
Social data	Demographic information, population distribution, and social indicators like education and health impacted by disaster	To understand the social impacts of disasters and the vulnerability of different groups	OCHA WHO Scientific journal papers	Displacement trend between 2016 and 2023	No displacement patterns prior to 2016 No information on disaster impact on health sector
Physical asset data	Information on type and value of infrastructure, buildings, and other physical assets	To assess the potential physical damage and economic losses from disasters	2024 JBA Risk Management flood analysis	Impact on residential and commercial property	No information on distribution, status, and value of public assets
Financial data	Information on public and private insurance coverage, government disaster response budgets, and international aid flows	To evaluate the current financial resources available to address disaster risks	Ministry of Finance World Bank project documents	Sovereign insurance cover Project contingent emergency finance	No information on amount or nature of contingent liabilities
Risk assessment data	Results from hazard and vulnerability assessments that identify potential risks and their impacts	To prioritize areas for intervention and estimate potential funding needs	GDFRR Tool 1 JBA Risk Management flood analysis	Estimated impact from drought, flood, storm, and epidemic (based on available historical disaster data)	Impact of interactions between disaster types not considered

Source: World Bank.

Note: CBS = Central Bank of Somalia; FAO = Food and Agriculture Organization of the United Nations; GDP = gross domestic product; GFDRR = Global Facility for Disaster Reduction and Recovery; IMO = International Organization for Migration; OCHA = UN Office for the Coordination of Humanitarian Affairs; PDNA = Post-Disaster Needs Assessment; SWALIM = Somalia Water and Land Information Management; WHO = World Health Organization

Annex VII: Selected instruments under the World bank Crisis Preparedness and Response Toolkit

Instrument	Key Features	Pros	Cons
CAT-DDO	✦ Requires pre-specified drawdown trigger (e.g. disaster) ✦ Budget support ✦ Disburses rapidly once trigger is met (within 14 days) ✦ Requires satisfactory DRM policy program and adequate macroeconomic framework ✦ Duration 3 yrs, extendable to 6 yrs ✦ Can be used to activate a Rapid Response Option (RRO)	✦ Facilitates multi-sectoral DRM policy dialogue ✦ Fast and flexible disaster response financing (budget support) ✦ Supports up to 6 years of TA to strengthen sectoral DRM capacity ✦ Revolving – amounts repaid are available for drawdown (favorable terms for IDA)	✦ Fiduciary/governance risks ✦ Only disburses for past disasters ✦ Counts against country's exposure limit (drawdown does not reset limit till operation closure)
Contingency Emergency Response Component (CERC)	✦ Allows Government **to redeploy undisbursed and uncommitted funds** from a WB CERC Project to respond to an emergency. ✦ Quick reallocation of project funds, if manuals pre-agreed ✦ Strengthens emergency preparedness and country capacity ✦ Triggered by disaster declaration or when imminent (agreed trigger)	✦ Quick access to financing; No formal restructuring for reallocation ✦ Flexible design options ✦ Can finance activities outside the geographical/sectoral scope of project ✦ Simplified procurement procedures ✦ Reduces fiduciary risk ✦ Can retroactively finance eligible activities ✦ Timeline for spending 12-18 months	✦ Need upfront preparation and readiness to ensure fast disbursement ✦ Needs experienced PIU ✦ Requires post reallocation project restructuring within 3 months for reallocation (to zero comp) or within 6 months when additional financing is processed
Contingent Emergency Response Project (CERP)	✦ Repurpose up to 10% of undisbursed balances p.a. ✦ Requires annual strategic country engagement ✦ Disburses within 72 hours ✦ Funds remain with parent projects (same legal agreement and financial terms) ✦ Operationally delinked from parent projects (own executing PIU) ✦ Active for up to six years ✦ Can be used to activate a Rapid Response Option (RRO)	✦ Streamlined rapid disbursement for immediate response needs ✦ Simplified procedures and documentation ✦ Can be triggered by wide range of crises (including health or conflict) ✦ Annual review and update of CERP Manual to allow adjustment ✦ Can be activated multiple times	✦ Positive list can be limiting (i.e. no activities with substantial safeguards allowed) ✦ Requires separate reporting and compliance ✦ Funding reallocation impact can create financial gaps in host projects ✦ Host operations have 12 months to be restructured ✦ Requires upfront agreement on scope and implementation
REPAIR Project in Southern Africa – A combination of instruments - reserves, IPF-DDO and sovereign insurance	✦ Allocate IDA funds between three instruments – reserves, contingent credit and sovereign insurance. ✦ Regionally implemented, with steering provide by countries ✦ Disburses within 7 days to countries designated account ✦ Activities in line with CERC manual ✦ Active for up to five years in line with WB project timelines.	✦ Regional implementer providing in-kind capacity building for both financial (MoF) and operational preparedness (distribution channels) ✦ Speed of payments ✦ Flexibility on instruments available under regional platform, and perils covered ✦ IPF-DDO has favorable terms for IDA. ✦ Broader set of permissible activities than CERP.	✦ Need upfront preparation and readiness of delivery systems to ensure fast disbursement. New lending taken from country allocation.

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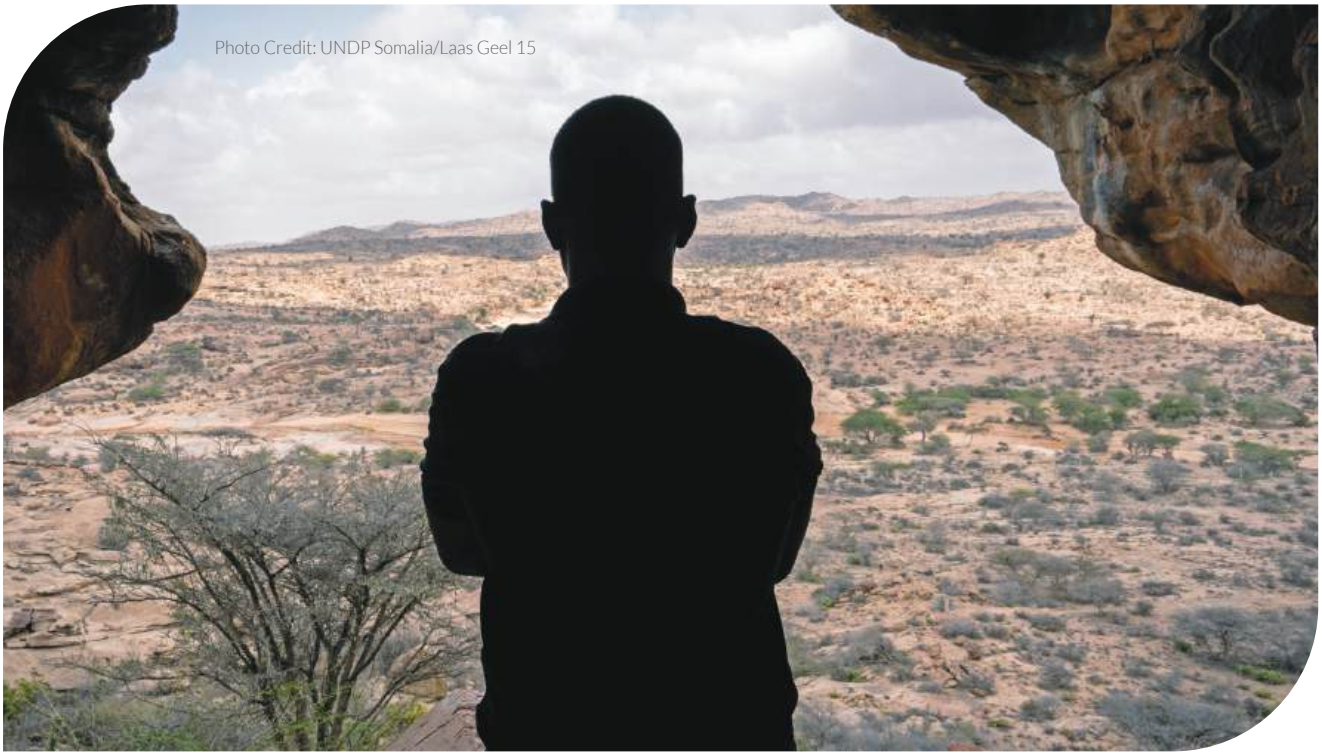

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