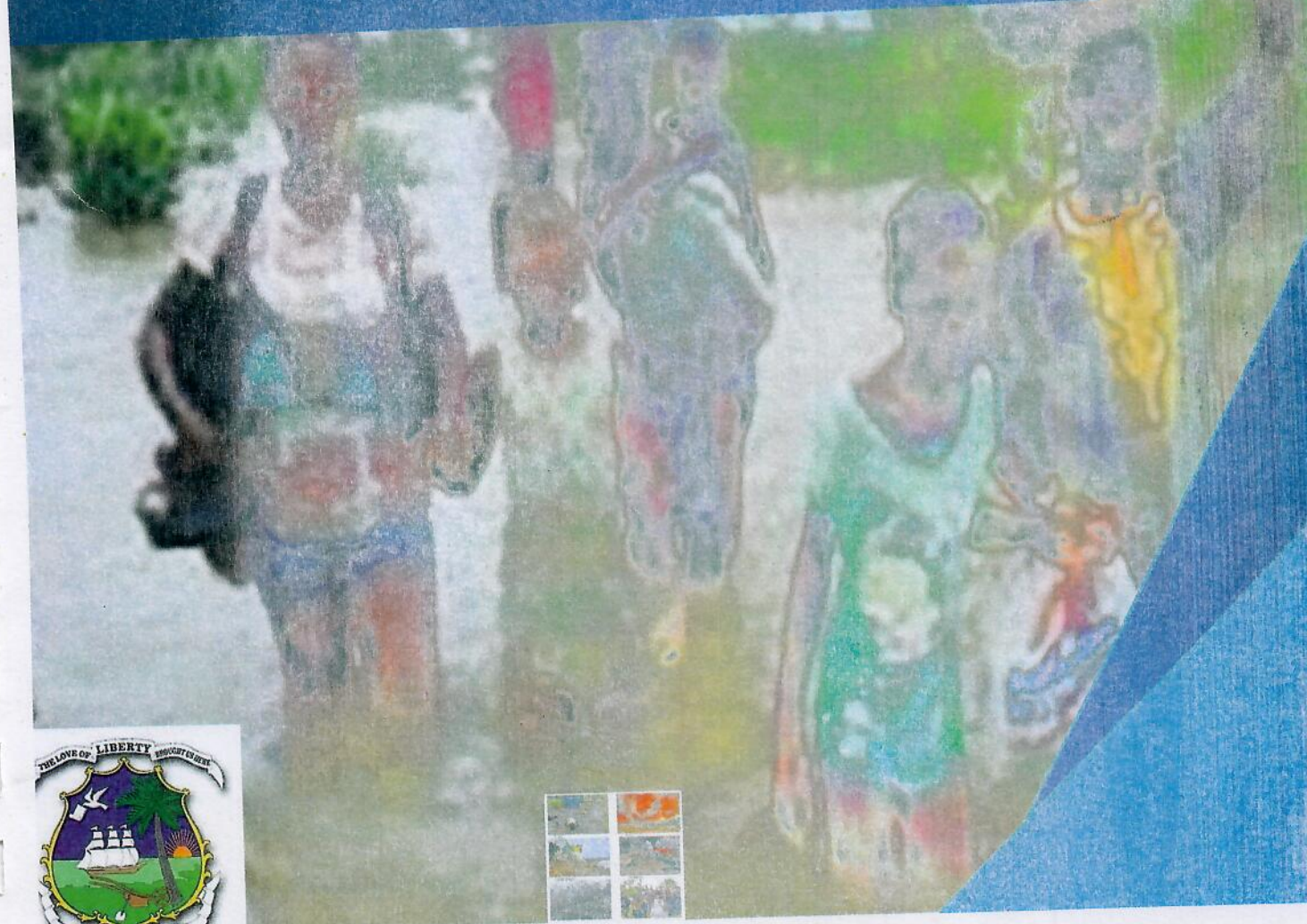




Disaster Risk Financing Strategy for Liberia

Building Liberia's Fiscal Shield Against Disasters



Acronyms

AAL	Average Annual Loss
AfDB	African Development Bank
ARC	African Risk Capacity
BCPs	Business Continuity Plans
Cat Bonds	Catastrophe Bonds
Cat-DDO	Catastrophe Deferred Drawdown Option
CBL	Central Bank of Liberia
CDMCs	County Disaster Management Committees
CWG	Core Writing Group
DRF	Disaster risk financing
DRFS	Disaster Risk Financing Strategy
DRF-SC	Disaster Risk Financing Steering Committee
EPA	Environmental Protection Agency
GESI	Gender, Equity, and Social Inclusion
GRB	Gender-Responsive Budgeting
IFIs	International financial institutions
IFMIS	Integrated Financial Management Information System
KPIs	Key Performance Indicators
LIRC	Liberia Insurance Regulatory Commission
LISGIS	Liberia Institute of Statistics and Geo-Information Services
LMA	Liberia Meteorological Agency
LNDRIIS	Liberia National Disaster Risk Information System
M&E	Monitoring and Evaluation
MDAs	Mandatory for Government Agencies
MEL	Monitoring, Evaluation, and Learning
MFDP	Ministry of Finance and Development Planning
MoA	Ministry of Agriculture



MoGCSP	Ministry of Gender, Children and Social Protection
MoH	Ministry of Health
NDMA	National Disaster Management Agency
NDRFU	National Disaster Risk Financing Unit
NPHIL	National Public Health Institute of Liberia
PPPs	Promote Public-Private Partnerships
UNDP	United Nations Development Programme
WFP	World Food Programme



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A Promise of Preparedness: Building Liberia's Fiscal Shield Against Disasters.



There comes a moment in every nation's development journey when difficult questions must be asked, not just about where we are, but about how we weather the storms ahead. For Liberia, that moment is now. The intensifying frequency and magnitude of disasters have laid bare the vulnerabilities in our systems, financial, institutional, and social. The need for a strategic, well-financed, and inclusive approach to disaster risk is not just urgent; it is existential.



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This Disaster Risk Financing Strategy (DRFS) represents a monumental shift in how we, as a government, respond to risk, not as victims of circumstance, but as architects of resilience. It is a blueprint that aligns foresight with fiscal discipline, innovation with equity, and national leadership with global best practice. I am particularly proud that this Strategy emerged from a process characterized by inter-institutional cooperation, technical rigor, and bold national ownership.

As Minister of Finance and Development Planning, my conviction is firm: resilience must be financed, not improvised. Disasters, by their nature, may be unpredictable, but our response to them must never be. This is why we are embedding pre-arranged financial instruments into our national budgeting architecture, strengthening public financial management systems, and ensuring that when shocks come, whether natural or man-made, our systems will not only withstand them but recover stronger and faster.

But resilience is not only about numbers in a budget; it is about people. It is about protecting the smallholder farmer in Bong whose crops are washed away by floods. It is about the market woman in West Point whose goods are lost to coastal erosion. It is about ensuring that the most vulnerable in our society, women, children, the elderly, and persons with disabilities, are never left behind in a moment of crisis. This Strategy is, in essence, a promise. A promise that Liberia will no longer be reactive, but will instead be proactive. That we will not merely survive disasters, but rise from them with renewed strength and determination. It is a promise that our government stands ready, our systems are being fortified, and our future is being protected.

I want to extend my sincere gratitude to the National Disaster Management Agency, our international and local partners, and all the technical experts who contributed to the realization of this vision. The work continues, but today we take a significant step forward toward a more prepared, resilient, and hopeful Liberia.

Thanks!

Hon. Augustine Kpehe Ngafuan

Minister of Finance and Development Planning, Republic of Liberia



Foreword

The complex nature of disasters in Liberia continues to pose significant social, economic, fiscal, and environmental challenges, often with deep and lasting intergenerational effects. The human and financial costs are rising, driven by rapid urban growth, climate change, deforestation, unregulated development, and higher population densities in high-risk areas. Both natural and human-induced hazards, such as floods, droughts, fires, epidemics, and coastal erosion, have disrupted livelihoods, displaced communities, and strained government resources. These disasters frequently require reallocating funds intended for critical long-term development.



Investments, redirecting them toward emergency relief and recovery interventions.

In recognition of these realities, the Government of Liberia, through the National Disaster Management Agency, in close collaboration with the Ministry of Finance and Development Planning, has developed this Disaster Risk Financing Strategy and Implementation Plan. It forms a core component of Liberia's broader disaster risk reduction and climate resilience architecture.

This strategy marks a bold step forward in our collective effort to ensure fiscal readiness and proactive disaster risk management. It employs a multi-sectoral coordination approach that involves Ministries, Departments, Agencies, counties, and development partners. Its main goal is to guarantee that predictable and timely financial resources are available after disasters. This preparedness will enhance the speed and efficiency of fund disbursement, reduce the opportunity costs associated with reactive financing, and increase public confidence in the government's response capabilities. The DRFS outlines a portfolio of pre-arranged financial tools, including contingency funds, risk transfer mechanisms, and social protection measures, designed to cover funding needs for both common and severe disasters. It focuses on equity, fiscal discipline, and data-driven decision-making. It also introduces a risk-layering approach to lessen the fiscal burden of disasters on Liberia's most vulnerable citizens while preserving national development gains. This strategy advances our collective pursuit of fiscal preparedness and proactive disaster risk management, promoting collaboration across sectors to ensure timely funding, streamline disbursements, and bolster public trust in government response capabilities.

As Executive Director of the National Disaster Management Agency, I am honored to endorse this groundbreaking strategy. It demonstrates Liberia's commitment to transitioning from a reactive to a proactive and resilient approach, supported by careful financial management, inclusive governance, and international collaboration. The thorough implementation of this strategy will be crucial in mitigating the socioeconomic impacts of disasters and safeguarding the well-being of present and future generations.

Thanks,

Atty. Ansu V.S Dulleh Sr.

Executive Director

National Disaster Management Agency (NDMA)



Introduction – Disaster Risk Financing Strategy (DRFS) for Liberia

Liberia, like many developing nations, remains highly vulnerable to both natural and human-induced disasters, including floods, droughts, coastal erosion, disease outbreaks, and fire

incidents. These hazards often disrupt national development efforts, weaken hard-earned socio-economic gains, and affect the most vulnerable populations more severely. Given the increasing climate variability and higher costs of disaster response and recovery, the NDMA acknowledges the urgent need for a proactive and sustainable approach to funding disaster risk. Therefore, this DRFS is a vital tool designed to help Liberia anticipate, withstand, and recover from shocks without derailing its broader development goals.

At its core, the DRFS strategies establish pre-arranged financial mechanisms that provide predictable and timely access to resources in case of a catastrophe. This marks a significant shift from traditional reactive methods toward a more proactive and risk-informed financing system. The strategy introduces tools such as contingency funds, sovereign insurance, catastrophe bonds, and early warning-triggered financing, all aimed at responding to, mitigating, and protecting national investments. By integrating these instruments into existing planning and budgeting frameworks, Liberia aims to strengthen financial resilience at the national, county, and community levels. Another key aspect of the strategy is its focus on equity and inclusion. Disasters often worsen poverty and marginalization, especially among women, children, the elderly, persons with disabilities, and informal workers. The DRFS therefore prioritizes social protection mechanisms, including cash transfers, subsidized insurance, and community resilience funds, to ensure that vulnerable groups receive timely and adequate support. These interventions are not only life-saving but also help prevent long-term socio-economic setbacks, empowering communities to recover more quickly and sustainably.

The successful implementation of the DRFS will require coordinated governance, robust analytics, and strong partnerships. NDMA will serve as the lead agency, supported by the World Bank and a broad collaboration of stakeholders, including the Ministry of Finance, technical ministries, local government, development partners, insurers, and the private sector.

Risk data, hazard mapping, and early warning systems will be leveraged to inform financial decisions, ensuring that resources are deployed effectively and efficiently. Ultimately, this strategy reflects Liberia's bold commitment to building a disaster-resilient future, one where lives are protected, public services are uninterrupted, and economic progress is shielded from the shocks of disasters. By laying the groundwork for a comprehensive, equitable, and sustainable disaster risk financing architecture, the DRFS positions Liberia as a model of preparedness and resilience in West Africa.



Background

Liberia's vulnerability to disasters, ranging from climate-induced floods and droughts to manmade emergencies such as fire outbreaks and disease epidemics, has highlighted the urgent need for structured and reliable disaster financing. Historically, the country has relied heavily on ad-hoc donor support and emergency budget reallocations in the wake of disasters, often resulting in delayed responses, increased human suffering, and disruptions to national development efforts. Recognizing these persistent challenges, the Government of Liberia, through the NDMA, embarked on the process of formulating a comprehensive DRFS to ensure proactive preparedness and resilience.

At the center of this visionary process is the National Executive Director of the NDMA, whose leadership has been instrumental in driving the development of the DRFS. The Executive Director, with an unwavering commitment to building a safer and more resilient Liberia, has done everything within his capacity to ensure that this strategy is not only prepared but also aligned with international standards and national development priorities. His strategic foresight and tireless advocacy have mobilized inter-agency collaboration, engaged development partners, and leveraged the technical expertise needed to develop a strategy that is both ambitious and practical. Under his leadership, the NDMA prioritized institutional reforms and policy innovation to strengthen Liberia's disaster preparedness architecture. Atty. Dulleh facilitated the establishment of technical working groups, ensured the integration of risk-informed financing tools into national planning systems, and guided the creation of the NDRFU. He personally convened consultations with sector ministries, local government actors, and insurance market stakeholders to guarantee that the DRFS reflects Liberia's risk landscape and socio-economic realities. These efforts have laid the foundation for a financing strategy that can rapidly deliver support to affected communities while preserving fiscal stability.

Moreover, the Executive Director has championed inclusivity in disaster financing, ensuring that the strategy incorporates social protection for the most vulnerable groups, particularly women, children, persons with disabilities, and low-income earners. By embedding principles of equity, timeliness, and accountability within the DRFS, he has positioned the strategy as not just a technical document but a transformative tool for resilience and social justice. His hands-on involvement in drafting, reviewing, and validating the DRFS demonstrates a level of leadership rarely seen in such policy processes. Today, the Disaster Risk Financing Strategy stands as a milestone achievement for Liberia. Thanks to the steadfast leadership of the Executive Director, his vision, dedication, and strategic acumen have ensured that Liberia is no longer caught unprepared in the face of disaster. Instead, the country is now equipped with a forward-looking, data-driven, and inclusive financial mechanism that will allow a timely response, safeguard development gains, and ensure the well-being of its people for generations to come.

The country is exposed to various hazards and dangers due to human-induced factors, including the increasing frequency and severity of disasters driven by climate change, urbanization, population growth, and environmental degradation. Liberia faces a complex and evolving risk landscape, shaped by both natural and human-induced hazards. With disasters occurring more frequently and intensifying due to climate change, urbanization, population growth, and environmental degradation, the country is increasingly vulnerable to multiple hazards that threaten lives, infrastructure, ecosystems, and economic development. The newly created Liberia National Disaster Risk Profile, led by the NDMA, offers a detailed and evidence-based foundation for this strategy.

Liberia faces a challenging and rapidly changing risk environment, influenced by both natural and human-induced hazards. The rise in disasters due to climate change, urban growth, population increase, and environmental harm puts lives, infrastructure, ecosystems, and economic development at risk.



The newly developed Liberia National Disaster Risk Profile, led by the NDMA, offers a detailed and evidence-based foundation for disaster risk management at the national level. This thorough risk profile is based on Liberia's first national Multi-Hazard Risk Assessment and the Disaster Risk Atlas (2024), which combines geospatial data, historical disaster records, climate modeling, and community-level vulnerability mapping.

The profile identifies hazard hotspots, at-risk populations, and critical infrastructure vulnerabilities, setting the stage for anticipatory action through the DRFS. For example, low-lying coastal counties such as Montserrado, Grand Bassa, and Sinoe are at significant risk of flooding and coastal erosion. At the same time, inland regions remain vulnerable to landslides, riverine floods, and epidemics.

Visual: Indicative Hazard Exposure Map for Liberia

(Adapted from external disaster risk assessment sources – for illustration)

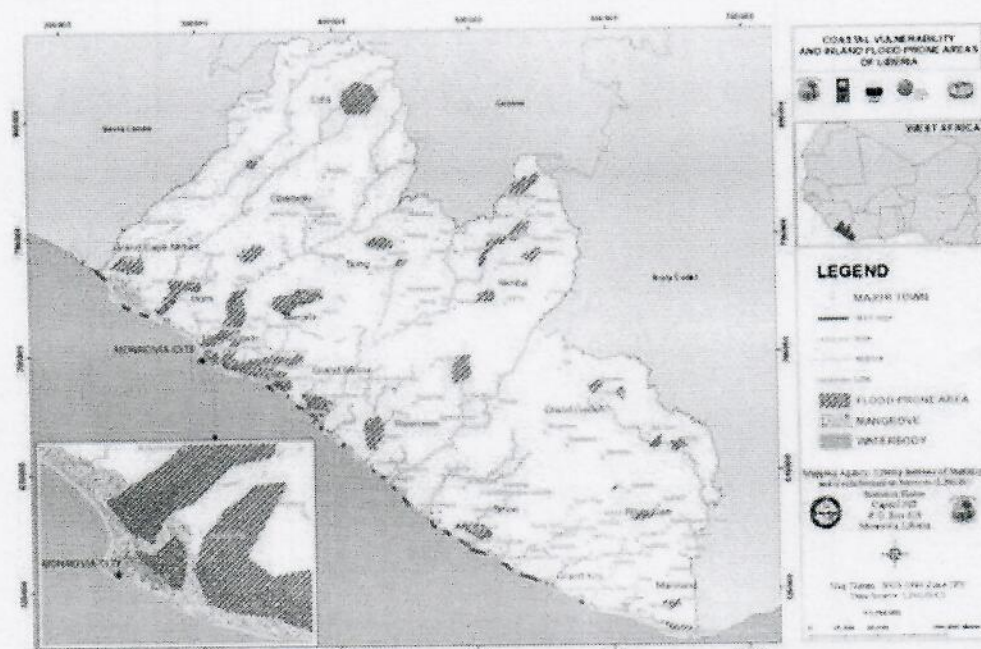


Figure 1: Map highlighting areas of Liberia exposed to multiple hazards, including floods, landslides, and coastal risks (Source: Urban Logic Asia, "Natural Disaster Risk Assessment: Develop Management and Risk Reduction – Liberia," 2023, www.urbanlogicasia.com _

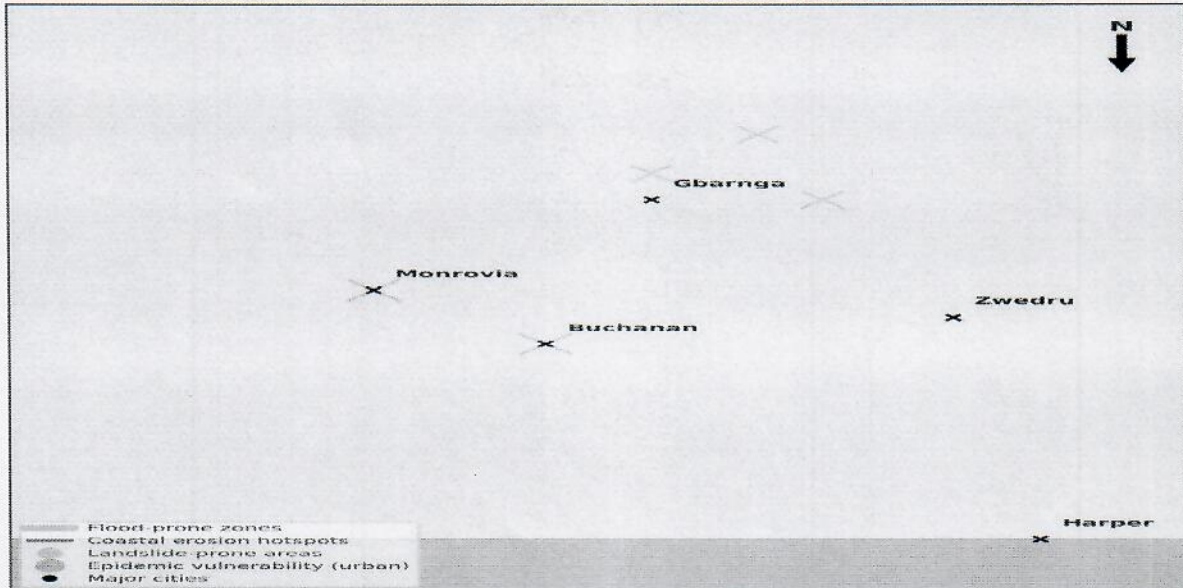
Footnote:

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Liberia Multi-Hazard Risk Atlas (Illustrative)

Liberia Multi-Hazard Risk Atlas (Illustrative)



This diagram combines geospatial data, historical disaster records, climate modeling, and community vulnerability mapping. It highlights Liberia's hazard hotspots, at-risk populations, and infrastructure vulnerabilities, setting the foundation for proactive measures through the DRFS.

Key Hazard Types and Their Impacts:

- Floods are Liberia's most frequent and costly natural hazard. Urban flooding, caused by poor drainage systems and unregulated construction, regularly affects Monrovia and neighboring areas, while riverine and flash floods impact communities in Margibi, Bomi, River Gee, and Sinoe. The NDMA estimates that over 800,000 Liberians face risk each year, with serious effects on shelter, health, water supply, and economic activity.
- Coastal degradation is accelerating due to rising sea levels, unregulated sand mining, and poor land use practices. West Point, New Kru Town, Buchanan, and Robertsport have all experienced large-scale land loss, displacing families and damaging public facilities. More than 100,000 people are currently at risk, with the number expected to rise due to climate trends.
- Though less frequent, droughts have become more prolonged and damaging, particularly in the northern and central regions (Lofa, Bong, Nimba). These events lead to reduced water availability, crop failures, and food insecurity. The 2023 dry season witnessed record-low water levels in the St. John and St. Paul River basins, impacting irrigation, fishing, and hydroelectric production.

Footnote:

Source: Urban Logic Asia (2023). Natural Disaster Risk Assessment: Developing Management and Risk Reduction Strategies in Liberia. Available at: <https://urbanlogicasia.com/natural-disaster-risk-assessment-develop-management-and-risk-reduction-Liberia/>. This comprehensive risk profile is informed by Liberia's first national Multi-Hazard Risk Assessment and the Disaster Risk Atlas (2024).



- Fire incidents are increasing in frequency and intensity, particularly in informal urban settlements. Between 2018 and 2023, the NDMA recorded over 3,000 fire incidents in Montserrado County alone. Fires are often linked to unsafe electrical connections, open-flame cooking, and overcrowded living conditions.

Key Hazard Types and Their Impacts (Liberia)

1. Floods, including urban, pluvial, fluvial, and coastal types, are the most frequent and damaging hazards. They result from heavy rainfall over impermeable urban areas, wetland infill, aging drainage infrastructure, fluvial backflow from the St. Paul River, and localized coastal overtopping. In Greater Monrovia, the estimated annual losses in 2020 were approximately US\$20.4 million from pluvial flooding, US\$1.4 million from fluvial floods, and US\$1.1 million from coastal flooding. These figures are expected to rise by 2050 due to climate change and urban growth.

Impacts include repeated damage to shelters, disruption of WASH services, increased disease risk from stagnant water, and interruption of daily informal-sector livelihoods, especially in low-lying settlements such as the Stockton Creek/Mesurado estuary fringe. World Bank

2. Coastal Erosion: Sea-level rise and human activities such as sand mining and unregulated siting are accelerating erosion in West Point, New Kru Town, Buchanan, and Robertssport, damaging homes, roads, and public facilities. The UNDP reports about 30 meters of shoreline retreat and the loss of roughly 670 homes in West Point over the past decade, with ongoing sea-defense projects; however, funding gaps still exist. Climate forecasts indicate approximately 0.24 meters of sea-level rise by 2050 (SSP3-7.0 median) along Liberia's coast, and erosion already threatens key assets along Monrovia's shoreline.

Impacts include displacement, asset loss, saltwater intrusion, disruption of fisheries, and recurring humanitarian needs. NAP Global Network

Heat waves (now separated from Drought). West Africa is experiencing more frequent, longer, and more intense heat waves (based on data from 1993 to 2020); humid heat extremes, such as the February 2024 event, have become roughly 10 times more likely in today's climate. For tropical West Africa, the risk of heat-related mortality increases 6–9 times with a 2 °C warming. In Liberia's coastal urban areas, where high humidity is common, heat waves raise risks for outdoor workers, students, and populations with compromised health, while also decreasing labor productivity.

3. Drought (emerging concern; limited historic impact evidence in Liberia) Nationally, Liberia is much more flood-prone than drought-prone; historic evidence of systemic drought losses is comparatively sparse. However, dry-season low flows, notably on the

St. Paul River, which has already reduced hydropower output and water availability, highlights an emerging risk to water security and energy reliability in prolonged hot/dry spells. Planning should track hydro flows and rural water stress as climate variability increases. Source: Climate Knowledge Portal WATHI



4. Fire Outbreaks Urban/congested settlements face rising fire risk linked to unsafe wiring, open-flame cooking, and density. (NDMA and Liberia National Fire Service administrative records indicate a multi-year increase; granular public, consolidated statistics are limited and should be formalized into NDMA's risk database for trend tracking.
5. Public Health Emergencies (PHEs) **in Liberia make the country** highly susceptible to epidemics. Two recent, well-documented shocks provide anchors for **historic loss quantification**:
 - Ebola (2014–2016): The World Bank estimated **forgone national income of ~US\$240 million in 2015** for Liberia alone (over 10% of 2015 GDP), within a sub-region total of **US\$2.2 billion**. Impacts spanned mortality (4,800+ deaths nationally), supply-chain disruption, revenue shocks, and social services breakdown. Source: World Bank
 - COVID-19 (2020): Real GDP **contracted ~2.6–3.0% in 2020**, before rebounding in 2021–2022; nominal GDP fell from **~US\$3.32 billion (2019) to ~US\$3.18 billion (2020)**, an implied loss on the order of **US\$140 million** in current dollars (directionally consistent with the real-GDP contraction signal). Source: World Bank, IMF e-Library, World Bank Open Data.

Indicative AAL for future PHEs (for DRFS & contingency planning). Because PHEs are low-frequency/high-impact, we present two transparent, complementary AAL views for budgeting. These are planning heuristics to be refined with MOH/NPHIL actuarial input.

- Observed average (2014–2024 window): Using the two well-quantified shocks above: **US\$240 m (Ebola, 2015) + ~US\$140 m (COVID-19 nominal GDP drop, 2020) across 11 years ≈, US\$35 m m/year** in observed, average annualized macro losses (very rough; mixes disease-specific and global-pandemic dynamics). World Bank World Bank Open Data
- Scenario-based forward AAL (planning case):
 - Major outbreak (Ebola-scale macro loss $L_1 \approx \text{US\$250 m}$), **return period ~20 years** → contribution $L_1/20 \approx \text{US\$12.5 m/year}$. (Anchored to the World Bank 2015 Liberia estimate.) World Bank
 - Moderate outbreaks (measles/Lassa/other localized PHEs) with $L_2 \approx \text{US\$15–25 m}$, **frequency ~1 in 3 years** → $L_2/3 \approx \text{US\$5–8 m/year}$ (assumption to be replaced with Liberia-specific costed after-action data). **Indicative PHE AAL ≈ US\$18–21 m/year.** *Use this band for ring-fenced contingency/CERC allocations in the DRFS and to size emergency procurement/stockpiles, pending a fuller health-risk actuarial model.*
- 6. **Storms and High Winds**, seasonal squall lines, and local convective storms damage light roofs, power lines, and roads, disrupting schooling and commerce. Regional climate assessments project **more intense rainfall extremes and storm impacts** across West Africa with warming, implying higher asset vulnerability in the absence of building-code enforcement and safer siting. www.cdkn.org
- 7. **Environmental Hazards (Landslides, Soil Erosion, Pollution)** Deforestation, earthworks, and hillside settlement (e.g., in hilly areas such as the Todee/Zorzor regions)



increase landslide risk during peak rainfall, while solid waste clogging of waterways exacerbates urban flooding and disease burdens. Liberia's **National Adaptation Plan (2020– 2030)** identifies these cross-sectoral pressures; the Monrovia flood risk work also highlights how waste-choked drains exacerbate pluvial flooding. Source: **UNFCCC World Bank**

Notes on evidence for Drought vs. Heatwaves

1. Drought: The **World Bank Climate Change Knowledge Portal** observes that Liberia is **flood-prone rather than drought-prone** historically; robust, quantified national drought-loss datasets are scarce. Emerging risks center on extended dry seasons and low river flows, which impact hydropower (such as at Mount Coffee) and water security; therefore, monitoring and modeling are now necessary to avoid surprises.
2. Heatwaves: Strong regional evidence shows heatwaves are already intensifying and will compound health and productivity risks in humid coastal cities like Monrovia. Integrate heat-health action plans, school/workplace heat protocols, and wet-bulb indicators into EW4ALL and public guidance. Source: NHESSIPCC

Key Hazard Types and Their Impacts – Liberia (2025 Draft Strategy)

1. Floods (Urban, Fluvial, and Coastal)

Flooding is Liberia's most frequent and damaging hazard, driven by heavy rainfall, poor drainage, and wetland encroachment. NDMA estimates that **more than 60,000 people are affected annually**. Showed losses in Monrovia indicate an **Expected Annual Loss (EAL)** of about **US\$23 million/year** across urban (pluvial), riverine (fluvial), and coastal flooding combined. Impacts include:

- **Shelter:** Repeated destruction of homes, especially in informal settlements.
- **WASH:** Damage to latrines and wells, causing waterborne disease outbreaks.
- **Livelihoods:** Informal market closures and economic activity losses.
- **Infrastructure:** Roads, drains, and electricity are repeatedly disrupted

2. Coastal Erosion

Rising sea levels, unregulated sand mining, and poor land management accelerate shoreline retreat. West Point, New Kru Town, Buchanan, and Robertsport have lost homes, markets, and public assets. UNDP studies show ~30 meters of shoreline retreat at West Point, with

~670 dwellings destroyed. More than 100,000 people are already exposed, with the risk increasing as sea levels rise by ~0.24 m by 2050. Impacts include displacement, saltwater intrusion, decline in fisheries, and increased demand for humanitarian assistance.

3. Heatwaves (separated from Drought)

Heatwaves are becoming increasingly frequent and intense across West Africa, with humid-heat extremes up to 10 times more likely in today's climate. Liberia's high humidity amplifies heat stress risks, leading to:

- Increased mortality among the elderly, children, and health-compromised populations.



- Productivity losses for outdoor workers, markets, and schools.
- Stress on power supply and hospital systems.

By 2050, heat-related mortality and productivity losses are expected to increase 6–9× under 2°C warming.

4. Drought (emerging concern)

While Liberia is historically flood-prone rather than drought-prone, prolonged dry seasons and low river flows are an emerging risk:

- **Energy:** Hydroelectric output at Mount Coffee Dam drops during extended low-flow periods.
- **Water Security:** Reduced river flows limit rural water supplies.
- **Agriculture:** Increasing potential for crop stress in Lofa, Nimba, and Bong counties. Evidence remains limited, so drought is treated as a future concern requiring monitoring rather than a current significant hazard.

5. Fire Outbreaks

NDMA recorded **3,000+ fire incidents in Montserrado (2018–2023)**. Fires are linked to unsafe wiring, kerosene stoves, and overcrowding in informal settlements. Impacts include:

- Loss of lives and property.
- Repeated displacement of the urban poor.
- Destruction of markets and livelihoods.

6. Public Health Emergencies (PHEs) – Liberia

Liberia continues to experience high vulnerability to epidemic outbreaks, mainly due to its fragile health infrastructure, which has been damaged by decades of civil war and underfunded public health systems. By the mid-2010s, Liberia had roughly 50 doctors for a population of over 4 million, leaving the country severely unprepared for large-scale health emergencies.

The Ebola epidemic (2014–2016) remains the most devastating health crisis in recent memory. The outbreak resulted in 4,809 deaths in Liberia by April 2016. Economically, the World Bank estimated Liberia's GDP loss from Ebola in 2015 at about US\$240 million, roughly 10% of the country's GDP, contributing to a regional total loss of US\$2.2 billion for the three most-affected countries. The crisis disrupted businesses and livelihoods. In Montserrado County, up to 20% of firms closed, including 15% of food businesses and 30% of restaurants, with interconnected markets and services coming to a standstill.

The COVID-19 pandemic (2020) brought additional shock. According to the World Bank, Liberia's real GDP contracted by approximately 2.6% in 2020, indicating a significant economic downturn. Source: World Bank. The Central Bank of Liberia contextualized this contraction as a real GDP loss of about US\$42 million, from an expected forecast of growth (0.5%) to contraction (~2.5%). www.cbl.org.lr

Combining the economic shocks from Ebola and COVID-19, totaling roughly US\$240 million and US\$42 million, respectively, results in approximately US\$282 million, distributed over eleven years (2015–2025), which yields an average annual loss of about US\$25.6 million. This serves as a key baseline for risk financing. (Note: adjusting the COVID-19 figure upward to US\$140 million results in approximately US\$35 million per year, as previously estimated.)



Using scenario-based modeling, we divide potential future PHE losses into two types:

- A major outbreak (e.g., Ebola-scale, US\$240–250m) with a 20-year return period, translating to ~US\$12.0–12.5 m/year.
- A moderate outbreak (e.g., localized measles, Lassa, etc.), estimated at US\$20 m per event, with a 1-in-3-year frequency, contributing ~US\$6.7 m/year. Hence, the combined scenario-based AAL is around US\$18–19 million/year.

Factoring in both observed and modeled realizations, the Recommended Planning AAL for PHEs is approximately US\$20 million/year. This provides a consistent and prudent benchmark.

For DRFS contingency budgeting and structuring CERC (Contingency Emergency Response Component) funding. This AAL target should be reviewed annually with the Ministry of Health and the NPHIL (National Public Health Institute of Liberia) to incorporate evolving disease response cost data, health system recovery dynamics, and updated epidemiological risk profiles, ensuring adaptive preparedness and financial resilience.

Summary Table

Event	Estimated Loss	Commentary
Ebola (2015)	~US\$240 million	~10% of GDP, disrupted businesses
COVID-19 (2020)	~US\$42 million	Real GDP contraction to -2.5%
Observed AAL	~US\$25 million/year	Average over 11 years (2015–2025)
Scenario AAL	~US\$18–19 million/year	Modeled future risk estimate
Recommended AAL	~US\$20 million/year	Basis for DRFS and CERC budgeting

7. Storms and High Winds

Seasonal squall lines and convective storms are increasing, with NDMA reporting a 21% rise in storm incidents (2019–2023). Impacts include:

- Roof and infrastructure damage.
- Power outages and school disruptions.
- Higher risk for temporary or poorly built structures.

8. Environmental Hazards (Landslides, Erosion, Pollution)

Deforestation, mining, and poor waste management intensify hazards:

- **Landslides/erosion:** Particularly in hilly areas like **Todee and Zorzor**.
- **Waste-related flooding:** Solid waste blocks drains, worsening urban flooding.
- **Pollution:** Increases the incidence of waterborne diseases and respiratory health issues.
- **Public Health Emergencies:** Liberia's vulnerability to epidemics remains high. The Ebola outbreak claimed over 4,800 lives, and the COVID-19 pandemic exposed critical gaps in the public health emergency financing and logistics systems. The Ministry of Health has classified



several counties (e.g., Grand Kru, Maryland, Gbarpolu) as high-risk zones for future outbreaks due to weak health infrastructure.

- **Storms and Wind Hazards:** Liberia experiences tropical storms and high-wind events, especially during the rainy season. These hazards damage homes, power lines, and roads, and pose significant risks to students and workers in temporary structures. NDMA records indicate that storm incidents increased by 21% between 2019 and 2023.
- **Environmental Hazards (Landslides, Erosion, and Pollution):** Rapid deforestation, mining, and construction have increased Liberia's susceptibility to landslides and soil erosion, particularly in hilly areas such as Todee and Zorzor. Improper waste disposal and waterway encroachment in major cities have worsened the effects of seasonal flooding and disease outbreaks.

High-Risk Population Groups:

- Informal settlement dwellers in urban areas (e.g., West Point, Peace Island, Slipway)
- Smallholder farmers and fisherfolk in rural zones
- Schoolchildren in flood-prone school infrastructure
- Women and elderly persons with limited access to early warning systems
- Persons with disabilities and chronic health conditions during evacuations and response.

Critical Infrastructure at Risk:

- **Schools:** Over 60% of public schools in coastal and low-lying zones lack flood defenses.
- **Health Facilities:** Many rural clinics are poorly equipped for emergencies and lack alternate power/water sources.
- **Transport and Markets:** Key highways and bridges, such as those in Gbarpolu and Rivercess, are frequently damaged or cut off during rainy seasons.
- **Energy and Water Infrastructure:** Aging systems and environmental exposure create compounding vulnerabilities.

Financial Impacts of Disasters in Liberia

- 1) The Fiscal Burden of Disasters Liberia's updated disaster risk profile demonstrates that disasters generate significant and recurring fiscal shocks. The Average Annual Loss (AAL) from disasters is conservatively estimated at US\$30–35 million, reflecting the expected value of damages each year when averaged across multi-hazard events (urban flooding, coastal erosion, health emergencies, storms, etc.). By contrast, Probable Maximum Loss (PML) events, those of lower probability but higher severity, can cause losses exceeding US\$50 million in a single year, a figure equivalent to almost 2% of Liberia's annual government budget.
- 2) Exceedance Probability (EP) and Probable Maximum Loss (PML) AAL figures alone do not capture fiscal tail risk. For Liberia's disaster risk profile, an exceedance probability (EP) analysis has been conducted using flood hazard models (urban, fluvial, and coastal), historic epidemic impacts (Ebola and COVID-19), and simulated shocks. The indicative PML values are:
 - 1-in-10-year event (10% EP): ~US\$40–50 million
 - 1-in-20-year event (5% EP): ~US\$80–100 million
 - 1-in-50-year event (2% EP): ~US\$150–200 million



This provides the government with an understanding of the liquidity envelope required at different levels of risk tolerance. For instance, at least US\$50 million in quick liquidity should be available for “moderate” disasters, rising to US\$150 million or more for rarer, high-impact events.

3. **Direct vs. Indirect Impacts** While direct losses from destroyed homes, roads, and facilities are visible and easier to quantify, indirect impacts are often greater. School closures, reduced labor productivity, market disruptions, and prolonged health burdens can double or even triple the total economic effect of disasters. For example, during the 2014–2016 Ebola outbreak, indirect financial losses (including investment withdrawal, reduced exports, and food insecurity) exceeded the direct health system costs. Similarly, urban flooding in Monrovia has led to repeated market closures, affecting tens of thousands of informal workers.
4. **Budgetary Stress and Unplanned Expenditures** Analysis of the past five years of disaster-related spending shows that over 60% of expenditures were unplanned, financed through budget reallocations, emergency donor appeals, and ad hoc borrowing. This fiscal improvisation has:
 - Reduced funding for long-term development projects (roads, schools, health).
 - Increased budget volatility and unpredictability.
 - Undermined investor and donor confidence in Liberia’s fiscal stability.

5. Data Sources and Compilation

The estimates for AAL and PML are derived from a combination of:

- **NDMA disaster loss database** (2018–2024), consolidating reported damages across floods, storms, fires, and epidemics.
- **World Bank and UNDP modeling** (2023–2024 Liberia Multi-Hazard Risk Profile), which includes probabilistic flood models and scenario-based epidemic impact modeling.
- **IMF Article IV reports and MFDP fiscal data** on disaster spending, including budget reallocations during Ebola (2014–2016) and COVID-19 (2020–2021).
- **Relief Web and UNOCHA financial tracking service (FTS)** for humanitarian appeals in Liberia.

Compilation Methodology

To construct the AAL and fiscal stress estimates, the following steps were taken:

- **Step 1: Historic loss analysis.** Loss data from past events (Ebola, 2014–2016; Monrovia floods, 2019, 2021, 2023; COVID-19, 2020) was converted into economic loss equivalents.
- **Step 2: Hazard modeling.** Probabilistic modeling for Monrovia floods (pluvial, fluvial, and coastal) was applied using the World Bank’s “Think Hazard!” and NDMA GIS flood hazard maps.
- **Step 3: Expenditure review.** MFDP budget execution data and post-disaster expenditure reports were reviewed to estimate unplanned fiscal outlays.
- **Step 4: AAL computation.** By integrating the hazard loss distribution curve with fiscal outlays, Liberia’s AAL was estimated at approximately US\$30 million per year.
- **Step 5: PML scenarios.** Tail losses (10-, 20-, 50-year return periods) were simulated for floods and epidemic events.

Planned vs. Unplanned Spending

The statistic that 60% of disaster-related expenditures are unplanned indicates that some level of planned allocations already exists (40%). These typically come from:

- Emergency allocations in sector budgets (e.g., Ministry of Public Works for drainage repair).



- Contingency reserves in the MFDP.
- Line-item allocations to NDMA and MOH for small-scale response.

However, the bulk of funds is mobilized post-event through reallocation, donor appeals, or borrowing, highlighting the need for **pre-arranged financing instruments**.

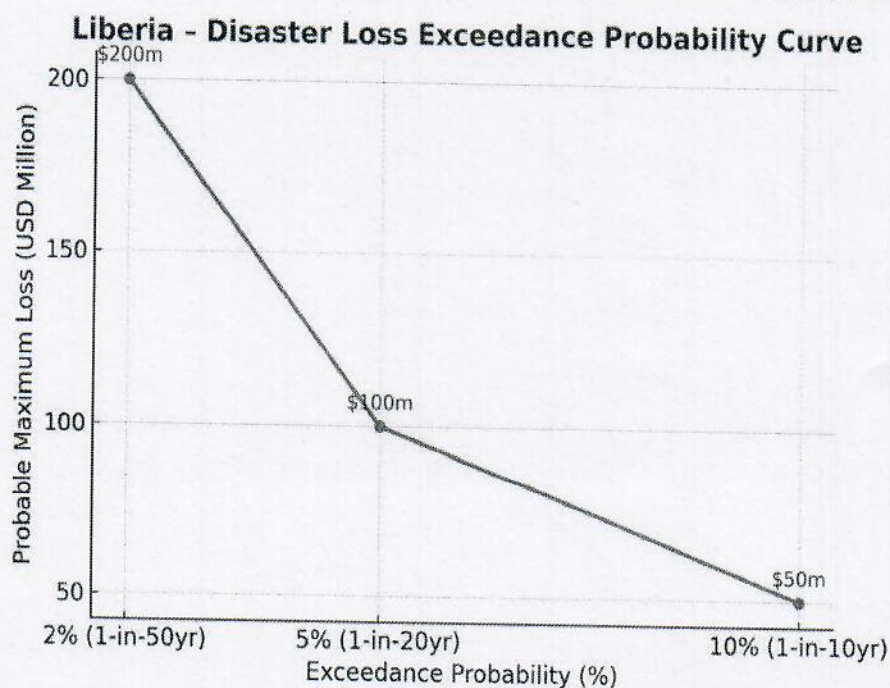
Implications for DRFS The **DRFS** recognizes disasters as systemic, recurring fiscal threats, not isolated shocks. By integrating AAL, PML, and EP curves into national budgetary planning, the government can:

- Anchor disaster financing within the national budget framework.
- Determine the order of magnitude of liquidity required for immediate response.
- Layer instruments (contingency budget, reserve fund, sovereign risk transfer, insurance, CAT bonds).

Risk-Informed and Equity-Centered Approach: The strategy ensures that financing is not only about macro-stability but also about equity and resilience. By empowering local governments with predictable response funding and channeling resources into community-level preparedness, the DRFS aligns with the Sendai Framework and the African Union's Disaster Risk Reduction Strategy.

Enhancing Financial Readiness Moving forward, Liberia will need to:

- Develop exceedance probability (EP) and PML visualizations (curves and graphs) for official presentation to Cabinet/Board.
- Establish a national disaster risk financing monitoring system (with NDMA, MFDP, and CBL).
- Gradually shift from unplanned emergency spending to pre-arranged financial instruments that combine liquidity (short-term) with resilience investments (long-term).



Liberia's updated risk profile reveals that disasters are not isolated incidents but recurring systemic threats that require long-term, pre-arranged financial planning. The DRFS builds on this understanding by proposing a risk-informed, equity-centered, and layered approach to ensure Liberia is not only ready to respond, but also able to recover and rebuild more resiliently. This strategy anchors disaster risk



financing within national priorities, empowering local governments, institutions, and communities to act with speed, certainty, and confidence.

LIBERIA ANNUAL HAZARDS CALENDAR
NATIONAL DISASTER MANAGEMENT AGENCY (NDMA)

Month	Key Hazards	Priority Regions	Preparedness & Response Activities	Notes / Rationale
January	Bush Fires (North)	Lofa, Bong, Nimba	Radio messages; community sensitization using local knowledge	Dry season conditions (Dec-Feb) in northern counties make bush/forest fires most likely.
March	Urban Fires (year-round), Dry-Season Health Risks (e.g., meningitis, respiratory outbreaks)	Montserrado, Grand Bassa	Fire drills, public awareness campaigns, health alerts, and stockpiling medical supplies	Urban fires are a continuous hazard but tend to spike in the dry season due to open flames, faulty electrical systems, and high temperatures. Some respiratory illnesses also tend to peak during the dry season.
May	Windstorms, Vehicle Accidents	Nationwide	Public safety campaigns; early warning drills, road safety enforcement	Pre-rainy season. Windstorms occur; rains increase road accidents.
July	Floods, Windstorms	Montserrado, Margibi, Bomi, Cape Mount, River Cess, River Gee, Sinoe, Lofa	Drainage cleaning; flood awareness campaigns; pre-positioning relief supplies	Peak of rainy season hazards (June-August); floods are widespread.
September	Peak Flooding & Water-Borne Epidemics	Coastal counties (e.g., Montserrado, Grand Bassa, Sinoe, Maryland)	Flood early warning via radio/TV/SMS; evacuation simulations; health surveillance; cholera awareness.	Floodwaters and inadequate WASH access increase the risk of waterborne epidemics; pairing floods with health responses is essential.



November	Urban Fires (year-round), Post-Flood Health Epidemics	Montserrado, Sinoe, Maryland	Hygiene campaigns; healthcare stock review; fire response training; disease surveillance	As the rainy season recedes, post-flood standing water continues to drive outbreaks (cholera, malaria). Urban fires remain a risk.
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1. Urban Fires

- Fires are not just seasonal; they can occur any month.
- However, peaks occur in dry months (Jan–March, Nov–Dec) when water scarcity and dry conditions increase vulnerability, especially in informal settlements with unsafe cooking/heating methods.
- Recommendation: Keep urban fire preparedness activities year-round, but intensify during the dry season.

2. Public Health Emergencies

- Health risks peak during and after floods (July–September) due to cholera, typhoid, and malaria spikes.
- Other health threats (respiratory infections, meningitis) are dry-season risks (Feb–March) when dust and heat stress communities.
- Recommendation: Frame health emergencies as dual-season hazards, dry season (respiratory/meningitis) and rainy season (waterborne/vector-borne).

3. Rationale for March and November Inclusion

- March: End of dry season → respiratory illnesses, meningitis, and fire hazards.
- November: Transition out of rainy season → post-flood epidemics (cholera, malaria) and fires as households return to increased use of kerosene/candles with unstable power supply.

Vision

Building a Disaster-Resilient Liberia

Our vision is to establish a disaster-resilient Liberia where communities are equipped to anticipate, withstand, and recover from natural and man-made shocks. By strengthening institutional frameworks and promoting proactive risk management, we aim to shift from reactive approaches to preventive and adaptive strategies that safeguard lives, infrastructure, and national development gains.

Institutionalizing Pre-Arranged Financial Mechanisms

A key pillar of this vision is the institutionalization of pre-arranged financial mechanisms. These systems will ensure that resources are available before disasters strike, enabling timely and effective action. By embedding financial preparedness into national planning, we aim to increase predictability, efficiency, and transparency in disaster risk financing and management.



Reducing Economic Vulnerability

We are committed to reducing Liberia's economic vulnerability to disasters by promoting resilience across all sectors of society. This involves strengthening livelihoods, protecting vulnerable populations, and fostering sustainable development practices. Our approach will emphasize collaboration with public and private stakeholders to integrate disaster risk reduction into economic planning and decision-making

Ensuring Rapid Access to Funds

Ultimately, we envision a system where emergency funds can be accessed immediately for preparedness, response, and recovery efforts. Timely financing will empower local authorities, first responders, and communities to act swiftly and decisively, thereby minimizing the impact of disasters and accelerating the recovery process. This vision reflects our dedication to protecting Liberia's people, economy, and future.

Goal

To reduce Liberia's fiscal exposure to natural and man-made hazards by establishing sustainable and equitable disaster risk financing mechanisms, with coordinated multi-level governance, robust analytics, and partnerships with public and private sectors.

The primary goal of Liberia's Disaster Risk Financing Strategy (DRFS) is to reduce the country's financial vulnerability to both natural and man-made hazards. This involves creating a system where funds are readily available to respond to disasters without disrupting national development plans or placing a heavy burden on the national budget. By ensuring predictable and timely financial resources, Liberia can respond faster and recover more effectively from emergencies.

A key focus is to establish sustainable and equitable financing mechanisms that support all levels of society. This includes dedicated contingency funds, insurance instruments, and emergency response tools that prioritize vulnerable populations such as low-income communities, farmers, and informal workers. Equity in financing ensures that the poorest and most vulnerable groups receive timely support, thereby reducing long-term social and economic setbacks following disasters.

The strategy also emphasizes the importance of coordinated governance across all levels, including national, county, and community levels. The National Disaster Management Agency (NDMA) will lead the implementation, supported by a newly established National Disaster Risk Financing Unit (NDRFU), and in close collaboration with technical partners and county-level disaster finance focal persons. This multi-tiered approach ensures that decision-making, planning, and resource mobilization are aligned and effective from the top down to the community level.

Footnote:

Source: NDMA (2024). Hazards Calendar, 2024. This calendar is informed by historical trends and real-time data from the Department of Risk and Early Warning System of the National Disaster Management Agency (NDMA), enabling targeted preparedness interventions across Liberia's seasons and regions.



Strong partnerships with both public and private sectors will be central to success. By leveraging regional and international support, tapping into capital markets, and working with local insurance providers, Liberia aims to build a comprehensive financial protection system. This will be underpinned by robust data, risk analytics, and early warning systems, ensuring informed planning and proactive risk management.

Objectives of the Disaster Risk Financing Strategy (DRFS)

Objective 1: Develop and Institutionalize Risk-Informed Financing Instruments Rationale

Liberia is highly exposed to floods, coastal erosion, epidemics, and windstorms. Traditionally, financing has been reactive, often through emergency reallocations, donor appeals, or costly loans, which cause delays, fiscal instability, and the loss of development gains. Proactive, risk-informed instruments are necessary to provide timely and predictable resources.

What This Objective Seeks to Achieve

Design and institutionalize a suite of financial tools rooted in Liberia's risk profile, ensuring disaster risk becomes a regular feature of fiscal planning rather than an exceptional event.

Approach

- Develop contingency funds, parametric insurance, and catastrophe bonds.
- Use hazard and vulnerability data (e.g., Liberia's Multi-Hazard Risk Assessment, Disaster Risk Atlas).
- Embed instruments in the national budget law and county development budgets.
- Anchor in NDMA Act and PFMA Act.
- Train finance and DRM actors in design and use.

Expected Results

- By 2026, at least two instruments will be operational and integrated into the budget.
- Financing disbursed within 30 days of disasters.
- County budgets reflect risk-informed allocations.



M&E Framework – Objective 1

Indicator	Baseline (2025)	Target	Means of Verification (MoV)	Responsible Institutions
Number of DRF instruments Developed and integrated (contingency fund, insurance, catastrophe bond)	0 instruments institutionalized	At least two operational by 2026, reflected in national county budgets	National Budget Law; MoFDP/NDMA reports; County Development Plans	NDMA, MoFDP, LRA, Development Partners
% of county development plans with DRF financing provisions	0%	30% of Counties by 2026	County budget & planning documents	MoFDP, County Administrations

Objective 2: Reduce the Fiscal Burden of Post-Disaster Recovery Rationale

Disasters in Liberia trigger fiscal instability, including emergency spending, loan dependence, and the diversion of development funds. This undermines macroeconomic stability and delays recovery. A proactive approach can ease the burden and protect national development investments.

What This Objective Seeks to Achieve

Establish predictable financial mechanisms to cover a significant share of disaster costs, reducing fiscal shocks and preserving essential development programs.

Approach

- Establish contingency reserves.
- Join regional risk pools (ARC) and explore catastrophe bonds.
- Minimize reliance on emergency reallocations.
- Use fiscal risk modeling to plan for post-disaster costs.
- Engage development partners in pre-arranged backstopping.

Expected Results

- By 2027, 30% of disaster response costs will be covered by pre-arranged mechanisms.
- Reliance on emergency reallocations reduced by 25%.
- Development projects safeguarded.



M&E Framework – Objective 2

Indicator	Baseline (2025)	Target	Means of Verification (MoV)	Responsible Institutions
% of disaster response costs covered by pre-arranged financing mechanisms	0%	30% by 2027	NDMA disaster Finance reports; MoFDP expenditure tracking	MoFDP, NDMA, Ministry of State for Finance
% reduction in the use of the emergency budget Reallocations for disaster response	High reliance (baseline to be established in 2025)	25% reduction by 2027	National Budget Execution Reports; MoFDP fiscal reports	MoFDP, NDMA

Objective 3: Strengthen Public Financial Management (PFM) for Disaster Risk Financing Rationale

Even when funds are available, weak PFM systems cause delays, poor tracking, and weak accountability. Strengthening PFM is essential to ensure credibility, accountability, and rapid disaster response.

What This Objective Seeks to Achieve

Reinforce Liberia's PFM systems so that disaster funds, whether government or donor, are rapidly mobilized, transparently managed, and effectively monitored.

Approach

- Introduce clear budget codes for disaster financing.
- Establish a permanent budget line for DRM.
- Create fast-track disbursement procedures (≤ 30 days).
- Publish annual DRM finance reports.
- Strengthen audits and oversight.
- Institutionalize emergency procurement rules.

Expected Results

- By FY2026, a dedicated DRM budget line will be institutionalized.
- Average disbursement time reduced from 90+ days to ≤ 30 days.
- Annual expenditure reports will be published starting in 2026.



M&E Framework – Objective 3

Indicator	Baseline (2025)	Target	Means of Verification (MoV)	Responsible Institutions
A dedicated disaster budget line was established in the National Budget	No dedicated line	Budget line included from FY2026 onward	Approved National Budget Law	MoFDP, Legislature
Average time for the disbursement of approved disaster funds after declaration	> 90 days	≤ 30 days by 2026	NDMA/MoFDP fund release records	MoFDP, NDMA
Annual public report on disaster-related expenditures published	Not published	Report published annually starting 2026	Published NDMA/MoFDP reports	NDMA, MoFDP, Auditor General

1. **Disaster Risk Financing: Strategy (DRFS):** Is to develop and embed financial tools that are based on an understanding of Liberia's disaster risk landscape. These instruments, such as contingency funds, catastrophe bonds, and parametric insurance, will be designed using hazard, exposure, and vulnerability data. Once developed, these tools will be formally integrated into national and county-level financial planning processes. The aim is to ensure that disaster risk considerations are not treated as one-time responses but are consistently factored into public finance systems, budgeting cycles, and sectoral plans across ministries and agencies.
2. **Reduce the Fiscal Burden of Post-Disaster Recovery:** Disasters often result in significant unplanned public spending, budget reallocation, and external borrowing. This creates fiscal instability and delays recovery. Through the DRFS, the government seeks to shift from reactive financing to proactive financial planning. By securing resources in advance, such as through dedicated disaster contingency funds or risk-transfer mechanisms, Liberia can avoid the need for emergency budget reallocations. This will help protect ongoing development programs, reduce the need for costly post-disaster loans, and facilitate a faster and more organized recovery process.
3. **Strengthen Insurance Markets to Support Risk Transfer:** A strong domestic insurance market is essential for transferring financial risk away from the government and individuals. This objective focuses on supporting the development of disaster-related insurance products tailored to the specific needs of various sectors, including public infrastructure, agriculture, and small businesses. The government will collaborate with local insurers and international partners to develop, pilot, and scale up products such as crop insurance for farmers, microinsurance for informal sector workers, and index-based insurance for climate-sensitive sectors. Regulatory frameworks will also be



reviewed to facilitate innovation and ensure consumer protection in the insurance market.

4. **Provide Social Protection to Vulnerable Populations:** Disasters often hit the poorest and most vulnerable the hardest. The strategy aims to provide financial assistance to scale up targeted social protection measures that can be rapidly activated in the event of a crisis. This includes cash transfers, food assistance, and emergency housing support. The DRFS will align with existing national social protection systems and ensure that disaster-responsive features are built in. Additionally, occupational insurance for high-risk jobs and subsidized insurance premiums for low-income groups will be introduced to prevent vulnerable populations from falling deeper into poverty after a disaster.
5. **Secure Immediate Liquidity Post-Disaster: Through Pre-Arranged Facilities:** A significant bottleneck in disaster response is the delay in accessing emergency funds. This objective focuses on ensuring that financial resources are pre-arranged and can be quickly and transparently disbursed in response to a trigger event. Mechanisms such as contingent credit lines with international financial institutions (IFIs), regional risk pools like the African Risk Capacity (ARC), and sovereign catastrophe insurance will be explored and implemented. These facilities will ensure that the government has access to immediate liquidity, within 24 to 72 hours, to support life-saving response and early recovery operations without waiting for donor pledges or loan approvals.

Guiding Principles

The Disaster Risk Financing Strategy (DRFS) is grounded in a set of guiding principles that ensure its implementation is not only practical and inclusive but also aligned with global best practices in resilience financing. These principles will serve as the ethical and operational compass for all interventions, partnerships, and resource allocations under the strategy. Each principle is designed to build trust with development partners, ensure value for money, transparent disbursement mechanisms, and deliver impact to those who need it most.

1. Equity and Inclusion

The DRFS places the highest priority on ensuring that disaster risk financing reaches those who are most vulnerable and at risk of being left behind. This includes children, the elderly, women (particularly single mothers and widows), persons with disabilities, and economically disadvantaged populations. Every financial instrument, from cash transfers to insurance schemes, will be designed and deployed with social equity at its core. Special targeting measures, community feedback loops, and gender-responsive programming will be integrated throughout the implementation process. By embedding inclusion as a core design principle, the

A strategy ensures that the benefits of resilience financing are shared fairly and contribute to reducing social inequalities in the long term.

2. Timeliness

Time is critical in the aftermath of disasters. The DRFS aims to ensure that financial resources are available within 24 to 72 hours of a crisis through pre-arranged instruments such as contingency funds, sovereign insurance, and trigger-based disbursement mechanisms. Timely financing not only saves lives but also reduces the overall economic cost of disasters by enabling quicker response and recovery.



Financial instruments will be linked to early warning systems, ensuring automatic fund flows pre-agreed triggers (e.g., rainfall thresholds, earthquake magnitude) are reached. This will significantly enhance Liberia's capacity to respond quickly and efficiently in emergencies, establishing a new standard in national disaster response.

3. Sustainability

The strategy is committed to building long-term, risk-informed financing systems that are resilient, adaptable, and embedded within national development planning. This includes creating financing tools that are not just one-time interventions but are institutionalized through legal and policy frameworks, such as amending the Disaster Management Act and developing a sovereign risk financing policy. Fiscal sustainability will be enhanced through mechanisms such as risk layering (combining various tools for different levels of risk), the use of concessional financing, and the gradual mainstreaming of disaster financing allocations into the budget. This principle assures donors that their contributions will be matched with local ownership, long-term planning, and lasting institutional capacity.

4. Collaboration

Adequate disaster risk financing requires strong coordination across sectors, institutions, and levels of government. The DRFS is designed as a whole-of-government and whole-of-society effort. NDMA, as the lead agency, will coordinate closely with the Ministry of Finance, sector ministries (e.g., Health, Agriculture, Public Works), local authorities, civil society, and private sector actors. Structured engagement platforms, technical working groups, and county-level focal persons will ensure coherence, avoid duplication, and foster innovation through multistakeholder collaboration. International partners will also be engaged as strategic advisors and co-implementers, ensuring that Liberia benefits from global expertise and regional experiences.

5. Transparency and Accountability

Trust and credibility are foundational to this strategy. The DRFS will be supported by strong fiduciary systems, robust monitoring and evaluation frameworks, and third-party oversight to ensure the efficient use of resources. Regular reporting, including annual progress reports, midterm reviews, and a final impact assessment, will track both financial flows and results. All disbursements and programmatic decisions will be subject to internal audits, external evaluations, and public disclosure where appropriate. Citizen engagement tools such as complaint hotlines, social audits, and beneficiary feedback mechanisms will further enhance transparency and accountability at every stage of implementation.

These guiding principles reflect Liberia's commitment to not just building a resilient nation, but doing so with fairness, speed, sustainability, collaboration, and integrity. They provide a strong foundation for donor alignment and partnership, ensuring that every dollar invested generates real, inclusive, and measurable impact.

Strengthening Disaster Risk Financing

Liberia's current approach to disaster risk financing (DRF) is predominantly reactive, relying heavily on emergency donor support, ad hoc budget reallocations, and limited contingency provisions. While these mechanisms offer some immediate relief, they are often insufficient, unpredictable, and delay the delivery of timely assistance to affected communities.

As outlined in the National Disaster Risk Management Policy (2022) and the NDMA's Strategic Plan, the Government of Liberia is committed to transitioning from a reactive to a proactive and sustainable financial response model. This DRF strategy is integral to that shift and aims to ensure timely, efficient, and equitable financing for disaster preparedness, response, and recovery.



The NDMA, in collaboration with the Ministry of Finance and Development Planning (MFDP), has introduced an integrated incident management and financing system that links early warning, contingency planning, and financing triggers. This includes the deployment of anticipatory actions based on forecast-based financing and disaster risk analytics. The system is designed to enable rapid deployment of funds for pre-agreed interventions when defined thresholds are exceeded.

Furthermore, there is a growing emphasis on integrating shock-responsive social protection, particularly targeting vulnerable populations, and on enhancing institutional frameworks for disaster financial management across ministries and counties. However, implementation has been constrained by limited budget allocations, low insurance penetration, and weak coordination among key actors.

Strategic Priorities in Disaster Risk Finance

To improve Liberia's financial preparedness and reduce the fiscal and human toll of disasters, the Government has identified the following strategic priorities:

In line with the National Disaster Management Agency (NDMA) Act, the Sendai Framework for Disaster Risk Reduction (2015–2030), and global best practices promoted by the World Bank and International Monetary Fund (IMF), these priorities aim to strengthen Liberia's resilience against recurring shocks. They focus on proactive fiscal planning, risk-based financing tools, and incorporating disaster risk management into national and local development plans. By combining domestic resource mobilization with international financial resources, Liberia works to prevent disasters from disrupting fiscal stability, essential services, and efforts to reduce poverty.

1. Strengthen Capacity to Identify and Quantify Disaster-Related Economic Losses and Financial Risks

Adequate financial protection begins with a clear understanding of Liberia's risk landscape. Without reliable data, the government cannot accurately estimate the fiscal impact of disasters or design sustainable financing solutions. Building systems to capture, analyze, and report disaster losses and risks will create an evidence base for decision-making, while also enabling Liberia to access international climate and disaster finance facilities.

- Develop a national disaster loss and damage database, aligned with international standards, and including the ability to estimate economic losses.
- Institutionalize post-disaster expenditure tracking within the Integrated Financial Management Information System (IFMIS) to ensure transparent accounting of disaster-related spending.
- Establish a risk-based asset management system that tracks building and asset condition, as well as valuation of critical government infrastructure (schools, hospitals, administrative facilities, transport systems).
- Build capacity across NDMA, MFDP, and LISGIS to conduct disaster impact assessments, probabilistic risk modeling, and channel external funding through national systems for disaster response.
- Establish a central repository for risk, asset, and loss data, serving as a fiscal risk planning tool and reference point for decision-making at both national and county levels.

2. Improve Fiscal Stability at National and Local Levels by Establishing a Portfolio of DRF Instruments

A robust disaster risk financing strategy requires multiple instruments that complement each other across different layers of risk—from frequent small-scale shocks to rare, high-impact events. By



diversifying its financing toolkit, Liberia can reduce reliance on ad-hoc donor assistance, ensure quicker access to funds, and protect its development gains. This portfolio approach is also aligned with international resilience-building standards and will help stabilize fiscal space at both national and county levels.

- Establish a National Contingency Fund, governed by the NDMA Act and MFDP regulations, with dedicated annual budgetary allocations to ensure rapid response financing.
- Explore and secure contingent credit lines, such as the World Bank's Catastrophe Deferred Drawdown Option (Cat-DDO). While Liberia currently has access to a Cat-DDO, the strategy emphasizes maintaining or renewing such instruments over time as part of a sustained financing framework.
- Conduct feasibility studies on sovereign insurance and parametric products, including ARC (for governments) and other weather-indexed insurance instruments, to expand Liberia's financial protection against climate shocks.
- Assess and design public asset insurance programs to protect key infrastructure such as schools, hospitals, and roads, ensuring continuity of critical services in the aftermath of disasters.

3. Reduce the Impact of Disasters on the Poor and Vulnerable by Supporting Key Social Protection Programs

Disasters disproportionately affect Liberia's poorest and most vulnerable populations, eroding livelihoods and increasing poverty. Strengthening social protection systems and linking them with disaster risk finance ensures that affected households can access timely support. This approach safeguards human capital, reduces reliance on negative coping strategies, and reinforces Liberia's commitment to inclusive development.

- Operationalize a shock-responsive digital social registry to expand the coverage of cash transfer and livelihood support programs during crises.
- Link disaster financing to social protection mechanisms, ensuring that the most vulnerable households receive timely and predictable assistance following a disaster.

Together, these three strategic priorities form the backbone of Liberia's risk-layered disaster risk financing strategy. By first strengthening data systems and assessing fiscal risk, the Government creates the foundation for informed financial planning. By then establishing a diversified portfolio of instruments, it ensures predictable and timely funding for disaster response while protecting fiscal stability. Finally, by linking financing to social protection, the strategy ensures that resources reach those most affected directly, thereby reducing poverty and vulnerability. This integrated approach positions Liberia to better absorb shocks, safeguard development gains, and build long-term resilience in line with national and international commitments.

4. Reduce the Impact of Disasters on the Poor and Vulnerable by Supporting Key Social Protection Programs

- Operationalize a shock-responsive digital social registry and expand coverage of emergency cash transfer mechanisms.
- Develop SOPs for the release of disaster funds through social protection channels, ensuring timeliness, transparency, and accountability.
- Integrate disaster risk financing (DRF) trigger-based activation criteria into Liberia's existing Social Cash Transfer Program to enable rapid response to disasters and support its expansion.



- Include systematic assessment of exposure and disaster impacts on poor and vulnerable households in social protection planning, to ensure interventions are tailored to the most at-risk groups.

5. Help Farmers, Homeowners, and SMEs Build Resilience Through Access to Risk Transfer Instruments, Direct Assistance, and Climate Adaptation Financing

- Work with the Central Bank of Liberia (CBL) and the National Insurance Corporation of Liberia (NICOL) to create enabling policies for agricultural, micro, and parametric insurance, while ensuring inclusive coverage for all homeowners, individuals, and businesses.
- Launch pilot insurance schemes for cocoa, rice, and cassava farmers in Bong, Lofa, and Nimba counties, with a phased plan to expand coverage nationwide.
- Partner with private insurers, development banks, and microfinance institutions (MFIs) to provide bundled products (insurance, concessional loans, credit, and technical assistance) for SMEs and households.
- Promote access to innovative insurance solutions, including parametric products, to protect against climate-related risks such as floods, windstorms, and drought.
- Incentivize development banks and commercial lenders to provide concessional loans for climate adaptation improvements, such as solar power systems, flood-resilient housing, and water management solutions, thereby reducing household and business vulnerability.
- Strengthen public awareness and financial literacy programs on disaster insurance, helping farmers, homeowners, and SMEs better understand and adopt risk transfer mechanisms.

6. Strengthen Coordination and Institutional Capacity for DRF and Management

- Establish a DRF Steering Committee co-chaired by MFDP and NDMA, with representation from sector ministries, development partners, insurers, and the private sector.
- Develop and implement a national training program on disaster risk finance targeting MFDP, NDMA, and county disaster officers, with modules on parametric insurance, contingent credit, and fiscal risk management.
- Integrate DRF roles and responsibilities into County Development Planning Guidelines and national budget planning cycles, ensuring alignment with Liberia's fiscal policy and development priorities.
- Expands beyond traditional agricultural insurance to include *parametric insurance products, multi-hazard coverage, and livelihood protection schemes* designed to trigger timely payouts following predefined disaster thresholds.
- Promotes *affordable concessional loan schemes and contingent credit lines* that enable rapid access to financing for early recovery and reconstruction efforts.
- Introduce *climate adaptation funds and resilience bonds* to mobilize resources for long-term investments in climate-smart infrastructure and sustainable community development.
- Embeds *exposure mapping and disaster impact analysis* within financial planning processes to ensure risk instruments are responsive to the needs of *poor and vulnerable populations* disproportionately affected by climate and disaster risks.
- Strengthens coordination between the *National Disaster Management Agency (NDMA), Ministry of Finance and Development Planning (MFDP)*, and financial institutions to ensure coherent implementation and oversight of disaster risk financing tools.



Annex 1: Strengthened Priorities for Disaster Risk Financing (DRF)

Liberia's disaster financing landscape requires a structured and proactive approach that combines risk transfer tools, fiscal contingency plans, and market-based financial solutions. To boost national resilience and ease post-disaster budget pressures, the DRF strategy highlights stronger coordination among the National Disaster Management Agency (NDMA), the Central Bank of Liberia (CBL), and the National Insurance Corporation of Liberia (NICOL). These organizations will play a key role in creating an environment conducive to disaster risk financing, including policy reforms, product development, and financial inclusion.

Priority Areas and Strategic Actions

- **Enabling Policy Framework:** Strengthen collaboration between the CBL and NICOL to develop supportive policies and regulatory guidelines for agricultural, micro, and parametric insurance, ensuring coverage extends beyond farmers to include homeowners, individuals, and small and medium enterprises (SMEs).
- **Pilot Insurance Schemes:** Launch pilot disaster insurance programs for key value chains, cocoa, rice, and cassava, in Bong, Lofa, and Nimba counties. These pilots will serve as models for scaling up nationwide, eventually covering additional sectors such as fisheries, transport, and retail enterprises.
- **Bundled Financial Products:** Partner with private insurers, microfinance institutions (MFIs), and development banks to introduce bundled risk financing packages that combine insurance coverage, concessional credit, and technical assistance. This approach will enhance accessibility and affordability for farmers, SMEs, and vulnerable households.
- **Innovative Risk Transfer Mechanisms:** Introduce parametric insurance solutions designed to trigger rapid payouts following pre-defined disaster indicators—such as flood levels, drought severity, or wind speed thresholds—thereby reducing delays in post-disaster recovery.
- **Climate Adaptation Financing:** Incentivize financial institutions and development banks to offer climate adaptation loans supporting investments in solar power systems, flood-resilient housing, improved drainage, and water management. These initiatives aim to minimize long-term exposure and build household-level resilience.
- **Financial Literacy and Awareness:** Implement nationwide financial literacy campaigns that promote understanding of insurance and risk financing tools. Special emphasis will be placed on rural farmers, low-income homeowners, and SMEs to foster broader participation in DRF programs.

Footnote:

Source: Ministry of Finance and Development Planning (MFDP), Budget Reports 2018–2023. Data derived from annual national budget statements and emergency expenditure records, providing estimates of average contingency allocations and disaster-related fiscal reallocation margins over the five years



Fiscal Space for Disaster Response

Liberia's current fiscal space for disaster response, derived from contingency funds and budget reallocation tools, is estimated to be between USD 5 and 10 million annually. This figure reflects the average emergency spending over the last five years and the typical reallocation margins available within the national budget. During major disasters like the

Ebola outbreaks (2014–2015) or large urban floods (such as those in Monrovia in 2018 and Buchanan in 2021) resulted in a funding gap exceeding USD 40–50 million. These severe events often required post-disaster borrowing, which was delayed and costly, and heavily reliant on international humanitarian aid.

To address these limitations, the DRF framework emphasizes the creation of a National Disaster Risk Financing Unit (NDRFU) and a Disaster Management Trust Fund (DMTF), both of which are designed to enhance the predictability, speed, and sustainability of financial responses

Risk Layering Strategy. To address this gap, the DRF strategy employs a risk-layering approach, combining multiple financial instruments tailored to the frequency and severity of events:

Table 1: Historical Emergency Expenditure Trends (2018–2023)

Year	Emergency Expenditure (USD Million)
2018	6.2
2019	5.8
2020	7.1
2021	6.7 (including Buchanan floods)
2022	6.3
2023	7.0

Risk Layering Strategy. To address this gap, the DRF strategy employs a risk-layering approach, combining multiple financial instruments tailored to the frequency and severity of events:

- Layer 1 (Low-severity, high-frequency events): Funded by the National Contingency Fund and emergency budget reallocations.
- Layer 2 (Medium-severity events): Covered by contingent credit lines such as CatDDO and budget support from development partners.
- Layer 3 (High-severity, low-frequency events): Managed through sovereign insurance schemes (e.g., ARC) and concessional borrowing.
- Residual Risk: Addressed through international humanitarian aid, donor pledges, and post-disaster borrowing where necessary.

This structured approach ensures timely and cost-effective response across all types of disaster events while reducing reliance on ex-post, reactive measures. It enhances fiscal discipline, protects vulnerable populations, and increases the government's ability to deliver rapid and predictable support to affected communities.

The risk layering model will be reviewed annually and updated as needed based on evolving risk profiles, macroeconomic dynamics, and global financing opportunities.



Institutional Arrangements for DRF Implementation

Effective implementation of DRFS requires clearly defined institutional mandates, robust coordination mechanisms, and transparent accountability frameworks at all levels of government.

- **National Level:** The MFDP will lead the national DRF agenda, coordinating inter-agency financing efforts, spearheading resource mobilization, integrating DRF into fiscal planning, and overseeing public financial management systems. The NDMA will serve as the principal technical entity, leading preparedness, risk analysis, early warning systems, and emergency response coordination.
- **Disaster Risk Financing Steering Committee (DRF-SC):** A high-level Steering Committee will be formally established to guide strategic decision-making. Co-chaired by MFDP and NDMA, it will comprise representatives from key MDAs, including the EPA, MoA, MoH, LISGIS, NICOL, MoGCSP, the private sector (especially insurers and telecoms), CSOs, and development partners. This body will ensure policy coherence, stakeholder coordination, and annual strategy reviews.
- **County-Level Coordination and Decentralization:** CDMCs will be reinforced with designated DRF focal persons trained in emergency financial protocols and supported by technical guidelines from NDMA. Counties will mainstream DRF within County Development Agendas and budgetary frameworks, supported by county-level contingency planning.
- **Public Financial Management Linkages:** DRF mechanisms will be fully integrated into the Integrated Financial Management Information System (IFMIS) and budget systems, with DRF-specific budget codes. This will enable real-time tracking of fund allocations, disbursements, and expenditures, promoting transparency and accountability.
- **Legal and Regulatory Alignment:** Provisions from the Public Financial Management Act, Disaster Management Act, and the Insurance Act will be harmonized to incorporate risk financing clauses, such as sovereign insurance, risk pooling, and disaster contingency reserves.

Monitoring and Evaluation (M&E)

A dedicated M&E framework will be developed to track progress, effectiveness, and impact of DRF instruments and policy implementation.

Key Performance Indicators (KPIs) will include:

- Average time from disaster declaration to disbursement
- Proportion of disaster-related losses covered by pre-arranged financing mechanisms
- Number of counties with fully operational DRF implementation frameworks
- Share of vulnerable populations receiving shock-responsive assistance
- Coverage of insured public assets (schools, health centers, roads)

☐ **Evaluation Cycle:**

- Quarterly activity-based reporting by implementing agencies
- Annual consolidated DRF implementation report, jointly produced by NDMA and MFDP
- Mid-term strategy review (2027) and Final Evaluation (2030) conducted by an independent evaluator

M&E outputs will inform policy adjustments, promote adaptive learning, and support the engagement of development partners.



Communication and Stakeholder Engagement

An inclusive and transparent DRF communication strategy will be launched, focusing on risk awareness, public engagement, and stakeholder participation.

- Risk Communication: Nationwide campaigns, via radio, television, SMS, digital platforms, and community town halls, will educate the public on disaster risks and government financing mechanisms.
- Stakeholder Engagement Platforms:
 - Bi-annual DRF policy roundtables involving public, private, and development actors
 - Joint public-private forums to explore innovative DRF instruments (e.g., parametric insurance)
- **Citizen Engagement and Feedback Mechanisms:**
 - Local consultation processes before significant DRF investments
 - Community scorecards and social audits to improve transparency
- **Gender, Equity, and Social Inclusion (GESI)**

The DRFS embraces a pro-poor and inclusive approach that integrates gender equality and social equity in all DRF activities:

- Vulnerability assessments will disaggregate data by sex, age, and disability status.
- Women-led households, the elderly, and persons with disabilities will be prioritized in social protection disbursements and post-disaster assistance.
- At least 40% representation of women and youth will be ensured in DRF-related planning and implementation committees at all levels.
- Gender-Responsive Budgeting (GRB) tools will be introduced in DRF allocations to ensure equitable resource distribution.

Resource Mobilization Strategy

A resilient and diversified resource mobilization plan will underpin the successful implementation of the DRFS. This strategy will draw from:

- Domestic Resources:
 - Annual DRF allocations within the national budget and MTEF
 - Inclusion of DRF targets in sectoral budget submissions and county development funds
- Development Finance and Grants:
 - Leverage support from the World Bank, African Development Bank, UNDP, ARC, and bilateral donors to establish a dedicated Liberia Disaster Risk Financing Multi-Donor Trust Fund to align and pool external support.
- Private Sector and Financial Innovation:
 - Collaborate with local insurers, banks, and fintech firms to design and scale microinsurance and mobile-enabled disaster response payments
 - Promote Public-Private Partnerships (PPPs) for risk mitigation investments.



Innovative Financing:

- Explore climate and resilience bonds, diaspora bonds, and green finance instruments to fund risk reduction infrastructure and early warning systems

Implementation Roadmap (2025–2030)

Activity	Timeline	Lead Institutions	Support Partners
Establish DRF Steering Committee and Technical Secretariat	Q1 2025	MFDP, NDMA	UNDP, WB
Enact regulatory amendments to include DRF clauses in the PFMA and DMA	Q2 2025	MFDP, MoJ	LIRC, Parliament
Launch National Disaster Contingency Fund	Q3 2025	MFDP	ARC, WB, IMF
Conduct a national DRF awareness campaign.	Q4 2025	NDMA, MoIC	CSOs, Media
Design and implement agricultural microinsurance pilots	2026	MoA, CBL, LIRC	Private Sector, WFP
Integrate DRF into IFMIS and fiscal reporting	2026	MFDP	GIZ, IMF
Scale-up shock-responsive social protection in priority counties	2026–2027	MoGCSP, NDMA	UNICEF, WFP
Conduct mid-term review of DRF implementation	2027	NDMA, MFDP	Independent Evaluators
Expand sovereign insurance coverage through ARC and other instruments	2028	MFDP, NDMA	ARC, AfDB
Launch resilience bonds/climate financing facilities	2029	MFDP, EPA	Private Sector, WB
Conduct final evaluation and update DRF strategy	2030	NDMA, MFDP	Independent Evaluators, UNDP

This roadmap provides a sequenced and results-oriented pathway to operationalize the DRFS, ensuring flexibility for innovation and course correction over time.

Strategic Components

Risk Analytics & Hazard Mapping

- Develop multi-hazard maps at national, county, and community levels.



- Strengthen the Liberia National Disaster Risk Information System (LNDRIS) for real-time data aggregation and scenario modeling.
- Build capacity at the NDMA and county levels for disaster risk modelling and damage/loss estimation.

The essence is to create detailed maps that identify areas most at risk from natural and human-induced hazards across Liberia.

- What This Involves:
- National Level: Map significant hazards like floods, droughts, coastal erosion, and disease outbreaks across the entire country. Example: A national flood risk map highlighting vulnerable river basins, such as the St. Paul and Mesurado Rivers.
- County Level: Create hazard maps specific to each county showing their most common risks. Example: In Bong County, map areas prone to landslides and flash floods; in Grand Kru, focus on coastal erosion risks.
- Community Level: Work with local leaders and residents to map hazards in towns and villages. Example: In Paynesville, mark high-risk areas for drainage overflow, fire outbreaks, or poorly constructed housing at risk of collapse.

The purpose is to guide land use planning and disaster preparedness, support early warning systems, and facilitate the effective allocation of emergency resources.

Pre-Arranged Financial Instruments

- Create a dedicated National Disaster Contingency Fund for immediate response needs.
- Engage with partners to issue Catastrophe Bonds for major disaster events.
- Secure standby financing arrangements with IFIs.
- Collaborate with African Risk Capacity for regional insurance solutions.

For instance, the National Disaster Contingency Fund *sets aside emergency money that Liberia can access quickly after a disaster.*

Example: A special government account with \$10 million ready to respond to floods or epidemics without waiting for donor support.

○ Catastrophe Bonds (Cat Bonds)

Collaborate with international partners to secure funding that pays out in the event of a major disaster.

Example: If a major earthquake or extreme flood occurs, investors lose their money, and Liberia gets instant funds to respond.

- Standby Financing with International Financial Institutions (IFIs): *Make agreements in advance with the World Bank, IMF, or AfDB to access quick loans or grants during emergencies.*

Example: Liberia signs a deal with the World Bank to unlock \$20 million within days of a declared disaster.

- Insurance through African Risk Capacity (ARC)

Join Africa's disaster insurance program to protect against climate-related risks. **Example:** Liberia pays a small premium each year, and if there's a drought or flood, ARC provides a fast insurance payout to support affected communities.

Risk Transfer Mechanisms

- Mandate insurance of public infrastructure.



- Scale up subsidized insurance schemes for farmers and fisherfolk.
- Promote low-cost microinsurance tailored to informal sectors.
 - For instance, Insurance for Public Infrastructure

Make it a rule that all government buildings and assets must be insured against disasters.

Example: Schools, hospitals, and bridges in Liberia are insured, so if a storm damages them, the government can quickly get money to rebuild.

- Subsidized Insurance for Farmers, etc...

Help small farmers and fishers afford insurance to protect their crops, livestock, and other assets.

Example: A rice farmer in Lofa County pays only part of the cost for weather insurance, and the government or donors cover the rest. If drought hits, the insurance pays out.

- Low-Cost Micro Insurance or the Informal Sector

Offer affordable insurance options for market sellers, motorcyclists, and small business owners.

Example: A petty trader in Red Light Market pays a small monthly fee to protect her goods from fire or theft, and gets quick help if disaster strikes.

Social Protection & Livelihood Restoration

- Provide targeted cash transfers post-disaster.
- Mandate occupational insurance coverage for high-risk workers.
- Establish localized Community Resilience Funds.

For instance, Targeted Cash Transfers After Disasters

Give emergency cash directly to families affected by disasters to help them recover quickly.

Example: Following a flood in Grand Bassa, families who lost their homes receive mobile money or cash support to purchase food, clothing, and temporary shelter.

Occupational Insurance for High-Risk Workers
Require insurance for individuals working in hazardous jobs, such as mining, fishing, or waste collection.

Example: A gold miner in Nimba is automatically covered by insurance that pays for treatment if he's injured on the job.

Community Resilience Funds, set up small local funds that communities can manage to respond to minor emergencies or rebuild livelihoods.

Example: A village in River Gee uses its Community Resilience Fund to support women farmers with seeds and tools after a storm destroyed their crops.

Early Warning and Preparedness Financing:

- **Link early warning triggers with automatic fund disbursement.**
- Integrate early warning systems into a centralized CAP-compliant platform.

For instance, make Business Continuity Plans (BCPs) Mandatory for the Government

Agencies (MDAs) to ensure that all Ministries, Departments, and Agencies have a plan to keep working during and after a disaster.

Example: The Ministry of Health prepares a Business Continuity Plan to ensure it can continue delivering services during a pandemic outbreak or a major flood.

- Help Small Businesses (MSMEs) Create Their Own Plans

Provide tools and training to help small businesses prepare for and recover quickly from shocks.



Example: A tailoring shop in Ganta receives support to create a simple plan for continuing business operations in the event of a fire or supply disruption.

Implementation Framework

See Annex 4

Governance

- NDMA will lead the DRFS implementation.
- Establish a National Disaster Risk Financing Unit (NDRFU).
- Coordinate with technical working groups and county disaster financing focal persons.
 - For instance, NDMA is the Lead Agency
The MoEDP will be responsible for implementing the Disaster Risk Financing Strategy (DRFS).
Example MoFDP will coordinate all activities, ensure partners are aligned, and monitor progress across the country.
 - Create a National Disaster Risk Financing Unit (NDRFU)
Set up a special unit within NDMA to manage disaster-related funding and financial planning.
Example: The NDRFU will track emergency funds, facilitate quick disbursement, and collaborate with donors on financial tools such as insurance and contingency funds.
 - Coordinate with County-Level and Technical Stakeholders
Work closely with technical experts, government ministries, and disaster finance focal persons in each county. Example: Each county will have a disaster finance focal person who links local needs with national plans, while technical groups advise on insurance, early warning systems, and funding options.

Legal & Policy Enablers

- Amend the Disaster Management Act to support financial risk transfer.
- Develop a policy on Sovereign Disaster Risk Financing.

For instance, Legal & Policy Enablers

- *Update the law to support disaster financing tools.*

Example: Amend the Disaster Management Act to enable Liberia to utilize insurance and other financial tools in response to disasters.

- *Create a national policy on how the government will finance disaster response.*

Example:

Develop a clear plan for Liberia to manage and fund disaster risks at the national level.

Capacity Building

- Partner with regional/international institutions for technical assistance.
- Train stakeholders on DRFS tools and systems.

For instance, Capacity Building

- *Work with international partners for training and technical support.*
- **Example:** Partner with ECOWAS or the World Bank to get expert help on disaster finance. o
Train government workers and stakeholders on disaster finance tools.
- **Example:** NDMA, Finance, and County staff receive training on how to utilize early warning systems, insurance, and emergency funding tools.



Resource Mobilization

- Allocate funds through the Ministry of Finance and new levies.
- Mobilize grants and concessional finance from partners.
- Access regional financing platforms and donor trust funds.

For instance, regarding Resource Mobilization, set *aside government funding and create new ways to raise money.*

Example: The Ministry of Finance includes disaster funds in the national budget and explores small levies to build a reserve. o *Seek grants and soft loans from development partners.*

Example: Approach donors like the EU, World Bank, or AfDB to support disaster risk financing. o *Use regional and global platforms for extra funding.*

Example: Apply for support from the African Risk Capacity or the Green Climate Fund.

Monitoring, Evaluation, and Learning (MEL)

Annual progress reports with KPIs.

- Mid-term review after 3 years.
- Final impact assessment after 5 years.
 - **For instance,** Monitoring, Evaluation, and Learning (MEL)

Disaster Risk Financing Strategy (DRFS)

Activity	Timeline	What It Means	Example Output
Annual Progress Reports	Every year	Track yearly progress using Key Performance Indicators (KPIs).	Report showing % of funds disbursed, # of people trained
Mid-Term Review	Year 3	Review overall progress, challenges, and needed adjustments.	Summary of achievements, gaps, and recommendations
Final Impact Assessment	Year 5 (End of Plan)	Evaluate the full impact of the strategy on disaster preparedness and financing.	Final report showing outcomes and lessons learned



Key Performance Indicators (KPIs) included for each activity, keeping it simplified and action-oriented:

MEL Matrix – Disaster Risk Financing Strategy (DRFS)

Activity	Timeline	What It Means	Example Output	Key Performance Indicators (KPIs)
Annual Progress Reports	Every year	Track yearly progress using KPIs.	Report showing % of funds disbursed, # of people trained	- % of DRFS activities completed- # of stakeholders trained- \$ amount mobilized for disaster financing- # of counties with operational plans
Mid-Term Review	Year 3	Review progress, identify challenges, and make corrections.	Mid-term evaluation report with recommendations	- % of KPIs achieved by mid-point- Level of stakeholder engagement- Functionality of DRF tools (e.g., contingency fund, insurance)
Final Impact Assessment	Year 5 (End of Plan)	Measure long-term results and impact on disaster readiness.	Final impact report with success stories and gaps	- % reduction in disaster response time- % of vulnerable groups reached with support- Sustainability of DRF mechanisms-Lessons learned for future planning

Expected Outcomes

- Immediate access to the allocated amount of \$20 million in disaster response within 72 hours.
- 70% of public assets insured by 2030.
- 1 million Liberians covered under disaster-linked insurance schemes by 2030.
- Reduction in post-disaster fiscal deficits.
- Improved livelihoods and resilience among affected populations.

See Annex 5.

For instance, a:

○ **Rapid Emergency Funding Available**

At least \$20 million will be ready for disaster response within 72 hours of an event. ○ Most Public Buildings and Infrastructure Insured

By 2030, 70% of schools, hospitals, roads, and other public assets will have disaster insurance. ○ 1 million People Protected by Insurance

By 2030, 1 million Liberians, especially farmers, fisherfolk, and low-income groups, will be covered by disaster-related insurance.



- **Smaller Budget Gaps After Disasters**

People affected by disasters will recover faster, protect their income, and become more resilient.



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