



# GHANA DISASTER MANAGEMENT AND RISK FINANCE STRATEGY FRAMEWORK



SUSTAINABLE  
DEVELOPMENT  
GOALS



# **GHANA DISASTER MANAGEMENT AND RISK FINANCE STRATEGY FRAMEWORK AND IMPLEMENTATION PLAN (2025–2030)**

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**November 2025**

## **APPROVAL OF THE STRATEGY FRAMEWORK**

The Ghana National Disaster Management and Risk Finance Strategy Framework with Implementation Plan (2025 -2030) has been officially approved, affirming Government of Ghana’s commitment to strengthening disaster risk finance management and building national resilience.

.....  
**Major (Rtd) Dr. Josheph Bikanyi Kuyon**  
Director General of NADMO

.....  
Date

## ACKNOWLEDGEMENTS

The National Disaster Management Organization (NADMO) extends its heartfelt appreciation to all organizations, Metropolitan, Municipal and District Assemblies (MMDAs), participants, and key stakeholders who generously contributed their time, knowledge, and insights toward the development of the National Disaster Management and Risk Finance Strategy Framework with Implementation Plan (2025–2030). We are especially grateful to the Director for Climate Change Adaptation and Risk Reduction at NADMO for her leadership and to all those who invested time and effort to ensure the successful development of this important document.

Our sincere appreciation goes to institutions and government agencies including National Development Planning Commission (NDPC), Environmental Protection Agency (EPA), National Disaster Management Organisation (NADMO), Ghana Statistical Service (GSS), Ghana Red Cross Society (GRCS), Ministry of Finance (Climate Finance Unit), Ghana Meteorological Agency (Gmet), Inclusive Aid Development Foundation (IADF), Inner-Cities Secretariat (ICS), Ghana Hydrological Authority (GHA), Adenta Municipal Assembly, Statistics, Research, and Information Directorate - Ministry of Food and Agriculture (SRID-MOFA), National Insurance Commission (NIC), Non-Governmental Organizations (NGOs) as well as other MMDAs for their valuable support, contributions and collaboration.

We also wish to express our sincere appreciation to UNDP’s Insurance and Risk Finance Facility (IRFF), the UNDP Ghana Country Office, and the Head of Environment and Climate Cluster for their technical support, guidance, and invaluable inputs throughout the strategy development process. Your collective efforts have laid a strong foundation for advancing disaster risk finance management for Ghana.

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**Major (Rtd) Dr. Josheph Bikanyi Kuyon**

Director General of NADMO

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Date

## FOREWORD

Disasters impose profound social, economic, fiscal, and environmental consequences, which can be long-term and affect multiple generations. The human and economic costs of these disasters are enormous, and they are expected to rise as the world's population grows, climate change, environmental degradation, and urbanization progresses. The financial management of these disasters has been a significant concern, diverting resources away from long-term development investments to address immediate relief and recovery requirements. As a result, proper methods for controlling the fiscal repercussions of disasters must be established.

As the Director General of NADMO, I commissioned the establishment of the Disaster Management and Risk Finance Strategy Framework with Implementation Plan (2025-2030) to ensure that the budgetary implications of disasters are adequately managed. This strategy sets out how Government will pre-arrange finance for priority hazards, layered instruments to match event severity and frequency, and speed funds to affected people and systems through clear rules, data and delivery channels, contributing to Ghana's growth and development agenda.

This strategy framework and implementation plan highlights financial options that will be explored and developed over the next five years to reduce fiscal vulnerability resulting from disasters, including, among other things, ensuring the timeliness of disaster response funds; ensuring effective post-disaster spending; and utilizing the best available data. As a result, I am totally persuaded that the effective execution of this plan will go a long way toward alleviating disaster-related fiscal costs.

.....  
**Major (Rtd) Dr. Josheph Bikanyi Kuyon**

Director General of NADMO

.....  
Date

## PREFACE

The Ministry of Finance places high priority on managing the fiscal impacts of disasters. Over the past decade, the intensity, frequency, and economic impact of catastrophes have increased, resulting in significant budgetary losses. The Disaster Management and Risk Finance Strategy Framework and Implementation Plan (2025-2030) sets out how Government will address post-disaster liquidity needs through a pre-arranged, risk-layered portfolio of ex-ante financial instruments.

This strategy framework complements ongoing mitigation and preparedness programmes implemented by Ministries, Departments and Agencies (MDAs) and Metropolitan Municipal and District Assemblies (MMDAs) under NADMO coordination. It strengthens understanding of disaster risks and expected fiscal costs. It establishes clear, rules-based mechanisms to make funds available quickly and transparently when disaster strikes, protecting lives and livelihoods while safeguarding public finances.

We would want to thank everyone who helped design this plan. I would like to thank the United Nations Development Programme's Insurance and Risk Finance Facility (UNDPsIRFF) for its technical and financial assistance, as well as the Disaster Risk Financing team for directing the process and developing the strategy. Thank you to the entire task groups and all stakeholders for your contributions to the formulation of this strategy. It is our expectation that if fully implemented, this strategy will result in greater proactive financial preparation for disasters over the following five years.

.....  
**Major (Rtd) Dr. Josheph Bikanyi Kuyon**

Director General of NADMO

.....  
Date

## Table of Contents

SECTION ONE: INTRODUCTION .....	1
1.1 Rationale for a Disaster Risk Financing (DRF) Strategy .....	1
SECTION TWO: DISASTER RISK LANDSCAPE AND IMPACTS IN GHANA .....	3
2.1 Disaster Risk Prevalence in Ghana .....	3
2.1.1 <i>Climate Risk and Vulnerability Findings</i> .....	3
2.1.2 <i>Risk and Vulnerability Analysis</i> .....	4
2.1.3 <i>Gender and Vulnerability Dimension in Disaster Risk in Ghana</i> .....	5
2.2 Impacts of Disaster in Ghana .....	6
2.2.1 <i>Social impacts of disasters</i> .....	7
2.2.2 <i>Economic and fiscal impacts of disasters</i> .....	7
2.2.3 <i>Impact on Built Environment and Infrastructure</i> .....	7
SECTION THREE: ASSESSMENT OF GHANA'S DISASTER RISK MANAGEMENT FRAMEWORK.....	9
3.1 Policy, Legal and Institutional Framework for Disaster Risk Management and Financing in Ghana .....	9
3.1.1 <i>Policy Alignment</i> .....	9
3.1.2 <i>Legal and Institutional Arrangements</i> .....	10
3.2. Assessment of Current Disaster Risk Finance Landscape .....	10
SECTION FOUR: DISASTER RISK FINANCING STRATEGIC PILLARS FOR GHANA .....	13
4.1 Comprehensive Identification, Quantification and Mapping of Disaster Related Fiscal Risks .....	13
4.2 Integrate Disaster Risk Analysis in MMDAs and MDAs Planning and Budgeting and Strengthen Disaster Related Public Financial Management .....	13
4.3 Establish a Portfolio of Sovereign / Sub-Sovereign Disaster Risk Financing Instruments. ....	14
4.4 Develop Private Risk Transfer Solutions to Supplement Government Instruments .....	15
4.4.1. <i>Digital Innovation</i> .....	16
4.4.2 <i>Support the Financial and Insurance Sector to Enhance DRF</i> .....	16
4.4.3 <i>Expand disaster insurance for households and businesses</i> .....	16
4.4.4 <i>Prioritize Agricultural insurance</i> .....	16
4.5 Strengthen Coordination and Institutional Capacity for Improved Disaster Risk Governance .....	17
4.5.1. <i>Strengthening Policy and Institutional Framework for Disaster Risk Finance</i> .....	17
4.5.2. <i>Ensure Transparency and Accountability in Disaster Risk Finance</i> .....	17



4.5.3. Create Comprehensive and Integrated Approach to Disaster Risk Finance.....	18
4.6. Improve the Legal and Regulatory Framework for Disaster Risk Finance and Management.....	18
4.7. Enhance Industry and Community Resilience to Shocks.....	19
4.8. Enhance Layered Risk Management Approach .....	19
SECTION FIVE: IMPLEMENTATION, MONITORING, EVALUATION AND COMMUNICATION .....	21
5.1 Implementation.....	21
5.2 Monitoring and Evaluation.....	21
5.3 Communication and Knowledge Sharing.....	21
5.4 Implementation Plan.....	23
5.5 Communication Plan .....	28
CONCLUSION	
Driving Collective Action and Sustainable Financing by Turning Strategy into Impact.....	31
ANNEXES .....	32
Annex 1: Glossary of Key Terms.....	32
Annex 2: Institutional Roles and Responsibilities .....	32
Annex 3: Disaster Risk Financing Instruments for Ghana.....	32
Annex 4: Monitoring and Evaluation Matrix.....	32
Annex 5: Ghana's Regional Climate Resilience Index.....	33
<i>Annex 6: Disaster Management Analysis Findings</i> .....	33
<i>Annex 7: Multi Hazard Exposure</i> .....	34
Annex 8: Multi-Hazard Exposure Index by Region .....	35
<i>Annex 9: Coping Capacity Index</i> .....	35
Annex 10: Resilience by Region.....	36
<i>Annex 11: Multi-Hazard Exposure by Region</i> .....	37
REFERENCES.....	38

## LIST OF TABLES

<a href="#">Table 1: Regional Risk Profile</a> .....	4
<a href="#">Table 2: Coping Capacity by Region</a> .....	6
<a href="#">Table 3: Layered Risk Management Approach</a> .....	20
<a href="#">Table 4: Implementation Plan</a> .....	23
<a href="#">Table 5: Communication Plan</a> .....	28



## LIST OF ACRONYMS

ARC	African Risk Capacity
DMA	Disaster Management Analysis
DMF	Disaster Management Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
IRFF	Insurance and Risk Finance Facility
NADMO	National Disaster Management Organization
NDMP	National Disaster Management Plan
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PDC	Pacific Disaster Center
RVA	Vulnerability Assessment
SDGs	Sustainable Development Goals
SME	Small and Medium Enterprises
UNDP	United Nations Development Programme
UNISDR	UN International Strategy for Disaster Reduction
WFP	World Food Programme



## EXECUTIVE SUMMARY

Hazards such as droughts, floods, epidemics, insect infestations, landslides, wildfires, earthquakes, and conflicts have significant impacts on the Ghanaian economy. The country's vulnerability to disasters is exacerbated by its high level of poverty and reliance on key sectors that are most likely to be affected by climate change: agriculture, water, tourism, and forestry. Disaster occurrences are key sources of macroeconomic and fiscal risk for the Ghana's economy, with droughts in particular causing severe decreases in agricultural output, hydropower generation, and GDP. Ghana's government understands the dangers posed by man-made events, natural hazards, and climate change, and is dedicated to reducing vulnerability and strengthening resilience through multi-sectoral strategies. Ghana signed the Sendai Framework for Disaster Risk Reduction 2015-2030 and has implemented variety of laws, policies, and programs to mitigate the negative impact of catastrophes on people, businesses, and the economy.

Effective Disaster Risk Financing (DRF) requires a portfolio of financing instruments that provide reliable, sufficient, and timely access to resources in the event of disasters. Equally important are strong delivery mechanisms to ensure that resources reach those in need promptly, transparently, and effectively. Historically Ghana, have had little pre-planned comprehensive strategy to guide which funding mechanisms are available and for what purposes. This strategy framework seeks to tackle this challenge by serving as a foundation on which districts, regions and national could build resilience by identifying sustainable ways to mobilize and maintain adequate emergency resources, enabling the country to develop not only a national disaster risk finance management strategy but also decentralized strategies tailored to every level of the economy, from MMDAs through regional to national structures. It complements the Disaster Risk Management (DRM) Policy, as well as government's social protection policies and programs, fiscal, vulnerability and agricultural risk management initiatives.

This strategy focuses on government's response to disasters from 2025 to 2030, with a special emphasis on fires, droughts and floods, the country's most prevalent dangers. The purpose is to enhance government's capacity to mobilize adequate resources, deliver rapid, efficient responses that protect lives, livelihoods, and the economy. To achieve this goal, the framework will focus on eight strategic priorities:

1. Comprehensive Identification, Quantification and Mapping of Disaster Related Economic and Fiscal Risks.
2. Integrate Disaster Risk Analysis in MMDAs and MDAs Planning, Budgeting and Strengthen Disaster Related Public Financial Management.
3. Establish a Portfolio of Sovereign / Sub-Sovereign Disaster Risk Financing Instruments.
4. Develop Private Risk Transfer Solutions to Supplement Government Instruments.
5. Strengthen Coordination and Institutional Capacity for Improved Disaster Risk Governance.
6. Improve Legal and Regulatory Framework for Disaster Risk Finance and Management.
7. Enhance Industry and Community Resilience to Shocks.
8. Enhance Layered Risk Management Approach.

Advancements in each of these strategic priorities, as outlined in this document, will strengthen the government's preparedness and response capacity to manage disaster risks, while also helping to protect more especially vulnerable households, businesses, and the economy from disaster-related impacts. This Disaster Risk Strategy Framework and Implementation Plan is ultimately owned by the National

Disaster Management Organisation (NADMO), with technical support from United Nations Development Programme's Insurance and Risk Finance Facility, which will seek to implement it in collaboration with line ministries, development partners, and the corporate sector.



## **SECTION ONE: INTRODUCTION**

### **1.1 Rationale for a Disaster Risk Financing (DRF) Strategy**

Ghana faces growing risks from floods, droughts, epidemics, and coastal erosion. The impact of these hazards is magnified by rapid urbanization, climate change and other socio-economic vulnerabilities. These shocks disrupt lives and livelihoods, damage infrastructure and impose significant strain on national and local resources, often diverting funds from critical development investments. In recent years, large-scale flooding and other shocks have required significant government spending on emergency response and recovery.

Recognising these challenges, the Government of Ghana is strengthening its capacity to manage disaster risks in a proactive manner. Building on existing disaster management and fiscal frameworks in the country, the Government is moving decisively from reliance on post-disaster measures towards pre-arranged, ex-ante financial instruments that enable faster, more predictable, and cost-effective responses. This transition will ensure that funding is available quickly, predictably, and at lower cost when shocks occur, while protecting development programmes and fiscal stability.

Therefore, securing a comprehensive and coherent financing strategy for disaster risk is critical for governments as it provides the framework to:

- Secure timely access to finance for emergency response and recovery.
- Protect national priorities by reducing the need for disruptive budget reallocations.
- Enhance resilience across sectors by linking financial instruments to risk reduction and climate adaptation.
- Promote equity and inclusion, ensuring women, youth, and vulnerable groups, including persons with disabilities, are integrated into financial protection efforts.
- Leverage partnerships with development partners, regional facilities, and the private sector to expand risk transfer and investment opportunities.

Developing a climate risk disaster finance strategy framework for disaster risk reduction aligns with the second of the four UNDRR prioritised accelerators for DRR, with a focus on incentivising accelerated financing for DRR and contributing to creating financial products that more accurately price in the risks we now face. As a result, national governments, including Ghana, can develop risk-informed investment strategies that leverage public and private sector financing.

Globally, the mitigation of natural hazards and their associated disaster risks is increasingly the focus of many national policies, particularly in developing countries. This is critical owing to the implications of climate change for food security, livelihoods, economic growth, and development. Thus, the current reactive approaches to establishing a fiscal space for disaster response are no longer prudent given the competing developmental demands on governments alongside reduced

economic growth and declining tax revenues, particularly in lower-income countries, predominantly in sub-Saharan Africa. This Strategy framework reinforces Ghana's commitments under the Sendai Framework for Disaster Risk Reduction (2015–2030), the Paris Agreement, and the Sustainable Development Goals (SDGs).

The goal of this Strategy framework is to enhance Ghana's resilience to natural and man-made hazards through effective risk management and sound financial planning. It establishes a comprehensive framework, that aligned with national development priorities and international best practices, to integrate risk considerations into fiscal and development planning. By expanding access to pre-arranged funding and risk transfer instruments, the Strategy will strengthen the capacity of the government to access sufficient funding for and to respond effectively and promptly to disasters, thereby minimizing the impact of disasters on households, firms, and the economy. Ultimately, the strategy aims to ensure an effective response to natural and man-made disasters, with a particular emphasis on droughts and floods, which are the most prominent hazards.

To achieve these objectives, the strategy adopts four complementary and interrelated approaches:

1. **Equity and Human Rights-Based Approach** – Ensuring that all individuals, particularly the most vulnerable, are considered in risk financing decisions and benefit equitably from protective measures.
2. **Gender-Sensitive Approach** – Recognizing and addressing the specific vulnerabilities and capacities of women, men, and marginalized groups to ensure inclusive risk financing solutions.
3. **Participatory Approach** – Engaging stakeholders at all levels, including government agencies, MMDAs, civil society organizations (CSOs), the finance sector experts, and development partners, to promote ownership, transparency, and accountability.
4. **Quality Control and Assurance** – Applying rigorous standards, data validation, and continuous improvement processes to ensure the reliability and effectiveness of the strategy.

The Strategy is operationalized through eight strategic pillars, details of which are outlined in section four (4). Together, they form a coherent framework for protecting Ghana's people, economy, and development trajectory from the financial impacts of disasters.

## SECTION TWO: DISASTER RISK LANDSCAPE AND IMPACTS IN GHANA

### 2.1 Disaster Risk Prevalence in Ghana

#### 2.1.1 Climate Risk and Vulnerability Findings

Ghana faces a complex and evolving disaster risk landscape, shaped by climate variability, environmental degradation, and socio-economic vulnerabilities. Climate change is a major driver, with the World Bank Groups' Country Climate and Development report (2022) for Ghana, warning that at least one million of the country's population risk falling into poverty due to climate shocks if immediate climate actions are not taken to make the country resilient. The report estimates that up to 40% of poor households could have their income reduced by 2050, underscoring the urgent need to pursue development pathways to building resilience to climate shocks and to enhance low-carbon growth through a combination of cogent climate policies including sustainable financing options and private sector investments<sup>1</sup>.

The disaster risk and vulnerability analysis categorised the regions of Ghana into five risk levels using a multi-hazard risk index by averaging multi-hazard exposure, vulnerability and coping capacity. Based on the categorisation, the North-East, Northern, Savannah were regions with very high risk, with Volta, Oti and Upper East at high level. The Western North, Upper West, and Bono East were moderate, with Accra, Central and Eastern Regions being low. The regions with very low level of risk were Ahafo, Ashanti, Bono, and Western. These are depicted in the accompanying figures in maps (refer to annexes).

In 2021, the Pacific Disaster Center (PDC) Global, in collaboration with the National Disaster Management Organization (NADMO) and technical stakeholder institutions of NADMO conducted climate risk baseline assessments. The assessments consisted of two parts namely, Risk and Vulnerability Assessment (RVA) and the Disaster Management Analysis (DMA). The former focused on multi-hazard exposure, socio-economic vulnerabilities, and coping capacities, whilst the latter considered six thematic areas involving; enabling environment; institutional arrangements; disaster governance mechanisms; capabilities and resources; capacity development; and communication and information management. The findings of the DMA provided an in-depth understanding of the current disaster management landscape in Ghana and helped to contextualize the results of the Risk and Vulnerability Assessment (RVA). The diagrammatic baseline climate data (tables and figures in annex 1 and 2) therefore provides a summary of the disaster risk profile of Ghana.

The regional disaster risk profile was calculated by averaging vulnerability in terms of exposure, incomes levels, agricultural yield and access to information and Coping Capacity regarding climate change interventions already taken place and ongoing and infrastructure availability (road network, bridges, dams, etc). The averages led to index score per region as shown in the legend.

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<sup>1</sup> World Bank Groups' Country Climate and Development report (2022) for Ghana



Scores between 1.000 and 0.640 constituted very high resilience whilst scores below 0.640 constituted either high, moderate, low or very low resilience depending on the score (table 1). From the diagrammatic presentation of the disaster analysis conducted (see figure 2 in annex),

Ghana has some disaster response capacity, particularly in terms of institutional arrangements, and some general resources. Hence, some achievement made, though with significant limitation as depicted by the circles shaded with yellow color. They suggest that in times of emergencies, Ghana has the ability to respond to a certain level before requesting for external assistance. However, the country can boast of some early development capacity for disaster management in relation to disaster governance mechanisms, capacity development and communication and information management. These capacities form a crucial foundation for effective disaster risk management.

The analysis also points to significant gaps that must be addressed. Building a more robust and advanced disaster response system is essential, not only to minimize the immediate impact of disasters but also to improve long-term resilience, coordination, and recovery. Without sustained investment and strategic development in these areas, the country's ability to cope with increasing disaster risks will remain limited.

### 2.1.2 Risk and Vulnerability Analysis

To effectively assess Ghana's multi-hazard landscape, it is essential to understand the causes, effects, and coping strategies associated with each hazard, as well as the geographical areas most exposed to these risks. The country faces complex risk profile that includes both natural and climate-induced hazards, each affecting regions differently based on their geographic, ecological, and socio-economic characteristics<sup>2 3 4</sup> as shown in Table 1. This understanding forms the basis of the Risk and Vulnerability Analysis of Ghana, which examined three key components multi-hazard exposure, vulnerability, and coping capacity as summarized in the diagram (figure 1: Multi Hazard Exposure in Annexes).

*Table 1: Regional Risk Profile*

Hazard	Causes	Effects	High-Risk Regions	Coping Strategies
Coastal Flooding & Sea Level Rise	Sea level rise, poor drainage, coastal erosion	Displacement, infrastructure loss, livelihood disruption	Greater Accra, Volta, Central	Coastal protection, urban planning, resettlement
Riverine Flooding	Intense rainfall, poor land use	Crop damage, property loss, disease spread	Northern, Upper East, Eastern	Flood early warning, drainage, afforestation

<sup>2</sup> National Disaster Management Organisation (NADMO). (n.d.). *National disaster management plan*. Accra: NADMO.

<sup>3</sup> Environmental Protection Agency (EPA), Ghana. (2015). *Ghana's third national communication report to the UNFCCC*. Accra: EPA. <https://unfccc.int/documents/97528>

<sup>4</sup> United Nations Office for Disaster Risk Reduction (UNDRR). (2021). *Ghana disaster risk profile*. UNDRR. <https://www.undrr.org/publication/ghana-disaster-risk-profile>



Drought & Extreme Heat	Rainfall variability, deforestation	Water scarcity, food insecurity, livestock loss	Northern, Upper East, Upper West, Savannah	Irrigation, water harvesting, drought-tolerant crops
Landslides	Heavy rainfall, mining, unstable slopes	Road blockage, housing damage	Eastern, Volta	Slope stabilization, monitoring
Bushfires	Dry seasons, human activities	Farmland destruction, biodiversity loss	Northern, Upper East, Brong-Ahafo, Bono East	Fire volunteer squads, public sensitization
Malaria	Floods, stagnant water, temperature rise	Illness, health system burden, productivity loss	Greater Accra, Ashanti, Volta	Mosquito control, public health campaigns
Earthquakes	Tectonic fault (Akwapim Fault Line)	Building collapse, injury, potential fatalities	Greater Accra, Eastern	Building codes, public awareness

### ***2.1.3 Gender and Vulnerability Dimension in Disaster Risk in Ghana***

Vulnerability in Ghana is shaped not only by exposure to hazards but also by social, economic and gender inequalities. Women and girls, people living with disability and the aged especially in rural and low-income areas, face higher risks due to limited access to resources, decision-making power, and protective services<sup>5</sup>. They often experience restricted access to family planning services, education, financial tools, and land or property ownership. High rates of teenage pregnancy and gender-based violence, especially among girls aged 15–19 in high-poverty regions further reduce their resilience by contributing to school dropouts and limiting future opportunities. Economic inequalities, such as lower earnings and a concentration of women in informal sectors lacking social protections, increase their exposure to shocks and making them more vulnerable. These gender and vulnerability specific barriers underscore the urgency of integrating gender and vulnerability responsive strategies into disaster risk reduction (DRR) and climate adaptation policies to ensure equitable resilience and recovery for all.

Access to financial services is a key determinant of resilience. The ability to save and access a bank account and insurance can help households better protect and recover assets after a disaster. However, many women are excluded from formal financial systems, limiting their access to credit, savings, and emergency support. A study by the World Bank found that 43 percent of affected households in Ghana relied on savings as their primary coping mechanism following the

<sup>5</sup> Erman, Alvina; De Vries Robbe, Sophie Anne; Thies, Stephan Fabian; Kabir, Kayenat; Maruo, Mirai. 2021. Gender Dimensions of Disaster Risk and Resilience: Existing Evidence. © World Bank. <http://hdl.handle.net/10986/35202> License:

devastating floods in 2015<sup>6</sup>. Earlier research also indicated that access to both informal and formal financial sources aided households in Accra in recovering from floods<sup>7</sup>.

#### COPING CAPACITY INDEX BY REGION

The coping capacity measured Ghana's disaster response systems, the means and abilities of the country's population to absorb and respond to disruptions in normal societal function. Summary of coping capacity results is as follows:

*Table 2: Coping Capacity by Region*

	RANK	REGION	INDEX SCORE
VERY HIGH	1	Greater Accra	0.952
	2	Ashanti	0.636
	3	Bono	0.544
HIGH	4	Central	0.534
	5	Western	0.527
	6	Eastern	0.484
MED IUM	7	Volta	0.477
	8	Ahafo	0.470
	9	Bono East	0.381
LOW	10	Upper West	0.339
	11	Western North	0.331
	12	Upper East	0.328
VERY LOW	13	Northern	0.255
	14	Oti	0.234
	15	North East	0.207
	16	Savannah	0.184

## 2.2 Impacts of Disaster in Ghana

The impact of disasters, as outlined in the Sendai Framework, is assessed across three main dimensions: social, economic, and infrastructural. This assessment considered the number of lives affected, economic losses incurred, and damage to housing and critical infrastructure, including bridges, dams, hospitals, and schools. In this strategy, the impact of disaster events is categorised into social, economic, fiscal, built environment and infrastructure sectors.

<sup>6</sup> Erman, A, Motte, E, Goyal, R, Asare, A, Takamatsu, S, Chen, X, Malgioglio, S, Skinner, A, Yoshida, N, and Hallegatte, S. 2020. "The Road to Recovery the Role of Poverty in the Exposure, Vulnerability and Resilience to Floods in Accra." *Economics of Disasters and Climate Change*, 4(1): 171–193. <https://doi.org/10.1007/s41885-019-00056-w>.

### ***2.2.1 Social impacts of disasters***

Disasters are increasing in both frequency and magnitude. Between 2005 and 2015, over 700,000 individuals worldwide lost their lives due to disasters affecting over 1.5 billion people, with women, children, and those in vulnerable situations disproportionately impacted. In Ghana, floods affect more than 45,000 (0.16%) people annually. The data further indicate that under current climate conditions, an estimated 3.5 million people (13%) of the population are affected by droughts annually. This is expected to increase to approximately 30 percent, affecting around 13 million people (CIMA & UNDRR, 2019). Ghana recorded 517 deaths affecting close to 520,000 lives since 1900<sup>8</sup> to the first half of 2021, due to floods, the most prevalent natural hazard in the country.<sup>9</sup> The latter source indicates that between 2000 and 2022, over 2 million people in Ghana were directly affected by floods. Disasters also impact food security, water availability and health of African cities (Owusu & Obour, 2021; Sarfo et al., 2023). Ghana has a coastline of 540km out of a total land area of 238,533 km<sup>2</sup>. The ocean coast is primarily a high-energy type, with most coastal communities located in lowlands, exposing them to coastal floods. NADMO, over the years, has initiated measures, including efforts to relocate residents to higher ground to enhance the resilience of coastal communities. However, the interventions are yet to yield the expected results due to inadequacies in policy.

### ***2.2.2 Economic and fiscal impacts of disasters***

Disasters already impose a heavy financial burden on Ghana. Floods cost the economy an estimated average of US\$100 million annually, corresponding to 0.23% of Ghana's GDP, while average annual drought-related losses account for about 15% of GDP, potentially rising to 34% by 2050. Climate change projections and socio-economic scenarios suggest that both the number of people affected and GDP losses due to floods are likely to increase. Ashanti and the Western regions show the highest losses. The direct annual economic losses exceed \$80 million, which amounts to roughly 0.12% of total stock value under the present climate. The UNDRR and CIMA estimated losses to be 13% of GDP. The impact of drought is enormous, particularly on food insecurity, as 12.9 million people experienced moderate to severe food insecurity in 2022 (PDC, 2021). The World Bank Country Climate and Development report (2022) noted that at least one million Ghanaians risk falling into poverty due to climate shocks if climate actions are not taken to make the country resilient and income of up to 40% percent of the poor households could be reduced by 2050 requiring the urgent need for action in resilience building.

### ***2.2.3 Impact on Built Environment and Infrastructure***

The PDC (2021) analysis of disaster risk and vulnerability highlights the impact of disasters on built environment, noting that three percent of the population and built environment are exposed

<sup>8</sup> Emergence Events Database (2023). The International Disaster Database <https://www.emdat.be/>

<sup>9</sup> Lokonon, B.O.K. Urban households' attitude towards flood risk, and waste disposal: Evidence from Cotonou. *Int. J. Disaster Risk Reduct.* 2016, 19, 29–35.

to a 100-year flood zone, with power plants (19%), schools (4%), clinics (4%), and as high as 57% of dams and 79% of ports and ferries are exposed. The study also estimated that a percentage of the coastal population and built environment are exposed to coastal flooding hazards, including 5% of critical infrastructure, particularly ports and ferries, schools, clinics, dams, and power plants.



***Photos from some of the Insurance and Risk Finance Facility, workshops***



## SECTION THREE: ASSESSMENT OF GHANA'S DISASTER RISK MANAGEMENT FRAMEWORK

### 3.1 Policy, Legal and Institutional Framework for Disaster Risk Management and Financing in Ghana

The Government of Ghana has formulated series of guiding policy documents related to climate and disaster risk finance. These national policies, legal instruments, and institutional arrangement provide an enabling environment for strengthening disaster risk finance, though significant gaps remain around dedicated financing instruments and a comprehensive disaster risk finance strategy. The following key policy and regulatory frameworks are relevant to the development of Ghana National Disaster Management and Risk Finance Strategy Framework:

#### 3.1.1 Policy Alignment

The Ghana Disaster Management and Risk Finance Strategy Framework builds on, and complements, existing national frameworks:

- **National Disaster Risk Reduction Strategy (2020–2030):** Aims for a resilient nation with strong preparedness, response, and recovery systems.
- **National Disaster Management Plan (2010):** Provides operational guidance for prevention, preparedness, response, and recovery.
- **National Adaptation Plan (NAP: 2018):** Integrates climate resilience into sectoral development, particularly agriculture, water, health, and infrastructure.
- **National Emergency Response Plan (2010):** Sets out procedures, roles, and responsibilities for coordinated emergency response.
- **Other cross-sectoral policies:** including the National Climate Change Policy (2013), Environmental Policy (2014), National Urban Policy, and NDPC's medium- and long-term development frameworks.

Globally, the strategy aligns with international best practices, particularly the Sendai Framework for Disaster Risk Reduction (2015–2030), the Africa Regional Strategy for Disaster Risk Reduction and Programme of Action (2021–2030), the Paris Agreement on Climate Change (2015), and the 2030 Agenda for Sustainable Development (SDGs). These frameworks have collectively informed Ghana's overarching development policies and planning processes.

**The Vision 2057:** Long-Term National Development Perspective Framework, implemented since 2018, aims to improve living standards and transition Ghana to an upper-middle-income country. Under its Emergency Preparedness and Resilience dimension, the goal is to build long-term resilience to withstand diverse threats across sectors and levels. This is pursued through coordinated, transformative strategies embedded in the Medium-Term National Development Policy Frameworks (MTNDPFs) and sector / district plans. The vision acknowledges challenges such as urbanization, population dynamics, and increasing risks, and provides strategic direction to strengthen national resilience and preparedness.

### 3.1.2 Legal and Institutional Arrangements

Ghana's disaster risk management system is anchored in a strong legal framework:

- **NADMO Act, 2016 (Act 927):** Establishes the National Disaster Management Organisation (NADMO) as the lead DRM agency, mandated to coordinate prevention, preparedness, response, and recovery across ministries, local governments, and communities. NADMO also chairs the National Platform for Disaster Risk Reduction.
- **Public Financial Management Act, 2016 (Act 921, amended 2020):** Provides the overarching framework for public financial management, including provisions for emergency spending through the Contingency Fund (Article 177, Constitution). Withdrawals require Presidential authorization and Parliamentary approval.
- **Local Governance Act, 2016 (Act 936):** Empowers Metropolitan, Municipal, and District Assemblies (MMDAs) to address local development and disaster response, though their financial autonomy remains limited.

Under these laws, Ghana has established a comprehensive institutional architecture to coordinate disaster management across all levels:

- **Disaster Management Committee:** provides national policy direction and oversight, ensuring coherence across sectors.
- **Inter-Agency Working Groups:** bring together ministries, agencies, and development partners for technical collaboration, planning, and knowledge sharing. Their structure aligns with international best practice, enhancing access to global expertise and support.
- **Disaster Management Platforms:** convene government, civil society organizations, and private sector actors at national, regional, and district levels for joint planning and information sharing.
- **Decentralized Disaster Management Committees:** embedded within MMDAs to implement DRM policies locally, ensuring responses reflect community needs and contexts.

Together, these frameworks and institutions provide Ghana with a well-structured basis for disaster risk management. However, the absence of legislation dedicated to disaster risk financing leaves funding arrangements fragmented, ad hoc, and overly reliant on external support. Developing a coherent DRF Strategy is therefore essential to complement this institutional architecture with predictable and sustainable financing.

## 3.2. Assessment of Current Disaster Risk Finance Landscape

The Government of Ghana employs a combination of ex-ante and ex-post disaster risk financing options that are available for managing disaster risks.

### Ex-ante instruments

- **Contingency Fund**, which was established under Article 177 of 1992 and Public Financial Management Act 2016 (Act 921). It is designed to finance urgent or unforeseen expenditures that are not covered by the annual budget, including coping with disasters and other unexpected

events that require public funds that have not been budgeted. The disbursement mechanism is through Parliamentary approval and upon a state of emergency declaration by the President of the Republic of Ghana. Of the GHS 1.33 billion allocated to the fund from 2017 to 2022, the balance as of December 2021 was GHS 660,117,969.00. Subsequently, the fund balance was reduced to GHS 200 million following a drawdown of GHS 500,000 in 2024 to avert imminent famine resulting from drought in northern Ghana. It is therefore clear the contingency fund is not serving its purpose adequately and need realignment.

- **Contingency Vault** is part of the Appropriation Bill passed by Parliament annually. This sets aside some amount of money to enable the government to meet critical expenditure challenges which arise during budget implementation but are not covered by the approved and appropriate budget of Ministries, Departments and Agencies. While disasters may be covered by contingency plans, it is not strictly for disasters. The government may reallocate in-year budget lines ex-post to manage the impacts of an event. These reallocated funds may be directed to the contingency fund or disbursed directly to the relevant ministry, departments and agencies.
- **The National Disaster Management Fund** is established under the 2016 Act (Act 927). This fund provides finances for the development and operation of disaster prevention, disaster risk reduction, climate change risk reduction and other disaster management programmes. The disbursement from the Fund, as specified in the Act, is by Parliamentary approval upon the Council's submission of a programme of activities after the appropriation Act. The current state of the Fund needs dedicated funding to make it sustainable.
- **Risk Transfer Mechanisms**, Ghana has begun to expand the use of insurance and risk transfer tools to complement budgetary instruments.
  - **African Risk Capacity (ARC):** Ghana signed its first sovereign drought insurance policy with ARC Ltd for the 2024/25 cropping season, resulting in payouts of nearly US\$3 million through the Ministry of Finance and NADMO. The policy was supported by KfW on behalf of BMZ and the Global Shield Solutions Platform, demonstrating the value of pre-arranged instruments for rapid relief. ARC also offers flood coverage, which Ghana is actively considering.
  - **Parametric flood insurance:** Two parametric insurance products have been designed and tested, including a Tripartite Agreement (UNDP, German Government and Insurance Development Forum) pilot for flood insurance in the Greater Accra Metropolitan Area (GAMA). This product has been handed to government for consideration and represents a potential model for scaling sovereign risk insurance to protect vulnerable urban populations.

#### **Ex-post instruments**

- **Budget appropriations and reallocations**, typically through supplementary budget, have been the traditional disaster financing instrument in Ghana. Contingency Vault is also part of the Appropriation Bill passed by Parliament annually to support the execution of the national budget. These financings are ex-post instruments most typically used to manage high-



frequency events expected to be managed annually or every few years. Besides being inadequate, and untargeted, they are also susceptible to other uses that may not relate to disaster.

- **Ad hoc/emergency funds** are often established post-disaster events, such as the Accra June 5, 2015, flood Disaster Relief fund with TV3 in collaboration with NADMO. These are typically disbursed through individual groups/associations or coordinated by NADMO, the apex disaster management organisation. Related to this, a state-sanctioned Disaster fund was established in 2020 to mobilise voluntary funds from individuals and corporate organisations during the COVID-19 pandemic. This voluntary fund though very useful, state management and accountability for those funds have become challenging and need to be properly institutionalised.
- **Voluntary contributions from development partners** such as Regional and International organisations (OCHA, UNDP, IOM, IFRC, etc) and the African Development Bank. Other countries, such as South Korea and Japan, have supported NADMO in the past and continue to do so to finance disasters in Ghana anytime the need arises. This kind of support is normally channelled through the Disaster Management Fund (DMF).

### External Sources

Ghana also accesses climate and disaster finance through international mechanisms, including the **Green Climate Fund, Adaptation Fund, Global Risk Financing Facility**, and bilateral/multilateral partners. These remain vital but are typically project-based and not designed for immediate liquidity aftershocks.

### Key Gaps Identified

1. **Fragmented Instruments:** Multiple funds exist but with unclear mandates, weak capitalization and overlapping functions.
2. **Limited scale and timelines:** Domestic instruments provide insufficient, slow and untargeted financing.
3. **Over-reliance on ex-post measures:** Most financing is mobilized after disasters, creating fiscal shocks.
4. **Weak local financing mechanisms:** MMDAs lack developed financing tools to respond effectively at the local level.

Together, these efforts provide a strong starting point for building a comprehensive risk transfer portfolio. However, coverage remains limited, and scaling up requires integrating sovereign insurance with broader fiscal planning and ensuring sustainability through predictable premium financing.

## SECTION FOUR: DISASTER RISK FINANCING STRATEGIC PILLARS FOR GHANA

From 2025 to 2030, the Government of Ghana will implement the following eight strategic priorities to strengthen the management of fiscal risks associated with disasters.

### 4.1 Comprehensive Identification, Quantification and Mapping of Disaster Related Fiscal Risks

Sound estimations of the potential economic and fiscal implications of disasters serve as the foundation for proper and timely financial preparation, including the use of cost-effective financial instruments. A comprehensive assessment of fiscal risks supports sound public financial management and helps safeguard macroeconomic stability. Existing risk assessments are fragmented, outdated, and incomplete, making them unsuitable for financial planning.

**Objective:** The objective of this strategic priority is that the Government, over the duration of the strategy, has an improved understanding of disaster risks and is using this information in decision making and plans. To strengthen disaster-related economic and fiscal risk information, the Government will prioritise the following actions:

#### Key Actions:

- a) Conduct a comprehensive national assessment of all potential hazards/disasters and estimates their likely occurrence at different magnitudes; exposures of people and economic assets; and vulnerability of such assets and populations to the impact of a given disaster.
- b) Develop and populate a national database of public assets to improve information on the exposure of public assets to disasters, including infrastructure and public buildings. This will help to improve understanding of the country's disaster related contingent liability.
- c) Build capacity of MMDAs and MDAs to understand fiscal and economic risks to inform decisions on retention and risk transfer to the market; and
- d) Incorporate updated disaster risk information into macro-fiscal and budgetary frameworks to increase financial preparedness for disasters. In addition, this will support decision making regarding investments in disaster risk management.

### 4.2 Integrate Disaster Risk Analysis in MMDAs and MDAs Planning and Budgeting and Strengthen Disaster Related Public Financial Management

Risk-informed planning and budgeting reduces the state's contingent liabilities and ensures public investment delivers long-term resilience. Currently, most public sector investment projects do not include disaster risk considerations at all stages of the project cycle, leaving them vulnerable to possible disaster damage. This has the potential to result in enormous social and economic damage.

**Objective:** The objective of this strategic priority is to ensure that disaster and climate risk are systematically incorporated into public-investment decisions, annual budgets, and financial management practices. The government will highlight new projects and their potential vulnerability to disasters, as well as mainstream DRM in MMDAs and MDAs' annual and medium-term plans. To begin, the government will prioritize specific MDAs in charge of Agriculture, Transportation and Public Works, Lands, Housing and Urban Development, Education, Health, Social Protection, and Local Councils.

**Key Actions:**

- a) Require priority MDAs and all MMDAs to integrate disaster risk analysis into annual and medium-term plans and budgets.
- b) Improve the tracking of shock responses and budget reallocations, to minimize the opportunity costs associated with budget adjustments.
- c) Strengthen PFM practices to be climate and disaster smart.
- d) Incorporate disaster risk information into key planning and budget documents.
- e) Enhance disaster preparedness for an effective response and ensure speedy recovery, rehabilitation and reconstruction. This will include:
  - ✓ Establishing a modern system to record and update disaster losses annually.
  - ✓ Improving and updating manuals and standards for disaster preparedness, prevention, mitigation, and recovery activities across government entities.
  - ✓ Strengthen the early warning systems in all disaster-prone areas and enhance effective disaster communication.

#### **4.3 Establish a Portfolio of Sovereign / Sub-Sovereign Disaster Risk Financing Instruments**

Previously, the Government has reactively responded to disasters largely by using the unforeseen vote and relying on external assistance. However, the resources mobilized have been insufficient and have often arrived late. Furthermore, Government's focus has primarily been on disaster response rather than disaster risk reduction. A layered portfolio of sovereign instruments will ensure timely and predictable resources across different disaster scenarios.

**Objective:** The objective of this strategic priority is to develop and operationalize a set of complementary sovereign / Sub-sovereign DRF instruments that provide timely, cost-efficient and scalable financing.

**Key Actions:**

- a) *Establish a Contingency Budget Line - A Vote of Unforeseen Expenditure:*  
An annual appropriation to a Vote of Unforeseen Expenditure should be established with allocations to be used for other unforeseen circumstances which are not related to disaster risk

management. Disaster which causes large economic impacts would likely result in financing needs which are larger than the allocated resources in the Vote.

- b) *Establish a Strategic Grain Reserve.* The government should allocate resources to the National Buffer Stock Company to enable it to purchase more food for storage. The drawdown is done as and when necessary to mitigate the impact of potential disaster related shocks.
- c) *Budget reallocations:* In the event of a disaster, Government may postpone other MDA's programmes, projects, and activities and reallocate the resources to disaster related activities.
- d) *Upscale Social Protection and Cash Transfer Programmes:* Government of Ghana is already implementing social protection programmes such as Livelihood Against Poverty Programme to uplift the lives of poor and vulnerable households. The programme should therefore prioritise households affected by disaster and give them special support. This proposal is an integrated approach that will includes shock-sensitive social protection that will help poor households better deal with predictable risks and shocks through a more institutionalized and coordinated approach. Also, specific allocation should be made to people living with disabilities (PWDs) and other vulnerable groups to support them during any disaster occurrence.
- e) *The government should establish a National Disaster Risk Management Fund,* which will serve as a resource pool for disaster risk management initiatives. The Fund will need clear rules for awarding resources as well as guidelines for permissible expenditure.
- f) *Evaluate available contingent credit instruments* and adopt them in line with fiscal and disaster risk management goals, such as the World Bank's contingent credit line (Development Policy Loan with a Catastrophe Deferred Draw Down).
- g) *Evaluate options for increasing Ghana's public asset insurance,* particularly for public infrastructure and buildings. Currently, the government does not provide systematic insurance for its public infrastructure and structures. Recognizing that damaged public assets in the aftermath of disasters incur large fiscal expenses, the government will consider possibilities for increasing public asset insurance.
- h) *Enhance coordination among development partners* to ensure timely disbursements of humanitarian assistance and reduce related transaction costs.

#### **4.4 Develop Private Risk Transfer Solutions to Supplement Government Instruments**

Households, farmers and MSMEs remain highly vulnerable due to low insurance penetration and limited access to affordable financial products. Expanding private risk transfer solutions will reduce reliance on the public budget and build resilience across society.

**Objective:** The objective of this strategic priority is to promote inclusive insurance and private financial solutions that protect vulnerable groups and businesses against shocks while complementing sovereign instruments.

**Key Actions:**

Key actions will be implemented across four thematic areas: digital innovation, strengthening the financial and insurance sector, expanding household and business coverage, and promoting agricultural insurance.

#### ***4.4.1. Digital Innovation***

- Leverage mobile money and other digital platforms for transparent, rapid payouts to households and MSMEs.
- Expand access to insurance products through lending apps, peer-to-peer platforms, and mobile banking.
- Develop protocols to ensure secure, timely disbursement of disaster relief in hard-to-reach areas.

#### ***4.4.2 Support the Financial and Insurance Sector to Enhance DRF***

- Incentivize the financial sector to provide funding to disaster shock-exposed businesses
- Review and enhance the inclusive insurance market in Ghana by strengthening regulations and institutional arrangements.
- Upscale existing insurance pilot projects. This may be through reviewing, formulating regulations and institutional arrangements for providers to operate effectively in Ghana.
- Provide incentives for financial institutions to design shock-responsive financial products.

#### ***4.4.3 Expand disaster insurance for households and businesses***

- Assess legal, regulatory, and capacity constraints to private property and catastrophe insurance.
- Develop actions to address barriers and increase penetration of disaster insurance products.
- Undertake awareness campaigns to build demand among households and businesses.

#### ***4.4.4 Prioritize Agricultural insurance***

- The government can undertake the following activities to improve the supply and demand of agriculture insurance solutions: Sensitize farmers to the benefits of agricultural insurance through targeted outreach programs.
- Conduct stakeholder engagements and campaigns with informal sector workers, farmers and the agriculture value chain to design tailored products that meet their needs.
- Build capacity of private insurance companies to provide and scale agricultural insurance.
- Work with relevant stakeholders in the agriculture value chain to develop tailor-made options to increase agricultural insurance penetration in Ghana.

- Enhancing conducive policy and regulatory framework for agricultural insurance.
- Enhance access to public sector data (e.g., weather and production data) for insurance companies.

#### **4.5 Strengthen Coordination and Institutional Capacity for Improved Disaster Risk Governance**

Effective disaster risk finance requires clear institutional mandates, coordinated action, and strong accountability systems. Currently, the roles and mandates of MDAs with regards to disaster risk financing are not formally defined, and no formal mechanisms exist to coordinate their DRF related activities. In addition, capacity gaps still exist in terms of personnel and critical skills in DRM and DRF such as hazard mapping and risk modelling.

**Objective:** The objective of this strategic priority is to build strong governance, institutional capacity, and accountability mechanisms to enable effective DRF implementation.

Key actions will be implemented across three interrelated areas: strengthening policy and institutional frameworks, enhancing transparency and accountability, and ensuring an integrated approach to mobilizing and using DRF.

##### ***4.5.1. Strengthening Policy and Institutional Framework for Disaster Risk Finance***

- **Develop Comprehensive Policy Frameworks:** Enact and update policies and regulations that incentivize climate resilient investments, aligning them with Ghana's climate goals and sustainable development objectives.
- **Strengthen Capacities of Municipal and District Secretariats:** Build the capacity of Disaster Management Committees responsible for first-hand response to manage and deploy funds effectively, ensuring transparency and accountability.
- **Establish Incentive Mechanisms:** NADMO need to collaborate with the Ministry of Finance to create financial incentives for the private sector to invest in disaster resilient technologies and projects, such as tax breaks, subsidies, and credit guarantees.
- **Enhance Public-Private Partnership Arrangement:** there is need for NADMO to advocate for the enhancement of comprehensive regulations to operationalize existing PPP legislation, ensuring clarity in project structuring, risk allocation, and financial sustainability in the scheme of disaster management.

##### ***4.5.2. Ensure Transparency and Accountability in Disaster Risk Finance***

- Establishing guidelines for tracking and reporting climate finance to enhance accountability, transparency, and data-driven policymaking;
- Establishing a National MRV System by develop a comprehensive system to track disaster risk finance flows, integrating it with national climate action and development planning;



- Aligning with international guidelines such as the Sendai Framework for compatible and credible reporting;
- Strengthening stakeholders' capacity in MRV methodologies and tools for high-quality reporting and verification;
- Ensuring transparency and inclusivity by involving stakeholders in MRV system development and implementation;
- Developing robust data collection methodologies, leveraging digital platforms and technologies for streamlined data gathering and management;
- Committing to regular reporting cycles and engage independent auditors to verify reported data and;
- Making MRV information publicly accessible, enhancing transparency and accountability through online portals or platforms.

#### ***4.5.3. Create Comprehensive and Integrated Approach to Disaster Risk Finance***

- Explore innovative financing mechanisms (e.g., results-based financing, social impact bonds) to diversify funding sources.
- Mobilize local-level resources through budget allocations, PPPs, and community-based initiatives.
- Facilitate knowledge and technology transfer through partnerships with international organisations and research institutions.
- Advocate for greater philanthropic contributions, including endowment funds and impact investments that generate both financial and social returns.

#### ***4.6. Improve the Legal and Regulatory Framework for Disaster Risk Finance and Management***

Although Ghana has strong DRM legislation, the absence of clear provisions for DRF creates unpredictability and delays in financing. Strengthening the legal and regulatory environment will provide a foundation for effective and sustainable financing.

**Objective:** The objective of this strategic priority is to update and operationalize legal and policy frameworks to support timely, transparent, and well-governed disaster risk financing.

#### **Key Actions:**

- Ensure support and coordination mechanisms are in place for the new DRM policy and DRF strategy.
- Establish dedicated procurement procedures that support the delivery of support after a disaster.
- Assess the property management legal framework, including climate-responsive asset management, to clearly define what climate-sensitive assets are and how they should be treated and recorded.



- Establish the regulatory and policy framework for the provision of agricultural insurance.
- Strengthen public procurement and auditing processes related to disaster spending.
- Establish an Inter-Ministerial DRF Committee to coordinate implementation, oversight, and accountability.

#### 4.7. Enhance Industry and Community Resilience to Shocks

Disasters place a heavy burden on businesses, workers, and communities, with micro, small, and medium-sized enterprises (MSMEs) and vulnerable groups often the most affected.

Strengthening economic and social resilience is essential to reduce long-term fiscal impacts and safeguard livelihoods.

**Objective:** To enhance the resilience of industries, MSMEs, workers, and communities through targeted financial and institutional support that sustains jobs, protects food security, and strengthens housing and social systems.

##### Key Actions:

- Institute Business Support Scheme to support disaster affected Micro, Small, and Medium-sized Enterprises (MSMEs).
- Establish a Guarantee Facility to support large enterprises and job retention in times of disaster occurrences.
- Set up a fund for labor and faith-based organizations to support retraining and skills development programmes;
- Enhance support for programmes to ensure food security, and provide financial support for the National Buffer Stock Company and the Ghana Commodity Exchange;
- Strengthen the housing mortgage and construction finance scheme, and facilitate access to land for housing development.

#### 4.8. Enhance Layered Risk Management Approach

A layered approach to risk management ensures that different financial instruments are used in combination to provide cost-effective, timely, and predictable resources for disaster response.

Ghana's existing Contingency Plan includes impact scenarios, but these require updating to reflect current vulnerabilities and ensure financing instruments are deployed optimally.

**Objective:** To establish a comprehensive layered risk financing framework that aligns financial instruments with disaster scenarios, ensuring rapid and cost-effective response.

##### Key Actions:

- Update NADMO's Disaster Risk Contingency Plan to reflect current population vulnerabilities and exposure.
- Define and operationalize impact scenarios (best case, most probable, and worst case) as the basis for layered financing.

- Align appropriate instruments to each scenario, including:
  - Core and contingency budget allocations
  - National disaster reserve fund
  - Contingent credit arrangements
  - Disaster risk insurance
  - Donor and philanthropic support
- Ensure the Ministry of Finance plays a central role in coordinating financing flows under each scenario.
- Regularly review and refine the layered framework to adapt to evolving risks and fiscal conditions.

*Table 3: Layered Risk Management Approach*

Impact Scenarios	Risk Layer	Finance Instruments for Response
Best case scenario	Normal disaster occurrence with no loss of lives	<ul style="list-style-type: none"> <li>• NADMO'S budget allocation</li> <li>• District Assemblies Own funds</li> </ul>
Most probable scenario	Disaster occurrence affecting 50,000 people or less	<ul style="list-style-type: none"> <li>• NADMO's budget allocation</li> <li>• District Assemblies Own funds</li> <li>• Insurance pay-out</li> <li>• External donations</li> </ul>
Worst case scenario	Disaster events affecting 1,000,000 or more people	<ul style="list-style-type: none"> <li>• NADMO's budget allocation</li> <li>• District Assemblies Own funds</li> <li>• Insurance pay-out</li> <li>• External donations</li> <li>• Public-Private-Partnership</li> <li>• Philanthropic funding</li> </ul>

## SECTION FIVE: IMPLEMENTATION, MONITORING, EVALUATION AND COMMUNICATION

### 5.1 Implementation

NADMO is the ultimate owner of the DRF strategy framework and will approve new DRF instruments, mobilize emergency loans and grants from both domestic and external sources, and facilitate budget transfers and (re)allocations in and out of the contingency budget, and will be responsible for monitoring and evaluating. Line ministries, detailed in the strategy action plan, are responsible for carrying out activities relevant to their mandate and reporting to their line ministries on regular basis on progress.

### 5.2 Monitoring and Evaluation

The implementation of the strategy will be tracked through a **results-based monitoring and evaluation (M&E) framework** aligned with the Sendai Framework and the SDGs. Indicators will measure inputs, outputs, outcomes, and impacts at national and sub-national levels. A central M&E Unit within NADMO, supported by the Ministry of Finance and NDPC, will coordinate reporting. Findings will be disseminated through annual progress reports, mid-term reviews, and a final evaluation in 2030 (UNDRR, 2023; World Bank, 2022).

The DRF strategy will be reviewed mid-way through implementation. The objectives of the review will be to determine if the strategy is being implemented as designed and if amendments are needed to align the strategy with changes in the operating context or practices. An evaluation will take place at the end of the strategy period to learn lessons from what worked well and what could have been better. The lessons learned will be incorporated into future DRF strategies. In addition, quarterly meetings will be undertaken by NADMO and members of the Technical Committee to review progress in DRF strategy implementation.

### 5.3 Communication and Knowledge Sharing

Effective communication is essential to building trust, mobilizing resources, ensuring transparency, and strengthening ownership across government agencies, development partners, private sector, and local communities to appreciate the purpose, progress and results achieved on the DRFS implementation. NADMO will implement the communication strategy by focusing on:

#### 1. Transparency and Accountability

- Regular publication of DRFS annual / progress reports on NADMO and MoF platforms to communicate achievements, challenges, and next steps.
- Public disclosure of financing instruments, disbursement timelines, and beneficiaries.

#### 2. Stakeholder Engagement

- Maintain a public online platform to share DRF data, financial flows, and lessons learned.
- Regular stakeholder engagements with government agencies, insurers, civil society organisations, academia, and private sector actors on progress and priorities.

- Community-level awareness campaigns to explain how DRF mechanisms (e.g., parametric insurance, contingency funds) protect lives and livelihoods. (World Bank, 2022; InsuResilience, 2023)

### 3. Knowledge Sharing and Learning

- Development of policy briefs, case studies, and lessons learned to inform future DRF programs.
- Participation in regional and international forums (e.g., African Risk Capacity, InsuResilience Global Partnership) to showcase Ghana's progress and attract investment. (ARC, 2022; InsuResilience, 2024)

### 4. Inclusive Communication

- Tailored messages for women, youth, and marginalized communities to enhance awareness and access.
- Use of local languages, radio, mobile platforms, and social media to broaden outreach and ensure inclusivity. (UNDRR, 2023; World Bank, 2022)

By integrating communication and knowledge sharing into the DRFS, Ghana will not only ensure accountability but also foster national ownership, strengthen public confidence, and attract sustained financing support.

***Photo from the launch the inclusive insurance certification & awareness clinics***



## 5.4 Implementation Plan

Table 4: Implementation Plan

Interventions Areas	Institutions Responsible	Implementation Strategy	Implementation Period	Key performance Indicators	Estimated Cost
<b>Priority 1: Conduct a Comprehensive Identification and Quantification and Mapping of Disaster Related Economic and Fiscal Risks</b>					
Conduct a comprehensive national assessment of all potential hazards/disasters.	NADMO, MLGRA, EPA, development partners	Multidisciplinary nationwide research	2026	Research report and key findings	US\$ 500, 000–US\$ 800, 000
Develop and populate a national database of public assets.	NADMO, MLGRA, MWH, EPA, development partners	Public assets mapping	2026 onwards	Number of workshops, training, and seminars held. Asset register	US\$ 10,000–US\$ 20,000 / workshop / seminar. US\$ 300,000 for Asset mapping
Build capacity of MMDAs and MDAs to understand fiscal and economic risks.	NADMO, MLGRA, NDPC, EPA	Capacity building workshops and seminars.	2026 onwards	Number of workshops and seminars held	US\$ 25,000–US\$ 40,000 / workshop / seminar
Incorporate updated disaster risk information into economic and fiscal planning.	MOF, NDPC development partners	Capacity building workshops and seminars.	2026 onwards	Number of workshops and seminars held	US\$ 25,000–US\$ 30,000 / workshop / seminar
<b>Priority 2: Integrate Disaster Risk Analysis in MMDAs and MDAs Planning and Budgeting and Strengthen Disaster Related Public Financial Management</b>					
Improve the tracking of shock responses and budget reallocations.	NADMO, EPA, MOF, Development partners	<ul style="list-style-type: none"> <li>Review budget statement in line with disaster risk assessments.</li> <li>Assess the impact of disasters on key variables.</li> <li>Incorporate disaster risk analysis in the planning of public investments.</li> </ul>	2027 onwards	Disaster risk incorporated into budget statements and planning of public investments	US\$ 100,000–US\$ 200,000



Strengthen PFM practices to be climate- and disaster-smart.	MOF, development partners	Review and revise PFM law and guidelines / practices, as required.	2025 onwards	Review and updates conducted	No setup costs
Incorporate disaster risk information into key planning and budget documents.	MOF, NDPC, MMDAs, MDAs, Development partners	Workshops and seminars and medium-term development planning process	2028 onwards	Medium Term Development Plans of MMDAs and MDAs updated	US\$ 500, 000 or more
Enhance disaster preparedness for an effective response and ensure speedy recovery, rehabilitation and reconstruction.	NADMO, NDPC, MMDAs	Workshops and seminars and medium-term development planning process	2028 onwards	Medium Term Development Plans of MMDAs and MDAs updated	US\$ 500, 000 or more
Establishing a modern system to monitor and update disaster losses regularly.	NADMO, NDPC, MMDAs	Workshops and seminars and medium-term development planning process	2028 onwards	Medium Term Development Plans of MMDAs and MDAs updated	US\$ 500, 000 or more
Reviewing and updating manuals and standards for disaster preparedness, mitigation, and recovery across government entities.	NADMO, NDPC, MMDAs	Workshops and seminars and medium-term development planning process	2028 onwards	Medium Term Development Plans of MMDAs and MDAs updated	US\$ 500, 000 or more
Strengthening the early warning systems in disaster-prone areas and ensure effective disaster communication.	NADMO, NDPC, MMDAs	Workshops and seminars and medium-term development planning process	2028 onwards	Medium Term Development Plans of MMDAs and MDAs updated	US\$ 500, 000 or more

Interventions Areas	Institutions Responsible	Implementation Strategy	Implementation Period	Key performance Indicators	Estimated Cost
<b>Priority 3: Establish a Portfolio of Sovereign Disaster Risk Financing Instruments</b>					
Establish a Contingency Budget Line - A Vote of Unforeseen Expenditure:	MOF, MMDAs, NADMO	- Use oil money and other revenue from natural resources	2027 onwards	Contingency budget established and approved by Parliament	2 to 3 Billion–US\$
Establish a Strategic Grain Reserve.	NADMO, MOFA, NBSC	Create grain reserves in all regions in Ghana	2026 onwards	Number of reserves established and functioning	300 to 400 million US\$
<b>Priority 4: Develop Private Risk Transfer Solutions to Supplement Government Risk Financing Instruments</b>					

Review, agree recommendations and then implement a system to encourage lending from financial institutions to shock-exposed businesses and households.	MOF, BoG, NIC, GIA	- Upscale existing insurance pilot projects - Review and then formulate regulations and institutional arrangements for providers to operate effectively in Ghana.	2027 onwards	Disaster insurance for households and businesses established.	
Sensitize farmers on agricultural insurance.	MOFA, MMDAs, Insurance companies	Sensitization workshops and seminars	2026 on ward	Awareness created	
Conduct a feasibility study on agricultural insurance.	MOFA, MMDAs, GIA	Comprehensive research conducted nationwide	2027 on ward	Research report with recommendations completed	US\$ 300,000 to 400,000
Build capacity of private insurance companies on agricultural insurance.	MOFA, MMDAs, GIA	Sensitization workshops and seminars	2026 on ward	Awareness created	US\$ 30,000 to 40,000
Creation of a conducive policy and regulatory framework for agricultural insurance.	MOF, BoG, NIC, GIA	Review of insurance policies on disasters	2026 onward	Insurance policies reviewed	
Enhance access to public sector data (e.g., weather and production data) for insurance companies.	MOF, BoG, NIC,	Review policies on access to national data for disaster related purposes	2026 onward	Policies reviewed	

Interventions Areas	Institutions Responsible	Implementation Strategy	Implementation Period	Key performance Indicators	Estimated Cost
<b>Priority 5: Strengthen Coordination and Institutional Capacity for Improved Disaster Risk Governance</b>					
Review the current regulatory framework for MDAs and MMDAs to enhance the assignment of clear responsibilities for disaster response, recovery, and rehabilitation activities.	NADMO, NDPC, A- G and Ministry of Justice	Review legislation, regulations, and functions, and make adjustments, where required.	2027-2030	Review conducted and adjustments made, as required	US\$ 30,000–US\$50,000 per workshop / seminar
Support NADMO's managerial and technical capacities to fulfil its mandate.	MOI, MOF	Build capacity of staffs and recruit technical expertise	2027-2030	Institutional capacity of NADMO built	



Strengthen the DRF Strategy coordination role of the National Disaster Preparedness and Relief Steering and Technical Committees.	NADMO, MOF, MOI	Build capacity of staffs and recruit technical expertise	2027-2030	Institutional capacities built	
Support existing coordination mechanisms to ensure they are working effectively.	NADMO, NDPC, MOI, MOF, DPs	Improve institutional coordination mechanism and partnership.	2026 onwards	Review of coordination activities and partnerships, post-disasters, and remedial actions taken, as required	
<ul style="list-style-type: none"> <li>Enhance Understanding of Disaster Risks Across Relevant Stakeholders.</li> </ul>	NAD	Nationwide capacity building workshops and seminars.	2024 onwards	Number of workshops and seminars held	US\$ 10,000–US\$ 15,000 per workshop / seminar

Interventions Areas	Institutions Responsible	Implementation Strategy	Implementation Period	Key performance Indicators	Estimated Cost
<b>Priority 6: Improve the Legal and Regulatory Context for Disaster Response, and Operationalize Relevant Policies</b>					
Support, coordinate and put mechanisms in place for the new DRM policy and DRF strategy.	NADMO, MOF, NDPC	Dissemination workshop with key stakeholders on new DRM policy Follow-up and monitoring of DRM Mainstreaming.	2026 on ward	Number of dissemination workshops conducted. Number of regular follow-ups and coordination activities	US\$ 90, 000–US\$ 150,000
Establish dedicated procurement procedures that support the delivery of support after a disaster.	MOF	Develop a new emergency procurement procedure.	2028	Readiness to review the existing procurement law or to develop a new one	US\$ 200,000–US\$ 300, 000
Assess the property management legal framework, including climate-responsive asset management, to clearly define what climate-sensitive assets are and how they should be treated and recorded.	MOF, Public Procurement Authority	Develop public assets registry system.	2028 to 2030	Number of regulations and arrangements	US\$ 150,000–US\$ 200, 000

Establish the regulatory and policy framework for the provision of agricultural insurance.	MOF, MOFA	Develop policy on supporting agricultural insurance.	2027 to 2030	Number of regulations and arrangements	US\$ 50,000–US\$ 100, 000
Ensure support and coordination mechanisms are in place for the new DRM policy and DRF strategy.	NADMO, NDPC, MMDAs	Workshop to create awareness of the new DRF Strategy and its implementation	2026 to 2028	New DRF Strategy adopted and implemented by all stakeholders	US\$ 10,000–US\$ 15,000 per workshop / seminar

Interventions Areas	Institutions Responsible	Implementation Strategy	Implementation Period	Key performance Indicators	Estimated Cost
<b>Priority 7: Enhance Industry and Community Resilience to Shocks</b>					
Institute Business Support Scheme to support disaster affected Micro, Small, and Medium-sized Enterprises (MSMEs).	NADMO, MOF, NDPC Ministry of Trade and Agribusiness	Dissemination workshop with stakeholders on new DRM policy Follow-up and monitoring of DRM-Mainstreaming.	2026 on ward	Number of dissemination workshops conducted. Number of regular follow-ups and coordination activities	US\$ 150, 000–US\$ 200,000
Establish dedicated procurement procedures that support the delivery of support after a disaster.	PPA, MOF, Ministry of Trade and Agribusiness	Develop a new emergency procurement procedure.	2028	Readiness to review the existing procurement law or to develop a new one	US\$ 200,000–US\$ 300, 000
Establish a Guarantee Facility to support large enterprises and job retention in times of disaster occurrences.	MoF, MOTA, Ministry of labour and Employment	Create business support centers	2026 -2028	Number of business support centers created	US\$ 350,000
Set up a fund for labour and faith-based organizations to support retraining and skills development programs.	Churches, Mosques, Traditional authorities, Ministry of Labour and Employment	Organized sensitization workshops	2026-2028	Number of sensitization engagements organized	US\$ 50,000

Enhance support for programs to ensure food security, and provide financial support for the National Buffer Stock Company and the Ghana Commodity Exchange.	MoF, NOFA, NDBs, NBSC,	Take advantage of government plan of farmer support centers. Establish branches of NBSC	2026-2028	Number of farmer centers established Number of branches of NBSC established	US\$ 500,000
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## 5.5 Communication Plan

Table 5: Communication Plan

Interventions Areas	Institutions Responsible	Implementation Strategy	Implementation Period	Key performance Indicators	Estimated Cost
<b>Priority 8: Enhance Layered Risk Management Approach</b>					
Review existing national disaster contingency plan to update vulnerable population figures	NADMO Ghana Statistical Service	Organize workshops for relevant institutional stakeholders to make inputs	2026	Reviewed contingency plan	US\$ 50,000
Disseminate updated contingency plans to all MMDAs	NADMO Disaster Management Committees	Organize sensitization workshops Distribute copies of the plans to all relevant stakeholders	2026	Number of MMDAs aware of the disaster contingency plans	US\$ 50,000
Stakeholders	Communication Channel			Responsible Institutions	
Government Institutions and Agencies	<ul style="list-style-type: none"> <li>Radio Broadcasts (national, regional, and community FM stations)</li> <li>Television Stations (both state-owned and private broadcasters)</li> <li>Print Media (news papers, magazines, bulletins)</li> <li>Community Information Centres (megaphones, town criers, and local announcement systems)</li> <li>Mobile Network Services (SMS alerts, voice messages, USSD codes from MTN, Telecel, AirtelTigo)</li> <li>Internet and Social Media Platforms (official government websites, NADMO portal, Facebook, X/Twitter, WhatsApp, YouTube)</li> <li>Emergency Hotlines and Call Centres (dedicated toll-free lines for disaster alerts and reporting - Ambulance 193, Emergency 112, Fire Service, 192 / 193. National Security, 999).</li> </ul>			<ul style="list-style-type: none"> <li>Ghana Meteorological Agency (GMet)</li> <li>Ghana Health Service (GHS)</li> <li>Ghana Geological Survey Authority (GGSA)</li> <li>National Emergency Operations Centre (NEOC)</li> </ul>	
MMDAs and local communities)	<ul style="list-style-type: none"> <li>Unit Committee Platforms</li> <li>Radio Broadcasts (national, regional, and community FM stations)</li> <li>Television Stations (both state-owned and private broadcasters)</li> <li>Print Media (news papers, magazines, bulletins)</li> </ul>			<ul style="list-style-type: none"> <li>Regional Emergency Operations Centres (REOCs)</li> <li>District NADMO Coordinators</li> </ul>	

	<ul style="list-style-type: none"> <li>• Community Information Centres (megaphones, town criers, and local announcement systems)</li> <li>• Mobile Network Services (SMS alerts, voice messages, USSD codes from MTN, Telecel, AirtelTigo)</li> <li>• Internet and Social Media Platforms (Facebook, X/Twitter, WhatsApp, YouTube)</li> <li>• Emergency Hotlines and Call Centres (dedicated toll-free lines for disaster alerts and reporting - Ambulance 193, Emergency 112, Fire Service, 192 / 193. National Security, 999)</li> <li>• Faith-Based Institutions (churches, mosques, and other gatherings as sources of announcements)</li> <li>• Traditional Authorities (chiefs, assembly members, opinion leaders relaying verified messages)</li> <li>• Schools and Educational Institutions (for passing information to students and families)</li> </ul>	<ul style="list-style-type: none"> <li>• Local NADMO volunteers, community leaders, and partner organisations</li> <li>• Unit Committee Members</li> <li>• Traditional Authorities</li> <li>• Community Leaders</li> <li>• Local disaster response teams (regional, district, and community levels)</li> </ul>
Civil Society Organisations (CSOs)	<ul style="list-style-type: none"> <li>• Radio Broadcasts (national, regional, and community FM stations)</li> <li>• Television Stations (both state-owned and private broadcasters)</li> <li>• Print Media (news papers, magazines, bulletins)</li> <li>• Community Information Centres (megaphones, town criers, and local announcement systems)</li> <li>• Mobile Network Services (SMS alerts, voice messages, USSD codes from MTN, Telecel, AirtelTigo)</li> <li>• Internet and Social Media Platforms (Facebook, X/Twitter, WhatsApp, YouTube)</li> <li>• Emergency Hotlines and Call Centres (dedicated toll-free lines for disaster alerts and reporting - Ambulance 193, Emergency 112, Fire Service, 192 / 193. National Security, 999)</li> <li>• Faith-Based Institutions (churches, mosques, and other religious gatherings as trusted sources of announcements)</li> <li>• Traditional Authorities (chiefs, assembly members, opinion leaders relaying verified messages)</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Society Organisations (CSOs)</li> <li>• Grassroots group in Disaster Management</li> </ul>
Finance sector experts, including insurers, financial institutions and established Climate Financing Secretariats	<ul style="list-style-type: none"> <li>• Radio Broadcasts (national, regional, and community FM stations)</li> <li>• Television Stations (both state-owned and private broadcasters)</li> <li>• Print Media (news papers, magazines, bulletins)</li> <li>• Community Information Centres (megaphones, town criers, and local announcement systems)</li> <li>• Mobile Network Services (SMS alerts, voice messages, USSD codes from MTN, Telecel, AirtelTigo)</li> <li>• Internet and Social Media Platforms (Facebook, X/Twitter, WhatsApp, YouTube)</li> <li>• Emergency Hotlines and Call Centres (dedicated toll-free lines for disaster alerts and reporting - Ambulance 193, Emergency 112, Fire Service, 192 / 193. National Security, 999)</li> <li>• Traditional Authorities (chiefs, assembly members, opinion leaders relaying verified messages)</li> </ul>	Finance sector experts, insurers, Banks and Climate Financing Secretariats
Media	<ul style="list-style-type: none"> <li>• Radio Broadcasts (national, regional, and community FM stations)</li> </ul>	<ul style="list-style-type: none"> <li>• Media Outlets across the country</li> </ul>

	<ul style="list-style-type: none"> <li>• Television Stations (both state-owned and private broadcasters)</li> <li>• Print Media (news papers, magazines, bulletins)</li> <li>• Mobile Network Services (SMS alerts, voice messages, USSD codes from MTN, Telecel, AirtelTigo)</li> <li>• Internet and Social Media Platforms (Facebook, X/Twitter, WhatsApp, YouTube)</li> <li>• Emergency Hotlines and Call Centres (dedicated toll-free lines for disaster alerts and reporting - Ambulance 193, Emergency 112, Fire Service, 192 / 193. National Security, 999)</li> <li>• Traditional Authorities (chiefs, assembly members, opinion leaders relaying verified messages)</li> </ul>	
International partners	<ul style="list-style-type: none"> <li>• Radio Broadcasts (national, regional, and community FM stations)</li> <li>• Television Stations (both state-owned and private broadcasters)</li> <li>• Print Media (news papers, magazines, bulletins)</li> <li>• Mobile Network Services (SMS alerts, voice messages, USSD codes from MTN, Telecel, AirtelTigo)</li> <li>• Internet and Social Media Platforms (Facebook, X/Twitter, WhatsApp, YouTube)</li> </ul>	International partners in Ghana

## CONCLUSION

### Driving Collective Action and Sustainable Financing by Turning Strategy into Impact

The Ghana Disaster Risk Financing Strategy Framework (2025–2030) offers a once-in-a-generation opportunity and sets a bold and pragmatic path toward protecting lives, livelihoods, and fiscal stability in the face of growing climate and disaster risks. To deliver on this vision, UNDP's Insurance and Risk Finance Facility (IRFF), the Ministry of Finance, the National Insurance Commission, and partners, is uniquely positioned to catalyze the investments needed to operationalize this strategy. By mobilizing blended finance from government, private sector, development partners, and global climate and disaster risk facilities, we can:

- **Close the financing gap** by building a layered portfolio of sovereign and private risk-transfer instruments that provide rapid, predictable liquidity when disasters strike.
- **Leverage innovation and inclusion** to expand insurance penetration, particularly among farmers, MSMEs, women, and vulnerable households, ensuring no one is left behind.
- **Channel resources into resilience** by strengthening public financial management, expanding access to agricultural and parametric insurance, and scaling community-level solutions.
- **Unlock global solidarity and local ownership** through partnerships with the InsuResilience Global Partnership, African Risk Capacity, and other global facilities, while anchoring delivery in local governance and community systems.

The next five years must therefore be action-driven: securing premium financing for sovereign instruments, incentivizing private sector innovation, aligning disaster risk finance with national development priorities, and building transparent monitoring systems that assure all partners of impact. With committed resource mobilization, Ghana has the opportunity to become a model for Africa, where proactive disaster risk financing safeguards development gains, accelerates climate resilience, and delivers hope and protection to its most vulnerable citizens.

We call on development partners, investors, and the private sector to join us in scaling up financing for this bold agenda. Together, we can ensure rapid, predictable resources for disaster response, expand inclusive insurance for farmers and MSMEs, and safeguard Ghana's hard-won development gains. The time to invest in resilience is now. Now is the time to act together, with urgency and ambition to turn this strategy into sustainable financing and transformative resilience for Ghana.

With the right resources and partnerships, Ghana can turn risk into resilience and protect every life and livelihood, now is the time to invest in resilience.



## ANNEXES

### Annex 1: Glossary of Key Terms

- **Catastrophe Bonds** – High-yield debt instruments designed to raise money in case of a catastrophe.
- **Contingent Credit** – Pre-arranged credit lines for rapid disbursement post-disaster.
- **Parametric Insurance** – Insurance triggered by pre-defined hazard parameters (e.g., rainfall, wind speed) rather than actual losses.
- **Sovereign Risk Financing** – Financial instruments at the national level to cover fiscal risks from disasters. (UNDRR, 2023; OECD, 2021)

### Annex 2: Institutional Roles and Responsibilities

- **MoF** – Fiscal risk management, budget integration.
- **NADMO** – DRM leadership, contingency planning, implementation oversight.
- **NDPC** – Integration of DRF into planning cycles.
- **NIC & Private Sector** – Insurance penetration and product innovation.
- **Development Partners** – Technical assistance, financing support. (World Bank, 2022; InsuResilience, 2023)

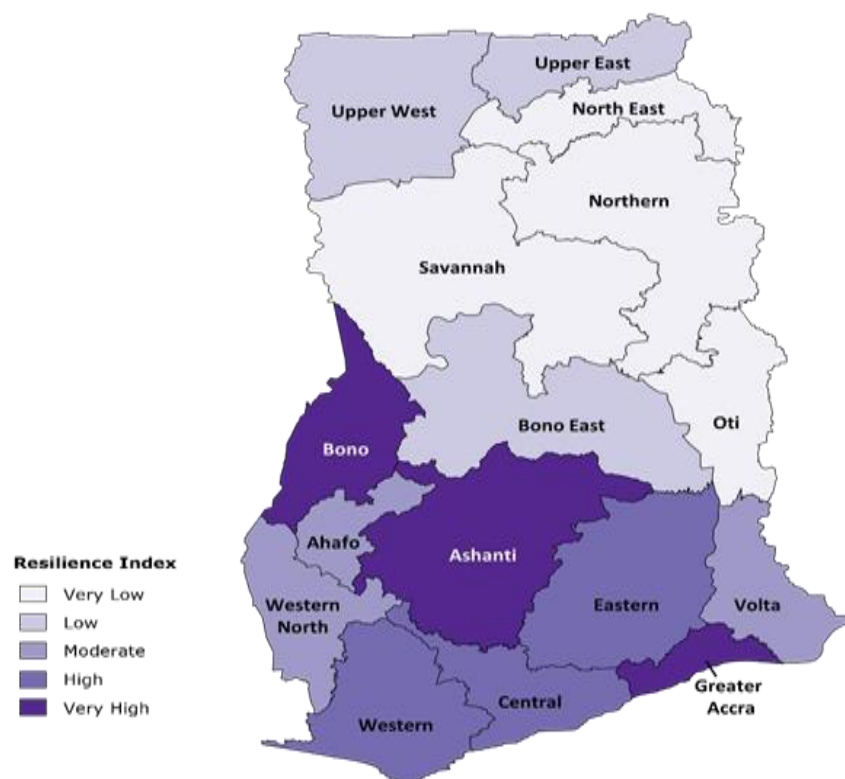
### Annex 3: Disaster Risk Financing Instruments for Ghana

- **Risk Retention:** Budget reallocations, contingency funds.
- **Risk Transfer:** Insurance, reinsurance, catastrophe bonds, ARC coverage.
- **Risk Reduction:** Infrastructure investment, early warning systems, nature-based solutions. (ARC, 2022; ARC, 2023; IPCC, 2022)

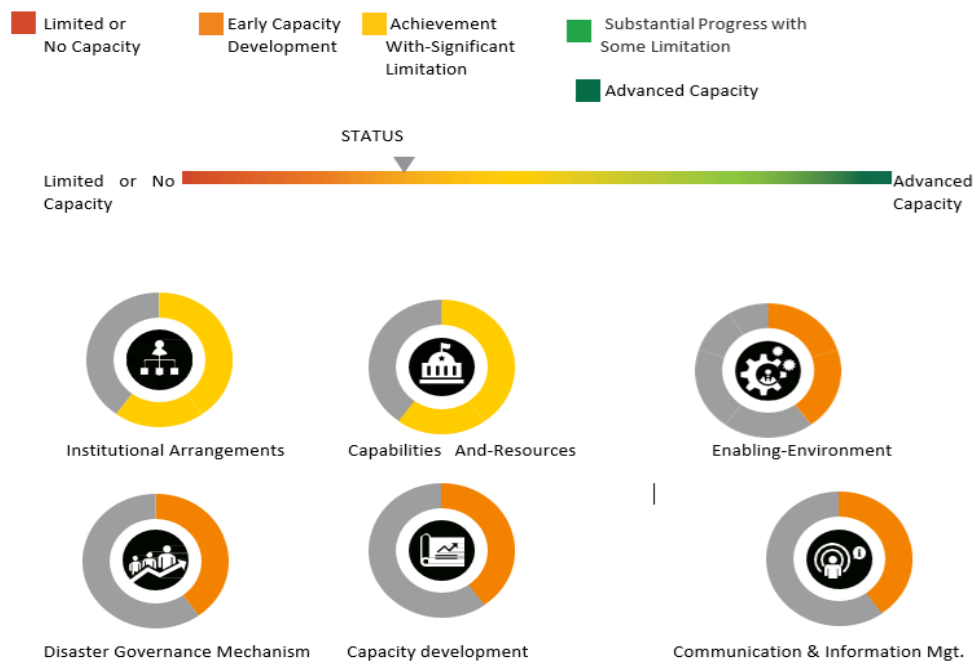
### Annex 4: Monitoring and Evaluation Matrix

Strategic Priority	Indicator	Baseline (2024)	Target (2030)	Source
<b>Risk Assessments</b>	# of regions with fiscal risk mapping	3	16	MoF / NADMO
<b>Insurance Penetration</b>	% population covered by insurance	8%	20%	NIC, InsuResilience
<b>Pre-arranged Financing</b>	% GDP covered by sovereign instruments	0.3%	2%	MoF, IMF
<b>Response Time</b>	Avg. days for fund disbursement	60 days	< 14 days	NADMO

## Annex 5: Ghana's Regional Climate Resilience Index



## Annex 6: Disaster Management Analysis Findings



Source : PDC

## Annex 7: Multi Hazard Exposure

### Multi-Hazard Exposure

#### COASTAL FLOODING



1% Population Exposed  
 197,038 Raw Population Exposure  
 Exposure  
 1% Built Environment Exposed

#### DROUGHT

5% Critical Infrastructure Exposed



25% Population Exposed  
 7,714,564 Raw Population Exposure  
 Exposure  
 29% Built Environment Exposed  
 28% Critical Infrastructure Exposed

#### EXTREME HEAT



23% Population Exposed  
 7,055,048 Raw Population Exposure  
 Exposure  
 22% Built Environment Exposed  
 31% Critical Infrastructure Exposed

#### RIVERINE FLOODING



3% Population Exposed  
 887,111 Raw Population Exposure  
 Exposure  
 3% Built Environment Exposed  
 16% Critical Infrastructure Exposed

#### EARTHQUAKE



39% Population Exposed  
 11,885,632 Raw Population Exposure  
 Exposure  
 41% Built Environment Exposed  
 42% Critical Infrastructure Exposed

#### SEA LEVEL RISE



<1% Population Exposed  
 63,179 Raw Population  
 Exposure  
 <1% Built Environment Exposed

#### LANDSLIDE

4% Built Environment Exposed



4% Population Exposed  
 1,325,942 Raw Population  
 Exposure  
 5% Built Environment Exposed  
 7% Critical Infrastructure Exposed

#### BUSHFIRE



6% Population Exposed  
 1,728,510 Raw Population  
 Exposure  
 5% Built Environment Exposed  
 10% Critical Infrastructure Exposed

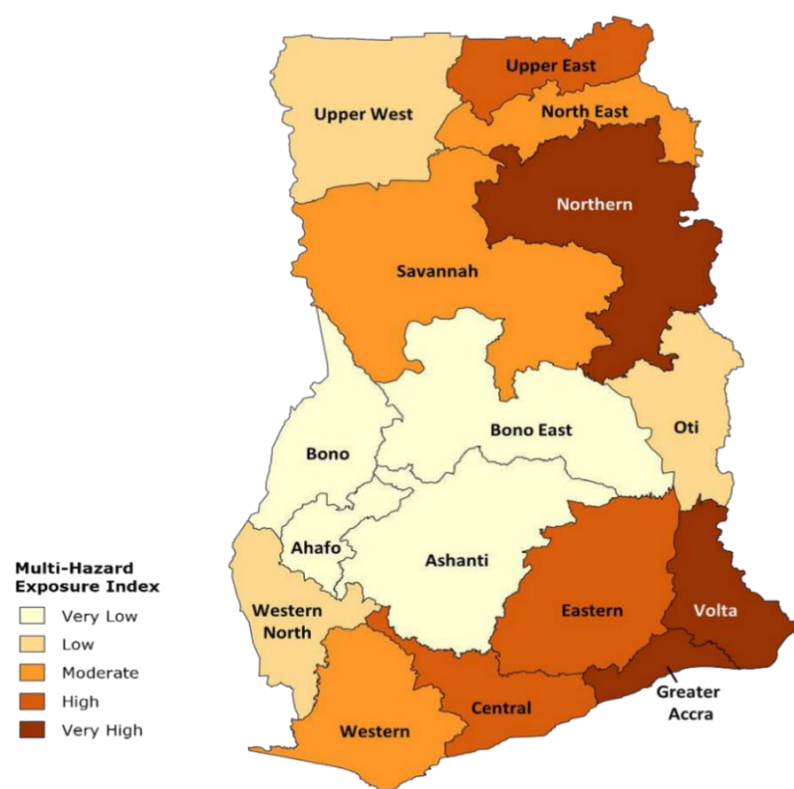
#### MALARIA



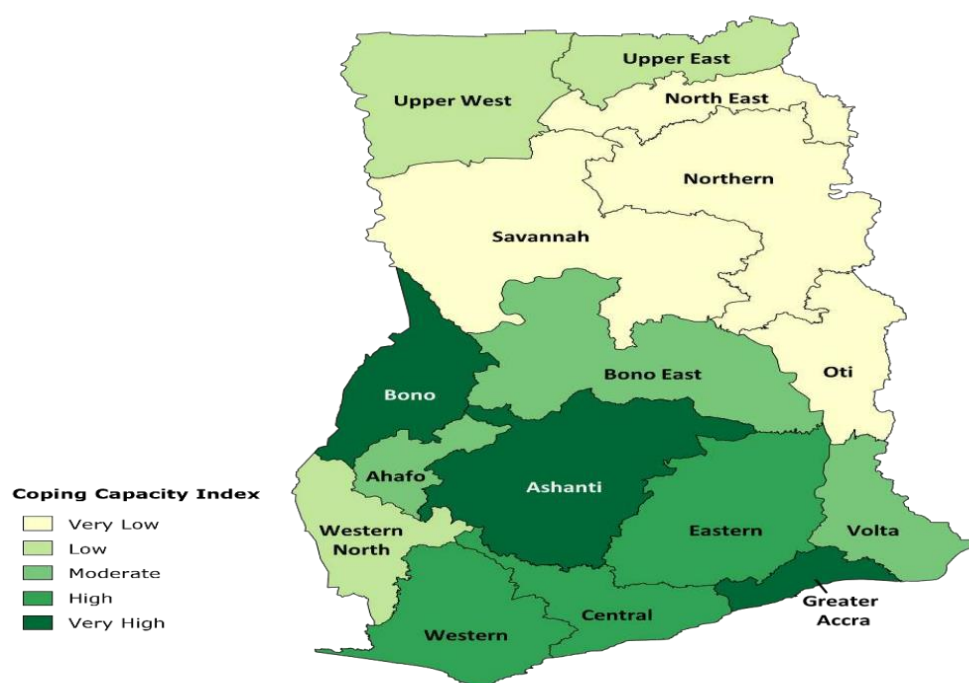
15% Population Exposed  
 4,618,596 Raw Population  
 Exposure  
 13% Built Environment Exposed

6% Critical Infrastructure Exposed

## Annex 8: Multi-Hazard Exposure Index by Region



## Annex 9: Coping Capacity Index



## Annex 10: Resilience by Region

	RANK	REGION	INDEX SCORE
VERY HIGH	1	Greater Accra	0.902
	2	Ashanti	0.694
	3	Bono	0.635
HIGH	4	Western	0.630
	5	Eastern	0.613
	6	Central	0.608
MEDIM	7	Ahafo	0.552
	8	Volta	0.551
	9	Western North	0.489
LOW	10	Bono East	0.450
	11	Upper West	0.406
	12	Upper East	0.376
VERY LOW	13	Oti	0.365
	14	Northern	0.294
	15	North East	0.202
	16	Savannah	0.193

# Annex 11: Multi-Hazard Exposure by Region

## MULTI- HAZARD EXPOSURE BY REGION

RANK		REGION	INDEX SCORE
VERY HIGH	1	Greater Accra	0.950
	2	Volta	0.658
	3	Northern	0.564
HIGH	4	Central	0.465
	5	Upper East	0.463
	6	Eastern	0.401
MEDIUM	7	Western	0.385
	8	North East	0.374
	9	Savannah	0.363
LOW	10	Oti	0.303
	11	Western North	0.296
	12	Upper West	0.272
VERY LOW	13	Bono East	0.197
	14	Bono	0.125
	15	Ahafo	0.047
	16	Ashanti	0.012



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Reviewed by: Amina Sammo, Coordinator-IRFF

Sign..... Date.....

Reviewed & Approved by: Abdul-Razak Saeed, Head – ECC

Sign..... Date.....



# GHANA DISASTER MANAGEMENT AND RISK FINANCE STRATEGY FRAMEWORK



SUSTAINABLE  
DEVELOPMENT  
GOALS