White Paper

The National Natural Disaster Risk Financing Policy, 2021 - 2026

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Message

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Jamaica, largely due to its location, is highly exposed to natural hazards. Historically, natural disasters have generated wide-ranging direct and indirect socio-economic shock throughout the Jamaican society, including loss of life and livelihood, damage to physical infrastructure and distortion of public finances. Losses associated with these events often account for a significant share of Gross Domestic Product (GDP) and substantial financial resources are usually necessary to restore livelihoods and rebuild economic and social infrastructure.

The impact of increased expenditure for emergency response, recovery and reconstruction activities and decreased revenue due to lower tax collection from affected productive sectors, present risks to fiscal and debt sustainability. The Government of Jamaica (GOJ) recognizes the imperative of prioritizing strategies to mitigate these risks. As a key pillar of the comprehensive approach to disaster risk management, this National Natural Disaster Risk Financing (NNDRF) Policy embodies the strategic framework to enhance the country's resilience to the financial impact of disasters.

The NNDRF Policy utilizes a risk layering approach to finance risks from natural disasters. It requires the establishment of adequate reserves to address the costs associated with high frequency, low severity events such as floods or heavy rainfall, and the transfer of risks related to low frequency, high severity events such as major hurricanes and earthquakes through a portfolio of financing instruments. In addition, the policy addresses critical enabling factors including institutional capacity building and budgeting for disaster risk financing.

The development of the NNDRF policy was supported by stakeholders including the World Bank, members of the Policy Steering Committee, various Ministries, Departments and Agencies and other individuals. Gratitude is extended to all involved in the development of this policy.

Despite the growing fiscal risk that natural disasters present, primarily due to the risks arising from climate change, the establishment and implementation of the NNDRF policy will serve to anchor the economic gains achieved in recent years by increasing Jamaica's fiscal and economic resilience to these events.

Nigel Clarke, DPhil, MP
Minister of Finance and the Public Service

List of Acronyms & Abbreviations

BOJ	Bank of Jamaica
CAT	Catastrophe
CAT Bond	Catastrophe Bond
CAT-DDO	Catastrophe Deferred Drawdown Option
CCD	Climate Change Division
CCF	Contingent Credit Facility
CCRIF SPC	Caribbean Catastrophic Risk Insurance Facility Segregated Portfolio Company
CDM	Comprehensive Disaster Management
CoA	Chart of Accounts
COAST	Caribbean Oceans and Aquaculture Sustainability Facility
CTMS	Central Treasury Management System
DaLA	Damage and Loss Assessment
DC	Direct Contracting
DC-E	Direct Contracting under Emergency Circumstances
DfID	Department for International Development
DRF	Disaster Risk Financing
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DSA	Debt Sustainability Analysis
ECLAC	Economic Commission for Latin America & the Caribbean
FAA	Financial Administration & Audit
FPMB	Fiscal Policy Management Branch
FPP	Fiscal Policy Paper
FRF	Fiscal Responsibility Framework
GDP	Gross Domestic Product
GHGs	Greenhouse gases
GoJ	Government of Jamaica
HR	Human Resources
IAJ	Insurance Association of Jamaica
IDPs	International Development Partners
IPSAS	International Public Sector Accounting Standards
IT	Information Technology

JSIF	Jamaica Social Investment Fund
LCB	Local Competitive Bidding
LPPs	Livelihood Protection Products
LT	Limited Tender
MDAs	Ministries, Departments and Agencies\
MEGJC	Ministry of Economic Growth and Job Creation
MLGRD	Ministry of Local Government and Rural Development
MLSS	Ministry of Labour and Social Security
MOFPS	Ministry of Finance and the Public Service
MOHW	Ministry of Health and Wellness
MTF	Medium-Term Socio-Economic Policy Framework
NDF	National Disaster Fund
NRF	National Reserve Fund
NPGE	National Policy on Gender and Equality
ODPEM	Office of Disaster Preparedness and Emergency Management
OT	Open Tender
PAAC	Public Administration and Appropriations Committee
PBMA	Public Bodies Management and Accountability Act
PED	Public Enterprises Division
PEX	Public Expenditure Division
PFM	Public Financial Management
PIMC	Public Investment Management Committee
PIMSEC	Public Investment Management Secretariat
PIOJ	Planning Institute of Jamaica
PPPs	Public Private Partnerships
PSC	Policy Steering Committee
PXPC	Public Expenditure and Policy Coordination
QCA	Quarterly Contract Awards
SDC	Social Development Commission
SDGs	Sustainable Development Goals
SIDS	Small Island Developing States
SP	Social Protection
SS	Sole Sourcing
ST	Selective/ Single Stage Tender

TGL	Treasury General Ledger
UNDRR	United Nations Office for Disaster Risk Reduction
UNFCCC	United Nations Framework Convention on Climate Change

Definition of Concepts and Key Terms

Key Terms	Definitions
Blue Economy	The range of economic sectors and related policies that together determine whether the use of oceanic resources is sustainable. Sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health. World Bank 2017 – The Potential of the Blue Economy
Climate Change	Climate change refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods. United Nations Framework Convention on Climate Change (UNFCCC)
Disaster Risk Management (DRM)	Processes for designing, implementing and evaluating strategies, policies and measures to improve the understanding of disaster risk, foster risk reduction and transfer, and promote continuous improvement in disaster preparedness, response and recovery practices, with the explicit purpose of increasing human security, well-being, quality of life and sustainable development (Inter-Governmental Panel on Climate Change (IPCC), 2014).
Disaster Risk Reduction	The policy objective of anticipating future disaster risk, reducing existing exposure, vulnerability or hazard, and strengthening resilience (UNISDR, 2015).
Hazards	A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include latent conditions that may represent future threats and can have different origins: natural (geological, hydro-meteorological and biological) or induced by human processes (environmental degradation and technological hazards) (UNGA, 2016: p.18, 2017)
Natural Disaster	A natural event such as flood, earthquake, or hurricane that causes great damage or loss of life. Natural disasters may also include health-related phenomena such as epidemics and pandemics.
Resilience	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. (United Nations Office for Disaster Risk Reduction (UNISDR), "2009 UNISDR Terminology on Disaster Risk Reduction", Geneva, May 2009, http://www.unisdr. org/we/inform/terminology) **OR** The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation (IPCC, 2014).
Risk	The potential for consequences where something of value is at stake and where the outcome is uncertain, recognizing the diversity of values. Risk is often represented as the probability of the occurrence of hazardous events or trends multiplied by the impacts if these events or trends occur. Risk results from the interaction of vulnerability, exposure and hazard (IPCC, 2014).
Risk Transfer	An approach to risk management that involves the transfer of financial responsibility for some or all of the risk and any costs associated with the materialization of that risk (OECD, 2016, forthcoming). Examples include insurance and reinsurance contracts, catastrophe bonds, contingent credit facilities and reserve funds as part of risk transfer from governments to financial markets (UNISDR, 2009a)
Vulnerability	"The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards". Hyogo Framework for Action

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Preface

The National Natural Disaster Risk Financing (NNDRF) Policy is a mechanism for highlighting the importance of disaster risk financing (DRF) as part of the broader framework of disaster risk management (DRM) in Jamaica. Since 2015, the Government of Jamaica (GoJ) has taken many steps to improve DRM, including through the repeal of the Disaster Preparedness and Emergency Management Act and the passage of the Disaster Risk Management Act of 2015 which, among other things, legislates and authorizes mechanisms for enabling disaster risk financing in Jamaica, including the National Disaster Fund (NDF).

This Policy is a dynamic document that should be updated periodically, usually every five years, to ensure consistency with the overarching policy environment of the Government and the national planning frameworks such as Vision 2030 Jamaica National Development Plan and the Medium-Term Socio-economic Policy Frameworks (MTFs). The latter are iterative and operational documents that (i) articulate how Vision 2030 Jamaica is to be implemented; and (ii) establish priorities on a phased and prioritized basis to galvanize national focus and attention.

While the policy needs to be internally consistent with respect to the national policy environment, it also has to reflect cognizance of the global environment for disaster risk financing and the various trends that may exist from time to time in order to engender best practice in DRF. As the Policy evolves, it will become the guiding force behind the building of the country's fiscal and financial resilience and will aid the Government of Jamaica in minimizing the fiscal impact of natural disasters on the budget, the economy and the society. The Implementation Plan for the Policy will outline how the policy objectives, grouped under three broad thematic policy areas – namely budgeting for DRF, building financial and disaster risk resilience and building institutional capacity – are to be achieved in real terms. As with the Policy, the Implementation Plan has to be updated every five years and must accompany a Results Matrix which outlines the baseline for the country with respect to the various policy initiatives under each policy area as well as the progress made towards each. The ultimate goal of the Policy is to, over time, minimize the fiscal impact of natural disasters on the national budget.

Executive Summary

Jamaica's National Natural Disaster Risk Financing (NNDRF) Policy is the Government of Jamaica's (GoJ) tool to address deficiencies in how the budget responds to the impacts of natural disasters on the country. DRF is about putting in place a menu of financing instruments that the Government can readily access to respond to natural disasters. Based on the concept of risk layering, no single financial instrument can efficiently address all risks. Risk layering and timeline of funding needs are fundamental concepts, considering the frequency and vulnerability of the events. In this regard, the GoJ can access different resources in order to build disaster resilience and provide financing at each stage of the disaster response process: relief, recovery and reconstruction (Figure 1).

The DRF policy is, however, not only concerned with financial instruments. It also speaks to enabling policies and a data-rich environment which should be cultivated to encourage risk-based decision making and effective, transparent use of financial instruments. This DRF policy is focused on addressing natural disasters and not all the major anthropogenic risks (human-triggered or otherwise) that form part of the overall country risk assessment. In developing this policy, the **Ministry of Finance and the Public Service seeks to achieve comprehensive, coordinated cost-effective and timely disaster risk financing response to natural disasters**, both climate-related and non-climate-related events.

The following quote from the Sendai Framework captures, in a nutshell, the main features of a National Natural DRF Policy: diversifying financing sources, risk transfer, risk retention, institutional capacity building and policy implementation.

> Financing from a variety of international sources, public and private transfer of reliable, affordable, appropriate and modern environmentally sound technology, on concessional and preferential terms, as mutually agreed, capacity-building assistance for developing countries and enabling institutional and policy environments at all levels are critically important means of reducing disaster risk[1].

The NNDRF Policy provides a global and national context for its development. The policy is couched within the Sendai Framework which is the most recent authority on initiatives at the global, regional and national levels regarding disaster risk reduction (DRR). Jamaica is a signatory to the Sendai Framework and this requires the Government to translate this compilation of global aspirations into tangible national actions. With explicit references to health, including links to epidemics and pandemics, the Sendai Framework for Disaster Risk Reduction (2015-2030) highlights concerns on human health and well-being that are common to disaster risk reduction, climate change and sustainable development.[2] The Policy

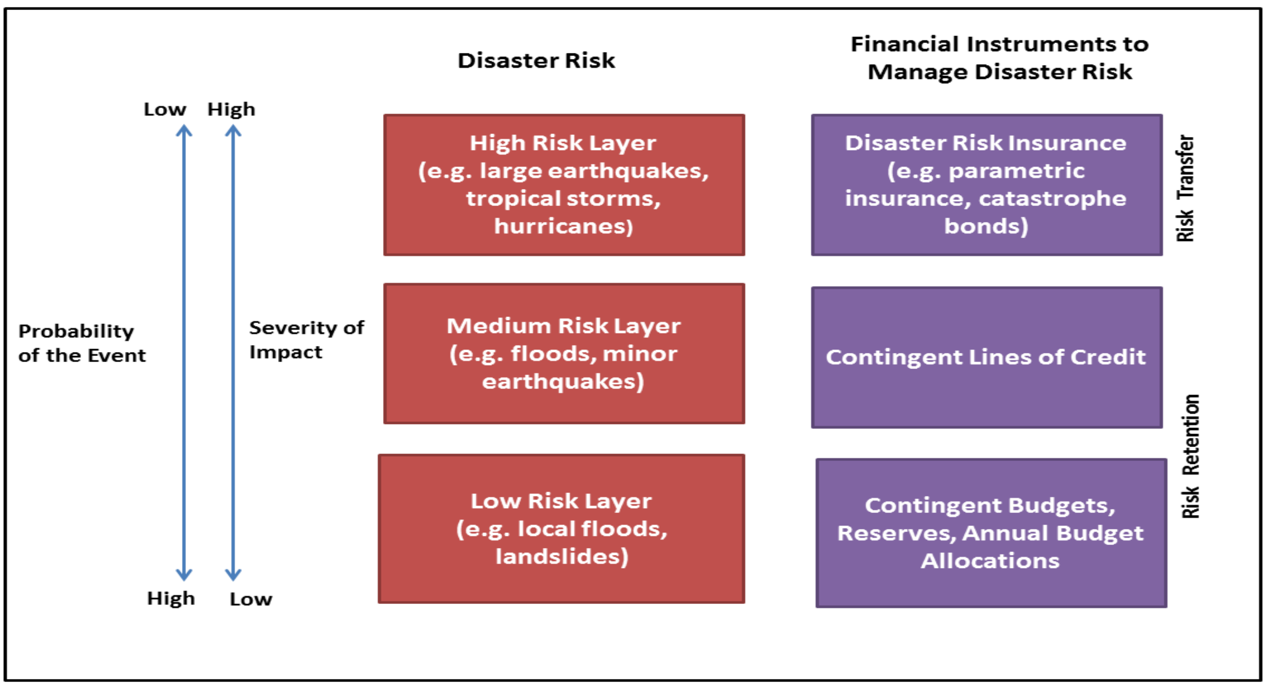
[1] United Nations Office for Disaster Risk Reduction (UNDRR). 2015. Sendai Framework for Disaster Risk Reduction; p. 25.

[2] Sendai framework for disaster risk reduction 2015‑2030. In: UN world conference on disaster risk reduction, 2015 March 14‑18, Sendai, Japan. Geneva: United Nations Office for Disaster Risk Reduction; 2015. Available from: http://www.wcdrr.org/uploads/Sendai_Framework_for_Disaster_Risk_Reduction_2015-2030.pdf [cited 2015 May 11].

adopts the overarching objectives of the Sendai Framework with some customizations to fit the national context. The Sendai Framework is translated through Vision 2030 Jamaica National Development Plan and operationalized through the Medium-Term Socio-Economic Policy Framework (MTF).

From this national framework, the global imperative for DRR is articulated at the sectorial level in the Draft Climate Change Policy Framework and supported by the State of the Jamaican Climate reports (2012, 2015 and 2019), with respect to reinforcing the need for this Policy. The Green Paper on the Climate Change Policy Framework and Action Plan called for the Ministry of Finance and the Public Service to **develop a financial strategy, which reduces the country's fiscal vulnerability to the occurrence of events related to climate change**. **The Ministry will evaluate different measures such as disaster risk financing and micro-insurance**. Accordingly, Figure 1 illustrates a multi-layer risk approach which reflects a menu of potential DRF options for the different layers of risk.

Figure 1: Multi-Layer Risk Approach to Financing Disaster Risk



Source: World Bank. February 2018. *Advancing Disaster Risk Finance in Jamaica.* World Bank: Washington, DC

Within this rubric of policy justification, the context for a national policy on natural disaster-related DRF is rationalized and the dimensions of the policy context are outlined. The Vision for this national policy is that **Jamaica will be fiscally and financially resilient to natural disasters**. The Mission Statement, Goals, Guiding Principles and Objectives of the policy support this vision.

The Policy proceeds chronologically to develop the Policy Areas, Policy Objectives and Policy Strategies, giving teeth to the aforementioned higher level ideals (Table 1). This section outlines the activities to be undertaken to achieve the Mission Statement, Goals, Guiding Principles, Objectives and, ultimately, the Vision of the Policy.

Lastly, the Policy treats with policy implementation. This requires a robust governance/institutional framework, inclusive of a monitoring and evaluation framework, mainstreaming of cross cutting issues such as gender, youth and climate change, as well as linkages with the existing legislative framework and policy environment, including the necessary steps to be taken in tandem to ensure that the policy is not operating in *silos*, but part of the country's wider governance ecosystem.

The Implementation Plan demonstrates how the various Policy Areas, Policy Objectives and, most importantly, the Policy Strategies align with the Sendai Framework, Sustainable Development Goals (SDGs), and the Goals, Guiding Principles and Objectives of this national policy. The Implementation Plan thus sets out the responsible parties for the various strategies and activities, with specific performance indicators for each policy strategy, and assigns risk levels (high, medium or low) in relation to the timeframe for implementation – whether short, medium or long term. The assignment of risk levels as well as a typology of risks within the Implementation Plan ensures that realism and credibility are built into the Policy itself and will assist in the determination of mitigating actions.

In conclusion, the NNDRF policy is the highest level of Jamaica's intent to pursue a course of action in relation to building financial resilience to natural disasters. The policy signals the Government's intent to pursue DRF strategies that will result in cost-effective financing; mainstreaming of DRF throughout the budgeting process; and *ex ante, ex post,* short, medium and long-term measures as part of a diverse response portfolio. To achieve these goals, capacity building, both at the level of the institution and the individual, has to be pursued to deliver data-driven and adaptive DRF in the ever-changing global context of climate change and other emerging risks. The Mission Statement, Goals, Guiding Principles and Objectives that underpin this policy will result in an implementable policy. By the next iteration of this Policy, DRF may be operating in a new frontier. This Policy should enable Jamaica to be ready. At that stage, the necessary policy review process should elaborate on the extent to which the NNDRF Policy has resulted in an improvement in the fiscal impact of natural disasters on the national budget, where these events have actually occurred.

Table 1: Summary of National Natural Disaster Risk Financing Policy Areas, Objectives and Strategies

Policy Areas	Policy Objectives	Policy Strategies
1. Budgeting for DRF – Data, Processes & Systems	1. Identify, understand and quantify the economic and fiscal impacts of disasters in Jamaica on the government, business and people.	a. *Streamline damage and loss data collection and reporting systems across ministries for all severities of events, building on what the PIOJ can do post-disaster*. b. *Take stock of existing risk models and investing in one, or a group of models that can be continuously updated to reflect changes in exposure and vulnerability*. c. *Develop an inventory of exposure and public assets.* d. *Identify and assess contingent liabilities relating to natural disasters.*
	2. Achieve greater efficiency and transparency in the mobilization and execution of public expenditure in disaster risk management.	a. *Periodically update Post Disaster Budget Execution Guidelines to accurately capture the actors, systems, and various sources of financing.* b. *Improve tracking of disaster-related expenditure to facilitate decision-making and analysis through institutional capacity building.* c. *Review the investments of the NDF annually to ensure that they are still in keeping with the remit set out in the DRM Act of 2015.*
	3. Implement budgeting to promote disaster risk financing at municipal and sectoral levels.	a. *Integrate contingent liabilities in the budgetary planning process based on potential losses to natural disasters.* b. *Apply rule for accounting of contingent liabilities based on International Public Sector Accounting Standard (IPSAS).*
	4. Incorporate disaster risk analysis in public sector investments and planning, from a physical planning perspective.	a. *Incorporate hazard risk assessments in evaluations conducted by the Public Investment Management Secretariat (PIMSEC) of public investment project feasibility.*

Policy Areas	Policy Objectives	Policy Strategies
2. Building Financial and Disaster Risk Resilience	5. Identify and evaluate alternative DRF instruments to determine an optimal suite.	*a. Explore existing and emerging options for disaster risk financing.* *b. Conduct cost benefit and gap analysis.*
	6. Implement a suite of DRF instruments	*a. Explore options for financing structural resilience.* *b. Establish adequate buffers for DRF expenditures.* *c. Secure ex-ante (flexible) financing facilities for DRF.* *d. Explore alternative catastrophic risk transfer instruments.*
	7. Develop the Local Insurance Market through Increased Access to Affordable, Appropriate Insurance Households, Businesses and Government	*a. Enhance availability, penetration, and affordability of private (business and residential) catastrophe insurance, for example, through PPPs, and micro-insurance schemes.* *b. Enhance data sharing on agricultural [and livelihood] insurance and develop more-robust and affordable products for small farmers and fisher folk, and other marginalized economic groupings.* *c. Campaign to encourage private citizens to insure against natural disasters.*
	8. Improve Insurance of Public Assets Including PPPs	*a. Develop a cadaster or inventory of public assets across all government.* *b. Establish a robust catastrophe risk insurance program for public assets and parastatals.* *c. Institutionalize PPP insurance*
	9. Enhance management of implicit contingent liabilities related to social protection (SP)	*a. Strengthen the coordination system between social protection and DRM initiatives.* b. *Explore the feasibility of a disaster risk financing mechanism that targets SP*
3. Building Institutional Capacity	10. Strengthen the institutional capacity of the MOFPS and broader public sector in relation to disaster risk financing	*a. Engage IDPs for technical assistance to implement this policy objective.* *b. Deepen engagement with stakeholders* *c. Ensure staff are adequately trained in DRF and related areas*

Situational Analysis

I. Profile

Jamaica, like many Caribbean countries, is extremely vulnerable to natural disasters, and the human, economic and social costs are substantial. According to the International Monetary Fund (IMF), "Jamaica's exposure to natural disasters ranks in the top 20 globally, given its low-lying coastal zones, mountains, and five major fault lines."[3] The country has withstood about 40 disasters between 1950 and 2017, averaging about one disaster per year. Sixty percent of these were hurricanes and storms, with floods, droughts, and epidemics accounting for the remaining 40%.[4]

The financial management of disaster risk is a priority as Jamaica faces more frequent and more intense natural disasters, and the damage inflicted poses a risk to the country's macroeconomic stability, living standards and growth. Natural disasters destroy crops and homes; undermine businesses, devastate roads and bridges; and compromise tourism revenue. They reduce foreign exchange reserves, increase inflation, undermine the country's fiscal program and reduce the standard of living.

It is necessary to develop a disaster risk financing framework to reduce fiscal and financial vulnerability to natural disasters. The fiscal costs associated with these events highlight the benefits of being proactive in enhancing financial preparedness for natural disasters.

II. Historical context

Over the years, financial response to natural disasters has become unsustainable given the current trends in the frequency and intensity of natural disasters. Past financial responses to natural disasters usually included debt financing and reallocation of budgetary resources to natural disaster-related activities. Those responses often increase the debt burden or have a distortionary impact on the budget, as resources are diverted from other essential expenditure including investments in social and physical infrastructure.

Small Caribbean states such as Jamaica are especially vulnerable to natural disasters, with annual average damage estimates of 2-3 percent of GDP.[5] From 1990-2014, the annual damage from disasters in Jamaica was estimated to average approximately 0.6 percent of GDP compared to 0.4 percent of GDP for other countries.[6] Hurricane Gilbert in 1988 resulted in damage of approximately 30 percent of GDP, while in 2004 hurricanes Charley and Ivan caused damage amounting to 9 percent of GDP. The financial costs of

[3] IMF. April 2018. Article IV Consultation, Third Review Under the Stand-By Arrangement and Request for Modification of Performance Criteria. Link: https://www.imf.org/en/Publications/CR/Issues/2018/04/16/Jamaica-2018-Article-IV-Consultation-Third-Review-Under-the-Stand-By-Arrangement-and-Request-45801

[4] IMF. April 2018. Article IV Consultation, Third Review Under the Stand-By Arrangement and Request for Modification of Performance Criteria. . Link: https://www.imf.org/en/Publications/CR/Issues/2018/04/16/Jamaica-2018-Article-IV-Consultation-Third-Review-Under-the-Stand-By-Arrangement-and-Request-45801

[5] IMF. 2019. 'Building Resilience in Developing Countries Vulnerable to Large Natural Disasters. https://www.imf.org/en/Publications/Policy-Papers/Issues/2019/06/24/Building-Resilience-in-Developing-Countries-Vulnerable-to-Large-Natural-Disasters-47020

[6] IMF. April 2018. Article IV Consultation, Third Review Under the Stand-By Arrangement and Request for Modification of Performance Criteria. . Link: https://www.imf.org/en/Publications/CR/Issues/2018/04/16/Jamaica-2018-Article-IV-Consultation-Third-Review-Under-the-Stand-By-Arrangement-and-Request-45801

natural disasters have long-lasting macroeconomic effects, and can significantly impede fiscal stability and growth prospects.

Between FY 2004/05 and FY2014/15, total budgetary expenditure related to natural disasters was approximately JM$25.87 billion which represented 22.75% of the total fiscal cost of the natural disasters during that period. According to Jamaica's Country Disaster Risk Profile developed by the World Bank, hurricanes are estimated to cause an average annual loss of JM$9 billion (US$67 million) and earthquakes approximately JM$5 billion (US$36 million) in average annual loss.[7]

In addition to this, in the context of emerging hazards, infectious diseases have resulted in the mobilization of large financial and social resources to ensure public health safety. Between 2014 and 2016, Jamaica experienced two biological epidemics with critical public health and economic impacts - the Chikungunya fever (CHIKV) in 2014 and the Zika virus (ZIKV) in 2016.[8] In 2020, the COVID-19 pandemic emerged in Jamaica, with significant socio-economic impacts that required a large mobilization of government aid. The PIOJ estimated that the pandemic would result in an economic decline of 11.8% for the 2020/21 fiscal year. According to STATIN, the unemployment rate increased from 7.3% in January 2020 to 12.6% in July 2020. Disease outbreaks, aside from having potentially serious consequences for health, can socially and economically devastate communities and undermine national development efforts.

III. Legislative and Policy Environment

a. International

Sendai Framework: In 2015, a review of the impact of disasters globally resulted in the development of the Sendai Framework for Disaster Risk Reduction for 2015-2030 which establishes policy targets and priorities for action.[9] The four priority areas for action are: (i) understanding disaster risk in its various dimensions (vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment); (ii) strengthening disaster risk governance to manage disaster risk; (iii) investing in disaster risk reduction for resilience; and, (iv) enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.

The Sendai Framework, while recognizing the role of the State as the principal actor/agent to reduce disaster risk, underscores the importance of other stakeholders including the private sector in developing and implementing a disaster risk reduction strategy. The National Natural Disaster Risk Financing Policy reflects the philosophy of the Sendai Framework.

Paris Agreement: Articles 7 and 8 explicitly focus on Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR). Article 7.1 focuses on enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change and, Article 8.1 on averting, minimizing and addressing loss and

[7] World Bank Group, 2018. Advancing Disaster Risk Financing in Jamaica. Washington, DC: World Bank

[8] Statistical Institute of Jamaica (STATIN) 2015 Annual Labour Force Report

[9] UN Office for Disaster Risk Reduction. Sendai Framework. Link: https://www.unisdr.org/we/coordinate/sendai-framework

damage associated with the adverse effects of climate change. Both DRR and CCA aim to reduce the adverse impacts of hazards by addressing drivers of vulnerability and, where possible, exposure.

The Sendai Framework and the Paris Agreement provide the overarching framework for guiding and reinforcing national policy efforts on DRR and CCA.

b. Regional

The Regional Comprehensive Disaster Management Strategy 2014-2024 developed by the Caribbean Disaster Emergency Management Agency (CDEMA) seeks to support "safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management (CDM)"[10]. The strategy highlights 16 regional outcomes through four priority areas. The priority areas are: (i) strengthened institutional arrangements for CDM; (ii) increased and sustained knowledge management and learning for CDM; (iii) improved integration of CDM at sectoral levels; and, (iv) strengthened and sustained community resilience.

The focus on CDM at the regional level reflects a more proactive strategy toward disaster management. As the Caribbean region anticipates more frequent and high intensity events, comprehensive disaster management which is integrated at various levels is important. A critical component of this approach to disaster management is disaster risk financing.

c. Local

The Constitution and the *Financial Administration and Audit Act* (FAA Act) provide the primary legal and institutional framework for fiscal operations. They espouse the principles for the operation of the Consolidated Fund and the Contingencies Fund, and provide definitions and parameters for operating in times of emergency.

The FAA Act includes fiscal rules aimed at managing and improving Jamaica's macro-economic environment**.** The FAA Act also stipulates conditions ('escape clause') under which the fiscal rules may be suspended, one of which is a period of public disaster as defined in the Constitution, resulting in a fiscal impact of 1.5 percent, or more, of GDP.

Sub-section four (4) of the Third Schedule in the FAA Act makes provision for funds to be earmarked and transferred to the Contingencies Fund for weather-related risks. There is also an increased ceiling on the Contingencies Fund, effective March 26, 2019, by Resolution. The floor (or lower limit) for the Contingencies Fund has been increased from $10 million to J$2 billion and an upper limit or ceiling introduced, in the amount of J$10 billion.

[10] Caribbean Disaster Emergency Management Agency, 2014. Regional Comprehensive Disaster Risk Management – Strategy & Results Framework 2014 -2024. Link: https://www.cdema.org/CDM_Strategy_2014-2024.pdf

IV. Link with other policies and programmes

From a planning perspective, the Medium-Term Socio-Economic Policy Framework (MTF) is the national framework which establishes the priorities over the medium term, three-year period, and operationalizes Vision 2030 Jamaica National Development Plan. The MTF 2018 – 2021 is a continuation of the process to prioritize and mainstream Disaster Risk Management (DRM); it specifically identifies the impact of natural hazards and climate change vulnerability as a key risk for national consideration. The related Medium-Term Priority National Outcomes include: National Outcome #14 – Hazard Risk Reduction and Adaptation to Climate Change, and National Outcome #3 – Effective Social Protection.

Since 2015, the Government of Jamaica (GoJ) has taken many steps to improve Disaster Risk Management (DRM). This includes the repeal of the Disaster Preparedness and Emergency Management Act and the passage of the Disaster Risk Management Act of 2015 which, inter alia, legislates and authorizes mechanisms for enabling disaster risk financing in Jamaica, including the National Disaster Fund (NDF). The NDF is part of the short-term financial responsiveness to natural disasters.

V. Reference to any relevant documents

The Green Paper on the Climate Change Policy Framework and Action Plan emphasizes the link between climate change and natural disasters. The Green Paper highlighted the added vulnerabilities due to poverty, settlements in risk-prone areas; and poorly constructed infrastructure.

The Green Paper references the documents - the State of the Jamaican Climate (2012, 2015, 2017) which assess the climatology, the variability, and other trends to make climate projections. The State of the Jamaican Climate assessments serve as important inputs in Jamaica's disaster risk financing policy.

Vision Statement, Goals, Guiding Principles and General Objectives of the National Natural Disaster Risk Financing Policy

Vision Statement

Jamaica will be fiscally and financially resilient to natural disasters.

Mission Statement

To increase awareness of disaster risk financing among public and private stakeholders alike, and highlight the roles and responsibilities each constituent shares in minimizing the fiscal impact of natural disasters on the Government of Jamaica by considering a layered risk approach with supporting policies that enable accessing strategically aligned instruments for different stages of disaster response.

Goals

1. To make Disaster Risk Financing (DRF) more adequate, cost-effective, scalable, inclusive and timely for the Government of Jamaica (GoJ) through the use of a diversified menu of both *ex ante* and *ex post* DRF instruments.
2. To mainstream DRF in the Consolidated Budget (Central Government Estimates and Estimates for Public Bodies) at all levels of Government.
3. To build the institutional capacity to optimize DRF measures Government-wide.
4. To make DRF data-driven and adaptive to future trends and realities.

Guiding Principles

- **Proactive & Responsive to Natural Disasters**

  DRF needs to anticipate the fiscal impact of a natural disaster (being proactive) but also respond in a timely manner (expedience) when the event occurs to ensure that our human capital is, first and foremost, the priority in terms of a response. DRF must be concerned with minimizing the human impact.

- **Fiscal Responsibility in responding to Natural Disasters**

  The response to natural disasters must, to the extent possible, not adversely impact the fiscal rules of the country. Section 48C of the FAA allows for the fiscal targets established in the fiscal rules to be suspended within a period of public disaster within the meaning of section 20 of the Constitution of Jamaica provided that the Auditor General has validated that the estimated fiscal impact is equal to or greater than one and a half percent of gross domestic product. This suspension extends to the end of the fiscal year immediately following the event but could extend for an additional year to allow for the fiscal adjustment required.

- **Fiscal Sustainability in managing the Fiscal Costs associated with Natural Disasters**

  The fiscal response to natural disasters must be sustainable if fiscal resilience is to be achieved. Once there is a suspension of the fiscal rules, there has to be an automatic adjustment or recalibration. This recalibration or automatic adjustment, articulated in section 48CA of the FAA, involves measures designed to put the country back on a path towards the public debt sustainability threshold of 60 percent of gross domestic product which is the indicator of fiscal sustainability.

- **Physical & Human Resilience Building to Mitigate the Fiscal Cost of Natural Disasters**

  If physical and human resilience are built, then over time the fiscal costs should decline relative to previous disasters. This element builds in a level of individual/personal responsibility and capacity building to facilitate better disaster risk choices and complements the responsibility of the government to build resilience of key public/social good infrastructure. It involves systematic public education and monitoring and enforcement, where applicable, to inculcate greater risk awareness and risk averse behavior at the individual level. This provides a very distinct role for the Municipal Corporations/local development which has greater access to individuals to contribute to physical and human resilience building. The central government can also encourage investments in the green and blue economy.

POLICY AREAS, OBJECTIVES AND STRATEGIES

The National Natural DRF Policy will be implemented under 3 policy areas, 10 policy objectives and corresponding strategies. The four broad policy areas are: (1) Budgeting for DRF – Data Processes & Systems; (2) Building Financial and Disaster Risk Resilience; and, (3) Building Institutional Capacity Building.

POLICY AREA 1: BUDGETING FOR DRF – DATA, PROCESSES & SYSTEMS

Jamaica has a long history of access to data. It was, however, found that this data had not been used to better prepare for the fiscal impact of disasters. Subsequent budgetary analyses have been used to identify the trends, practices, weaknesses etc. in order to inform future disaster preparedness. The output is what has informed the policy prescriptions in this policy. The consensus is that if there is to be a sustained improvement and innovation in the fiscal response to natural disasters – budgetary processes and systems need to be enhanced to capture, manage and integrate the data in a way that makes it easier to rapidly assess situations in an evidence-based and agile manner.

Policy Objective 1.1: Identify, understand and quantify the economic and fiscal impacts of disasters in Jamaica on the government, business and people.

Effective management of disaster risk information and a clear understanding of the responsibilities of the public and private sectors make it possible to identify the GoJ's contingent liabilities and plan appropriate responses.

Key corresponding strategies include:

1.1a *Streamline damage and loss data collection and reporting systems across ministries for all severities of events, building on what the PIOJ can do post-disaster*.

Historical damage and loss data are crucial for accurate disaster risk analysis. Historical data are important components of disaster risk assessment and actuarial analysis, and thus play a significant role in the development of DRM strategies and financing instruments. The ODPEM and the PIOJ have a relatively advanced system of collecting and reporting information related to the damage and losses sustained by different sectors for low-frequency, high-intensity events. However, information on damage and loss from high-frequency, low-intensity events is not reported in detail across ministries, especially when it comes to flooding, which is very acute in certain parishes. A new database in line with the standard DaLA methodology across ministries will be developed, along with guidelines on how and when to enter information. If this database can be linked to budgetary expenditures, it has the potential to be a powerful tool. The database will also be aligned and/or integrated with other relevant national databases to promote streamlining and coordination.

1.1b *Take stock of existing risk analytics tools and investing in one, or a group of tools that can be continuously updated to reflect changes in exposure and vulnerability to enable better-informed decision-making processes.*

Risk metrics produced by probabilistic catastrophe risk models can be used to complement historical analyses and are particularly useful to policy makers in assessing the probability of losses and the maximum loss that could be generated by major events (e.g. an earthquake affecting a major city or a cyclone affecting a major port).

1.1c *Develop an inventory of exposure and public assets*

Insurance information for public assets is not standardized across government bodies and parastatals. An improved public asset registry might be the answer to maximizing effectiveness of risk transfer instruments. The Public Expenditure Policy Coordination (PXPC) Division within the MoFPS would be the repository of the Public Assets Register. Both the inventory and the loss reporting system could inform efforts to prioritize the reconstruction of public works damaged by natural disasters. An inventory of public assets is also the first step in accounting for the GoJ's contingent liabilities in budgetary planning.

A geo-referenced inventory of public assets at risk and their attributes (e.g. exact location, construction type, number of stories) is also a key component in building an exposure database, which is integrated with hazard and vulnerability models to establish a fiscal disaster risk profile. Generally, the more accurate the inventory is, the more accurate the fiscal risk assessment.

1.1d *Identify and assess contingent liabilities relating to natural disasters*

A comprehensive disaster risk financing policy must consider total financial exposure, inclusive of contingent liabilities. Contingent liabilities are a fiscal policy imperative that has implications for debt management, expenditure management, and revenue performance. A revision of the existing definition of explicit contingent liabilities, which currently specifies only obligations relating to public bodies, may be required in order to enable a complete assessment, and a comprehensive catalogue of such contingent liabilities.

Policy Objective 1.2: Achieve greater efficiency and transparency in the mobilization and execution of public expenditure in disaster risk management.

This objective promotes timely public financial management processes and mechanisms that allow the mobilization of resources and the efficient execution of post-disaster public expenditures, which in turn strengthen transparency and accountability.

Key corresponding strategies include:

1.2a *Periodically update Post Disaster Budget Execution Guidelines to accurately capture the actors, systems, and various sources of financing.*

The Government of Jamaica has prepared a post-disaster manual for government procedure (Instructions) in accessing post-disaster financing. These guidelines should be updated periodically to reflect the latest developments with respect to sources of financing for short- medium- and long-term needs, and any other changes which seek to enhance efficiency in the use of these resources

1.2b *Improve tracking of disaster-related expenditure to facilitate decision-making and analysis through institutional capacity building*

A review of the budget, prior to the introduction of the revised Chart of Accounts (CoA), revealed that there was *ad hoc* treatment of disaster management. An analysis of both the Estimates of Expenditure and the Supplementary budgets reveals that the CoA tracks Disasters at the programme level but not to the activity level. Currently, ODPEM is the only agency which has the disaster management mandate at the programme level. Notwithstanding it is possible to introduce activities in the CoA that allow MDAs to identify their own activity levels.

1.2c *Review the investments of the NDF annually to ensure that they are still in keeping with the remit set out in the DRM Act of 2015.*

Policy Objective 1.3: **Implement budgeting to promote disaster risk financing at municipal and sectoral levels**.

This objective supports financial management actions that incorporate disaster risk financing considerations into budgetary planning and execution at all levels of government. Systemic fiscal planning for disasters is eventually institutionalized, recognizing decentralization policies and the role of parishes, municipalities and line ministries in disaster risk management.

Key corresponding strategies include:

1.3a *Integrate contingent liabilities in the budgetary planning process based on potential losses to natural disasters.*

A common weakness in budgetary preparation lies in quasi-fiscal expenditures, or contingent liabilities, not being taken into account. Municipalities need to identify and evaluate such liabilities associated with natural disasters, and incorporate these losses in the budget process.

1.3b *Apply rule for accounting of contingent liabilities based on International Public Sector Accounting Standard (IPSAS).*

Ensure that the appropriate accounting treatment is used for both contingent liabilities and any disaster-related fund, for example the NDF and the NDRF, to ensure budget transparency. The accounting treatment of both contingent liabilities and disaster funds will need to be determined before implementation to inform the law.

Policy Objective 1.4: I**ncorporate disaster risk analysis in public sector investments and planning, from a physical planning perspective**.

Ensuring that hazard risk is considered in planning for public sector investments will, cost-effectively, promote hazard risk-based decision making in the management of contingent liabilities.

A key corresponding strategy is:

1.4a *Incorporate hazard risk assessments in evaluations conducted by the Public Investment Management Secretariat (PIMSEC) of public investment project feasibility.*

DRM should feature in the project design to ensure that the output is resilient. This fits with a concept of "BUILDING BETTER" which will reduce the need to have to "BUILD BACK" after a disaster.

POLICY AREA 2: BUILDING FINANCIAL AND DISASTER RISK RESILIENCE

This policy area considers the principles of cost-effectiveness, temporality and sound administrative arrangements for the reduction of the fiscal impact of natural disasters by proposing a risk-layering strategy consisting of a combination of ex-ante and ex-post risk retention and risk transfer instruments, noting the importance of timely disbursements, and prioritizing spending for different needs over time. Additionally, the policy addresses the critical area of risk mitigation by considering financial options for building resilience to natural disasters; and relies on principles of optimization, efficiency, operationality, absorption capacity and flexibility.

Policy Objective 2.1: **Identify and evaluate alternative DRF instruments to determine an optimal suite.**

Both the time dimension of the need for resources, as well as the expected frequency and severity of future events are to be considered. The financial cost-benefit analysis considers the cost-effective combination and sequence of use of different instruments. This will allow greater efficiency in the use of public resources to meet the needs of the affected sectors in each stage of the post disaster response.

Key corresponding strategies include:

2.1a *Explore existing and emerging options for disaster risk financing*

Given the ever-increasing cost associated with natural disasters, the Government will strive to strategically identify alternative sources of disaster risk financing. Through collaboration with international development partners and participation in relevant fora, there is to be a continuous process of identifying existing, new and emerging disaster risk financing instruments based on systematic risk assessment and management.

2.1b *Conduct cost benefit and gap analysis*

A gap analysis considers the types of DRF instruments available, both current and prospective, and their ability to adequately meet the potential financial requirements that may be needed to effectively respond in the aftermath of a natural disaster. An assessment of the relative costs and benefits of alternative instruments will aid in the selection of an optimal portfolio of DRF instruments that will provide adequate, timely and cost-effective financing in the event of a natural disaster.

Policy Objective 2.2: Implement a suite of DRF instruments.

Key corresponding strategies include:

2.2a Explore options for financing structural resilience

Building (structural) resilience to natural disasters is a key risk mitigating strategy for any government and therefore forms an integral part of Jamaica's natural disaster risk management framework. In addition to considering options for financing losses associated natural disasters, it is essential to explore potential sources of financing for enhancing structural resilience, which would reduce disaster risks. To augment existing financial options for strengthening disaster resilience, the policy proposes exploration of appropriate instruments in the capital market to specifically target resilience building. These instruments would be limited to those assessed to be consistent with debt strategy objectives.

2.2b Establish adequate buffers for DRF expenditures

The Jamaican Constitution and the FAA Act provide the legal framework governing the operations of a Contingencies Fund which may be used in the case of unforeseen expenditure needs (not specific to natural disasters) and operate as a perennial fund with a rolling balance. Additionally, the DRM Act (2015) establishes the National Disaster Fund (NDF) which is available to finance both ex-ante and ex-post prevention and reconstruction efforts.

This strategy proposes the establishment of a reserve fund specifically for natural disasters. This requires legislation (similar to the Natural Disaster Fund (NDF), which clearly outlines the governance structure, rules of accumulation of resources i.e. sources of funding, the use of the fund, how the fund is to be administered, withdrawals from the fund, Fund accounts, including investment monies, and audit of the Fund. The fund would also need to be visible within the CoA as part of the overall institutionalization of the Fund and ensuring that Fund activities can be tracked throughout the budget.

The strategy also proposes incorporating a gross reserve buffer within the gross international reserves to strengthen resilience with respect to DRF. In this regard, the BOJ will determine the level of the buffer, and the FPMB will periodically consult and collaborate with international partners to evaluate the adequacy of the gross reserve buffer, relative to existing monetary and fiscal conditions.

2.2c *Secure ex-ante (flexible) financing facilities for DRF.*

Ex-ante flexible financing/credit facilities have the benefit of quick disbursements that can be directed toward DRF related expenditures and provide a source of funding when liquidity constraints are highest. Additionally, the financing costs associated with these instruments are generally much lower than if accessed ex-post.

This Strategy proposes:

i) Establishing ex-ante contingent credit facilities to provide coverage for medium- to high-intensity natural disasters. These instruments have either a "soft" or "hard" (parametric) trigger where funds are dispatched either upon the declaration of a state of emergency or if the assessed severity of the event or associated damage exceeds some predetermined threshold.

ii) Negotiating the inclusion of counter-cyclical financing options (for natural disasters) in loan agreements with the IDPs. These are essentially options that provide flexibility to the Government with respect to scheduled debt service payments in the event of a natural disaster. This will include adjustments to the schedule of debt service payments to provide liquidity to the Government for disaster related expenditures.

iii) Negotiating for flexibilities in the deployment of loan resources for disaster related expenditures.

2.2d *Secure alternative catastrophic risk transfer instruments.*

Catastrophic risk insurance facilities for natural disasters are useful risk transfer mechanisms with the flexibility that allows for the targeting of events with specific frequency and intensity, consistent with a country's/government's risk preference. The facilities are particularly desirable as the payouts have no direct impact on a country's debt stock. Examples of such facilities include indemnity and parametric insurance. Jamaica currently has coverage under the Caribbean Catastrophic Risk Insurance Facility - Segregated Portfolio Company (CCRIF-SPC) facility, a parametric insurance scheme which covers three main hazards – earthquakes, tropical cyclones and excess rainfall.

Policy Objective 2.3: Develop the Local Insurance Market through Increased Access to Affordable, Appropriate Insurance for Households, Businesses and Government

This will improve the financial resilience of the private and public sectors to natural disasters and reduce the implicit contingent liabilities of the Government. The GOJ has various roles in this strategic priority, from promotion of insurance as a cultural practice, supervision and regulation of the market, as well as a purchaser of insurance policies.

Key corresponding strategies include:

2.3a *Enhance availability, penetration, and affordability of private (business and residential) catastrophe insurance, for example, through PPPs, and micro-insurance schemes.*

It is important that the Government and the insurance industry collaborate to expand the penetration of insurance against natural disasters and increase insurance accessibility by vulnerable populations, including women, for enhanced access. The Insurance Association of Jamaica (IAJ) and related bodies are well positioned to partner with the GOJ in designing a PPP for catastrophe insurance. The role of PPPs will be particularly important with respect to ensuring coverage for the most vulnerable, who by industry standards may be considered uninsurable.

2.3b *Enhance data sharing on agricultural and livelihood insurance, promote data capture that includes ways that disasters impact people of different genders and occupations, and develop more robust and affordable products for small farmers, fisher folk, and other marginalized groupings disproportionately impacted by disasters.*

The GOJ does not currently set aside specific funds to deal with the negative impacts that natural disasters have on the agricultural sector, inclusive of fisheries. As a result, any liabilities that the government assumes in order to assist farmers are implicit and ad hoc. The Livelihood Protection Product, which is being implemented under the Caribbean Oceans and Aquaculture Sustainability Facility (COAST) program, funded by the World Bank, in collaboration with the CCRIF-SPC, is one example of a facility that is available to support the post-disaster recovery of the blue economy, namely fisheries.

2.3c *Campaign to encourage private citizens to insure against natural disasters.*

It is important that the Government in collaboration with civil society conducts public awareness campaigns to increase hazard and risk awareness, placing special attention on vulnerable groups; as well as encourage changes in patterns of human behaviour for better decision-making in financial and social protection.

Policy Objective 2.4: Improve Insurance of Public Assets Including PPPs

Most of the public assets, including critical assets such as hospitals and schools, are not currently insured against natural disasters. A national property catastrophe insurance programme for public assets would create economies of scale, diversify risk and thus lower reinsurance premiums. This programme allows the GOJ to more cost effectively finance natural disaster risk by promoting a consistent national policy on insurance of public assets and consolidating coverage into larger policies, consistent with government procurement guidelines on insurance policies.

Key corresponding strategies include:

2.4a *Developing a cadaster or inventory of public assets, including corresponding valuations, across all government.*

This is a pre-requisite for the development of a risk and exposure database for both central and local government. The pooling of risks across the entire government will bring economies of scale and could result in relatively lower premiums.

2.4b *Establish a robust catastrophe risk insurance program for public assets and parastatals*.

Generally, the responsibility of the maintenance of public assets (including natural disaster related) is aligned with the ownership/management of these assets. A general government approach should be taken with respect to disaster risk insurance, with a view to leveraging economies of scale and enhancing efficiency through the pooling of risks. Where public bodies are fully or more than 50% financed from the Budget, consideration should be given to a consolidated insurance of these assets alongside those of central government. The consolidation approach may be adopted on an incremental basis, pending the adoption of a general government framework for disaster risk insurance.

The GOJ will consider a joint initiative to develop:

- Guidelines for public assets insurance, outlining terms and conditions for insurance arrangements, where the GOJ has insurable interest.

- Standard insurance bidding contracts and documents for both broker and insurer.

Public Assets Insurance Guidelines provide insights into the relevant and accurate underwriting information to be provided to insurers. This reduces uncertainty on the part of insurance companies, and thereby enables better terms and conditions to be obtained. For all public assets, insurance against natural disasters, terms and conditions should be standardized with up-to-date language and based on international best practice.

2.4c *Institutionalize PPP insurance*

The basic principles of risk allocation are based on the concept that these should be assumed: (a) by the party that is best able to evaluate, control and manage them; and/or (b) by the party that has better access to protection, mitigation and diversification of instruments. This ensures that the party with the greatest capacity to mitigate risks has adequate incentives to control the impact they generate on the project.

The GOJ through DBJ and MOFPS PPP Unit will work on:

- Developing a standard insurance section to be included in the PPP procurement documentation and contract.

- Developing guidance for considering climate risk in the procurement of insurance.

Policy Objective 2.5: Enhance management of implicit contingent liabilities related to Social Protection (SP)

Social protection is an essential role of the Government. During times of natural disasters, the spending obligation relating to the provision of relief for the most vulnerable groups in society increases considerably. Flexible SP systems that are disaster-triggered and linked to DRM systems and contingent financing have the potential to reduce the administrative and financial burden of governments when responding to disasters. Scalable programs with built-in risk mitigation and risk financing mechanisms can respond quickly to beneficiary needs within existing systems. These programs provide immediate assistance to the poor and vulnerable; protect development gains by preventing people from falling back into poverty after a disaster; and promote shared prosperity through better targeting, focusing on underlying factors affecting inequality, such as gender.

Key corresponding strategies include:

2.5a *Strengthen the coordination system between social protection and DRM initiatives*

The Government will liaise with relevant stakeholders to improve the records of social protection beneficiaries and capture, to the extent possible, disaggregated data by gender. This would enable a better assessment of the potential losses and consequent interventions which may be required in the aftermath of a natural disaster.

2.5b *Explore the feasibility of a disaster risk financing mechanism that targets SP*

Disaster risk financing instruments that are linked directly to SP programs will build the capacity of the Government to provide timely and focused assistance to affected vulnerable populations following a disaster. In addition, such mechanisms are likely to prevent severe budgetary disruptions.

POLICY AREA 3: BUILDING INSTITUTIONAL CAPACITY

The Sendai Framework as well as the MTF 2018 – 2021 recognizes the urgent need for capacity building with respect to management of risks related to natural disasters. For the purpose of the DRF policy, institutional capacity building entails improving competence in identifying and quantifying fiscal risks, including contingent liabilities related to natural disasters as well as strengthening capacity to evaluate alternative DRF instruments.

Policy Objective 3.1: Strengthen the institutional capacity of the MOFPS and broader public sector in relation to disaster risk financing.

This priority promotes the assignment of staff dedicated to disaster risk financing and mainstreaming financing for disasters into general fiscal risk considerations and debt management.

Key corresponding strategies include:

3.1a Engage IDPs for technical assistance to implement this policy objective

3.1b Deepen engagement with stakeholders

Through peer learning and knowledge sharing, a deeper engagement with stakeholders will assist in forming a comprehensive view of the disaster risks associated with sectorial interests such as farmers and fisher-folk, real estate developers, manufacturers, *inter alia;* while greater dialogue with financial sector interests will help to identify risk financing opportunities.

3.1c Ensure staff are adequately trained in DRF and related areas

The main focus will be on skill development for staff of the MoFPS and the wider public sector, primarily in the critical areas of: financial and risk modelling, identification and quantification of fiscal risks and public policy development.

Policy Implementation: Governance and Institutional Framework

The Governance and Institutional Framework for the Policy resides with the Policy Steering Committee convened to oversee development of the Policy through to its tabling in the Houses of Parliament. The PSC's Terms of Reference (ToR) will be revised to include oversight of the implementation of the Policy, including the establishment of Thematic Working Groups to oversee each of the three broad policy areas. The PSC has representatives from key, relevant stakeholders; however, ownership resides with the Ministry of Finance and the Public Service. Some additional considerations involve the establishment of a monitoring mechanism for the implementation plan and the development of a communication strategy to create public awareness. The MoFPS, under the direction of the PSC, will also conduct progress reviews in a timely and efficient manner. The following table outlines the lead and supporting agencies, their roles, human resource (HR) needs and associated budget, if applicable:

Table 2 – DRF Assignments by Agency

Agencies	Roles	HR Needs	Budgetary Resources
MoFPS – FPMB	Fiscal Risk Analysis Research to inform DRF Products or Instruments Establishment of the Legislative Agenda to Give Effect to the DRF Policy Reporting on Policy Implementation via the M&E function (Fiscal Policy Papers) Monitoring of DRF Funds Collaborate with key stakeholders Develop a costed training needs and development plan for capacity building in collaboration with the Ministry's Corporate Services' Training Unit Secretariat to the PSC	Staff responsible for DRF Chief Risk Officer	$---- S----
MoFPS – Debt Management Branch	Review of products for DRF and implications for public debt	No new position required	No added budgetary needs

	Undertake DSAs incorporating DRF instruments (loans/bonds eg Catastrophe bonds, CAT-DDO)		
MoFPS – Public Expenditure Division (PEX)	Ensure guidelines for post-disaster expenditure are followed	No new position required	No added budgetary needs
MoFPS – PED	Explore the feasibility of a catastrophe risk insurance program for public entities	No new position required	No added budgetary needs
MoFPS – PXPC	Create a Public Assets Register Conduct an Insurance policy review for public bodies Develop a catastrophe risk insurance policy for critical public infrastructure	No new position required	No added budgetary needs
Accountant General's Department	Manage and report on the balances and transactions of DRF Funds under its management	No new position required	No added budgetary needs
ODPEM	Manage and report on the NDF Make necessary amendments to the DRM Act and enact Regulations Conduct an actuarial assessment of the NDF to determine adequacy and capitalization needs Consider adjusting the remit of the NDF to local level events	No new position required	No added budgetary needs
PIOJ	Monitor MTF-related DRF activities linked to Vision 2030 Jamaica National Development Plan	No new position required	No added budgetary needs
Cabinet Office	Monitor policy implementation to update the status of this policy	No new position required	No added budgetary needs
Ministry of Economic Growth and Job Creation	Monitor climate change policy actions consistent with achieving the policy objectives	No new position required	No added budgetary needs
Auditor General's Department	Audit of DRF Funds and Contingencies Fund	No new position required	No added budgetary needs
Municipal Corporations	Collect and pay of 1% of Building Fees into the NDF	No new position required	No added budgetary needs
Ministry of Local Government and Rural Development	Liaise with FPMB and ODPEM with regard to amendments to the DRM Act or enactment of Regulations to operationalize certain aspects of the policy	No new position required	No added budgetary needs

MLSS	Coordinate regarding the social protection aspects of DRF	No new position required	No added budgetary needs
Ministry of Health and Wellness	Liaise with MOFPS for the strengthening of health, emergency preparedness and response	No new position required	No added budgetary needs

Table 3: Preliminary Un-costed Implementation Plan

Policy Areas (PA) Policy Objectives (PO) Policy Strategies (PS) Sustainable Development Goals (SDGs)	SENDAI COMPLIANCE	SDG COMPLIANCE	GOALS	GUIDING PRINCIPLES	SHORT-TERM	MEDIUM-TERM	LONG-TERM	PERFORMANCE INDICATOR	AGENCY	COSTS	RISK LEVEL	RISK TYPE	MITIGATING ACTION
			G1, G2, G3, G4	GP1, GP2, GP3, GP4	Less than a year	Between 1 and 3 years	Over 3 years	Specific, Tangible Outputs that can be monitored	Mainly the Ministry of Finance and the Public Service but applicable to any Ministry, Department or Agency within the Government of Jamaica		Risk to implementation - H for High, M for Medium & L for Low	Multiple Risks Exist, including Financial, Human, Technological Legislative, Information,inter alia	
PA1 - Budgeting for DRF - Data, Processes & Systems	●	●											
PO1.1 - Identify, understand and quantify the economic and fiscal impacts of disasters in Jamaica on the government, business and people													
PS 1.1a - Streamline damage and loss data collection and reporting systems across ministries for all severities of events; building on what the PIOJ can do post-disaster						MT		Comprehensive Damage & Loss (D&L) Reporting System for Whole of Government in place	PIOJ/ODPEM		M	Financial, Human & Technological	
PS 1.1b - Take stock of existing risk analytics tools and investing in one, or a group of tools that can be continuously updated to reflect changes in exposure and vulnerability to enable better informed decision-making processes.			●				LT	At least one generic analytic tools implemented and being systematically used by FPMB	MoFPS - FPMB		L	Financial, Human & Technological	
PS 1.1c - Develop an inventory of exposure and public assets				●		MT		Inventory of public assets in place and publicly available online	MoFPS - PXPC & PED		L	Data/Information	
PS 1.1d - Identify and asess contingent liabilities relating to natural disasters			● ●	●		MT		i) FAA and PBMA Acts amended to recognize both implicit and explicit contingent liabiliities ii) Comprehensive catalogue of contingent liabilities developed and updated annually	MoFPS - FPMB		L	Legislative, Data/Information	
PO1.2 - Achieve greater efficiency and transparency in the mobilization and execution of public expenditure in disaster risk management													
PS 1.2a - Periodically update Post Disaster Budget Execution Guidelines to accurately capture the actors, systems, and various sources of financing			● ●	●	ST			Updated Manual approved and publicly available	MoFPS - PEX		L	Human Resource	
PS 1.2b - Improve tracking of disaster-related expenditure to facilitate decision-making and analysis through institutional capacity building			●	●	ST			FAA Regulation amended to incorporate disaster-related budget tagging or Financial Instructions issued	MoFPS - PEX		L	Legislative/Human	
PS 1.2c - Review the investments of the NDF annually to ensure that they are still in keeping with the remit set out in the DRM Act of 2015.			●	●	ST			Audited investment report produced	MLGRD - ODPEM		L	Data/Information	
PO1.3 - Implement budgeting to promote disaster risk financing at municipal and sectoral levels													
PS 1.3a - Integrate contingent liabilities in the budgetary planning process based on potential losses to natural disasters			●	●		MT		Central Government and Public Bodies Estimates of Expenditure account for Contingent Liabilities (CLs)	MoFPS - PED,PEX,FPMB		L	Humam,Technical, Data/Information	
PS 1.3b - Apply rule for accounting of contingent liabilities based on International Public Sector Accounting Standards (IPSAS)			●	●		MT		IPSAS being applied and disclosed in Estimates	MoFPS - FPMB		M	Human & Technical	
PO1.4 - Incorporate disaster risk analysis in public sector investments and planning, from a physical planning perspective													
PS 1.4a - Incorporate hazard risk assessments in evaluations conducted by the Public Investment Management Secretariat (PIMSEC) of public investment project feasibility			●	●	ST			Project Concept Note and Project Proposals updated to incorporate disaster risk analysis and publicly available online	MOFPS/PIOJ/PIMSEC		L	Human & Technical	

Policy Areas (PA) Policy Objectives (PO) Policy Strategies (PS) Sustainable Development Goals (SDGs)	SENDAI COMPLIANCE	SDG COMPLIANCE - GOAL 13	GOALS G1, G2, G3, G4	GUIDING PRINCIPLES GP1, GP2, GP3, GP4	SHORT-TERM Less than a year	MEDIUM-TERM Between 1 and 3 years	LONG-TERM Over 3 years	PERFORMANCE INDICATOR Specific, Tangible Outputs that can be monitored	AGENCY Mainly the Ministry of Finance but applicable to any ministry, department or agency within the Government of Jamaica	COSTS	RISK LEVEL Risk to implementation - H for High, M for Medium & L for Low	RISK TYPE Multiple Risks Exist, including Financial, Human, Technological Legislative, Information, *inter alia*	MITIGATING ACTION
PA2 - Building Financial and Disaster Risk Resilience													
PO2.1 - Identify and evaluate alternative DRF instruments to determine an optimal suite													
PS 2.1a - Explore existing and emerging options for disaster risk financing						MT		Report on assessment of existing and emerging options for DRF provided annually	MoFPS - DMB/FPMB		M	Technical & External	
PS 2.1b - Conduct cost benefit and gap analysis					ST			Report on Cost-Benefit analysis provided	MoFPS - FPMU		M	Human & Technical	
PO2.2 - Implement a suite of DRF instruments													
PS 2.2a - Explore options for financing structural resilience							LT	Adoption of at least one financial instrument directly related to resilience	MOFPS, MHURECC		M	Technical	
PS 2.2b - Establish adequate buffers for DRF expenditures							LT	Establishment of national disaster reserve fund	MOFPS		M	Financial	
PS 2.2c - Secure ex-ante (flexible) financing facilities for DRF							LT	Adoption of at least one ex ante financial instrument	MOFPS		M	Financial	
PS 2.2d - Secure alternative catastrophic risk transfer instruments						MT		Adoption of at least one alternative catastophic risk transfer intstrument	MOFPS		M	Financial, Technical, External	
PO2.3 - Develop the local insurance market through inreased access to affordable, appropriate insurance for households, businesses and government													
PS 2.3a - Enhance availability, penetration, and affordability of private (Business and residential) catastrophe insurance, for example, through PPPs, and micro-insurance schemes							LT	At least one facility established for private catastrophe insurance; and at least one micro-insurance scheme adopted for vulnerable groups such as fisherfolk, farmers, etc	MoFPS - PXPC & IAJ		H	Financial, Technical & External	
PS 2.3b - Enhance data sharing on agricultural and livelihood insurance and develop more robust and affordable products for small farmers, fisher folk, and other marginalized economic groupings						MT		At least two Livelihood Protection Products (LPP) available to occupational groups most vulnerable to natural disaster	MoFPS - MICAF		L	Data/Information	
PS 2.3c - Campaign to encourage private citizens to insure against natural disasters						MT		Launch at least one public awareness campaign			M	Financial/Ownership	
PO2.4 - Improve insurance of public assets including PPPs													
PS 2.4a - Developing a cadaster or inventory of public assets, including corresponding valuations, across all government.						MT		Inventory of public assets created	MoFPS - PED, PXPC		M	Data/Information, Financial	
PS 2.4b - Establish a robust catastrophe risk insurance program for public assets and parastatals							LT	Program in place for, at a minimum, the most critical infrastructure	MoFPS - PED, PXPC		H	Financial & Technical	
PS 2.4c Institutionalize PPP insurance						MT		i) A standard insurance chapter developed and included in the PPP bidding process and contract ii) Guidelines for incorporating climate risk, procuring of insurance (including terms and conditions for insurance for PPP) developed	MoFPS - PED (PPP Unit)		M	Human	

Policy Areas (PA) Policy Objectives (PO) Policy Strategies (PS) Sustainable Development Goals (SDGs)	SENDAI COMPLIANCE	SDG COMPLIANCE - GOAL 13	GOALS	GUIDING PRINCIPLES	SHORT-TERM	MEDIUM-TERM	LONG-TERM	PERFORMANCE INDICATOR	AGENCY	COSTS	RISK LEVEL	RISK TYPE	MITIGATING ACTION
			G1, G2, G3, G4	GP1, GP2, GP3, GP4	Less than a year	Between 1 and 3 years	Over 3 years	Specific, Tangible Outputs that can be monitored	Mainly the Ministry of Finance but applicable to any ministry, department or agency within the Government of Jamaica		Risk to implementation - H for High, M for Medium & L for Low	Multiple Risks Exist, including Financial, Human, Technological Legislative, Information,*inter alia*	
PS 2.5a - Strengthen the coordination system between social protection and DRM initiatives						MT		Establishment of a National SP beneficiary registry, leveraging technology to facilitate data linkages among agencies	MLSS, MLGRD, MoFPS		M	Data/Information, Human	
PS 2.5b - Explore the feasibility of a disaster risk financing mechanism that targets SP						MT		Feasibility study conducted	MLSS, MLGRD, MoFPS		L	Data/Information, Human	
PA3 - Building Institutional Capacity PO3.1 - Strengthen the institutional capacity of the MOFPS and broader public sector in relation to disaster risk financing													
PS 3.1a - Engage international development partners (IDPs) for technical assistance to implement this policy objective						MT		At least one Technical Assistance Program dedicated to building DRF capacity in the MoFPS, specificlly, and across Government	MoFPS		M	Technical & External	
PS 3.1b - Deepen engagement with stakeholders						MT		At least one joint stakeholder knowledge-sharing activity undertaken each year	MoFPS/MICAF/IAJ et al		L	Technical, Data/Information & External	
PS 3.1c - Ensure staff are adequately trained in DRF and related areas						MT		DRF Capacity Building Program developed and operational	MoFPS - Corporate Services & IDPs		M	Financial, Human & Technical	

GOALS

Goal 1: To make Disaster Risk Financing (DRF) more adequate, cost-effective, scalable, inclusive and timely for the Government of Jamaica (GoJ) through the use of a diversified menu of both ex ante and ex post DRF instruments

Goal 2: To mainstream DRF in the Consolidated Budget (Central Government Estimates and Estimates for Public Bodies) at all levels of Government

Goal 3: To build the institutional capacity to optimize DRF measures Government-wide

Goal 4: To make DRF data-driven and adaptive to future trends and realities

GUIDING PRINCIPLES

GP1: Proactive & Responsive to Natural Disasters

GP2: Fiscal responsibility in responding to natural disasters

GP3: Fiscal sustainability in managing the fiscal costs associated with natural disast

GP4: Physical & Human Resilience Building to Mitigate the Fiscal Cost of Natural Disasters

Monitoring and Evaluation Framework

The National Natural DRF Policy includes an Implementation Plan which allows for annual monitoring and reporting on the extent to which the policy is being delivered by the GoJ. The Policy Steering Committee (PSC) can be continued or reconvened to review the results of this annual exercise and to either endorse the findings or request additional work be done.

Each year, the Policy will be reported on in the annual and interim FPP that is tabled in Parliament. The MTF will also incorporate progress made with respect to DRF and will further elaborate on the Implementation Plan in its next iteration. This will allow for policy monitoring and an evaluation of its contribution to national goals, outcomes and international frameworks to which Jamaica is a signatory.

Table 4 – Monitoring and Evaluation Framework

M & E Approach	Actor(s)	Timelines	Key Deliverables
National Budget Cycle Framework	FPMB	Semi-Annual Annual	Interim Fiscal Policy Paper Fiscal Policy Paper
National Planning Framework	Plan Development Unit, PIOJ	Tri-ennial Updates	MTF 2021 – 2024 Updated M&E Framework
	Vision 2030 Jamaica PIOJ	Annual	Annual Progress Report
National Policy Framework	Cabinet Office	Annual	Policy review and update

Policy Implementation: Opportunities for Mainstreaming

The National Natural DRF Policy is influenced by risks associated with climate change and its imperatives being advanced globally. Climate change has accelerated global warming and sea level rise, altered climate patterns around the globe and increased the frequency and intensity of extreme weather events. .

The policy promotes positive environmental benefits, to be derived from increased investments in structural and economic resilience. Building resilience to climate and disaster risk is essential to achieve national sustainable development. In this regard, the National Natural DRF Policy seeks to advance not only Jamaica's green economy but also its blue economy by recognizing that both the green and blue economy are integral to sustainability, resilience and economic growth.

This policy focuses primarily on measures to finance the impact of a natural disaster, both *ex ante* and *ex post*. While there are no direct ways to incorporate gender and youth mainstreaming, the DRF policy takes account of disaster-linked social protection, recognizing the disproportionate impact of disasters on vulnerable groups, including women, youth and the elderly.

Evaluating the extent to which natural disasters impact persons of different gender, as well as youth, is one way in which the DRF Policy can be strengthened and used as a tool to communicate the policy through advocacy by these particular constituents.

Policy Implementation: Legislative Framework

The Jamaican Constitution, 1962

The Jamaican Constitution has provided much of the fiscal backbone for the country's fiscal operations. The Constitution also establishes both the Consolidated Fund and the Contingencies Fund which are important vehicles for disaster risk financing. In addition to outlining what the Consolidated Fund and the Contingencies Fund ought to do, it also prescribes other definitions and parameters for operating.

The Constitution establishes the definition of a national emergency and the circumstances under which it is invoked. Section 20(2)(c) of the Constitution defines a period of public disaster as one that has: "arisen as a result of the occurrence of any earthquake, hurricane, flood, fire, outbreak of pestilence, outbreak of infectious disease or other calamity, whether similar to the foregoing or not". This period has an initial duration of fourteen days, post-event, subject to a Proclamation of public disaster by the Governor General. Thereafter, the period can be extended up to but no longer than three months by affirmative resolution of a two thirds majority of the members of both Houses of Parliament. Any subsequent resolution cannot exceed three months at a time and can be similarly revoked in the same manner of approval – by a two thirds majority of both Houses of Parliament. The Constitution provides the legislative arm of Government (the legislature) with the authority to extend the period of public disaster to cover recovery, in the first instance. The FAA Act and the DRM Act[11] provides legal recourse for expenditure responses, to the extent that the financing is available.

Financial Administration and Audit (FAA) Act, 2014

Section 48 of the FAA Act, the Fiscal Responsibility Framework, particularly sections 48C and 48CA, are most applicable to DRF in Jamaica because specific fiscal targets are established that may be negatively impacted by natural disasters. These targets are couched within a framework whereby there is accountability by various agencies of Government to restore the country to a sustainable fiscal path. These agencies include the MoFPS, the BoJ, the PIOJ, the Auditor General's Department and the Jamaican Parliament.

The FAA Act is where the Consolidated Fund and the Contingency Fund are operationalized as extensions of the Jamaican Constitution. The proposed disaster reserve fund will be institutionalized in law, within Section 48 of the FAA Act and consideration given to whether or not the weather-related provision should be repealed given the increase in the ceiling on the Contingencies Fund.

Disaster Risk Management (DRM) Act, 2015

The DRM Act establishes the NDF and outlines how the NDF is funded, governed, used, invested, and audited, among other things. The NDF is another means of enhancing DRF and there are specific actions for implementation which will help to make the fund more visible in terms of how it treats with its legal mandate and responsibilities.

Public Bodies Management and Accountability (PBMA) Act

The PBMA is important for the purpose of outlining what contingent liabilities are and how they should be treated from an accounting perspective. The definition of contingent liabilities needs to be expanded to distinguish between implicit and explicit contingent liabilities.

Public Debt Management (Amendment) Act (PDMA), 2017

Although a definition for contingent liabilities as well as for explicit contingent liabilities exists in the PDMA, 2017, there may be need for a revision to remove the exclusive reference to public bodies.

Government of Jamaica Public Procurement Handbook, 2014

Volume 4 (revised 2016) is important because it provides Procedures for the Procurement of General Insurance Services as well as thresholds for these procurements. In addition, the Public Procurement Act, 2015 (and its amendments) establishes the governance framework for public procurement of insurance.

Building Act, 2018

The Building Act establishes what an emergency is, in respect of which the local authorities (municipal corporations, health officials, security officials) are required to intervene to protect human life and property through a coordinated effort.

The Act establishes the supremacy of the building code not only for buildings erected after its passage but prior to its passage. It also identifies staff within municipal corporations as protectors of the law and the Building Code. The National Building Code provides minimum standards which must be adhered to and to which the staff of the municipal corporations have to register compliance, based on observations, etc. The Bureau of Standards is expected to also contribute to the process by ensuring that the standards are in keeping with good practice.

While the Act speaks to the construction of environmentally friendly and energy efficient buildings, it does not make direct mention of climate change and disaster resilience in building constructions.

Fisheries Act, 2018 (relevance to the Blue economy)

The Fisheries Act does not define the blue economy or climate change, to which it applies. Section 21 establishes the Fish Habitat Protection Order but does not recognize a natural disaster as an event that can disrupt the fish habitat. Rather, it recognizes human action as the disruptor.

Given the importance of the blue economy to Jamaica and the risks posed by natural disasters to its sustenance, the Fisheries Act needs to be amended to reflect this as a priority.

National Insurance Act (2016)

The National Insurance Act (2016) is important for the purpose of strengthening the government's ability to implement measures that contribute to greater financial and social protection against disasters, including those related to large health-shocks such as epidemics and pandemics.

National Health Fund Act (2003)

The National Health Fund (2003) is important as it incorporates considerations for the financial protection and strengthening of national health infrastructure and system, specifically in response to large health-shocks.

The Poor Relief Act

The Poor Relief Act is important for the purpose of strengthening the human services management approach to poor relief and in response to disasters.

Policy Implementation: Linkages with Other Policies

International Agreements

The Paris Agreement on Climate Change

United Nations Framework Convention on Climate Change (UNFCCC)

Sendai Framework

Sustainable Development Goals (SDGs)

International Health Regulations (IHR)

National Planning Framework

Vision 2030 National Development Plan

Medium Term Socio-Economic Policy Framework 2018-2021

National Policies

National Gender Policy, 2011

Revised National Youth Policy, 2017-2030

Change Policy Framework and Adaptation Plan (Green Paper), 2013

National Strategies

Growth Agenda

Jamaica National Strategy on Resettlement Related to Disaster Risk Management and Climate Change Adaptation (February 2018)

Jamaica Social Protection Strategy (2014)

Conclusion

A Policy is the highest-level articulation of a country's intent to pursue a course of action. The National Natural DRF Policy signals the Government's intent to mainstream DRF throughout the budgeting process and implement cost-effective financing, utilizing ex ante, ex post, short, medium and long term measures as part of a diversified portfolio. To achieve these goals and deliver data-driven and adaptive DRF in a dynamic global context of climate change and large scale health-shocks, investment in capacity building is imperative; both at the level of the institution and the individual. The broad Policy Areas, Objectives and Strategies formulated under this policy aim to build a new paradigm of disaster risk financing. By the next iteration of this Policy, DRF may be operating in a new frontier. This Policy should enable Jamaica to be ready.

Appendices

Methodology

The methodology is three-pronged:

1. There is desk review of existing literature, particular national plans, national policies, national strategies, national M&E Frameworks, legislation, regulations and international and regional literature on DRM, DRR and DRF.

2. There is historical data analysis, pulling on primary data such as Estimates of Expenditure, Supplementary Estimates, Fiscal Policy Papers and Public Sector Investment Programmes (PSIPs).

3. Lastly, there is consultation with as diverse a stakeholder base as possible to ensure that the Policy is representative and not limited to practitioners only.

Acknowledgements

The National Natural Disaster Risk Financing Policy has been developed through a consultative process geared at receiving inputs from key stakeholders in the process – those involved in allocating budgetary resources; those tasked with developing insurance products to mitigate disaster risk and build resilience; those tasked with researching natural disasters and climate change; those impacted by both the impacts of natural disasters – whether brought on by climate change or other triggers. The Policy recognizes that the Ministry of Finance and the Public Service, though it is responsible for the budget, is not the only constituent affected and that a silos approach will not deliver the DRF objectives outlined in the Policy.

The policy development process was overseen by the Policy Steering Committee, comprised of individuals with varying types of expertise, experience and insights. These individuals were committed to the development of the policy and gave of their time and intellectual capital to ensure that the policy reflects a balanced view of where the implementation of the policy should take the country.

There were numerous stakeholders who contributed significantly to the policy, including: the Ministry of Finance and its various divisions; the Cabinet of Jamaica, including the Economic Growth and Job Creation Committee; the Cabinet Office; the Private Sector Organization of Jamaica; the Insurance Association of Jamaica; the Attorney General's Chambers; the Houses of Parliament; other public entities, including public bodies directly impacted by the policy; civil society; academia; the general public; international development partners; and, last but not least, the general public who heard our calls to contribute and answered, through the various communication channels, including social media and at the Select Committee of Parliament convened to review the White Paper.

The country thanks you for taking the time to contribute to this very important process, especially given the impacts of climate change and the implications it poses for small island developing states such as Jamaica which are particularly exposed and, thereby vulnerable, to the impacts of natural disasters.