

PAPUA NEW GUINEA DISASTER RISK FINANCING STRATEGY 2026–2030

**” Building Sovereign Financial Resilience Against Natural Hazards
and Climate-Related Shocks”**

Government of Papua New Guinea
Department of Treasury

**In partnership with the National Disaster Centre / National Emergency Management
Authority, relevant line agencies and development partners**

2026

Acronyms

AAL: Average Annual Loss
BPNG: Bank of Papua New Guinea
BSP: Budget Strategy Paper
Cat DDO: Catastrophe Deferred Drawdown Option
CCDA: Climate Change and Development Authority
CEFI: Centre for Excellence in Financial Inclusion
DAL: Department of Agriculture and Livestock
DFAT: Department of Foreign Affairs and Trade
DNPM: Department of National Planning and Monitoring
DoF: Department of Finance
DoT: Department of Treasury
DP: Development Partner
DPLGA: Department of Provincial and Local Government Affairs
DRF: Disaster Risk Financing
DRFS: Disaster Risk Financing Strategy
DRM: Disaster Risk Management
DRR: Disaster Risk Reduction
DSA: Debt Sustainability Analysis
EM-DAT: Emergency Events Database
FRDP: Framework for Resilient Development in the Pacific
GDP: Gross Domestic Product
GEDSI: Gender Equality, Disability and Social Inclusion
GMD: Geohazards Management Division
GoPNG: Government of Papua New Guinea
IMF: International Monetary Fund
IRIS: Infrastructure for Resilient Island States
KPI: Key Performance Indicator
LDIMS: Loss and Damage Information Management System
LLG: Local-level Government
MSME: Micro, Small and Medium Enterprise
MTDP: Medium-Term Development Plan
MTDS: Medium-Term Debt Strategy
MTFS: Medium-Term Fiscal Strategy
NAP: National Adaptation Plan
NDC: National Disaster Centre
NDC 3.0: Nationally Determined Contribution 3.0
NDCom: National Disaster Committee
NDRRF: National Disaster Risk Reduction Framework
NEC: National Executive Council
NEMA: National Emergency Management Authority
NPC: National Procurement Commission
NRR: National Risk Registry

NWS: National Weather Service
OIC: Office of the Insurance Commissioner
PDC: Provincial Disaster Committee
PDNA: Post-Disaster Needs Assessment
PFM: Public Financial Management
PG: Provincial Government
PGK: Papua New Guinea kina
PICAP: Pacific Insurance and Climate Adaptation Programme
PIM: Public Investment Management
PIP: Public Investment Programme
PNG: Papua New Guinea
RACI: Responsible, Accountable, Consulted and Informed
SDGs: Sustainable Development Goals
SOP: Standard Operating Procedure
TA: Technical Assistance
UNCDF: United Nations Capital Development Fund
UNDP: United Nations Development Programme
USD: United States dollar
WB: World Bank

CONTENTS

Executive Summary	5
1. Introduction.....	6
1.1 PNG's Disaster Risk Profile	8
1.2 Social Impacts of Disaster	9
1.3 Economic and Fiscal Impacts of Disasters	10
1.4 Need for Disaster Risk Financing Strategy.....	11
2. Legal and Institutional Framework for Disaster Risk Management	14
2.1 Policy Framework for Disaster Risk Management	14
2.2 Policy Framework for Public Financial Management of Disasters	14
3. Vision and Mission Statement	15
3.1 Vision.....	15
3.2 Mission statement.....	15
3.3 Core values	15
3.4 Basic Principles	15
3.4.1 Timeliness of Funds	15
3.4.2 Layering Financial Instruments to address different disaster risks	16
3.4.3 Data Accuracy	16
4. Strategic Priorities.....	16
4.1 Embed Disaster Risk Management and Financing in the Macro-Fiscal Framework.....	16
4.1.1 Existing risk assessments	17
4.2 Reduce the Post-Disaster Funding Gap	21
4.2.1 Current Post-Disaster Financing Mechanism in Papua New Guinea.....	21
4.3 Strengthening Enabling Institutions and Governance for DRF	23
5. Strategic Outcomes and Performance Targets	24
6. Implementing institutions.....	25
6.1 Implementation Plan	26
6.2 Stakeholder Engagement and Validation	27
7. Critical Success Factors	27
8. Monitoring and Evaluation	27
9. Five-Year Implementation Plan 2026–2030.....	28
10. References	35

EXECUTIVE SUMMARY

Papua New Guinea faces a material sovereign fiscal risk from disasters and climate-related shocks. The latest IMF disaster risk financing assessment estimates average annual economic losses from macro-critical climate and disaster shocks at about 1.75 percent of GDP, with an estimated Average Annual Loss (AAL) of approximately US\$337 million. Severe events can generate losses far beyond annual contingency resources and place pressure on fiscal space, debt sustainability and development spending.

This Strategy shifts the Government from a predominantly reactive, event-driven financing model toward a proactive, risk-layered disaster risk financing (DRF) framework that protects fiscal sustainability, maintains essential services, supports resilient investment and improves the speed, predictability and accountability of financing across preparedness, anticipatory action, emergency response, early recovery and reconstruction.

The 2026–2030 implementation focus is to: (i) integrate disaster fiscal risk into macro-fiscal planning and the annual budget; (ii) establish clear risk-layering decision rules and pre-arranged financing; (iii) strengthen disaster expenditure tracking and an Annual Disaster Fiscal Risk Statement; (iv) improve national and sub-national risk and loss information; (v) strengthen insurance and risk-transfer arrangements; (vi) establish clear institutional responsibilities; and (vii) link implementation to measurable targets, annual reporting and adaptive review.

1. INTRODUCTION

Papua New Guinea (PNG) is among the world's most disaster-prone countries, exposed to a complex and interacting geological, hydrometeorological and climate-related hazards. The country's risk profile encompasses high-magnitude earthquakes, volcanic eruptions, tsunamis, landslides, riverine and coastal flooding, droughts, tropical cyclones and climate variability associated with El Niño and La Niña. These hazards interact with structural vulnerabilities arising from PNG's dispersed geography, mountainous terrain, limited transport connectivity, infrastructure deficits, rapid demographic change, poverty, weak land-use planning, constrained public-service coverage and limited institutional capacity.

Papua New Guinea faces significant macro-critical fiscal and economic risks from disasters and climate-related shocks. The latest 2026 IMF assessment indicates that these shocks impose an annual economic cost of approximately 1.75 percent of GDP. Disaster losses also create contingent liabilities through damage to public assets, disruption of government services, emergency expenditure and reconstruction requirements.

The historical record demonstrates the scale of the challenge. Between 2000 and 2024, PNG recorded 59 disaster events, affecting more than 3.8 million people and causing 1,657 deaths, with reported adjusted damages of approximately US\$252.5 million. The 2015–16 drought affected approximately 2.52 million people, while the 2018 earthquake affected more than 544,000 people and generated initial damages estimated at approximately US\$61 million. The 2024 Enga landslide resulted in more than 2,000 deaths and damages estimated at approximately US\$130 million. The IMF assessment cautions that these estimates are likely conservative because PNG's loss and damage data remain incomplete.

The macro-fiscal implications are material. A modelled shock comparable to the 2018 earthquake indicates that, in the absence of additional pre-disaster resilience investment, real GDP could decline by 2.2 percent on impact, followed by a slow and incomplete recovery, while public debt rises sharply toward the statutory debt limit as reconstruction pressures materialise. This demonstrates that disaster risk is not simply an emergency-management issue: it is a macro-critical sovereign fiscal risk with implications for debt sustainability, capital accumulation, public investment efficiency, economic growth and long-term development.

The central challenge for PNG is therefore to transition from a predominantly reactive, event-driven and development-partner-dependent financing model toward a proactive, sovereign risk-financing architecture. The current system relies heavily on contingency appropriations, budget reallocations, supplementary budgets and development-partner support. While these mechanisms can provide liquidity for smaller and more frequent disasters, they are insufficient for severe events. The IMF analysis indicates that the existing Contingency Fund may cover response costs for events up to approximately a 1-in-5-year return period, while combining the Contingency Fund with the existing Catastrophe Deferred Drawdown Option (Cat DDO) could increase coverage

toward a 1-in-25-year event. However, the Cat DDO's actual trigger is based on a qualifying declaration of emergency rather than a probabilistic return period.

The principal residual financing risk lies in reconstruction, rather than immediate relief and response. A disaster with a 10 percent annual probability of occurrence is estimated to generate infrastructure losses equivalent to approximately the entire annual capital expenditure envelope, while a 1-in-100-year event could require more than three years of capital spending to restore damaged infrastructure. Without pre-arranged financing, the Government is exposed to significant budgetary reallocation friction, whereby scarce development capital is redirected toward reconstruction, delaying infrastructure expansion and weakening the economy's productive capital stock.

This Strategy therefore establishes a risk-layered sovereign DRF framework. DRF is a component of the wider disaster risk management financing architecture and complements, rather than replaces, regular budget allocations for disaster risk reduction, preparedness, early warning, climate adaptation, resilient public investment and service delivery. The framework distinguishes financing of disaster losses from financing measures that reduce or prevent those losses.

- frequent and lower-severity events are financed primarily through budgetary contingencies and fiscal buffers;
- moderate shocks are addressed through contingent financing and pre-arranged liquidity facilities;
- severe and infrequent catastrophes are managed through risk transfer instruments, including regional catastrophe insurance, parametric insurance and, subject to feasibility, capital-market instruments;
- reconstruction is supported through multi-year fiscal planning and protected investment envelopes;
- vulnerable households and communities are increasingly protected through adaptive social protection and disaster-responsive cash transfers;
- private households, farmers and MSMEs are progressively enabled to retain, reduce and transfer their own disaster risks.

The Strategy also recognizes that financial instruments alone cannot create resilience. Risk financing must be integrated with disaster risk reduction, climate adaptation, resilient public investment, land-use planning, building standards, infrastructure maintenance, early warning systems and improved risk information.

The intended outcome is a Government that can respond to disasters rapidly without destabilising the fiscal framework, protect critical public investment, preserve development gains, and ensure that disaster financing reaches affected populations in Provinces, Districts and Local-level Governments (LLGs) in a timely, transparent and accountable manner.

1.1 PNG's Disaster Risk Profile

PNG experiences extreme exposure earthquakes, volcanic eruptions, tsunamis, landslides, flooding, droughts, tropical cyclones, sea-level rise, and climate variability associated with El Niño and La Niña events. According to the World Risk Report 2025, PNG ranks 17th among the countries with the highest disaster risk globally due to the interaction of extreme exposure, infrastructure vulnerability, limited accessibility, and institutional capacity constraints. The country's geographic fragmentation, topography, dispersed rural population, and reliance on export sectors exacerbate vulnerability.

Both fast-onset and slow-onset disasters have accrued significant costs to the country. Since 2000, PNG has experienced 59 climate-related disasters, including droughts, epidemics, floods, landslides, storms, and volcanic activity (Figure 1). More than 3.8 million people have been affected, injured, or made homeless by these disasters (Figure 1) and over 1500 lives have been lost over this period. From 2015 to 2016, PNG experienced a severe drought, and, at high altitudes, repeated frosts caused by the El Niño Southern Oscillation. This event affected over 2.5 million people (almost 30 percent of the population) and damages reached USD 60 million (over 0.2 percent of GDP), imposing large economic and welfare losses (IMF 2025). AusAID (2018) estimated that the 2018 earthquake affected more than 544,000 people and the initial damage alone was approximately USD 61M, although EM-DAT figures are inconsistent with this report. More recently, the landslide in Enga (2024) claimed over 2,000 lives and imposed damages reaching USD130 million (IMF 2025). As is evident, loss and damage data in PNG are sparse and these numbers are likely conservative estimates (IMF 2026).

Figure 1. Natural Disasters in PNG, 2000-2024

Disaster Type	Disaster Subtype	No. of Events	Total Affected	Total Deaths	Total Damage, Adjusted ('000 USD)
Drought	Drought	1	2520000	24	79409
Earthquake	Ground movement	12	579067	209	76203
Epidemic	Bacterial disease	2	2474	130	0
	Viral disease	4	8527	204	0
Flood	Coastal flood	2	75300	0	0
	Flash flood	2	550	9	0
	Flood (General)	3	27300	12	0
	Riverine flood	8	346893	7	36889
Mass movement (wet)	Landslide (wet)	12	18744	889	60000
	Mudslide	1	300	1	0
Storm	Tropical cyclone	4	183685	172	0
Volcanic activity	Ash fall	7	58079	0	0
	Volcanic activity (General)	1	736	0	0
Grand Total		59	3821655	1657	252501

Source: EM-DAT, 2025

Note: Total affected includes people injured, affected, or made homeless.

1.2 Social Impacts of Disaster

Natural disasters impose disproportionate social costs on PNG's rural and vulnerable populations. The country's dispersed settlement pattern, limited road connectivity and high dependence on subsistence agriculture amplify the transmission of disaster shocks from physical hazards into household welfare, food security, health, education and livelihoods.

Between 2000 and 2024, approximately 3.82 million people were affected, injured or made homeless by recorded disasters, while 1,657 lives were lost (EM-DAT, 2025). The largest population impact was associated with the 2015–16 drought and associated frost conditions, which affected approximately 2.52 million people, equivalent to almost 30 percent of the population at the time (IMF 2025).

The social impact of disasters in PNG operates through several interconnected channels:

Food and livelihood security

Droughts, floods, landslides and extreme weather events disrupt agricultural production, destroy food gardens and reduce household income. This is particularly significant given the high dependence of rural communities on agriculture and informal livelihoods. Disaster shocks can therefore:

- reduce household food production;
- increased food prices;
- reduced household purchasing power;
- temporary and permanent livelihood displacement;
- loss of livestock and productive assets;
- reduced rural cash income;
- increased dependence on humanitarian assistance.

Health and human capital

Disasters can damage health facilities, disrupt access to essential medicines and increase the prevalence of waterborne and communicable diseases. The disruption of health and education services can generate persistent human-capital losses, particularly when disasters affect remote communities.

Housing and displacement

Earthquakes, landslides, flooding, volcanic activity and coastal hazards can destroy homes and displace communities. Where relocation is delayed or unavailable, affected households may remain in temporary and unsafe conditions, increasing exposure to secondary hazards.

Education

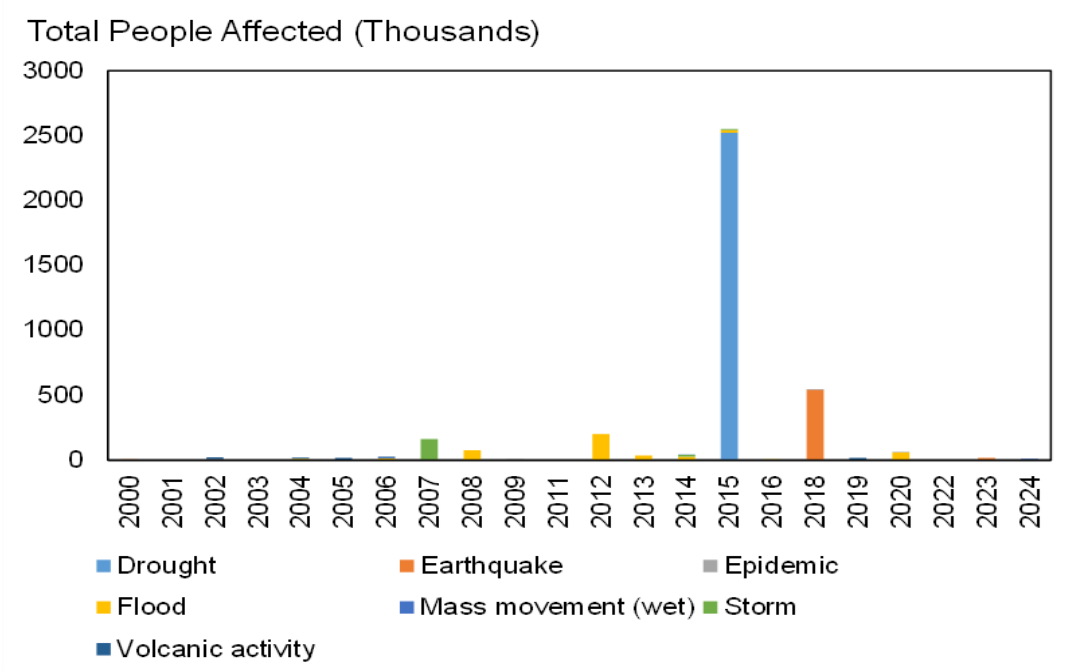
Damage to schools and transport infrastructure can interrupt education services. In remote Provinces and Districts, even relatively small infrastructure losses can produce prolonged service disruptions because of limited alternative facilities.

Gender and vulnerable groups

Disasters disproportionately affect households with limited access to savings, insurance, credit and formal social protection. Women, children, persons with disabilities, elderly populations and remote rural communities may face heightened barriers to accessing relief and recovery resources.

The DRFS will therefore treat social protection as an integral component of sovereign risk financing, rather than as a separate humanitarian function. Disaster financing arrangements should increasingly support adaptive social protection, allowing pre-identified vulnerable households to receive rapid, scalable and transparent assistance following defined disaster triggers.

Figure 2. Total People Affected by Natural Hazards in PNG (1960-2024)



Source: EM-DAT, 2025
Notes: Total People Affected include people injured, affected, or made homeless.

1.3 Economic and Fiscal Impacts of Disasters

Papua New Guinea faces macro-critical fiscal risks from natural disasters that have large and persistent implications for national development and financing. The country’s economic growth, which averaged at around 3.8 to 4.0% per year between 2000–2024, remains highly vulnerable to

natural hazards that consistently damage key sectors such as mining, agriculture, and health and education. Historically, PNG's approach to disaster financing has been reactive, relying on ad-hoc budget reallocations, external debt, and unpredictable donor assistance.

Average annual losses (AAL) from disaster risks are estimated at USD 337 million, equivalent to roughly 1% of GDP. Severe shocks have devastating macroeconomic effects; for instance, a shock comparable to the 2018 earthquake is estimated to result in a real GDP decline of about 2.2%, while public debt rises sharply toward statutory limits as reconstruction pressures materialize. Reconstruction needs for a 1-in-100-year event would require more than three years of the nation's annual capital spending to recover.

Disasters reduce agricultural production, interrupt mining and business activities, damage transport and public infrastructure, and increase government expenditure on emergency response and reconstruction.

The diversion of public resources toward disaster recovery reduces investment in development priorities such as health, education, and infrastructure, increasing fiscal pressure, public debt, and reliance on development partners. Without stronger disaster risk reduction and financing mechanisms, climate change is expected to further increase disaster-related economic losses and threaten long-term sustainable development.

Key Economic Impacts:

- Recorded direct damages: USD 252.5 million (2000–2024), excluding significant unreported losses.
- Damage to roads, bridges, schools, hospitals, utilities, and other critical infrastructure.
- Reduced agricultural production, business activity, and export earnings.
- Increased government expenditure on emergency response, recovery, and reconstruction.
- Reduced fiscal space, increased public debt, and diversion of funding from long-term development priorities.
- Greater dependence on international humanitarian assistance and concessional financing for disaster recovery.
- Historical Catastrophes: Notable events include the 1994 Rabaul volcanic eruption (US\$130 million damage).

1.4 Need for Disaster Risk Financing Strategy

PNG's Available Disaster Risk Financing Instruments

Currently, PNG's existing disaster financing arrangements are predominantly reactive. The Government predominantly relies on ex post instruments such as budget reallocation, donor assistance and external debt to manage the fiscal impacts of natural disasters.

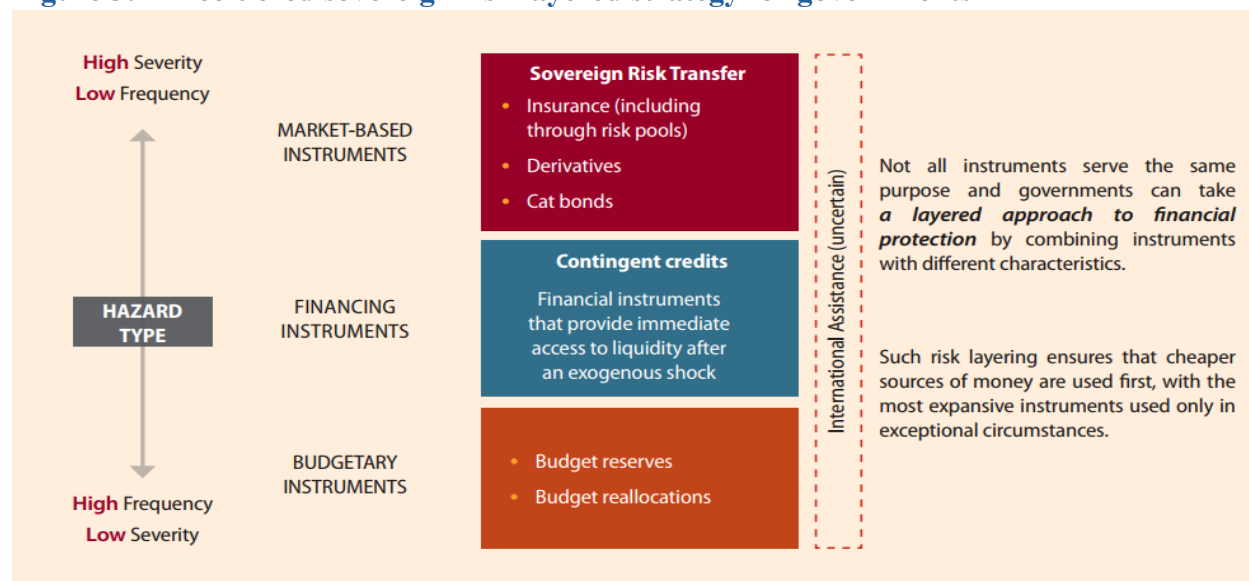
As of 2015, ex ante disaster risk financial instruments available to the government include a budget appropriation for the National Disaster Centre (NDC) of PGK 7.9 million (US\$2.8 million) under the Department of Provincial and Local Level Government (DPLGA), known as Special Support Services budget. The PNG National Budget also includes a budget item of PGK 30 million (US\$10.7 million) within the Treasury and Finance miscellaneous budget for unforeseen allocations to government departments for natural disaster response, which is equivalent to a contingency budget. However, these current ex ante disaster risk financing instruments are insufficient even to cover recurrent annual losses, representing a significant fiscal resource gap.

Finding the Right Mix of Disaster Risk Financing Instruments

International experience has shown that governments ideally combine different instruments to protect against natural hazard events of different frequency and severity. Such an approach prioritizes cheaper sources of funding, ensuring that the most expensive instruments are only used in exceptional circumstances. For example, sovereign insurance may provide cost-effective cover against extreme events, but it may be inefficient and costly to protect against low intensity and recurrent events. For such events, a dedicated contingency fund that ‘retains’ this lowest layer of risk may be a more appropriate solution. Figure 3 provides a graphic representation of this risk layering approach.

Combining instruments also enables governments to consider the evolving needs for funds from emergency response to long-term reconstruction. For example, a government could decide to purchase (ex-ante) quick-disbursing risk transfer instruments such as parametric insurance to ensure immediate liquidity in the aftermath of extreme events, but it would still raise the much larger sums required to finance reconstruction efforts through (ex post) budget reallocations, by issuing bonds, and through recoveries from traditional indemnity insurance.

Figure 3: Three-tiered sovereign risk layered strategy for governments

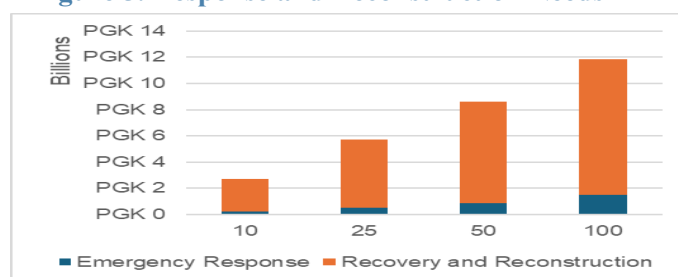


Source: World Bank Group 2017. Finance for development. Rapid response financing instruments D.C, World Bank.

The DRFS aims to ensure that post disaster needs can be financed in a timely manner while maintaining fiscal sustainability and mitigating the impact on the economy.

- The needs for disaster response, which for most disasters, are typically only a fraction of the needs for post disaster reconstruction (see Figure 4 for expected response versus and expected reconstruction needs following a disaster in PNG), have to be covered during or immediately after the disaster to minimize the adverse impact on lives and livelihoods.¹ Resources to cover the response needs stemming from smaller and more frequent disasters would usually be provisioned for within the budget planning (provision and room for reallocation) and financing would come from cash reserves or contingent credit lines. The response for larger and less frequent disasters might be handled through more substantial reallocation and a supplementary budget and financing for such events would be preorganized through other financing arrangements in a risk layering framework (see Figure 5 in Chapter 4). The financing of disaster response is mostly a question of fast access to financial resources, i.e., liquidity.
- Since resources for reconstruction only need to be made available in line with the pace of recovery and reconstruction efforts, which in the case of large disasters with impacts on complex infrastructure can take years, the challenge lays more in the availability of fiscal space that allows for additional financing and the access to financing generally, rather than the delay in access to financing. Maintaining or creating the fiscal space that is needed to allow for additional borrowing in case of a disaster provides the flexibility to address disaster-related needs without crowding out other spending. In case of insufficient fiscal space, recovery and reconstruction activities are either delayed or not undertaken at all, or they are replacing other planned spending, in general capital spending, which would often lead to a deterioration of the capital stock with adverse implications on the economy and development. The financing of disaster reconstruction is mostly a question of fiscal space, i.e., solvency.

Figure 5. Response and Reconstruction Needs



Source: IMF Mission Team calculations; Note: horizontal axis depicts different return periods (e.g. 1-in-10 year event)

¹ While earthquakes, storms, landslides and floods typically have considerably higher reconstruction than response costs, droughts are typically associated with higher response than reconstruction costs.

2. LEGAL AND INSTITUTIONAL FRAMEWORK FOR DISASTER RISK MANAGEMENT

Papua New Guinea's existing policy, legal, and institutional frameworks can be leveraged to support the adoption and implementation of the DRFS. These include those covering disaster risk management, public financial management, financial sector, and social protection, which form the basis of a sound DRFS. Strong governance ensures that fiscal resources are channeled strategically to safeguard the nation's fiscal health and protect against the economic impact of climatic shocks.

2.1 Policy Framework for Disaster Risk Management

Papua New Guinea's disaster risk management policy framework is anchored in the National Disaster Risk Reduction Framework (NDRRF) 2017–2030, which provides the overarching framework for reducing disaster risks, strengthening preparedness, and enhancing resilience. The NDRRF is aligned with the Framework for Resilient Development in the Pacific (FRDP) 2017–2030, the Sendai Framework for Disaster Risk Reduction (2015–2030), the Sustainable Development Goals (SDGs), the Paris Agreement, PNG Vision 2050, and the Medium-Term Development Plan IV (2023–2027). Together, these frameworks promote risk-informed development, climate resilience, and sustainable economic growth.

The disaster risk management framework is further supported by sectoral policies including the Climate Change (Management) Act 2015, the National Adaptation Plan (NAP), the Nationally Determined Contribution (NDC 3.0), the National Social Protection Policy 2025–2035, and resilience initiatives such as the Infrastructure for Resilient Island States (IRIS PNG) program. While these policies provide a comprehensive framework for disaster risk reduction and climate resilience, their effective implementation has been constrained by inadequate, fragmented and unpredictable financing. The Disaster Risk Financing Strategy complements these policy frameworks by establishing a coordinated approach to financing disaster preparedness, response, recovery and reconstruction. It strengthens the Government's capacity to manage disaster-related fiscal risks through improved financial preparedness, risk-informed budgeting, and the mobilisation of timely and predictable financing, thereby supporting fiscal sustainability and resilient development.

2.2 Policy Framework for Public Financial Management of Disasters

Papua New Guinea's public financial management framework is established under the Public Finances (Management) Act 1995, which provides the legal basis for the management, control and accountability of public finances. The Act mandates the Department of Treasury to oversee fiscal policy, budget preparation, cash and debt management, and fiscal risk management, while the Department of Finance is responsible for budget execution, accounting, financial reporting and

internal financial controls. Together, these institutions ensure that public resources are managed in accordance with principles of fiscal discipline, transparency and accountability, including during disaster events.

The 2026 Appropriation Act gives the Minister for Treasury authority to direct reallocations for essential services during emergencies. The national Procurement Commission regulates and administers public procurement processes and approvals, including procurement procedures relevant to emergency response and recovery. Established by the National Procurement Act 2018.

However, the absence of dedicated disaster financing instruments and pre-arranged financing mechanisms has often resulted in delayed funding for emergency response, recovery and reconstruction. The Disaster Risk Financing Strategy complements the existing public financial management framework by strengthening fiscal preparedness through the establishment of pre-arranged financing instruments, improved fiscal risk management, and enhanced budget planning to ensure timely, predictable and sustainable financing for disasters.

3. VISION AND MISSION STATEMENT

3.1 Vision

To establish a financially resilient Papua New Guinea to become capable of anticipating, preparing for, responding to, and recovering from disasters while maintaining fiscal sustainability and protecting long-term development outcomes”.

3.2 Mission statement

"To proactively manage economic and fiscal risks of disasters by embedding risk-informed planning into the national budget and ensuring timely, cost-effective financial resources for all phases of the disaster risk management cycle."

3.3 Core values

- **Transparency and Accountability** in the use of emergency funds.
- **Inclusiveness for vulnerable groups**, including women and rural communities.
- **Innovativeness** in adopting market-based financial instruments.
- **Professionalism** in data-driven risk assessment.

3.4 Basic Principles

In executing PNG’s disaster risk financing strategy, the government will be guided by the following core principles as follows:

3.4.1 Timeliness of Funds

The Government recognizes that the speed of financing is critical to effective disaster response, even if all resources are not available as required immediately. Accordingly, PNG's disaster risk financing strategy prioritizes rapidly accessible funds to support immediate relief and early recovery efforts, while larger-scale financing for reconstruction is mobilized through mechanisms that may require more time to access but help maintain the country's long-term fiscal sustainability. The strategy also seeks to establish clear disaster-trigger mechanisms to enable the timely release of funds and reduce delays associated with ad hoc budget reallocations.

3.4.2 Layering Financial Instruments to address different disaster risks

The Government recognise that no single financial instrument can address all levels of disaster risk. Instead, government utilizes a layered approach to disaster risk financing to ensure the most cost-effective funding for different levels of risk. Low-consequence, high-frequency events, such as localized flooding, are primarily financed through budget contingencies (e.g., Division 207) and government cash reserves. Medium-scale disasters are addressed through contingent financing mechanisms, such as the Catastrophe Deferred Drawdown Option (Cat-DDO), which provides rapid access to liquidity without immediately increasing public debt. For exceptional, high-impact catastrophic events, such as major earthquakes, PNG relies on risk transfer instruments, including insurance and catastrophe bonds, complemented by international grants and donor support.

3.4.3 Data Accuracy

Data Accuracy and Interoperability: Sound financial decision-making is underpinned by reliable, timely and interoperable risk information. The Strategy will use the National Risk Registry (NRR) as the overarching risk-information architecture, with the Loss and Damage Information Management System (LDIMS) and public-asset information maintained as interoperable data layers rather than parallel standalone systems. Data-sharing protocols, custodianship, verification standards and access arrangements will be established among NEMA/NDC, Treasury, Finance, DNPM, CCDA, Geohazards, National Weather Service, provinces and relevant sector agencies.

4. STRATEGIC PRIORITIES

This section provides a high-level summary of the government's strategic priorities that underpin the Policy Objective. The strategic priorities serve as unifying pillars of the strategy, used to organize, and group activities which the government will undertake as part of the Strategy.

4.1 Embed Disaster Risk Management and Financing in the Macro-Fiscal Framework

4.1.1 Existing risk assessments

Papua New Guinea faces substantial and growing disaster risk that poses a significant threat to macroeconomic stability, fiscal sustainability, and long-term development. The IMF estimates indicated that natural disasters result in Average Annual Losses (AAL) of approximately US\$337 million (around 1.0 percent of GDP), with losses projected to increase due to climate change, population growth, urban expansion, inadequate land-use planning, aging infrastructure, and persistent infrastructure maintenance gaps. The country's high vulnerability is further exacerbated by limited hazard and exposure data, outdated hazard mapping, and insufficient disaster-resilient infrastructure, increasing the potential fiscal burden of future disasters. Macro-fiscal analysis demonstrates that a disaster comparable to the 2018 earthquake could reduce GDP by 2.2 percent and increase public debt to approximately 55.0 percent of GDP under a reactive financing approach.

However, the analysis also showed that investing in ex-ante disaster risk reduction and resilient infrastructure can substantially reduce disaster losses, accelerate economic recovery, and improve debt sustainability, underscoring the importance of integrating disaster risk assessments into fiscal planning, public investment, and debt management as a foundation for a proactive and sustainable disaster risk financing strategy.

Focus Area 1. Disaster-Risk-Aware Macro-Fiscal Planning

PNG will adopt a disaster-risk-aware macro-fiscal planning approach that recognizes disasters as recurring fiscal risks rather than unforeseen events. Treasury will progressively incorporate updated AAL estimates, contingent liabilities, public-asset exposure, historical disaster expenditure and scenario analysis into macroeconomic forecasting, the Budget Strategy Paper, MTFS, MTDS, Fiscal Risk Statement and annual Budget.

Through this process, disaster risk considerations can increase better inform macroeconomic forecasts. Improved estimates of Average Annual Losses (AAL) will also enable disaster risk considerations to be systematically integrated into macroeconomic forecasting, fiscal policy formulation, and debt management to better anticipate their impact on fiscal outcomes and financing requirements. Medium-term fiscal frameworks and Debt Sustainability Analysis (DSA) will incorporate estimates of these improved AAL disaster risk scenarios, which will allow the Treasury to formulate realistic fiscal targets, debt ceilings, and the level of fiscal buffers required to maintain macroeconomic stability in the face increasing climate related risks. This approach will enable the Government to balance development priorities with fiscal resilience while reducing the need for disruptive budget reallocations and unplanned borrowing following disasters.

To operationalize this approach, Treasury will work with Finance, DNPM, NEMA/NDC, CCDA, BPNG and relevant agencies to integrate disaster fiscal risk into the annual budget process and

medium-term strategies. The annual analysis will distinguish expected recurrent losses from low-probability high-impact shocks and identify the financing instruments available for each risk layer.

Conditional on acquiring sufficient data, alternative macro-fiscal scenarios will be developed for major hazards, including earthquakes, volcanic eruptions, floods, droughts, and tropical cyclones, to assess their potential fiscal and economic impacts under different levels of severity. These analyses will inform contingency financing requirements, disaster risk financing decisions, and the calibration of fiscal buffers, ensuring that budgets and debt management strategies better reflect the country's expected disaster risks.

Disaster risk assessments will become a standard input into annual budget preparation, fiscal strategy reporting, debt sustainability analysis and medium-term development and investment planning. Scenario analysis will be progressively strengthened as risk and loss data improve.

Focus Area 2: Integrate Disaster Risk into Medium-Term Budget and Fiscal Frameworks

Disaster risk considerations will be systematically integrated into the Medium-Term Fiscal Strategy (MTFS), Medium-Term Debt Strategy (MTDS), Medium-Term Development Plan (MTDP) and annual budget process. The Government will also incorporate the costs and expected fiscal benefits of ex-ante risk reduction, climate adaptation and resilient investment into medium-term planning and public investment decisions.

The Government will also incorporate the costs and expected fiscal benefits of ex-ante disaster risk reduction and resilience measures into medium-term planning. Where data permit, the Treasury and relevant agencies will assess how investments in mitigation, resilient infrastructure, maintenance and other risk-reduction measures can reduce expected disaster losses, reconstruction requirements, output disruptions and future fiscal pressures. This analysis will help inform public investment and budget prioritization by comparing the upfront cost of resilience measures with their potential longer-term fiscal and economic benefits.

The assessment of disaster risks and mitigation measures will also inform the calibration of contingency mechanisms and the broader risk-layering strategy. This does not imply that the Government will be able to fully anticipate or finance all disaster costs in advance; rather, improved estimates of expected losses, financing capacity and the effectiveness of mitigation measures will support more informed decisions on the appropriate size of fiscal buffers, contingency provisions and pre-arranged financing. The objective is to reduce, rather than eliminate, reliance on supplementary budgets, emergency reallocations and unplanned borrowing following disasters, while protecting priority development expenditure and maintaining fiscal sustainability.

This approach will be implemented through existing budget and PFM processes and progressively strengthened as disaster risk, loss, asset and expenditure data improve. It will also support

alignment between the Disaster Risk Financing Strategy and the National Disaster Risk Reduction Framework (NDRRF) 2017–2030 by ensuring that disaster risk reduction, fiscal preparedness and resilience investments are considered together within national planning and budgeting processes. The Strategy’s implementation framework already identifies budget tagging for DRR expenditure, estimation of contingent liabilities and inclusion of disaster fiscal risks in budget documentation as key actions.

Development-partner financing is an important component of PNG’s disaster financing architecture. The Government will strengthen both mobilization and tracking by establishing a mechanism to map development-partner grants, concessional finance, technical assistance, humanitarian financing and insurance-related support against the national DRF framework. Where feasible, this information will be linked to Government PFM systems and NEMA coordination arrangements so that financing gaps and duplication can be identified.

Implementation coordination will use existing national disaster management structures. A time-bound DRF Technical Working Group may be established as a technical subcommittee under the existing national disaster governance arrangements, with Treasury providing fiscal-policy leadership and NEMA/NDC providing operational coordination. The mechanism will not duplicate or replace statutory bodies established under the final NEMA legislation.

Focus Area 3: Protect Development Investment through Ex-Ante Resilience Investment

Papua New Guinea will strengthen fiscal resilience by prioritizing investment in disaster risk reduction (DRR) and resilient infrastructure before disasters occur. Given the country's high exposure to earthquakes, volcanic eruptions, floods, landslides, droughts, and tropical cyclones, investing in resilience before disasters strike is more cost-effective than repeatedly financing reconstruction after disasters.

In addition, all major public investment projects should incorporate disaster and climate risk assessments during project preparation to ensure that infrastructure is designed and constructed to appropriate resilience standards. Priority investments include:

- constructing roads with improved drainage and slope stabilization in landslide-prone areas;
- elevating bridges above projected flood levels;
- designing schools and hospitals to withstand major earthquakes and cyclones;
- relocating critical infrastructure away from flood plains or coastal erosion zones;
- strengthening water supply systems to improve resilience during prolonged drought.

Disaster risk considerations should also be incorporated into the maintenance of existing infrastructure, recognizing that routine maintenance of roads, bridges, drainage systems, and public facilities is one of the most cost-effective forms of disaster risk reduction.

To maximise the value of limited public resources, resilience investments should be supported by robust economic appraisal, including cost-benefit analysis that compares the upfront costs of resilient infrastructure against the long-term savings from reduced damage, lower reconstruction costs, and fewer disruptions to public services.

Reconstruction following disasters shall apply the principle of Build Back Better. Major publicly financed reconstruction should be supported by post-disaster needs assessment, hazard and climate-risk screening, economic appraisal and risk-informed design standards. Reconstruction finance should restore essential services while reducing the vulnerability that contributed to the original loss.

Focus Area 4: Align Disaster Risk Financing Instruments with Fiscal Space and Fiscal Rules

Disaster risk financing instruments will be selected according to the frequency and severity of events, the fiscal cost of the shock, the required speed of financing, the availability of fiscal space and the Government's debt and fiscal objectives. The Government will use a layered financing strategy and will progressively refine the indicative thresholds through modelling and annual review.

Frequent, low-cost events will be funded through annual contingency appropriations, cash reserves, and budget reallocations. Moderate disasters will be covered by pre-arranged contingent financing instruments, such as Catastrophe Deferred Drawdown Options (Cat-DDOs) or other contingent credit facilities, to provide rapid liquidity while minimizing disruption to government programmes. Major catastrophic events will be financed through sovereign insurance, catastrophe bonds where feasible, concessional emergency financing, and international grants to limit additional debt accumulation.

Fiscal space will be assessed against the Government's declining debt glide path and fiscal objectives, not only the outer statutory debt range. Annual DRF reviews will report available headroom against the applicable fiscal targets and identify the financing buffer required to manage disaster shocks without undermining essential services and priority development spending.

Treasury, Finance, DNPM and relevant agencies will establish a phased disaster-related expenditure tagging methodology covering prevention, preparedness, anticipatory action, emergency response, early recovery and reconstruction; recurrent and capital expenditure; and development-partner financing. Initial tagging will be piloted in selected high-risk agencies before wider implementation and annual consolidated reporting.

Disaster-related expenditure will continue to be executed through the established budget and PFM framework. Pre-disaster risk reduction and preparedness activities will be planned through normal annual and medium-term budget allocations, while post-disaster response will draw, as

appropriate, on approved contingency appropriations and other pre-arranged financing mechanisms. Where reallocations are required, they will remain subject to the applicable appropriation, warrant, financial management and expenditure-control requirements. In line with the Government's fiscal resilience objectives, Treasury will seek to strengthen arrangements that safeguard priority development and capital expenditure from excessive diversion to post-disaster response and reconstruction.

Treasury will use improved expenditure information, disaster loss data and fiscal-risk analysis to assess the adequacy and cost-effectiveness of the DRF portfolio. The results will inform the annual Disaster Fiscal Risk Statement, Budget Strategy Paper, MTFS, MTDS and annual Budget.

4.2 Reduce the Post-Disaster Funding Gap

4.2.1 Current Post-Disaster Financing Mechanism in Papua New Guinea

Papua New Guinea's current post-disaster financing mechanism is largely reactive, relying on a combination of the following:

1. Contingency Fund (Primary Immediate Response Mechanism)

- The National Budget includes a Contingency Fund under Division 207 to finance unforeseen expenditures, including disaster response.
- The 2026 Contingency Fund appropriation is K150 million. This provides an immediate liquidity mechanism but is small relative to potential disaster losses. The Strategy therefore does not assume that the Contingency Fund will increase automatically each year; instead, the annual funding path will be determined through the budget process and assessed alongside the availability of pre-arranged contingent financing such as Cat DDO or other facilities.
- The Minister responsible for Treasury has the authority to approve allocations from the Fund.
- The Fund provides immediate liquidity for emergency response but is relatively small compared to potential disaster losses.

2. Budget Reallocation

- Where contingency resources are insufficient, the Government reallocates funds from existing budget appropriations.
- The Appropriation Act permits reallocations for unforeseen expenditure where existing appropriations are inadequate, and essential service delivery would otherwise be affected.
- In 2026, reallocations are capped at K2.8 billion, subject to the applicable appropriation and Treasury execution rules. Reallocation remains an important flexibility mechanism but

can delay or reduce planned programmes. Transfers must comply with applicable PFM rules; in particular, public investment allocations should not be treated as a general source of recurrent financing where such transfers are prohibited.

- While reallocations provide flexibility, they often delay or reduce funding for planned development programmes and capital investments.

3. Supplementary Budgets

- For larger disaster events that exceed available contingency resources and budget reallocations, the Government may seek Parliamentary approval through a supplementary budget.
- This provides additional appropriations but is dependent on fiscal space, available financing and Parliamentary processes, making it less suitable for immediate emergency response.

4. External Development Partner Support

- PNG relies heavily on development partners to finance post-disaster response and recovery.
- Development-partner assistance may be provided through emergency grants, in-kind humanitarian assistance, technical support, insurance and reallocation of existing programmes. The Strategy will improve visibility of such financing through a development-partner financing map linked, where feasible, to Government PFM and NEMA coordination systems.
- Much of this support occurs outside Government financial management systems and is therefore not fully reflected in the national budget or fiscal reports.

5. Borrowing and Concessional Financing

- For larger recovery and reconstruction programmes, the Government may access concessional financing or external borrowing where fiscal space allows.
- However, debt limits, fiscal consolidation objectives and limited borrowing capacity constrain the use of this option.
- As a result, reconstruction is often delayed or funded through reductions in planned capital expenditure.

The absence of a structured, risk-layered financing framework and limited integration of disaster risk into macro-fiscal planning contributes to a significant post-disaster funding gap. The Strategy therefore prioritizes pre-arranged liquidity, risk transfer, protected reconstruction financing, stronger expenditure tracking and clear financing triggers rather than relying predominantly on post-event reallocations and external appeals.

Figure 5. Risk Layer for the Disaster Risk Financing Strategy

Risk Layer	Indicative Risk Profile	Primary Financing Instruments	Strategic Purpose
Layer 1: Frequent / low severity	Frequent events; normally within annual budget capacity	Agency/annual contingencies, cash management, budget reallocations	Immediate response and preparedness; routine recovery
Layer 2: Moderate	Events exceeding routine agency capacity but manageable within fiscal framework	Supplementary budget, contingent credit/Cat DDO, emergency budget support	Scale response and early recovery while preserving essential services
Layer 3: Severe / infrequent	Low-frequency, high-loss events with material fiscal impact	Sovereign/meso insurance, regional pools, parametric instruments, concessional finance	Protect fiscal space and essential public services
Layer 4: Catastrophic / residual	Extreme events with major reconstruction needs and multi-year fiscal impact	Multi-year appropriations, grants, concessional recovery finance, risk transfer and capital-market options subject to feasibility	Finance resilient reconstruction without displacing priority development investment

The Government will strengthen planning for large-scale post-disaster recovery and reconstruction by integrating disaster risk into macro-fiscal planning, public investment management and debt management. Reconstruction financing will use multi-year appropriations where required, protect priority capital expenditure, link financing to post-disaster needs assessment and apply Build Back Better standards. DNPM will lead the prioritization of reconstruction investments in coordination with Treasury, Finance, sector agencies and affected provinces.

The Strategy will promote advance planning and a diversified financing approach that combines domestic budget resources, concessional financing, development partner grants and other pre-arranged financing instruments to ensure adequate fiscal space for recovery and reconstruction. Reconstruction investments will apply the Build Back Better principle to improve the resilience of public infrastructure, reduce future disaster losses and avoid the long-term deterioration of the nation's capital stock. Through improved planning, project prioritization and coordinated financing arrangements, the Government will safeguard development investments, strengthen fiscal sustainability and support resilient and inclusive economic growth.

4.3 Strengthening Enabling Institutions and Governance for DRF

The success of the DRFS depends on clear mandates and effective coordination across fiscal, disaster-management, planning, financial-sector and sub-national institutions. The Strategy will use existing statutory structures and avoid creating parallel governance arrangements. Treasury

will lead the fiscal and macroeconomic aspects; Finance will manage budget execution and financial controls; NEMA/NDC will lead disaster information, preparedness, response and recovery coordination; DNPM will lead development and reconstruction prioritization; and BPNG/OIC will lead insurance-market regulation within their mandates.

Technical coordination will be supported through a DRF Technical Working Group or equivalent technical subcommittee under the agreed national disaster governance arrangements. Its terms of reference will cover risk analysis, financing instruments, PFM integration, data, insurance, development-partner coordination and implementation monitoring. Its establishment and functions will be aligned with the final NEMA legislation and any existing inter-agency coordination mechanisms.

The final NEMA legislative framework is expected to strengthen the institutional basis for comprehensive disaster risk management. The DRFS will therefore be implemented around functions and principles that can proceed administratively while identifying actions that depend on legislation, regulations, NEC decisions, Parliamentary approval or partner financing. The proposed Disaster Relief Fund and Disaster Management Endowment Fund are subject to the final legal framework; their permanence, capitalization, investment, withdrawal and roll-over provisions must have an enabling legal basis.

5. STRATEGIC OUTCOMES AND PERFORMANCE TARGETS

Strategic Outcome	Expected Result	Performance Target
1. National disaster risks are identified, measured and integrated into fiscal and development decision-making.	Risk and fiscal information systematically informs planning, budgeting and investment.	NRR/LDIMS and public-asset information operational; disaster fiscal-risk analysis incorporated into BSP, MTFS, MTDS and Budget by 2027.
2. Government has a comprehensive sovereign DRF framework that provides timely liquidity while protecting fiscal sustainability.	Financing is pre-arranged and matched to risk layers.	Operational risk-layering framework; emergency financial-management SOP; contingent financing strengthened; legal framework for statutory DRF funds assessed.
3. Disaster-related expenditure and financing are transparent, coordinated and accessible across levels of government.	Government can track disaster financing and identify the financing gap.	DRM expenditure tagging piloted in 2026 and scaled; Annual Disaster Fiscal Risk Statement institutionalized from 2027; provincial financing arrangements strengthened.

4. Risk transfer, resilient recovery and inclusive protection are strengthened.	Sovereign, meso and inclusive risk-transfer and resilient reconstruction arrangements reduce residual fiscal and household risk.	PICAP lessons incorporated; insurance regulation/data/consumer protection strengthened; reconstruction uses Build Back Better; adaptive social protection and GEDSI integrated.
---	--	---

6. IMPLEMENTING INSTITUTIONS

The Strategy will operate through a whole-of-government framework that integrates disaster risk management, public financial management, macro-fiscal planning, risk information and risk transfer. Implementation will be results-based, with clear responsibilities, measurable outputs, resource requirements and annual reporting. The four strategic outcomes are aligned with the implementation framework in Annex A.

The implementation of the Strategy will utilize existing national disaster management structures. The National Disaster Centre (NDC), and NEMA once established under the final legislation, will coordinate disaster preparedness, response and recovery and maintain the operational risk-information and reporting functions assigned to it. The National Disaster Committee and its established technical structures will provide inter-agency coordination, with NEC providing policy oversight and approvals within its mandate.

The National Executive Council (NEC) upon NDCom's advice, provides the highest level of policy oversight by approving national disaster management policies, disaster financing measures and declarations of national emergencies.

The Department of Treasury will lead DRF policy, macro-fiscal integration, fiscal-risk analysis, sovereign financing and annual DRF reporting. The Department of Finance will be responsible for budget execution, fund release, financial controls, accounting and expenditure reporting. DNPM will lead resilient recovery and reconstruction prioritization and integration into national development and public investment planning. BPNG/OIC will lead insurance regulation and market supervision within their legal mandates. CCDA will support climate-risk analysis, adaptation and climate-finance alignment.

NDC/NEMA will remain the leading operational agency for disaster preparedness, emergency response, damage and needs assessments, disaster information and national/sub-national coordination. Provincial Administrations and Provincial and District Disaster Committees will validate impacts, coordinate local implementation and report on the use of disaster financing.

Sector agencies and asset owners will remain responsible for risk-informed investment, asset information and delivery within their mandates.

Provincial Administrations will then be supported by Provincial and District Disaster Committees, and coordinate implementation at the sub-national level, including validating disaster impacts, coordinating beneficiary identification, managing provincial implementation and reporting on the utilization of disaster financing. For more inclusiveness and sustainability, the strategy will use the already established structures to reach out to the people who have been affected by disasters.

The strategy will use established structures to facilitate inclusive data collection, risk assessment and community engagement. Data-sharing arrangements will support timely information flow between government, communities and technical agencies, with appropriate safeguards for personal and commercially sensitive information.

6.1 Implementation Plan

Implementation will be managed through a results-based framework led by Treasury, NDC/NEMA and the relevant lead agencies. Each priority action is assigned to a responsible/accountable institution, supporting agencies, deliverables, dependencies, indicative resource requirements and timeframe. Actions requiring legislation, regulation, NEC or Parliamentary approval, or external financing are explicitly identified in Annex C.

- *2026*: finalize the DRFS governance and implementation arrangements; complete a stocktake of disaster-related budget lines; establish the DRF technical coordination mechanism; commence NRR/LDIMS and public-asset data integration; and begin development of emergency financial-management SOPs.
- *2027*: integrate disaster fiscal risk and expenditure tagging into the BSP/MTFS/MTDS and annual Budget; establish the Annual Disaster Fiscal Risk Statement; operationalize emergency financing and expenditure procedures; and progress pre-arranged contingent financing.
- *2028*: complete the formal mid-term review; refine risk-layering thresholds; strengthen sovereign, meso and inclusive insurance arrangements; and operationalize priority reconstruction-financing and Build Back Better procedures.
- *2029–2030*: scale risk-transfer and provincial financing mechanisms, maintain annual fiscal-risk and expenditure reporting, evaluate the effectiveness of the DRF portfolio and prepare the successor strategy.

6.2 Stakeholder Engagement and Validation

Treasury and NDC/NEMA will lead a national validation process involving Finance, DNPM, BPNG/OIC, CCDA, DPLGA, provincial and local-level governments, sector agencies, the insurance industry, civil society and development partners. Consultation will focus on validating institutional responsibilities, financing mechanisms, implementation feasibility, indicators and regulatory dependencies. Substantive comments will be recorded and addressed before submission for formal adoption.

- Line ministries and agencies;
- Provincial and local-level governments;
- Bank of PNG and key financial sector players;
- Development partners and international financial institutions;
- Financial sector stakeholders; and
- Civil society and community organizations.

Engagement will continue during implementation through annual technical reviews, targeted regulatory consultations and the formal mid-term review in 2028. The Strategy may be updated following enactment of the NEMA legislation or material changes to the DRF financing architecture without requiring complete replacement of the Strategy.

7. CRITICAL SUCCESS FACTORS

- **Political Support:** Sustained commitment to fiscal repair and resilience investment.
- **Strategic Leadership:** Proactive guidance from the Treasury and NEMA.
- **Development Partner Cooperation:** Aligning grant-financed DRR with national priorities.
- **Data Integrity:** Reliable information from the National Weather Service and Geohazards Management.

8. MONITORING AND EVALUATION

The Strategy will be monitored through annual implementation reports led by Treasury in coordination with NDC/NEMA and implementing agencies. A formal mid-term evaluation will be undertaken in 2028, with adjustments made where evidence, legislation, financing availability or institutional arrangements have materially changed. Annual reporting will cover implementation progress, financing availability and utilization, disaster expenditure, fiscal-risk indicators, risk-transfer coverage and the status of key reforms.

Key Performance Indicators (KPIs)

Indicator	Target
Disaster fiscal-risk analysis	Annual AAL, contingent liabilities, public-asset exposure, historical expenditure, financing gap and stress scenarios reported in the annual fiscal-risk cycle.
Disaster-related expenditure tracking	DRM expenditure tagging piloted in selected high-risk agencies in 2026 and progressively scaled from 2027.
Annual Disaster Fiscal Risk Statement	Statement produced annually from 2027 and linked to BSP/MTFS/Fiscal Risk Statement.
Emergency financing process	Separate service standards established for Ministerial approval, warrant issuance and cash reaching implementing agency/province; performance monitored against approved SOPs.
Contingency funding	Annual funding path reviewed through the budget process; adequacy assessed alongside Cat DDO and other pre-arranged financing rather than assuming automatic annual increases.
National risk information	NRR/LDIMS interoperability and public-asset risk information progressively operational by 2028–2029.
Risk transfer	Sovereign, meso and inclusive insurance architecture progressively developed by 2030, subject to market/regulatory feasibility.
Reconstruction	Major publicly financed reconstruction subject to risk screening, needs assessment and Build Back Better standards.
Annual implementation report	Treasury and NDC/NEMA report implementation progress annually; formal mid-term review in 2028.

Annual progress reports will be prepared by Treasury in coordination with NDC/NEMA and submitted through the established governance arrangements. The Annual Disaster Fiscal Risk Statement will form a core analytical input to the annual budget and fiscal-risk reporting cycle.

Papua New Guinea faces growing disaster and climate risks that threaten economic growth, fiscal stability and national development. This Strategy establishes a pathway toward a proactive, resilient and fiscally sustainable DRF framework that prioritizes prevention and preparedness, timely financing, resilient recovery and reconstruction, risk transfer, transparent expenditure management and protection of vulnerable households and communities. Successful implementation will require sustained institutional coordination, reliable data, appropriate legal foundations, fiscal discipline and coordinated support from development partners.

9. FIVE-YEAR IMPLEMENTATION PLAN 2026–2030

The implementation plan is a results framework assigning lead and supporting institutions, measurable targets, dependencies, indicative resource requirements and sequencing. It is designed to align Sections 5, 6 and 8 with a single implementation framework.

Annex A: Implementation Plan for DRFS 2026–2030

Strategic Outcome	Target / Milestone	Output Description	Lead Agency	Supporting Agencies	Timeline
1. National disaster risks are identified, measured and integrated into fiscal and development decision-making.	1.1 Disaster fiscal-risk analysis integrated into BSP, MTFS, MTDS, Budget and Fiscal Risk Statement.	Annual AAL, contingent liabilities, historical disaster expenditure, public-asset exposure, financing available, financing gap and stress scenarios reported.	Department of Treasury	Finance, DNPM, NEMA/NDC, CCDA, BPNG	2026–2027; annual thereafter
	1.2 National Risk Registry and LDIMS interoperable risk/loss information established.	NRR provides authoritative hazard, exposure, vulnerability and asset information; LDIMS provides standardized loss and damage information.	NEMA/NDC	Geohazards, NWS, CCDA, provinces, Treasury, sector agencies, UNDP/DFAT	2026–2028
	1.3 Public asset risk information progressively established.	Geo-referenced asset inventory, valuation and risk attributes integrated with the NRR and used in fiscal-risk analysis and PIM.	Finance / NEMA/NDC	Works & Highways, DNPM, sector agencies, provinces, CCDA	2026–2029
2. Government has a comprehensive sovereign DRF framework that provides timely liquidity while protecting fiscal sustainability.	2.1 Risk-layering framework with indicative decision rules operational.	Frequency/severity, indicative loss range, financing need, instrument, trigger, institution and eligible expenditure defined for each layer and refined through modelling.	Treasury	Finance, NEMA/NDC, DNPM, BPNG, development partners	2026–2027; refine annually

	2.2 Pre-arranged contingent financing strengthened.	Cat DDO and other contingent facilities assessed, negotiated and maintained subject to eligibility and fiscal conditions.	Treasury	Finance, World Bank, IMF and other partners	2026–2028
	2.3 Disaster Relief Fund and Disaster Management Endowment Fund framework developed subject to law.	Purpose, capitalization, allowable expenditure, replenishment, investment, withdrawal, reporting and audit rules established only where supported by enabling legislation.	Treasury / Finance / NEMA	DNPM, State Solicitor, NEC, development partners	2026–2028; legal dependency
	2.4 Emergency financial-management SOP approved and tested.	Declaration/decision trigger, request, approval, warrant, cash release, emergency procurement, acquittal, audit, disclosure and post-event review defined.	Finance / Treasury / NEMA	Auditor-General, NPC, provinces, sector agencies	2026–2027
3. Disaster-related expenditure and financing are transparent, coordinated and accessible across levels of government.	3.1 DRM expenditure tagging piloted and scaled.	Classification and coding for prevention, preparedness, anticipatory action, response, recovery and reconstruction; recurrent/capital; and partner financing.	Treasury	Finance, DNPM, NEMA, selected agencies	2026 pilot; 2027–2029 scale-up
	3.2 Annual Disaster Fiscal Risk Statement institutionalized.	Annual statement linked to BSP/MTFS/Fiscal Risk Statement covering AAL, contingent liabilities, expenditure, financing layers, gap, insurance, public assets, provincial liabilities, climate	Treasury	Finance, NEMA, DNPM, CCDA, BPNG, provinces	2027 onward

		risks, Cat DDO and stress scenarios.			
	3.3 Provincial DRF arrangements strengthened.	Provincial focal points, expenditure/reporting arrangements, emergency financing protocols and targeted pilots established, with clear national/sub-national cost-sharing principles.	NEMA/NDC / Provinces	Treasury, Finance, DPLGA, sector agencies	2027–2030
4. Risk transfer, resilient recovery and inclusive protection are strengthened.	4.1 Sovereign, meso and micro risk-transfer architecture established.	Sovereign cover protects fiscal/service continuity; meso-level cover supports utilities, financial institutions/cooperatives/aggregators; inclusive products protect households, farmers and MSMEs.	Treasury / BPNG-OIC	NEMA, CCDA, DAL, insurers, CEFI, development partners	2027–2030
	4.2 PICAP lessons integrated into national insurance policy and product development.	2026 stocktake of PICAP reach, payouts, product performance, financial literacy and distribution informs regulation, product refinement and geographic expansion.	BPNG/OIC / Treasury	UNCDF, UNDP, insurers, CEFI, NEMA, provinces	2026–2028
	4.3 Insurance regulation, data and consumer protection strengthened.	Parametric/index insurance rules, standardized market data, product disclosures, complaints/grievance channels, basis-risk	BPNG/OIC	Treasury, NEMA, CEFI, insurers, consumer representatives	2026–2029

		information and supervisory arrangements strengthened.			
	4.4 Reconstruction financing uses Build Back Better and multi-year planning.	Post-disaster needs assessment, risk screening, economic appraisal and protected priority investment envelopes guide reconstruction; financing is linked to DNPM prioritization.	DNPM	Treasury, Finance, NEMA, Works, sector agencies, provinces	2027–2030
	4.5 Adaptive social protection and GEDSI integrated into disaster financing.	Disaster-responsive cash transfers, pre-agreed beneficiary channels, gender/disability inclusion and protection of vulnerable groups incorporated into financing and payout arrangements.	NEMA / relevant social protection agencies	Treasury, Finance, provinces, development partners	2027–2030

Annex B: Institutional Responsibilities and RACI Matrix

Institution	Policy / Fiscal Risk	Funds / PFM	Risk Information / Verification	Recovery / Insurance
Treasury	A – DRF policy, fiscal-risk analysis, macro-fiscal integration, financing strategy	A – budget policy, warrants/release framework with Finance	C – uses verified risk/loss information	C – reconstruction financing strategy; sovereign risk transfer
Finance	C – fiscal policy inputs	A/R – fund administration, release, accounting, controls and reporting	C	C – financial controls for reconstruction
NEMA / NDC	C – disaster risk and operational policy	C – financing triggers and expenditure needs	A/R – disaster information, damage/needs assessment, NRR/LDIMS coordination	A/R – response/recovery coordination
DNPM	C – development and fiscal planning	C – PIP and financing prioritization	C – asset/investment risk information	A/R – resilient recovery and reconstruction prioritization
BPNG / OIC	C – macro-financial risk inputs	C – financial-sector implications	C – insurance market data	A/R – insurance regulation and supervision
CCDA	C – climate fiscal-risk and adaptation inputs	C – climate-finance alignment	C – climate-risk information	C – resilient investment and climate finance
DPLGA / Provinces	C – decentralization and local financing	R – local implementation and reporting	R – impact validation and local data	R – local recovery delivery and community engagement
Sector agencies / asset owners	R – sector risk and investment inputs	R – agency expenditure and asset reporting	R – asset condition/exposure information	R – resilient reconstruction and service continuity

Annex C: Implementation Dependencies and Indicative Resource Requirements

Action	Key Dependency / Assumption	Indicative Resource Requirement	Likely Financing Source	Contingency if Delayed
DRF technical coordination mechanism	Alignment with existing national disaster governance and final NEMA framework	Low	National budget / TA	Use existing inter-agency technical meetings until formalized
NEMA statutory DRF mechanisms / funds	Enabling legislation and approved financial rules	Medium–High	National budget / development partner TA	Continue existing appropriations and contingent financing instruments
Emergency financial-management SOP	Agreement among Treasury, Finance, NEMA, NPC and Auditor-General	Medium	National budget / TA	Use existing emergency delegation and PFM procedures pending SOP
PFM disaster-expenditure tagging	Budget coding and agency data readiness	Medium	National budget / TA	Pilot in selected high-risk agencies before national roll-out
Annual Disaster Fiscal Risk Statement	Verified loss, asset, expenditure and financing data	Medium	National budget / TA	Issue a phased statement using available data and disclose gaps
NRR / LDIMS / asset-risk integration	Data standards, custodianship and interoperability arrangements	High	Development partner TA / climate finance / national budget	Maintain interoperable interim datasets with agreed exchange protocols
Provincial DRF pilots	Provincial capacity, cost-sharing and reporting arrangements	Medium	National budget / grants / development partners	Pilot in priority high-risk provinces before wider scale-up
PICAP / parametric insurance scale-up	Regulatory readiness, actuarial/product evidence and consumer protection	Medium	Insurance market / UNCDF-UNDP / climate finance	Refine products and continue existing platforms while regulatory work proceeds
Reconstruction financing framework	DNPM prioritization, post-disaster needs assessment and PIM/risk screening	High	National budget / concessional finance / grants	Use existing PIP prioritization with protected essential-service projects

10. REFERENCES

1. Australian Humanitarian Partnership. (2019). *Response to the 2018 Papua New Guinea Highlands Earthquake: Evaluation*.
2. Bündnis Entwicklung Hilft & Institute for International Law of Peace and Armed Conflict. (2025). *WorldRiskReport 2025*.
3. Centre for Research on the Epidemiology of Disasters. (2025). *EM-DAT: The International Disaster Database*. UCLouvain.
4. Climate Change and Development Authority. (2023). *Papua New Guinea National Adaptation Plan*. Government of Papua New Guinea.
5. Government of Papua New Guinea. (2015). *Climate Change (Management) Act 2015*.
6. Government of Papua New Guinea. (2017). *Papua New Guinea National Disaster Risk Reduction Framework 2017–2030*. National Disaster Centre.
7. Government of Papua New Guinea. (2018). *National Procurement Act 2018*.
8. Government of Papua New Guinea. (2023). *Medium Term Development Plan IV 2023–2027: National Prosperity through Growing the Economy*.
9. Government of Papua New Guinea. (2025). *Papua New Guinea NDC 3.0 Pathway Document*. Climate Change and Development Authority.
10. International Monetary Fund. (2025a). *Papua New Guinea: Climate Policy Diagnostic* (High-Level Summary Technical Assistance Report No. 2025/08).
11. International Monetary Fund. (2025b). *Papua New Guinea: 2025 Article IV Consultation and Fourth Reviews under the EFF and ECF Arrangements* (IMF Country Report No. 25/134).
12. International Monetary Fund. (2026). *Papua New Guinea: Sixth Reviews under the Extended Fund Facility and Extended Credit Facility Arrangements* (IMF Country Report No. 26/129).
13. Pacific Community, SPREP, Pacific Islands Forum Secretariat, UNDP, UNISDR, & University of the South Pacific. (2016). *Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management 2017–2030*.
14. Papua New Guinea. (1995). *Public Finances (Management) Act 1995* (consolidated to 17 August 2022).
15. United Nations. (2015). *Sendai Framework for Disaster Risk Reduction 2015–2030*.
16. United Nations Framework Convention on Climate Change. (2015). *Paris Agreement*.
17. United Nations in Papua New Guinea. (2018). *Reaching the Remotest: Earthquake Response in Papua New Guinea*.
18. World Bank & Asian Development Bank. (2017). *Assessing Financial Protection against Disasters: A Guidance Note on Conducting a Disaster Risk Finance Diagnostic*. Washington, DC: World Bank.