



National Strategy for Disaster Risk Financing

Government of the People's Republic of Bangladesh
Ministry of Disaster Management and Relief

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Acronyms

AA	Anticipatory Action
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BDP	Bangladesh Delta Plan
CCA	Climate Change Adaption
CDRC	Climate Resilient Debt Clauses
CPP	Cyclone Preparedness Program
DDM	Department of Disaster Management
DRF	Disaster Risk Financing
DRIP	Disaster Risk Information Platform
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
GCF	Green Climate Fund
GoB	Government of Bangladesh
MoDMR	Ministry of Disaster Management and Relief
M&E	Monitoring and Evaluation
NDC	Nationally Determined Contributions
NDRFS	National Disaster Risk Financing Strategy
NPDM	National Plan for Disaster Management
PDNA	Post-Disaster Needs Assessment
PFM	Public Financial Management
SFDRR	Sendai Framework for Disaster Risk Reduction
SDG	Sustainable Development Goal
SOD	Standing Order on Disaster
SOE	Slow-onset Event
UNFCCC	United Nations Framework Convention on Climate Change

Executive Summary

Bangladesh often faces devastating disasters like floods and cyclones. These along with other events have impacted millions of people and caused billions of dollars in damage since the birth of the country in 1971. Disasters make it harder for Bangladesh to fight poverty and accelerate its development progress. As climate change intensifies, these extreme events are likely to become worse. Floods, cyclones and other disasters hurt Bangladesh's economy in several ways. They destroy crops and disrupt industries, damage roads and buildings, and force people to move from their homes. Since Bangladesh is a low-lying delta, it's especially vulnerable to these disasters. Recovering and rebuilding after disasters takes a significant amount of money and resources.

Bangladesh needs substantial amount of financing to deal with disasters. For regular floods and cyclones (happening every 2 years¹), it needs about \$4.7 billion, or around 1% of its GDP². This covers immediate help (food, shelter) and initial recovery efforts (fixing damaged structures) after the disaster. But for much worse disasters (happening every 50 years), the costs jump to a whopping \$20 billion, or around 4.2% of GDP. This is similar to the financial burden Bangladesh has faced after the 2004 floods and Cyclone Sidr in 2007. In these extreme cases, immediate help and initial recovery would cost \$5 billion, with rebuilding costing another \$15 billion. Though earthquakes are not a major disaster risk for Bangladesh as the country is located on a tectonic plate boundary with minimal seismic activity. While occasional tremors are felt, major earthquakes (for every 50 years) may also carry a risk of around USD \$451³ million (4502 crore Tk.) for infrastructure loss.

The Government of Bangladesh (GoB) spent USD \$981 million (10,692 crore Tk.) on Climate Change Adaptation as DRR investments in 2023. With other DRR interventions, the current total investment budget reaches USD \$ 1.2 billion⁴ (13,080 crore Tk.). The government prepared the National Adaptation Plan (NAP 2023-2050), which includes 90 high-priority and 23 medium-priority DRR interventions. All the interventions mentioned in the NAP require funding of USD \$8.5 billion (92,650 crore Tk.) per year for 27 years, summing up to USD \$ 237.5 billion (2,588,750 crore Tk.). It is seven times more than the current annual expenditure for DRR interventions.

Bangladesh has devised various tools to respond these financial needs. Existing policies can mobilize about \$1.5 billion for immediate needs and initial recovery, achieved through designated disaster relief portions of the national budget, social safety net programs, and financial resources from micro-credits, and recovery loans. For mid-term

¹ Return period refers to the average time between occurrences of an event of a certain magnitude.

² IMF estimation

³ UNDRR estimation

⁴ Deducted from values derived from NAP and Climate Financing For Sustainable Development Budget Report 2023-2024

rebuilding, an additional \$3.2 billion can be accessed through the annual development program (ADP). Despite having enough resources for regular disasters, Bangladesh faces a funding shortfall for more severe events. While the government can cover current response and most reconstruction costs for disasters happening every two years, financing gaps emerge for less frequent but more impactful situations. To address this, Bangladesh has developed this disaster risk financing strategy aligned with national and international best practices.

Recognizing the increasing financial strain caused by severe disasters, Bangladesh is looking to secure its fiscal regime. Current budgetary provisions cover average yearly disaster relief and rehabilitation costs, but securing credit lines, as a backup would create more financial breathing room for catastrophic situations. Furthermore, insuring public infrastructure and key public-private partnership assets is being considered in managing disaster-related financial risks. Moreover, integrating disaster financing needs into mid-term budgetary framework and reviewing spending on disasters would essentially provide the GoB a better strategy in allocating resources in disaster management.

Bangladesh recognizes the importance of social programs that can quickly adapt and expand considering the needs of vulnerable people. These programs aim to protect people's jobs, ensure they have enough food, and help communities bounce back stronger. The government spends a portion of its budget on social assistance, with some specifically reserved for emergencies. This dedicated budget has been providing more resources during disasters. Bangladesh also receives external disaster aid, but it can be unpredictable. To improve future responses, the government is looking for programs that can be funded from diverse sources.

Bangladesh is highly committed to improve its disaster preparedness by getting more involved with financial institutions. Thus, the banks and insurance companies can play a vital role in helping people affected by disasters. The government is already working on making it easier for everyone to access financial services, which can help businesses stay afloat during tough times of disaster. The central bank is also encouraging banks to manage risks better and develop new financial products for people who do not usually have access to them.

Bangladesh also has a large network of microfinance providers that can help people financially recover from disasters. However, most of the people do not have regular insurance, for instance life or crops insurance. The government has been working on making insurance more affordable and attractive, including insurance for assets⁵ and testing new insurance plans for farmers. In the future, the government could look into new ways to encourage people to get disaster insurance and loans specifically designed

⁵ Insurance for asset is important because the expected annual asset and infrastructure losses due to disasters may reach USD \$14.2 billion (154,780 crore Tk.)

for rebuilding after disasters. The Government of Bangladesh is also focusing on strengthening its insurance companies so that they can deal with disaster related insurance effectively and efficiently.

Bangladesh already has strong laws and organizational set up to manage disaster finances. To make things even better, it will integrate the national disaster risk financing strategy into the upcoming updates for both disaster management policy and the 9th five-year plan. Additionally, creating a detailed action plan, a system to track progress, and a schedule to review and update the disaster financing strategy in a few years would further strengthen its preparedness. Overall, the NDRF strategy represents a collaborative and comprehensive approach to building a more resilient future for Bangladesh. By mobilizing resources, seeking international cooperation, and implementing a robust M&E system, this strategy holds the potential to significantly mitigate the impact of disasters on the lives and assets of the millions of people of Bangladesh. This, in turn, can contribute to Bangladesh's transformation into a developed nation by 2041.

I. Introduction

Bangladesh's geographical position and terrain make it highly prone to various natural calamities such as cyclones, floods, and earthquakes. Its' low-lying deltaic landscape, crisscrossed by numerous rivers, results in recurrent and severe flooding during the monsoon season. As a result of all these, Bangladesh ranked the 7th disaster-affected country in the world.

Cyclones originating from the Bay of Bengal present a significant hazard, causing storm surges and extensive destruction along the coast. Climate change exacerbates these vulnerabilities, with rising sea levels and more intense extreme weather events further endangering the population. Urbanization, particularly in cities like Dhaka, introduces additional challenges such as inadequate infrastructure, substandard housing, and susceptibility to disasters like fires and building collapses. Although less frequent, seismic activity near the convergence of the Indian and Eurasian tectonic plates is also a concern, potentially leading to structural damage and risks to densely populated urban areas. Bangladesh also contends with hazards like riverbank erosion, drought, salinity intrusion, landslides, and lightning strikes, among others.

Before independence, disaster response in the then-East Pakistan was primarily reactive, focusing on relief after disasters struck and insufficient against needs of the affected people.

In 1972, the Ministry of Relief and Rehabilitation, the first dedicated government body for disaster response was established. This laid the groundwork for further institutional development in disaster management. Launched in 1972, the Cyclone Preparedness Program (CPP) was a landmark initiative designed to mitigate the impact of cyclones, a

major threat to the coastal region. It included construction of cyclone shelters, early warning systems, and community-based awareness campaigns.

- Disasters present significant obstacles not only to people's livelihoods but also to the economy. The looming specter of disasters in Bangladesh presents a grim scenario: increasing harm to public, private, and human resources, diminishing production capabilities, and posing challenges to the country's ambitions to attain upper-middle-income status by 2031 and developed nation status by 2041. This underscores the vital importance of strong disaster readiness and risk reduction plans. Failing to adequately address the impact of disasters makes it notably harder to attain the Sustainable Development Goals (SDGs) and safeguard Bangladesh's long-term development objectives.

Financial mechanisms designed to shield against disasters, known as disaster risk financing, are being increasingly utilized in developed nations. However, the implementation of proactive disaster risk financing is notably limited in developing countries like Bangladesh. Drawing from historical data, natural calamities in Bangladesh resulted in economic losses surpassing \$10 billion between 2000 and 2013, whereas the total funding available for relief, rehabilitation, and reconstruction during the same period amounted to a mere \$2 billion. Estimates suggest that Bangladesh will face an average annual financial impact of approximately \$3.2 billion due to cyclones and floods, equivalent to around 2.2% of its gross domestic product. Recent studies also continue to emphasize Bangladesh's vulnerability to natural disasters such as floods and cyclones. For instance, from 2010 to 2019, natural disasters caused annual average economic losses of approximately \$3 billion, underlining the persistent challenge the country faces. The frequency and intensity of these disasters have been increasing, exacerbated by climate change, which further strains the already limited financial resources available for disaster management and recovery efforts.

The government of Bangladesh has instituted measures to bolster resilience and readiness with assistance from various domestic and international partners. These efforts encompass early warning systems, community-driven disaster risk reduction projects, and infrastructure enhancements. Nonetheless, the severe aftermath of recent disasters underscores the pressing requirement for investment in risk-oriented financial mechanisms through a national strategy. This approach will fortify Bangladesh's resilience and mitigate future loss of life and property. The proactive disaster risk financing solutions will help to mitigate the economic ramifications of catastrophes. Hence, acknowledging the necessity for a robust and comprehensive strategy to manage the financial fallout of disasters, the National Strategy for Disaster Risk Financing (DRF) has been formulated.

II. The Cost of Disaster and Risk Hazards in Bangladesh

A. Disaster and Risk Hazards Scenarios

- Learning from previous experiences, the strategy utilizes knowledge gained from economic impact assessments of previous disasters in Bangladesh. These assessments underscore the considerable financial strain imposed on the government and the wide-ranging economic effects of such occurrences. Acknowledging the possible economic and non-economic impacts of various disasters forms the foundation of formulating this inclusive Disaster Risk Financing (DRF) strategy.

Economically, floods alone account for annual losses estimated at \$2.2 billion. For instance, the 2004 floods caused damages worth approximately \$2 billion, impacting over 36 million people and inundating about 38% of the country. Similarly, the 2017 floods in northern Bangladesh resulted in economic losses estimated at \$1.5 billion, significantly affecting infrastructure, agriculture, and housing sectors. Cyclones also have devastating economic impacts. Cyclone Sidr in 2007 inflicted economic losses of around \$1.7 billion, causing extensive damage to housing, agriculture, and infrastructure (UNDRR, 2020). Cyclone Aila in 2009 led to losses of approximately \$270 million, affecting the livelihoods of 3.9 million people in coastal areas. Additionally, riverbank erosion, a recurrent disaster, affects over 200,000 people annually with estimated economic losses of \$500 million each year, resulting in the loss of land, housing, and agricultural productivity (World Bank, 2018).

Beyond economic losses, the non-economic impacts of disasters are profound. Loss of life and health is significant, with disasters like cyclones and floods causing numerous fatalities. For instance, Cyclone Sidr 2007 resulted in around 3,406 deaths, while the 1998 floods caused over 1,000 fatalities. Health impacts include outbreaks of waterborne diseases post-floods, malnutrition due to crop losses, and mental health issues stemming from trauma and displacement. Disasters also lead to significant displacement and migration. Cyclone Aila alone displaced around 500,000 people, while riverbank erosion annually affects approximately 50,000 families, leading to rural-urban migration and increased pressure on urban infrastructure and resources. Educational disruptions are another critical non-economic impact, with floods and cyclones often causing prolonged school closures. For example, the 2019 floods in Kurigram disrupted education for over 100,000 children as schools were used as shelters and roads were submerged (ReliefWeb, 2019).

On average, the annual response costs for the government of Bangladesh for post-disaster interventions are estimated at US\$810 million. However, the picture becomes far more concerning when considering larger, less frequent events. A flood comparable to the devastating 1993 deluge (with a 1 in 40-year occurrence) could create a funding gap



exceeding US\$1.7 billion, while even less likely disasters (1% chance in any given year) could necessitate expenses surpassing US\$6.5 billion. The National Adaptation Plan (NAP) paints a sobering picture, which says that Bangladesh currently faces an annual direct cost of \$6 billion due to climate change, equivalent to 1.2% of GDP. Against such backdrops, financing of disaster risk reduction could be more effective than the financing of post disaster search, rescue, relief, rehabilitation, reconstruction and recovery efforts.

Despite being constantly battered by natural disasters like cyclones and floods, Bangladesh is a leader in proactive disaster risk management (DRR). They achieve this through a multi-pronged approach that strengthens a community's ability to bounce back (resilience), ensures they're ready to face disaster (preparedness), and minimizes the overall damage (mitigation). A key element is their investment in early warning systems. By pinpointing cyclones and floods with greater accuracy, these systems provide timely and life-saving warnings to vulnerable communities. This allows them to evacuate to safety and take necessary precautions before disaster strikes. Recognizing the power of local knowledge and action, Bangladesh empowers communities through DRR programs. This means training residents, providing resources, and actively involving them in disaster preparedness plans. By building local capacity, Bangladesh creates a more robust and responsive network for managing natural disasters.

Confronting the fury of natural calamities, Bangladesh prioritizes infrastructure resilience. Through the construction and continual upgrading of durable housing, roads, bridges, and shelters, both urban and rural regions mitigate damages. Particularly noteworthy are the reinforced building codes that integrate resilient practices, enabling structures to better withstand earthquakes and cyclones. Advancing its proactive stance, the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) integrates disaster risk reduction with climate adaptation and mitigation strategies. This approach empowers vulnerable communities and charts a sustainable trajectory amidst a shifting climate.

While achieving total prevention remains extremely difficult, Bangladesh tactically reduces disaster damage through effective risk reduction measures. Cooperation between the government, NGOs, and international partners plays a crucial role in reducing the impacts of disasters. Significantly, employing a collaborative and diversified approach enhances resilience and lessens the severe repercussions of natural calamities. In this context, the national disaster risk financing strategy will empower the stakeholders across various sectors to skillfully gather, allocate, prioritize, and mobilize resources for the most vulnerable populations, thus facilitating unified efforts.

B. Disaster Risk Financing Needs

The government's obligations to finance response, recovery and reconstruction fall either as (a) contingent explicit and (b) contingent implicit liability within the fiscal risk assessment framework. Disasters cause significant destructions of physical assets and livelihoods, temporary (or sometimes permanently) displacing affected population. The government has the leading role in coordinating and financing emergency response, recovery (rehabilitation) and reconstruction, which could cause significant fiscal outlays. Explicit liabilities are legally binding obligations for that governments must settle while implicit liabilities represent non-legally binding moral obligations arising from public expectations. Taking a stock of, and clarifying obligations of the governments prior to disasters is an important prerequisite to strengthening of fiscal resilience against disasters.

Bangladesh requires considerable resources for (a) disaster response/early recovery and (b) rehabilitation, and reconstruction. Country's disaster risk will require detailed catastrophe modeling and in-depth analysis of past disaster response for estimating rehabilitation and reconstruction expenditure. The annual combined risk includes those pertaining to private and public response, rehabilitation and reconstruction needs. Disaster response/early recovery costs include humanitarian response and early recovery efforts such as food, shelter, health, and income recovery support. Combined needs for annual response and early recovery for floods and cyclones were estimated approximately at US\$1.2 billion (2 year event), US\$3.3 billion (10 year event), US\$5.0 billion (50 year event) respectively, accounting for **25% of total needs**. According to Cyclone Sidr 2008 PDNA (Post-Disaster Needs Assessment), early recovery requirements were estimated as 27% of total needs (US\$ 360 million in 2008 prices), including items such as food (71%), shelter (13%), economic and social infrastructure. According to 2022 PDNA of Flashflood, humanitarian appeal accounted to US\$ 55 million.

Rehabilitation and reconstruction costs include resources needed to rebuild public and private assets including critical infrastructure. Combined needs for rehabilitation, and reconstruction costs for floods and cyclones were estimated approximately at US\$3.5 billion (2 year event), US\$9.8 billion (10 year event), US\$15 billion (50 year event) respectively, accounting for **75% of total needs**. According to Cyclone Sidr 2008 PDNA, rehabilitation and reconstruction needs were estimated as 73% of total needs (US\$ 953 million in 2008 prices), including items such as housing (11%), transport (11%), water and sanitation (12%) embankment and water control (11%), education (11%). According to 2022 PDNA of Flashflood, total rehabilitation and reconstruction needs of four key sectors were estimated at US\$580 million including roads (54%), water resources management (25%), water supply and sanitation (7%) and agriculture and livestock (14%).

C. Financing Gap Analysis

A financing gap analysis assesses the difference between the financial resources available and the actual funds required to effectively manage and respond to disasters. By assessing this gap, the GOB understands the extent to which there is a funding shortfall (or not) for moderate, severe, and catastrophic disasters. Based on this understanding, the GOB can strategically mobilize additional risk financing instruments (including risk retention and risk transfer) to cover costs of disaster response, recovery, and reconstruction. In addition, the financing gap analysis allows for more informed decision-making in allocating resources to enhance resilience and ensure swift and effective responses when disasters strike.

It is assumed that approx. US\$1,502 million, or 0.32% of GDP⁶ can be mobilized for the response and early recovery phase. The GoB's fiscal instruments consist of the annual allocation to the MoDMR and the general budget contingency. These instruments can mobilize US\$816 million, or 0.2% of GDP. In addition, the Ministry of Finance has established since FY 2021-2022 a contingency fund to channel relief assistance to vulnerable households via social safety nets support. Based on the budget allocations from FY 2022-2023 and 2023-2024, it is assumed that US\$631 million, or 0.14% of GDP is available via these social instruments. Importantly, there are three prime instruments in the financial sector which can be mobilized for disaster response. The first is social services financing from MFIs, of which estimated US\$8.4 million could be channeled towards disaster response. The second is the climate risk fund which banks may establish as part of Bangladesh Bank's Corporate Social Responsibility initiative. Based on data from June 2023, it is estimated that approx. US\$18.9 million could be mobilized from this fund for disaster response. Third is the 'SOHAS' fund deployed by PKSF, which enables NGOs and MFIs to extend emergency lines of credit to vulnerable households impacted by shocks. This fund is approx. US\$27.3 million. This places resource availability for disaster response from financial instruments at US\$54.6 million, or 0.01% of GDP.

For rehabilitation and reconstruction, it is assumed that US\$3,150 million, or 0.7% of GDP, can be mobilized in post disaster situations. There is a 'disaster risk management' indicator within the climate budget tagging process being implemented by the GoB. The Planning Commission conducted an analysis of disaster related public fund allocation as part of the annual development plan (ADP) from FY 2011- FY 2015. This report has a broad definition of what is disaster related, ranging for investments in preparedness, risk reduction, risk mitigation and response. Based on the data, it is found that approx. 18% of projects implemented by disaster exposed Ministries have a disaster related focus. Drawing from this estimation it can be assumed that 18% of the ADP is available for

⁶ IMF estimate 2024



reconstruction. With the actual expended ADP in FY2022-2023 at US\$34.6 billion, this equates to US\$3,150 million, or 0.7% of GDP.

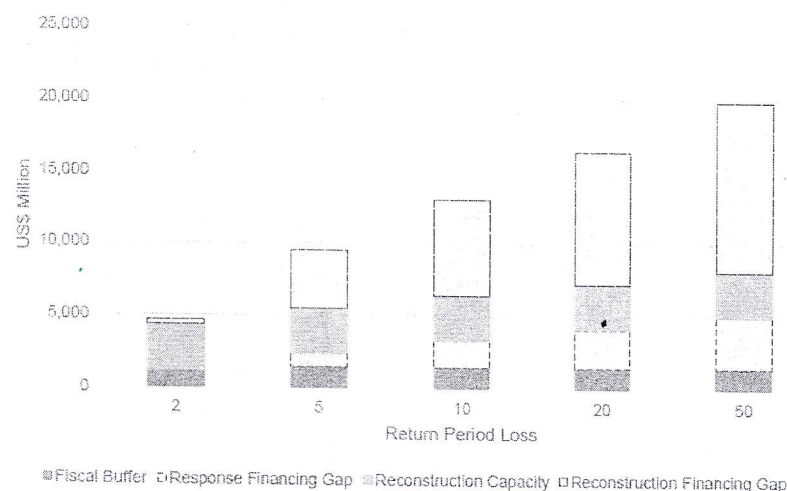


Fig: Financing Gap for Disaster Response and Reconstruction in Bangladesh, IMF Estimate, 2024

The GoB has access to sufficient resources to meet the cost of response and reconstruction due to disasters in an average year, however faces financing gaps for moderate disaster events. Under the status quo, the financial resources available to the GoB can fully finance response costs and the majority of reconstruction costs for the disaster event which is expected to occur every other year. There is no financing gap for response, and a small financing gap for reconstruction, for the 1-in-2-year event. However, for moderate disasters such as those occurring every three to five years, the GoB faces a financing gap. For a one-in-five-year disaster event (each year there is a 20% chance of occurrence), the response financing gap is US\$880 million, and the reconstruction financing gap is US\$4.0 billion. Looking at catastrophic disaster events the financing gap increases significantly – for a one-in-fifty-year disaster event leads to a response financing gap of US\$3.5 billion, and the reconstruction financing gap is US\$11.8 billion.

III. High-Level Policy Objective:

A. Vision

To ensure sustainable economic growth that incorporates disaster resilience while prioritizing the protection and advancement of the poorest and most vulnerable section of populations of the country.

B. Objectives:

i) Enhancing Financial Preparedness and Response:

- Strengthening financial readiness by diversifying funding sources and ensuring adequate pre-disaster financing mechanisms are in place.
- Establishing swift response systems to expedite financial assistance to individuals, communities, and businesses in the aftermath of disasters.
- Mitigating the financial burden of disasters by promoting risk reduction measures and financing approaches that minimize post-disaster losses.

ii) Integrating DRF into Financial Policies and Practices:

- Foster a deep understanding of DRF principles throughout government agencies and financial institutions.
- Integrate DRF considerations into financial decision-making processes, shaping financial policies, tools, and regulatory structures to incentivize risk reduction and resilience building.

iii) Building Resilience Bangladesh by 2041:

- Aligned with Bangladesh's vision of becoming a resilient nation by 2041, this strategy will explore innovative financial instruments and risk transfer mechanisms to safeguard assets, lives, and livelihoods across all sectors.
- Strengthen partnerships among the relevant stakeholders and leveraging technological advancements to build financial resilience at the local, institutional, and national levels.

C. Expected Outcomes of the Strategy

Disaster resilience will be enhanced from the increase in risk information based private and public financing and risk sharing, and through insurance and other instruments. Information along with necessary instruments and technologies will be received to forecast disaster risk. There will be immediate financial arrangements in place for disaster risk reduction and post-disaster recovery through various financing mechanisms. Financial risk investment will be ensured in construction of critical infrastructures according to the concept of disaster risk sensitive development. There will be adequate development of infrastructure insurance, social security allowance, property insurance and life insurance programs, while incorporating the disaster risk. Implementing a well-designed DRF strategy could yield several positive outcomes for Bangladesh, potentially:

C1. Reduced Loss of Life and Livelihoods:

Improved preparedness: Early warning systems, evacuation plans, and community awareness campaigns can lead to faster and more effective responses to disasters, minimizing casualties and injuries.

Increased resilience: Infrastructure upgrades, risk reduction measures, and financial resources for immediate response can help communities recover faster and prevent long-term economic and social disruptions.

Protection of critical infrastructure: Investments in protecting vital infrastructure like bridges, roads, and healthcare facilities can minimize post-disaster disruptions and ensure faster restoration of essential services.

Capacity building and knowledge transfer: Training and capacity building for government officials, communities, and other stakeholders can create a more knowledgeable and prepared population for managing disaster risks.

C2. Economic Benefits:

Reduced disaster-related costs: Lower overall financial losses from disasters can free up resources for investments in development, poverty reduction, and other critical areas.

Improved risk management: Efficient budgeting and resource allocation for disaster risk reduction can minimize disruptions to economic activity and protect investments.

Enhanced investment and business confidence: A robust DRF strategy can create a more stable environment for investments, potentially attracting businesses and promoting economic growth.

Enhanced international cooperation: Collaboration with international partners can bring additional resources, expertise, and innovative solutions to strengthen the DRF strategy.

C3. Social and Community Development:

Strengthened social cohesion: Collaborative efforts in disaster preparedness and risk reduction can foster community resilience and build stronger social bonds.

Empowered communities: Engaging communities in the DRF process and equipping them with resources and knowledge can enhance their agency and ability to manage risks.

Improved health and well-being: Reduced exposure to disaster risks and faster post-disaster recovery can contribute to better health outcomes and overall well-being of communities.

C4. Environmental Sustainability:

Climate change adaptation: Integrating climate-resilient measures into the DRF strategy can help Bangladesh adapt to changing weather patterns and reduce the impact of climate-related disasters.

Ecosystem protection: Protecting natural ecosystems like mangroves and forests can act as natural buffers against floods and storms, contributing to both disaster risk reduction and environmental sustainability.

Sustainable resource management: Efficient use of resources for disaster preparedness and response can minimize environmental footprint and promote responsible resource management.

IV. Strategic Priorities

Highly vulnerable to natural disasters, Bangladesh has undertaken a proactive approach by developing a National Disaster Risk Financing (DRF) Strategy. This comprehensive strategy has prioritized some areas such as: strengthening financial preparedness through enhanced fiscal buffers, improving the effectiveness of social safety nets, and encouraging private sector involvement in risk transfer mechanisms. Additionally, the strategy will address institutional capacity building for effective DRF management and prioritize risk reduction initiatives to build long-term resilience. The strategic priorities of the DRF are:

A. Enhance and strengthen fiscal buffers⁷:

The GoB will strengthen its financing capacity to respond to future shocks of varying frequency and severity through expanding its various instruments. Indeed, building robust fiscal buffers is a cornerstone of the National DRF Strategy. In order to accurately determine the fiscal buffers, disaster modeling needs to be done for the disaster that Bangladesh faces. Fiscal buffers will be determined within the framework of the return periods obtained from the models. Additionally, a detailed tagging system will be developed on order to accurately find expenditures such as response and reconstructions from the budget. The key initiatives to achieve this goal are:

Evaluating Existing Resources: A thorough assessment of existing fiscal buffers will be conducted within the Medium-Term Budget Framework (MTBF) of the GoB. This evaluation will determine the adequacy of current resources and identify potential areas for optimization.

Securing Pre-disaster Financing: The strategy prioritizes establishing ex-ante⁸ contingent lines of credit. These lines, secured from International Financial Institutions

⁷ Fiscal buffers refer to readily available financial resources set aside specifically for responding to disasters. It will enable Bangladesh to respond effectively to disasters, minimize economic losses, and facilitate faster recovery for its citizens.

(IFIs) and development partners at concessional lending rates would provide immediate access to funds in the aftermath of a disaster.

Exploring Innovative Approaches: Beyond contingent lines of credit⁹, the Government of Bangladesh will explore debt innovations such as climate resilient debt clauses (CRCDs) which create fiscal space upon the occurrence of disasters. CRDCs enable disaster affected countries defer their debt payments for a pre-determined period, with the aim of expanding fiscal space to provide aid and support to affected populations. CRDCs offer debt relief in the event of a qualifying disaster, reducing the financial burden on the government. CRDCs could support the GoB avoid liquidity challenges when impacted by disasters, and in extreme circumstances avoid costly defaults. Discussions with IFIs and development partners will focus on the potential to incorporate Contingent Debt Reduction Clauses (CDRCs) within their financing arrangements.

Maintaining Flexibility: The International Monetary Fund (IMF) offers various financial facilities to assist member countries facing temporary economic challenges. Shock-Responsive Facilities (SRF) is one of them which are specifically designed to provide rapid financial support to countries experiencing external shocks that disrupt their economies. Maintaining eligibility for ex-post¹⁰ contingent lines of credit, such as the Rapid Credit Facility (RCF), will ensure access to additional resources as needed following a disaster. For the RCF, disbursements are typically quick and have limited conditionality.

Transparency in Disaster Spending: To enhance the clarity of disaster expenditures, an extensive expenditure review will be conducted using the existing tools. This review will analyze past disaster events and estimate the true cost of disaster response efforts based on actual budget allocations. In addition, a detailed tagging system will be developed on order to accurately identify expenditures such as response and reconstructions from the budget. Such an increased transparency will improve resource allocation and future planning in disaster management.

Risk Assessment and Prioritization: Recognizing that not all public assets carry the same risk profile, the strategy calls for the line ministries and divisions to conduct comprehensive risk assessments. These assessments will evaluate the exposure and vulnerability of key public and private assets to natural disasters. This data will also be

⁸ "ex-ante" refers to actions or plans taken **before** a disaster strikes. It essentially means "in anticipation of" or "proactive."

⁹ "Contingent lines of credit" are pre-arranged borrowing agreements with international financial institutions (IFIs) like the World Bank or the International Monetary Fund (IMF). These credit lines act as a safety net, providing Bangladesh with **immediate access to financing** in the event of a qualifying disaster.

¹⁰ "ex-post" refers to actions or plans implemented **after** a disaster has struck. It essentially means "after the fact" or "reactive."

crucial for prioritizing insurance coverage, ensuring allocation of resources towards those assets facing the greatest threat.

B. Strengthen Efficacy of Social Assistance Programs

- The GoB will increase the efficiency and efficacy of funds channeled as relief to disaster affected and anticipated affected households for better targeting and effective social assistance programs. The National DRF Strategy recognizes the critical role of social assistance in mitigating the impact of disasters on vulnerable populations. The key initiatives to enhance the effectiveness and scalability of social safety net programs are:

Integrated Management Information System (MIS): To ensure a rapid and targeted response during disasters, the strategy prioritizes establishing an actionable plan for a harmonized MIS for both relief and social assistance programs. This system will provide a standard centralized platform for data collection, beneficiary identification, and program management, enabling efficient resource allocation and quicker scaling up of interventions when needed. There will be an agreed standard for data collection, processing, analysis, and dissemination which will strengthen data management and help to avoid duplication of social assistance programs. In addition, GIS and remote sensing tools will be used to identify the vulnerable and most affected households and community.

Leveraging and Optimizing Scalable Social Programs: Recognizing the importance of readily deployable support measures, the strategy calls for identifying key scalable programs based on evidence that can be readily adapted for disaster relief and humanitarian efforts for those who need the most. The existing social safety net programs will be evaluated and linked with the DRR activities. A dedicated plan will be developed outlining how these programs can be effectively leveraged during crises, ensuring timely and appropriate assistance reaches those in need. In order to maximize efficiency in resource allocation, a comprehensive assessment will be conducted to identify the less effective social programs. Based on the findings, a consolidation plan will be established, existing programs will be streamlined and a more robust and efficient social safety net programs will be ensured for the target groups.

Building Hazard Vulnerability Maps: Disaster preparedness is a key to a proactive approach. The strategy emphasizes the development of a hazard vulnerability map under the purview of the Ministry of Disaster Management and Relief (MoDMR) in line with the National Social Safety Strategy (NSSS). This map will be a crucial tool for identifying high-risk areas and directing resources towards those most likely to be impacted by disasters and it will be updated at regular intervals. Community Risk Assessment (CRA) tool will also be used to identify the most vulnerable locations, populations using hazard, vulnerability, risk resource map for prioritization of actions towards preparedness, response, and anticipatory actions.

Utilizing Digitalization and Cash Transfers: The strategy acknowledges the potential of digitalization for efficient and transparent delivery of social assistance. It promotes the continued expansion of the digitalization agenda and leveraging the strength of private sector for cash transfer and distribution whenever possible. This will expedite the delivery of assistance to the vulnerable groups and minimize the administrative burdens. Accountability of the system will be ensured using digitization process using Meta data, social data and social audit through community participation

Monitoring and Evaluation (M&E): To ensure continuous improvement and inform future budgeting decisions, a robust monitoring and evaluation framework will be established for relief-oriented and scalable social assistance programs. This framework will track program effectiveness, measure impact on beneficiaries, and provide data-driven insights for future disaster response efforts. Participation of the all relevant stakeholders in the preparation of M&E will be ensured for delivering the programs more efficiently and effectively.

Inter-ministerial Collaboration: The strategy recognizes the importance of cross-governmental coordination in building disaster resilience. The DRF strategy will leverage the establishment of an inter-ministerial committee on adaptive social protection¹¹. This committee will bring together key decision-makers like the National Disaster Management Council to ensure that the DRF strategy agenda is effectively integrated into broader Disaster Risk Management (DRM) policies. The inter-ministerial body will also facilitate planning, targeting, implementing and evaluating the programs. A feedback mechanism will in place for better inter-ministerial coordination process.

C. Fostering greater risk transfer and private sector participation

The national DRF strategy recognizes the limitations of traditional financial institutions in reaching vulnerable populations and fostering disaster preparedness. The DRF strategy explores alternative channels and promotes greater collaboration within the financial sector to improve access to disaster-related insurance, insurance-linked loans, and post-disaster credit. But the problem is that Bangladesh has a very low insurance participation rate. Insurance premiums only account for around 0.5% of the country's GDP, which is significantly lower than the 3.7% average for emerging Asia.

The insurance industry of Bangladesh consists of 35 life insurance companies and 46 non-life insurance companies. Two state-owned insurers play a major role in the market:

¹¹Adaptive social protection refers to a comprehensive approach that integrates social protection programs with disaster risk reduction (DRR) and climate change adaptation (CCA) strategies.



Jibon Bima Corporation (JBC) for life insurance and Shadharon Bima Corporation (SBC) for non-life insurance. The GoB will expand the role of non-life insurance in managing the costs of disasters. The GoB will also identify effective disaster responsive programs, which are operating in the private sector and seek to scale them up using fiscal incentives over time. The key initiatives to achieve this goal are:

Evaluating Alternative Channels: The DRF strategy prioritizes a comprehensive evaluation of alternative channels for delivering disaster risk financing solutions. This evaluation will consider various institutions, such as Microfinance Institutions (MFIs). MFIs have established networks and enriched with experience working with low-income populations. They could potentially offer micro-insurance products or integrate disaster risk mitigation features into existing loan products. Cooperatives often enjoy strong community ties and trust. They could play a role in promoting disaster risk awareness, offering micro-insurance products designed specifically for their members' needs, or facilitating access to post-disaster credit. Banks can utilize their existing infrastructure to offer disaster-related insurance products and post-disaster loan options. Partnerships with insurers and MFIs could further expand their reach. Insurance companies play a central role in risk transfer. The strategy will explore ways to encourage them to develop innovative insurance products tailored for low-income populations in the disaster-prone areas.

Identifying Scalable Programs: The strategy will focus on identifying promising programs with the potential for scaling. These programs will consider that the products should be priced within the reach of vulnerable populations. Subsidies or innovative premium payment structures can be explored. In addition, distribution channels should be convenient and readily accessible to those most in need. Partnerships with local institutions can be crucial. Importantly, products should demonstrably reduce financial vulnerability after disasters.

Insurance for High-Rise Buildings: The strategy proposes the provisions of financial resources through insurance that will be readily available for repairs and reconstruction of high-rise buildings following a disaster. The specifics of coverage and premiums will be further determined to ensure affordability and effectiveness of the provisions.

Loan-Linked Insurance: To encourage risk mitigation and preparedness, the strategy proposes mainstreaming insurance requirements for loans provided by the banks. This will be achieved through guidance issued by relevant authorities. Banks can then offer loan products bundled with disaster-related insurance, ensuring borrowers have the financial resources to recover from a disaster. This approach may have a negative impact on economic growth by increasing credit costs. Therefore, it may need further analysis to evaluate the feasibility and benefits on this approach.

Strengthening Domestic Insurance Sector: Recognizing the importance of a robust domestic insurance sector, the strategy prioritizes strengthening its financial, regulatory, and technical capacities. Targeted capacity-building programs will be developed, potentially leveraging the support of development partners. This will enhance the sector's ability to offer diverse and affordable disaster risk financing products.

Exploring Sovereign Insurance Schemes: Building upon existing pilot experiences, the strategy will consider adopting a sovereign disaster insurance scheme. This scheme would involve the government partnering with international reinsurance companies to share the financial burden of large-scale disasters. Further analysis will be conducted to assess the feasibility and potential benefits of this approach.

Development Potential of Islamic Insurance: As one of the world's fastest-growing financial sectors, Islamic finance offers a wealth of tools to support disaster risk reduction (DRR) in Bangladesh. These tools include investments through Islamic banks, Sukuk issuances (Sharia-compliant bonds), Islamic investment funds, Takaful (Islamic insurance), and charitable instruments like Zakat and Waqf. Notably, Green Sukuk, a Sharia-compliant bond specifically funding eco-friendly projects, holds particular promise for Bangladesh, as it aligns with the country's need for climate adaptation investments.

Targeting Vulnerable Populations: The strategy acknowledges the limitations of broad-based post-disaster assistance. To ensure effective use of resources and encourage private sector participation, the strategy proposes targeting of needs-based support to the most vulnerable populations. This will involve identifying and prioritizing those most in need of financial assistance after a disaster. Evaluating options to reduce broad-based assistance can then pave the way for the development of market-based risk sharing arrangements such as Catastrophe (Cat¹²) bonds, micro-insurance¹³, and index-based¹⁴ insurance.

Financial and Insurance Literacy: Reaching vulnerable populations with appropriate financial and insurance products requires a well-informed citizenry. The strategy proposes expanding existing efforts to enhance financial and insurance literacy among these segments of population. This can be achieved through educational campaigns, community outreach programs, and collaborations with local NGOs. By increasing awareness, individuals will be better equipped to make informed decisions regarding risk mitigation and financial preparedness.

¹² Specialized bonds issued by governments or private entities to raise funds for disaster response. Investors purchase these bonds and receive a return on their investment, but risk losing some or their entire principal if a specific disaster occurs.

¹³ It provides affordable insurance products to low-income populations, allowing them to financially protect themselves against losses caused by disasters.

¹⁴ This type of insurance pays out based on pre-determined triggers linked to a disaster event, such as the severity of a drought or the strength of an earthquake, rather than on actual physical damage.

Insurance in PPPs: To protect public investments in infrastructure projects, the strategy suggests the inclusion of force majeure event insurance within all Public-Private Partnership (PPP) contracts. This insurance will cover damage caused by unforeseen events like natural disasters during both construction and implementation phases. This ensures that essential infrastructure remains operational even in the wake of a disaster and minimizes disruptions to public services.

Piloting a Public Asset Insurance Scheme: To gain practical experience before full-scale implementation, a pilot program will be launched. This pilot program will focus on insuring public assets managed by the government agencies with the largest contingent liability to the GoB. The learning and data gathered from this pilot program will inform the future design and expansion of a national public asset insurance scheme.

D. Strengthen the institutional framework for DRF

There will be initiatives for strengthen the alignment of the DRF strategy with core planning documents and policies of the government. The strategy will also strengthen coordination process among the multiple organs of the government involved in disaster response and recovery. The National DRF strategy will be effectively integrated with existing legislation and national development plans to ensure long-term sustainability and impact. The key initiatives to achieve this goal are:

Ensuring Legal Compliance: A thorough review will be conducted to ensure the adherence of the DRF strategy to all relevant legislation and policies of the government. This will ensure alignment of the DRF strategy with the existing frameworks and pave the way for smooth implementation of the strategy.

Mainstreaming into National Disaster Management Policy: To ensure continued relevance, the DRF Strategy will be mainstreamed into the upcoming 2026-2030 National Disaster Management Policy (NDMP). This integration will ensure DRF strategies are fully harmonized with broader disaster management efforts of the country.

Comprehensive Implementation Plan: A comprehensive implementation plan will be developed to guide the rollout of the DRF strategy gradually. This plan will outline key milestones, responsibilities for relevant stakeholders, and resource allocation strategies. Additionally, communication and capacity building initiatives will be developed to ensure that all stakeholders are aware of the DRF strategy and its strategic priorities. Existing plans of relevant agencies will be reviewed and adjusted to incorporate the objectives of the DRF strategy.

Alignment with National Development Plans: To solidify the DRF strategy within the broader government agenda, its implementation will be included as part of the upcoming Five-Year Plan and other relevant development plans of the GoB. This will

demonstrate the government's commitment to disaster risk financing and ensure necessary budgetary allocations are provided.

Monitoring and Evaluation Framework: A robust monitoring and evaluation framework will be established to track progress and measure the effectiveness of the DRF strategy. This framework will include Key Performance Indicators (KPIs) that assess progress towards achieving the strategy's goals. Regular reporting mechanisms will be established to monitor progress, identify challenges, and inform adjustments to the strategy as needed.

Review of the Strategy: To ensure the DRF strategy remains on track and adapts to changing circumstances, reviews will be conducted in every three years throughout its implementation. This review will assess progress, identify areas for improvement, and inform potential adjustments to the strategy. It will also provide an opportunity to showcase successes and garner continued stakeholder support.

E. Risk Reduction for Long-Term Resilience

Bangladesh, a nation highly susceptible to natural disaster like cyclones, floods, and droughts as well events like earthquakes, has adopted a comprehensive approach to disaster management. While reactive response measures are essential, Bangladesh prioritizes risk reduction and anticipatory actions (AA) to mitigate the impact of disasters before they strike. This two-pronged strategy emphasizes a long-term resilience building through structural and non-structural interventions, alongside innovative approaches like forecast-based financing and pre-positioning of resources. By proactively addressing vulnerabilities and preparing communities, Bangladesh aims to minimize disaster losses and safeguard the lives and livelihoods of its citizens. The key initiatives to achieve this goal are:

Structural Measures: Bangladesh has a long history of implementing structural measures to reduce disaster risk and promote climate change adaptations through investment and financing which are also articulated in the National Adaptation Plan (NAP). This includes:

- (a) Strengthening of existing infrastructures (retrofitting, reinforcement of building and critical infrastructure, improvement of drainage system)
- (b) Building and maintaining embankments considering water flow and seawalls: these physical barriers provide crucial protection against floods and storm surges.
- (c) Elevating settlements and infrastructure: raising homes and critical infrastructure in flood-prone areas minimizes damage from rising water levels.
- (d) Investing in cyclone shelters: these sturdy structures provide safe havens for communities during cyclones.

(e) Promoting climate-smart agriculture: techniques like drought-resistant crops and improved water management practices can help communities adapt to changing weather patterns.

(f) Build earthquake resilient building following BNBC guidelines and Establishing and develop special building codes for disaster prone areas.

(g) Establishing early-warning generating system like installation of radar, satellite-ground station, atmospheric, marine and land surface observation and monitoring and detection system)

Non-Structural Measures: Alongside structural interventions, Bangladesh emphasizes non-structural measures to build resilience:

(a) Public awareness campaigns: educating communities about disaster risks, preparedness measures, and early warning systems is crucial in risk reduction.

(b) Strengthening community-based disaster risk management (CBDRM): empowering communities to identify local risks, develop preparedness plans, and participate in risk reduction activities fosters long-term resilience.

(c) Land-use planning: zoning regulations and building codes that consider floodplains and other high-risk areas can prevent future development in vulnerable locations.

(d) Strengthening early warning systems: investing in weather forecasting technologies and robust communication networks ensures timely warnings reach communities at risk.

(e) Building capacity of the volunteers through rigorous training so that they are better prepared for the disasters and develop emergency planning drills for them through regular exercise and drills.

Anticipatory Actions (AA): Bangladesh is a global leader in adopting anticipatory actions to proactively address potential disasters. Here are some key examples:

(a) **Forecast-based financing:** Pre-defined triggers, based on weather forecasts, automatically release pre-allocated funds to vulnerable communities before a disaster strikes. This allows communities to purchase food, stockpile essential supplies, and reinforce their homes.

(b) **Relocation to Shelter Centers:** For communities in flood plains/cyclone prone areas, temporary relocation to safer areas (shelter centers) based on forecasts can significantly reduce risks.

(c) **Pre-positioning of resources:** Stockpiling food, medicine, and other relief supplies in strategic locations allows for a faster and more efficient response to emergencies. Resources also include skilled manpower and equipment that will be mobilized deployed in the potential affected areas.

The DRF Strategy promotes investing in risk reduction measures like infrastructure upgrades and ecosystem protection. This can reduce the overall vulnerability of communities to disasters in the long run. Additionally, the DRF Strategy will include programs to build the resilience of vulnerable populations, empowering them to take proactive steps to protect themselves and their livelihoods. The DRF Strategy offers a promising framework to improve AA financing in Bangladesh. By providing readily available resources, promoting risk reduction, and fostering collaboration, the strategy can help ensure that vulnerable populations receive the support they need before, during, and after disasters.

V. Implementing Ministries and Mechanisms

The Ministry of Finance (MoF) and the Ministry of Disaster Management and Relief (MoDMR) will spearhead the implementation of the DRF strategy. The MoF's central role is mandated by various legal documents and legislation. This includes provisions in the constitution, public financial management laws, and its designated responsibilities in areas like national budget preparation, contingent liability management, fiscal risk statements, medium-term fiscal planning, and coordinating with Line Ministries. The MoDMR, on the other hand, holds the responsibility for developing and implementing disaster-related legal frameworks, policies, and plans. Additionally, they manage the disbursement of funds for both pre-disaster preparedness and post-disaster relief efforts.

A. National Disaster Risk Management Framework

The cornerstone of Bangladesh's disaster response lies in the Disaster Management Act of 2012, serving as the foundation for handling emergencies and crises by delineating distinct roles and responsibilities for all stakeholders. Whether it's the government, local authorities, or specialized organizations, each entity has a vital role in the synchronized response effort. At the national level, the National Disaster Management Council, led by the Honorable Head of the government assumes a pivotal role in crafting policies and strategies for disaster management. The council oversees the execution of disaster management operations and facilitates coordination among various agencies.

The Disaster Management Act of 2012 established two distinct funds: the 'National Disaster Management Fund' and the 'District Disaster Management Fund.' As sources of funds, it mentioned grants given by the government, grants given by any foreign government, organization, or international organization with the approval of the

government, grants given by any local authority, donations given by any elite person at the local level, and money received from any other legal source.

The National Plan for Disaster Management (2021–2025) (NPDM) was formulated based on four core principles of disaster risk management (preparedness, early warning and alert, emergency response, rehabilitation, reconstruction, and recovery), drawing from the Sendai Framework for Disaster Risk Reduction (SFDRR) and the Standing Order on Disaster (SOD). Bangladesh's Standing Orders on Disaster (2019) further support the country's planning and response to disaster risks. These strategies are underpinned by the Second Perspective Plan of Bangladesh (2021–2041), its 8th Five-Year Plan for Economic Growth and Development, and the Bangladesh Delta Plan 2100. The Climate Prosperity Plan 2022–2041 also clearly articulated a comprehensive set of climate and disaster risk financing and insurance (CDRFI) instruments. It says that 50%–100% of the population living below the poverty line and at risk of falling below the poverty line covered by financial protection against climate-related disaster ().

Through the implementation of the Eighth Five-Year Plan, Bangladesh aspires for a future where disasters pose minimal risk, particularly for vulnerable populations. This dual-pronged approach focuses on mitigating vulnerabilities through mitigation strategies and establishing a resilient emergency response system to minimize the impact of disasters. However, effective execution, community involvement, and adaptation to climate change are essential for realizing this vision and ensuring a more resilient Bangladesh.

Bangladesh actively incorporates the Sustainable Development Goals (SDGs) into its disaster risk management strategies. Goal 11, which advocates for inclusive, safe, and resilient cities, stands as a pivotal focus, with target 11.5 specifically aimed at mitigating disaster risk. However, Bangladesh's dedication extends beyond a single target. Recognizing the interconnected nature of challenges, the country aligns with other pertinent SDGs. For example, target 1.5 emphasizes bolstering the resilience of vulnerable population; particularly those affected by climate change and disasters, thereby fostering a more inclusive and fair society. Additionally, target 13.1 of the SDG, focusing on enhancing resilience to climate-related hazards and natural disasters, lays a stronger groundwork for sustainable development. By integrating these SDGs into its national strategies, Bangladesh showcases a comprehensive approach to forging a future where communities can thrive, even in adverse circumstances. This steadfast commitment to long-term resilience sets the stage for formulating a comprehensive disaster risk financing strategy.

While the Bangladesh Delta Plan (BDP 2100) lays out a comprehensive strategy for disaster resilience, its effectiveness depends on robust collaboration, adequate funding, and supportive policies. The estimated investment plan of US\$38 billion for the BDP

2100 by 2030 underscores the need for both increased government spending and improved budget management. However, addressing the substantial funding shortfall demands increased budgetary allocations and efficient utilization of resources. Additionally, diversifying funding sources beyond traditional government budgets is essential. Moreover, leveraging private-sector investment can play a pivotal role in bridging the gap. By addressing these financing challenges, Bangladesh can realize the potential of the BDP 2100, and able to create a more resilient nation capable of withstanding future disasters.

B. International Provisions for Disaster Risk Financing

Internationally, agreements among the countries underscore the pivotal role of disaster risk financing in fortifying resilience. A notable instance is the Sendai Framework, which was adopted in 2015. This framework underscores the importance of investing in disaster preparedness, acknowledging that proactive measures save lives and reduce long-term costs. Moreover, this global roadmap prioritizes bolstering preparedness and recovery, including through "Build Back Better" approaches. The key to achieving these goals lies in implementing financially informed solutions. In this regard, the World Bank's Sendai Framework for DRM Financing Strategy translates these global priorities into practical initiatives. This strategy promotes the utilization of diverse financial instruments, insurance mechanisms, and risk transfer strategies. For example, catastrophe bonds issued by the World Bank provide pre-arranged financing to affected countries following disasters, ensuring swift access to funds for recovery endeavors.

While the Paris Agreement does not exclusively center on disaster finances, it acknowledges the vital importance of enhancing our capacity to adapt, strengthen resilience, and reduce vulnerability to climate change, particularly extreme weather events. Accomplishing these objectives relies on sufficient financing, which includes incorporating innovative solutions such as risk financing. Acknowledging this imperative, the UNFCCC advocates for financial assistance to developing nations for both climate adaptation and mitigation efforts. Instruments like the Green Climate Fund (GCF) allocate resources to initiatives aimed at enhancing resilience and reducing vulnerability to climate induced disasters.

These instances illustrate how international legal frameworks are influencing the arena of disaster risk financing. By fostering collaboration, mobilizing resources, and embracing innovative strategies, these frameworks enable nations to actively address disaster risks and construct robust, resilient communities for the future.

C. Implementation Provisions of the DRF Strategy

A coordinating body will be established for the implementation of the DRF strategy involving government agencies, NGOs, private sector, and local communities. The

implementation provisions of a disaster risk financing (DRF) strategy in Bangladesh would be multifaceted, encompassing various aspects crucial for successful execution. Here are some key provisions to consider for implementation:

C1. Institutional Framework:

Establish a dedicated DRF unit: This unit, housed within the Ministry of Disaster Management and Relief, would oversee the strategy's implementation, manage operational funds, and coordinate with stakeholders.

Define clear roles and responsibilities: Clearly outline the roles and responsibilities of various government agencies, NGOs, private sector entities, and communities in implementing the strategy.

Strengthen coordination and collaboration: Establish mechanisms for effective coordination and collaboration among different relevant stakeholders at national, regional, and local levels.

C2. Financial Management:

Develop a financing plan: This plan should identify diverse funding sources, including government budgets, international aid, risk transfer mechanisms, public-private partnerships, and innovative financing instruments.

Establish transparent budgeting and allocation processes: Implement transparent mechanisms for budgeting, allocating, and managing DRF resources, ensuring accountability and public trust.

Strengthen financial management capacity: Build the capacity of government officials and other stakeholders in financial management, risk assessment, and project evaluation.

C3. Capacity Building and Awareness:

Invest in training and capacity building: Train government officials, community leaders, and other stakeholders on disaster risk management, financial management, and risk transfer mechanisms.

Raise public awareness and community engagement: Educate communities about disaster risks, preparedness measures, and the DRF strategy, encouraging their active participation.

C4. Sustainability and Long-Term Commitment:

Align the DRF strategy with national development plans and other relevant initiatives: Ensure coherence and synergies between the DRF strategy and broader development goals.

Secure political will and long-term financial commitment: Obtain high-level political commitment and secure sustained funding for the long-term implementation of the strategy.

Promote private sector engagement¹⁵: Encourage private sector participation in financing and implementing risk reduction measures. The private sector can bring in additional financial resources for DRR initiatives. This can help bridge the gap between the funding needs and government budgets.

VI. Stakeholder Engagement Plan

This Strategy will be implemented in coordination and collaboration with all concerned public, private sectors, NGOs, INGOs, CSOs, and international development partners. The strategy will be followed by an Action Plan which will be developed through consultation with all the relevant stakeholders.

A. Key principles of the consultation process

Early Consultation and Input: An initial step will involve initiating early consultation with key stakeholders. This will involve sharing a clear outline of the DRF strategy, including its goals, proposed initiatives, and potential challenges. Stakeholders will be invited to provide feedback on the proposed approach. This can be achieved through targeted meetings, online forums, and written submissions.

Diverse Perspectives and Collective Wisdom: Facilitating workshops and forums will foster open discussions and brainstorming sessions. This will gather diverse perspectives from a wide range of stakeholders, including government agencies, NGOs, civil society organizations, academia, the private sector, and representatives from vulnerable communities. By harnessing collective wisdom, the strategy can be enriched with practical insights and tailored to address the needs of all segments of society.

Inclusive Decision-Making: Once the draft is finalized, the complete DRF strategy will be presented for extensive stakeholder comment. This will provide a final opportunity

¹⁵ Private companies often possess specialized skills and experience in areas relevant to DRR, such as engineering, construction, and technology. They can contribute innovative solutions for infrastructure development, early warning systems, and climate-smart technologies. Private sector involvement can also incentivize companies to adopt risk-reduction measures within their own operations and supply chains, leading to a more resilient business environment.

for feedback before the strategy is officially adopted. This inclusive approach ensures a sense of ownership among stakeholders and strengthens the final strategy.

Ongoing Collaboration: Establishing ongoing mechanisms for stakeholder engagement is crucial. This can involve regular meetings, online discussion platforms, and dedicated communication channels. By fostering continuous collaboration, stakeholders can be actively involved in monitoring progress, identifying challenges, and amending the strategy as needed. This ongoing dialogue will ensure the DRF strategy remains relevant, effective, and adaptable in the face of evolving challenges.

B. Communication and Outreach

Effective communication and outreach are crucial for the success of the DRF strategy. Engaging various stakeholders with clear, targeted messages helps build understanding, ownership, and support for the strategy, leading to its successful implementation. Here are some potential approaches:

B1. Target Audiences:

Government officials: Provide technical briefings, workshops, and capacity building programs to ensure understanding of the strategy's goals, mechanisms, and their roles.

Communities: Develop targeted awareness campaigns targeting the relevant community about the DRF strategy and explain how it will benefit them.

Private sector: Organize business forums, roundtables, and partnerships to showcase investment opportunities in risk reduction infrastructure and explore innovative financing solutions.

Media: Conduct press briefings, media releases, and public service announcements to raise awareness about the strategy and its importance for national resilience.

International partners: Engage with international donors, development partners, INGOs and NGOs through dedicated information channels and collaborative dialogues to secure funding and expertise.

B2. Key Messages:

Focus on benefits: Highlight how the DRF strategy protects lives, livelihoods, and infrastructure from disasters, ultimately saving money and ensuring sustainable development.

Transparency and accountability: Emphasize transparent budgeting, fund allocation, and reporting mechanisms to build trust and confidence.

Community participation: Promote the importance of community engagement in risk reduction activities.

Success stories: Share positive examples of how the DRF strategy has helped communities recover from disasters, inspiring others to get involved.

Innovation and partnerships: Showcase collaborations with the private sector and innovative financing solutions to attract broader interest and investment.

C. International cooperation

International cooperation plays a crucial role in strengthening the DRF strategies, particularly for developing countries like Bangladesh. Some suggestive ways for seeking international cooperation for implementation of the DRF strategy:

C1. Financial Support:

International Donors: Partnering with international donors like the World Bank, Asian Development Bank, and bilateral development agencies can secure grant funding, loans, and technical assistance for implementing the DRF strategy.

Climate Funds: Accessing dedicated climate funds like the Green Climate Fund and can support climate-related disaster risk reduction and financing efforts.

South-South Cooperation: Collaborating with other developing countries facing similar challenges can facilitate knowledge sharing, best practice exchange, and joint financing initiatives.

C2. Technical Assistance and Capacity Building:

Expertise and Knowledge Sharing: International organizations and developed countries can provide technical expertise in areas like risk assessment, financial modeling, risk transfer mechanisms, and relevant project management.

Training and Capacity Building: Partnering with international organizations can offer training programs for government officials, community leaders, and private sector actors on DRF implementation.

Knowledge Platforms and Networks: Participating in international knowledge platforms and networks can facilitate sharing of best practices, lessons learned, and innovative solutions amongst countries.

C3. Risk Transfer Mechanisms:

Pooling Resources and Sharing Risks: Engaging in regional or international risk pooling mechanisms can spread risks across multiple countries, ensuring access to larger financial resources after disasters.

- **Catastrophe Bonds and Insurance:** Collaborating with international partners can facilitate the development and issuance of catastrophe bonds or parametric insurance schemes to pre-arrange financing for disaster response.

- **C4. Policy and Advocacy:**

International Forums and Conventions: Actively participating in international forums and conventions like the Sendai Framework on Disaster Risk Reduction promotes sharing best practices and advocating for global standards in DRF.

Joint Policy Development: Collaborating with developed countries and international organizations can influence international policies and standards that support DRF strategies in developing countries.

South-South Cooperation on Policy Advocacy: Jointly advocating for stronger international support for DRF in developing countries through collaborative efforts with other vulnerable nations.

VII. Strategic Priorities, Importance and Activities

Identifying the strategic priorities, their importance, and relevant activities is a crucial part of the strategy. Since disasters are a recurring threat, a well-defined strategic priorities, importance, and activities of the DRF strategy acts as a roadmap, ensuring resources are allocated effectively to minimize financial shocks. By prioritizing areas like risk assessment and financial instrument development, the strategy equips Bangladesh to respond swiftly and efficiently. Clear activities like incorporating disaster risks into infrastructure projects ensure long-term resilience, minimizing future losses and fostering a culture of preparedness. In essence, a comprehensive DRF strategy through its well articulated strategic priorities, importance, and activities protects Bangladesh's development gains and paves the way for a more secure future.

Strategic Priority A: Enhance and Strengthen Fiscal Buffers

- Assess and right-size existing fiscal buffers as part of the MTBF.
- Establish ex-ante contingent lines of credit at concessional lending rates from IFIs and development partners.
- Advocate with IFIs and development partners the potential to include CRDCs in their financing arrangements.
- Maintain eligibility for ex-post contingent lines of credit (such as the IMF's Rapid Credit Facility).

- Conduct a public expenditure review (PER) of disaster related expenditure for past disaster events to estimate the natural disaster-related expenditure from the budget.
- Prioritize financing instruments in accordance with evaluation outputs
- Develop a more precise budget code for DRF and a financial framework for disasters that would facilitate incorporating DRF financing through various sources.
- Develop policies to promote DRR investments which would create environment for risk financing instruments.
- Adopt a multi-hazard catastrophe risk management strategy to help make the most economical use of the resources that are available.
- Align the aims, objectives, and investment strategies for disaster risk reduction and climate change adaptation.

Strategic Priority B: Strengthening Social Assistance Efficacy

- Integration of Anticipatory Actions (AA) and their shock-responsiveness elements into specific social protection programs.
- Establish an actionable plan to harmonize MIS for relief and scalable programs and ensure it can be used to quickly scale up and identify beneficiaries during times of disaster.
- Establish agreed standards for data collection, processing, analysis and dissemination for social protection system and disasters.
- Identify key scalable programs available for relief support and design a plan on how to leverage them during times of crisis.
- Conduct an assessment to identify inefficient social programs and establish a consolidation plan.
- Accelerate the implementation of social safety net programs
- Develop a hazard vulnerability map under the purview of the MoDMR.
- Regularly update vulnerability and risk maps so that DRR and Climate Change Adaptation (CCA) can be integrated into social safety net programs.
- Continue to expand the digitalization agenda and leverage private sector distribution through cash transfers when possible.
- Establish a system to digitize D-form and SOS form to assess the loss and damage by disaster events.
- Develop a system to identify population of the vulnerable locations including Internally Displaced People (IDP) using land zoning.
- Establish a monitoring and evaluation framework of relief-oriented and scalable programs that can be used for better budgeting.
- Support and leverage the establishment of an inter-ministerial committee on adaptive social protection to help drive the National DRF Strategy agenda among key DRM policy makers (like the National Disaster Management Council).

- **Evaluate alternative channels** to foster disaster-related insurance, insurance linked **loans and post-disaster** credit access (such as through MFIs, cooperatives, banks, insurance companies, etc) and identify promising programs for scaling.
- Foster greater alignment of licensed activities/supervision of banks, insurance, microfinance, and other institutions such as cooperatives regarding insurance-related services provision.
- Develop Policy Guideline for alternative distribution channel to foster disaster-related insurance like Bancassurance¹⁶ guideline recently issued by IDRA.
- Enforcement of mandatory insurance coverage for public and private assets and ensure budget for insurance premium for public owned assets.
- Complete enactment of insurance by public- and private high-rise buildings.
- Mainstream banks' insurance requirements for loan provision via guidance.
- Inform the public and commercial sectors about resilience levels and encourage them to make targeted investments in risk reduction by using risk-based pricing information conveyed by insurance premiums.
- Quantify and disclose disaster risk, on the part of both governments, private sector entities for developing risk transfer instruments.
- Strengthen the financial, regulatory, and technical capacities of the domestic insurance sector through targeted capacity-building programs, leveraging development partner support.
- Utilize learning from the past and existing pilot insurance program developed by development partners and NGOS and include the insurance related stakeholders in the inter-ministerial technical committee to promote the issue.
- Building on existing pilot experience, consider adopting a sovereign insurance scheme.
- Improve the targeting of needs-based support to the most vulnerable, while evaluating options to reduce broad-based provision of post-disaster assistance, as a way to encourage private sector participation and market-based risk sharing arrangements.
- Identify the most relevant target group disaster-vulnerable index will be utilized.
- Expand existing efforts to strengthen financial and insurance awareness in vulnerable segments of the population and also the relevant government departments.
- Mandate the inclusion of insurance against damage from *force majeure* events in all PPP contracts during the construction and implementation phase.

¹⁶ Bancassurance is a partnership between a bank and an insurance company. In this arrangement, the bank acts as a distribution channel for the insurance company's products, selling them to its existing customer base.

- By Line Ministry, assess the exposure and vulnerability of key public assets to natural disasters.
- Pilot an insurance of public assets scheme, focusing on the Ministry which represents the largest contingent liability to the GOB.
- Insurance coverage for agriculture, household assets will be promoted.
- Insurance mechanism will complement existing relief program by reducing compensation/loss gap of vulnerable households (HH), also play a role in reducing system loss in regular govt. supported program, brings cost efficiency and cost effectiveness.
- Reinsurance pool for covering catastrophic hazard will be established.

Strategic Priority D: Strengthen the institutional framework for DRF

- Ensure the National DRF strategy complies with legislation and policies developed by the GOB.
- Mainstream the National DRF Strategy into the upcoming 2026-2030 National Disaster Management Policy.
- Align the DRF strategy with the upcoming the 9th Five -Year Plan.
- Develop a comprehensive implementation plan to ensure key stakeholders are aware of the DRF Strategy and strategic priorities are incorporated in plans of relevant agencies.
- Align the DRF Strategy into the wider government development agenda.
- Establish a robust monitor and evaluation framework that includes KPIs.
- Establish a review mechanism to understand the effectiveness of the DRF strategy.
- Make the existing public procurement system DRF responsive.
- Build capacity of relevant state organs for ensuring DRF responsive procurement.
- Implementing a comprehensive capacity development strategy for other relevant stakeholders on disaster responsive procurement.
- Train government officials, community leaders, and private sector actors and relevant stakeholders on DRF and risk management.
- Promote public awareness by educating and sensitizing communities about disaster risks and available financial protection mechanisms.
- Develop risk communication tools with measurable outcomes.
- Make disaster risk data more widely available and easily accessible, with enough resolution to allow for accurate risk assessment and solution creation.
- Improve budget Tagging, Monitoring and Evaluation Tools.

Strategic Priority E: Risk Reduction

- Ensure risk identification and assessment and continuous monitoring and updating of risks.



- **Strengthen early warning systems:** Upgrade existing systems, expand coverage, and ensure effective communication of warnings to communities (e.g., number of communities receiving timely warnings).
- **Pre-position emergency supplies:** Stockpile essential items like food, medicine, and shelter materials in strategic locations (e.g., tons of food pre-positioned in vulnerable districts).
- **Enhance rapid response capacity:** Train and equip responders, establish protocols for immediate deployment (e.g., reduction in response time after disasters).
- **Anticipatory action (AA)** will be promoted in disaster response to mitigate damages to infrastructure, livelihoods, and lives, and hindering development progress by events such as cyclones, floods, droughts, and riverbank erosion, etc.
- Integrate climate change adaptation strategies into DRF planning to address the evolving nature of disaster risks.
- Integrate DRF strategy with existing disaster management plans and policies.
- Invest in infrastructure upgrades, ecosystem protection, and resilient livelihoods to reduce future losses.
- Increase investment on structural measures and non-structural measures including upgrading and updating technologies used for disaster management.
- Require investment and coordination with technical service provider like Bangladesh Meteorological Department (BMD), Flood Forecasting and Warning Centre (FFWC) for forecasting and damage assessment.
- Make the disaster management fund accessible for pre-disaster AA expenditures at national and/or district-level.

VIII. Monitoring and Evaluation

The DRF strategy will be followed by a time bound action plan. A comprehensive action will be developed with the participation and rigorous consultation of the relevant stakeholder which will be approved by the appropriate authority. A Monitoring and Evaluation (M&E) framework for the activities of the action plan also be prepared to evaluate the effectiveness of the DRF action plan. The template of the framework will contain the following:

- Strategic Priority
- Specific Action
- Baseline data
- Target
- Timeline
- Responsibility

The framework of the action plan will cover all the 5 strategic priorities of the DRF strategy. Here are some activities for the proposed monitoring and evaluation of the DRF action plan.

- Define clear objectives and indicators set for the M&E system. They should be made relevant and measurable following SMART¹⁷ principles.
- Review the implementation progress of the DRF action plan in every 3 years.
- Ensure consistent data collection on metrics like the number of risk assessments conducted, funds allocated to different initiatives, and communities reached through awareness campaigns.
- Analyze the data to assess progress towards objectives and identify areas for improvement.
- Periodically conduct internal audits and reviews of the M&E system's processes, data quality, and adherence to defined standards.
- Establish mechanisms for the stakeholders to provide feedback on the M&E system's effectiveness and suggest further improvements.
- Participate in peer reviews and learning exchanges with other countries or organizations implementing DRF strategies.

IX. Conclusion

Bangladesh faces a constant battle against frequent and devastating natural disasters. Floods, cyclones, and other extreme weather events have inflicted immense hardship on millions of people, crippled economic progress, and hampered poverty reduction efforts. Climate change casts a long shadow, threatening to exacerbate the intensity and frequency of these disasters. However, Bangladesh is not fighting this battle alone. The country has demonstrably acknowledged the gravity of the situation and proactively developed this comprehensive DRF strategy aligned with international best practices. This strategy goes beyond simply reacting to disasters; it has been focusing on building long-term resilience through effective disaster risk management where DRF strategy will play a significant role.

The DRF strategy recognizes the substantial financial burden posed by disasters, particularly severe events with lower frequency. It outlines a multi-pronged approach to address funding shortfalls, including strengthening fiscal buffers, exploring catastrophe insurance options like public asset insurance, and integrating disaster financing needs into mid-term budget planning. Recognizing the limitations of traditional humanitarian aid, the strategy emphasizes the crucial role of social safety nets in protecting livelihoods, ensuring food security, and facilitating faster recovery. In addition by leveraging the extensive network of microfinance institutions and promoting disaster-related insurance products, the strategy aims to empower communities to weather financial shocks and rebuild after disasters. Strengthening the domestic insurance sector is another key aspect, ensuring wider access to affordable and relevant insurance products.

¹⁷ SMART-Specific, Measurable, Attainable, Relevant and Time-bound

The legal and institutional framework for disaster risk financing is another area of focus. Integrating the DRF strategy with upcoming revisions of the National Disaster Management Policy and the Five-Year development plan will ensure a holistic and coordinated approach. Establishing a robust monitoring and evaluation system will be crucial for tracking progress, identifying gaps, and ensuring the continuous improvement of the strategy. However, the success of the DRF strategy hinges on collaboration. Effective communication and partnerships with various stakeholders, including government agencies, financial institutions, NGOs, and the international community, are essential. By mobilizing resources, fostering knowledge exchange, and seeking international cooperation, Bangladesh can significantly mitigate the impact of disasters on its people and infrastructure.

The DRF strategy represents a turning point in Bangladesh's fight against disaster risk. It is a testament to the country's commitment to building a more secure and resilient future for its citizens. By implementing this comprehensive strategy with unwavering resolve, Bangladesh can emerge stronger and better equipped to face the challenges posed by hazards.