

Initial Market Assessment - Country Scoping Note: Bangladesh¹

Executive Summary

Bangladesh has a comprehensive Disaster Management plan, but details on the implementation and sufficiency of funding should be clarified. Strengthening financial disclosure could encourage greater engagement from key local and international stakeholders.

The country also offers great opportunities to increase the outreach of insurance to larger sections of the population, especially to those most vulnerable to the substantial exposure to natural hazards and especially flood. The micro-finance market is well developed and provides opportunities to expand the still very limited availability of micro-insurance propositions to the rural population. Index-based insurance programs supported by mobile payment systems have already been piloted and there is considerable scope for this to be expanded, especially when appropriately subsidised to address affordability issues. However, this would require further strengthening of the insurance market, in respect of the implementation of the Insurance Act 2010 and of consumer representation, which is underdeveloped but may contribute strongly to improve the public's confidence and help the industry to develop successful propositions also for emerging customers.

1. Background

1.1 Country's exposure to natural disasters

Climate change and a combination of the geographical location, land characteristics, multiplicity of rivers, and the monsoon climate render Bangladesh highly vulnerable to natural hazards. This includes floods, cyclones, droughts, tidal surges, tornadoes, earthquakes, river erosion, fire, infrastructure collapse, high arsenic contents of ground water, waterlogging, water and soil salinity, epidemic, and various forms of pollution. Floods occur annually, affecting 20%-68% of country depending on severity, and were particularly catastrophic in 1988, 1998, and 2004. Cyclones are a persistent cause of disaster in the Bay of Bengal as they are always associated with storm surges.

Agriculture is particularly vulnerable to natural disasters whilst being key to the economy, representing 17% GDP. 50% of the population is involved in agriculture and 80% of the poor live in rural areas.

Key Indicators: Bangladesh's HFAWDI Disaster Risk Reduction score is 4.0, indicating good progress in its efforts to reduce risks (this index is a self-assessment ratings over a range of factors, with 5 being the best rating). Its 2012 WorldRisk index is 20%, reflecting a significant increase from 2011 which was partly due to a change in the calculation method.

¹This scoping note is part of a series of seven country scoping notes produced by WB/GFDRR and DFID, with inputs and feedback from the expert-level group (including representatives of Allianz, DFID, European Commission, GIZ, ILO, Munich Re, SECO, Swiss Re, USAID, WB, and Willis Re). This scoping note aims to inform the Political Champions Group (PCG) on potential opportunities to promote stronger partnerships between the public sector and the private sector to increase disaster resilience of vulnerable populations using market-mediated insurance solutions. The team has made every attempt to verify the contents presented, but the information should be interpreted with due consideration to its limitations resulting from the fact that indirect sources have been used where primary sources were not available. Contact: Olivier Mahul, omahul@worldbank.org.

1.2 Economic, financial and fiscal impact of natural disasters

Each year on average, disasters in Bangladesh cost the country over US\$500million and affect around 7million people.The impact of the top 10 disasters in Bangladesh over the last 30 years for people killed, people affected, and economic cost, respectively, is summarized in the table below².

Disasters over 30 years	People killed	People affected	Economic cost (US\$bn)
Flood	8,450	193.6m	10.5
Storm	158,860	26.4m	4.9
Epidemic	1,690		
Earthquake			0.5
Total	169,000	220m	15.9

1.3 Government's general engagement in Disaster Risk Management

National Plan for Disaster Management.The Government has published its NPDM2010-2015³ and the Bangladesh Climate Change Strategy and Action Plan 2009⁴. This incorporates the SAARCFand the HFA2005-15. It focuses on risk prevention and disaster recovery actions rather than addressing financing and insurance directly.

The Government has adopted PRSP-II as its medium term strategy for 2009-2011, prepared by World Bank and IMF member countries. PRSP-II encourages Government, non-government, and international agencies and communities to work together by building capacity to resist, prepare, and respond to the consequences of disaster throughout the population.The stated objectives of PRSP-II are consistent with those of its vision for a poverty-free Bangladesh (Vision 2021). Thisincludes improving growth rates, reducing poverty, and improving self-reliance.

While its DRM ambitions are well documented, there is little available material on progress to achieving its goals and funding plans.

2. Government's public financial management of natural disasters

2.1 Budget instruments

Although budgetary spending specific to Disaster Management is not separately disclosed, detailed accounts are available from the published budgetary papers⁵.The Government has projected the implementation cost of its Disaster Management plan to amount to US\$432million over a number of years. Progress on implementation is not knownbut is intended to be financed via the following means:

- **National Disaster Response and Recovery Fund:** This will be used for response, relief, and recovery following a disaster and be established through a mixture of Government resources and donations from home and abroad.
- **National Risk Reduction Fund:** This will be a consolidation of existing arrangements for the purpose of preventing and mitigating disasters.
- **Financing Sectoral Plans:** Provisions will be made in the annual budget for relevant departments as set out in the detailed Disaster Management plan.

² <http://www.emdat.be/>

³ <http://www.preventionweb.net/english/professional/policies/v.php?id=16676>

⁴ http://www.iucn.org/about/union/secretariat/offices/asia/asia_where_work/bangladesh/resources/publications/?7752/Bangladesh-Climate-Change-Strategy-and-Action-Plan-2009

⁵ http://www.mof.gov.bd/en/index.php?option=com_content&view=article&id=183&Itemid=1

- **District Level Disaster Management Fund:** This will be funded through a combination of national government, local government, and local donations.

2.2 Market-based solutions

The Government insures some of its public assets via state-owned insurer and reinsurer Sadharan Bima Corporation (SBC). It secures insurance for public properties across a mixture of domestic and foreign insurance markets. In 2010, SBC reinsured US\$31million of premiums internationally. The split between public and private property is not known and there is no specific state-backed catastrophe insurance scheme. SBC wrote US\$51million of reinsurance premiums in 2010.

3. *Ex ante public interventions from government and donors*

3.1 Safety net programs against natural disasters, including credit guarantee schemes and subsidy programs

Bangladesh has received US\$371million from donors between 2000-2009 for Disaster Risk Reduction⁶.

There is limited direct public contingency funding for disasters. The government runs safety net programs to cover both risk mitigation and post-disaster management strategy. This mostly relates to the Food for Work program, which constructs and maintains agricultural infrastructure, and the Skill Development Program. The Government's aim is to generate growth in the economy to reduce poverty and support its disaster management plan. The Government allocated 5.6% of total expenditure to Social Security & Welfare in the 2013/14 budget, with over half of this being allocated to Disaster Management and Relief. A World Bank report published in 2010 identified that subsidies, grants, and other social benefits to public and private enterprises amounted to 35% of total expenditure in 2009.

Many infrastructure projects are funded via the Annual Development Program (ADP), although there is no direct link to natural disasters⁷. The ADP was established in 1955 and provides funding for a number of defined projects across the whole economy, depending on the available funds from various donors including the Bangladesh Government. In 2009/10, 886 projects were funded by a total of US\$3.9billion, 42% of which was funded by external sources. For the current fiscal year (July 2013 – June 2014), US\$9.5billion has been committed to fund 1,177 projects, a 35% increase from the previous year, with prioritisation on power and communication sectors. Of the total amount, US\$6.4billion has been funded directly by the Bangladesh Government and US\$3.1billion from external sources. Agriculture projects include food security and provision of technology and training to farmers. The Government is trying to coordinate its own budget process with that of ADP, which currently has different systems for tracking regional and economic classification of spending. The aim is to achieve a more even distribution of support through the country to aid both preparation and response to natural disasters.

The Government also encourages private funding through its public-private partnership (PPP) scheme. Private entrepreneurs, generally from overseas, invest in long term infrastructure projects and recover their investment from tolls and other revenue. Typical projects include improving roads, housing, and ports. Although there is generally no direct link to DRM, PPP improves the capacity of the Government to focus more of its resources on DRM. In recent years, however, entrepreneurs have become wary of the Government's commitment to the project due to overbearing governance and changing policy⁸. The

⁶ <http://www.devinit.org/wp-content/uploads/Bangladesh-briefing-January-2012.pdf>

⁷ <http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/4794.pdf>

⁸ <http://www.thefinancialexpress-bd.com>

initiative has been more successful in some ministries (health, shipping, communication) than others. There is now currently US\$3 billion ready for investment over the next 3 years. The Asian Development Bank and Islamic Development Bank have earmarked US\$2.1 billion and US\$0.4 billion respectively via PPP.

SadharanBima Corporation:It is difficult to separately identify direct government subsidies and safety net programs as part of its NPDM and government funding of SBC. The Government has an influence on insurance provision for disasters via SBC, its state-owned insurer. SBC is an important stakeholder in funding the cost of disasters, making transfers of US\$53million and US\$64million to its reserve fund in 2009 and 2010, respectively. The extent to which the amount of such transfers is influenced by Government policy is unknown. SBC is involved in all domestic insurance transactions and is the conduit for international reinsurer that the Government deems to be necessary. SBC also has an influence on the level of precautions that the insured takes, either as a requirement for insurance or as an incentive to receive discounts on insurance premiums.

3.2 Public investment in market infrastructure for disaster risk insurance (data, models, subsidies, delivery channels, education campaigns)

Risk reduction has been identified as a priority in the NPDM, including establishing early warning systems and improving the population's resilience to small/medium scale disasters at grass-roots level. The NPDM also recognises the need to educate the Bangladesh public to improve capability of preparing for disasters and awareness of potential insurance solutions.

4. Post-disaster public interventions from government and donors

4.1 Ex post bailouts (e.g. credit) (including respective roles of government and donors)

There is no specific contingency fund for managing disasters in Bangladesh. Emergencies are funded through a mixture of Government revenue, donor funding, and funds from the SBC.

Between 2000-2009, Bangladesh has received US\$675million of humanitarian aid from various donors. Peaks of support followed major natural disasters, such as the severe floods in 2004, Cyclone Sidr in 2007, and Cyclone Aila in 2009. Between 2006-2009, humanitarian aid was primarily reactive with 73% being spent on emergency and reconstruction relief. The Government provides relief through temporary shelters, potable water, and food packets.

4.2 Ad hoc social transfers (including respective roles of government and donors)

The Government is trying to better coordinate its resources with those of donors to achieve a more even distribution of aid to its population via social transfers. This involves engaging and empowering local governments and improving the quality of financial cost allocations across its own budget and other established private initiatives, such as the ADP.

5. Potential donor overlap

Although it is difficult to isolate aid specifically allocated to disaster management projects, some projects have been identified below and in other sections of this paper.

ECB Bangladesh Consortium: Since 2009, it has been working to improve the speed, quality, and effectiveness of emergency response. The Consortium includes CARE, Concern, CRS, Plan, Oxfam, Save the Children, and World Vision.

American Red Cross: Supports schools in disaster preparation, including first aid, improved awareness, and light search and rescue. It also supports the Cyclone Preparedness Program and the Program for Emergency Response.

GFDRR and UNDP are running programs on disaster risk reduction.

ADB funded a US\$2.5million pilot program for a weather index crop insurance scheme, with US\$2million provided by the Japan Fund for Poverty Reduction. ADB is also working with other development partners on a \$150m project to climate proof roads in coastal areas to improve food security and building cyclone shelters.

United Nations has supported Bangladesh in developing early warning weather systems.

USAID: Supports activities to help communities to adapt to Climate Change, increase their resilience to sudden climate shocks, and recover in the aftermath of disasters.

World Bank: Considerable loan support has been provided to Bangladesh since its independence in 1971, amounting to US\$1.7 billion in 2012. Projects already supported include coastal embankment improvement, safety net systems for the poor, assistance to school leavers, and rural transport. Building on the study on agricultural insurance in Bangladesh conducted by the World Bank and GFDRR in 2010, the GIIF⁹ has completed a feasibility study for index-insurance for farmers in Bangladesh in 2012.

6. State of domestic non-life insurance market

There are 43 non-life insurers, providing significant insurance capacity, generally to domestic commercial enterprises and wealthier individuals. Based on 2010 statistics, the market breakdown is as follows: 38% property, 12% motor, 34% marine, aviation and transit, and 15% miscellaneous. Total annual premium was US\$237million and insurers held total assets of US\$640million. The leading direct writing insurer was Green Delta Insurance Co Ltd with a 12% market share, closely followed by SBC with a 10% share and having a strong influence of the non-life insurance market.

In 1973, shortly after independence, all non-life private companies were replaced by SBC, a state-owned monopoly insurer, which has effectively controlled the market and set the price of insurance for public assets ever since. In 1984, private insurers were invited back to the market with SBC maintaining its monopoly on the insurance of public sector property. Since 1990, private insurers have participated in public sector insurance business through a 50% coinsurance arrangement with SBC, enabling some spreading of public assets risk to the private sector. SBC is also the only reinsurer in Bangladesh.

Takaful insurance comprised approximately 2% of total non-life insurance premiums in 2008. There is currently no direct external engagement, no captives or ART vehicles.

The insurance market is served by agents who must tie to a specific insurer and surveyors who help validate claims, licensed by IDRA. They tend to serve commercial enterprises and wealthy individuals. Banks are not permitted to own shares in insurance companies and do not directly sell insurance. However, as their lending often requires marine or fire insurance, they often have an indirect arrangement with an insurance company. Direct marketing is not viable due to the poor literacy of

⁹ The Global Index Insurance Facility (GIIF) is a program aimed at reducing the vulnerability of populations, mainly in the Africa, Caribbean, and Pacific (ACP) region, to external shocks and vulnerabilities caused by weather and catastrophic risks through index insurance. The European Commission is the largest donor (committing 24.5 million EUR). The program is implemented by the International Finance Corporation (IFC) with support from the International Bank for Reconstruction and Development (IBRD).

consumers. Insurance Brokers are not currently permitted, although this might change for corporate markets under Insurance Act 2010.

Legal and regulatory environment

The insurance market is quite tightly regulated. SBC is the sole direct insurer of public property and also controls the price for all private insurance via reinsurance terms. Only specific business lines (marine export and companies operating in export processing zones) are permitted to insure internationally. The Government sets minimum prices for private insurance although some companies find ways to undercut these.

The BIA represents all insurers except SBC. It is funded by its members and provides a forum to discuss mutual issues and technical support. It also works closely with the IDRA on several industry issues, including the Insurance Act 2010 and the Insurance Development and Regulatory Act 2010.

Impact of Insurance Act 2010. The IDRA now has responsibility for regulating pricing, expense ratios and reserving requirements. Although the Insurance Act 2010 has been implemented, there are a number of areas where the IDRA is seeking to add further detail, including the system of price control.

Property risk insurance

There is a market for property insurance in urban areas served by all 43 insurance companies, although penetration in rural areas remains low. The market for property insurance comprises mainly commercial properties and residential properties of the wealthy.

An important driver of credit capacity in commercial markets is the availability of property insurance. SBC is integral to this as it supplies insurance capacity and influences prices for the whole domestic market. In 2007, SBC was unable to renew its surplus reinsurance arrangements due to poor experience, particularly in textile risks, and in 2012, its access to excess reinsurance was also limited due to further concerns about poor loss experience. Although the reduced limits are not currently considered to be active, a major earthquake could erode any remaining capacity. The concern would be that if insurance became unavailable in the commercial market, this could adversely affect the availability of finance from banks. The insurance market is less susceptible to disasters affecting the rural population as insurance penetration is low.

Agriculture insurance

There is effectively no agricultural insurance market in Bangladesh. The poor infrastructure contributes to high claims management costs, which is not relieved by e-commerce due to low internet penetration. Moral hazard and difficulty in specifying perils and validating claims potentially makes traditional insurance products unattractive for insurers. Index based insurance has the potential to overcome some of these difficulties.¹⁰ With government support, there has been significant growth in agri-insurance in Asia over the past 8 years, it now being worth \$4bn. Experience has shown the highest penetration rates to be found in countries with large nationally subsidised schemes and where crop insurance is compulsory.

¹⁰ A study has been conducted to test the demand in farming communities for various types of index & risk insurance, disability insurance, individual savings products, and group savings products where communities pool risks.

In May 2013, Asian Development Bank launched a \$2.5m pilot for weather index based crop insurance. This was targeted at small and vulnerable farmers, who can be devastated by bad weather (in 2007 Cyclone Sidr destroyed 95% of crops in coastal regions). Agriculture research institutions and meteorological departments will use weather data over 25-30 years to develop a weather index, designed to trigger payments when a tropical storm or excessive rainfall hits a region. Poor farmers are often uneducated with no other means of protecting themselves and no collateral to support credit solutions, so this provides means for them to plan and save over the longer term. The pilot is expected to be extended in 2014 and gradually rolled out nationwide if successful.

In February 2013, the Government asked SBC to develop a Livestock insurance product. SBC was also encouraged to insure small farmers via micro-insurance, which in turn encouraged private sector support also. As SBC had previously suffered losses on a similar product, this indicates that there is government support for micro-insurance initiatives.

BRACoperates agricultural programs in Bangladesh and several other African countries, working with governments to improve food security. It has used “push-pull” strategies in Bangladesh to provide subsidies directly to poorer households, accompanied by making available more attractive market opportunities to encourage them into commercial relationships. Between 2004 and 2009, BRAC reached 800,000 “ultra-poor” in this way to help them become food secure and develop sustainable livelihoods. BRAC organizes groups of 40-50 marginal farmers across 12 disaster prone districts in Bangladesh and provides them with partial grants to buy seed, fertilizer, pesticides and irrigation services. It also provides training to improve productive capacity. Under collaboration with USAID, BRAC has also launched the “USAID Horticulture Project”. This aims to improve income and nutrition among 100,000 marginal farmer families in Southern Bangladesh by cultivating good quality crops and nutritional awareness.

Reinsurance

There are no specialist reinsurers operating directly in the non-life market. SBC participates as both a direct writer and the only reinsurer. The attractions of the market to other reinsurers is limited as private insurance companies are obliged to reinsure at least 50% of private business to SBC and tend to reinsure 100% in practice.

SBC has placed catastrophe insurance internationally. It wrote reinsurance premiums of US\$50million in 2010 and ceded US\$31million to international reinsurance markets. The highest excess level in 2012/13 was US\$42million both for fire and catastrophe (earthquake, cyclone, flood) risks. SBC wrote a small amount of inwards reinsurance business from international markets, including Sri Lanka, Bhutan and Asian Re in Bangkok. Private insurers participate in 50% of public business through a co-insurance arrangement with SBC.

Demand for insurance

Demand for non-life insurance products is poor, with a penetration rate of only 0.2% GDP and a poor public perception. Total insurance penetration is 0.8% GDP which is low even when compared to most other developing countries. Governance systems are poor and there have been several examples of corruption affecting premium collection, reinsurance and claim settlement. Affordability for insurance is limited, with approximately a third of the population below the poverty line. There has been some recent piloting of micro-insurance initiatives.

- In May 2013, the Asian Development Bank launched a US\$2.5million pilot for weather index based crop insurance.
- In February 2013, the Government asked SBC to develop a livestock insurance product, on which it had previously suffered losses. SBC was also encouraged to insure small farmers via micro-insurance, which in turn encouraged private sector support. Pragati Insurance provides cattle insurance to LalTeer Livestock Ltd.
- BRAC has used “push-pull” strategies to provide subsidies directly to poorer households, accompanied by making available more attractive market opportunities to encourage them into commercial relationships. Between 2004 and 2009, BRAC reached 800,000 “ultra-poor” in this way to help them become food secure and develop sustainable livelihoods.

Micro-insurance reaches people who would benefit most (i.e. the poor), building on the more established micro-finance sector. There is demand for micro-finance in Bangladesh and there is an opportunity to extend this to agri-insurance through established domestic organisations such as BRAC, Grameen Bank and Sajida Foundation. While poor education, illiteracy, and inability to afford even small payments pose as barriers for micro-insurance initiatives, high mobile phone usage which exceeds 50% of the population, presents opportunities to leverage mobile phone payments. One long term example of micro-finance and more recent examples of micro-insurance are set out below.

- Grameen Bank was founded in 1976 and won a Nobel Peace prize in 2006 for its focus on making small loans to the poor in Bangladesh without it requiring collateral. It is a co-operative, employing 2,565 people across 2,565 branches. In 2010, with assets of US\$1.8billion, it produced revenue of US\$177million and profit of US\$11million. Grameen Bank encourages financial responsibility and independence in the poor, funding projects such as hand powered pumps and investment in agriculture to improve productivity. Borrowers must join a group of 5, who recite “Decisions” which encourages productive and good social behaviour. Although there is no collective obligation for each loan, Grameen Bank does not extend further credit to a group where one member defaults. It is therefore common for groups to repay any loans on behalf of the defaulter. Its target is to eliminate poverty from each of its branch locations.
- In 2005, a comparative study of three examples of good and bad practice in health micro-insurance was conducted¹¹.
- In April 2012, a 2 year micro-insurance pilot was launched covering 3,000 households in Mymensingh district. It is insured by Green Delta insurance, which is the leading private non-life insurance company and provides some security to already poor families which could be devastated if their main wage earner falls ill. Customers can choose from two healthcare packages: For US\$3, customers benefit from outpatient services, full maternity & new born care. For US\$5, they also benefit from inpatient services.
- Sajida Foundation also provides micro-finance and health schemes.
- In August 2013, the first ever flood insurance scheme was launched in Bangladesh, organized by Oxfam Bangladesh and supported by Swiss Re. This is an index based pilot, covering 1,661 poor families of 14 villages in Sirajganj. Oxfam pays the insurance premiums and the aim is to provide cash relief of up to US\$100 per household via local NGOs or mobile money transfer in the event of catastrophic flood and to extend the scheme to other regions. The Institute of Water Modelling has built a flood hazard model to generate flood data.

¹¹http://www.ilo.org/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_122468.pdf

7. Opportunities

- **Work with the Government to establish a national integrated DRFI Strategy.** This strategy could support the implementation (and enhance) the comprehensive Disaster Management plan, adding to the limited information on how it is to be implemented and funded. Key areas of improvement of this plan include improved financial disclosure, regular updates, and earmarked budgeting, which could encourage greater engagement, both locally and amongst international donors. The strategy would support the **development of the disaster insurance market** as well as the development of a comprehensive **sovereign DRFI plan**. If successfully implemented, the sovereign DRFI plan would give the Government immediate access to funding and transparent and effective budget execution processes post shock events, and effectively use the funding mechanisms already established.
- **Stimulate disaster micro insurance solutions linked with microfinance.** The development of microfinance in rural, vulnerable areas offers opportunities to scale up agricultural insurance and eventually property catastrophe risk insurance.
- **Establish a Technical Support Unit (TSU), in partnership with private (domestic and international) (re)insurers to develop domestic market infrastructure.** The TSU could be used to **develop risk data infrastructure and focus investments in developing the link between microfinance and micro-insurance**, as Bangladesh already has a reasonably well developed micro-finance market, including Grameen Bank and Sajida Foundation. This network could be leveraged to expand micro-insurance outreach to rural populations. Future work can look to build upon the pilot index-based insurance programs through mobile payment systems already launched.

List of Acronyms

ADB	Asian Development Bank
ADP	Annual Development Program
BIA	Bangladesh Insurance Association
DRM	Disaster Risk Management
ECB	Emergency Capital Building project
GDP	Gross Domestic Product
HFA	Hyogo Framework for Action
IDRA	Insurance Development & Regulatory Authority
IMF	International Monetary Fund
NGO	Non-Government Organisation
NPDM	National Plan for Disaster Management
ODA	Official Development Assistance
PPP	Public Private Partnerships
PRSP	Poverty Reduction Strategy Paper
SBC	SadharanBima Corporation
UNDP	United Nations Development Program
WDI	World Development Indicator
BRAC	Bangladesh Rehabilitation Assistance Committee
GFDRR	Global Facility for Disaster Reduction and Recovery
SAARCF	South Asian Association for Regional Cooperation Framework