

Climate Risks and Microinsurance: The Case of Bangladesh

by
Mizan R. Khan, Ph.D
Ministry of Environment & Forest
Dhaka, Bangladesh

Outline of Presentation

- ∩ Climate Risk Assessm in Bangladesh
- ∩ Concept & Types of Microinsurance (MI)
- ∩ MI Practices in Bangladesh
- ∩ Gaps and Challenges
- ∩ Some Suggestions

Vulnerability of Bangladesh to CC Impacts

- ∩ **Geographic & socio-econ-demog features make Bangladesh extremely vulnerable**
 - located at the confluence of 3 mighty river systems: Ganges, Brahmaputra & Meghna; 92% of their runoff originates outside its borders
 - long coast line (710 km)
 - vast low-lying landmass/floodplains
 - Highest pop density (pop growth rate 1.6%)
 - Nature-dependent agricultural practices
- ∩ **Poor & disadvantaged communities are most at risk from multiple stresses including CC impacts**

Climate Risk assessment in Bangladesh

- ∩ Risk is a combination of 2 factors:
 - Probability of climate hazard x Impacts/Effects
- ∩ Vulnerabilities, not risks, addressed by several national & int'l assessments
- ∩ Immediate warning & ex-post disaster management & coping well developed in Bangladesh
- ∩ CC scenarios developed for Bangladesh using GCM for different periods, with 1990 as the base year

Climate Change Scenarios for Bangladesh

Year	Temperature fluctuation		precipitation	
	increase oC monsoon	increase oC dry season	compared to 1990 in monsoon	compared to 1990 in dry season
2030	+0.7	+1.3	+11%	-3%
2050	+1.1	+1.8	+28%	-37%

- Projected Impacts of CC in Bangladesh**
- ∩ Half a meter SLR will inundate 11% of territory
 - ∩ Flash flooding will be more frequent
 - ∩ River flooding will stay for longer periods
 - ∩ Frequency of tropical cyclones & storm surges will increase
 - ∩ Agr productivity will be severely affected
 - ∩ CC impacts likely to undo the achievements in econ growth rates (> 5%) & food self-sufficiency during the last decade

- Actual Impacts & Risk Assessment**
- ∩ Experienced > 170 disasters during 1970-98, putting the nation among the most hit in the world
 - ∩ Ex-post evaluation of impacts done
 - ∩ 500 sq km of coastal areas devastated by the 1991 cyclone, econ losses exceeded \$1 bn
 - ∩ 1998 flood kept 2/3 of the country under water for 2 months, econ losses incurred over \$2 bn
 - ∩ Trends in natural hazards non-linear - so predicting the likelihood of events in future is difficult; predicting effects based on Forecasting by Analogy
 - ∩ Lack of capacity for ex-ante assessment of risks

- Concept & Types of Microinsurance**
- ∩ MI is provision of insurance to low-income HHs, which are vulnerable to multiple risks
 - ∩ Credit & savings services are inadequate when HHs are exposed to risks, causing losses that are beyond their means
 - ∩ MI provides different types & products for Life, Health, Disability, Property, Agr (crop) etc.

MI Products under the MFI-NGOs

Insurer	Products	targets	Since
BRAC	Life (term)	Members	1990
Grameen Bank	Life, loan	Members	early 1990s
ASA	Life (Endowm)	MC users	1993
Grameen Fisheries Founda	Livestock (all risks)	Borrowers	late 1990s
Grameen Kalyan	Health	Members & family	
Gono Sasthya	Health	Suburban poor	
Padakhep	Life, Fire, Livestock (partial	Members	
Ghasful	Life (Endowm)	Urban poor	1999

MI products under Commercial Insurers

Insurer	Type	Products	Targets	Since
Delta Life	Life (Endow)	Grameen & Gano Bima	Low-income Rual Poor	1988
National Life	Life (Endow)	Jano	Urban Poor	1994
Homeland Life	Life (Endow)	Palli	Rural/Urban Poor	1996
SBC (Govt) & others	Non-life	Personal Accidents	Poor	1977
SBC	Non-life	Crop, Cattle, Prawn	Rural	1981, 1994, 1997

Features of Commercial & Non-Commercial MI

- ∩ Extremely limited scale of MI under both comm & non-comm insurers - life/loan insurance focused, limited health MI growing under the MFI-NGOs
- ∩ Policy amounts range bet \$100 to \$1000 only
- ∩ Existing MI delivery under Full-Service model
- ∩ MI products under commercial insurers targeted at low income group, not the poor
- ∩ Crop insurance under the Govt-owned insurer as an extremely loosing concern now non-functional
- ∩ MI under MFI-NGOs - kind of Self-Insurance, which defeats the principle of wider risk-pooling

Gaps and Challenges

- ∩ No system of soc security for Self-employed (37 mn) & Poor (3/4 engaged in Agr, Livestock & Fisheries)
- ∩ Lack of capacity for early prediction of climate hazards
- ∩ Risks to assests and econ outputs of the poor not covered under the existing MI systems
- ∩ MFI-NGO MI Funds not sufficient to meet large/unusual losses (some might be only book reserves)
- ∩ There is no system of mutual insurance & reinsurance
- ∩ Huge demand for MI not yet effective due to prevailing culture, lack of awareness & costs

Gaps and Challenges (contd)

- ∩ So, scale of MI - stand most in the way
- ∩ Shortage of manpower for large-scale MI
- ∩ Risks of fraud & moral hazard in MI of health & property - a big challenge
- ∩ Admn & transaction costs in MI heavy
- ∩ Lack of investment opportunities
- ∩ Lack of enabling environm - laws & regulations
- ∩ Chance of loss from CC impacts - not adequately calculable; Catastrophic losses - insurable ?
- ∩ Sustainability of MI under MFI-NGOs ?

Some Suggestions

- ∩ Integration of MI into existing fin services & Group, rather than Individual, MI will reduce admn & trans costs, moral hazard & adv selection
- ∩ Cross-subsidization (voluntary & policy-based) from rich to the poor to cover the total pop/area
- ∩ Mass edn, awareness, R&D & promotion of skills
- ∩ Generation of Inf data base needed for MI
- ∩ Ensure transparency & accountability of Insurers
- ∩ Involve local community & opinion leaders in the MI process

Some Suggestions (contd)

- ∩ Govt subsidy, with donor assistance to red Cs
- ∩ Provision of reinsurance by multinationals
- ∩ Promoting Mutual Insurance bet MFI-NGOs
- ∩ Partnership bet public, private orgs & MFIs
- ∩ Starting with simple procedures & products to customize to HH needs
- ∩ Appropriate caps, deductibles/coinsurance
- ∩ Strengthening institutional capability
- ∩ To ensure an enabling policy-regulatory framework
- ∩ To commission some studies on climate risk & MI
- ∩ To organize a Workshop on MI & CC Risks