

Risk Transfer, Insurance and Re-insurance

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Access to Financial Resources for Recovery and Reconstruction

- Individuals borrow from moneylenders / relatives / financial Institutions
- They receive public grants from Government
- They get payouts through Insurance / ART instruments
- They get social support through cash / food for works program and social funds
- Governments access resources through calamity funds, budgetary reallocations, international assistance, borrowings from IFIs, and marketing of special-purpose bonds

Disaster Losses & Insurance Coverage

- In 2007, 335 natural disasters caused economic losses of US\$64 billion, out of which US\$40 billion was uninsured (Swiss Re).
- The larger a disaster, the more players are needed to share the risk: individuals / corporations, governments, insurance, reinsurance, and capital markets
- As for insurance coverage, the share of developing countries in total insurance coverage is very small; of the insured losses, 80 to 90 percent are from Europe and America, while Asia's share is just 5 percent.
- Climate change has triggered more destructive and expensive disasters, as a result, insurance is becoming expensive with rise in premium rates

	1996		2004	
	Premium income \$bn	% share	Premium income \$bn	% share
1 US	366.5	40.3	1,097.8	33.8
2 Japan	112.6	12.4	492.4	15.2
3 UK	52.8	5.8	294.8	9.1
4 France	46.0	5.1	194.6	6.0
5 Germany	89.8	9.9	190.8	5.9
6 Italy	27.0	3.0	128.8	4.0
7 Canada	21.2	2.3	69.7	2.1
8 South Korea	15.2	1.7	68.6	2.1
9 Netherlands	16.5	1.8	58.6	1.8
10 Spain	17.0	1.9	55.9	1.7
11 PR China	5.7	0.6	52.2	1.6
12 Australia	14.6	1.6	49.4	1.5
13 Taiwan	4.8	0.5	45.2	1.3
14 Switzerland	11.0	1.2	42.0	1.3
15 Belgium	8.5	0.9	38.9	1.2
Other	99.9	11.0	365.3	11.3
World	909.1	100.0	3,243.9	100.0

Developments in Insurance Sector

- Steep growth in life insurance coverage
- Liberalization of Insurance Sector
- Development of specialized insurance products
- Public-private partnership in insurance
- A new generation of sovereign insurance
- International Organizations and NGOs assist in spreading insurance coverage

Foreign Collaborations in Insurance Sector in India

- Societe Generale has entered into a joint venture with India Bulls Financial Services for a life insurance joint venture in India through its French life insurance company Sogecap.
- Tata have formed a joint venture with US based American Int. Group (AIG) Max India has formed a joint venture with US based life insurance company New York Life.
- Indian Farmers' Fertiliser Cooperative (IFFCO) has formed a joint venture with Tokio Marine and Fire of Japan to form IFFCO Tokio General Insurance Company.
- State Bank of India has formed a joint venture with Cardiff SA of France (the insurance arm of BNP Paribas Bank) as SBICardiff Life.
- ICICI has joined hands with UK based Prudential- ICICI Prudential Life Insurance.
- Insurance in India has been spurred by product innovation, streamlining of sales and distribution channels along with targeted advertising and marketing campaigns.

Different Categories of Insurance

- Traditional Hazard Insurance
- Parametric / Index-based Insurance
- Catastrophic Pools and Bonds
- Micro-insurance
- Public Funded / Social Insurance

Traditional Hazard Insurance

- Traditional insurance products cover hazards on an "indemnity" basis. Policyholder insures against specific hazards. In the event of the insured item being lost or damaged as a result of a covered hazard, the policyholder is compensated for their financial loss.
- Traditional insurance effective in case of frequent non-correlated low-consequence events, such as auto accidents, fires, and routine storm damage to residential and commercial property
- Natural hazards tend to impact large areas, thus affecting large portions of the population or risk pool at the same time. This can challenge the resources of a local insurance provider. Reinsurance helps reduce these risks by providing geographic and hazard diversification.

Constraints in Providing Insurance

- Actuarial data: A large volume of data and experience yielding sound probabilities for losses. Risk assessment for natural hazards, however, is more difficult.
- Supply Side Issues: extensive networks of claims adjusters who assess individual losses following an event.
- At the same time, the possibilities of insurance fraud (called "moral hazard"), as well as only people or organisations at high risk purchasing insurance (called "adverse selection"), are relatively high.

Group-based Hazard Insurance

- GSDMA in India established a compulsory group-based housing insurance scheme for households completely destroyed and rebuilt with government assistance.
- For a mandatory payment deducted from the final instalment of housing assistance, the policy provides protection for 10 years for 14 types of natural and human-induced disasters.
- GSDMA's Awareness Campaign about hazard insurance

Lessons from Gujarat Experience

- Standardised, non-voluntary group policies can substantially reduce transaction costs;
- At the same time, such a standard insurance package can fail to respond to individual requirements;
- Awareness of active and potential clients needs to be continually raised;
- With the premium being paid only once every 10 years, there is no potential for providing incentives for risk reduction.

Index-based/ Parametric Insurance

- Index-based / Parametric insurance features contracts based on a physical measurement of a hazard, such as rainfall, temperature or wind speed.
- Index-insurance is often used for crop risks, where farmers collect insurance compensation if the index reaches a certain measure or "trigger" regardless of actual losses.
- Index-based crop-insurance contracts are sold in standard units by rural development banks, farm cooperatives, or microfinance organisations, and the "premium" varies from crop to crop.

Strengths and Weaknesses of Index-based insurance

- Reduction of moral hazard and transaction costs.
- Index-based mechanisms are also more transparent, as they are based on a physical trigger and the payout is fixed in advance.
- The major downside of index insurance is the basis risk: if the trigger is insufficiently correlated with the losses experienced then no payout may occur, even if the losses are substantial.

Examples of Index-based Insurance

- The World Food Programme (WFP), with the World Bank Commodity Risk Management Group (CRMG), piloted an index-based insurance scheme to cover farmers against severe drought during the 2006 agricultural season in Ethiopia.
- Payment was to be triggered if rainfall was significantly below historic averages, pointing to the likelihood of widespread crop failure. The contract was awarded to Axa Re.

Ethiopian Experience

- Rainfall in 2006 in Ethiopia turned out to be above average, so no payout was triggered.
- If the contract had been triggered, Axa Re would have paid out to WFP, who would then have transferred the funds to the Ethiopian Government for distribution as cash assistance to individual households through their Productive Safety Net Programme.

Lessons from Ethiopian Experience

- It is feasible to use market mechanisms to finance drought risk in Ethiopia;
- It is possible to develop objective, timely and accurate indicators for triggering drought assistance;
- In terms of humanitarian funding for Ethiopian drought, risk transfer is optimal only for major catastrophes, as for smaller events insurance becomes disproportionately expensive.

Catastrophic Pools and Bonds

- In a catastrophe pool, different but similar entities such as national governments or insurance companies combine resources to form a fund which provides financial protection against catastrophic risks.
- Catastrophe bonds are risk-linked securities that transfer a specified set of risks from the insured to the global financial markets (investors).

Turkish Catastrophe Insurance Pool (TCIP)

- TCIP is now the largest insurance programme in the country, providing coverage to approximately 2 million Turkish homeowners.
- In only five years, the programme built approximately \$200 million in its own reserves and secured nearly \$1 billion in total claims-paying capacity, primarily from the international reinsurance market on competitive terms.

TCIP Experience

- TCIP has significantly reduced the government's fiscal exposure to earthquake risk.
- TCIP demonstrated its ability to pay claims quickly and fairly. It has promptly settled 6,000 claims amounting to \$6 million.
- Because of its low cost structure and well-managed reinsurance costs, the TCIP can provide affordable catastrophe insurance for low-income urban homeowners.

FONDEN in Mexico

- In 2006, Swiss Re restructured, placed and reinsured earthquake coverage for FONDEN, Mexican Government's Natural Catastrophe Fund
- The coverage provides for relief and post-disaster recovery and reconstruction in case the earthquake exceeds a certain threshold
- FONDEN has been recapitalized through a US\$ 150 million cat bond and the remainder was reinsured

Indonesian Earthquake Reinsurance Pool

- High earthquake risk in Indonesia
- The Government required all licensed general insurance and reinsurance companies operating in Indonesia to provide insurance through a joint undertaking.
- The Indonesian Earthquake Reinsurance Pool or Pool Reasuransi Gempa Bumi Indonesia (PRGBI) was set up. Participating in the Earthquake Pool was made compulsory for all general insurance and reinsurance companies.
- The PRGBI began operations from 1st January 2003. At the same time a compulsory earthquake tariff was introduced and endorsed by the Government. With effect from 1st January 2004 the PRGBI was transformed into a public liability company, PT. Asuransi MAIPARK Indonesia.

Micro-Insurance

- Micro-insurance has grown out of the micro-finance movement
- Savings, credit and other services have proven successful in helping low-income communities
- While standard micro-finance products can provide some risk management, the subject of micro-insurance is attracting wide interest due to its coverage of low-income houses and businesses that are traditionally excluded from conventional insurance services.

Features of Micro-Insurance

- To serve poor people, micro-insurance must respond to their priority needs for risk
- It should be easy to understand, needs to be affordable, and transaction costs must be low.
- The first micro-insurance programmes generally focused on health care and funeral cost products, with new developments and innovations not only improving existing products but also expanding to cover livelihoods and housing risks

Examples of Micro-insurance

- Columna in Guatemala offers a variety of group insurance schemes for cooperatives and micro-insurance schemes targeting micro-enterprises
- SEWA in Gujarat provides micro-insurance for informal workers to cover health and livelihood losses
- MFIs in Bangladesh are offering a range of micro-insurance products

Public-Funded / Sovereign/ Social Insurance Programs

- Spain and France provide public-funded insurance programs to cover natural disaster risks
- The National Flood Insurance Program (NFIP) in the United States covers 20,000 communities by making them adopt and enforce floodplain management
- In exchange, NFIP makes Federally backed flood insurance available to homeowners, renters, and business owners in these communities.

The Caribbean Catastrophe Risk Insurance Facility

- Provides Hurricane and Earthquake catastrophe coverage to Caribbean governments
- Designed to cover "liquidity gap" due to loss of revenue after a major hurricane or earthquake
- Coverage provided through the use of parametric policies with capacity (capital) held in a joint reserve fund

CCRIF Experience

- Capitalization by donors via World Bank Multi-donor Trust Fund (MDTF) and by Participants direct to CCRIF
- MDTF covers Facility costs on a reimbursable basis for all approved expenditure (including operating costs & risk transfer premiums)
- MDTF also provides claims-paying capacity (10 M of which is assigned in the formal risk transfer structure)
- CCRIF assets (premiums and Participation Fees) are extensively protected so can grow rapidly

State Governments' Insurance Schemes in India

- The Government of Andhra Pradesh after piloting the 'Arogya Sri' health insurance scheme in three districts plans to issue health cards to 18 million BPL (below the poverty line) families. As a result, about 60 million of the State's 80 million people will have insurance cover.
- The Karnataka Government has partnered with the private sector to provide coverage at a low cost in the Yashaswini Insurance scheme. Launched in 2002, the scheme provides coverage for major surgical operations, including those pertaining to pre-existing conditions, to Indian farmers who previously had no access to insurance.
- Government of Maharashtra tied up with Lombard Insurance to provide insurance to the farmers

Inter-governmental Risk Pool

- IRPs made up of public entities, such as government agencies.
- They are cooperative group of governmental entities joining together to finance an exposure, liability or risk.
- Critical Infrastructure could be insured through IRPs. For example, ports, highways, and special economic zones could be insured through the IRPs.

Emerging Priorities and Challenges

- Expanding Risk Pool: cooperation across institutions, companies, and governments
- Greater Investment in development of Insurance services and products
- Providing reinsurance support
- Regulatory Mechanisms need to emphasize priority sector insurance
- Government's role in supporting public-funded / insurance coverage