PART III C

Chapter 22

Management of Extraordinary Risks Including Terrorism, in India Achievements and Perspectives

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This chapter provides an analysis of the respective role of the government, at both local and national levels, of the insurance and reinsurance markets particularly through the establishment of pools and of other financing alternatives to cover natural and man-made disasters in India.

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1. Introduction

India has been traditionally vulnerable to natural catastrophes on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. Risk of loss by terrorism is very uncertain with a constant threat of loss.

2. Role of Government

The provision of relief to the victims of natural calamities in India has always been considered to be the responsibility of the State Government. The States have found that the management of natural disasters causes a great financial strain on their limited resources. They have to necessarily rely on Central assistance and their access to Central resources depended on their bargaining strength. The concern of the governments, both in the Centre and the States, is to ensure that the developmental efforts are not diluted in the year in which it is affected by natural calamities.

Over the past few years, there has been a paradigm shift in the approach to catastrophe and extraordinary risk management. A Calamity Relief Fund (CRF) for each State to be contributed by the Centre and the State in the ratio of 75:25 is in place. The size of the Fund for each State is determined based on an average of the ceilings of expenditure for natural calamity approved by the Centre in the previous 10 years. In addition a National Centre for Calamity Management has been established which recommends to the Central government release of funds beyond the CRF limits when a calamity of rare severity occurs in a State. Expenditure approved on this account by the Centre is met by levying a special surcharge on Central taxes. This is a very novel method which places the onus on the Executive to explain to the Parliament and justify the levy with reference to the magnitude of the calamity.

In addition to supplementing the efforts of the States by providing assistance in the event of a natural calamity the Central Government has laid emphasis on the States earmarking adequate resources for disaster mitigation in their Annual Plans. The new approach proceeds from the conviction that development cannot be sustainable unless disaster mitigation is built into the development process. Another corner stone of the approach is that mitigation has to be multi-disciplinary spanning across all sectors of

development. The new policy also emanates from the belief that investments in mitigation are much more cost effective than expenditure on relief and rehabilitation.

3. Alternative Risk Financing and Insurance Pooling Mechanisms

It is also true that Government alone cannot mitigate disasters and we need to explore alternate methods of funding the direct costs of natural disasters outside the national budget. A major challenge to the insurance industry is to help manage the natural catastrophe risks in India. An integral part of any risk solution lies in providing sufficient capacity for the transfer of risk from households and corporates to the insurance and reinsurance sector. However, it is yet to be extensively used in India. Both risk pooling structures and alternative catastrophe coverage mechanisms (long-maturity risk financing facilities, weather-indexed contracts, and capital market instruments) can achieve better risk protection and financing terms—enough to allow the expansion of insurance coverage of public assets and private property. The problem is that, unlike in the West, where insurance is sold as a product that offers protection and security, in India it is sold more as a saving instrument. Risk coverage is only a secondary objective. That's also one of the reasons for the poor insurance coverage in this country.

Till recently, both insurers and reinsurers have been rather unconcerned about the exposures in covering catastrophic perils. Premium rates were fixed on some historic basis and cover provided for the asking. Reinsurance was not a problem because reinsurers were as relaxed in their acceptance of risk as the direct insurers. The dramatic losses of the recent past, especially the loss by destruction of the twin towers highlighted the dangers of the present method of insuring and reinsuring catastrophe perils. An immediate fall-out of the 9/11 incidents was the disappearance of cover for the risk of terrorism from the commercial market. Only limited cover was available and that too at punitive terms. Indian insurers had a choice of either echoing the non-availability of cover for terrorism risk, or refusing cover to the insuring public, or organizing the cover internally with minimum resort to the international market. The long history and maturity of the Indian market guided it to the latter solution.

3.1. Terrorism Risk Insurance Pool

It was obvious that at the level of individual insurers, meaningful limits of cover could not be provided to the clients. So, the insurers in the market decided to pool their resources through a Terrorism Risk Insurance Pool. This Pool acted as the one hundred percent reinsurer of every direct

insurance policy on the risk of terrorism. The reinsurance accepted by the Pool was based on the collective underwriting capacity of all the insurers in the market. As a matter of prudence, reinsurance cover to some extent on excess of loss basis was secured from the international reinsurance market. The Pool was able to offer cover up to Rs.200 crores (US$ 40 million) per location from day one. As the initial period was loss free and a fund had got built up, the cover limit was raised to Rs. 300 crores (US$ 60 million) from January, 2004. There is now a proposal to raise it further to Rs. 500 crores (US$ 100 million) from January, 2005.

The reinsurance market is driven by sentiments rather than facts and the memory of the September 11 losses seem to have been overtaken by the concern for loss of premium. As a result, we are now witnessing considerable softening of premium rates and raising of cover limits for Indian risks seeking insurance for terrorism risk in the international market. However, one should always remember the international market provides no assurance of stability in terms of availability of cover and self-reliance to the extent possible is the right solution.

Reinsurers have also expressed concern about the exposure to catastrophe perils through surplus reinsurance treaties. Although there have been some efforts to place event limits on proportional treaties, the move has not yet gathered the momentum where insurers are unable to use these treaties in the normal manner. However, it is unwise to wait until the international market cuts off cover. So, there is need to explore alternate channels for effective reinsurance of the catastrophe exposures that insurers underwrite.

3.2. Earthquake Pool

Policymakers face a daunting task in addressing the issue of earthquake risk. Major earthquakes seldom occur, but when they do, catastrophic consequences follow. Since earthquakes are geographically focused events losses from a single event can be tremendous. Insurers are hesitant to offer many policies in an area facing the same hazard. Earthquake risk, with very long return periods is ill-suited to annual underwriting and determination of profits. While reinsurers will have the benefit of the entire premia as profit, in the years when earthquakes do not occur, they pay the losses without the benefit of continuity of the premia over the long term in the year when an earthquake occurs. Besides, with the concept of "pay back" very commonly applied by reinsurers on excess of loss covers, the insurers are forced to pay back the losses they recover through highly increased excess of loss premia. Even the income tax laws do not recognize the long term nature of such risks since they look at profits emerging on an annual basis.

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Although earthquake insurance by itself does not mitigate losses from seismic hazards, it is one of many policy options that can help reduce losses from earthquakes. Other options include such things as structural and non-structural mitigation, building codes, and land-use planning. Insurance, when coupled in this manner, can be used as a financial incentive for action. Unless proper incentives are put into place, a fully insured individual has a disincentive to mitigate since the insurer will cover any loss.

The logical solution therefore is to underwrite earthquake insurance business on a long term basis and recognize profits only after a relatively longer period. This solution is not available to insurers at their individual company level. Several countries have already put in place earthquake insurance pools at the market level and in many cases, the government also has a role to play. The efforts in India in this matter are as yet at a preliminary stage. Progress has been slow because the insurers have not yet felt the pressure from the reinsurers.

The preliminary thinking on the Pool is to underwrite earthquake insurance as at present but reinsure into the national pool up to the capacity of the pool with whatever excess of loss protections it is able to arrange, and reinsuring the balance exposure into the conventional commercial market. It is expected that progressively, the capacity of the pool will expand and reduce the need for conventional reinsurance in the commercial markets.

3.3. Regional Pools

Countries that have natural catastrophe exposures need to examine the feasibility of establishing a regional catastrophe pool where national reinsurers of those countries without catastrophe hazard can join as capacity providers. A regional pooling mechanism among the countries of the region can be one of the solutions to cope with unpredictable natural and man made catastrophes. International diversification can significantly reduce the fluctuation in the loss burden from year to year and capital cost for multi national reinsurance portfolio is much lower than single country reinsurance solutions.

4. Conclusion

This is a very crucial time for the insurance and reinsurance industry to explore new opportunities for dealing with catastrophic risks. While a comprehensive solution to the problems of insurance of extraordinary risks may not be readily available, manageable remedies can be implemented by facilitating public-private partnership combined with individual

responsibility. Insurance needs to be used as a catalyst in helping both the industry and society to deal with the critical issue of reducing losses and providing protection against damage from earthquakes, floods, hurricanes, and other natural and man made disasters.

Annex 1

List of Speakers and Presentations at the Conference*

Session 1 - Insurability of catastrophic risks

- Economics of catastrophe risk insurance, *Christian Gollier (University of Toulouse).*
- Insurability of terrorism risk: challenges and perspectives, *Howard Kunreuther and Erwann Michel-Kerjan (Wharton School, University of Pennsylvania).*
- Industrial, technological and other catastrophes, *Christian Lahnstein (Munich Re).*
- Recent trends in the catastrophe risk insurance/reinsurance market, *Patrick Murphy O'Connor (Benfield).*
- Role of the reinsurance industry in the management of weather related risks, *Peter Zimmerli (Swiss Re).*
- Issues and options in the management of terrorism risk through insurance, *Robert Reville (Rand Corporation).*
- Current state of the coverage for war and terrorism risks - including NBC - in the aviation sector, *Eugene Hoeven (IATA)*
- Free market solutions for terrorism risks coverage, *Ben Garston (MAP Underwriting and Lloyd's Terrorism Panel).*

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* Power point presentations summarising papers included in this publication as well as other presentations made at the conference are available on the OECD Insurance homepage: http://www.oecd.org/daf/insurance.

- Improving insurability and affordability: the role of insurance in hazard identification, risk assessment, risk prevention and mitigation for industrial/chemical accidents, *Satyananda Mishra, IAS, Disaster Management Institute, Bhopal - Government of Madhya Pradesh, India).*

Session 2 - Financial market solutions to manage catastrophic risks

- International financing solutions to catastrophic risk exposures, *Torben Juul Andersen (Copenhagen Business School).*
- The use of risk linked securities to manage catastrophic risks, including terrorism, *Christian Mumenthaler (Swiss Re).*
- Current challenges in terrorism risk securitization, *Gordon Woo (RMS).*
- Financing catastrophic risks in non-OECD countries: challenges and perspectives, *Reinhard Mechler (IIASA).*
- Current market trends for catastrophe bonds and risk kinked securities, *Christopher McGhee (MMC Securities, Guy Carpenter).*
- The potential for new risk transfer instruments to cover terrorism risks, *Michele David (The Bond Market Association).*
- Rating agency's perspective on catastrophe bonds and risk linked securities, *Rodrigo Araya (Moody's).*

Session 3 - Role of governments and development of public-private partnerships for catastrophe risk management

- Role of governments in natural catastrophe risk management and financing in OECD countries, *Paul K. Freeman (University of Denver).*
- Catastrophe insurance programs in emerging countries: field experience, *Eugene Gurenko (World Bank, Financial Sector Operations and Policy Department).*
- Potential role for governments in terrorism coverage, *Dwight Jaffee (Haas School of Business, UC Berkeley).*
- Public-private partnerships to cover terrorism risks in OECD countries, *John Cooke (International Economic Relations Consultant, London).*

- Role of the US government in the prevention and mitigation of terrorism risks, *Robert Liscouski (Infrastructure Protection Office, Department of Homeland Security, USA).*
- Disaster risk management policy in Japan, *Kazuhiro Kawachimaru (NIPPONKOA Insurance Company Ltd).*
- The Spanish experience in the management of extraordinary risks, including terrorism, *Ignacio Machetti (Consorcio de Compensación de Seguros).*
- A stakeholder approach for developing a public-private partnership: the Hungarian case*, Reinhard Mechler (IIASA).*
- Disaster risk management policy in China, *Yuanchang Zheng and Jianguo Mu (Department of Disaster and Social Relief, Ministry of Civil Affairs).*
- The French experience in natural catastrophe risk management, *Suzanne Vallet (Caisse Centrale de Réassurance).*
- Earthquake risk management policy in Indonesia, *Werner Bugl (PT Asuransi, MAIPARK Indonesia)*.
- Disaster risk management policy in Mexico, *Carlos Bayo Martinez (FONDEN).*
- Disaster risk management policy in the Philippines, *Ronald I. Flores (Department of National Defense, Office of Civil Defense, National Disasters Coordinating Council).*
- Disaster management in India, *D. Madan (Under Secretary, National Disaster Management Division, Ministry of Home Affairs, Government of India).*
- Management of extraordinary risks, including terrorism, in India: achievements and perspectives, *C. S. Rao (Indian Insurance Regulatory and Development Authority).*

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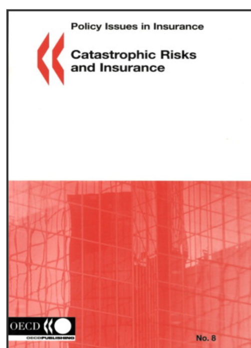

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