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## **SPS Brief**

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# **Financing Disaster Risk Reduction - The Indian Context**

**Archana G. Gulati**



Society for Policy Studies (SPS)  
J-1824, Chittaranjan Park, New Delhi  
E: [info@spsindia.in](mailto:info@spsindia.in) W: [www.spsindia.in](http://www.spsindia.in)

# Financing Disaster Risk Reduction – The Indian Context

## Introduction

The recent and severe Nepal earthquake has served to warn India of the likely loss of life and property that could result if such a disaster were to take place in India. It is estimated that the toll of the 7.8 magnitude earthquake in Nepal would be of the order of 8,000 lives lost and an economic loss amounting to more than 50% of the country's GDP, something a developing country can ill afford. (See box below<sup>1</sup>)

### Economic Consequence of Nepal's Earthquake

*A month after being struck by a devastating earthquake that killed 8,648 people, Nepal's fractured economy is trying to recuperate ....Massive destruction of property, an unprecedented economic dislocation and a distressed government budget are portending a gloomy economic outlook. Initial estimates have put the total replacement cost of damaged property and infrastructure at \$6-8 billion. In addition, a month-long unprecedented post-quake economic downturn has added economic losses worth around \$2 billion, bringing the total economic cost of the earthquake close to \$10 billion, over half of the country's gross domestic product (GDP) in the previous year. Though the consequences of the calamity have been felt across all sectors of the economy, there are some sectors where the impact has been especially severe. Tourism, one of Nepal's few promising industries, has taken been gravely affected.... Trekking routes, another big draw, and infrastructure for mountaineering expeditions have been destroyed...Another early warning is coming from the banking system that has a loan exposure of around 15% of total banking lending to high-rise shopping malls and apartments. Given the strong quake-fear-psychology prevalent after last month's disaster, the prospects for finding buyers for such assets have diminished greatly. As the chances of a revival in demand for such infrastructure is unlikely in the near future, Nepal's banking system is likely to face a surge of loan defaults in the real-estate sector.*

*Insurance is another area where a major threat to financial stability is brewing. Despite a weak insurance culture in the country, over 10,000 quake-related claims have been registered with insurance companies. ...Reconstruction efforts will likely further fuel already high inflation, which, despite low oil prices, is hovering around 7%,.... However, the foremost impact of the earthquake will come in the form of a rise in poverty in a country where a quarter of the population lives in absolute poverty. Given the massive loss of property, including animal stock, particularly in the poorest districts in the rural areas, poverty will worsen at least in the medium term.*

India is in fact amongst the most disaster prone countries in the world, being vulnerable and prone to various types of disasters including earthquakes, cyclones, tsunamis, floods, landslides etc. According to the World Bank India loses up to 2% of its GDP and 12% government revenue to direct losses arising from disasters. This highlights the need to invest in disaster risk reduction (DRR) and to plan in advance for post disaster relief. The latter is important to prevent relief and reconstruction expenditure (in the aftermath of disasters) from diverting funds away from much needed economic development and growth.

### Financing Disaster Relief in India

The present scenario in India is that in the event of a disaster, relief expenditure is met from State Disaster Relief Fund (SDRF). In case of severe calamities, the National Disaster Relief Fund (NDRF) supplements the funding available from SDRF. Funds available under these two reserves can be used only for relief and immediate rehabilitation and not for long term reconstruction. This implies that to find funds for reconstruction we must reallocate funds earmarked for other activities or rely on external aid. Further, in the absence of immediate availability of liquidity there will be a longer time lag before complete recovery is achieved. The combination of these two factors can be very detrimental as far as economic recovery and growth are concerned.

There is, therefore a need to take a relook at disaster risk financing and transfer mechanisms, even though DRR would, of course, continue to be the most important intervention to reduce the negative financial impact of disasters. In recognition of the potential of insurance to act as an effective means of risk transfer and then added benefit of incentivizing mitigation efforts as premiums are linked to the same, the national Disaster management Authority (NDMA) and the Insurance Regulatory & Development Authority (IRDA), have jointly prepared a discussion paper<sup>2</sup> on “Disaster Relief and Risk Transfer through Insurance” after wide stakeholder consultations. To begin with, NDMA and IRDA analyzed the adequacy of the existing financing mechanism and the international best practices and came out with specific recommendations. It was seen that the actual relief expenditure of the states tends to be far more than the combined releases from SDRF and the NDRF. The gap is often very significant in the wake of major disasters. There are certain disasters, which at present are not covered by the SDRF/ NDRF scheme. There are years in which states have incurred significant amount of relief expenditure, which has been of the order of even 800% of SDRF and NDRF funding. This gap needs to be addressed else developmental activities of the State would suffer. Another gap as mentioned earlier is the funding or financing mechanism for reconstruction. The gap exists in terms of both overall adequacy as well as immediate availability of funds for reconstruction. These gaps suggest need for ex ante risk transfer apart from retaining risk through reserves and budget.

Looking at the international best practices on financing disasters, a recent study by Lloyds on (non-life) insurance in 42 countries suggests that increased insurance penetration is likely to lead to better insurance coverage and subsequently a reduction in the level of damages and recovery costs, which fall upon the government and therefore ultimately upon the tax payers. However, India is one of the 17 countries identified as being under insured in terms of insurance penetration and insurance gap. The study indicates that about 85% of losses (2004-11) were uninsured in India. Non-life insurance penetration in India is less than 1%.

When we look at best practices from other countries, three salient aspects come to notice:

- i) Firstly, the use of compulsory earthquake insurance for residential buildings as has been done in Turkey, New Zealand and Taiwan. The objectives of the Turkish Catastrophe Insurance Pool include affordable insurance, which also becomes a vehicle to incentivize the following of standard buildings codes.
- ii) Secondly, it is seen that governments utilize parametric insurance for financing relief and reconstruction involved in severe disasters. One example, is the Caribbean Catastrophic Risk Insurance Facility.

iii) Thirdly, there are examples of reserve funds like FONDEN Mexico, which are used not only for relief but also reconstruction and which allow a part of the funds to be used for the purchase of risk transfer instruments including insurance premiums and CAT bonds. The FONDEN is in fact a very good example of internationally prescribed best practice of following a graded approach to financial resilience with a combination of risk retention and risk transfer as we move from high frequency low impact disasters to low frequency high impact disasters.

Based on these observations and the present scenario in India, NDMA and IRDA in their study on the role of insurance as a possible means of financing disaster risk, have come out with certain concrete suggestions as follows. The use of insurance as a risk transfer mechanism could be considered in order to meet the liability towards relief for disasters not covered by the SDRF/NDRF scheme and to fund non-immediate rehabilitation and reconstruction. This would preclude the reallocation of funds from developmental activities. It has been suggested that a percentage of SDRF itself could be allowed to be used for this purpose. Purchase of parametric insurance could be considered to supplement NDRF to meet expenditure post low frequency and high impact disasters. To begin with, earthquakes and cyclones could be covered and subsequently other disasters, subject to availability of data. Another suggestion is that the insurance sector should come forward with innovative products in the area of individual disaster insurance suited to the needs of non-BPL<sup>3</sup> families keeping in mind affordability. As far as the BPL population is concerned, the Government would have to decide whether to pay their insurance premium or continue with the existing relief mechanisms. Based upon international best practices, it has been proposed that disaster insurance be made mandatory for residential property in urban areas. This would apply to all urban property tax payers. It is expected that the premium would reflect mitigation efforts such as adherence to BIS codes and hence this would also serve as an incentive for mitigation.

On the lines of the Public Liability Insurance Act, it could be considered whether insurance could be made mandatory for the owners of properties such as malls, theaters, hospitals, hotels, etc. and which are places of public congregation. Similarly, places of religious pilgrimage should require mandatory third party insurance by religious trusts or administration in charge. The idea is to provide minimum disaster compensation to the visiting public at least on par with SDRF norms. Finally, the government needs to look at the international experience and conduct its own risk analysis to arrive at whether it would be economical to insure public utilities and critical public infrastructure. The former would include power, water supply and also encompass mandatory insurance of facilities owned by private sector or being run in public private partnership mode as for example telecommunications or airports. The latter would include school, hospitals, roads and bridges etc. Such a move could ensure the availability of capital to enable faster economic recovery.

These suggestions would require looking at some important policy changes. These include exploration of insurance premium as a risk transfer strategy as against the current norms of relying on reserves and contingency funds for relief expenditure and plan funding for reconstruction. Insurance of government property and mandatory insurance for utilities, industry and private homes are also some new policy areas.

### Way Forward

The way forward for India would be to develop an appropriate DRR financing strategy based on a comprehensive risk analysis and needs & gaps assessment. We need to arrive at the appropriate balance of budgetary funding, reserves and contingency funding and risk transfer mechanisms suited to our country. We certainly need to help develop the disaster insurance sector in place of a perpetually underdeveloped disaster insurance market forcing sole reliance on the state exchequer, which is basically a burden on the tax-payer. It

must be noted that insurance incentivizes disaster mitigation as premiums are linked to mitigation efforts. In sum, India's achievements so far have been in the areas of techno-legal regime, effective early warning, use of space and ICTs, capacity building, reserve funds and a dedicated response force. The way forward involves better implementation of the techno-legal regime for DRR, review of major schemes to incorporate DRR, setting up of mitigation funds, further improvement in early warning systems and ICTs for disaster management and a comprehensive risk financing strategy.

**Disclaimer:**

Views are personal.

**About the author**

The author is a Civil Servant. She can be contacted at [archanagg14@gmail.com](mailto:archanagg14@gmail.com).

**Endnotes**

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<sup>1</sup> Extract from article by Prem Khnal, The Mint, available at <http://www.livemint.com/Opinion/LinwVz3601jwf8RHVUyLwN/The-economic-consequences-of-Nepals-earthquake.html>

<sup>2</sup> [http://www.ndma.gov.in/images/pdf/IRDA\\_Report.pdf](http://www.ndma.gov.in/images/pdf/IRDA_Report.pdf)

<sup>3</sup> Below poverty line



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Society for Policy Studies (SPS)  
J-1824, Chittaranjan Park, New Delhi  
E: [info@spsindia.in](mailto:info@spsindia.in) W: [www.spsindia.in](http://www.spsindia.in) Tel.: 011-41071299