

CATASTROPHE RISK FINANCING STUDY

THE PHILIPPINES

INTERIM REPORT

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Introduction

The work carried out by the consultants for this Interim Report was broadly guided by the Terms of Reference originally presented by the World Bank in the RFP for the Study of Disaster Risk Financing Options in the Philippines. In this RFP, the World Bank sought consulting services to develop the basic analytic framework and strategy for financing the economic impacts of disasters in the Philippines and outline policy options that could help the Government of the Philippines to improve the existing system of financing for disaster risk recovery and rehabilitation. In this context, the study was expected to explore the feasibility of different risk financing and transfer instruments for the Philippines. Specifically, the scope of the assignment included:

- a) Taking stock of existing information on risks and impacts in the Philippines to determine sectors and geographic areas that incur the highest losses per year. Using the risk data to be provided by a third party, the assignments required estimating the level of government and private sector exposure to natural disasters at the national and local level using a probabilistic framework. The consultant was also expected to provide recommendations on the risk financing framework and specific risk financing instruments appropriate for the identified risk exposures.
- b) Identifying the disaster risk financing needs of the government at the national and local levels and across sectors by taking stock of existing risk financing schemes, including calamity funds, GSIS insurance schemes, and others. The consultant was then expected to assess the adequacy and efficiency of such schemes in meeting the requirements of the national and local governments, and across the sectors.
- c) Prioritizing risk financing and transfer options for the country.
- d) Devising incentives to encourage the use of disaster risk financing and transfer instruments by LGUs as well as entice private sector participation and innovation in disaster risk funding.

In light of the requirements set forth in the TOR, we condensed our approach to the study into three modules:

- *Module I:* Quantification of the key risk exposures of the government and the private sector based on the risk data to be provided by a third party vendor.
- *Module II.* Assessment of the existing risk financing mechanisms for both public and private sector assets to determine their effectiveness as well as the existing risk financing gap, e.g. the difference between the likely loss potentials and the availability of funding at different levels of government and from private sources. This part of the assignment also entails an analysis of financial vulnerability of different customer segments such as urban homeowners, farmers and SMEs.

- *Module III.* Development of concrete recommendations on ways to overcome the disaster risk funding gap through the use of innovative market-based risk financing instruments and creation of public-private partnerships in risk financing at different levels of society, as well as a system of institutional incentives that will support them.

Each of the above described project modules represents a relatively independent task in terms of information gathering and the ensuing analytical work, which dictated our overall approach to the study and the field trips.

This Interim Report presents the summary findings of our first field visit to the Philippines in April-May 2009, which was dedicated to information gathering for Module II. During the visit, however, it became apparent that our ability to successfully complete Module I is contingent upon the quality and completeness of risk data to be provided to us by the Bank. To avoid possible delays with the implementation of Module I, in this report we also provide the required risk data format and the minimum data quality specifications.

A brief summary of our findings for Module II follows. See Annex I for details.

Module II: Assessment of the existing risk financing mechanisms and capabilities

To identify the disaster risk financing needs of the government at the national and the local levels and across different sectors of economy, we carried out express field assessments of the existing financial schemes and programs that are currently being utilized for disaster recovery and rehabilitation in the country. During this stage of the work we have reviewed:

- The overall amount of risk financing available from different government schemes.
- Overall disaster risk coverage in the country provided by the private insurance industry.
- The ability of government agencies to replenish exhausted funding annually and, in the case of off-budgetary vehicles, or government owned insurance companies, such as GSIS or the National Calamity Fund, their financial sustainability in the long-run.
- Utilization of funding, specifically the types of disaster related expenditures eligible for financing under these schemes, as well as the segments of economy and population covered by these schemes.
- Speed of disbursement and the process leading to funds disbursement.
- Size of individual and corporate financial assistance following natural disasters.

The information was collected through a series of extensive interviews with technical staff and management of the existing risk financial schemes for funding disaster recovery and rehabilitation as well as with the local insurance industry. Specifically, we interviewed the following organizations:

- Government Service Insurance System (GSIS)
- National Calamity Fund
- Provincial governments

- Insurance Commission of the Department of Finance
- Department of the Interior and Local Government
- Department of Public Works and Highways
- Department of Social Welfare and Development
- Department of National Defense, Office of Civil Defense
- Private insurance and reinsurance companies

The main findings from the first field trip follow.

Central Government Post-disaster Safety Nets

The National Calamity Fund (NCF) is the main fiscal instrument used by central government to provide fiscal assistance to provinces affected by natural disasters. The Calamity Fund is formed from the annual budget allocations and administered by the National Disaster Coordinating Council.

According to Presidential Decree #477, two percent of annual budget appropriations should be reserved for the NCF. In reality, historically, the budget appropriations on average have been much lower and varied considerably from one year to another. Table 1 below provides an overview of government appropriations to the NCF over the last 10 years. The size of annual budgetary appropriations to for the Calamity Fund depends on the annual budget appropriation decisions of the Congress (both Lower and Upper Houses).

Table 1. Annual budgetary appropriations to the NCF (Peso, 000)

	Appropriation	Actual Damages	Appropriation/Damages (%)
1994	2000	5245.9	38%
1995	2000	19001.6	11%
1996	2800	1678.4	167%
1997	2000	5586.7	36%
1998	2000	28368	7%
1999	1000	5668	18%
2000	998.5	9406.0	11%
2001	998.5	9267	11%
2002	800	3420.2	23%
2003	800	5192.9	15%
2004	700	14244.3	5%
2005	700	3367.3	21%
2006	700	21651.1	3%
2007	1000	4533.2	22%
2008	2000	23512.6	9%
2009	2000	NA	

Source: Salceda (2009) and DBM website, 2009.

As can be seen from the table, over the last 15 years in all but one year the Calamity Funds were grossly insufficient to cover the costs of damages wrought by natural disasters. This great disparity between the actual economic damages from natural disasters and the availability of funding for reconstruction purposes is only amplified further when one accounts for the fact that on average over 50 percent of annual budgetary appropriations to the Calamity Fund is used for delivery or disaster relief and other maintenance and operational expenditures rather than reconstruction investments. In 2009 budget, the total allocation to the Calamity Fund was P2000 million, out of which P 1150 million was earmarked for aid, relief and rehabilitation services to communities affected by disasters; and P850 million was given for repair and reconstruction of permanent structures, including capital expenditures for pre-disaster operations, rehabilitation and other related activities. Of the P1150 million, 25 percent was immediately released to the DSWD and 20 percent to the Office of Civil Defense as Quick Response Funds (QRFs). Likewise, of P 850 million, 20 percent was immediately released to the DPWH and 15 percent to the DND as QRFs. The agencies receiving QRFs are required by law to report to the NDCC and DBM on the status of the utilization of such fund on a quarterly basis.

During disasters, the Calamity Fund is immediately released by the government for emergency relief and reconstruction purposes. The fund is annually appropriated from the national budget with the view of providing post-disaster financial assistance to affected localities and LGUs that cannot cope with disasters on their own. To be eligible, LGUs have to contribute co-financing ranging from 50 percent of total project costs for the 1st class LGUs to 30 percent for the 4th class LGUs. About 30-45 percent of the NCF is annually allocated to the Quick Response Fund, which provides emergency funding to the government agencies charged with emergency response - DSWD, OCD, DPWH, and DND. Agencies that do not receive QRF may instead rely on the 5 percent allocation in their own annual budgetary appropriations for disaster risk management.

The National Calamity Fund can be triggered only by the government declaration of a state of national calamity, which in practical terms means that under most circumstances it disburses only in the case of grave disasters that affect thousands of lives. Based on the data available for 1992-2007, the absolute value of disbursements from the Calamity Fund to 79 provinces, excluding the National Capital Region (NCR) was P 3,923,481,905 or, on average, P 261,565,460 per year.ⁱ

Based on the existing regulations, the allocation of NCF funds is guided by the following priorities: the highest priority is given to funding of emergency relief operations followed by emergency repair and rehabilitation of vital public infrastructure. Priority in the use of NCF is also given to the poor municipalities which do not have sufficient revenues of their own to carry out post-disaster repairs.

The authority to release the NCF and QRF is vested with the office of the President upon a recommendation from the NDCC. A Presidential Declaration of State of Calamity and/or imminent danger shall be the basis for every request of a national government agency or local government unit for funding support out of the Calamity Fund.

For the NCF, only local governments and national agencies affected by a disaster could request funding support. The assistance from the NCF is managed by the Department of Budget and Management (DBM) and is released directly to the concerned agency or an LGU.

Although, according to the country government accounting rules all unspent funds appropriated to the NCF must be returned back to the Treasury at the end of budgetary year, certain activities can be exempt from this rule. For instance, in cases when DBM declares the fund as “continuing appropriation”, the amounts earmarked for repair/rehabilitation purposes due to a calamity can be expensed over two years after its occurrence.

In addition to the Calamity Fund, the national budget provides for the Contingency Fund also known as “Presidential Fund”, which is administered by the Office of the President. Any disbursement from the fund requires the prior approval of the President. The fund is used at the discretion of the President to fund the requirements of new and/or urgent projects and activities that need to be implemented during the year. While not specifically, earmarked for natural disasters, there were precedents in the past where some proceeds of the Contingency Fund were used for disaster relief in the aftermath of natural disasters. In 2009, the allocation to the Contingency Fund was P800 million.

Finally, the 2009 Philippines national budget provides for P183,771,000 in annual premium subsidies for subsistence farmers to the Philippines Crop Insurance Corporation (PCIC). Since the premium subsidy is applied to paying farmers claims, which are by-and-large triggered by natural disasters, and given the fact that the PCIC retains most of that risk, this budgetary allocation can be viewed as yet another form of government disaster related annual budgetary outlays.

NDCC also reports that victims of disasters are provided with financial assistance “out of donations received by NDCC,” which in most cases is the budgetary allocation to the NCF earmarked for emergency relief. Financial assistance to disaster victims is guided by the NDCC Memo #13, s.1998 “Amended Policies and Procedures on the Provision of Financial Assistance to Victims of Disasters.” Specific documents, such as certificates of death or injury, have to be provided to RDCC prior to the release of funds. Financial assistance to victims is then transferred to the concerned OCD Regional Center for distribution to victims of disasters. The maximum amount of assistance per victim amounts to P10,000, if the victim has lost his life. Injured victims receive P5000. DSWD provide relief and financial assistance to affected victims as well. Private businesses do not receive any financial aid out of the NCF, LCF, or NDCC funds as it is assumed that businesses have to avail of insurance coverage for disaster.

GSIS

The GSIS was established in 1937 as a state-owned entity to provide social security cover for civil servants and to handle the insurance of public sector bodies. Over the years GSIS has developed a major portfolio of business insuring government interests such as the Philippine National Oil Company, National Power Corporation and National Food Authority amongst others through a separate unit GI-GSIS (General Insurance Group). Yet, due to the chronic lack of funding most government assets remain either uninsured or underinsured. For instance, in the

case of a devastating typhoon Durian that affected the Albay Province in 2006, GSIS indemnity payments to the provincial government could cover only 28 percent of damages sustained by the insured provincial facilities.

The company also handles all compulsory insurance business for all government employees, including property insurance of government financed housing. Similar to private market operators it offers catastrophe insurance coverage as a rider to the FLEXA policy, while the premium rates charged are based on the minimum tariff rate required by the local regulator. Despite its significant competitive advantage the level of catastrophe insurance coverage extended to the population by GSIS remains very low¹.

The GI-GSIS retention levels vary according to the risk underwritten, the balance being reinsured in the local market and any excess placed abroad.

Local Government Post-disaster Safety Nets

LGUs (e.g. provinces, cities, municipalities, and barangays) are mandated under the Republic Act No. 8185 to set aside annually 5 percent of their estimated revenue from regular sources as an annual lump sum for their Local Calamity Funds. In 2009, the estimated total amount of LCFs was P14.3 billion (see Notes in Table 2). The local calamity funds can be only used for disaster relief, rehabilitation, reconstruction, and other works deemed necessary in connection with natural disasters occurring the budget year in a given LGU. Any use of LCFs by LGUs must be approved by local councils. Any resources remaining at the end of the fiscal year revert to the unappropriated surplus for re-appropriation next fiscal year. LGUs are eligible for assistance from the Calamity Fund only if their own annual budgetary allocations for disaster response have been exceeded. The local calamity funds are typically released within 24 hours of the declaration of disaster to local governments/barangays which request such support. Information on the appropriation and actual use of calamity funds by LGUs can be obtained only from individual LGUs as it is, as a matter of practice, is not reported to any national government agencies. It appears however that LGUs have strong incentives not to utilize LCF allocations as they have considerable discretion over the use of underutilized funds. According to the DOF, frequently the unused LGUs allocations are used for paying end year performance awards to staff. This level of discretion and the lack of transparency may help to explain why a considerable percentage of LCFs (up to 70-90 percent) goes unused each year despite the fact that on average economic losses from natural disasters in a given year considerable exceed available local government resources for that purpose.

In addition to LCFs and access to the national CF, LGUs can borrow at market rates for the purposes of financing reconstruction in the aftermath of natural disasters.

Private Sector Post-Disaster Assistance

¹ According to the statistics provided by the Albay province, insurance was not even listed as a source of recoveries for homeowners who suffered from the 2006 Typhoon Durian.

Private sector donations to victims of disasters and charitable contributions for reconstruction form a relatively small but important source of post-disaster funding in the Philippines. During the period of 1992-March 2008, the overall amount of monetary contributions coming from the non-government organizations, corporations and citizens amounted to P 127,275,107ⁱⁱ or on average P 7,808,289 per year.

Catastrophe insurance coverage

Catastrophe insurance coverage is currently offered by the local insurance market as a rider on top of the traditional FLEXA cover. The standard natural perils cover includes the risks of earthquake, typhoon, and flood. As the catastrophe insurance cover is optional homeowners and SMEs can opt out of the voluntary endorsement. While there is no precise statistics on the number of homeowners and SMEs that declined the catastrophe insurance coverage, our survey of the largest players in the market revealed that 80-90% of all homeowners and 20% of SMEs property insurance have catastrophe endorsements. In 2008, there were 351,080 residential fire insurance policies in the market, which means that the number of catastrophe insurance policies was somewhere around 300,000 or 1.6 % of all insurable dwellings². In the case of SMEs, the level of insurance penetration is perceived to be even lower. The average sum insured under the homeowners policies was around P2.37 million (e.g. USD 50,000) and the average insurance deductible was 2%.

Conclusions

While we are still at a very early stage of our work, we would like to make several preliminary observations. First of all, it appears that the overall fiscal capacity of government at both central and local level to fund natural disasters is grossly inadequate. For comparison, during 1992-1996 the damage to agriculture alone was P38,265,610,842 whereas damage to infrastructure during 2004-Feb 2008 was P7,759,550,315. Even without accounting for damage to the private and public housing stock and the loss to infrastructure for the period of 1992-2003, the overall amount of government resources allotted for post-disaster assistance is well below 10 percent of actual direct damages. This means that the residual economic loss gets absorbed by owners of destroyed assets – farmers and local governments, and eventually users of country infrastructure which does not get fully rebuild in the aftermath of natural disasters.

The picture looks slightly better if we compare all available sources of disaster funding with the economic loss data from natural disasters provided by ADB for the period of 1997-2007ⁱⁱⁱ – which are stated at P176.73 billion or P17.67 billion per year or economic loss data from the 2009 Benson Report³, which puts them at P19.671 billion in 2005 prices. In that case, as shown in Table 1, the overall allocations from the national Calamity Fund, the Contingency Fund, subsidies to the PCIC, LGUs Calamity Funds, and the private sector donations were P 3 billion,

² According to the 2000 census, there were 14,891,127 dwellings at the time of the census. See http://www.nscb.gov.ph/secstat/d_popn.asp. However, accounting for the annual growth in residential construction of about 3% a year, we believe that today the number of dwellings in the country is close to 19,000,000.

³ Charlotte Benson. Mainstreaming Disaster Risk Reduction into Development: Challenges and Experience in the Philippines. March 2009.

thus covering only 17 percent of annual average losses and 4.5 percent of economic damages from the most considerable catastrophic event over the last 40 years. In reality these figures should be revised further down as the funding which is in theory available from the LCF in practice cannot be reallocated to fund national disasters. Similarly not all the funding available in the Contingency Fund can be used for emergency response situations. What is interesting however is that if the LGUs LCFs can be made fungible then the amount of overall available disaster risk financing could be increased from about P3 billion to P13.54 billion, which is close to the overall annual economic loss sustained by the country from natural disasters.

Table 2. Disaster risk financing capabilities vs. disaster risk financing needs (Peso, billion)

Sources of disaster funding	National Calamity Fund	Contingency Fund	LGUs Calamity Funds*	Premium subsidies to PCIC	Private donations	Total funds from all sources	Average annual economic loss**	Economic damages from the biggest cat event 1970-2009***
Year 2008	2.0	0.8	10.55	0.18	0.0078	13.54	17.67/19.67	69.0

Notes:

*Since the LGUs expenditures account for about 25 percent of those by the central government and the total government budget net of allocations to LGUs in 2009 was P1.144 billion^{iv}, we estimate the overall LGUs budgetary expenditures at P0.28 billion, which means that the maximum allocations to the Local Calamity Funds for all LGUs were around P14.3 billion. However, in reality since these resources are not fungible among provinces, the emergency risk funding available in case of a national disaster are well below this amount. Hence, for the purpose of this calculation we have computed the average amount of LCF per region by dividing the total amount of LGU CF by 79.

**the left estimate is from ADB and the right is from C. Benson report

***the estimates are in Year 2000 pesos as provided in the World Bank Report, 2004.

The other finding of our field work relates to the availability of private insurance. While there has been some improvement in the provision of catastrophe insurance by the private market compared to the situation reported by the World Bank in 2004, the level of catastrophe insurance coverage among households and SMEs remains almost non-existent.

Preliminary Policy Recommendations

1. Consolidation of local disaster emergency budgets. The current system of disaster risk financing in the Philippines may benefit from consolidating emergency budgets of almost 46000 separate administrative entities into one disaster risk financing pool. Such a solution will provide for the fungibility of budgetary resources and would provide for a considerably more effective way of budgeting and paying for natural disasters. Given the fact that the Philippines has a rather centralized intergovernmental fiscal system, implementation of this proposal would require changes in the current system of fiscal transfers from the center to the regions.

2. Fiscal incentives for DRM. The current system of disaster risk financing does not appear to provide strong fiscal incentives to LGUs to engage in proactive disaster risk management. Hence linking the amount of government assistance from the National Calamity Fund (or the proposed centralized risk financing mechanism for local entities) to the local efforts in disaster risk management may go a long way to reduce the overall annual economic losses from natural disasters.
3. Catastrophe risk pooling. The level of catastrophe insurance coverage among households is virtually non-existent. This can be improved by the creation of a mandatory (or semi-mandatory) national catastrophe insurance pool with public-private participation.
4. Insurance of public sector assets. While GSIS provides insurance coverage for some government owned assets, most of them remain either uninsured or underinsured. Hence, increasing the insurance coverage of publically owned assets must be a priority. This can be achieved by providing for a line item in the budgets of respective government agencies that are responsible for the annual maintenance and management of infrastructure and government buildings.
5. Securing contingent funding for extreme catastrophic events. Budgetary appropriations to the National Calamity Fund vary considerably from one year to the next. In the case of funding shortages the government typically has been making additional appropriations to the NCF retroactively. To reduce this budgetary uncertainty the government may consider securing the funding for the NCF by issuing a multi-year catastrophe bond. Such an instrument would enable the government to secure the funding for most extreme events. Alternatively or in addition to the catastrophe bond, the government may consider putting in place a catastrophe risk financing facility (e.g. a contingent line of credit) which would disperse in the case of major catastrophic events.

Project Scope of Work

The scope of work for this assignment includes the following:

a) Perform probabilistic analyses to develop a stochastically generated dataset of earthquake events (based on the historic seismic catalogues of the selected four countries); for each event, the consultant will provide PGA's and / or intensities for each grid cell (at least a county or zip code level).

b) Develop economic losses for each of the stochastic events in each of the selected countries, with each event assigned geographical coordinates. The consultant should supply vulnerability matrices for all chosen building vulnerability classes used in calculating the vulnerability curves for every class of housing construction. In addition, the consultant will provide estimates for number of dwellings and dwelling prices / replacement costs for each grid cell (for the "fine grid") and each building vulnerability class.

c) The event set will also account for correlations that may exist between seismic events in different countries.

d) Develop insured loss estimates for a given insurance product (deductibles and limits for different countries will be provided by the project team at the start of the assignment). For each event, the consultant will provide insured loss to residential stock assuming a 2, 3 and 5% deductibles and penetration levels of 30% in capitals and 20% outside; 20% in country capitals and 10% outside; 10% in capitals and 5% outside; 5% capitals and 3% outside. For this part of the assignment, in addition to the tabulated estimates of insured loss, as specified above, the consultant will also supply a excel calculation tool that will enable the project team to reproduce estimates of insured loss for different levels of insurance penetration. Under the task, the consultant will be also providing an excel tool that will enable the Bank to model changes in the level of deductible and insurance penetration on projected risk exposures.

e) The output of the project will be presented in an excel data file containing at least 30,000 events.

END NOTES

ⁱ Cost of Disasters. A Research Report on the Financial Implications of Natural Disasters in the Philippines. IIRR, March 2009.

ⁱⁱ Based on the time series data provided by the Corporate Network for Disaster Response (CNDR).

ⁱⁱⁱ National Assessment on the State of Disaster Risk Management in the Philippines, Final Report, ADB, October 2008.

^{iv} See <http://www.dbm.gov.ph/index.php?pid=8&xid=28&id=989>