# The Philippines Disaster Risk Financing Strategy

## **Executive Summary**

## Denisa M. Dumitru

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The purpose of this document is to provide a snapshot analysis of the existing disaster risk financing system in the Philippines and, based on the identified limitations, outline an alternative approach to financing the risk of natural disasters in the country.

#### Major Limitations of the Existing System of Disaster Risk Financing

Being one of the most disaster-prone countries in the world, over the years the Philippines developed a rather elaborate system of national disaster risk financing institutions designed to provide sufficient post-disaster funding to different segments of national economy affected by calamities. The key elements of the existing national disaster risk financing system include (i) the National Calamity Fund; (ii) local Calamity Funds; and (iii) GSIS – a government-owned insurer providing catastrophe insurance coverage for government-owned assets. The above mentioned government mechanism of disaster risk funding are further supplemented by (v) private donations from charities and (vi) indemnity payments from private insurance companies. The notional amount of disaster risk funding from the National and all local Calamity Funds alone comes to about \$14 billion per year, which is combination with indemnities from GSIS and private insurers should in principle come close to a \$17-19 billion average economic loss from natural disasters experienced by the country annually.

Yet, the situation on the ground points to *an acute shortage of post-disaster funding* experienced by virtually every segment of national economy, including homeowners, LGUs, government agencies in charge of disaster relief and reconstruction as well as centrally and locally owned utilities. Moreover, *the problem of insufficient funding appears to be further exacerbated by considerable delays with the disbursement of even budgeted post-disaster funds to victims of disasters*. In certain instances, it may take up to 9-12 months from the moment of application for LGUs affected by natural disasters to receive any government assistance, which considerably delays restoration of essential public services and overall social and economic healing in the

aftermath of natural calamities. Below, we provide a brief analysis and identify key limitations of each of 5 above mentioned elements of the national disaster risk financing system<sup>1</sup>.

# National Calamity Fund

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).

	Appropriation	Actual	Appropriation/Damages
		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	

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

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

<sup>&</sup>lt;sup>1</sup> The scope of this report excludes an analysis of limitations of the Philippines Crop Insurance Corporation, which is covered by a separate World Bank study.

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.

In summary, one can identify the following three major limitations of the NCF:

- (i) Even without taking into consideration extreme events, which may cause economic damages well in excess of an average annual economic loss of \$19 billion, an annual allocation of about \$18 million for reconstruction related activities appears to be woefully inadequate.
- (ii) Another major limitation of the NCF its inherent unpreparedness to deal with highly devastating catastrophic events which cause overall LGUs' claims on the NCF funds to considerably exceed of those available for the year. In those cases, the NCF has to rely on retroactive budgetary allocations which may be a slow-moving and a highly politicized process.
- (iii) 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. This means that from the perspective of disaster victims or LGUs there a great deal of uncertainty with regard to whether economic losses caused by the next local calamity would be at eligible for funding from the NCF.

#### Local Government Calamity Funds

LGU Calamity Funds is the second most important element of the existing disaster risk financing infrastructure in the Philippines. 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 is P14.3 billion. 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.

While in principle in a highly disaster-prone country like the Philippines an annual 5 percent budgetary allocation can help local communities to overcome economic shocks inflicted by calamities, in reality the mechanism suffers from the following drawbacks:

- Limited fungibility of resources. Although in aggregate, P14.3 billion appears to be a significant amount, in reality the LGU Calamity Funds cannot be aggregated due to administrative difficulties involved in providing mutual post-disaster aid. Although the regulatory framework allows an LGU unaffected by a natural calamity to provide assistance (from its local calamity fund) to another LGU affected by a disaster, in reality the administrative process involved on both sides is rather cumbersome and bureaucratic. In addition, LGUs have strong economic incentives not to deplete their own calamity funds before the yearend due to (i) a possibility of a calamity in their own territory; (ii) ability to use a part of the underutilized funds for either staff bonuses or as additional fiscal resources for the next budget year. As a result, the fungibility of LGU Calamity Funds is rather limited.
- 2. <u>Insufficient scale</u>. The small size of individual LGU Calamity Funds relative to the economic loss potentials of major natural calamities essentially limits the application of the funds to the provision of basic disaster relief services, thus leaving all the costs of post-disaster reconstruction, and often even basic infrastructure repairs, to external sources of funding.
- 3. <u>Underfunding</u>. In the case of less affluent (Class 2 and 3) LGUs, that from to time incur annual fiscal deficits, there appears to be a trend of underfunding local calamity funds in the expectation that there would be no disasters. If those do occur, however, particularly closer to the end of fiscal year, LGUs may find themselves unable to finance even the most basic of disaster relief and infrastructure repair services.

### 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. To provide non-life insurance coverage, the company established a separate non-life unit GI-GSIS (General Insurance Group), which over the years has developed a major portfolio of business insuring government interests such as the Philippine National Oil Company, National Power Corporation, National Food Authority as well as government owned utilities and real property assets of LGUs. The property

insurance coverage offered by GSIS includes a combination of conventional (FLEXA type perils) as well as natural disasters such as earthquake, volcano eruption and typhoon.

Yet, due to the chronic shortage of funding most government assets remain either uninsured. In addition, according to a directive by the Auditing Chamber, all government-owned property assets must be insured on the depreciable book value basis (e.g., original book value minus depreciation), meaning that over time the widening gap between the real replacement cost of these assets and the insured limit translates into severe underinsurance penalties for LGUs. A brief survey of several LGUs conducted for this report revealed that on average local government owned assets are insured at 15-20 percent of real replacement cost while all GSIS property contracts contain an averaging (e.g. underinsurance penalty) provision and a deductible of least 2 percent. This combination of underinsurance on the part of LGUs and consistent application of the averaging rule by the GSIS in its insurance contracts leads to a situation where in the case of a loss insurance indemnity accounts for only a small fraction of the replacement cost. The problem of underinsurance of local government assets, Box I below, can be illustrated by the following real life case study of the GSIS insurance coverage for a city hall building of one LGU, which appears to be quite typical<sup>2</sup>.

## Box I: The Hidden Pitfalls of Underinsurance

New replacement cost of City Hall building = P100 mm
Insured limit bought by LGU = P15 mm
Incurred loss (major EQ or fire) = P100 mm
Deductible (2%) = P2 mm
Insurance indemnity = (15/100 x 15) - 2 = P0.25 mm
Contractual premium paid = 0.3%
Effective premium paid = (0.3% x 15)/0.25 = 18%

As can be seen from Box I above, in this specific case the LGU insured its City Hall for about 15 percent of its estimated current replacement cost value under an insured contract with GSIS. The contract contained an averaging clause and a deductible of 2 percent, meaning that in the case of a full the LGU would be entitled to only 15 percent of total insured limit under the contract less the deductible. A simple calculation provided in the Box demonstrates that the insurance indemnity to be received by the LGU from GSIS in the case of a full loss of the building would amount to only P0.25 mm or 2.5 percent of the replacement value of the building. The case study

<sup>&</sup>lt;sup>2</sup> For confidentiality reasons the LGU preferred to be unnamed in the report.

also revealed that while the insurance premium charged by GSIS under the contract is 0.3 percent which is roughly in line with the rates charged by the private market, once the underinsurance penalty is taken into consideration, the effective premium paid the LGU goes up to 18 percent of the maximum insurance indemnity that can be collected under the contract, which is 60 times that of the market rate.

Hence, it appears that while in principle LGUs have statutory access to the GSIS insurance coverage, in reality due to the pervasive practice of underinsurance their insurance protection is next to non-existent. To illustrate, in the aftermath of typhoon Durian in 2007, indemnity payments collected by Albay province from GSIS accounted for only 0.4 percent of total recoveries. Taking into consideration the fact that the province managed to recover only 77 percent of economic losses caused by the calamity, the insurance recoveries would amount to only 0.31 percent of total economic loss.

To summarize, the existing system of property insurance for government-owned assets does not seem to serve as a meaningful source of post-disaster funding for most LGUs due the prevalence of underinsurance, relatively high premiums, and the chronic shortage of funding on the LGU side for insurance premiums.

### Private catastrophe insurance

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 percent 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 percent of all insurable dwellings<sup>3</sup>. 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 percent.

It appears that among the key drivers behind such a low level of catastrophe insurance penetration are the relatively low incomes of the population, the lack of confidence on the part of consumers in the solvency of insurance providers in case of a major catastrophic event, and,

<sup>&</sup>lt;sup>3</sup> 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.

finally, a reluctance by the local insurance market to aggressively market catastrophe insurance endorsements of FLEXA policies in the environment of insufficient market pricing for property business as a whole.

#### Private Sector Post-Disaster Assistance

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 0.127 billion or on average P 7,808,289 per year.

### **Disaster Risk Financing Strategy**

The proposed strategy for disaster risk financing in the Philippines aims at building on or enhancing the existing institutional arrangements for disaster risk financing rather than creating a completely new system. In addition, to reflect the differences in disaster risk financing needs of homeowners, LGUs and utilities<sup>4</sup>, the reports sets out a specific disaster risk financing strategy for each of these customer segments.

### Homeowners and SMEs

To address the current low level of catastrophe insurance penetration among homeowners and SMEs, the government can consider the following three distinct policy actions, all of which can be pursued in parallel.

1. <u>Linking mortgage lending with catastrophe insurance</u>. The approach would require all private and government owned mortgage lenders require a proof of catastrophe insurance coverage from mortgage borrowers residing in disaster prone areas of the country. The implementation of this strategy would require the issuance of a new banking regulation by the National Bank that would make catastrophe insurance coverage compulsory for all loans originated by banks in disaster prone areas. The regulation would have to be accompanied by the release of the official disaster risk maps for major perils (e.g. earthquake, typhoon, flood, and volcano eruption) that would be used for determining the applicability of disaster insurance requirements for each and every bank-financed property.

<sup>&</sup>lt;sup>4</sup> As mentioned earlier, the proposed disaster risk financing strategy does not include agricultural producers. Their risk financing needs and the disaster risk financing strategy are covered by a separate World Bank study.

- 2. <u>Insurance education of consumers</u>. One of the key problems hindering the uptake of catastrophe insurance in the Philippines is the low level of awareness on the part of the consumers of their catastrophe risk exposures as well as limited knowledge about insurance products. In this context, the government should consider investments in public information campaigns on the benefits on catastrophe risk insurance in mass media and special education programs for children and university students.
- 3. <u>National catastrophe insurance pool</u>. Following the example of many other disaster prone countries (such as France, Spain, Switzerland, Turkey, Taiwan, New Zealand and the US), the government should consider instituting a national catastrophe insurance pool that would provide stand-alone catastrophe insurance coverage to homeowners and SMEs while reinsuring a considerable part of catastrophe risk with international reinsurers. To ensure massive participation in the program catastrophe insurance should be made compulsory by law. The legal framework for the program should also envisage effective compulsion enforcement mechanisms. The program should be instituted as a public private partnership, with most, if not all operational functions outsourced to the private sector. Below in Box II we provide a brief description of TCIP a highly successful residential catastrophe insurance program in Turkey.

#### Box II: Turkish Catastrophe Insurance Pool

The Turkish Catastrophe Insurance Pool (TCIP) was established with World Bank technical and financial support in the aftermath of the 1999 Marmara earthquake. It offers efficiently priced earthquake insurance contingent loan facility of US\$100 million, extended to US\$180 million in 2004. The full risk capital requirements of TCIP are funded through commercial reinsurance (currently in excess of US\$1 billion) and the build-up of surplus. The TCIP sold more than 3 million policies set at market based premium rates (i.e., 22 percent penetration) in 2009, compared to 600,000 covered households when the pool was set up. This pool enables the Government of Turkey to: i) ensure that all-property-tax-paying domestic dwellings can purchase affordable and cost-effective earthquake insurance coverage; ii) reduce government's contingent fiscal exposure to recurrent earthquake by guaranteeing funds for the rehabilitation of public infrastructure and by relieving pressure on the government to provide housing subsidies in the aftermath of an event; and, iii) transfer catastrophe risk to the international reinsurance markets.

Source: Eugene Gurenko (2006-9)

# LGUs

1. <u>Improved education of LGUs' risk managers</u>. A brief selective survey of LGUs' risk management staff indicates that they will benefit from attending specialized training on property insurance and risk management. Such training can go a long way to address the

current problems with underinsurance of LGU owned assets. One area where immediate improvements can be made is having LGUs introduce formal insurance and risk management training requirements for its staff in charge of insuring local real estate assets. Such training can be then provided either by the designated professional providers or organized by international donors in cooperation with local universities and the insurance industry.

2. <u>Modification of existing LGU insurance regulations</u>. One area ripe for a quick win is amendment of the existing insurance regulation of the National Chamber of Audit that currently requires LGUs to insure on the depreciable book value basis, presumably for cost-cutting considerations. As has been described earlier, this regulation lead to pervasive underinsurance of locally owned assets and undermines the very premise of insurance requirement for government-owned assets. We suggest that the current replacement cost method is used for determining the insured value of LGU-owned assets.

Making insurance premium an eligible expense for LGU Calamity Funds is yet another area which could a great deal to improve the quality of insurance coverage for LGU-owned assets and reduce the problem of underinsurance. In addition, such an amendment would help a great deal with the creation of the LGU Catastrophe Recovery Financing Pool (CRFP). Such an amendment could be passed by amending the existing DBM circular on the subject of 2004.

3. <u>LGU Catastrophe Recovery Financing Pool</u>. Creation of the CRFP owned by LGUs appears to be among the most promising areas of reform. The main objective of the CRFP would be to provide LGUs with immediate access to liquidity in the aftermath of sizeable natural calamities to enable them provide immediate disaster relief to affected citizens and SMEs as well as to quickly restore the provision of local basic services. While the proposed facility would not offer insurance coverage for municipal assets it would instead provide immediate liquidity to LGUs affected by major natural disasters. To make payments to its LGU members in the aftermath of natural calamities, the CRFP will draw predominantly on the pooled resources of its members, financial interest earned on these pooled resources as well as international reinsurance and alternative risk transfer arrangements with international capital markets. Payments from the CRFP to LGUs would be triggered by occurrence of catastrophic events in predefined geographic areas, e.g. the payments would be "triggered" by pre-specified in advance "parameters." The CRFP will operate similar to the Caribbean Catastrophe Risk Insurance Facility (CCRIF) - see Box III below – by providing parametric disaster risk financing products that are index-based financial contracts that make payouts based on the exact location and precise level of intensity of an adverse natural event (for example, wind speed, earthquake intensity, rainfall levels). Unlike traditional insurance settlements that require an

assessment of individual property losses on the ground, parametric risk-financing contracts do not involve assessment of property damages and claim settlement skills of loss adjusters. Instead, parametric products utilize a predefined formula that is based on variables exogenous to both the policyholder and the insurer, but have a strong correlation to individual losses incurred by receiver of the payments.

Box III. The Caribbean Catastrophe Risk Insurance Facility

*The Caribbean Catastrophe Risk Insurance Facility* (CCRIF) allows CARICOM governments to purchase insurance coverage to finance immediate post-disaster recovery needs.

*The facility acts as a risk aggregator.* CCRIF allows participating countries to pool their country-specific risks into a single, better-diversified portfolio. This diversification results in a substantial reduction in premium cost of 45–50 percent.

*Claims payments depend on parametric triggers.* Index-based (or parametric) insurance instruments pay claims based on the occurrence of a predefined event rather than an assessment of actual losses. This measurement, made remotely by an independent agency, allows for transparent, low settlement costs and quick-disbursing contracts.

*The facility was created with initial funding from donors.* Initial funding allows the facility to cover start-up costs, retain some of the risk, and access the reinsurance markets where it is most efficient.

The facility transfers the risks it cannot retain to the international financial markets. This is done through reinsurance and a catastrophic swap. The accumulation of reserves over time should lessen the facility's dependence on outside risk transfer and smooth the catastrophe reinsurance pricing cycle.

*The facility maintains financial protection to survive 1-in-1,000-year events.* Should the total insured losses exceed its claims-paying capacity, payouts will be prorated based on the total amount of expected claims compared to the remaining available funds.

*CCRIF is established as an independent legal entity.* It was created as an insurance captive managed by a specialized firm under the supervision of a board of directors composed of representatives from the donors and participating countries. This board is supported by the technical advice of a facility supervisor.

Participating countries pay an annual premium commensurate with their own specific risk exposure. Parametric insurance products are priced for each country, based on its individual risk profile. Annual premiums typically vary from US\$200,000 to US\$4 million, for coverage ranging from US\$10 million to US\$50 million. On June 1, 2007, 16 countries joined CCRIF: Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, Bermuda, Cayman Islands, Dominica, Grenada, Haiti, Jamaica, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, and Turks and Caicos Islands. The total premium volume was about US\$20 million, which purchased roughly US\$450 million of (hurricane and earthquake) coverage. CCRIF's risk placement was extremely well received by the reinsurance industry, which provided reinsurance capacity at a lower rate than anticipated. CCRIF was able to secure US\$110 million of capacity on the international reinsurance and capital markets. The claims-paying capacity of the CRIF consists of four layers: CCRIF retains the first layer of US\$10 million; reinsurers underwrite the second (US\$15 million excess US\$10 million) and third layers (US\$25 million excess US\$25 million); and the top layer (US\$70 million excess US\$50 million) is financed with reinsurance (US\$50 million) as well as a US\$20 million coverage through a catastrophe swap. The average pricing multiple (premium divided by expected loss) of this transaction is 1.71, which is well below similar recent transactions. The cost savings enjoyed in the Facility are due to the fact that the transaction brings more diversification to the business portfolio of the reinsurers.

The CCRIF allows Caribbean governments to purchase coverage akin to a business-interruption insurance that will provide them with immediate liquidity in case of a major hurricane or earthquake. The financial structure of the insurance instrument provides participating governments with coverage tailored to their needs at a significantly lower cost than if they were to purchase it individually in the financial markets. The CCRIF functions as a mutual insurance company controlled by the participating

governments. It was initially capitalized by the participating countries themselves, with support from donor partners. To understand CCRIF, consider a system through which several countries agree to combine their emergency reserve funds into a common pool. If each individual country were to build up its own reserves to sustain a catastrophic event, the sum of these country-specific reserves would be much larger than the actual needs of the pooled countries in a given year. Considering that on average only one to three Caribbean countries are affected by a hurricane or an earthquake in any given year, a pool holding only the reserves for three potential payouts should be sufficient for the entire group of countries participating in the pool. Each year, as the pool is depleted, participating countries would replenish it in proportion to their probable use of the funds in the pool. The Facility works in a similar manner by combining the benefits of pooled reserves from participating countries with the financial capacity of the international financial markets. It retains some of the risks transferred by the participating countries though its own reserves, and transfers some of the risks to reinsurance markets where this is costeffective. Thanks to the risk-pooling benefits, the amount of reserves that CCRIF should retain to sustain a 1-in-200-year catastrophic event are 70 percent less than the total reserves each country would have to retain individually (World Bank 2007a). This structure results in a particularly efficient risk-financing instrument that provides participating countries with insurance policies at approximately half the price they would pay if they approached the reinsurance industry on their own. The CCRIF offers an efficient solution to the short-term liquidity gap faced by CARICOM governments in the aftermath of a major hurricane or earthquake. The liquidity gap is more pronounced in these small island states because, due to the limited geography of each island, the losses incurred during the passage of a major event overwhelm the government's ability to respond.

On November 29, 2007, a 7.4-magnitude earthquake occurred close to Martinique in the Eastern Caribbean. This event, which is reported to be a 1-in-50-year earthquake, triggered for the first time indemnity payments under CCRIF policies for St. Lucia and Dominica for a total amount of approximately US\$1 million.

Source: Olivier Mahul (2009)

To summarize, the proposed design features of the LGU's CRFP can be as follows. The CRFP would:

- operate as a pool mutually owned by interested LGUs;
- provide <u>immediate</u> liquidity (up to a predetermined amount) in cases of major (1 in 20 years or less frequent) disasters to any LGU member;.
- make payouts to LGUs upon occurrence of pre-defined catastrophic events (rather than occurrence of specific property damages to LGU owned assets);
- receive annual membership contributions from (1) LGUs local calamity funds (which would have to be made an eligible expense) and (2) insurance premiums from LGU financed housing;
- be managed by a professional financial services provider selected through a competitive tender;
- reinsure its own peak risk exposure in international reinsurance on highly competitive terms;
- accumulate surplus to increase its payouts over time;
- make LGU's contributions to the fund commensurate with their risk exposures.

It is envisaged that over the next decade, the LGU-owned CRFP would accumulate a sufficient amount of surplus capital to become a major source of immediate post-disaster liquidity in the Philippines. A schematic illustration of the main business functions of CRFP is presented in Figure 1 below.

To enable the pool to become financially sustainable from the inception of its operations, it is proposed to that it receives access to a contingent capital facility to be extended by the World Bank that would help CRFP to faster accumulate reserves and have a reliable source of claims-paying capacity. The proposed contingent capital facility would be made available to the program upon occurrence of a catastrophic event that may trigger considerable financial payments by CRFP to its LGU members. A brief description of the proposed lending facility is outlined below, in Box IV.

### Figure 1. Major Operational Functions of the CRFP.



Source: Authors (2009).

As can be seen from Figure 1, the main sources of annual recurrent revenue for the pool comes from annual members contributions (e.g. 50% of annual Local Calamity Funds contribution), and premiums received by LGUs from insuring locally owned housing as well as financial income earned on the pool's surplus. In addition, in the case of catastrophic events that have triggered large payments compensation payments, the pool will also be able to receive funding from private reinsurers and the proposed World Bank contingent capital facility.

#### Box IV: World Bank Contingent Loan Facility

The Catastrophe Risk Deferred Drawdown Option facility (**CAT DDO**), offers IBRD-eligible countries immediate liquidity up to US\$ 500 million or 0.25 percent of GDP (whichever is lower) if they suffer a natural disaster such as a hurricane or earthquake. It can be used as a line of credit to provide bridge financing while other sources of funding are being mobilized. Funds will be disbursed when a country suffers a natural disaster and declares a state of emergency. The facility has a revolving feature and can

be renewed for up to 15 years. Eligible borrowers must have an adequate macroeconomic framework in place at inception or renewal, and a disaster risk management program that is monitored by the World Bank. The facility is provided for 3 years but could be renewed up to 4 times, with a maximum maturity reaching 15 years. Such loans can also be attractive as back-stop capacity for newly established catastrophe insurance pools, to help them build up capital during the first few years of operations.

Source: World Bank (2009).

## Utilities

- <u>Improved education of utility risk managers</u>. Similar to LGUs, a brief selective survey of
  insurance and risk management practices by government owned utilities demonstrated the
  lack of insurance and risk management skills on the part of technical staff responsible for
  placing annual insurance coverage for utilities' real assets and day-to-day risk
  management of these facilities. In that context, the national government jointly with
  utilities should consider making an investment in improving the professional
  qualifications of utility-employed worked to reduce the incidences of underinsurance
  and/or insurance of utilities' assets with poorly rated reinsurance companies.
- 2. <u>Review of structural vulnerabilities and insurance assessments of local utilities</u>. Finally, government owned utilities can benefit from systematic reviews of their structural vulnerabilities carried out by qualified structural engineering companies. Such vulnerability reviews could help local utilities to determine the maximum amounts of insurance coverage needed, identify major structural vulnerabilities of their-owned assets and suggest most cost effective investments in disaster risk mitigation and risk reduction projects.