Reaction: A Philippine Perspective

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1. Better management of natural catastrophes and their consequences is a must for a country like the Philippines.

2. In a press conference in Metro Manila earlier this year, Ms. Margareta Wahlstrom, Head of the United Nations International Strategy for Disaster Reduction reported that, in 2011, the Philippines topped the list of countries with the most number of natural disaster occurrences (33).

(Note: However, the insured losses from these natural calamities in the Philippines were much smaller compared to the magnitude of losses spawned by the earthquake/tsunami in Japan, the earthquake in New Zealand and the floods in Australia and Thailand in the same year.)

3. The following slides (wordings paraphrased) are taken from a recent presentation made by the Chief of Operations of the Philippine National Disaster Risk Reduction and Management Council.
The Philippines is vulnerable to almost all types of natural hazards because of its geographical location – situated in the Pacific Ring of Fire and typhoon belt.

The country is host to 300 volcanoes, twenty-two (22) of which are active, as well as active faults and trenches that are potential sources of earthquakes which may also cause tsunami.

Yearly, the country experiences an average of twenty (20) typhoons, half of which are destructive. Floods and landslides are brought about by torrential rains. On the other extreme, droughts are caused by climate variability and creeping effects of climate change.
PHILIPPINE NATURAL HAZARDS

Floods

Landslides

Typhoon Tracks

Earthquakes

Tsunami
1. In its efforts to “do better,” the Philippines has to grapple with what I refer to as the 3 P’s related to the occurrence of natural catastrophes and their aftermath.

2. These 3 P’s are:

   PREDICTABILITY
   PREPARATION
   POST-DISASTER MITIGATION

3. The extent to which the Philippines can successfully deal or cope with these 3 P’s will determine its ability to minimize the adverse impact of natural catastrophes on its people and economy.
1. Advances in science and technology have allowed a reasonably accurate tracking and monitoring of weather disturbances and a reasonably reliable forecasting of the areas that will be affected by these disturbances.

2. This however is far from being the case for earthquakes. While earthquake faults and fault lines have been located, identified and mapped, there is still no way to predict or forecast when an earthquake will actually occur and where.
EARTHQUAKES
Magnitudes 5 and above occurring from:  
1. Since predicting the occurrence of natural disasters is not a perfect science, the next best defense against such disasters and their consequences is preparation.

2. In 2010, the Disaster Risk Reduction and Management Act became a law in the Philippines, setting in operation the National Disaster Risk Reduction and Management Plan. Subsequently, the former National Disaster Coordinating Council was reorganized and became the National Disaster Risk Reduction and Management Council. The NDRRMC coordinates the efforts of government agencies and units in responding to natural calamities.

3. The traditional number-coded typhoon warning system is now complemented by a color-coded warning system for the estimated/expected volume of rainfall.

4. Recently, it was reported in the local media that the Philippine government has approved and will embark on a PhP352B (around US$8.5B) master plan aiming to achieve an efficient and comprehensive flood management in Metro Manila and nearby provinces.
However, infrastructure development is only one aspect of the efforts to manage natural disasters and cope with their consequences.

In a paper presented by Mr. Arup Chatterjee, Senior Financial Sector Specialist of the Asian Development Bank, at a seminar organized last September by the Association of Insurers and Reinsurers in Developing Countries (AIRDC), among his key messages was that a strong (and, if I may add. continuous) political commitment is vital to and essential for the success of natural disaster risk reduction and management programs.

There are several natural catastrophe-related issues and endeavours which the Philippine government needs to continue pursuing, indeed with determined and sustained political will and resolve, to prepare the country for natural catastrophes and their aftermath.
1. The burden of financing the cost of relief, rehabilitation and reconstruction following natural disasters has always fallen on the shoulders of the national government. Of course, it receives substantial assistance from foreign governments and donors and foreign financial institutions and funding agencies.

2. It is estimated that in any one year, losses from natural catastrophes could eat up from 2% to nearly 3% of the country’s GDP, impacting negatively on hard-earned economic gains.

3. Based on data from the website of the government’s Department of Budget and Management (DBM), the National Calamity Fund covered on the average only 11.6% of total losses or damages from natural calamities for the period 1999-2008. This ranged from a low of 3% in 2006 to a high of 23% in 2002.

4. Unmitigated losses from natural catastrophes can only aggravate poverty levels in the country.
One way of helping to bridge the gap between the amount of government calamity funds available and the actual losses from natural catastrophes is to establish a strong and vibrant partnership between the national government and the private insurance industry.

For such partnership to thrive and succeed, a “give-and-take” attitude must necessarily exist between the two parties as obviously both will have their own interests and expectations. (Among the contentious issues are the taxes on non-life insurance policies, the highest in the region and the question of setting up tax-exempt catastrophe loss reserves.)

Both should therefore look at the catastrophe insurance landscape in the Philippines and consider and agree on what needs to be done, on what direction their joint efforts should head.
This is one public-private partnership that is worth pursuing and supporting.

The following are excerpts from a presentation made by Ms. Madeleine Varkay, Chief Specialist at the Southeast Asian Department of the Asian Development Bank at the 2012 PIRA Stakeholders Convention earlier this month. The ADB is currently spearheading the establishment of the Pool, in cooperation with the Philippine government and the Philippine insurance industry.

**ADB is supporting a public-private, financially sustainable earthquake insurance pool covering middle-class residential and mid-sized enterprise property owners.**

**Objective:**
The Earthquake Pool will strengthen national private companies’ ability to underwrite new policies on catastrophe risk and enhance their capacity to proactively manage and transfer risk to international reinsurance companies. The pilot will demonstrate the options for domestic Insurance companies to expand available scope to cover private earthquake risk and for the Government to offset potential liabilities.

The pool, based on existing models in Turkey, Taiwan and Indonesia, is customized to market conditions in the Philippines. The working group of the pool is chaired by the Insurance Commissioner, with the deputy Chair coming from the Department of Finance and insurance industry representatives as members. Technical analysis is undertaken by PIRA with Catalytics’ open platform EQ risk model. The group is in consultation with representatives from the major international reinsurance companies and reinsurance brokers as well as the Philippine Central Bank, National Economic Development Authority and World Bank.

**Next steps:**
(1) Complete the property valuation surveys, model the assets at risk; estimate scope of the market and related insurance and reinsurance premium (December 2012)
(2) Structure the EQ insurance pool (2013) with supporting ADB loan and private equity (2014-15)
1. There has been an increase in demand for natural perils insurance but still only a small percentage of the population is covered against such perils.

2. Total gross premiums for natural perils have grown significantly over recent years but the question remains whether such volume of premiums is sufficient to pay for, for example, a series of strong typhoons in one year or the dreaded major earthquake hitting the Metro Manila area.

3. Average premium rates continue to be lower than the ideal level particularly for Typhoon and Flood. The loss ratio for Typhoon has risen dramatically since 2006 and the same for Flood since 2009.
<table>
<thead>
<tr>
<th>Year</th>
<th>EARTHQUAKE</th>
<th>TYPHOON</th>
<th>FLOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount in PhP B</td>
<td>Growth Per Year</td>
<td>Amount in PhP B</td>
</tr>
<tr>
<td>2010</td>
<td>2,146</td>
<td>6%</td>
<td>2,288</td>
</tr>
<tr>
<td>2009</td>
<td>2,024</td>
<td>0%</td>
<td>2,005</td>
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<tr>
<td>2008</td>
<td>2,024</td>
<td>81%</td>
<td>2,032</td>
</tr>
<tr>
<td>2007</td>
<td>1,119</td>
<td>-48%</td>
<td>1,049</td>
</tr>
<tr>
<td>2006</td>
<td>2,160</td>
<td>52%</td>
<td>1,185</td>
</tr>
<tr>
<td>2005</td>
<td>1,419</td>
<td>-</td>
<td>1,368</td>
</tr>
<tr>
<td><strong>Average Growth Rate</strong></td>
<td><strong>8.54%</strong></td>
<td><strong>11.21%</strong></td>
<td><strong>6.44%</strong></td>
</tr>
</tbody>
</table>
TABLE 2 – Total Number of Policies Issued

<table>
<thead>
<tr>
<th>Year</th>
<th>EARTHQUAKE</th>
<th>TYPHOON</th>
<th>FLOOD</th>
<th>FIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>136,455</td>
<td>123,680</td>
<td>104,363</td>
<td>856,599</td>
</tr>
<tr>
<td>2009</td>
<td>105,043</td>
<td>91,578</td>
<td>86,099</td>
<td>764,249</td>
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<tr>
<td>2008</td>
<td>104,182</td>
<td>75,496</td>
<td>69,049</td>
<td>733,177</td>
</tr>
<tr>
<td>2007</td>
<td>79,025</td>
<td>58,050</td>
<td>55,713</td>
<td>727,258</td>
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<tr>
<td>2006</td>
<td>71,872</td>
<td>55,052</td>
<td>42,880</td>
<td>743,636</td>
</tr>
<tr>
<td>2005</td>
<td>65,927</td>
<td>45,485</td>
<td>34,703</td>
<td>734,567</td>
</tr>
<tr>
<td><strong>Average Growth Rate</strong></td>
<td><strong>17.83%</strong></td>
<td><strong>28.65%</strong></td>
<td><strong>33.46%</strong></td>
<td><strong>2.77%</strong></td>
</tr>
<tr>
<td>Year</td>
<td>EARTHQUAKE</td>
<td>TYPHOON</td>
<td>FLOOD</td>
<td></td>
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<tr>
<td>------</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Amount in PhP B</td>
<td>Growth Per Year</td>
<td>Amount in PhP B</td>
<td>Growth Per Year</td>
</tr>
<tr>
<td>2010</td>
<td>1.86</td>
<td>64%</td>
<td>0.63</td>
<td>24%</td>
</tr>
<tr>
<td>2009</td>
<td>1.13</td>
<td>-15%</td>
<td>0.51</td>
<td>-2%</td>
</tr>
<tr>
<td>2008</td>
<td>1.34</td>
<td>18%</td>
<td>0.52</td>
<td>47%</td>
</tr>
<tr>
<td>2007</td>
<td>1.13</td>
<td>21%</td>
<td>0.35</td>
<td>17%</td>
</tr>
<tr>
<td>2006</td>
<td>0.93</td>
<td>-24%</td>
<td>0.30</td>
<td>-7%</td>
</tr>
<tr>
<td>2005</td>
<td>1.24</td>
<td>0%</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td><strong>Average Growth Rate</strong></td>
<td><strong>8.34%</strong></td>
<td></td>
<td><strong>15.86%</strong></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>EARTHQUAKE</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>------</td>
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</tr>
<tr>
<td></td>
<td>Ave. Gross Prem Rate</td>
<td>Loss Ratio</td>
<td>Ave. Gross Prem Rate</td>
<td>Loss Ratio</td>
</tr>
<tr>
<td>2010</td>
<td>0.09%</td>
<td>3.51%</td>
<td>0.03%</td>
<td>242.66%</td>
</tr>
<tr>
<td>2009</td>
<td>0.07%</td>
<td>8.93%</td>
<td>0.03%</td>
<td>279.95%</td>
</tr>
<tr>
<td>2008</td>
<td>0.07%</td>
<td>0.20%</td>
<td>0.03%</td>
<td>175.86%</td>
</tr>
<tr>
<td>2007</td>
<td>0.10%</td>
<td>0.58%</td>
<td>0.03%</td>
<td>254.16%</td>
</tr>
<tr>
<td>2006</td>
<td>0.04%</td>
<td>9.26%</td>
<td>0.03%</td>
<td>361.39%</td>
</tr>
<tr>
<td>2005</td>
<td>0.09%</td>
<td>2.65%</td>
<td>0.02%</td>
<td>29.54%</td>
</tr>
<tr>
<td>2004</td>
<td>0.13%</td>
<td>4.02%</td>
<td>0.04%</td>
<td>45.64%</td>
</tr>
<tr>
<td>2003</td>
<td>0.12%</td>
<td>2.16%</td>
<td>0.04%</td>
<td>10.02%</td>
</tr>
<tr>
<td>2002</td>
<td>0.11%</td>
<td>4.75%</td>
<td>0.04%</td>
<td>10.32%</td>
</tr>
</tbody>
</table>
2009

Est. Gross Flood Losses : PHP 13.00B

Gross Flood Premiums : PHP 0.29B
Gross Natural Perils Premiums : PHP 2.19B
Gross Fire & AP Premiums : PHP 9.86B
Gross Non-Life Premiums : PHP 32.50B

Total Non-Life Net Income (Direct Cos.) : PHP 0.75B
Total Non-Life Net Worth (Direct Cos.) : PHP 38.87B

**Hypothetical Questions**

Assuming the same average premium rates and the same liabilities as in 2009, how long will it take the Flood class of business to recover?

= around 45yrs

Given the same Flood liabilities in 2009, what average premium rate should be charged for the Flood class of business to recover the “Ketsana” flood loss in one year?

= 0.782% (vs. current minimum premium rate of 0.05% and the actual average premium rate of 0.018% in 2009)
With the increased frequency and magnitude of losses from natural disasters, the task of underwriting acts of nature has become even more formidable and intensive. More factors and variables have to be taken into serious consideration:

a. Location  
b. Risk Quality / Standards of Construction  
c. Concentration / Accumulation  
d. Pricing  
e. Aggregates  
f. Cession Limits  
g. Event Limits  
h. Territorial restrictions  
i. Event definition / Hours clause  
j. Uncertainty of Modeling Results  
k. Adequacy of Catastrophe Cover  
l. Reinsurance Costs  
m. Reinstatement / Backup Covers
1. The successful or effective handling and management of natural catastrophes require the dynamic and sustained collaboration among the government, insurance industry and other domestic and overseas sectors and groups.

2. Neither the government alone or the insurance industry alone can tackle and meet the challenges posed by natural catastrophes.

3. As mentioned by experts and analysts, taking a holistic approach is the best strategy to deal with these very complex hazards.

4. Without multi-sectoral collaboration and a less than holistic approach, and given the increasing frequency of and the magnitude of losses caused by natural disasters, the question may no longer be “Can we do better?” but “Can we continue to insure/reinsure natural catastrophes?” Or perhaps “Will natural catastrophes reach the stage when they become uninsurable?”
1. **Dir. Edgardo J. Collet** – Chief of Operations, National Disaster Risk Reduction and Management Council, Philippines

2. **Dr. Pedro P. Benedicto, Jr.** – President, Republic Surety and Insurance Co. Inc; Chairman, Board of Trustees, Philippine Insurers and Reinsurers Association (PIRA)

3. **Mr. Brian L. D’Souza** – Senior Vice President, Federal-Phoenix Assurance Co. Inc.

4. **Ms. Madeleine Varkay** – Principal Private Sector Development Specialist, Southeast Asia Department, Asian Development Bank

5. **Atty. Rodolfo A. Lat** – President, Chartered Adjusters, Inc.


7. **Philippine Institute of Volcanology and Seismology (PHIVOLCS)**

8. **Annual Reports, Insurance Commission**, Philippines

Thank you.

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