Rebuilding after Typhoon Haiyan
Lessons Learned – A Philippine Case Study
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I. Overview
II. Natural Disasters in the Philippines in recent history
III. Impacts of Disasters to people, economy, government
IV. Lessons and Observations on Government’s Preparedness
Overview

Natural Disasters
Philippines Context
PH Among Most Disaster Prone

UN Office for Disaster Risk Reduction 2015 Global Assessment Report
Fifth most vulnerable country in terms of disaster risk implications for
development capacity

Philippines is located along the Pacific Ring of Fire

The Human Cost of Weather Related Disasters
Fourth in the world among countries hit by the highest number of disasters
over the past 20 years

Source: Department of Finance, Philippines
Recent Disasters in the Philippines

Typhoon Tracks of Category 5 Typhoons in the Pacific since 1980


Source: Department of Social Welfare and Development, Philippines

https://upload.wikimedia.org/wikipedia/commons/0/01/Map_of_Pacific_Category_Five_typhoons.png
Recent Disasters in the Philippines

Magnitude 6.7 and above Earthquakes in Recent History

2012 Negros Earthquake M 6.9, Negros Island
Reuters Erick De Castro, The Christian Science Monitor

2013 Cebu Earthquake M7.2, Cebu City
AFP, BBC News

2013 Bohol Earthquake, M7.2, Loboc, Bohol Province
Reuters. BBC News

2017 Surigao Earthquake, M6.7, Surigao del Norte Province
UNTV News
Impacts of Disasters on People & Economy

NATURAL DISASTERS
PHILIPPINES CONTEXT

THE NEW NORMAL

Typhoons Ondoy (Ketsana), Pepeng (Parma), Sendong (Washi) and Pablo (Bopha)

CASUALTIES: 3000+
AFFECTED: 10 million+
ECONOMIC DAMAGE
PHP256 billion (USD5.77 billion)

Typhoon Yolanda (Haiyan)

CASUALTIES: 6201
ECONOMIC DAMAGE
PHP571 billion (USD12.87 billion)

Source: Department of Finance, Philippines
Impacts of Disasters on People & Economy

“Yolanda” killed 6,300 people, and left 1,472,251 affected families, 1,085,446 damaged houses, and total losses USD 13.5B worth of property.
The “Big 3” in 2013

The 7.2-Magnitude Great Bohol Earthquake of October 15, 2013

- 8:12 a.m., October 15, 2013:
  - A 7.2-magnitude earthquake struck Bohol, causing widespread damage to buildings and infrastructure – roads, bridges, houses, and our churches
- Loss of Life:
  - 211 dead, 877 injured, 8 missing
- Loss of Property:
  - A estimated total of PhP 7.862 billion, based on the latest damage assessment report

A total of 441,709 families were affected by the magnitude 7.2 earthquake in Bohol, according to the (NDRRMC). In Cebu, a total of 336,517 families were affected while there were 2,677 in Siquijor.

Read more: http://newsinfo.inquirer.net/507725/over-400000-families-affected-by-bohol-quake-ndrrmc#ixzz5KGrtyFly

BOHOL REHABILITATION PLAN

Summary by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Funding (PhP M)</th>
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<tbody>
<tr>
<td>Social Development Sector</td>
<td>3,960.979 M</td>
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<tr>
<td>Infrastructure Development Sector</td>
<td>3,100.790 M</td>
</tr>
<tr>
<td>Economic Development Sector</td>
<td>953.950 M</td>
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<tr>
<td>Development Administration Sector</td>
<td>738.598 M</td>
</tr>
<tr>
<td>Total</td>
<td>8,753.606 M</td>
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Super Typhoon Yolanda (Haiyan)

Impact of the Typhoon

171 municipalities in 14 provinces and six (6) regions located within the 100-km storm track were highly affected.

14 Highly Affected Provinces
- Palawan
- Masbate
- Aklan
- Antique
- Capiz
- Iloilo
- Negros Occidental
- Cebu
- Leyte
- Biliran
- Eastern Samar
- Western Samar
- Southern Leyte
- Dinagat Islands

Western Visayas has the most number of affected families...
- 770,905 affected families
- 515,071 displaced families

Funding Requirement

The impact of the typhoon is significant which requires resources (1) to achieve the Philippine Development Plan (PDP) targets, and (2) to recover from the calamity...

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<tbody>
<tr>
<td>Infrastructure</td>
<td>23,213,888,217</td>
<td>9,473,269,191</td>
<td>2,481,457,000</td>
</tr>
<tr>
<td>Social Services</td>
<td>22,775,757,783</td>
<td>742,369,554</td>
<td>1,077,129,000</td>
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<tr>
<td>Resettlement</td>
<td>45,022,000,000</td>
<td>17,026,429,800</td>
<td>17,026,429,800</td>
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<tr>
<td>Livelihood</td>
<td>3,534,343,625</td>
<td>15,691,764,569</td>
<td>15,691,764,569</td>
</tr>
<tr>
<td>TOTAL</td>
<td>50,363,415,031</td>
<td>80,306,428,599</td>
<td>35,921,960,123</td>
</tr>
</tbody>
</table>
GoP’s Disaster Risk Financing Options

• 2009: Severe flooding during Ondoy/ Pepeng Typhoons: 6,200 fatalities, US$12.9 billion in damages (5% of GDP)

• 2010 National Disaster Risk Reduction and Management Fund and Local DRRM Fund

• In 2011, a DRM Development Policy Loan with a Catastrophe Deferred-Draw-Down Option ($500 million) was undertaken

• Dec 16, 2011: Tropical Storm Sendong caused 1,268 fatalities, damage of $126.6 million and losses to the economy of US$32.3 million

• Dec 29, 2011: Upon the declaration of a national state of calamity by the President, the Philippines drew down US$497.5 million. The drawdown occurred weeks after the Cat DDO project became effective


• Mar 19, 2014: GoP took a post-disaster standby loan ($500 million) from Japan GoP drew down the full amount of the standby loan)

• 2015: Philippines took on Second CAT DDO DPL ($500 million)

• 2017: Joint Catastrophe Risk Pool – Parametric Insurance for (National and 25 Provinces)
Lessons Learned & Observations

• Plan better… Prepare more… for the “new normal — disasters”

• Strengthen institutions and systems… revisit policies, plans and regulatory frameworks

• Leadership and Coordination

• Predictability in Financing -- identify funding options for disaster response, recovery and reconstruction

• Communicate well (messaging)

• Manage expectations

• Information and Data = Gold