Disaster Risk Reduction and Recovery in the Philippines

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Civil Defense Deputy Administrator

Scope of Presentation

➢ Philippine DRRM System
➢ Typhoon “YOLANDA” (HAIYAN)
➢ Recovery & Rehabilitation

Philippine DRRM System

Republic Act 10121
Strengthened the Philippine Disaster Risk Reduction & Management System

Disaster Relief & Response ➔ Disaster Risk Reduction
**The NDRRM Plan, 2011-2028**

Provides for:
- identification of hazards, vulnerabilities & risks
- disaster risk reduction & management approaches and strategies
- agency roles, responsibilities & lines of authority
- vertical and horizontal coordination of disaster risk reduction & management

**Disaster Rehabilitation & Recovery**

**Goal:**
to restore and improve the facilities, livelihood, living conditions and organizational capacities of the affected communities, and reduce disaster risks in accordance with the “build back better” principle

**TY “YOLANDA” (HAIYAN)**

**TY “YOLANDA” Track**

- 2 p.m. 01 Nov 2013
- 4:40 a.m. 08 Nov 2013 (Landfall)
- 8 p.m. 08 Nov 2013
- 8 p.m. 06 Nov 2013 (Initial Position)
Effects as of 17 January 2014, 6:00am

- **Affected Population**
  - Families: 3,424,593
  - Persons: 16,078,181

- **Casualties**
  - Dead: 6,201
  - Injured: 28,626
  - Missing: 1,785

- **Damaged Houses**
  - Totally: 550,928
  - Partially: 589,404

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**Effects**

- 275 kph winds caused heavy damages
- Storm surge in Samar and Leyte caused a great number of deaths
- Local government units were unable to discharge their functions, being victims themselves
- Huge damages to lifelines – power, water supply, communications and transportation
- Paralyzed industry, trade and services in affected areas

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**Lessons Learned**

- Strict implementation of Comprehensive Land Use Plan
- Total Pre-Emptive Evacuation
- Establishment of evacuation centers resilient to all hazards
- Enhancement of emergency telecoms
- Organization and prepositioning of trained national responders
- Strengthening of Public-Private Partnership to ensure multi-stakeholder participation in DRRM efforts
Reconstruction Assistance for TY “YOLANDA” affected areas (RAY)

- Initial recovery & rehab efforts
- PDNA results will finalize Rehab Plan

Strategic Plan to guide the recovery & reconstruction of the economy, lives & livelihood

Economic Indicators for TY “YOLANDA” Affected Regions, 2012

<table>
<thead>
<tr>
<th>Region</th>
<th>GDP/GDI (PHP Billion at 2012 Current Prices)</th>
<th>Share to GDP (percent)</th>
<th>Sector Share to National Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCR - MIMARIA</td>
<td>1,803.70</td>
<td>1.70</td>
<td>Agriculture</td>
</tr>
<tr>
<td>V - Bohol</td>
<td>216.90</td>
<td>2.10</td>
<td>4.20</td>
</tr>
<tr>
<td>VI - Western Visayas</td>
<td>421.70</td>
<td>4.00</td>
<td>8.70</td>
</tr>
<tr>
<td>VII - Central Visayas</td>
<td>666.20</td>
<td>6.30</td>
<td>4.00</td>
</tr>
<tr>
<td>VIII - Eastern Visayas</td>
<td>228.20</td>
<td>2.20</td>
<td>4.00</td>
</tr>
<tr>
<td>XII - CARAGA</td>
<td>122.50</td>
<td>1.20</td>
<td>2.30</td>
</tr>
<tr>
<td>Total of 6 regions</td>
<td>1,835.70</td>
<td>17.40</td>
<td>26.80</td>
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<tr>
<td>Philippines</td>
<td>10,364.90</td>
<td>100.00</td>
<td>100.00</td>
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<tr>
<td>Total (US$ Billion)</td>
<td>237.68</td>
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</table>
### Preliminary Damage and Loss Assessment

<table>
<thead>
<tr>
<th>Sector</th>
<th>Damage and Loss (PhP Million)</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure Sectors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>5,269.00</td>
<td>1,506.00</td>
<td>4,763.00</td>
<td>33,983.00</td>
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<tr>
<td>Roads, bridges flood control, &amp; public</td>
<td>4,200.20</td>
<td>322.90</td>
<td>-</td>
<td>4,523.00</td>
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<tr>
<td>Transport</td>
<td>6,010.80</td>
<td>216.00</td>
<td>243.00</td>
<td>6,251.10</td>
</tr>
<tr>
<td>Natural Disasters</td>
<td>4,200.00</td>
<td>2,936.00</td>
<td>2,264.00</td>
<td>7,023.00</td>
</tr>
<tr>
<td><strong>Economic Sectors</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>3,743.50</td>
<td>27,500.00</td>
<td>80.00</td>
<td>62,107.10</td>
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<tr>
<td>Industry Services</td>
<td>40,000.00</td>
<td>78,000.00</td>
<td>118,000.00</td>
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<tr>
<td>Social Services</td>
<td>50,176.30</td>
<td>801,772.10</td>
<td>3,142.30</td>
<td>849,918.80</td>
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<tr>
<td>Education</td>
<td>17,965.30</td>
<td>3,726.20</td>
<td>3,039.00</td>
<td>23,929.90</td>
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<tr>
<td>Health</td>
<td>3,710.00</td>
<td>1,856.00</td>
<td>1,854.00</td>
<td>5,573.00</td>
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<tr>
<td>Housing</td>
<td>4,021.00</td>
<td>299,766.00</td>
<td>21,202.00</td>
<td>320,990.00</td>
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<tr>
<td>Cross-sectorial</td>
<td>4,000.00</td>
<td>-</td>
<td>300.00</td>
<td>4,300.00</td>
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<tr>
<td><strong>Total (PhP Million)</strong></td>
<td>46,943.00</td>
<td>377,317.10</td>
<td>10,837.10</td>
<td>325,912.80</td>
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<tr>
<td><strong>Total (US Million)</strong></td>
<td>1,061.60</td>
<td>8,549.20</td>
<td>24.80</td>
<td>30.173.00</td>
</tr>
</tbody>
</table>

*Note: Data from some sectors are incomplete due to ongoing field assessments. These are indicated in the sectoral sub-sections.*

### Estimated Recovery and Reconstruction Needs

<table>
<thead>
<tr>
<th>Sector</th>
<th>Recovery Needs (PhP Million)</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure Sectors</strong></td>
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<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>3,654.90</td>
<td>24,670.50</td>
<td>8,326.80</td>
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</tr>
<tr>
<td>Roads, bridges, flood control, &amp; public</td>
<td>1,749.30</td>
<td>8,125.20</td>
<td>9,955.60</td>
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</tr>
<tr>
<td>Transport</td>
<td>64.60</td>
<td>5,136.20</td>
<td>5,136.20</td>
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</tr>
<tr>
<td>Natural Disasters</td>
<td>7,472.10</td>
<td>-</td>
<td>7,472.10</td>
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<tr>
<td><strong>Economic Sectors</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>35,201.80</td>
<td>51,278.40</td>
<td>80,480.20</td>
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<tr>
<td>Industry Services</td>
<td>32,401.80</td>
<td>3,767.80</td>
<td>16,680.20</td>
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<tr>
<td>Social Services</td>
<td>22,809.00</td>
<td>48,830.00</td>
<td>71,639.00</td>
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</tr>
<tr>
<td>Education</td>
<td>22,930.50</td>
<td>30,351.60</td>
<td>30,351.60</td>
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</tr>
<tr>
<td>Health</td>
<td>3,887.40</td>
<td>4,887.40</td>
<td>4,887.40</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>183,169.00</td>
<td>183,169.00</td>
<td>183,169.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total (PhP Million)</strong></td>
<td>205,856.70</td>
<td>300,330.20</td>
<td>300,330.20</td>
<td></td>
</tr>
<tr>
<td><strong>Total (US Million)</strong></td>
<td>5,372.10</td>
<td>5,036.00</td>
<td>5,036.00</td>
<td></td>
</tr>
</tbody>
</table>

### Economic Impact

- May reduce the economic growth rate by -0.3 percentage point in 2013 & by another -0.3 percentage point in 2014.

- Create pressure on fiscal policy:
  1. the national government has to provide additional funding & reallocate manpower to support emergency relief efforts.
  2. The recovery and reconstruction is expected to impact on the fiscal deficit in the next two or three years.

- 1.9% increase in poverty incidence - ADB

### Partnering with the Private Sector

- Options for greater private sector involvement:
  1. Expansion of public-private partnership arrangements for major investment programs.
  2. Streamlining processes to accelerate the issuance of licenses to operate new businesses, especially those that help re-establish critical supply chains.
  3. Facilitating bulk purchase arrangements from the private sector for goods.
  4. Fostering business-community links through adopt-a-town partnerships.
Post-Disaster Needs Assessment (PDNA)

- PDNA is a multi-sectoral & multi-disciplinary structured approach for assessing disaster impacts & prioritizing recovery & reconstruction needs
- Covers Damage & Loss Assessment (DaLA) & Human Recovery Needs Assessment (HRNA) which includes a recovery & reconstruction framework

- Developed by the United Nations Economic Commission for Latin America & the Caribbean (UN-ECLAC, 2003)
- Further refined, expanded, operationalized & documented in the Guidelines for Damage, Loss & Needs Assessment (GHRR, 2010)

- Republic Act No. 10121
  - Section 9 (m) - Conduct early recovery and post-disaster needs assessment institutionalizing gender analysis as part of it
- DRRM Framework
  - Key Result Area of DANA as a generic activity
- National DRRM Plan
  - Thematic Area of Rehabilitation; Outcome 20 - OGD to lead the conduct of the PDNA
PDNA

- 5th-conduct of PDNA for the Philippines
- Previously PDNAs were for TY "ONDIOY" & TY "PEPEG", TS "SENDONG", TY "PABLO" & the Zamboanga Crisis

Philippine Government currently undertaking the PDNA for TY "YOLANDA"
- Indigenized in the Philippine setting to adapt to peculiar needs
- Five broad sectors:
  1. Infrastructure
  2. Livelihood
  3. Social
  4. Resettlement
  5. Cross-Sectoral
- Will be the basis for Philippine Recovery & Rehabilitation Plan

Comparative Sectors

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<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food &amp; NFIs (DSWD)</td>
<td>Infrastructure</td>
<td>Infrastructure</td>
<td>Infrastructure</td>
<td>Food and Water Relief (DSWD)</td>
<td>Infra (DPWH)</td>
</tr>
<tr>
<td>Camp/IDP Mgmt, Emergency Shelter &amp; Protection (DSWD)</td>
<td>Social</td>
<td>Social (DSWD)</td>
<td>Social</td>
<td>Livelihood, Employment and Commerce (DOLE, DILG, DSWD)</td>
<td>Social (DSWD)</td>
</tr>
<tr>
<td>Perm Shelters &amp; Livelihood (DSWD)</td>
<td>Productive</td>
<td>Livelihood (DTI)</td>
<td>Productive</td>
<td>Shelter &amp; Reconstruction (DPWH &amp; DSWD)</td>
<td>Livelihood</td>
</tr>
<tr>
<td>WASH, Health, Nutrition &amp; Psychosocial (DSWD)</td>
<td>Cross-Sectoral</td>
<td>Resettlement (DILG)</td>
<td>Cross-Sectoral</td>
<td>Social Services (Health and Education)</td>
<td>Resettlement (DILG)</td>
</tr>
<tr>
<td>Agriculture IDA</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Early Recovery (OCD)</td>
<td></td>
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</tbody>
</table>

TY "YOLANDA" PDNA
Sectors and its Components

- Infrastructure
  - Roads
  - Bridges
  - Irrigation Facilities
  - Health Infrastructure
  - Education Infrastructure
  - Tourism Infrastructure
  - Water Infrastructure
  - Telecommunication Infrastructure

- Livelihood
  - Agriculture
  - Environment
  - Mining
  - Tourism and Culture
  - Industry, trade and services

- Social
  - Education
  - Health
  - Shelter

- Resettlement
  - Housing
  - Construction
  - Land Acquisition
  - Land Development

- Cross-Sectoral
  - Government
  - Macroeconomics Assessment
  - Social Impact Assessment
  - Environment