Disaster Risk Reduction Planning with Local Government

Cadiz City, Negros Occidental, Philippines
This process is based on Tearfund’s experience in the Philippines, in response to Typhoon Haiyan (2013). This presentation was created to help local government, civil society organisations and communities who are interested in developing a disaster risk reduction (DRR) plan. Our experience in Cadiz City may be different from your area and therefore we would encourage you to adapt this process to suit your needs.

For more information please contact humanitarian.support@tearfund.org
1. Introduction
1.1 What is Disaster Risk Reduction?

“The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposures to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events”

*(Philippine Disaster Risk Reduction and Management Act of 2010)*
1.2 What is included in a disaster risk reduction plan?

- Identification of hazards, vulnerabilities and risk to be managed
- Disaster risk reduction and management approaches / strategies
- Agency roles, responsibilities and lines of authority
- Coordination in pre-disaster and post-disaster phases
- Budgetary resources

*(Philippine Disaster Risk Reduction and Management Act of 2010)*
1.3 Why make a DRR plan?

• Guide national government to allocate 5% of the local government budget to DRR
• Help the community access funding from national government
• Strengthen local government’s technical capacity in disaster management
• Identify infrastructure priorities and action plans in anticipation of severe hazard events
• Train local actors in preparing for disasters, to promote safe and resilient communities
1.4 Sendai Framework of Action

1 OUTCOME
The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries

1 GOAL
Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.

4 PRIORITIES
- Understanding disaster risk
- Strengthening disaster risk governance to manage disaster risk
- Investing in disaster risk reduction for resilience
- Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction

7 TARGETS
- Disaster Mortality by 2030
- Number of affected people by 2030
- Economic loss by 2030
- Infrastructure damage by 2030
- DRR national/local strategies by 2020
- International cooperation by 2030
- EWS and DR information by 2030
1.5 Disaster Risk Reduction Framework

Adapted from the National Disaster Risk Reduction and Management Framework of the Philippine Government
2. Getting Started: Organising and Mobilising
2.1 Overview of activities

- Consultation with the Local Chief Executive, Local Disaster Risk Reduction and Management Council, and other stakeholders
- Identify and mobilise members of Advisory Panel and Technical Working Group
- Orientation on Disaster Risk Reduction and Climate Change Adaptation
- Review of the Sendai Framework, Laws on Disaster Risk Reduction and Climate Change Adaptation
- Review of the National and Local Disaster Risk Reduction Plans
- Set up work plan and timeline
- Preparation of ecological profile and socio economic, hazards, vulnerability data
2.2 Consultation with key stakeholders
2.3 Identification & mobilisation of Advisory Panel and Technical Working Group
2.3.1 Advisory Panel

**Members**
- Technical Consultants
- Policy & Advocacy Specialists
- Representatives of National Disaster/ Emergency Agencies
- Government bureaus involved in Hazard Mapping
- Local Civil Society Organisations
- Partner Educational Institutions

**Tasks**
- Meets monthly to discuss the proposed action plans
- Informs the team on national and international scenarios
- Advises on hazard & risk scenarios and policy & advocacy at the local level
2.3.2 Technical Working Group

**Members**
- Local Disaster Risk Reduction Management Council members
- Local Government Departments
- Representatives from National Government Agencies
- Academics
- Geographic Information Systems (GIS) Experts

**Tasks**
- Provides technical perspective in drafting of the plan
- Facilitates the development of projects under the DRRM Programme, both at the city and barangay level
- Meets twice-monthly to coordinate planning activities
## 2.3.3 Technical Working Group - Thematic Areas

<table>
<thead>
<tr>
<th>Disaster Prevention and Mitigation</th>
<th>Preparedness</th>
<th>Response</th>
<th>Rehabilitation and Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Knowledge management, social protection &amp; public health</td>
<td>• Community Risk Assessment</td>
<td>• Organise accreditation of community disaster volunteers, relief stockpiling</td>
<td>• Link with NEDA and other institutions (e.g. INGOs)</td>
</tr>
<tr>
<td>• Agriculture resilience</td>
<td>• Policy Advocacy</td>
<td>• Perform emergency drills</td>
<td>• Evacuation Infrastructure</td>
</tr>
<tr>
<td>• Early warning system, barangay digitised hazard mapping</td>
<td>• Community Risk Assessment</td>
<td>• Purchase of emergency response related equipment</td>
<td>• Housing</td>
</tr>
<tr>
<td>• Networking</td>
<td>• Policy Advocacy</td>
<td>• Prepare Emergency Response Standard Operating Procedure</td>
<td>• Livelihood</td>
</tr>
<tr>
<td>• Monitoring and evaluation of DRR plan and its implementation</td>
<td>• Incident Command System Training</td>
<td>• Prepare contingency plan</td>
<td>• Food and water security</td>
</tr>
<tr>
<td>• Pre-disaster Risk Assessment</td>
<td>• Evacuation Plan</td>
<td></td>
<td>• WASH</td>
</tr>
</tbody>
</table>
### 2.3.4 Technical Working Group - Sample Composition

<table>
<thead>
<tr>
<th>Disaster Prevention and Mitigation</th>
<th>Preparedness</th>
<th>Response</th>
<th>Rehabilitation and Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chair:</strong> Planning and Development Office</td>
<td><strong>Chair:</strong> Local Emergency Organisation</td>
<td><strong>Chair:</strong> Social Welfare Office</td>
<td><strong>Chair:</strong> Engineering Department</td>
</tr>
<tr>
<td><strong>Members:</strong> Fire Department, Community Environment and Natural Resources Office, Engineering Department, Social Welfare Office, Veterinary Office, Agriculture Office, Health Department, Rescue Teams, Local School Board, Utility Companies, Civil Society Organisations</td>
<td><strong>Members:</strong> Fire Department, Police Department, Planning and Development Office, Engineering Department, Social Welfare Office, Veterinary Office, Agriculture Office, Health Department, Rescue Teams, Local School Board, Utility Companies, Civil Society Organisations</td>
<td><strong>Members:</strong> Fire Department, Police Department, Planning and Development Office, Engineering Department, Social Welfare Office, Veterinary Office, Agriculture Office, Health Department, Rescue Teams, Local School Board, Utility Companies, Civil Society Organisations</td>
<td><strong>Members:</strong> Fire Department, Planning and Development Office, Social Welfare Office, Veterinary Office, Agriculture Office, Health Department, Local Civil Registry, Local School Board, Utility Companies, Civil Society Organisations</td>
</tr>
</tbody>
</table>
2.4 Orientation on DRR and Climate Change Adaptation

- Refresher on International Commitments on DRR and Climate Change (Sendai Framework, Paris Agreement etc)
- Review of National Laws on Disaster Risk and Climate Change
- Check best practices instituted by other communities
2.5 Review previous DRR Plans

- Assess the last Disaster Risk Reduction and Management Plan
- Check for consistency with other local government plans and national/regional policies
- List issues and gaps in implementing the DRR plan
2.6 Work Plan & Timeline

- **Orientation:** on DRR and CCA to Local DRR Council Members (Month 1)
- **Set up Technical Working Group and Create Work Plan** (Month 1)
- **Workshop:** Participatory Capacity and Vulnerability Assessment (Month 3)
- **Presentation of Community Risk Assessment and its Local Risk Patterns to the Technical Working Group** (Month 4)
- **Revisions and finalisation of plan, Approval & Legislation** (Months 8 & 9)
- **Presentation of Draft Plan to Local Council Members** (Month 7)
- **Development of Comprehensive DRR-CCA Projects and Fund Utilisation** (Months 5 & 6)
- **Consolidation of TWG outputs per thematic area** (Month 4)
2.7 Preparation of ecological profile and socio-economic, hazards, vulnerability data

**Socio-Economic datasets**
- Disaggregated Population (by age, sex, spatial distribution)
- Malnourished Children
- Persons with Disability
- Informal Settlements
- Materials Used in Dwelling Units
- Poverty
- Land-Use Zones
- Location of Physical Infrastructure

Project NOAH, 2016
3. Preparing the disaster risk reduction and climate change adaptation plan
3.1 Overview of activities

- Visioning Exercise
- Climate and Disaster Risk Assessment
- Hazard Characterisation
- Exposure and Potential Damage Estimation
- Vulnerability and Capacity Assessment
- Identification of measures to reduce vulnerability and enhance capacity
### 3.2 Visioning Exercise

<table>
<thead>
<tr>
<th>MAJOR AREAS</th>
<th>CURRENT SITUATION</th>
<th>DESIRED STATE IN FIVE YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment and Natural Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Economy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Infrastructure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3.3 Hazard Seasonality Calendar

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
</table>

---

[tearfund]
3.4 Hazard Characterisation

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Probability Score</th>
<th>Impact Score</th>
<th>Average Score</th>
<th>Rank</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.5 Exposure and Potential Damage

Hazard Map
Exposure Dataset

<table>
<thead>
<tr>
<th>Barangay</th>
<th>Exposure Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barangay 3 Pob. (Zone 3)</td>
<td>100.00%</td>
</tr>
<tr>
<td>Barangay 4 Pob. (Zone 4)</td>
<td>100.00%</td>
</tr>
<tr>
<td>Barangay 5 Pob. (Zone 5)</td>
<td>100.00%</td>
</tr>
<tr>
<td>Barangay 6 Pob. (Zone 6)</td>
<td>100.00%</td>
</tr>
<tr>
<td>Barangay 2 Pob. (Zone 2)</td>
<td>100.00%</td>
</tr>
<tr>
<td>Barangay 1 Pob. (Zone 1)</td>
<td>100.00%</td>
</tr>
<tr>
<td>Banquerohan</td>
<td>97.07%</td>
</tr>
<tr>
<td>Cadiz Viejo</td>
<td>87.96%</td>
</tr>
<tr>
<td>Sicaba</td>
<td>86.77%</td>
</tr>
<tr>
<td>Daga</td>
<td>35.51%</td>
</tr>
<tr>
<td>Tinanpa-an</td>
<td>9.81%</td>
</tr>
<tr>
<td>Tugawigan</td>
<td>8.04%</td>
</tr>
<tr>
<td>Andres Bonifacio</td>
<td>0.00%</td>
</tr>
<tr>
<td>Burgos</td>
<td>0.00%</td>
</tr>
<tr>
<td>Cabahug</td>
<td>0.00%</td>
</tr>
<tr>
<td>Caduha-an</td>
<td>0.00%</td>
</tr>
<tr>
<td>Celestino Villacin</td>
<td>0.00%</td>
</tr>
<tr>
<td>V.F. Gustillo</td>
<td>0.00%</td>
</tr>
<tr>
<td>Jerusalem</td>
<td>0.00%</td>
</tr>
<tr>
<td>Luna</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
3.6 Vulnerability and Capacity Assessment

<table>
<thead>
<tr>
<th>Vulnerabilities</th>
<th>Capacities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should include current gaps and envisioned damages and adverse impacts of identified hazards to each of the sector</td>
<td>Should include available equipment, facilities and infrastructure, established processes, existing institutions and social capital</td>
</tr>
<tr>
<td>Examples:</td>
<td>Examples:</td>
</tr>
<tr>
<td>• Lack of inter-agency coordination</td>
<td>• Strong sense of community, especially in religious groups</td>
</tr>
<tr>
<td>• Erosion of social order</td>
<td>• Existing partnerships with civil society organisations</td>
</tr>
<tr>
<td>• Inadequate facilities (eg. Hydrants)</td>
<td>• Dams and controlled irrigation systems</td>
</tr>
<tr>
<td>• Possibility of isolation of some communities due to lack of insufficient transport network</td>
<td>• Availability of pre-positioned emergency transport facilities</td>
</tr>
<tr>
<td>• Threats to loss of farming and fishing implements</td>
<td>• Access to crop insurance</td>
</tr>
</tbody>
</table>
3.7 Identification of measures

Should include steps and actions needed to address vulnerabilities and gaps

Examples:

• Expansion of social security coverage
• Improving access to loan and credit facilities
• Installation of early warning devices
• Instituting standard operating procedures for evacuation of communities to safe areas
• Enforcement of Solid Waste Management Act
• Roll-out of Information and Education Campaigns
4. Implementing the disaster risk reduction plan
4.1 Overview of activities

- Strengthening the Local Disaster Risk Reduction & Management (DRRM) Office
- Ensuring Guidance from Other Disaster Plans
- Declaring State of Calamity/Emergency
- Allocation of Financial Resources
- Mainstreaming disaster risk reduction with other local plans
- Instituting monitoring and evaluation mechanisms
- Fostering institutional arrangements, linkages, partnerships and networks
- Introducing proposals for more detailed studies
- Lobbying national government for projects and policy changes for disaster prevention and mitigation
4.2 Strengthening of Local DRRM Office

An organisational chart should be created to delineate hierarchy and responsibilities in implementing different tasks identified in the disaster risk reduction plan.
4.3 Ensuring Guidance from Other Government Plans

Office of Civil Defense, 2011

Housing and Land Use Regulatory Board, 2015
4.4 Declaring the State of Emergency

“...a condition involving mass casualty and/or major damages to property, disruption of means of livelihoods, roads and normal way of life of people in the affected areas as a result of the occurrence of natural or human-induced hazard”

- Philippine Disaster Risk Reduction & Management Act (2010)

- Declared by the local government council based on the recommendation of the local disaster risk reduction and management office
- Triggers remedial measures such as imposition of price ceiling on basic necessities and prime commodities, programming of funds for the repair of public infrastructure and facilities, granting of no-interest loans to affected sectors etc
4.5 Allocation of Financial Resources

What LGUs are required to spend on disaster mitigation, preparation and response:

- 5% of an LGU’s yearly estimated revenue from regular sources will be allocated for DRRM
- 30% for quick response
- 70% for equipment and disaster prevention, preparedness, response, rehabilitation and recovery

Rappler, 2016
4.6 Mainstreaming DRR with other local plans

- Information from the DRR plan should inform, be integrated and be harmonised with other plans prepared at the local community level. These may include:
  - Annual Investment Plan
  - Comprehensive Development Plan
  - Comprehensive Land Use Plan
  - Local Climate Change Adaptation Plan
4.7 Fostering institutional arrangements, partnerships, linkages & networks

Who is typically involved?

- Civic Society Organisations
- Academic and Research Institutions
- Neighbouring Local Government Units
- National and Regional Government Agencies
4.8 Other Activities

- Instituting monitoring and evaluation mechanisms
- Introducing proposal for more detailed studies (if necessary)
- Lobby national government for projects and policy changes
5. Monitoring & Evaluation
5.1 Importance of Monitoring & Evaluation

- Monitoring and evaluation should be an ongoing process and should form an important part of the entire planning cycle.

- What to include?
  - Effects of the utilisation of the outputs produced (project outcomes)
  - Contribution of the outputs to the realisation of development goals (project impacts)
  - Determination of impacts of public sector planning interventions (programs, projects, services and regulatory measures); and impacts of private sector investments on the local area and population
For more information please contact humanitarian.support@tearfund.org