

WORKSHOP REPORT



Linking Loss and Damage with Climate Change Adaptation & Disaster Risk Reduction in the Philippines



28 April 2015
Richmonde Hotel
Ortigas, Pasig City

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Ana Veronica Gabriel

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ABOUT THE WORKSHOP

For a couple of decades now, mitigation and adaptation are recognized responses to the climate challenges. However, the impacts of climate change and related disasters are worsening that the efforts to address them are insufficient. Even with the combined strategies of climate change adaptation (CCA) and disaster risk reduction (DRR) to increase resiliency and reduce vulnerability, the impacts of climate change are now beyond the capacity, particularly of the developing countries like the Philippines to face. The gravity of the current climate situation and future scenarios require countries not just to use the mitigation and adaptation mechanisms extensively, but also to look into the loss and damages brought about by climate variability.

Loss and damage happens when mitigation efforts are not enough and adaptation strategies have met their limitations. If the impacts of climate change cannot be avoided and lessened, permanent loss and damage occurs. Given that climate-related disaster events are common in the Philippines, Filipinos are expected to experience losses and damages. The main goal of this workshop was to solicit inputs in the development of framework that links loss and damage with CCA and DRR.

The objectives of this workshop were:

- To bring together key actors and experts to discuss the current state of CCA and DRR integration, and loss and damage system in the country;
- To gather stakeholders from various sectors to determine existing gaps and future challenges; and
- To draft guidelines/recommendations that can guide policy-makers and other relevant stakeholders to strengthen CCA and DRR integration while effectively incorporating loss and damage data for planning and development.

WORKSHOP STATISTICS

5 Speakers

41 Participants

12 Organizers

58 TOTAL



55% Male



45% Female

Government and
related agencies

NGOs, Research and
Private Organizations

20

9

WORKSHOP PROGRAMME

9:00 - 9:05	Invocation and National Anthem Ms. Ana Veronica Gabriel (OML Center)
9:05 - 9:10	Opening Remarks Mr. Art Valdez (OML Center)
9:10 - 9:20	Workshop Rationale Dr. Rodel Lasco (OML Center)
9:20 - 10:00	Understanding CCA and DRR Mrs. Jessica Bercilla (Manila Observatory)
10:00 - 10:20	National efforts Mr. Arnold Grant Belver (Climate Change Commission)
10:20 - 10:40	Local efforts Hon. Alfredo Arquillano, Jr. (San Francisco, Cebu)
10:40 - 10:50	Open Forum/Q&A for Session 1
10:50 - 11:00	Health Break
11:00 - 11:20	Timeline of L&D discussion in the global scene Atty. Therese Guiao (Ateneo School of Government)
11:20 - 11:40	State of L&D system in the Philippines Mr. Relan Jay Asuncion (NDRRM Operations Center)
11:40 - 11:50	Open Forum/Q&A for Session 2
11:50 - 1:00	Photo Op and Lunch
1:00 - 2:30	Group discussion headed by discussants from various national government agencies followed by a summary presentation from each group representative.
2:30 - 4:00	Group discussion based on the reflections from the presentations and earlier discussion through sharing of knowledge and experiences of the participants followed by a summary presentation from each group representative.
4:00 - 4:10	Synthesis and Way Forward Ms. Perlyn Pulhin (OML Center)
4:10 - 4:20	Closing Remarks Dr. Rodel Lasco (OML Center)

SPEAKERS PROFILE



MS. JESSICA BERCILLA

*Science-Policy Research Specialist
Manila Observatory*

Ms. Bercilla is a Science-Policy Research Specialist of Manila Observatory, a Senior Fellow of the Ateneo School of Government, and a Senior Advocacy and Policy Officer for Asia and Middle East of Christian Aid.

She took academic units in Ph.D. on Holistic Foundations in Biosafety, University of Tromso, Norway and she completed her Master's degree in International Development Studies at Dalhousie University, Nova Scotia, Canada.



MR. ARNOLD GRANT BELVER

*Planning Officer III
Research and Policy Development Division
Climate Change Commission*

Mr. Arnold Grant S. Belver is a Planning Officer of the Research and Policy Development Division of the National Climate Change Commission, the country's lead policy-making body on climate change.

Prior to his employment to CCC, he served as the Executive Assistant to the Undersecretary and Science Research Specialist at the Energy Policy and Planning Bureau of the Department of Energy. Since he started his career in the Government in 2009, he has been actively working with climate change and energy and other issues related to the environment.

Aside from serving as the focal person of energy efficiency and renewable energy projects of the Commission, he is duly trained on Greenhouse Gas Inventory and Management. Moreover, he has honed his technical competence through his active role in mitigation programs in the fields of energy, transport and agriculture.

A graduate of the University of the Philippines Los Baños in 2007, he holds a bachelor's degree in Agriculture, major in Agronomy. He is a licensed agriculturist by academic profession. He is currently taking his graduate program in Public Management at the Ateneo de Manila University.



HON. ALFREDO ARQUILLANO, JR

*Vice Mayor
San Francisco, Cebu*

Hon. Arquillano, Jr. is a mechanical engineer by profession and a businessman before becoming the mayor of Municipality of San Francisco for three consecutive terms and as Vice Mayor for one term. He is also appointed as Asia Region Campaign Champion and Member of the Steering Committee for “Making Cities Resilient” Campaign of the United Nation International Strategy for Disaster Reduction (UNISDR). Currently, he is the President of Regional Center of Expertise on Education for Sustainable Development (RCE) - Cebu and Vice Chair of A2D Project - Research Group for Alternatives to Development Inc.

Under his leadership as Municipal and Vice Mayor from year 2001 until 2013, San Francisco was awarded the following recognition:

- UNISDR Campaign Role Model for “Making Cities Resilient” Campaign on May 5, 2011,
- United Nations Sasakawa Award for Disaster Risk Reduction on 2011 for Municipality of San Francisco’s Community-Based Disaster Risk Reduction and Management through the “Purok System” approach, and
- Grand Champion of Cebu Province’s Expanded Green and Wholesome Environment that Nurtures (E-GWEN Our Cebu Program) for four consecutive years in 2009 to 2012 for the implementation of solid waste management and environmental programs.



CECILIA THERESE T. GUIAO, JD

*Senior Legal and Policy Specialist
Climate Change and Environment Cluster
Ateneo School of Government*

Atty. Guiao is a member of the Philippine Bar, with a bachelor's degree in Broadcast Communication and a *juris doctor* degree from the University of the Philippines. She is a legal and policy consultant for the Ateneo School of Government's Climate Change and Environment Cluster, and manages climate policy-related projects such as the Agreement on Climate Transformation 2015 (ACT 2015) project on designing the 2015 Global Climate Change Agreement. She has been a part of the Philippine delegation to the UN Framework Convention on Climate Change (UNFCCC) for the past three years, providing legal and negotiations support to the country's adaptation and ADP teams.



MR. RELAN JAY ASUNCION

*Officer-In-Charge
NDRRM Operations Center
Office of Civil Defense*

Mr. Asuncion is a Civil Defense Officer of the Office of Civil Defense (OCD). He is designated as Officer-In-Charge of NDRRM Operations Center (NDRRMOC), which is responsible in providing the early warning advisories, situational reports of disaster events, and maintains all disaster-related information for appropriate analysis and action plans. He has been with OCD since 2002. Mr. Asuncion is a Far Eastern University graduate with a degree of Bachelor of Science in Commerce major in Management. He earned his Post-Graduate Degree of Master of Information Systems from the Griffith University, Queensland, Australia in 2012. He is knowledgeable in disaster risk reduction management and information management system. He also leads Post-Disaster Needs Assessment (PDNA) Mission for data-gathering and formulation of final reports.

WORKSHOP SUMMARY

Opening Session

The workshop began with opening remarks from **Mr. Arturo Valdez**, member of the Board of Trustees of the OML Center. He pointed out the relevance of the workshop and by drawing inputs and experiences, and sharing of ideas from key organizations and experts, the participants can further enrich their learning. He pointed out that gathering of like-minded people can help in saving lives, and reduce risks and damages to properties.



Dr. Rodel Lasco, Scientific Director of the OML Center, then presented a brief overview of the project this workshop is under. So far, the project has done literature review, key informant interviews, case study, and focus group discussions. After the workshop, a regional meeting with other collaborators will be held to review the progress of the project. A science-policy forum and series of lectures will also be held to raise awareness on the topic and share the proposed framework, results and recommendations.



First Session: Climate change adaptation and disaster risk reduction integration

Dr. Lasco was followed by three speakers from Manila Observatory (MO), Climate Change Commission (CCC), and San Francisco, Cebu in the first session that focused on CCA and DRR integration. **Ms. Jessica Bercilla**, Science-Policy Research Specialist of MO provided the science-policy background by discussing CCA and DRR and its implications on loss and damage. As a way forward, she suggested the following: supporting evidence-based risk



assessments; investing on understanding climate science, and climate and disaster risk assessments via an integrated risk assessment platform; factoring in potential losses and damages not only to current but to future events; and investing in climate resilience and not only in disaster resilience.



She was followed by **Mr. Arnold Belver**, Planning Officer III of CCC. He shared about the national efforts of the government in integrating CCA and DRR through institutions, policies, and programs. Mr. Belver cited various responses of the government to climate change since 1990. The two-pronged approach in building adaptive capacity and delivering adaptive actions were also tackled. The most recent effort of the government is the creation of the National Climate Change

Action Plan which ultimate goal is to “build adaptive capacities of women and men in their communities, increase the resilience of vulnerable sectors and ecosystems to climate change, and optimize mitigation opportunities towards gender-responsive and rights-based sustainable development.” Among other intervention areas that he pointed are on financing (e.g. Climate public expenditure review, RA 10171: Peoples survival fund, national and local climate change expenditure tagging, local disaster risk reduction and management fund), knowledge generation and management (i.e. science and risk-based tools and methods such as the Ecotown framework, among others), and ensuring progress through monitoring and evaluation. Mr. Belver listed various challenges that should be addressed to avoid substantial humanitarian and economic costs. These are the following:

- Varying enforcement of laws, regulations and directives in different levels of authorities,
- Existing structures not used for climate change related initiatives, and

- Lack of information to consumers that leads to loss of demand for potential resource efficient goods and services.

Meanwhile, **Vice Mayor Alfredo “Al” Arquillano Jr** of San Francisco, Cebu, also UNISDR Champion, presented the success stories on his municipality through their local efforts for CCA and DRR integration. He recognized the need for science-based information to help planning and decision-making but emphasized that education is also important in building resilience. The roundtable discussions he organized with the local leaders to develop their capacity have been found more effective than large conferences. “We need to cultivate local knowledge to build resilience,” he stressed. His municipality has localized the Hyogo Framework of Action and is implementing a “no dole out policy” to empower the communities. The institutionalization of the Purok System, has won local and international awards. Among other points that he noted are: we need concrete actions that are measurable, achievable and result-oriented; leadership at the grassroots level should be demand-driven; and we have to focus on cost-effective utilization of financial resources. “We can start small and create big impact,” he pointed out.



Second Session: Loss and damage

The second session focused on the topic of loss and damage. To provide an overview on the previous and current international efforts on loss and damage discussion, **Atty. Therese Guiao**, Senior Legal and Policy Specialist of the Ateneo School of Government, presented the timeline of loss and damage discussion in the United Nations Framework Convention on Climate Change



(UNFCCC). She mentioned that loss and damage discussion was first housed under the UNFCCC. The discussion started in 1991 from negotiations with regards to climate financing and proposal for an international insurance pool. Since then, different framework and work programmes/plans have been established. Despite the lengthy discussion on loss damage, few actions to address it on the ground have been done.



Mr. Relan Jay Asuncion, Officer-in-Charge of the Office of Civil – National Disaster Risk Reduction and Management (OCD-NDRRM) Operations Center, on the other hand, talked about the history, process, tool used, and challenges of the loss and damage assessment system in the country. He stated that the Philippines uses Post Disaster Needs Assessment (PDNA), a multi-sectoral and multi-disciplinary structured approach for

assessing disaster impacts and prioritizing recovery and reconstruction needs, which is initially developed by United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC), and modified and enhanced by World Bank (WB). It is a combination of Damage and Loss Assessment (DALA) and Human Recovery Needs Assessment (HRNA). As mandated by law, PDNA is required for the creation of a master rehabilitation plan. Mr. Asuncion listed several challenges and way forward. These are the following:

- Need to improve Guidance Notes/Templates based on the existing data & requirements available or what is needed on the ground,
- Develop Guidelines and Policy on the conduct of PDNA (e.g. handbook),
- Enhance PDNA over-all framework and training modules,
- Proper and complete documentation of damages and availability of baseline data, PDNA training for stakeholders, and
- Full cooperation of all stakeholders involved in the PDNA mission to produce worthy and credible report.

Third and Fourth Session: Stakeholder Perspectives

The third and fourth sessions allowed the participants to share their knowledge and experiences through group discussion. The discussants on the third session provided their sectors' perspectives regarding strengthening CCA strategies and DRR measures for planning and development through



the use of loss and damage information. The fourth session discussion revolved around the gaps and challenges of assessing loss and damages and achieving enhanced CCA and DRR strategies using loss and damage information. Possible solutions and opportunities for the issues were also discussed.

Closing Session

Ms. Perlyn Pulhin, Program Manager of the OML Center, provided the synthesis of the workshop. On behalf of Dr. Lasco, she delivered the Closing Remarks thanking all the attendees for their active participation during the discussion.



LIST OF PARTICIPANTS

NO.	NAME	AFFILIATION
SPEAKERS		
1	ARQUILLANO Jr., Alfredo	Cebu
2	ASUNCION, Relan Jay	OCD - NDRRMC
3	BELVER, Arnold	CCC
4	BERCILLA, Jessica	MO
5	GUIAO, Atty. Therese	ASoG
PARTICIPANTS		
6	ALVAREZ, MJ	NEDA-ANRES
7	ALICANGA, Justin Karlo	EDC
8	ASIS, Alvidon	LCP
9	BALANON, Charlie	Bacnotan, La Union
10	BATOCABE, Rodel	Ako Bicol Partylist; Special Cmte on CC of the HoR
11	BAYANGOS, Mariel	DepEd
12	BOCO, Eugene	EDC
13	CALDA, Lorna	DA
14	CLAVESILLAS, Jerry	DTI
15	CURRAN, Colleen	PDRF
16	DELA TORRE, Dennis	UP
17	ESCOTO, Engr. Jun	MWSS
18	ESGUERRA, Ted	EDC
19	GUIAM, Ellen Grace	PSA
20	HALOS, Dr. Saturnina	DA
21	HERNANDEZ Jr., Aquilino	MWSS
22	KENT, Alison	Oxfam
23	LIMBAGO, Roberto	LPP
24	LOFAMIA, Maria Victoria	DPWH
25	LUALHATI, Engr. Nestor	MWSS
26	MACALINTAL, Lev Nikko	DA
27	MAGTURO, Dr. Cecile	DOH
28	MANAL, Imee	UNDP
29	MANALO, Abraham	DA
30	MANGLICMOT, Zaida	DA
31	NARAG, John Adrian	DOF
32	NATIVIDAD, Gerard	EDC
33	NOVA, Evangeline	DOTC

34	ORDONEZ, Mariane	MGB
35	PAGULAYAN, Mark	NEDA
36	PUNO, Atty. Railla	ASoG
37	QUINCE, Sarah Jane	DOTC
38	REYES, Charmion	UNDP
39	RIVERA, Mylene	HUDCC
40	RIVERA, Sinfioriano	EDC
41	SANTOS, Patrixia	Special Cmte on CC of the HoR
42	SESE, William	NEDA
43	TERCERO, Mario	PNOC Renewables Corporation
44	VASQUEZ, Cris	DPWH
45	VERGARA, Mariel	DPWH
46	VILLA, Paolo Micael	EMI
ORGANIZERS		
47	BACLAYO, Trina	
48	BATA, Rochelle	
49	CALMA, Geanno	
50	CARLOS, Carlo	
51	DELFINO, Rafaela Jane	
52	GABRIEL, Ana	
53	LASCO, Dr. Rodel	
54	PULHIN, Perlyn	
55	SALINAS, Karis Dawn	
56	SANTOS, Carlos Tito	
57	VALDEZ, Arturo	
58	YOKINGCO, Cole	

PHOTOS



National Efforts in Integrating CCA and DRR A Glimpse on the Current Adaptation Strategies

OML Center For Climate Change Adaptation and
Disaster Risk Management Foundation, Inc.

April 28, 2015



1

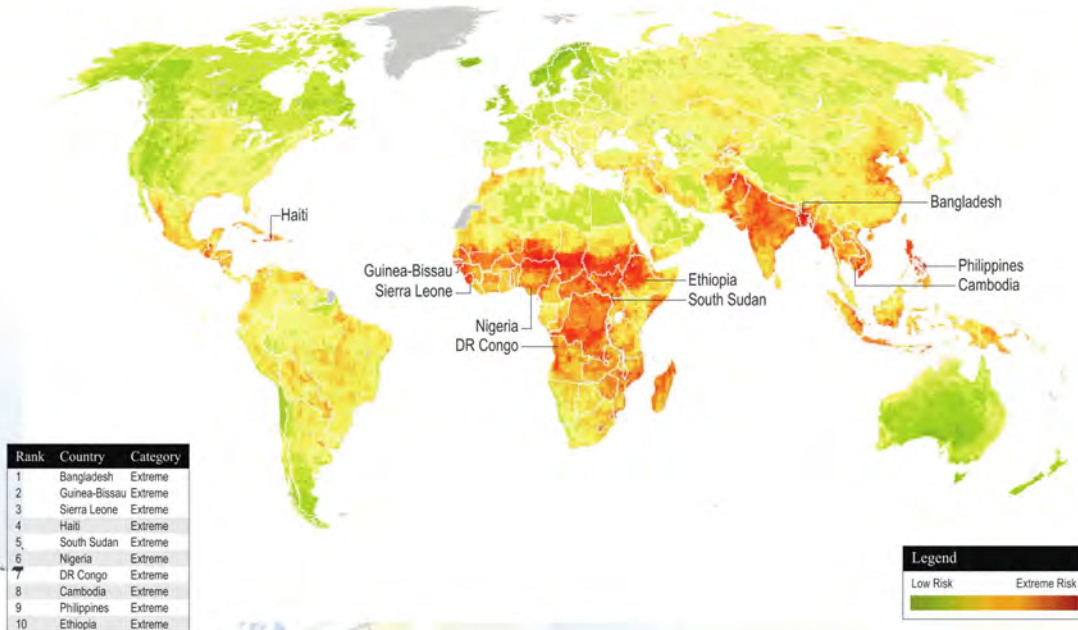
Outline

- Understanding Impacts
- Two-pronged approach
- Institutional structure/responsibilities
 - Policies, plans and processes
 - Financing climate actions
- Knowledge generation and management
- Ensuring progress
- Raise awareness and taking action



Case for acting now

2



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The Philippines and Climate Change

Crop damage hits P6B
But food stocks are adequate, sources say

Lake swallows villages
No longer habitable for 700,000 residents

Pagasa tip: Seek refuge in strongest building

RP in a state of calamity

- Observed mean temperature increase of 0.57C from 1971-2000
- Increase in the number of cyclones passing through the central Philippines
- Dry season will become drier and wet season will become driver
- Ranked 9th as extremely vulnerable (Maplecroft 2014)

CC Adaptation Requires an Understanding of Vulnerabilities and impacts



Two-Pronged Approach:

Building Capacity and Delivering Action

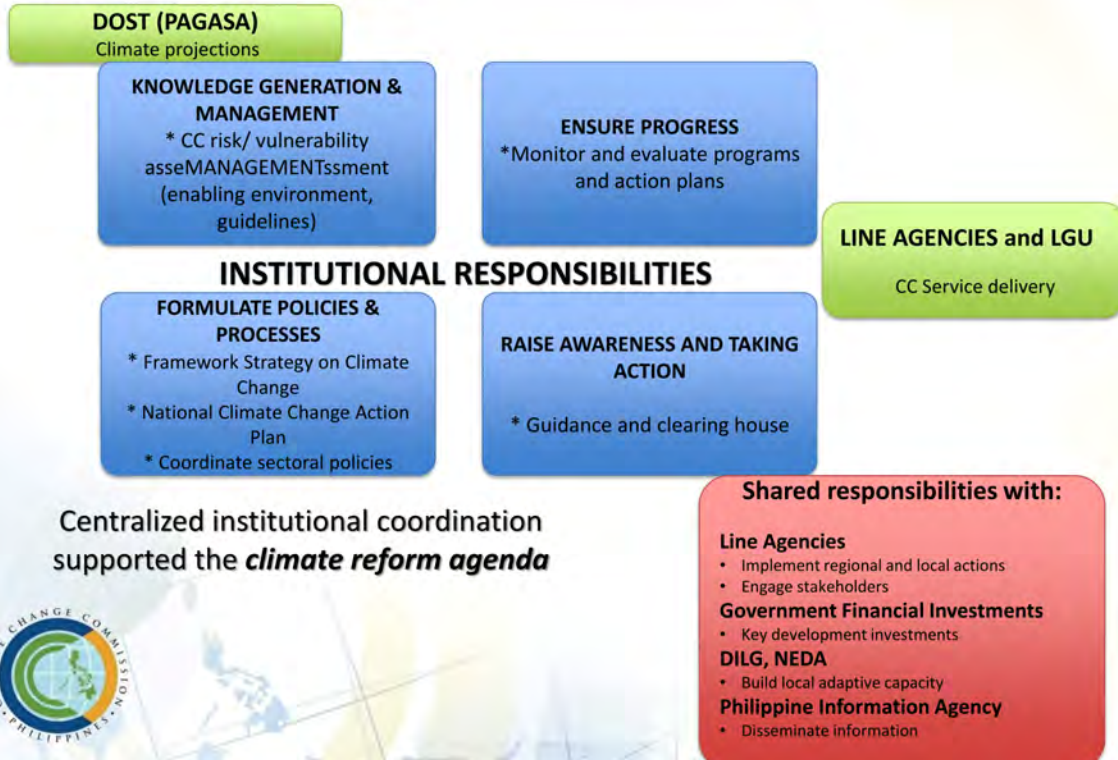
Building Adaptive Capacity

- Addressing institutional, legal, cultural, technical, fiscal and other barriers
- Activities can be taken independent of specific climate projections

Delivering Adaptive Actions

- Implementing actions to address specific climate vulnerabilities
- Choice and timing of some actions may depend on specifics of the climate projections

Institutional Structure



Interventions Areas:

Policy

Philippines Response to Climate Change: Institutions, Policies and Programs/Strategies

1990-1995

- IACC established (1991)
- PHL signs UNFCCC (1994)
- PHL GHG Inventory (1994)

1996-2000

- 1st PHL National Communication (1999)

2001-2005

- PHL Government signs Kyoto Protocol (2003)

2006-2010

- RA 9367 (Biofuels Act, 2006)
- Presidential Task Force on CC (2007)
- Presidential Proclamation on Global Warming and Climate Change Consciousness Week (2008)
- RA 9513 (Renewable Energy Act, 2008)
- **RA 9729 (Climate Change Act, 2009)**
- **RA 10121 (Philippine DRRM Act, 2010)**



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Philippines Response to Climate Change: Institutions, Policies and Programs/Strategies

2011-2015

- **National Framework Strategy on Climate Change (2010)**
- PHL Disaster Risk Reduction and Management Act (2010)
- The PHL Strategy on Climate Change Adaptation (2010)
- **National Climate Change Action Plan (2011)**
- Cabinet Cluster on Integrity of the environment and climate change adaptation and mitigation (2011)
- **RA 10174 - People's Survival Fund Act (2012)**
- Integrating DRR and CCA concerns in PHL EIS System (2012)
- Guidelines in Tagging/Tracking Government Expenditures for Climate Change in the Budget Process (2013)
- Second PHL National Communication (2014)
- EO 174 – Institutionalizing GHGI and Management (2014)



10

Republic Act 9729 Climate Change Act of 2009

- Acknowledge that local government units are the frontline agencies in the formulation, planning and implementation of climate change action plans

National Climate Change Action Plan

- Outlines the specific long program and strategies for adaptation and mitigation, spanning across three political administrations

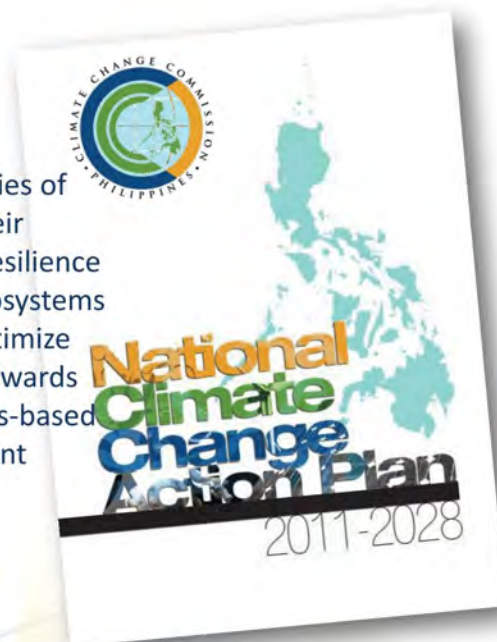
Republic Act 10174 Peoples Survival Fund

Provides funding support for climate change adaptation programs at the local level



NCCAP Ultimate Goal:

Build the adaptive capacities of women and men in their communities, increase the resilience to climate change, and optimize mitigation opportunities towards gender-responsive and rights-based sustainable development



The NCCAP



Joint strategy for CCA-DRR



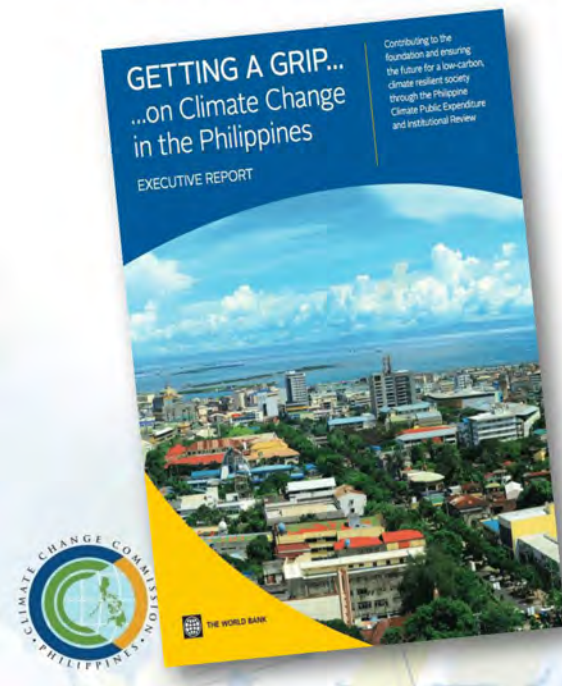
Intervention Areas:

Financing



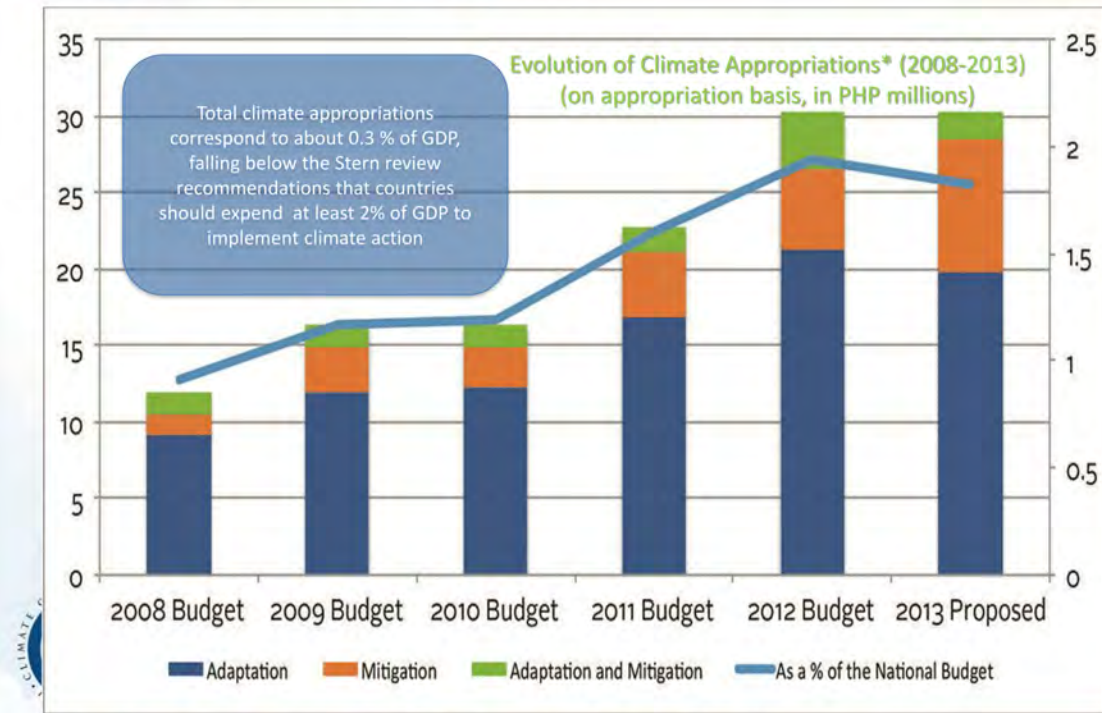
15

Climate Public Expenditure Review



- CPEIR is a study to assess gaps and accelerate implementation of the climate change agenda in the Philippines. This is envisioned to aid key agencies with major roles on CC policy making.

Increasing appropriation from national budget to response to climate change actions



Enabling Environment : Institutional Conditions

PUBLIC-PRIVATE PARTNERSHIP CENTER



Development Bank of the Philippines



LANDBANK



Peoples' Survival Fund



- Academe
- Private Sector
- CSO




RA 10174: Peoples Survival Fund



- Long term finance streams
- Expanded the composition of the advisory board of the Climate Change Commission
- Establishment of the PSF to support adaptation activities of local governments and communities

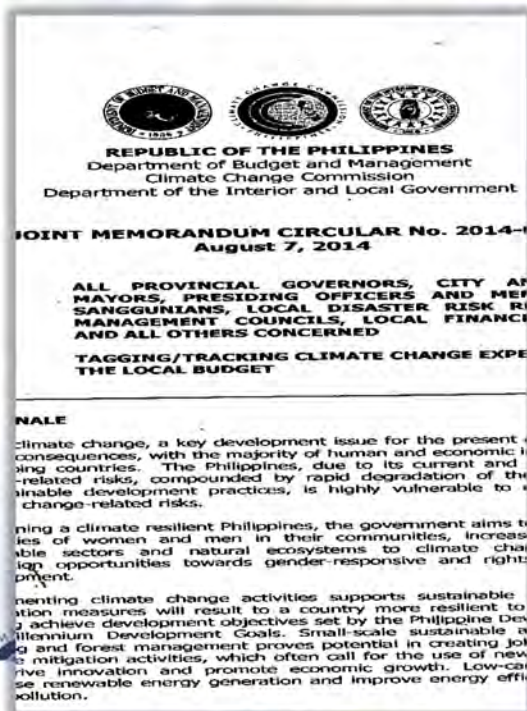
19

NATIONAL CLIMATE CHANGE EXPENDITURE TAGGING

   <p>REPUBLIC OF THE PHILIPPINES Department of Budget and Management Climate Change Commission</p>	
JOINT MEMORANDUM CIRCULAR	
No. 2013-01 December 27, 2013	
FOR	: All Heads of Departments, Agencies, Bureaus, Offices, Commissions, State Universities and Colleges, Other Instrumentalities of the National Government and all Others Concerned
SUBJECT	: Guidelines in Tagging/Tracking Government Expenditures for Climate Change in the Budget Process
1.0 RATIONALE	<p>Global climate change, a key development issue for the present and the future, has severe consequences, with the majority of human and economic impacts occurring in developing countries. The Philippines, due to its current and future exposure to climate-related risks, compounded by rapid degradation of the environment and unsustainable development practices, is highly vulnerable to existing and future climate change-related risks as shown by the devastations caused by recent strong typhoons like Pablo and Yolanda.</p> <p><i>Legal Framework:</i></p> <p>Recognizing the challenges posed and opportunities created by climate change, the Government passed Republic Act 9729, known as the Climate Change Act, which mandates government agencies to mainstream climate change into policies, plans and programs in order to build a more solid foundation for climate resiliency. The Government also formulated the National Climate Change Action Plan (NCCAP), a strategic climate change reform agenda that spans three 6-year phases from 2011-2028 to align and define climate goals and execute agreed-upon actions across national and local agencies. The Disaster Risk Reduction and Management (DRRM) Act was issued involving a paradigm shift from a reactive approach focused on disaster rehabilitation and recovery to a preventive approach focused on prevention and preparedness. Both the NCCAP and DRRM recognize climate change adaptation as the appropriate means for climate disaster prevention.</p>

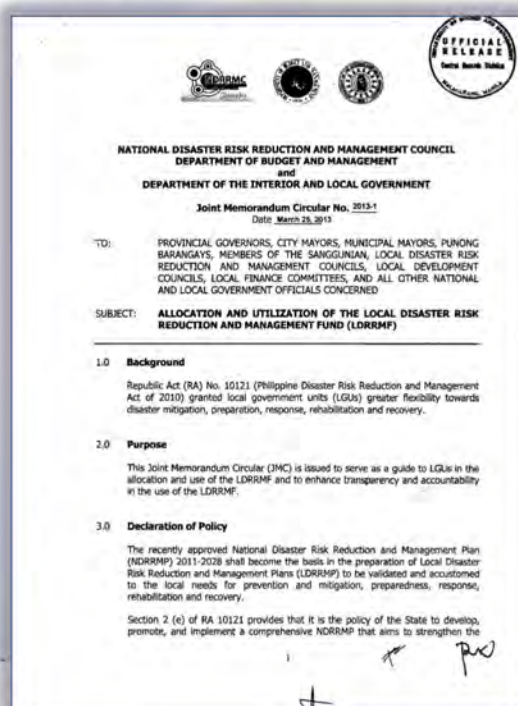
- Joint Memorandum Circular issued by Department of Budget and Management and the Climate Change Commission
- Guidelines in tagging government expenditures for CC adaptation and mitigation in the budget process
- CCC developed typologies for Adaptation and Mitigation
- Issued for all national government agencies, commissions, state universities and colleges

LOCAL CLIMATE CHANGE EXPENDITURE TAGGING



- Joint Memorandum Circular issued by Department of Budget and Management (DBM), Department of Interior and Local Government (DILG) and the Climate Change Commission (CCC)
- Guidelines in tagging expenditures for CC adaptation and mitigation in the local budget
- Issued for all local government units

LOCAL DISASTER RISK REDUCTION & MANAGEMENT FUND



- Joint Memorandum issued by the NDRRMC, DBM and DILG to serve as a guide to LGUs in the location and use of the LDRRMF and to enhance transparency and accountability in the use of the LDRRMF

Intervention Areas:

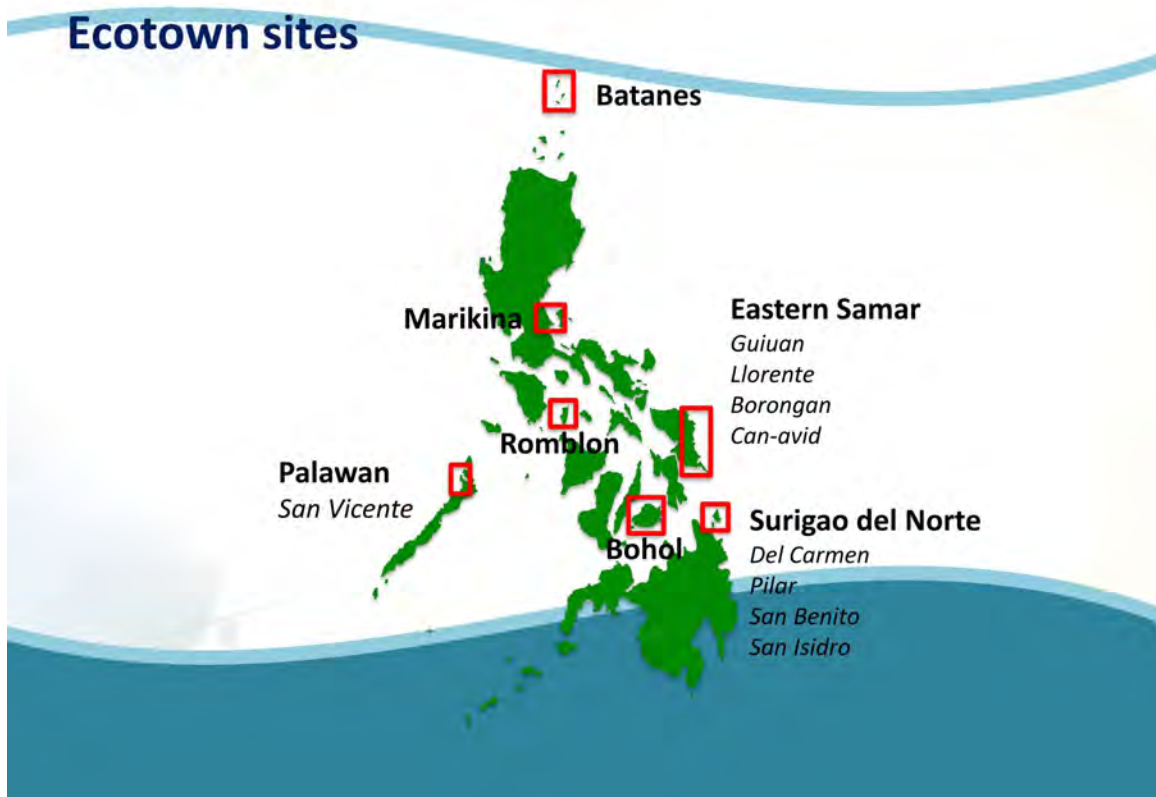
Knowledge Generation and Management

(Science and risk-based tools and
methods)



23





1. To increase the adaptive capacities of the communities

- Income
- Green/eco-jobs
- Climate smart infrastructure
- Empowerment of communities

2. To increase the adaptive capacities of the ecosystems

- Biodiversity conservation
- Provision of opportunities for natural recreation activities
- Incremental agricultural/fishery produce

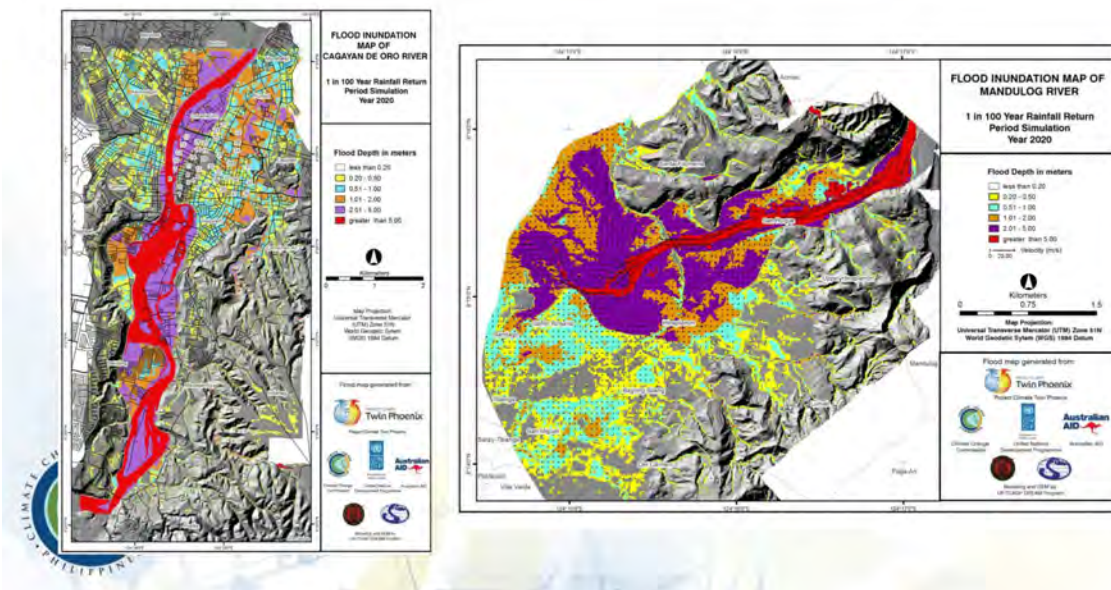


Under the Project Climate Twin Phoenix

1. Enhanced Flood Mapping using State of the Art technology incorporating climate change projections
2. New Early Warning Systems with Up-to-date operation protocol
3. Established Exposure Database for Flood
4. Integrated Contingency Planning
5. Climate Resilient Livelihoods for the vulnerable groups
6. Risk based local development plans (CLUP, CDP, RPPF)
7. Capacity Building for Local Partners and Academic Institutions



Climate Enhanced Flood Hazard Maps

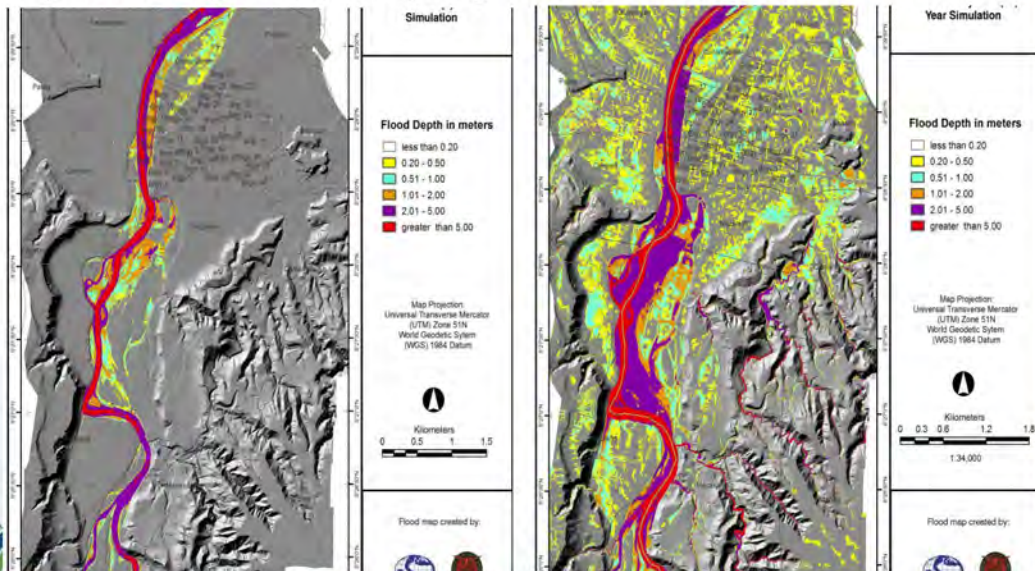


River Basin Flood Modeling



Enhanced Flood Mapping using State of the Art technology incorporating climate change

5 year return period simulation projections 25 year return period simulation

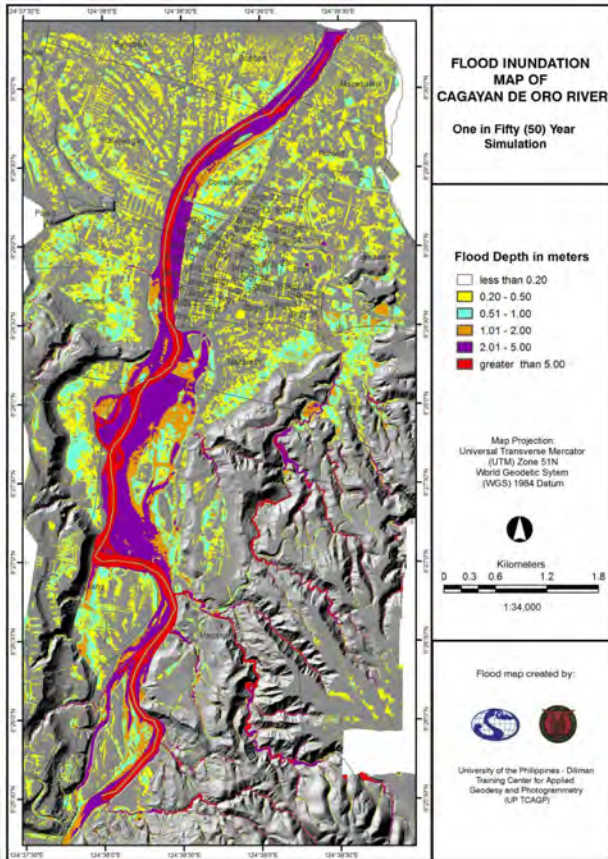


Support to Compostela Valley and Davao Oriental under Project Climate Twin Phoenix



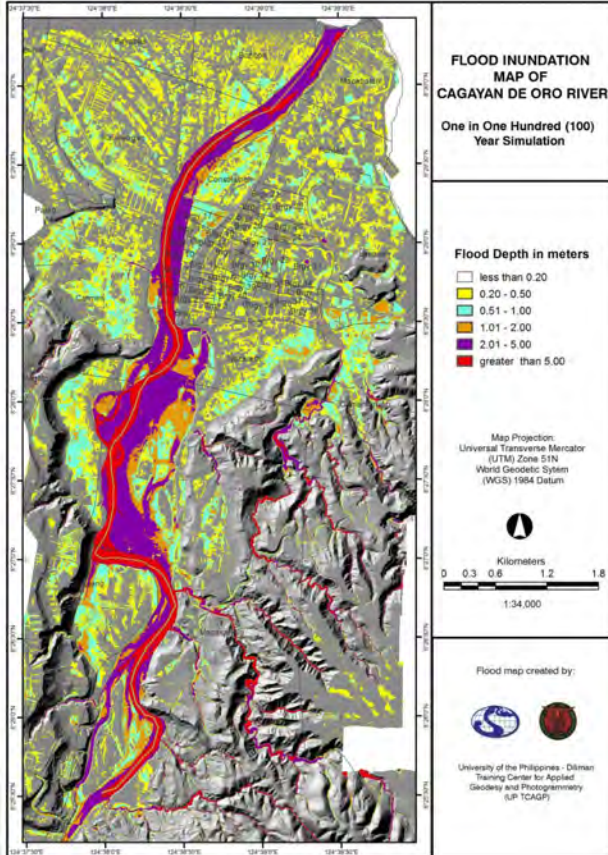
50-year rainfall return period simulation

Depth level	Area	Percentage
Below 0.20m	3,114.21	70%
0.2 to 0.5	542.50	12%
0.5 to 1	279.70	6%
1 to 2m	173.04	4%
2 to 5m	258.11	6%
Greater than 5	109.86	2%



100-year rainfall return period simulation

Depth level	Area (has)	Percentage
Below 0.20m	3,017.88	67%
0.2 to 0.5	568.02	13%
0.5 to 1	320.04	7%
1 to 2m	186.93	4%
2 to 5m	267.29	6%
Greater than 5	117.25	3%



ClimEx.db ©

Climate and Disaster Exposure Database



Table

- An instrument to gather data
- Who and what are exposed to a particular hazard?
- What are the characteristics of the elements?
- What are income and social data of households?



ClimEx.db ©

Climate and Disaster Exposure Database

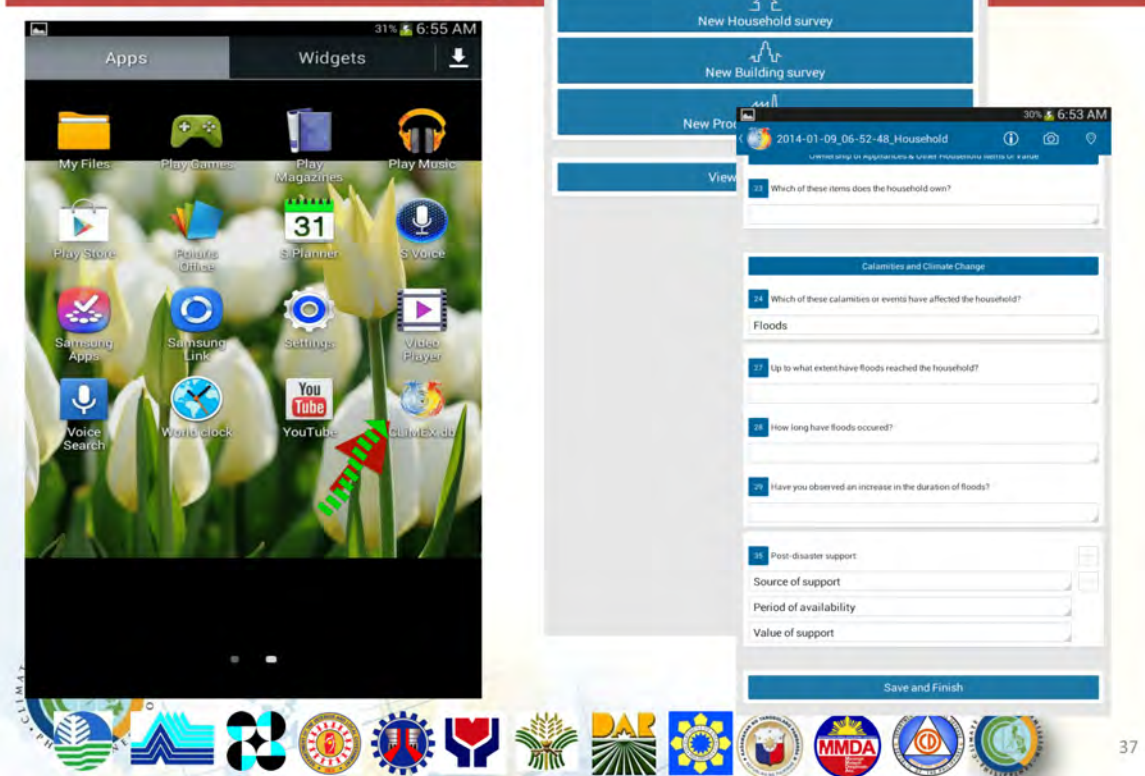


Table

- Towards Quantified Risk Assessment for guided CCA-DRRM Options
- To assess the current livelihood and help them shift to climate and disaster resilient livelihood options
- To know the pool of skills in the area and be able to match it with appropriate livelihood options/programs

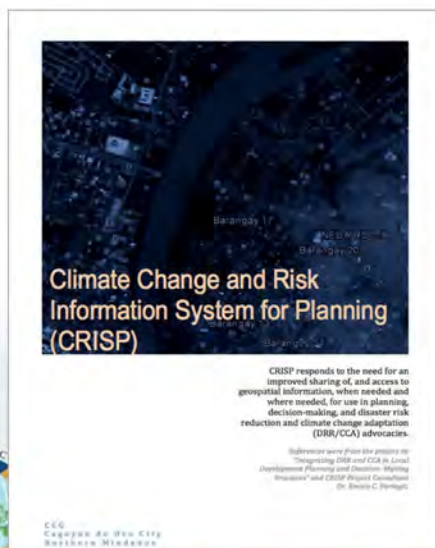


ClimEX.db App



37

CRISP



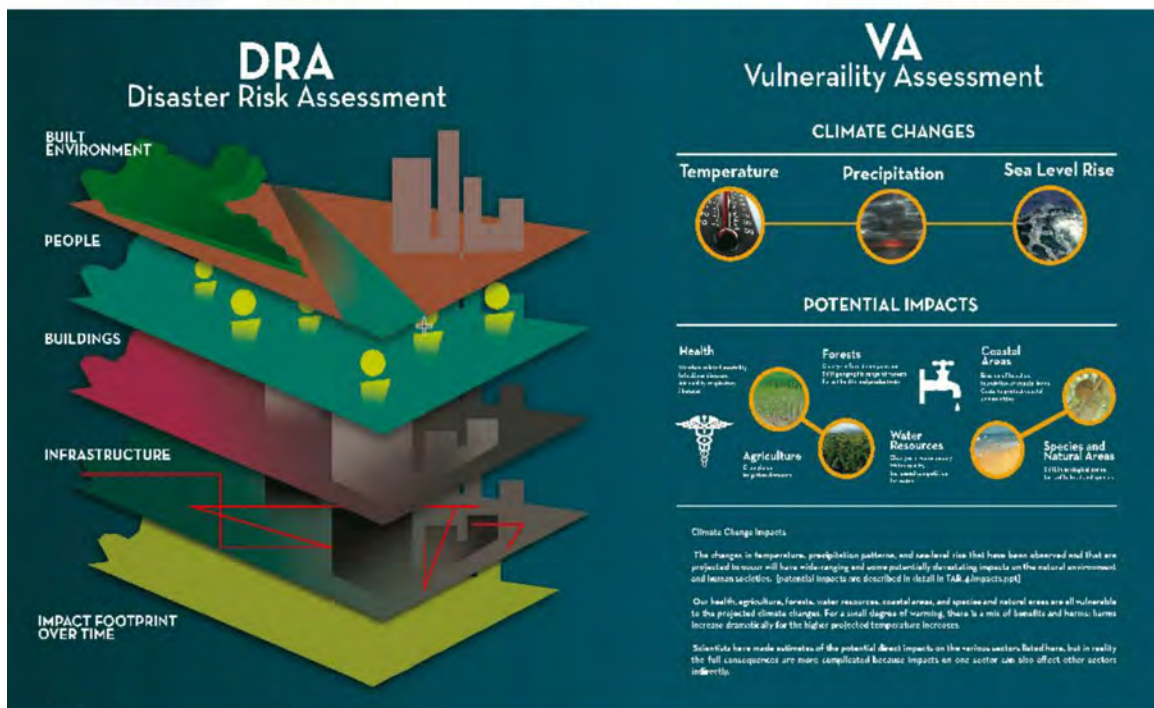
- Climate Change and Information Risk Information System for Planning (NEDA Region 10)
- Web and map based portal that houses planning information to aid decision-makers in mainstreaming regional and provincial climate and disaster risk assessment into development, physical, and land use plans.

Supplemental Guidelines on Mainstreaming Climate Risks in the Comprehensive Land Use Plans



- Supplemental Guidelines to Mainstream Climate Change Adaptation/Disaster Risk Reduction into the Comprehensive Land Use Plans (CLUP) of Municipalities;
- Approved by the HLURB Board on February 24, 2014

Climate/Disaster Risk Assessment – Vulnerability Assessment (C/DRA-VA)



Science and Risk Based Plans

Guidelines on Mainstreaming
CCA-DRR in the Land Use Plan



Development of CLUP Resource
Book for Planners



CLUP Resource
Book

Private Sector on Climate actions



Climate change and sustainability survey. PwC, 2011

CCA/DRR - ENVIRONMENTAL IMPACT STATEMENT (EIS) SYSTEM

- Environmental Impact Assessment : Technical Guidelines Incorporating DRR and CCA Concerns under the Philippine Environmental Impact Statement (EIS) System (2011)

- Promote CCA and DRR at the project level
- Provide guidance for project proponents in integrating DRR and CCA concerns in project planning stage through the EIA process



Environmental Impact Assessment (EIA)
Technical Guidelines Incorporating Disaster Risk Reduction (DRR)
and Climate Change Adaptation (CCA) Concerns
under the Philippine EIS System

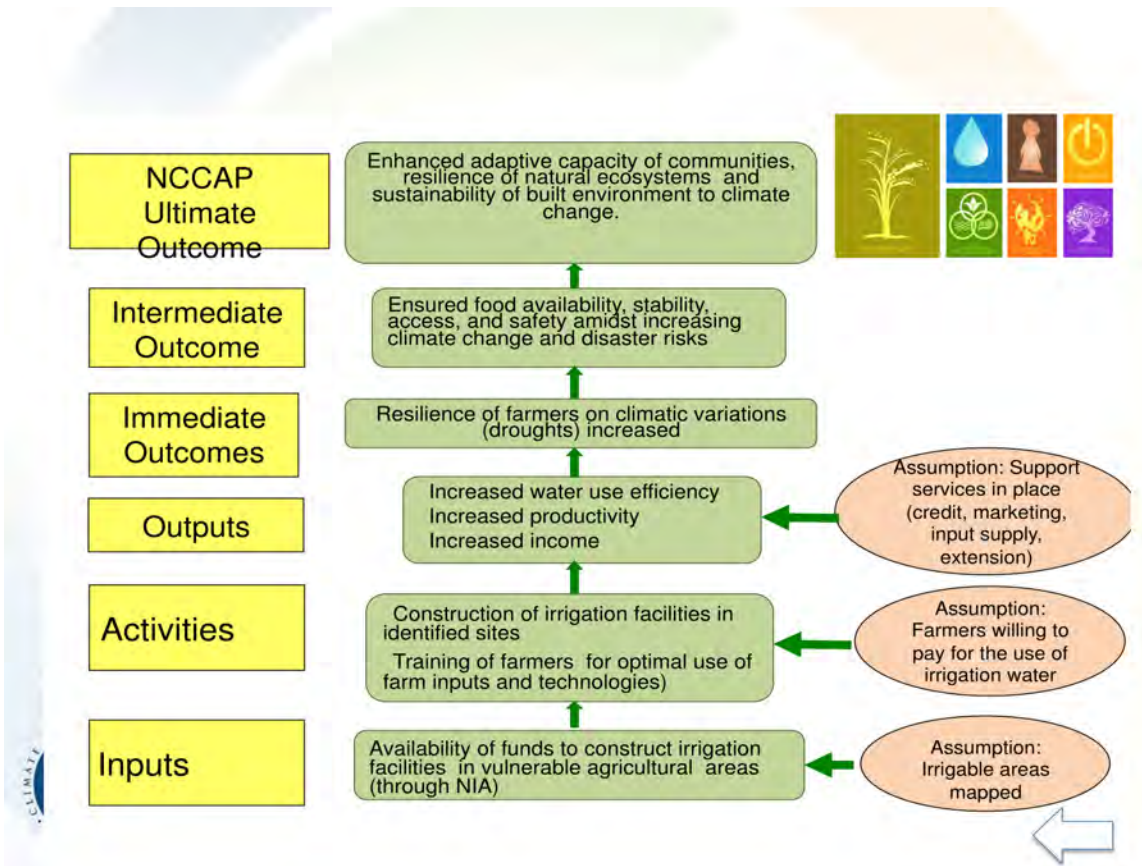
(EIA DRR / CCA TECHNICAL GUIDELINES)



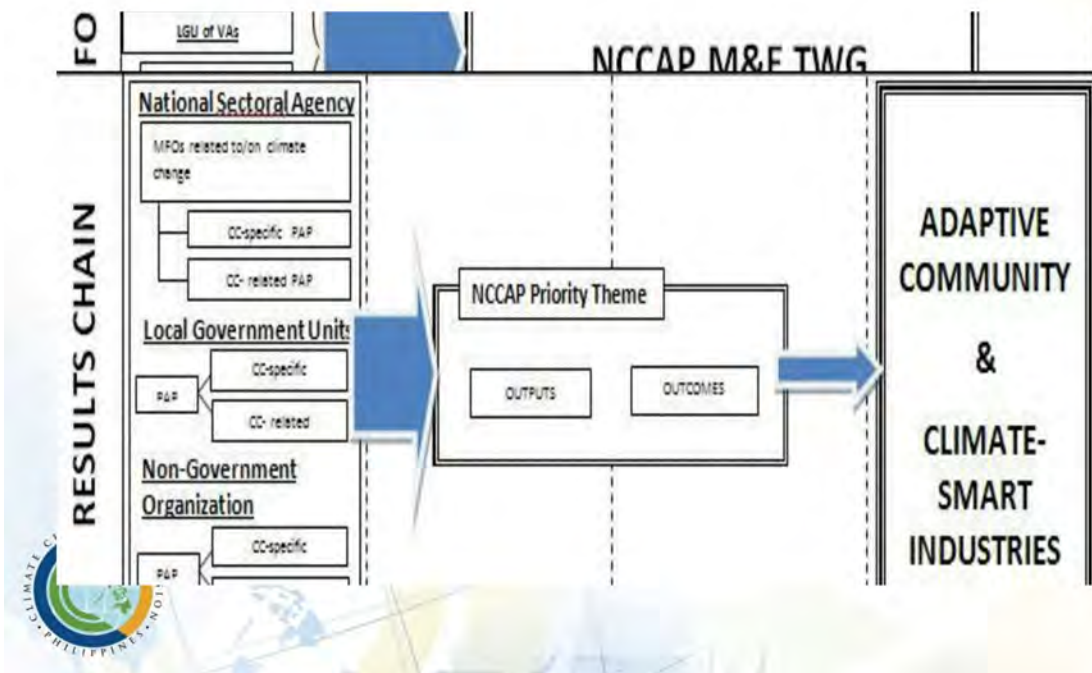
Intervention Area:

Ensuring Progress: Monitoring and Evaluation





NCCAP RBMES – Implementation phases



NCCAP 2011-2028 | Human Security



Enhanced adaptive capacity of communities, resilience of natural ecosystems and sustainability of built environment to climate change.

Reduced risks of the population from climate change and disasters.

Incidence of climate-sensitive diseases in vulnerable areas (Dengue, Leptospirosis, Schistosomiasis, Malaria, Heat stress) per 100,00 pop

No. of lives lost due to climate-sensitive (Dengue, Leptospirosis, Schistosomiasis, Malaria, Heat stress), emerging and re-emerging diseases

Loss of lives and damage to property (in Bn PHP) due to extreme hydromet events

Immediate Outcome

CCA and DRR practiced by all sectors at the national and local levels

Health and social sector systems are responsive to climate change

CC adaptive human settlements and services developed, promoted and adopted

No. of early warning system for climate-sensitive diseases (Dengue, Leptospirosis, Schistosomiasis, Malaria, Heatwave).

*No. of health services rendered for climate-sensitive, emerging and re-emerging diseases
No. of beneficiaries of health services rendered for climate-sensitive, emerging and re-emerging diseases*

Number of IDPs and vulnerable groups provided with relief and early recovery

Output Areas (MFOs)

- o CCA-DRRM integrated in local plans.
[NEDA, HLURB & DILG MFOs]
- o Knowledge and capacity for CCA-DRRM developed and enhanced.
[NEDA, HLURB & DILG MFOs]

- o Health personnel and communities capacity on CC health adaptation and risk reduction developed.
- o Public health surveillance system is developed and implemented in all provinces.
- o Health emergency response, preparedness and post-disaster management implemented at the national and local levels.
[DOH MFOs]

- o Adaptive and secured settlement areas for vulnerable communities and climate-refugees defined.
[CSCAND MFOs, MGB-DENR, PHIVOLCS, PAGASA, others?]
- o Population congestion and exposure to CC risks reduced.
[HLURB MFOs]

NCCAP 2011-2028 | Human Security



CCA-DRRM integrated in local plans.

[NEDA, HLURB & DILG MFOs]

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[CSCAND MFOs, MGB-DENR, PHIVOLCS, PAGASA, others?]

Population congestion and exposure to CC risks reduced.

[HLURB MFOs]

DOH 2012 Related Initiatives (MFOs?)

Develop implementing guidelines on local health sector response to CCA (on-going; PHP1.2M)

Implementation of "Health and Vulnerability and Adaptation Capacity Assessment" or HVACA (planned for 2014)

Conduct CCAH correlation studies and economic valuations (on-going; PHP2.0M)

Continuation of the conduct of researches on climate change (2014-2016)

Support transfer of technology on CCA for the health sectors; Health and Vulnerability and Adaptation Capacity Assessment or HVACA (on-going)

[DOH MFOs]

Roll-out training for climate change and health (on-going; PHP 4.8M)

Partnership activity-research forum / advocacy campaigns (on-going)

Dengue R&D program (on-going; PHP14.0M)

Capacitate integration of CCAH disaster and emergency management / continuation of support transfer of technology on CCA (planned for 2014)

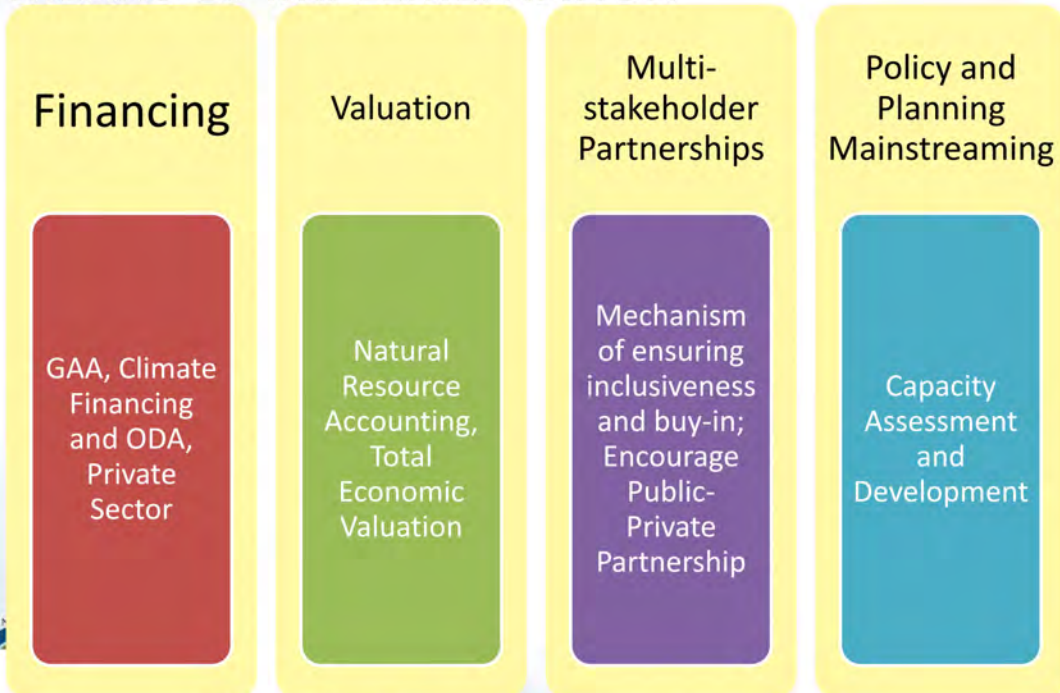
Implementation of IRR on climate change in terms of package with M&E (planned for 2014)

[DOH MFOs]

[CSCAND MFOs, MGB-DENR, PHIVOLCS, PAGASA, others?]

[HLURB MFOs]

CCA-DRR ACTIONS: MEANS OF IMPLEMENTATION



CHALLENGES AND LIMITATIONS



- Varying enforcement of laws, regulations and directives in different levels of authorities
- Existing structures not used for climate change related initiatives
- Lack of information to consumers that leads to loss of demand for potential resource efficient goods and services

THE CASE FOR ACTING NOW

- The country could be locked into infrastructure development, land use changes, and urbanization processes that are more vulnerable to climate and disaster risks.
- Locating people and assets away from high risk areas will be costlier in the future once a harsher climate materializes.
- By taking advantage of opportunities for low-carbon development the Philippines could gain a competitive advantage
- Climate change unfold at exponential rates, but building capacity and institutions to enact and **implement reforms** are inherently slow processes.



By acting now, the Philippines will avoid substantial humanitarian and economic costs

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Manila, Philippines
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Thank you.

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Loss and Damage in the UNFCCC

Cecilia Therese T. Guiao, JD & Railla Veronica D. Puno, JD
Climate Change and Environment Cluster,
Ateneo School of Government

+ UNFCCC:

United Nations Framework Convention on Climate Change

- 09 May 1992: Adopted at the UN Headquarters in New York
- 21 March 1994: Entered into force
- Currently has 195 Parties



+ Intergovernmental Negotiating Committee

- 1991
- Proposal for International Insurance Pool
 - Vanuatu, on behalf of the *Alliance for Low Island States*
 - To compensate for sea level rise
 - To act as a collective loss-sharing scheme to be funded by developed countries
 - Obligatory contributions based on GNP and relative GHG emissions
- Proposal turned down
 - “Insurance” component reflected as an “adaptation option” in the consolidated working document

+ UNFCCC

COP 13: Bali, Indonesia (2007)

- **Bali Action Plan**
 - To end in 2009
 - Mandated enhanced action on adaptation, to address CC impacts in developing countries that are most prone to the adverse effects of CC
 - AWG-LCA (Ad Hoc Working Group on Long Term Cooperative Action)
 - Greater demand to discuss and focus on risk management through risk sharing mechanisms and DRR schemes

COP 14: Poznan, Poland (2008)

- Proposal from AOSIS and the Munich Climate Insurance Initiative
 - Multi-window mechanism for the implementation of the Adaptation Mandate, which includes:
 - Insurance – L&D resulting from rapid onset extreme weather events
 - Rehabilitation – directed towards progressive cumulative impacts
 - Risk Management – prevention of such impacts through risk assessment and risk management tools and strategies
- Implementation of Adaptation Mandate tabled for later discussion

+ UNFCCC, cont'd.

COP 16: Cancun, Mexico (2010)

- Cancun Adaptation Framework
 - Work programme established
 - To consider available approaches to address L&D in developing countries particularly vulnerable to the adverse effects of climate change

COP 17: Durban, S. Africa (2011)

- Adopted structure to further implement the work programme
- Three thematic areas:
 - Assessing risk of L&D associated with the adverse effects of CC & the current knowledge
 - Range of approaches to address L&D
 - Role of the Convention in enhancing implementation of approaches

+ UNFCCC, cont'd.

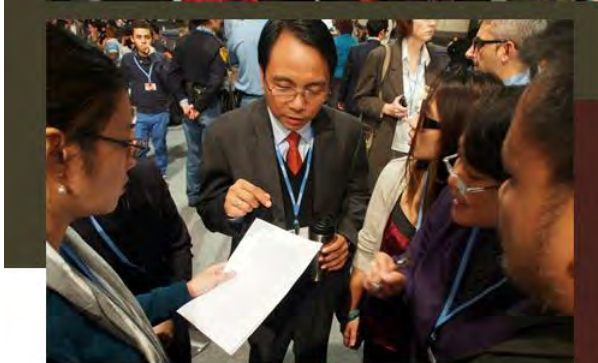
COP 18: Doha, Qatar (2012)

- After 36 hours (final session) decided to establish, at COP 19, “institutional arrangements, such as an international mechanism, including functions and modalities” to address L&D associated with the impacts of CC in developing countries that are particularly vulnerable to the adverse effects of CC
- Functions and modalities of the institutional arrangements to be elaborated on in accordance with the role of the Convention
- Includes enhancement of knowledge on comprehensive risk management approaches, strengthening dialogue with relevant stakeholders, enhancing action and support to address L&D
- “[L&D] associated with the adverse effects of climate change” finally in a COP decision, *but* no reference of legal liability or compensation

+ COP 19: Warsaw, Poland

- Establishment of the “**Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts**”
- Acknowledges the contribution of adaptation and risk management strategies towards addressing L&D associated with CC impacts, BUT works under the premise that L&D associated with the adverse effects of CC includes, and in some cases involves more than, that which can be reduced by adaptation.

- Hailed as a “landmark decision [that] will open the road to international coordination of efforts to assist countries affected by extreme weather events and slow onset events.” (Khor, 2013)
- Established under the Cancun Adaptation Framework
- Merely requests, and does not require, developed countries to provide financial support.



COP 19

+ Philippines' Statement of Interpretation

■ Paragraph 15, Decision 2/CP.19:

“Decides to review the Warsaw International Mechanism, including its structure, mandate and effectiveness, at the [22nd] session of the [COP], with a view to adopting an appropriate decision on the outcome of this review.”

■ Philippines Statement of Interpretation of the Term “Review” in Paragraph 15 of FCCC/CP/2013/L.15

“In establishing the Warsaw International Mechanism on loss and damage under the Cancun Adaptation Framework... we feel that this effectively limits the actions to be undertaken in addressing loss and damage to adaptation and risk management[,] which effectively omits the required actions necessary for the recovery and rehabilitation of lost and damaged livelihoods, communities and ecosystems.

As such, the Philippines is of the view that the “review” referred to in paragraph 15... also includes a review of the mechanism’s institutional placement vis-à-vis the Cancun Adaptation Framework.”

+ UNFCCC, cont'd.

COP 20: Lima, Peru (2014)

- Approved and finalized the Executive Committee’s organization and process of reporting
 - 10 members from Annex I
 - 10 members from non-Annex I
 - 2 years’ term; up to 2 consecutive terms
 - EC to meet 2x every year and report annually to the COP through the SBI and SBSTA
- Initial 2-year work plan contains 9 action areas
 - Enhance understanding of how L&D affects particularly vulnerable developing countries (particular segments of the population, ecosystems, etc.)
 - Comprehensive risk management approaches
 - Enhance data and knowledge on slow onset events and their impacts
 - Non-economic losses
 - Capacity and coordination needs for extreme and slow onset events (including recovery and rehabilitation)
 - Migration, displacement and human mobility
 - Necessary national efforts re: financial instruments and tools
 - Involve existing bodies and expert group under and outside the Convention
 - Develop 5-year rolling work plan for consideration at COP 22



Thank you!

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Post Disaster Needs Assessment (PDNA)






Post Disaster Needs Assessment (PDNA)

Background

- Initiated and endorsed by the United Nations Secretary-General and the Commission for East Asia and the Pacific (UNESCAP)
- Mandated and supported by the World Bank, Asian Development Bank, and other development partners
- Used internationally for the last 15 years (Bangladesh, Indonesia, Philippines, among others)

Methodologies

- The PDNA REPORT is a result of the following methodologies:
 1. Sectoral experts using prescribed tables
 2. Series of field visits and site inspections
 3. Focus Group Discussions (FGD)
 4. Quantitative analyses (interviews)
 5. Qualitative analyses (interviews)
 6. Series of workshops

Post Disaster Needs Assessment (PDNA)

INTENDED TO ESTIMATE TWO (2) IMPORTANT FACTORS:

- The short-term interventions to initiate recovery from the damages and losses
- The financial requirements needed to achieve a holistic post-disaster recovery, reconstruction and risk management

Why PDNA should not be delayed?

- There is an urgent need to seek support from the international community
- The government must already have an overview of the funding and resources required for recovery and reconstruction

Faces of Disasters

(TS "Sendong": 2011)



(TY "Pablo": 2012)



(Zamboanga Crisis: 2013)



(TY "Yolanda": 2013)



I-Back-Be



What is PDNA?



- A multi-sectoral and multi-disciplinary structured approach for assessing disaster impacts and prioritizing recovery and reconstruction needs
- Undertaken by the government agencies also in collaboration with international development partners and the private sector



What is PDNA?



Intended to estimate two (2) important factors:

1. The short-term interventions to initiate recovery from the damages and losses
2. The financial requirements needed to achieve a holistic post-disaster recovery, reconstruction and risk management

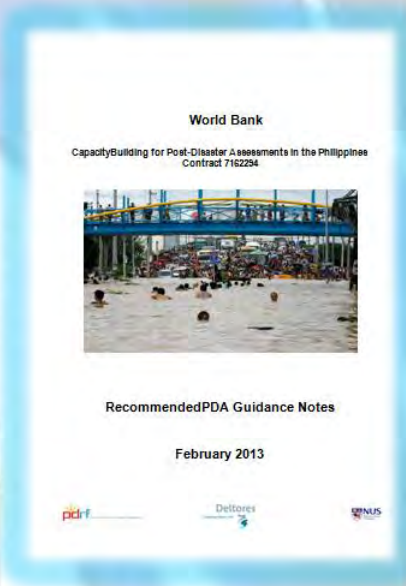




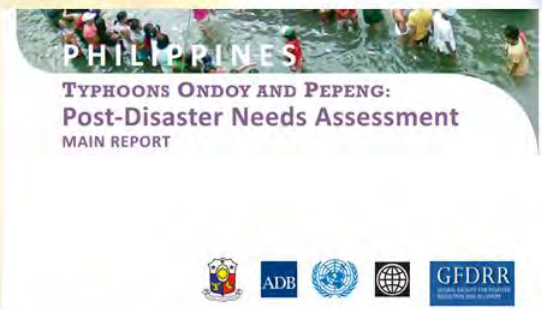
What is PDNA?



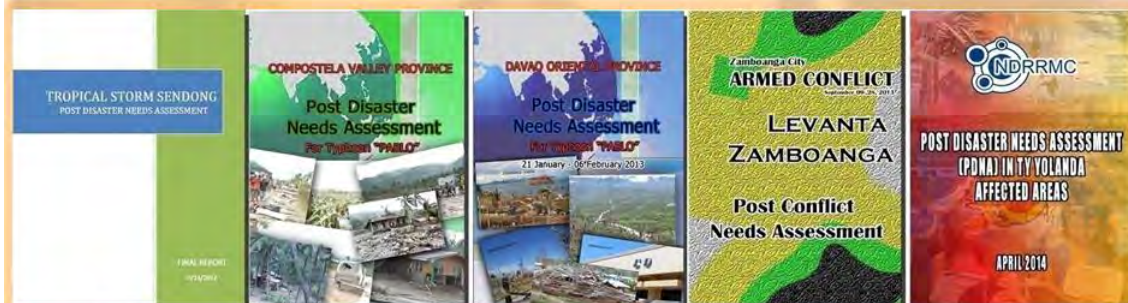
- Initially developed by the UNECLAC
- Modified and enhanced by the World Bank
- Used extensively for the last 5 years internationally (Bangladesh, Indonesia, Philippines, among others)



PDNA in the Philippines



Typhoons Ondoy, Pepeng and Santi (2009) - World Bank, ADB, UN, EC



TS "Sendong"

TY "Pablo"

Zamboanga

TY Yolanda



PDNA in the Philippines



No post-disaster needs assessment 5 months after 'Yolanda'

By Willard Cheng, ABS-CBN News

Posted at 05/07/2014 2:59 PM | Updated as of 05/07/2014 2:59 PM

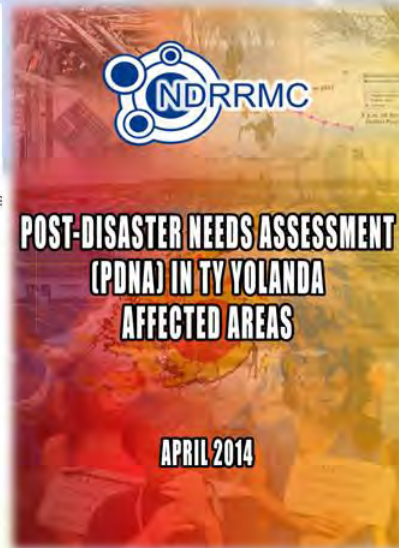
MANILA - Legislators expressed disappointment over the national government's failure to come up with a post-disaster needs assessment (PDNA) or comprehensive plan to address the needs of victims affected by the series of calamities that hit the country last year.

Attorney Karen Jimeno of the Office of the Presidential Assistant for Rehabilitation and Recovery (OPARR) admitted that there is no consolidated plan yet of various agencies' assessments of the needs of areas affected by the calamities, including super typhoon "Yolanda."

Jimeno told legislators the OPARR is still waiting for all the relevant agencies to submit their respective plans.

"This plan is in the process of being official," Jimeno said during the hearing of the Joint Congressional Oversight Committee on Public Expenditures.

She said the agencies' "PDNA is required to be the basis for a master plan, rehabilitation plan."



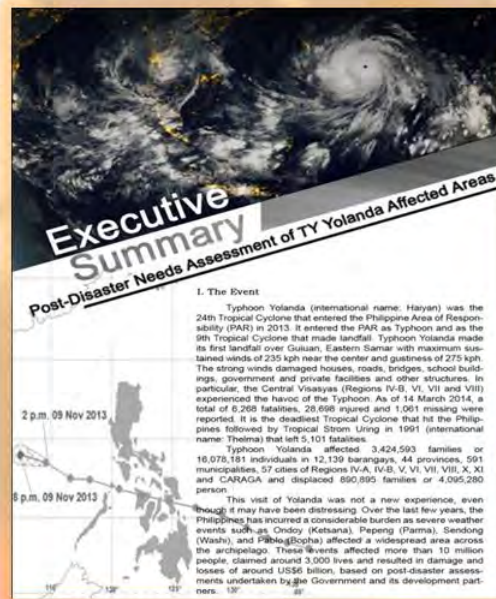
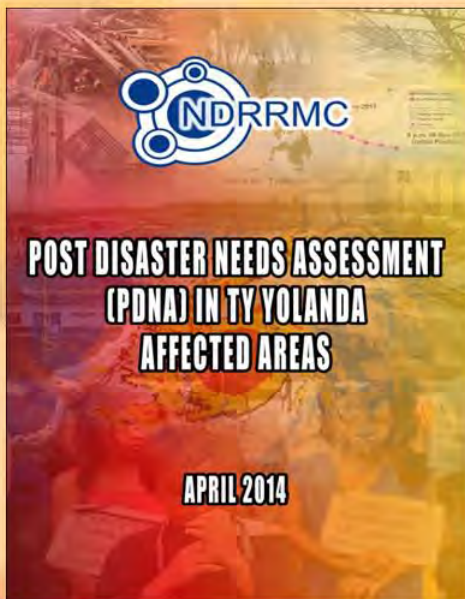
"PDNA is required to be the basis for a master plan, rehabilitation plan."



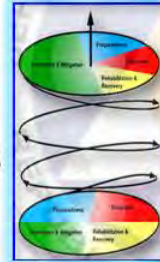
PDNA in the Philippines



Typhoon Yolanda (2013)



- **RA 10121, Section 9 (m)** – OCD shall “Conduct early recovery and post-disaster needs assessment institutionalizing gender analysis as part of it”
- **NDRRM Framework** – Key Result Area of Damage Analysis and Needs Assessment as a generic activity
- **NDRRM Plan, Outcome 20** – OCD shall lead the PDNA



Republic of the Philippines
Congress of the Philippines
Senate
Senate Office Building
Manila

Enacted into Law on May 11, 2010

[REPUBLIC ACT NO. 10121]

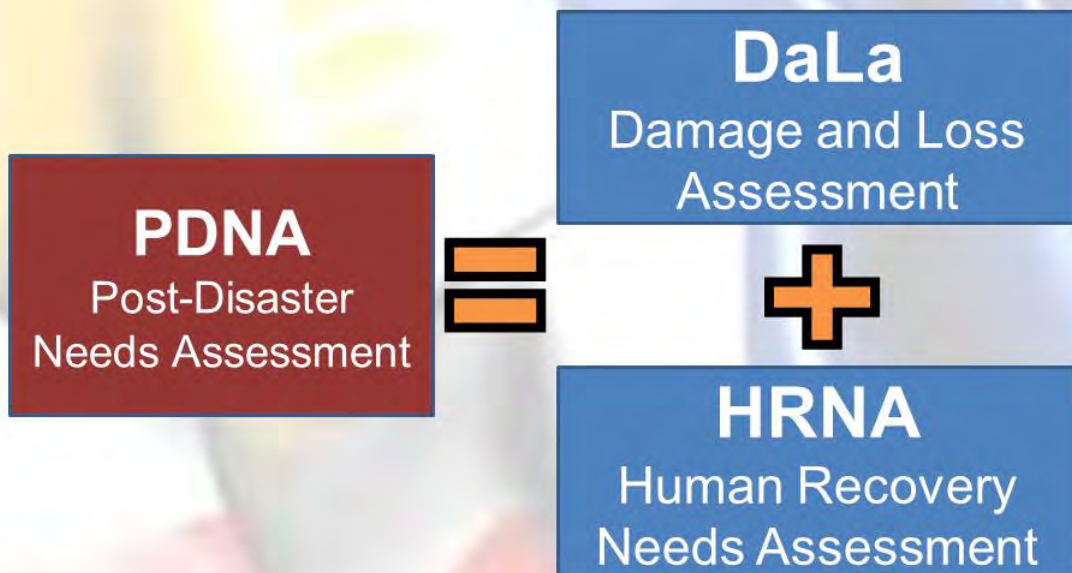
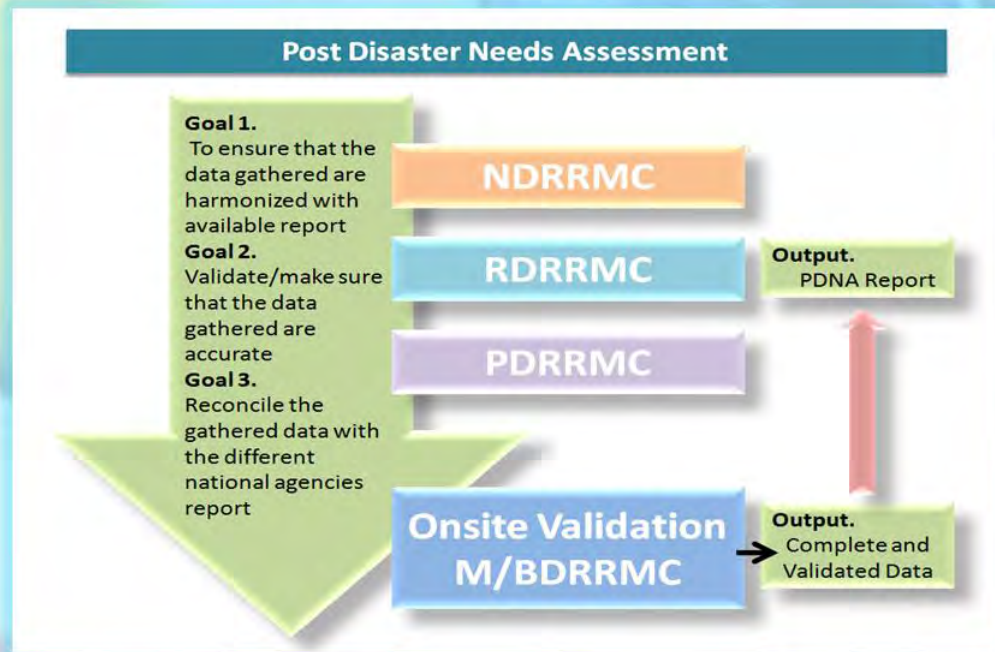
AN ACT AMENDING THE PHILIPPINE DISASTER RISK REDUCTION AND MANAGEMENT SYSTEM, PROVIDING FOR THE NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT FRAMEWORK AND INSTITUTIONALIZING THE NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT PLAN, APPROPRIATING FUNDS THEREFOR, AND FOR OTHER PURPOSES

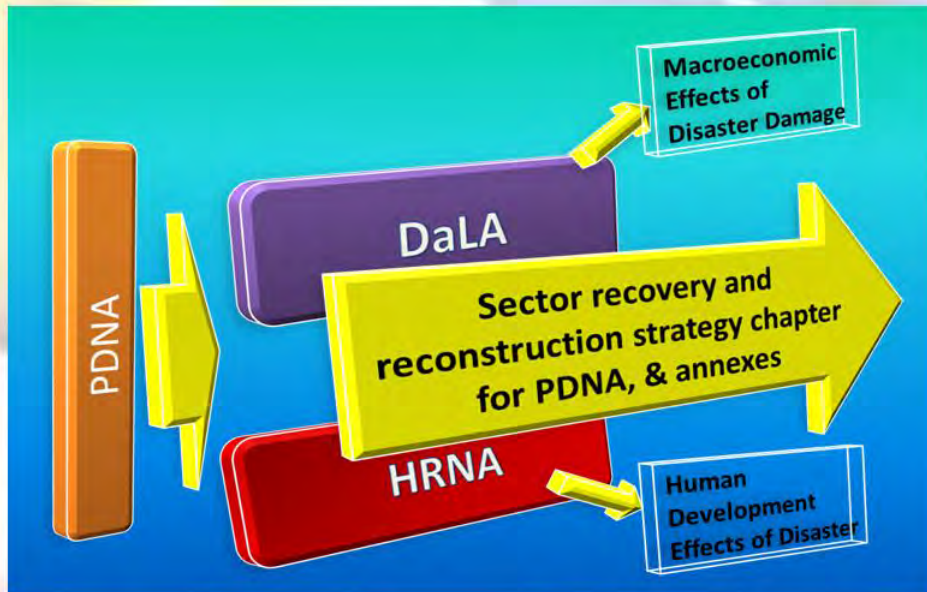
NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT PLAN 2011-2028

The PDNA REPORT is a result of the following methodologies:

- Sectoral experts using prescribed tables
- Series of field visits and site inspections
- Focus Group Discussions (FGD)
- Quantitative analyses (generalization)
- Qualitative analyses (breadth)
- Series of writeshops







- The need to initiate PDNA is decided by the government, primarily through the OCD, together with the other development partners
- The government should not begin conducting PDNA while humanitarian assistance and initial recovery programs are still at work

Triggers for PDNA:

- Declaration of State of Calamity
- Disaster Rehabilitation and Recovery is identified as requirement
- There is a need for international assistance

Why PDNA should not be delayed?

- There is also an urgent need to seek support from the international community
- The government must already have an overview of the funding and resources required for recovery and reconstruction

- PDNA teams are generally composed of professionals and technical experts from many agencies
- Composition depends on the type, scale and severity of the disaster and the sectors involved
- The assessment teams generally include:
 - Architects
 - Engineers
 - Sociologists
 - Economists
 - Statisticians
 - Agriculturists
 - Other Sectoral Experts

DAMAGES refer to the value of affected asset such as structures, equipment and other related physical properties.



Photo Credit: abs-cbnnews.com

LOSSES refer to the value of unavoidable revenue that was affected after the disaster such as decrease in the production figure due to the reduction of workforces and increase in expenses in the production.



IMPACTS are changes in macroeconomic variables, social factors, environmental conditions and disaster risk situations due to disaster



NEEDS refer to the analysis of disaster impacts that will provide basis for the recovery and restoration programs that can either be short-term or long-term needs. DRR and CCA measures are factored in this aspect.



- Total value of destruction in physical assets (damage) and changes (losses) in flows of the economy
- Distribution of damages and losses by ownership
- Identification of most affected sectors
- Geographic distribution of disaster effects
- Impact of disaster at macro-economic and at personal/household levels
- Estimates of post-disaster needs for recovery, reconstruction and disaster risk reduction

INFRASTRUCTURE (13)

- Roads
- Bridges
- Flood Control / Seawall / Slope Protection
- Power Infra
- Water Infra
- Telecom Infra
- Seaports
- Airports
- Education Infra
- Health Infra
- Government Infra
- Tourism Infra
- Agricultural / Irrigation Facilities

PRODUCTIVE (4)

- Agriculture and Fisheries
- Industry, Trade, and Services
- Tourism and Culture
- Mining

SOCIAL (3)

- Housing
- Health
- Education

CROSS-SECTORAL (5)

- Governance and DRRM
- Environment
- Macroeconomics Assessment
- Social Impact Assessment
- Gender Impact Assessment



TY "Yolanda" PDNA Organizational Structure



INFRASTRUCTURE	PRODUCTIVE	SOCIAL	CROSS-SECTORAL
DPWH	DA	DSWD	NEDA
LTO	BFAR	DEPED, CHED, TESDA	NSCB
PNR	PCA	DOH	BIR
PPA	DTI	CSOs	BLGF
MARINA	NIA	NAPC	NAMRIA
CAAP	MGB		CCC
MIAA	DOT		DENR
Local Water Utilities	DOLE		DILG
Electric Cooperatives	FIDA		DSWD
DOTC			CSOs
NTC			DOST
			PCW
			NCIP
			IPC
			NAPC



Sample of PDNA Report



- **Executive Summary**
- **Table of Contents**
- **Introduction:**
 - Hazard Assessment
 - Vulnerability and Exposure
- **Damage and Loss Assessment**
 - Definitions
 - Methodology
- **Sector Report**
 - Summary
 - Damage and Losses
 - Human Recovery Needs Assessment
 - Reconstruction and Recovery Framework
 - Priority Reconstruction and Recovery Needs
 - Policy and program recommendations
- **Annexes**



PDNA Training Course Objective



Upon completion of the course, the participants will be able to:

1. Demonstrate understanding on PDNA as a tool for disaster rehabilitation and recovery
2. Identify the steps involved in conducting PDNA, the operational terminologies used, the preparations and other relevant processes
3. Experience the conduct of PDNA through tabletop and field exercises



PDNA Training



Methodologies

- Lecture
- Question and Answer
- Workshops /
Syndicate Work
- Tabletop Exercise
- Simulation Exercise

Evaluation

- Module Evaluation Form
- Training Evaluation Form
- Daily Course Evaluation
- Diagnostic Exam
- Post Exam



Way Forward / Challenges



- The need to improve the Guidance Notes/Templates based on the existing data & requirements available / needed on the ground
- Development of Guidelines and Policy on the conduct of PDNA, including handbook
- Enhancement of PDNA over-all Framework and Training Modules
- Proper and complete documentation of damages and availability of baseline data
- PDNA Training for Stakeholders
- Full cooperation of all stakeholders involved in the PDNA Mission to produce worthy and credible report



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