



**Sustainability and Resiliency:
CdeO Experience and Practices**
Mallberry Suites, Cagayan de Oro City
March 12, 2018



Sequence of Presentation

- I. Sustainability and Resiliency
- I. TS “Sendong” and the wake up calls left unheeded
- II. Resiliency Programs (Where are we now?)



I. Sustainability and Resiliency

Sustainability (or sustainable development):

- a. “Able to be used without being completely used up or destroyed” [e.g., raw materials and/or natural resources] – *Merriam Webster*
- b. “Development that ensures that the use of resources and the environment today does not compromise their use in the future” - *UNEP*



I. Sustainability and Resiliency

Resilience:

- a. “Ability to become strong, healthy, or successful again after something bad happens.” – *Merriam Webster*
- b. “Ability to prepare for, withstand and recover from stresses and shocks.” – *EU Resilience Forum, April 2014*



I. Sustainability and Resiliency

Sustainability vs. Resiliency

Sustainability	Resiliency
<ul style="list-style-type: none">• Starts with a functioning system, and then looks at how long that system can operate without wearing down.	<ul style="list-style-type: none">• Starts with a disaster, and then looks at how to clean up afterward. It then considers how to prevent or minimize a future disaster, or at least minimize the negative effects of the disaster.
<ul style="list-style-type: none">• Aims to put the world back into balance	<ul style="list-style-type: none">• Looks for ways to manage in an imbalanced world.



I. Sustainability and Resiliency

Preparedness:

- a. “pre-disaster...measures being undertaken...to avert or minimize loss of life and property... This...includes the development/enhancement of an overall preparedness strategy, policy, institutional structure, warning and forecasting capabilities, and plans...to help at-risk communities safeguard their lives and assets by being alert to hazards and taking appropriate action in the face of an Imminent threat or an actual disaster.” - *RA 10121*



I. Sustainability and Resiliency

Preparedness:

- b. “the knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively **anticipate, respond to, and recover from, the impacts** of likely, imminent or current hazard events or conditions.” - *UNISDR*



II. Wake-up Calls Unheeded

Tropical Storm “SENDONG” (Washi)

- Date: 16 December 2011
- Rainfall intensity was 19.79mm/hr. (475mm/24 hours)
- 7 to 8-mtr rise of water level from normal high of 4 mtrs. (Cagayan River)
- Affected:
 - Families – 38,125 (228,728 persons)
 - Deaths – 657 (552 – identified); Injured – 199; Missing – 396
- Total damages – PhP 2,074,316,473.00, plus Loss of economic activities



II. Wake-up Calls Unheeded

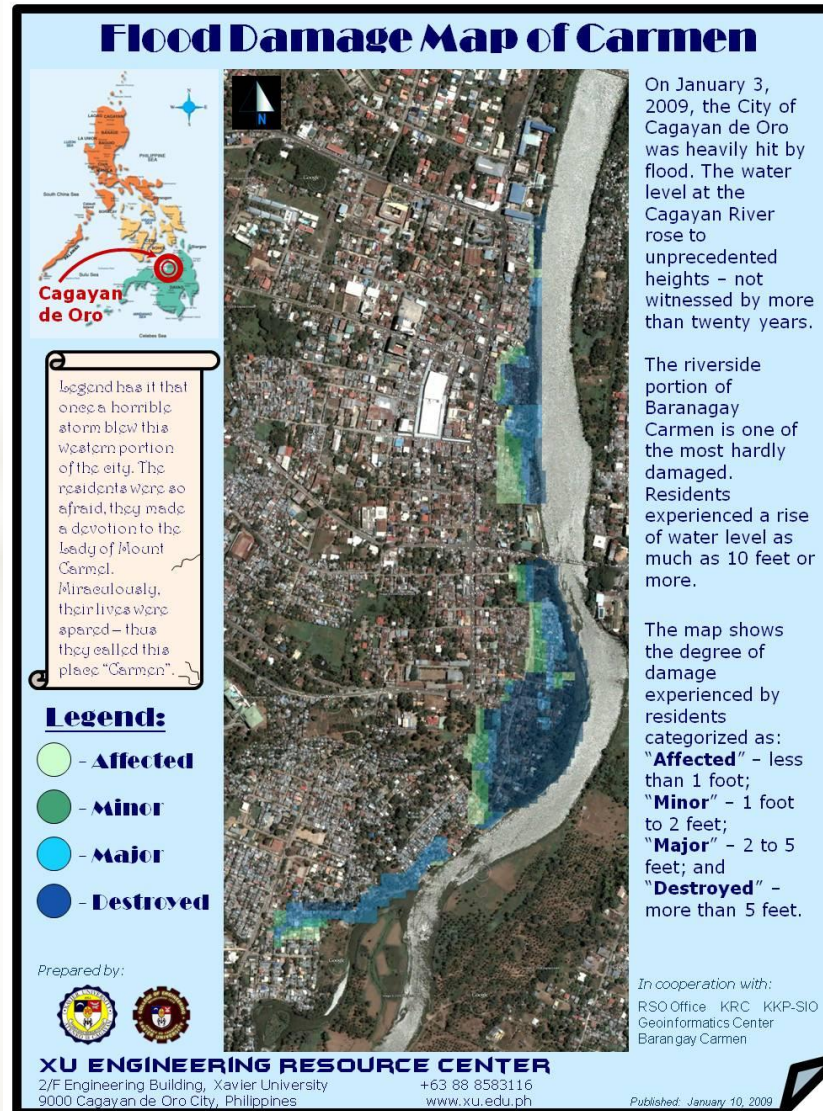
Tropical Storm “SENDONG” (Washi)

- High exposure
 - Brgy. Macasandig (Cala-cala)
 - Brgy. Balulang (Villa Angela Subd; Golden City Village; Isla Puntod)
 - Brgys. 10, 13, 15 and 17 (Isla de Oro)
 - Brgy Consolacion (Isla Bugnaw, Baksan, & Delta)
- Lack of PREPAREDNESS – “did not learn from previous flooding events”



II. Wake-up Calls Unheeded

Jan 3, 2009 – Flood affected Brgy Carmen



Legend has it that once a horrible storm blew this western portion of the city. The residents were so afraid, they made a devotion to the Lady of Mount Carmel. Miraculously, their lives were spared – thus they called this place "Carmen".

II. Wake-up Calls Unheeded



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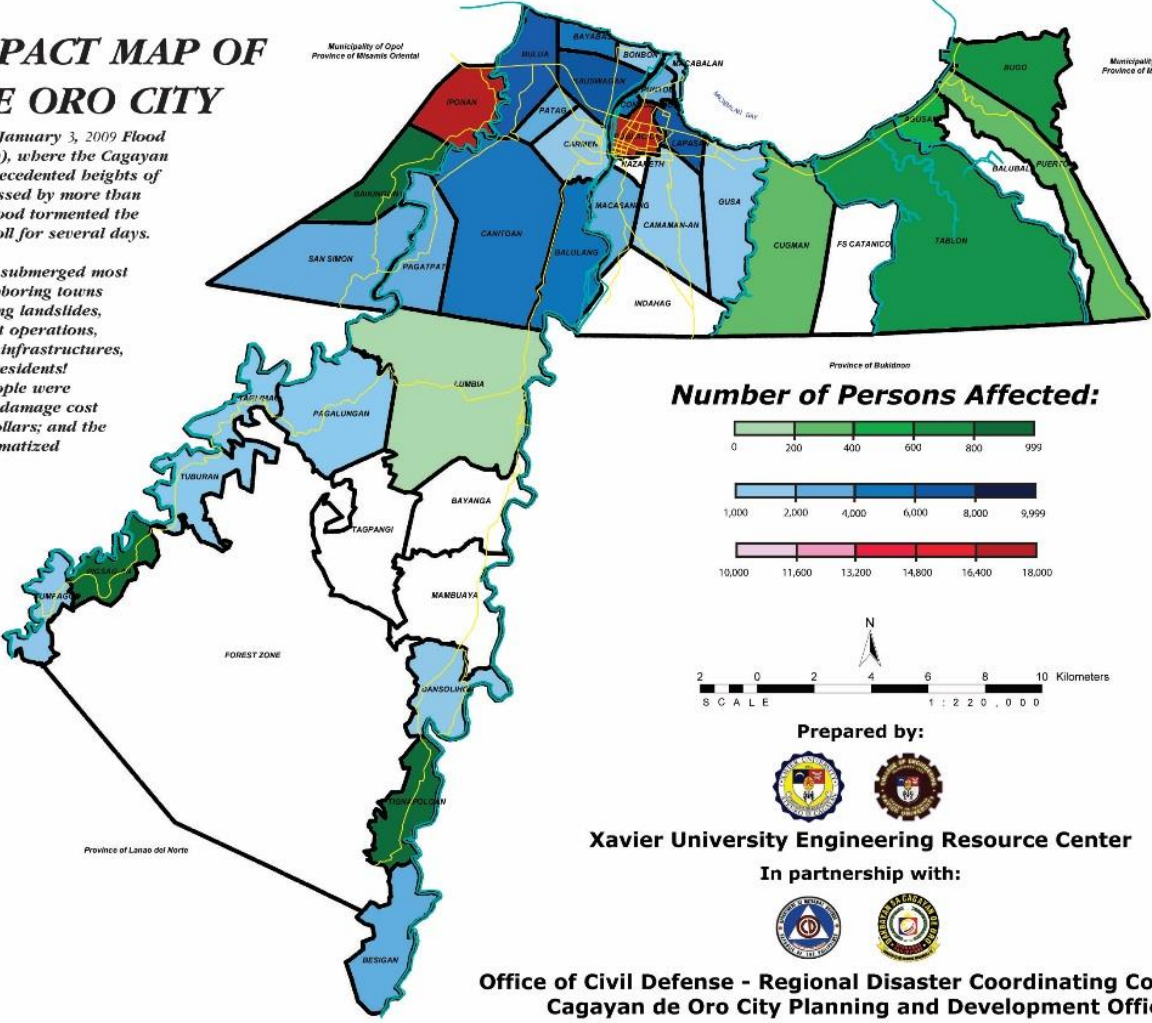
Jan 9, 2009 – Flood affected Brgy Carmen

DAMAGE IMPACT MAP OF CAGAYAN DE ORO CITY

Just a week after the historic January 3, 2009 Flood that hit Cagayan de Oro (CDO), where the Cagayan River water level rose to unprecedented heights of more than ten feet – not witnessed by more than twenty years, another great flood tormented the city on January 11 taking its toll for several days.

The January 11 Flood literally submerged most parts of the city and the neighboring towns of Misamis Oriental – triggering landslides, halting business and transport operations, devastating homes and major infrastructures, and displacing thousands of residents! Hundreds of thousands of people were affected within the city alone; damage cost could sum up to millions of dollars; and the psychological strain that traumatized thousands still lingers on.

This map shows the relative intensity of people affected in each of the barangays in CDO. A color scale is used to describe the damage impact the disaster has impaired.



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II. Wake-up Calls Unheeded

Nov 25, 2009 – Flood affected Brgy Macasandig





III. Resiliency Programs

1. Disaster Prevention and Mitigation: Programs and Activities

PROGRAMS	ACTIVITIES
1. Hazard, Vulnerability, and Risk Assessments	Coordination with NGAs (MGB), NGOs, and the academia
2. Establish and strengthen Early Warning Capability - EWS	a. Close coordination with NGAs (DOST, PAGASA) and NGOs (WFP) b. Provision of maintenance support to 6 WLGs; 18 RGs; 6 WLG-RG (tandem)
3. Flash Flood Alert System	a. Coordination with PAGASA b. Provision of maintenance support to 5 FFA Stations



III. Resiliency Programs

1. Disaster Prevention and Mitigation: Programs and Activities

PROGRAMS	ACTIVITIES
4. Disseminate Disaster Information	a. Coordination with SMART for the establishment of INFOcast (INFOboard) b. Coming up with Fb page c. Establishment of closer alliance with mainstream media (TV, Radio, and Print)



III. Resiliency Programs

2. Disaster Preparedness: Programs and Activities

PROGRAMS	ACTIVITIES
1. Strengthen the CDRRM Council	Reorganization of CDRRM Council (EO 026-13)
2. Strengthen the CDRRM Office/Department	a. Reorganization of the CDRRMO as mandated by RA 10121 b. Upgrading of CDRRM Office to Department (Ord. 13176, s.2016)
3. Institutionalize Preparedness and Response	a. Revision of CDRRM Plan b. Revision of Flood Contingency Plan c. Conduct of PDRA



III. Resiliency Programs

2. Disaster Preparedness: Programs and Activities

PROGRAMS	ACTIVITIES
4. Enhance Response Capability	<ol style="list-style-type: none">a. Developing, organizing, and training of Oro Rescue EMS and USARb. Establishment of Evacuation Protocol for Hydro-Met Hazardsc. Establishment of a 24/7 OCA DCC<ul style="list-style-type: none">• Weather Monitoring Section• Tele-Communication hub/facility• Emergency Response Center (911)



III. Resiliency Programs

2. Disaster Preparedness: Programs and Activities

PROGRAMS	ACTIVITIES
4. Enhance Response Capability (con't.)	d. Equipping of all operating units e. Organizing and training the BDRRMCs f. Training of the private sectors (schools, business and commercial establishments, etc.) g. Conducting drills (flood; earthquake; bomb and bomb threat)



III. Resiliency Programs

2. Disaster Preparedness: Programs and Activities

PROGRAMS	ACTIVITIES
4. Enhance Response Capability (con't.)	<ul style="list-style-type: none"><li data-bbox="987 518 1843 776">h. Establishment of 150 ECs with designated management personnel from CSWDO<li data-bbox="987 796 1843 1058">i. Training of CDRRMC personnel on ICS to compose the IMT when activated<li data-bbox="987 1078 1843 1272">j. Orientation of IMT-qualified personnel on EOC operations



III. Resiliency Programs

3. Disaster Response: Programs and Activities

PROGRAMS	ACTIVITIES
1. Heighten public awareness on disaster situation	<ul style="list-style-type: none">a. Monitoring closely development of weather condition/disturbanceb. Disseminating disaster information to threatened communities using all available media (quad)c. Involving mainstream media during EOC weather update briefings (with live coverage)



III. Resiliency Programs

3. Disaster Response: Programs and Activities

PROGRAMS	ACTIVITIES
2. Coordinated Response Operation	a. Implementation of Evacuation Protocol for Hydro-Met Hazards b. Activation of CDRRMC IMT c. Activation of CDRRMC EOC with presence of Heads of Response Clusters



III. Resiliency Programs

4. Disaster Recovery and Rehabilitation: Programs and Activities

- City Housing and Urban Development Department (CHUDD) was created in December 2016 per Ord. Nr. 13175-2016.
- CHUDD is tasked of providing socialized “decent shelter....to the underprivileged and homeless”.



III. Resiliency Programs

4. Disaster Recovery and Rehabilitation: Programs and Activities

Housing Assistance for “Sendong”

Location	Units/Awarded
Calaanan Phase 1	66 / 66
Calaanan Phase 2 (Fil-Chi) Upper	105 / 105
Calaanan Phase 2 (Fil-Chi) Lower	60 / 57
Calaanan Phase 2 (Lutheran Village)	66 / 66
Calaanan Phase 3 (Habitat)	698 / 696
Calaanan Phase 3 (LGU)	40 / 40
Calaanan Phase 3 (Fil-Chi)	300 / 285
Calaanan Phase 3 (Tagoloan)	40 / 40



III. Resiliency Programs

4. Disaster Recovery and Rehabilitation: Programs and Activities

Housing Assistance for “Sendong”

Location	Units/Awarded
Calaanan Phase 2 (Oro Habitat)	238 / 237
Calaanan Phase 2 (Shell)	271 / 271
Calaanan Phase 2 (Fil-Chi)	75 / 75
Calaanan Phase 3 (Escudero)	31 / 31
Calaanan Phase 3 (Mahogany Village)	160 / 159
Canitoan (SM BDO)	374 / 374
Indahag Phase 1	434 / 434
Indahag Phase 2	648 / 648



III. Resiliency Programs

4. Disaster Recovery and Rehabilitation: Programs and Activities

Housing Assistance for “Sendong”

Location	Units/Awarded
Camaman-an (Berjaya)	150 / 150
Camaman-an (Macapaya)	420 / 419
Pagatpat Phase 1	1,112 / 1,111
Pagatpat Phase 2	132 / 130
Iponan	28 / 28
Balubal (SMC)	500 / 481
Lumbia (Xavier Ecoville)	567 / 567
TOTAL	6,515 / 6,470



III. Resiliency Programs

4. Disaster Recovery and Rehabilitation: Programs and Activities

“Rehabilitation...programmes...are hindered by recurrent disasters, a lack of financial resources, and the politicisation of the process.”

– Tilly Alcayna, et. al. (*Research Article “Resilience and Disaster Trends in the Philippines: Opportunities for National and Local Capacity Building”, Sept. 2016*)



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CDRRMD and **CDRRMC** will continue to train and produce competent and reliable response personnel and arm them with top-of-the-line rescue equipment in order to
“serve the people the best way possible”.

Thank you!

