



**Asia-Pacific
Economic Cooperation**

2019/EPWG/DIA/004

Agenda Item: 5

Multi-Stakeholder Partnerships for Disaster Resilience – Moving Science to Action

Submitted by: Philippines



**APEC Resilience Week
Taipei, Chinese Taipei
30 September - 2 October 2019**



MULTI-STAKEHOLDER PARTNERSHIPS FOR DISASTER RESILIENCE: MOVING SCIENCE TO ACTION

**The APEC Resilience Week
30 September 2019**

**Antonia Yulo Loyzaga
President
National Resilience Council**

Beginnings and Pathways

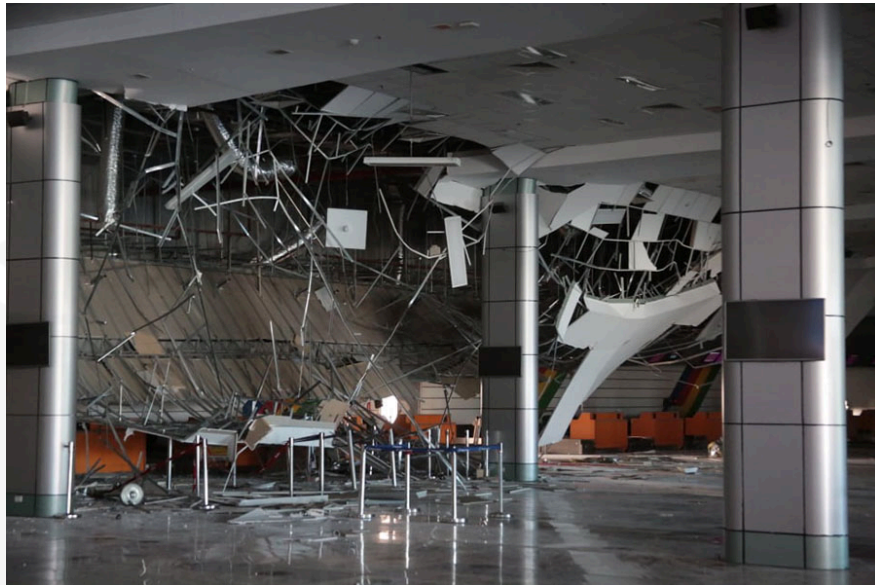


- Current Realities
- Whole-of-Society Approach
- DRM Strategies
- Education and Training
- Urban Risk and Resilience

2019 GAR: From Response to Prevention



The Philippines Faces Multiple Hazards



22 April 2019: Collapsed ceiling of Clark International Airport after 6.1 magnitude earthquake that rocked Luzon.
Source: iOrbitNews.



8 November 2013: Around 1,200 individuals evacuated from Estancia, Iloilo shoreline during Haiyan due to National Power Corporation (Napocor) power barge oil spill.
Source: James Franklin Lee Jr. /Contributor.
Taken from Climate Viewer News.

Growing Population, Economic Exposure and Increasing Vulnerability

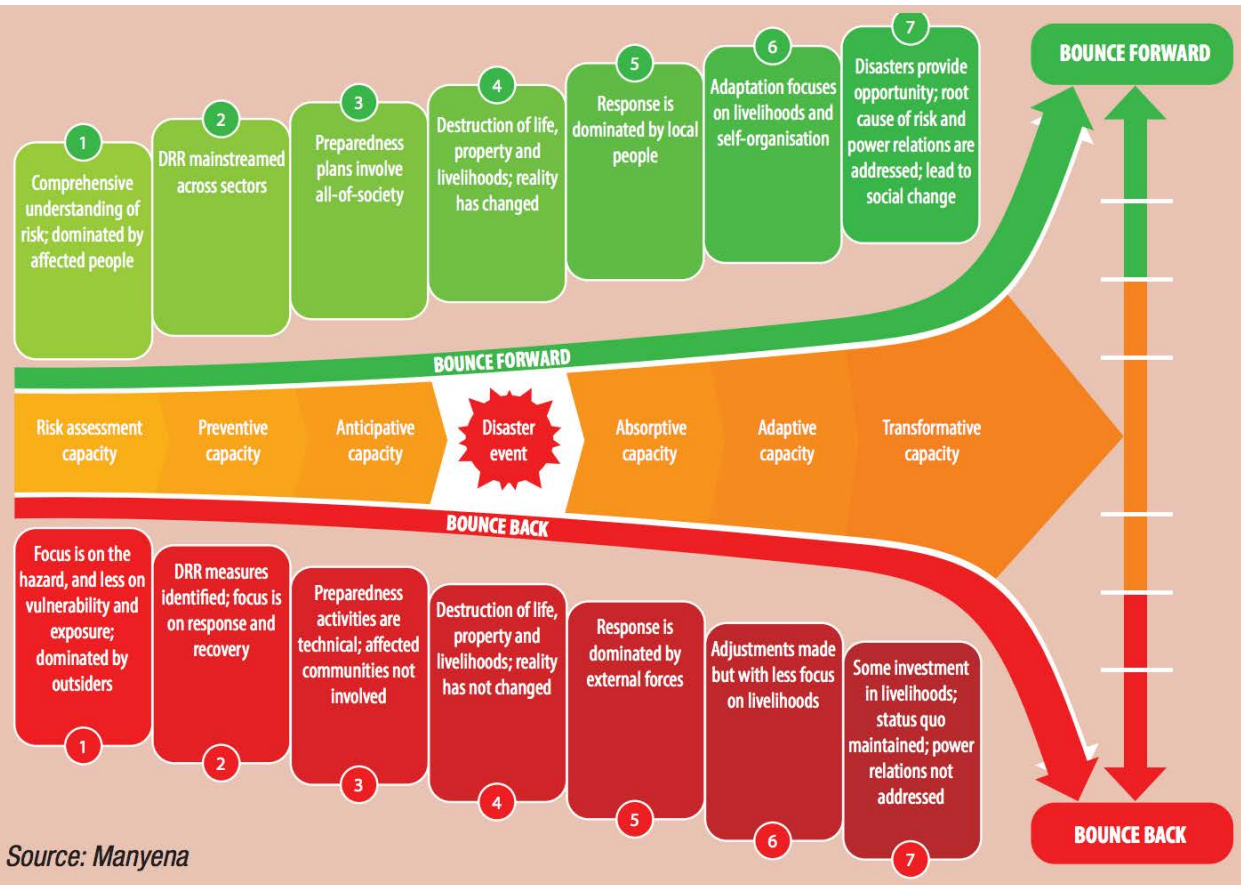


Video Courtesy Michael Rivo from
<https://www.facebook.com/michael.rivo.94/videos/2271194549770059/>

Climate Change will alter these Risks



Re-framing Risk And Resilience

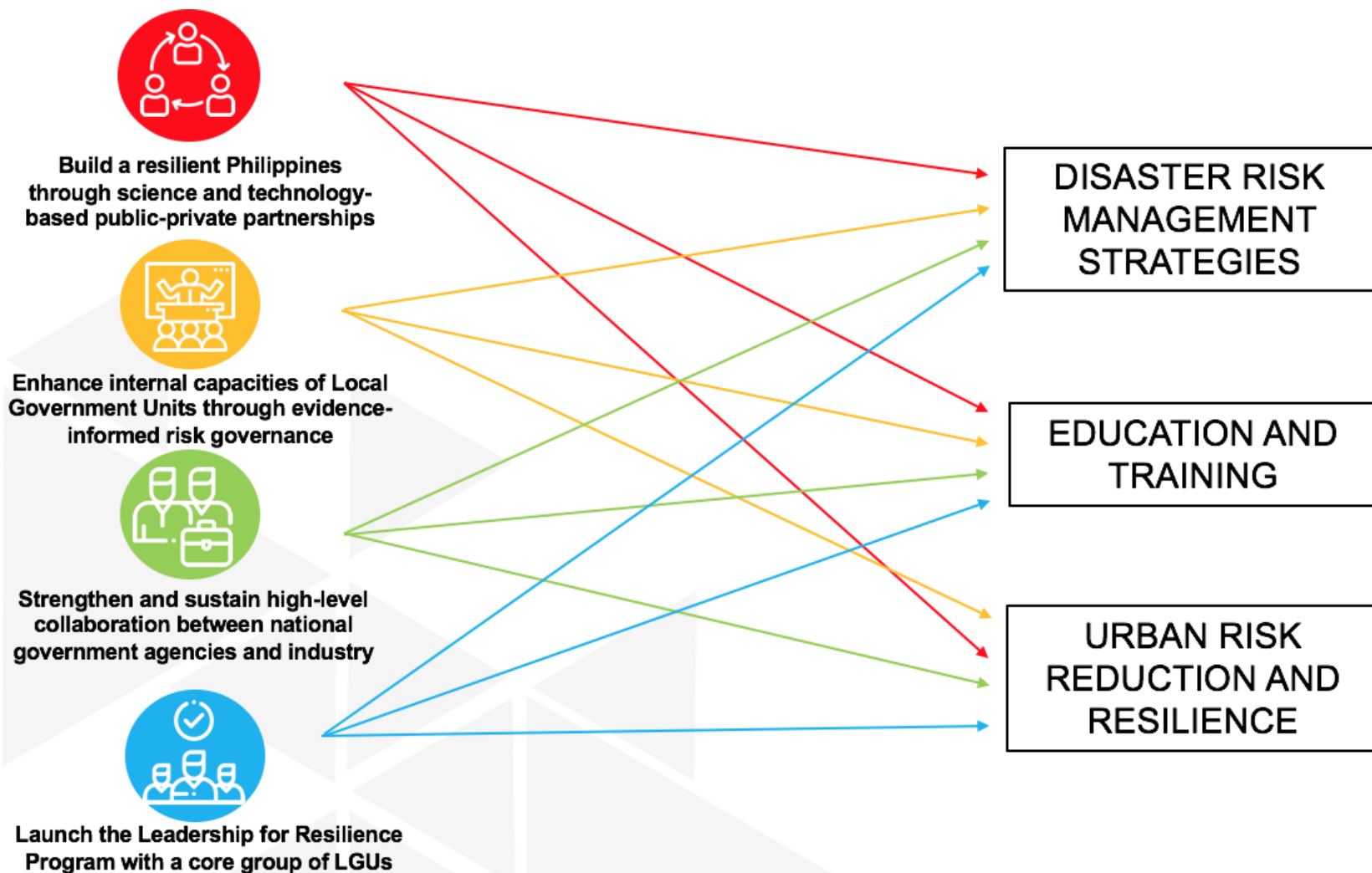


Source: Manyena

Sendai Framework for Disaster Risk Reduction 2015 - 2030



NRC Vision : Evidence-based Risk Governance



NRC Partnership Structure



COUNCIL



MR. HANS T. SY
*Co-Chair
Private Sector*



SEC. DELFIN LORENZANA
*Co-Chair
Government*



MS. ANTONIA YULO-LOYZAGA
President



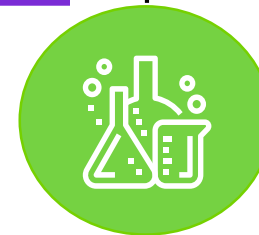
Government

- DND/OCD
- DILG
- DOST
- DPWH
- DSWD
- CCC
- DENR
- DFA
- DOF
- NEDA
- DOT



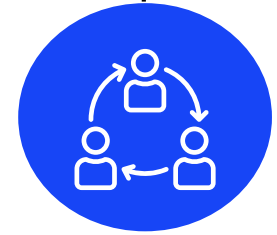
Private Sector

- SM Prime
- San Miguel Corp*
- ARISE
- Philippines MBC
- PBSP
- PCCI*
- PDRF
- PICE
- PIRA
- PwC
- BCMAP
- Airspeed Philippines



Scientific Community/Academe

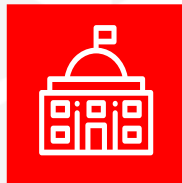
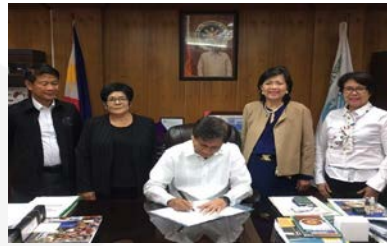
- Ateneo de Manila
- University De La Salle
- Philippines Manila Observatory
- NAST
- University of the Philippines Visayas
- Visayas State U
- Bataan Peninsula State U
- Ateneo de Naga University
- Ateneo de Zamboanga
- Xavier University
- National University



CSOs/NGOs

- CP Romulo Foundation
- Zuellig Family Foundation
- SM Foundation
- SMC Foundation
- Build Change
- Christian Aid

Whole-of-Society Approach



**14 National Government
Agencies**



**12 Private Sector
Entities**



5 CSOs/NGOs



**13 Academe/Scientific
Community**

Local Government Unit Partnerships



9 Local Government Units



810 Villages



1.1 M ac./435,239 ha.



3.8 M Population (3.8% of PH's Total Population)



Academic and Research Partners



ATENE0 DE MANILA
UNIVERSITY



Canada



APEC Emergency Preparedness
Capacity Building Center



NRC as UNDRR ARISE Lead Implementing Partner



Source: SM CARES

NRC supports the UNDRR Private sector Alliance for Disaster Resilient Societies. ARISE Philippines is led by SM PRIME Holdings, Inc.

DRM Strategies: 3 Year Resilient LGU Program



LEADERSHIP & GOVERNANCE

- Resilience Leadership Program Module 1 to Module 6
- NRC Coalition Workshop M1 to M6
- Practicum with Coaching

SCIENCE & TECHNOLOGY

- Year 1 – Climate and Disaster Risk Assessment
- Year 2 – Deepening Systems Thinking
- Year 3 – Solutions-Driven Action Research/Choosing the Right Tools

THE RESILIENCE FRAMEWORK

LEADERSHIP AND GOVERNANCE IN RESILIENCY

- Leadership Commitment and Competencies
- Empowered Stakeholders
- Integrated Development Planning, Implementation and Evaluation

IMMEDIATE OUTCOMES

Human Development

- » Health
- » Education
- » Social Protection

Local Economy

- » Livelihood
- » Micro, Small, and Medium Enterprises
- » Large Businesses

Infrastructure

- » Housing
- » Buildings
- » Lifelines

Environment

- » Ecosystems
- » Socio-ecological Protection System
- » Pollution Management and Resource Use

IMPACT

- Resilient Local Government Systems
- Reduced Deaths, Damage to Properties, Infrastructure, and Agriculture
- Development Continuity

RESILIENT LOCAL GOVERNMENT SYSTEMS SCORECARD

VERSION 1.0



GOALS / THEMES	INDICATORS PER SUB-PILLAR	MANAGEMENT AND REHABILITATION OF ECOSYSTEMS	PROTECTION OF SOCIO-ECOLOGICAL SYSTEMS FROM ALL TYPES OF HAZARDS	POLLUTION MANAGEMENT AND RESOURCE USE
PREPARE How can we minimize the loss of lives and assets?	P1. Ecological Characterization	P1. Easy access to climate scenarios for hazard events	P1. Comply with existing policies governing pollution management and resource use	
	P2. Science-based risk assessment i.e. Climate and Disaster Risk Assessment (CDRA) formal and ethnology-based for locally managed and rehabilitated ecosystems	P2. Participate in protection and rehabilitation of nationally/locally-managed ecosystems	P3. Participate in the process and implementation of the EIA and IEE	
ADAPT How can we improve existing systems to reduce exposure and vulnerability to current, actual and future hazard events in order to significantly reduce disaster risk?	A1. Institutionalize resiliency leadership	A1. Incorporate rapid and slow onset natural and human-induced risk considerations in local sectoral and development plans	A1. Regulate pollution and resource use	
	A2. Risk sensitive investment in ecosystem well-being	A2. Enhance organizational capacities to protect socio-ecological systems	A3. Utilize climate funding for mitigation and adaptation in the AP	
TRANSFORM How can we change existing systems to achieve resilience?	T1. Guarantee ecosystem health through the deputization of the LGUs on the enforcement of environmental laws subject to the guidance of existing national policies	T1. Formulate and implement localized science-based strategies addressing ecosystem vulnerabilities for the NDC	T1. Provide rehabilitation program for degraded ecosystems	
	T2. Sustain ecosystem service delivery through the establishment of integrated and co-beneficial protected ecosystem network	T2. Promote investments and partnerships in adaptation and low-carbon development with the private sector and other stakeholders	T2. Enact an energy efficient policy in the LGU	

DRM Strategies: ADOPT-A-CITY Campaign



17 June 2019

NRC launch of adaptive PPP through the signing of a Memorandum of Understanding between SM Prime and Cagayan de Oro City.



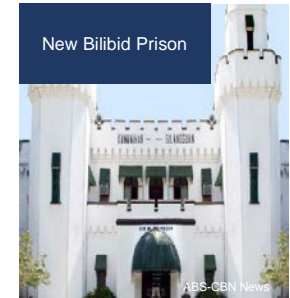
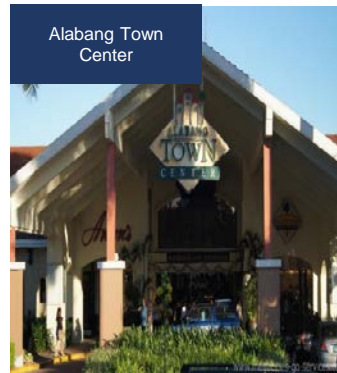
ALLIANCE GLOBAL



29 August 2019

ADOPT-A-CITY Program expands to Iloilo and Naga City.

DRM Strategies: Resilient Barangay Program



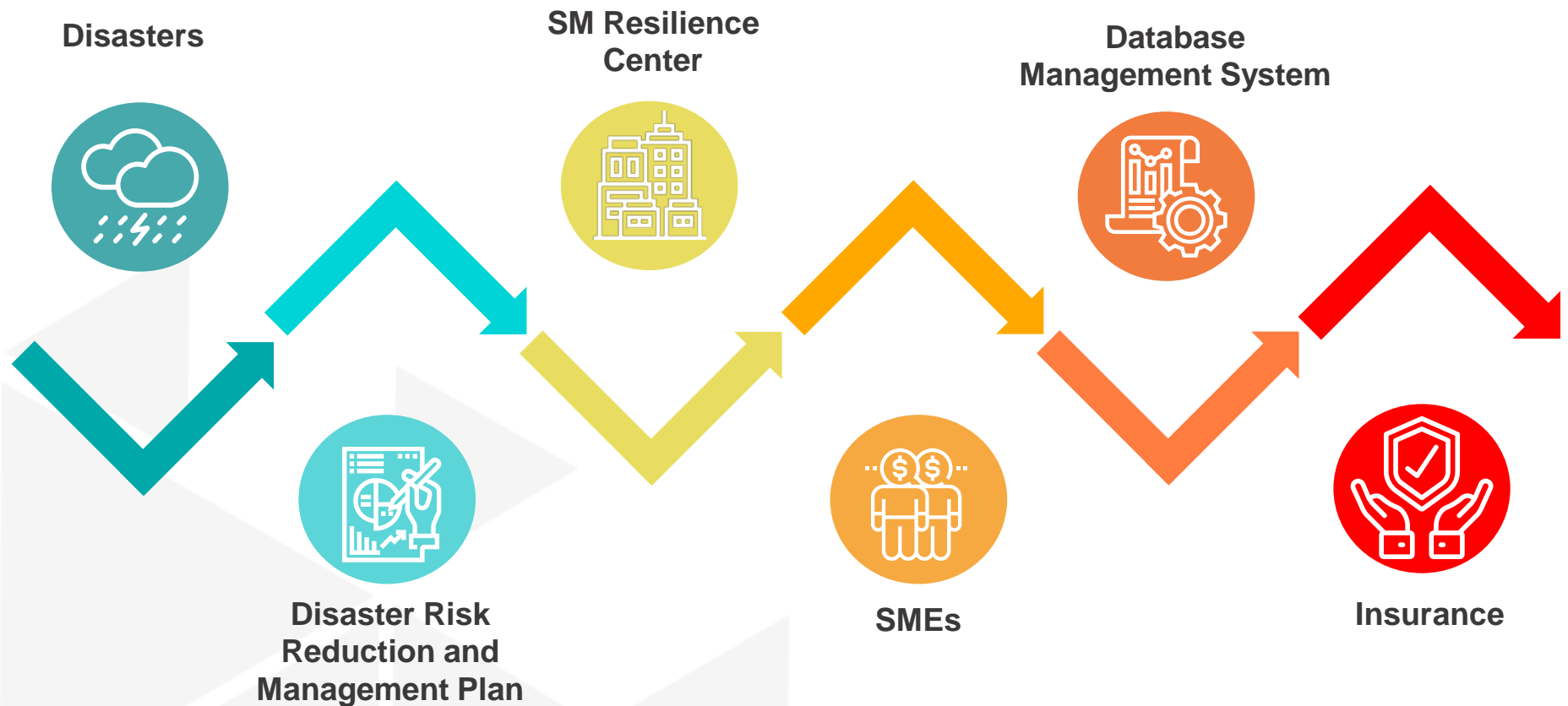
07 August 2019

Muntinglupa City Government and NRC enter into partnership to understand and address risk to earthquake and flood hazards, exposure and vulnerability at the smallest political unit level.

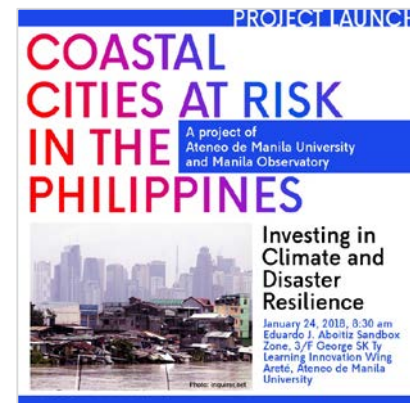
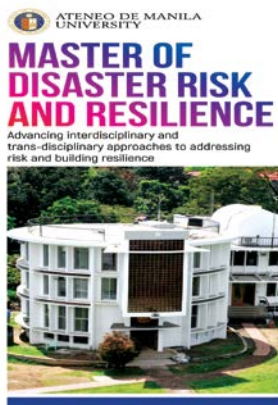
DRM Strategies: Resilient Barangay Program



DRM Strategies: SM Resilience Center



Education and Training: Trans-disciplinary Learning



Education and Training: Young Leaders for Resilience



People
Practices
Places

Principles



A focus on
user outcomes



Diverse
empowered
teams



Restless
reinvention

The Loop



Observe

Reflect

Make

The Keys



Hills



Playbacks



Sponsor
Users

Source: IBM

Youth engagement through Enterprise Design Thinking competition on Climate and Disaster Resilience



Education and Training: YLR Program *in figures*



ASIA
PACIFIC
COLLEGE



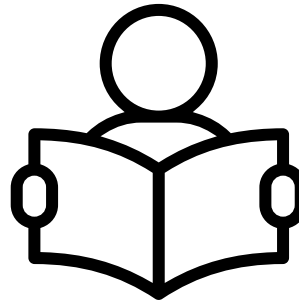
and IBM Philippines



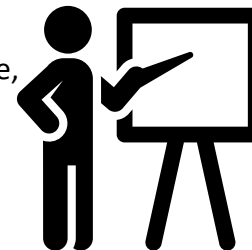
Nine (9) Local
Government
Units



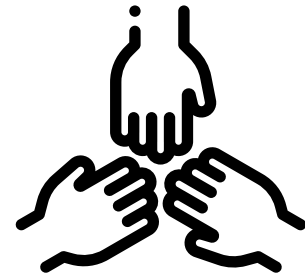
Thirty two (32) Universities
& Colleges



Two hundred eighty six
(286) Students
(Business, Engineering, Social Science,
Physical Science, Information
Technology/Computer Science
students)

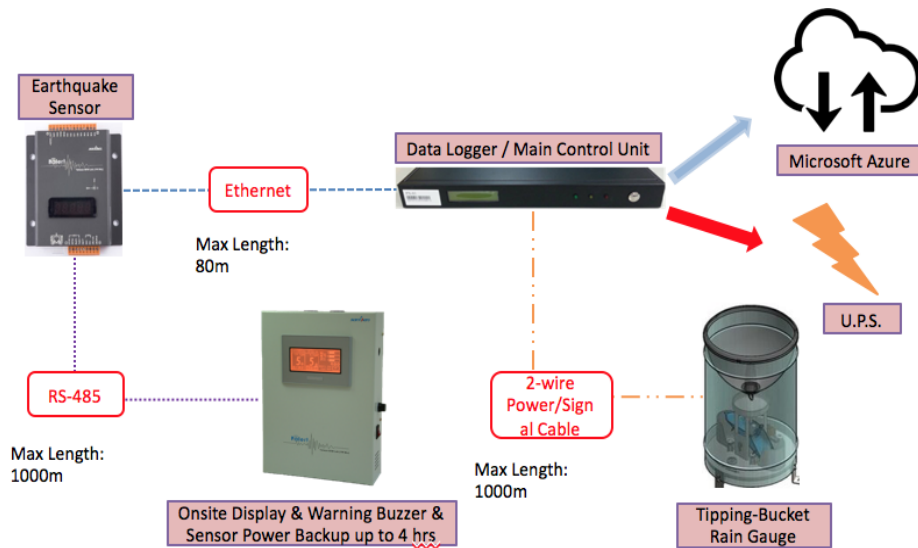


Forty (40) Coaches



Fifty six (56)
Teams

Urban Risk and Resilience: Disaster Smart City



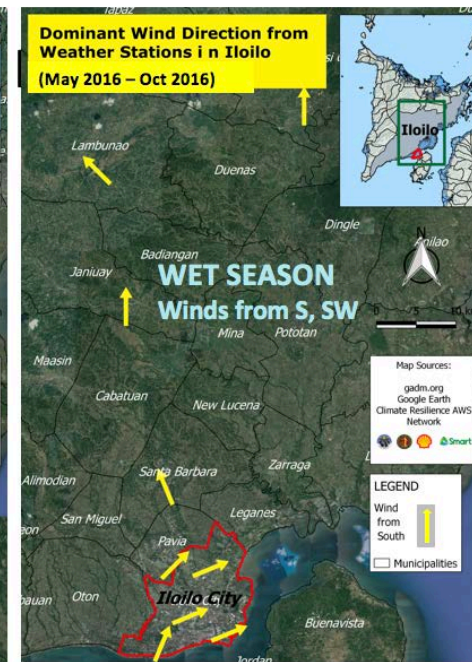
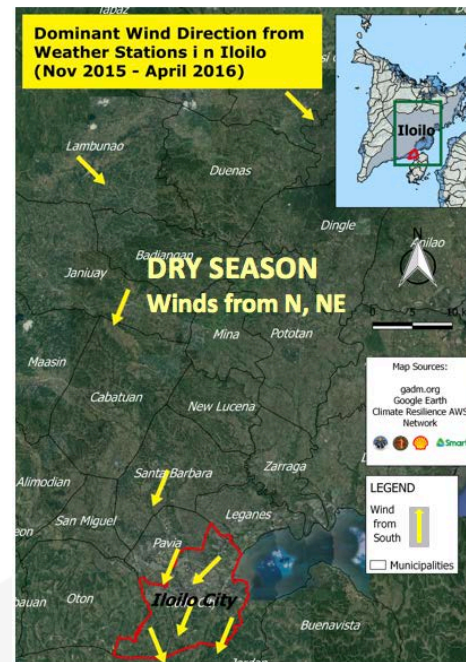
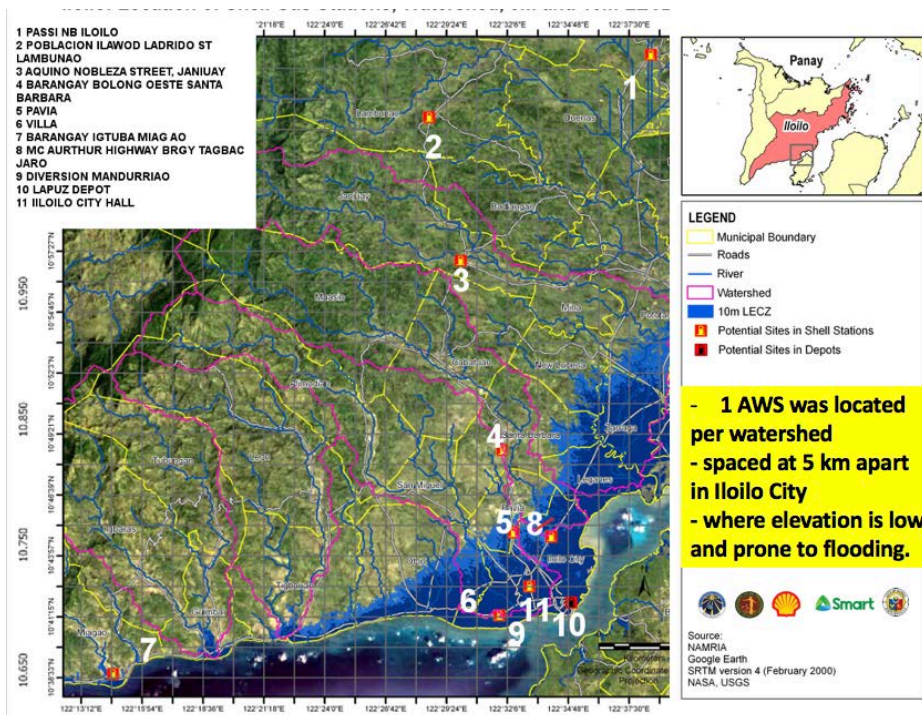
Source: NCDR

- 20+1 Earthquake EW Stations
- 20+11 Rain Gauge and Automated Weather Stations
- Web-GIS decision support system
- Capacity Building

Source: NCDR



Urban Risk and Resilience: Disaster Smart City



Source: Manila Observatory

Leveraging partner strengths and PPP network through research collaboration.

Urban Risk and Resilience: Plant Back Better



Source: PBB Project



Urban Risk and Resilience: Knowledge Sharing



Source: Carlos P. Romulo Foundation

25 April 2019

The CPR Foundation and NRC partners in cooperation with the U.S. and Japan Embassies, NCDR for a multi-disciplinary knowledge sharing on earthquake risk in megacities.



THANK YOU



resiliencecouncil.ph
aloyzaga@observatory.ph