Technology and Innovation for Disaster Resilience

through Public-Private Partnership and multi-sectoral and regional partnership

Wed, 21 September 2022
03:30PM - 04:30PM (GMT+10)
Mezzanine Room M2
Opening of event by the Moderator

Silvestre Barrameda, Jr.
Executive Director, National Resilience Council

MODERATOR
Introduction of Session Background and Objectives and Speakers

Dr. Marqueza Reyes
Asst. Professor, Asian Institute of Management
Resilience and Change Management Consultant, Climate Change Commission
Board Member, ARISE-Philippines

PRESENTER
Collaborative Approach and Shared Responsibility and Commitment for Resilience: A whole of society approach

VAdm. Alexander Pama
Co-Chair, ARISE-Philippines
Resilience Consultant, SM Group of Companies
Former Administrator, Office of Civil Defense

PRESENTER
Building Resilience Index: Private Sector-led Tools and Innovations for Leveraging PPPs toward Resilience

Ommid Saberi
Global Leader and Product Manager
Building Resilience Index, International Finance Corporation – World Bank Group
Padayon Donation Matching Platform: Bridging Private Individuals and Organizations and Affected Communities in Times of Disasters

Maria Cynthia Diaz
Crisis and Resiliency Head, ePLDT Philippines
Asian Institute of Management
PADAYON

Donation Matching App

A project conceptualized for the Executive Masters in Disaster Risk and Crisis Management (EMDRCM) Program of Asian Institute of Management (AIM)

Winner – Best Prototype
Winner – People’s Choice
AHA Centre’s HELIX iPitch Competition 2021
What are these men doing?

A. Modeling their wives’ clothes
B. Aspiring contestants of Drag Race Philippines
C. Wearing donated items they received in their evacuation center after being driven out by the Taal Volcano eruption
What are these men doing?

A. Modeling their wives’ clothes
B. Aspiring contestants of Drag Race Philippines
C. Wearing donated items they received in their evacuation center after being driven out by the Taal Volcano eruption
“As what was reported on-ground by IOM Philippines – UN Immigration Situation Report dated 21 Jan 2020 for the Taal Volcano Eruption: there must be a system in place, which collects critical information such as demographic breakdowns and list of vulnerabilities and the need to consolidate these numbers and turn them into relevant data that can be used for “better coordination and targeting of sectoral resources [which] could be of value added to the response.”
This would in turn **address the problems identified in the situation report such as monitoring the donations and its distributions**, which requires **“better messaging to volunteer donors to avoid wasteful items”** and a need for **“a mechanism to communicate individual center’s needs…and ensure equitable allocations of support.”**
These were also our personal experiences from donation drives we organized or were a part of during some of the disasters that happened here in the Philippines.

**Typhoon Yolanda:** “Other affected municipalities such as the ones in Northern Panay (Carles, Estancia, Batad in Iloilo) did not get as much attention and help because almost all efforts were directed to Tacloban”

**Typhoon Yolanda:** “In the aftermath of Yolanda, there is over generosity. Even non-fishermen were given boats who, at the end, didn’t see the use for it.”

**Taal Volcano Eruption:** “Companies with no CSR departments were looking where they can bring their donations... but have no clue which municipalities are most affected and still need help.”

What is the Problem? Why is it a Problem? How Big is the Problem?
HUMANITARIAN LOGISTICS PROBLEM STATEMENTS

The PADAYON Donation Matching App aims to address the following problem statements:

1) “How can humanitarian needs be quickly identified or estimated to enable humanitarian logistics teams to swiftly plan the types and volume of relief items...”
2) “How can beneficiaries know what type of relief items will be distributed, when, to whom...”
5) ”How can decision-makers and humanitarian agencies know what types of relief items will be provided by whom, to where, when, and in what quantities...”
6) ”How can governments and public track the amount of public and private donations during a response and where they went...”
PADAYON IN A NUTSHELL

Bridging Donations of Individuals and Corporations to Areas (LGUs) that need it the most in times of disaster

Easy and Multiple Options to Donate Donations Matched to the Exact Needs of an Area Feedback for Donation Receipt Full Transparency
DONATE IN 3 EASY STEPS

STEP 1
Create an Account

STEP 2
Choose an Affected Area (LGU)
Highly Vulnerable Areas with Pre-Identified Needs

STEP 3
Choose What and How to Donate
KEYS TO OPERATIONALIZATION

**AFFECTED AREAS (LGUs)**
- Identify highly vulnerable areas (LGUs) from published risk assessments, news reports, and other historical data
- Approach these LGUs should they want to be a part of the donation recipient database, identify their needs, and establish engagement process

**INDIVIDUAL DONORS**
- Engage individual donors by creating share links to social media sites where awareness, consideration, and action take place

**CORPORATE DONORS**
- Engage companies to include Padayon in their CSR program
- Tap companies with no established CSR department to let Padayon be their CSR arm

**SUPPLY AND LOGISTICS PARTNERS**
- Establish a database and partnerships with local supply chains and logistics companies to help provide and deliver the goods needed on-ground quickly, without the need for goods to be procured and shipped from Manila.
**ITERATION 1**

**IMPROVEMENTS**

- Install donation tracker to see the goal and how much more is needed
- Automatically suggest other areas should chosen area has reached its goal
- Recipient sign-up (and verification) for those who want to be part of the donation recipient database

**ITERATION 2**

**TRANSPARENCY**

- Recipient to upload photos and videos of donation distribution
- QR Code scanning (of donation boxes) done within app to confirm receipt of items (along with type and quantities)

**ITERATION 3**

**DRRM PHASES**

- Choose to donate to other projects that focus on other DRRM phases such as:
  - Preparedness
  - Recovery
  - Mitigation

**ITERATION 4**

**NOTIFICATIONS**

- Issue notifications on incoming / ongoing calamities / disasters
- Monitor events real-time from partner news outlets or from hashtags garnered from Facebook or Twitter
INNOVATION STAGE

PROTOTYPE

Working Application
Basic Functionalities
Iteration Development
For Trial

CLICK TO PLAY FOR DEMO
Thank You.
Salamat.

Executive Masters in Disaster Risk and Crisis Management (EMDRCM 2021)
Asian Institute of Management
CYNTHIA DIAZ
CARLOS “CENTI”CENTENO
LUDWIG FEDERIGAN

Cloudtec
ALBERT DIAZ
Working with and for Children and Young People in DRR and Innovation

Rana Flowers
UNICEF Representation for Viet Nam
SM’s inclusive and sustainable urban development thru the adoption of technological application

Jessica Sy
Asst. Vice President / Project Director
SM Development Corporation

PRESENTER
SM’S INCLUSIVE AND SUSTAINABLE URBAN DEVELOPMENT
THRU ADOPTION OF TECHNOLOGICAL APPLICATION

MS. JESSICA BIANCA T. SY
Business Development Cluster Head
SM Development Corporation

Partner Event
Asia-Pacific Ministerial Conference on Disaster Risk Reduction 2022
September 21, 2022  I  Brisbane, Australia
SUSTAINABLE PROPERTY DEVELOPMENT

- Integrate disaster resilient features
- LEED certified buildings
- Utilize renewable energy
- Recycle water
- Easy access to public transportation
- Pedestrian-bike friendly roads and elevated and interconnected walkways
- Strong social support system

Mall of Asia (MOA) Complex
SM DEVELOPMENT PROCESSES

ASSESSMENT & ACQUISITION
- Identify and assess potential multi-hazards risks using software
- Prioritize impact of risks
- Analyze current resiliency capacity

DESIGN AND PLANNING
- Design for risk reduction
- Plan business operations
- Incorporate resilient and sustainable features to mall and residential design

EXECUTION AND MANAGEMENT
- Ongoing program management of DRR
- Validate plans’ effectivity
- Community-based initiatives

Disaster Risk Reduction and Management (DRRM) Thematic Areas: Prevention and Mitigation, Preparedness, Response, Recovery and Rehabilitation
• HAZARDS
  o Sea level rise
  o Storm surge
  o Liquefaction
  o Typhoon

• RESILIENT FEATURES
  o Built 4.5 m high MWWL
  o Wick drains
  o Drainage Channel
  o Sewage Treatment Plant

• HAZARDS
  o Flooding
  o Earthquake

• RESILIENT FEATURES
  o Rainwater catchment basin
  o Sewage Treatment Plant

• HAZARDS
  o Flooding
  o Earthquake

• RESILIENT FEATURES
  o Built on 246 stilts
  o 20m additional setback
  o Sewage Treatment Plant
  o Elevated parking
TECHNOLOGY IN SUSTAINABILITY

- **HAZARDHUNTERPH (DOST-PHIVOLCS)**
  - Seismic, volcanic, hydrometeorological hazards

- **PROJECT NOAH (UP RESILIENCE CENTER)**
  - Flood, landslide hazards

- **SM & MANILA OBSERVATORY CLIMATE AND WEATHER FORECASTS PROJECT**
  - Daily clean energy and weather maps
  - Climate projections for select time slices
  - Risk maps and reports for particular areas of concern

- **EARTHQUAKE RECORDING INSTRUMENTATION**
  - Record building response during major seismic events for subsequent analysis
  - Immediate alarm annunciation for safe evacuation of tenant/occupants

Source: DOST-PHIVOLCS, Project NOAH, Manila Observatory
Source: https://panahon.observatory.ph/
BUILDING SUSTAINABLE COMMUNITIES

THE GOOD GUYS COMMUNITY PROGRAMS

- The Good Guys Volunteerism Program
- The Good Guys Weekend Market
- The Good Guys Start-Up Program
- The Good Guys Health and Wellness Caravan
- The Good Guys Job Fair
- The Good Guys Go Green
- The Good Guys Safety Training Skills
  - Disaster Preparedness
  - First Aid
  - Fire and earthquake drill
• Emergency Preparedness Forum for Seniors and PWDs;

• Support in recognizing women championing Resilience in their communities thru the WIN DRR leadership awards;

• Promote Business Continuity Planning to Small and Medium Enterprises;

• Provide free data storage facility for insurance and operational documents;

• Pre-agreements with national and local governments in disaster recovery and rehabilitation;

• Internal capacity building on disaster risk reduction and management
“SM remains steadfast in our commitment to respond to the ever-evolving needs of Filipinos”
Open Forum & Synthesis

Silvestre Barrameda, Jr.
Executive Director, National Resilience Council

Moderator
Technology and Innovation for Disaster Resilience

through Public-Private Partnership and multi-sectoral and regional partnership

Wed, 21 September 2022
03:30PM - 04:30PM (GMT+10)
Mezzanine Room M2