



ALP 510

# IOM, UN Training Using FASAE BUTUAN WORKSHOP Experience

8.23.2014 – 8.27.2014

**Site Specific  
Disaster Mitigation and Planning**



# In Collaboration with American Legion Post 510 1<sup>st</sup> Lieutenant Magdalena Leones

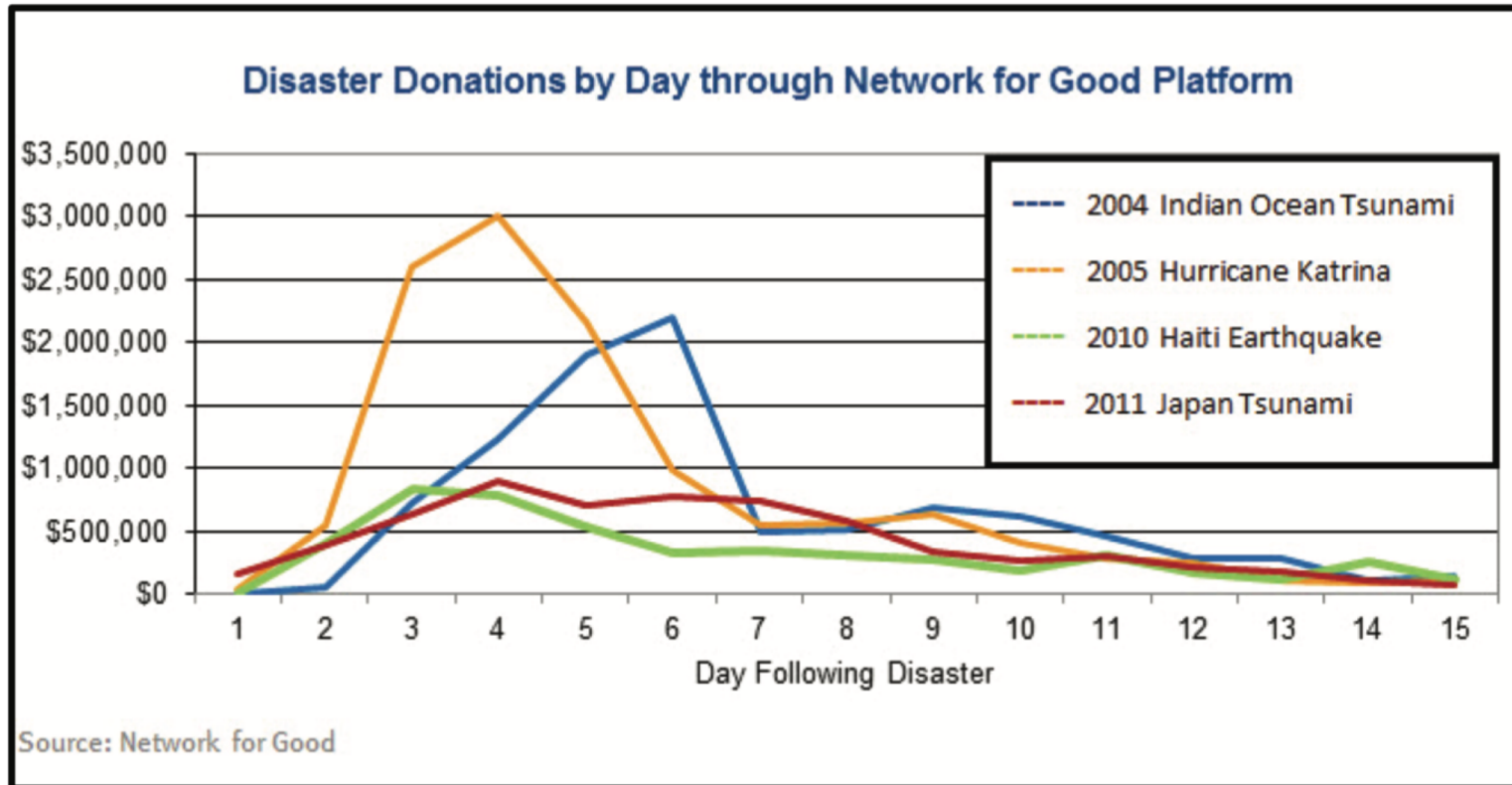
## Mission.

American Legion Post 510 is a VETERAN POST dedicated to acknowledge and honor Filipinos and Americans who have served in the Philippine Theater of Operations during WWII under General Douglas MacArthur. In addition, this POST will continue to support and advocate for VETERANS, active military and their families through programs that will foster PATRIOTISM and RESPONSIBLE LEADERSHIP.

# Sustainability

- \* **At some point in time, we may wonder about our purpose in life: perhaps asking the question “What am I doing that can lead to something permanent?”**
- \* **In this training, perhaps we can put together words, phrases, a language, images, feelings, and HOPES that will lead us to that life and happiness that is SUSTAINABLE...**

# However, The Way Things Are...



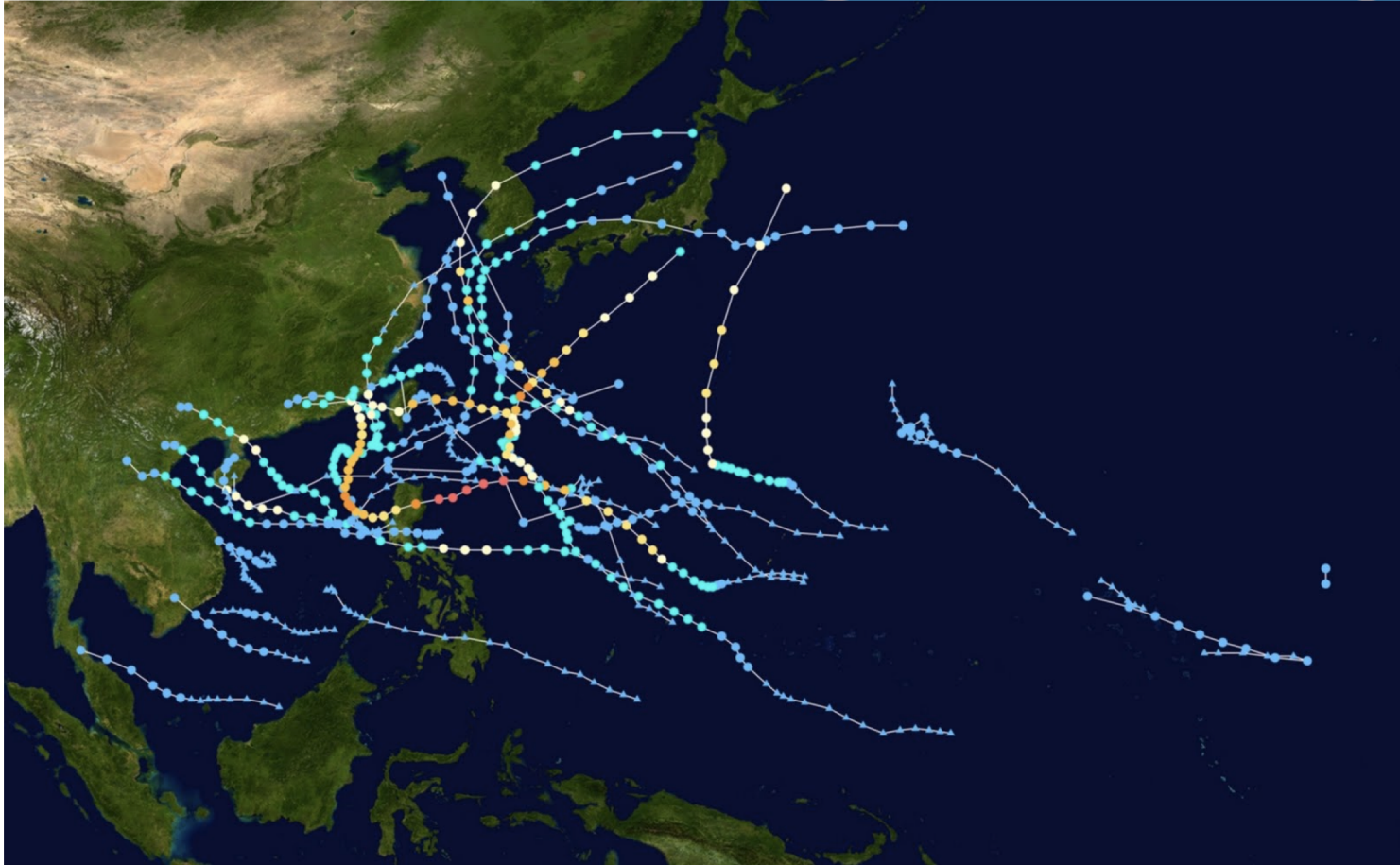
**Figure A- Significant Drop in Donations After Week 1**

source: <http://www1.networkforgood.org/sites/default/files/howtohelp5stepstoeffectivecorporatedisastergivingcampaigns.pdf>

From: Master's Degree Thesis by Nikiya Crisostomo & Olivia Winter, Stanford University

# The Challenges

## Natural Disasters & Human Conflict

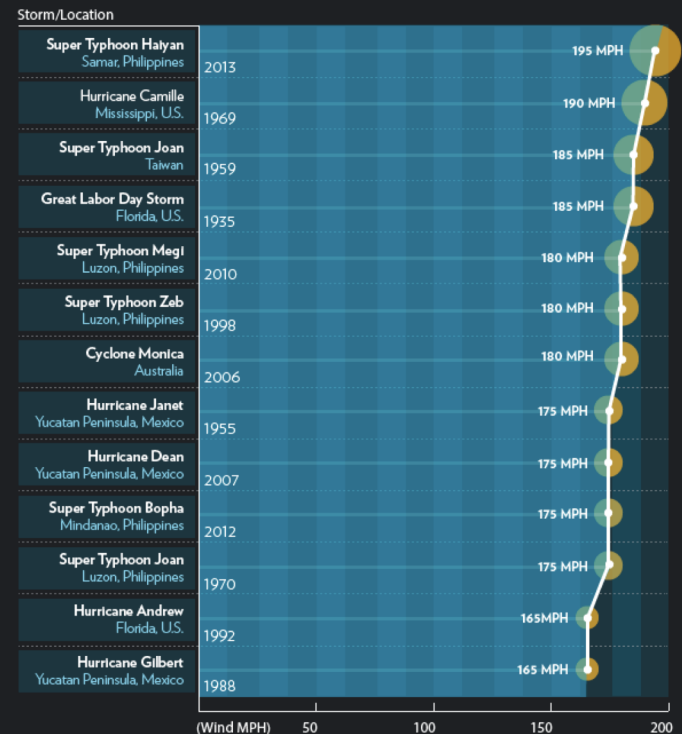


**Averaging 20 Typhoons per Year in the Philippines**

# Super Typhoon Haiyan (Yolanda) Strongest Ever @ 195 mph in November, 2013

Five of the thirteen Typhoons  
with Strongest Winds  
occurred in the Philippine.

## Earth's Strongest Tropical Cyclones at Landfall (by Wind Speed)

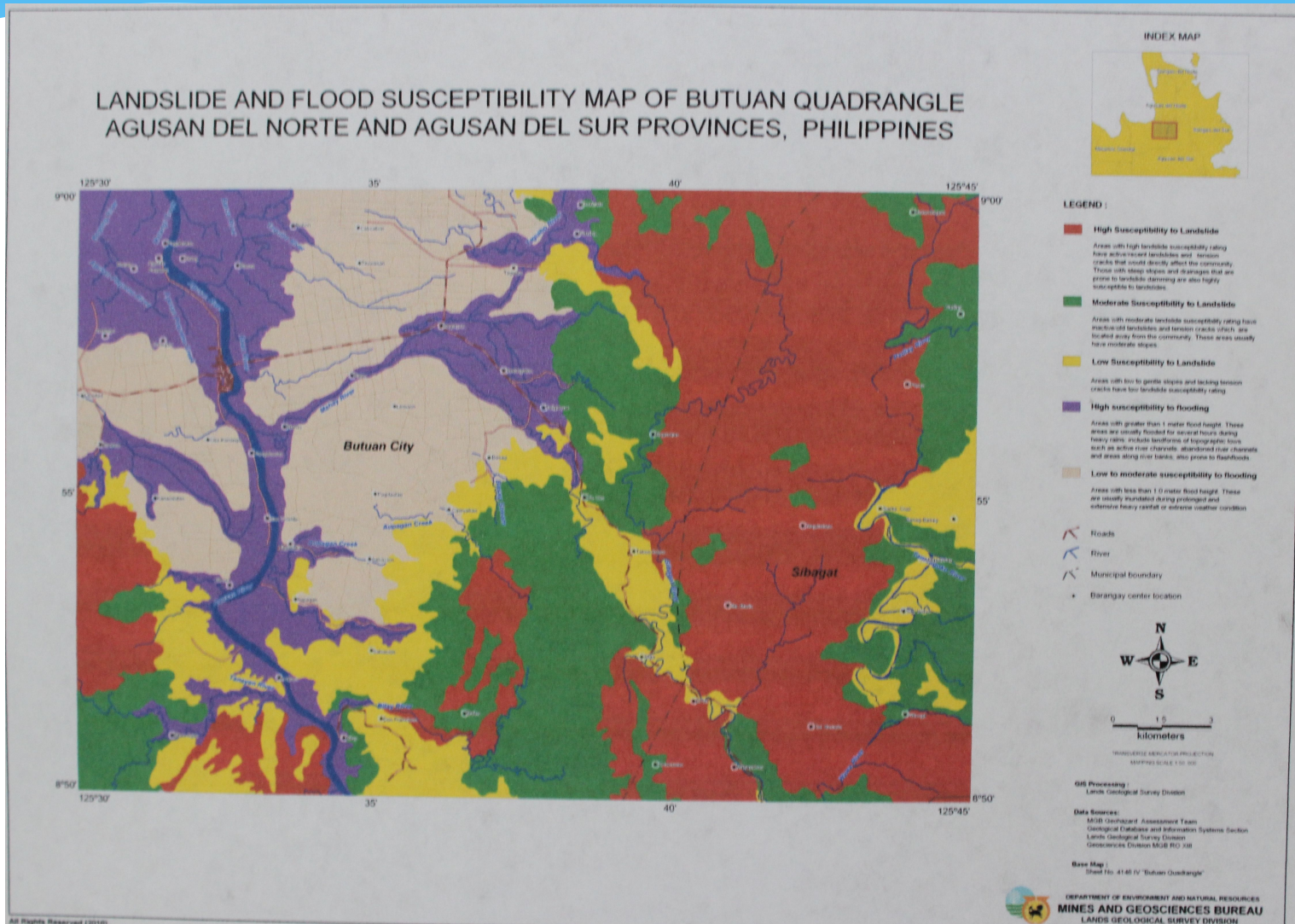


# Aftermath of Haiyan Typhoon November, 2013



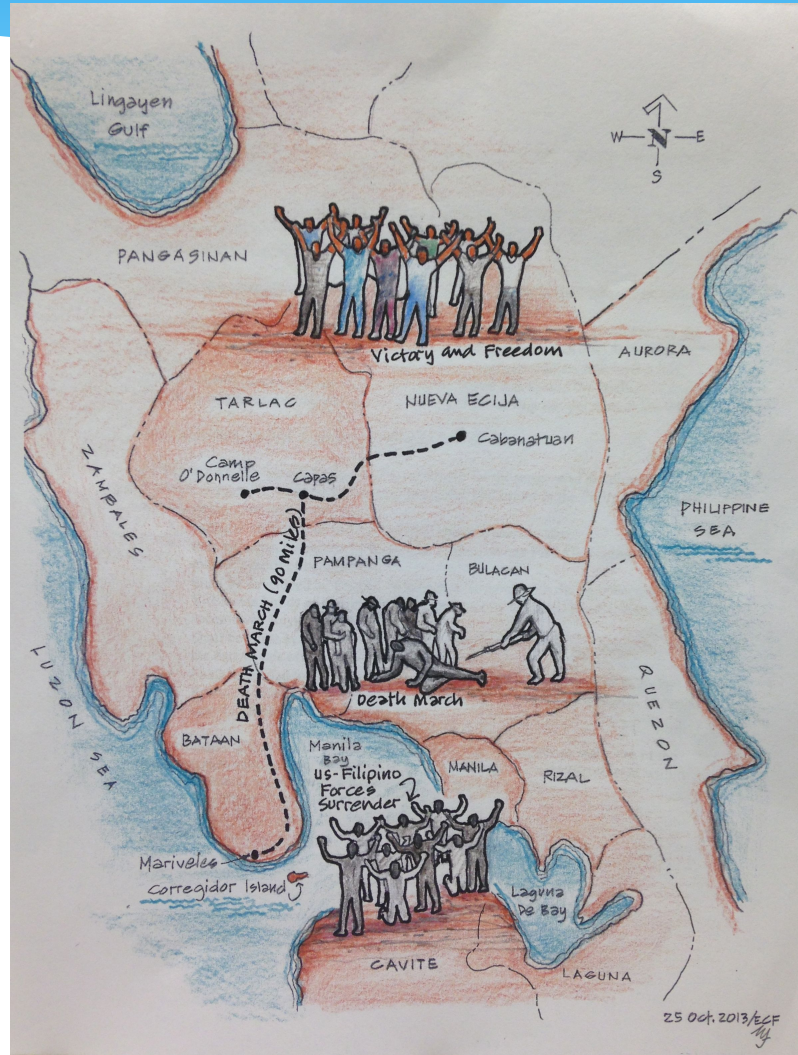
# Other Hazards to Safer Shelter

## Earthquakes, Land Slides, Flooding





# Human Conflict Effects on Shelter: Consequences of 3 years of Occupation Without Due Compensation...



# RESPONSE ORGANIZATIONS

## Algorithm to Connect All...

Lead organizations

“Natural” disasters

Conflict

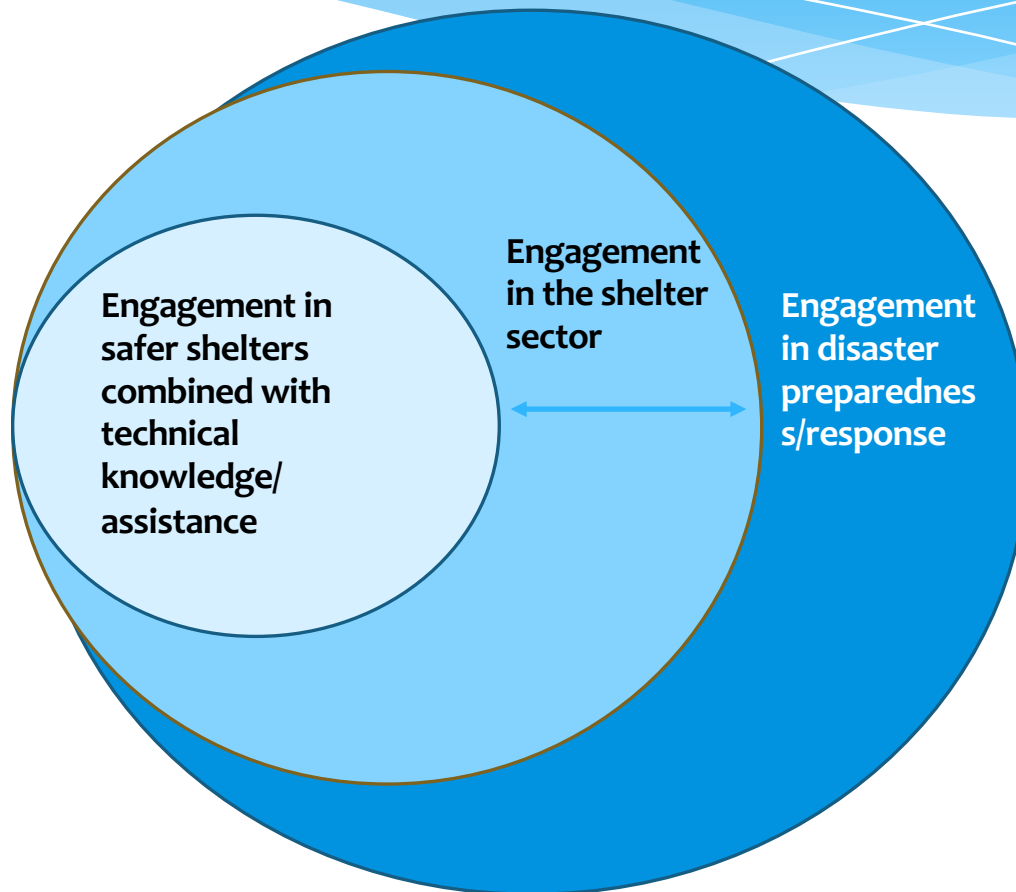


# OFDA at a Glance: Fiscal Year 2017

## OFDA disaster responses



# Finding: What is Missing? – Technical Knowledge / Assistance

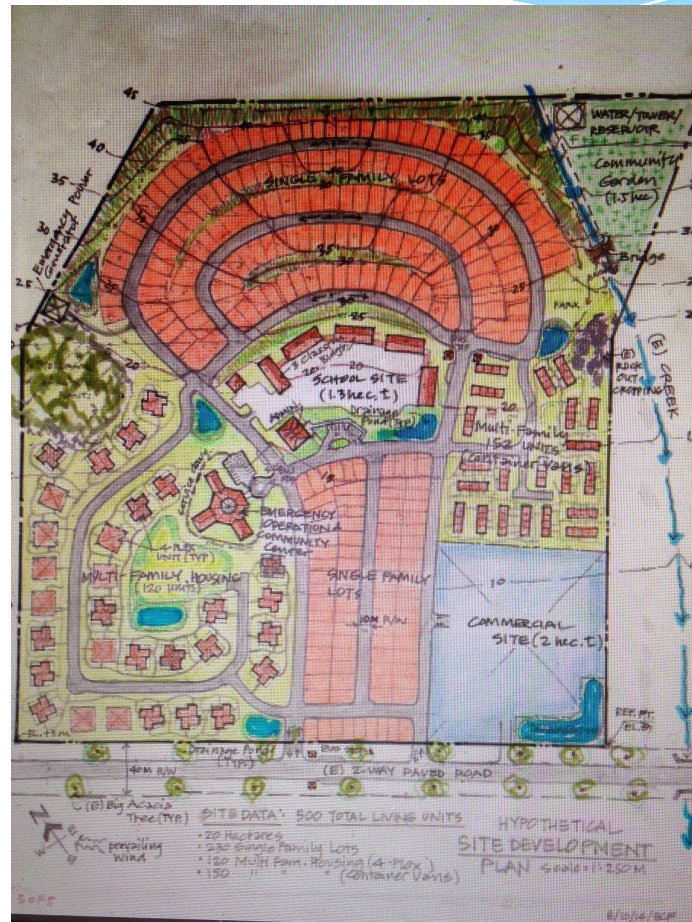


# HOW FASAE PARTICIPATED

## The Charrette Team



# The Charrette's Version of SVDNA



# The Trainers



**Ric Sitjar – Structural Design, Review and Code**

**Phil dela Cruz – Water Supply and Waste Water Treatment**

**Ernie Florendo – Architecture and Code**

**Floren Apelin – Construction and Manufacturing**

# Workshop Attendees

## Butuan City Professional & Technical Staff





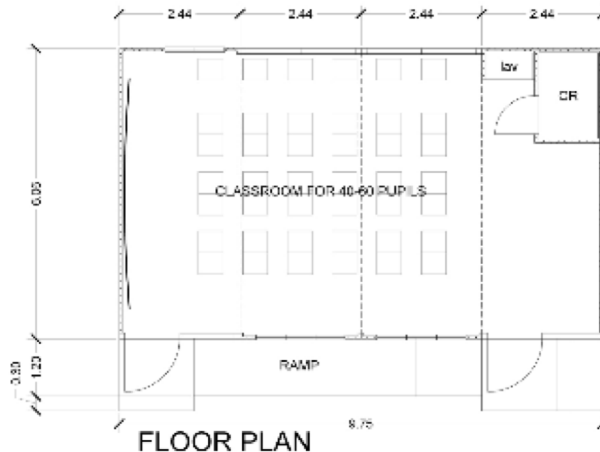
# Sustainable Village Proposals Developed by Butuan Staff Groups



# CONTAINERS: BASIC BUILDING BLOCK OF TRANSITION & FINAL SAFER SHELTERS



PERSPECTIVE



FLOOR PLAN

**GENERAL SPECIFICATIONS:**

**A. MAIN STRUCTURE**

1. SUBSTRUCTURE=REINFORCED CONCRETE
2. SUPERSTRUCTURE= STRUCTURAL STEEL

**B. ROOM ENCLOSURE**

1. 4-20' FOOTER CONTAINER VAN CLASS 'B' OR CLASS 'C' MODIFIED INTO CHAPEL SHELL
2. DOUBLE WALL WITH THERMAL RESISTANT MATERIAL

**C. ROOF**

1. USE MATERIAL REMOVED FROM THE MODIFICATION OF THE CONTAINER VAN IF IN CASE THERE IS LACKING OF ROOF MATERIALS FOR CONTAINER VAN USE LONG SPAN HI-RIB PROFILE ROOF.

**D. DOORS/WINDOWS**

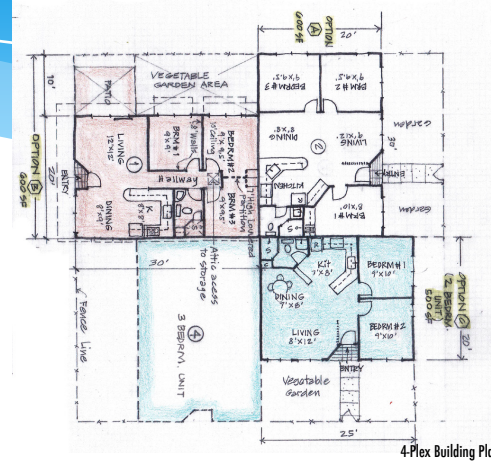
1. USE WOODEN PANEL DOOR FOR ROOM ENTRANCES.
2. USE PVC DOOR FOR TOILET & BATH.
3. USE JALOUSIE GLASS WINDOW FOR WINDOW DIRECTLY FACING OUTSIDE.

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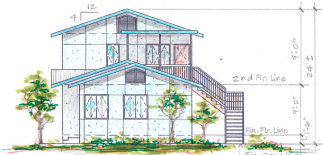
FROM THE OFFICE OF:	ARCHITECT:	PROJECT TITLE:	OWNER:
	ARCHT./ENGR. JOEL B. JUCOM	<b>PROPOSED ONE STOREY 1 CLASSROOM SCHOOL BUILDING</b>	<b>SILLIMAN UNIVERSITY</b>

# Key: Create an ambiance of sacred family ties in the SVDNA.

The **mission** of the Sustainable Village DNA (SVDNA) is to have a manageably sized project to “build better than before” and to develop community resilience to deal with the effects of climate change that can be replicated throughout the areas devastated by the Haiyan Typhoon. The SVDNA shall include housing for approximately one hundred families and an Emergency Operations & Community Center (EOCC) in Tacloban, Philippines. The EOCC shall have primary functions of survival education, health wellbeing, livelihood, and self governance to develop community resilience. It shall be in the center where local authorities, contractors, and individual families shall be empowered to lead the renewal effort with the support of FASAE and other consultants. It shall be where the community shall cooperate and coordinate the worldwide support received in order to create permanent shelters that are adapted to each family’s requirement and preferences, at cheaper cost, higher quality, and more quickly completed.



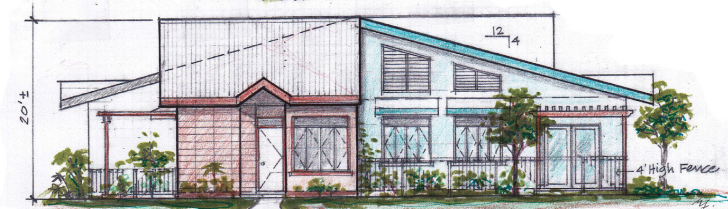
4-Plex Building Plan



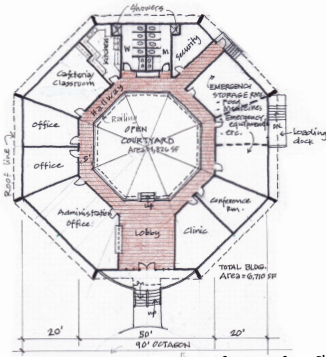
6-Plex Building Right Elevation



6-Plex Building Plan



4-Plex Building Front Elevation



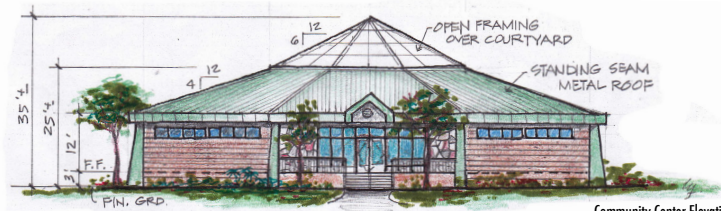
Community Center Plan



Community Center Perspective

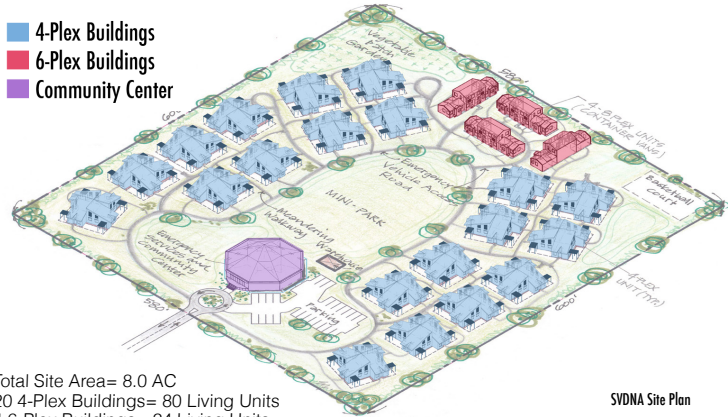


Housing Perspective



Community Center Elevation

- 4-Plex Buildings
- 6-Plex Buildings
- Community Center



SVDNA Site Plan

Total Site Area= 8.0 AC  
 20 4-Plex Buildings= 80 Living Units  
 4 6-Plex Buildings= 24 Living Units  
 Total Units= 104

# Some Heavy Structural Calculations



**ABESAVE INTERNATIONAL INC.**  
ARCHITECTS, ENGINEERS, PLANNERS

173 NEW CASTLE DRIVE, VALLEJO CA 94591-4873  
EMAIL: [abesave@pb.com](mailto:abesave@pb.com) TEL: (925) 292-4573

JOB \_\_\_\_\_  
SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_  
CALCULATED BY: RSR/ke DATE: 8/2014  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SCALE \_\_\_\_\_

WEB SITE TO FIND SEISMIC DESIGN MAPS OUTSIDE  
U.S.  
SEISMIC DESIGN CRITERIA

$S_s$  - MAPPED  $MCE_R$ , 5% DAMPED SPECTRAL RESPONSE  
ACCELERATION PARAMETER AT SHORT PERIODS, 0.2 SEC  
 $S_1$  - MAPPED  $MCE_R$ , 5% DAMPED SPECTRAL RESPONSE  
ACCELERATION PARAMETER AT A PERIOD OF 1 SEC.

## Mapped Ground Motion

Determine  $S_s$  and  $S_1$  outside of the U.S from USGS  
Seismic Design Maps Web Application

<https://geohazards.usgs.gov/secure/designmaps/www/application.php>



STUDIED BY:

GLOBAL SEISMIC HAZARD ASSESSMENT PROGRAM  
(GSHAP)

USING THE:

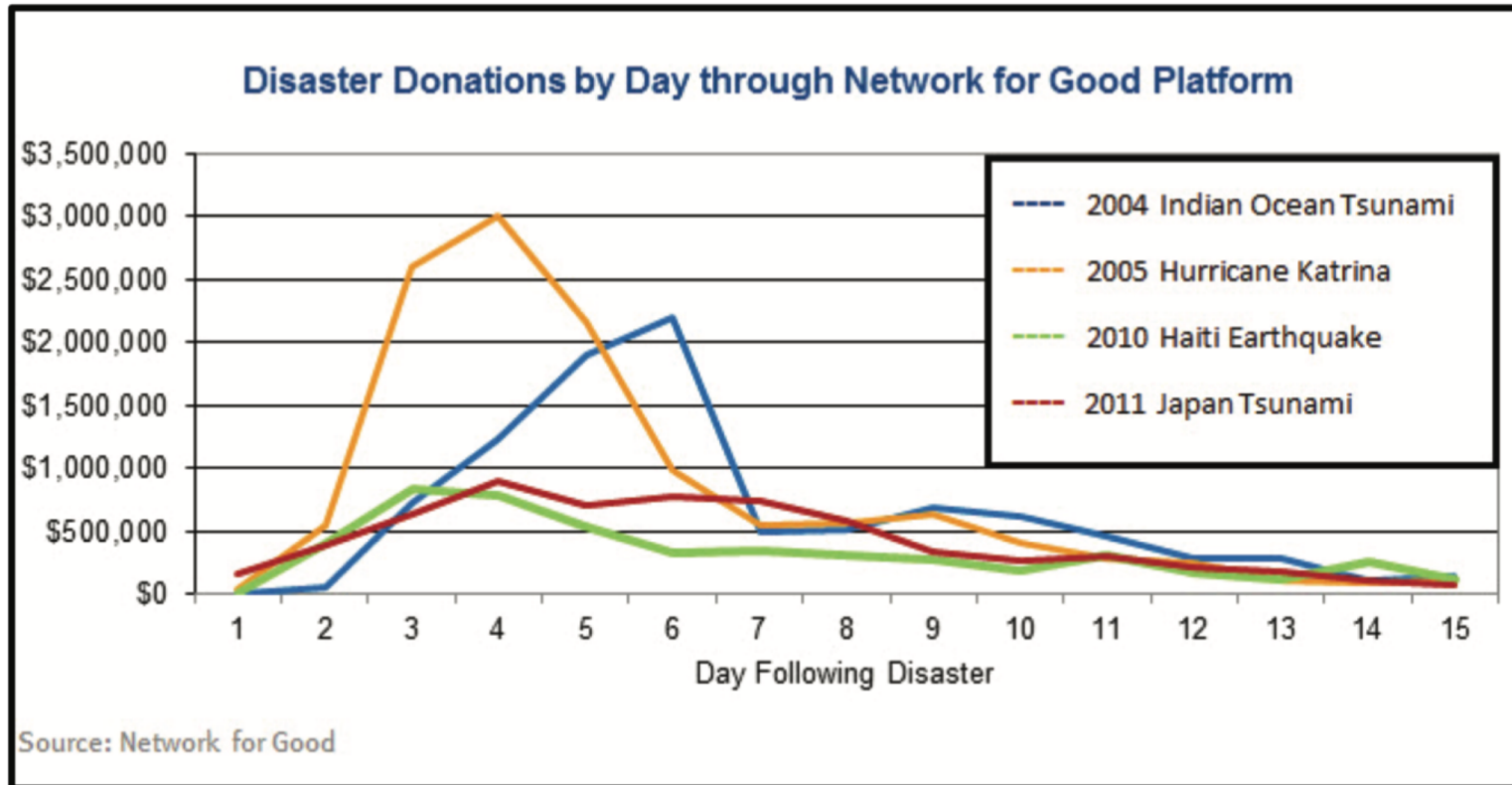
PROBABILISTIC SEISMIC HAZARD ASSESSMENT  
(PSHA)

$MCE_R$  = MAXIMUM CONSIDERED EARTHQUAKE

# Lessons Learned Shared with College Deans Leading to Master's Degree Program



# The Ultimate Challenge Lack of Sustainability



**Figure A- Significant Drop in Donations After Week 1**

source: <http://www1.networkforgood.org/sites/default/files/howtohelp5stepstoeffectivecorporatedisastergivingcampaigns.pdf>

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# Int'l Organization on Migration, UN Training Objectives

Background: Global approaches to disaster response and preparedness; existing coordination mechanisms in the field of disaster response and shelters; diaspora community awareness of the shelter sector, key elements and different types of shelters

1. Increase diaspora community awareness on specifics of building safer shelters in disaster preparedness and response, with a focus on best and context specific practices
2. Explore possible channels for a more coordinated and effective diaspora disaster response, within the diaspora and between diaspora and other stakeholders
3. Explore with the diaspora how to leverage their role and connections with their country of origin to transfer relevant knowledge to affected communities, promote safer shelters and, overall, increase communities' resilience

# SHELTER –Build Back Safer massive campaign

## MAP BATI KAY MWEN PI BYEN

### BON TEREN BATI BON KAY

BYEN BATI KAY OU, PWOTEJE VI W A AK FANMI WI

✓ Lè wap bati kay ou chwazi yon teren ki byen plat, ki byen degaje kote dlo paka pote l ale.

- ✗ PA KONSTWI NAN ENLÈZ OSWA SOU MONT APIC
- ✓ KONSTWI KAY LA POU PI Piti 10 MET PYE YON ENLÈZ E POU PI Piti 10 MET OSWA YON PANT.



✗ PA KONSTWI PÈE OSWA PÈE BWA

✓ KONSTWI KAY ENEN OSWA PÈE BWA YO KONSTWI KAY LA PLUS PÈE 2 MET DISTANS POU PÈE BWA KI SEN VITE 2 MET



✗ PA KONSTWI BO KANAL

✓ KONSTWI POU PI Piti 10 MET BO KANAL YO



✗ PA KONSTWI PÈE LANNE

✓ KONSTWI POU PI Piti 10 MET BO LANNE OSWA E POK SOU FONDASYON KAY LA PI WO PÈE NIVO LANNE A

✗ PA KONSTWI ANDEBO KAYAN

✓ KONSTWI POU PI Piti 10 MET BO LANNE KI PWOTEJE AK M KI PIET AK GASYON, WOCHI OSWA AK BETON



✗ PA KONSTWI ANBA FL WOT TANSYON

✓ KONSTWI POU PI Piti 12 MET DE FL WOT TANSYON YO

✗ PA KONSTWI BO KAYE

✓ KONSTWI POU PI Piti 10 MET BO KAYE KI PWOTEJE AK M KI PIET AK GASYON, WOCHI OSWA AK BETON



## MAP BATI KAY MWEN PI BYEN

### BON MATERYO KONSTWI BON KAY

BYEN BATI KAY OU, PWOTEJE VI W A AK VI FANMI WI

Anplii twa bon mache koute chè. Byen depanse, achte bon kalite materyo. Pito w konstwi yon kay ki pa twò gwo, men ou konstwi l byen. Sèvi ak:

✓ SAB LARIVYE KI BYEN LAVÈ

✓ GRAVYE KONKASE KI PA DEFASE 25 MILIMET D'ENNET

✓ BON KALITE SIMAN KI PA VANTE E KI BYEN PWOTEJE



✓ DLO PWOP

✓ BON BÒS KALIFIE KI SEN BON JAN EKSPERIMANS

✓ SÈVI AK BLOK VÈRE



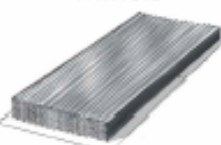
✓ BON WOCH FLAT POU FONDASYON AN

✓ TÒL KI BON KALITE KI PA MENS



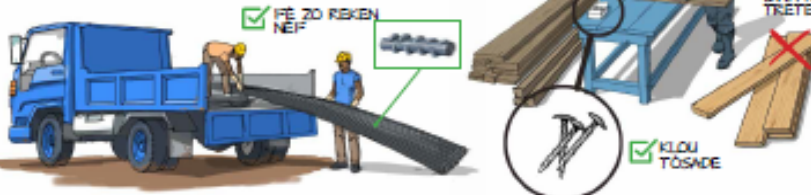
ATANSYON : POU VERIFIE KALITE BLOK YO LEVE 5 BLOK YOAN APRÈ LOT WOTE. 1.20 MET KONSA OPI LAGE YO ATE SOU YON MAKADAM AN BETON. SI 2 OU 3 BLOK SOU 5 KRAZE, YO PA BON.

✗ PA SÈVI AK WOCH RAVET



✓ BON BWA TRÈTE

✗ PA SÈVI AK BWA KI PA TRÈTE



✓ FE ZO REKEN NEF

✓ KLOU TÒSANDE



# SHELTER – Build Back Safer massive campaign



## ANTRETYEN

BYEN BATI KAY OUL PWOTEJE VI W A AK FANMI WI

Lé ou pran swen kay la, sa fé li rete djanm e dire pi lontan. Kidonk pa tann kay la fin depafini nan men w pou repare l pou pentire l. Se mèt kay ki veye kay l

**PRAN SWEN KAY LA**  
LÉ OU PRAN SWEN KAY LA, SA FÉ LI RETE DJANM E DIRE PI LONTAN

**TOUJOU VEYE CHAPANT TWATI A**  
- RANPLASE BWA KI POURI YO  
- REKLOURE TÒL KI DEKLOURE YO  
- REKLOURE BWA KI DETACHE  
- TRETE BWA KI PIKE YO

**PWÒPTE KAY LA**  
TOUJOU NETWAYE TET KAY LA. PA KITE PATRA, LANNAN, PLANT MONTE SOU MI AK TWATI KAY LA.

**PENTIRE KAY LA.**  
PA KITE KAY LA FIN DEFRÈCH TOUJOU PASE KOUCH PENTI SOU MI YO AK SOU BWA CHAPANT LAN. POU L TOUJOU RETE BÈL EPI BYEN FRE

**KENBE FÒM KAY LA SENP**  
FITO W KONSTWI YON KAY KI PA TWÒ GWÒ, MÈ OU KONSTWI L BYEN



## TWATI / TÈT KAY

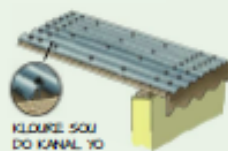
BYEN BATI KAY OUL PWOTEJE VI W A AK FANMI WI

Pou yon twati ki kouvri ak töl kenbe fèm fòk nou respekte prensip sa yo:

**ITILIZE TÒL KI GEN BON EPISÈ EPI KI BYEN KLOURE POU L KA REZISTE LÈ GEN GWÒ VAN**

**MÈ TÈT KAY LA A 4 PRIN LAP PI SOLID EPI REZISTAN LÈ GEN SKLON AK GOUDOU/SOULOU**

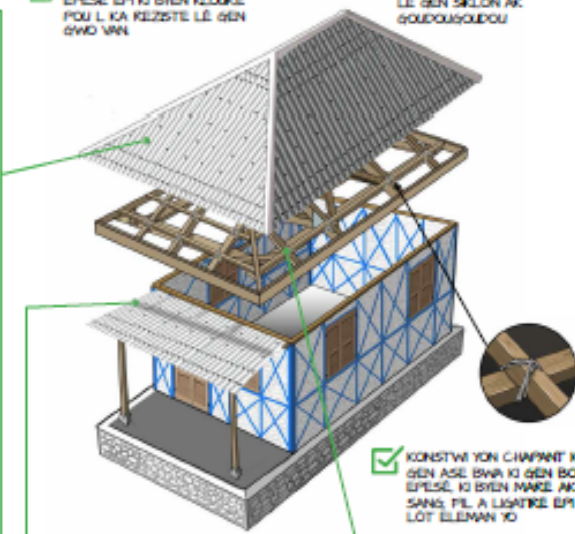
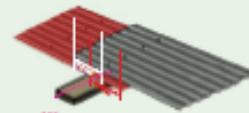
**MEN KI JAN POU KLOURE TÒL YO:**



**ALONJMAN TÒL:**  
1) ALONJMAN KÒT A KÒT TOUJOU ALONJE YO SOU 2 KANAL POU PI PÈT EPI KLOURE CHAK DO KANAL YO.



2) ALONJMAN AN LONGÈ TOUJOU ALONJE TÒL YO SOU 15 SANTIMET DAPÈS SANG TWATI A



**SEPNÈ TWATI GALIJE KAY LA AK TWATI PRENSIPAL KAY LA. SI TWATI GALIJE A SEPNÈ AK TWATI PRENSIPAL KAY LA LAP PI OUFÈL POU TÈT KAY LA DETACHE LÈ GEN GWÒ VAN**

**KONSTWI YON CHAPANT KI GEN ASE BWA KI GEN BON EPISÈ, KI ISÈN PARÈL AK SANG, PI A LISATRE EPI LÒT ELEMAN YO**

**ASANBLAJ CHAPANT TWATI :**

TOUT CHAPANT LAN DWE BYEN MARE ANSANM EPI AK RÈS KAY LA AK KONTRANTMAN AN BWA, PIÈS AN PIÈ ZANG AK PI ALGATI



# **FASAE'S TRANSFER of Knowledge & Implementation-Pathway**

**Coalition/collaboration with American Legion Post 510 in San Francisco connected with ~14,000 AL posts in the U.S.**

- \* 300 Filipino interconnected groups in Northern California, 300 in Southern California**
- \* 4-5 million interconnected Filipino Diaspora in the United States**
  - \* Nurses organization in the East Coast with 10,000 members in 50 Chapters**
- \* 11 million interconnected Filipinos around the planet in 193 countries**
- \* U.S.A. Business and Community Group Population**

# DNA Models for Sustainability

- \* **Gawad Kalinga Model for providing homes for the poorest of the poor.**
- \* ***Using Existing Networks DNA model for Disaster Preparedness and Response***

# Our Priceless Resources



**PASE, UC Davis**

# Our Priceless Resources



**PASAE, UC Berkeley**