

Activity: Storm Surge Risk Communication Workshop

Date: September 20, 2017

Venue: UP Conference Hall, Tacloban City

Preliminaries

The opening program started at 9:25 in the morning. To begin the workshop, a prayer was led by Ms. MK Amador, one of the trainers from CDP. This was followed by the acknowledgement of participants from the different local government units (LGUs) of Leyte province, Tacloban City and municipality of Tanauan. Representatives from the University of the Philippines Visayas Tacloban and Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) were also present in the activity.

Getting to Know

To build rapport among the participants, a getting to know activity was also facilitated using participatory and interactive exercises. The team used the method “Humanay Ayon sa..”.

For the *Humanay Ayon Sa.. activity*, the facilitator followed the process below:

- The participants are divided into three groups.
- The participants are told to arrange themselves, from least to greatest, according to certain characteristics.
- Instructions include being arranged by the length of their hair, height, number of their children, age, size of shoes, and number of years in DRRM work.
- The participants are asked to clap their hands as soon as they are finished arranging themselves based on a particular characteristic.
- After every rearrangement, the facilitator identifies the fastest group which gives them a corresponding point. The group with the highest number of points wins.

Expectation Check

Following the getting to know exercise, Ms. Kria Jopson, another trainer from CDP, asked the participants to answer several questions to get their expectations from the workshop. The questions include the following:

- What do you expect to learn from the workshop?
- What do you expect from the facilitators?
- What do you expect of the process (e.g. methods, exercises)?

The participants were given markers and metacards where they can write their answers. The table below provides a summary of their responses:

| Learnings | Facilitators/ Resource Person | Process |
|--|--|--|
| <ul style="list-style-type: none">✓ Storm surge warning protocols✓ To know more about storm surge✓ To learn different measures before, during, and after a | <ul style="list-style-type: none">✓ Be able to give us knowledge on how to effectively disseminate hazard warning messages✓ Understanding✓ Resourceful | <ul style="list-style-type: none">✓ Sharing of good practices✓ Relevant✓ Conducive process: simple and easy to understand and less technical |

| | | |
|--|--|--|
| <p>storm surge ✓ Learn how to effectively communicate to the community/ public the risks of storm surge and other natural hazards</p> | | |
|--|--|--|

Presentation of Workshop Objectives

For the participants to have an idea of why the workshop was organized, Ms. Grace Molina from CDP, presented the objectives as follows:

- To test the Storm Surge Risk Communication Toolkit on local government of high risk areas
- To ensure that communication has the necessary elements of a good message (including actions for local officials, residents, and businesses) through the use of the toolkit
- To test the storm surge risk communication mechanism of local government through a table top exercise

Grace mentioned some of the lessons and exercises that the participants will do throughout the workshop. After presenting the objectives and workshop flow, the participants were asked to answer the pre-test questionnaire.

Orientation on Storm Surge Toolkit

Dr. Eulito Casas from UP Tacloban provided an orientation about the storm surge risk communication toolkit. He discussed the background and proponents of the project.

Session 1: Enhancement of Provincial and/or Municipal Early Warning System (EWS) and Communication Protocol

Facilitator: MK Amador

To begin the first session, the facilitator asked the participants why is effective communication important. Among the responses given were the following:

- Effective communication is important in saving lives
- It will aid people to know what to do in preparation for a particular hazard or threat
- Effective communication is very important for the coastal areas to keep them away from harm. Warning messages should be clear and inclusive. It should reach the entire population including people living in high, medium and low risk areas.
- A clear message is important for people to understand the information.

The participants were then grouped by LGU and were provided with a copy of their early warning system (EWS). The facilitator gave instructions as follows:

- Review the EWS (is it updated?)
- Review if storm surge is considered in the EWS
- Identify gaps in the EWS

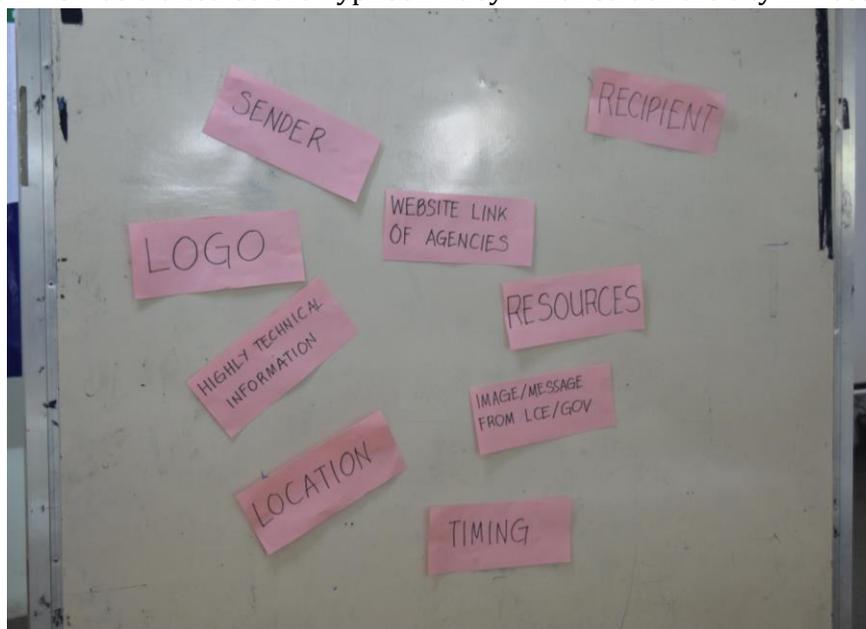
After reviewing their respective EWS, the participants were asked to share the highlights of their discussion:

Municipality of Tanauan

- Storm surge alert is already included in their existing EWS
- They suggested to include radio communication system as one of the warning mechanisms
- For actions under yellow alert level, they suggested to remove distribution of relief goods. This is to encourage the barangays to respond on their own first before asking support from the municipality.

Tacloban City

- The EWS was crafted before Typhoon Ruby which struck the city in December 2014



- The LGU added text blast system to disseminate information not only for Tacloban residents. People outside the city can also register and receive updates on typhoon and storm surge.

- CDRRMO serves as the hub for communication. The CDRRMO personnel use portable radios.
- Challenges: Additional color scheme (e.g. white, blue and green) in the EWS proposed by the NGOs and the varying modules from different agencies (e.g. OCD, DILG, NGOs). They create confusion and the barangays find it difficult to adapt. Given this situation, they recommended to develop a standard scheme that everyone can follow.

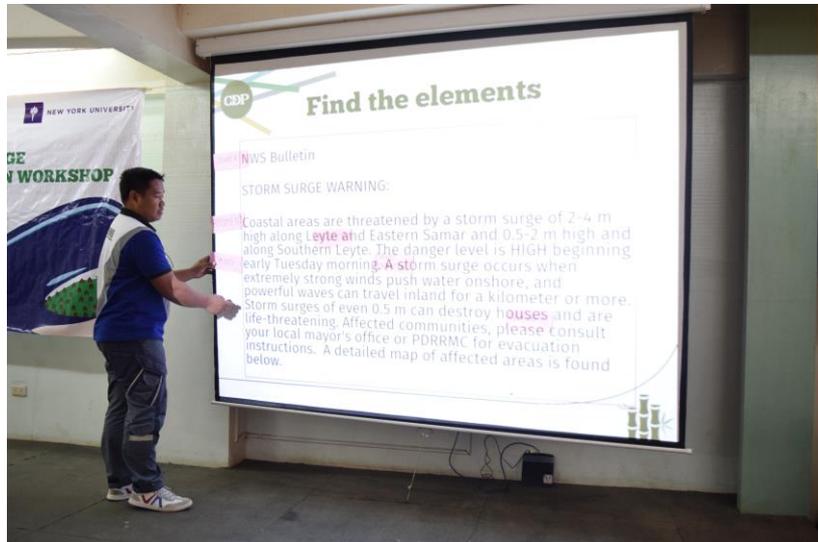
Session 2:

Lesson 1. The Necessary Ingredients of Hazard Warning Messages

Facilitator: Kria Jopson

Word Hunt Activity

A pre-activity called *Word Hunt* was conducted before the input was given. The facilitator presented to the participants various terms written on metacards that were jumbled on a white board (please see photo below). Each group was asked to identify two necessary ingredients of hazard warning messages from the jumbled metacards.



The responses of the participants were the following:

- Tanauan Group: Sender
- Province Group: Recipient, Resources
- Tacloban Group: Timing, Location

Input on Ingredients for Effective Warning Messages

After the *Word Hunt* activity, the facilitator discussed the six important ingredients for effective hazard warning messages as follows:

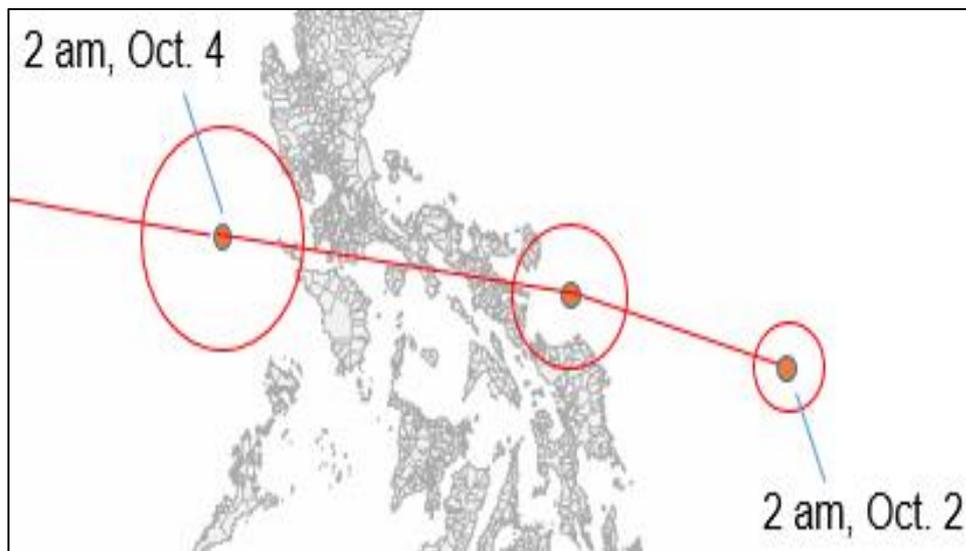
- Sender – Who is sending the message (whether agency or individual)?
- Recipient – Who does the message concern, and is it directly addressed to them?
- Event/description – What is the forecast hazard?
- Location – Where will the event occur, and what local areas are to be most affected?
- Guidance – What is the suggested course of action?
- Timing – When will the event occur, and by when does the action need to be taken?

A sample of a warning advisory was also presented to them. An exercise was done to look for the necessary elements. A representative from each group was asked to find the key elements in the sample bulletin (please see photo below).

The participants mentioned that the communities could better understand warning messages if they are shorter and simpler.

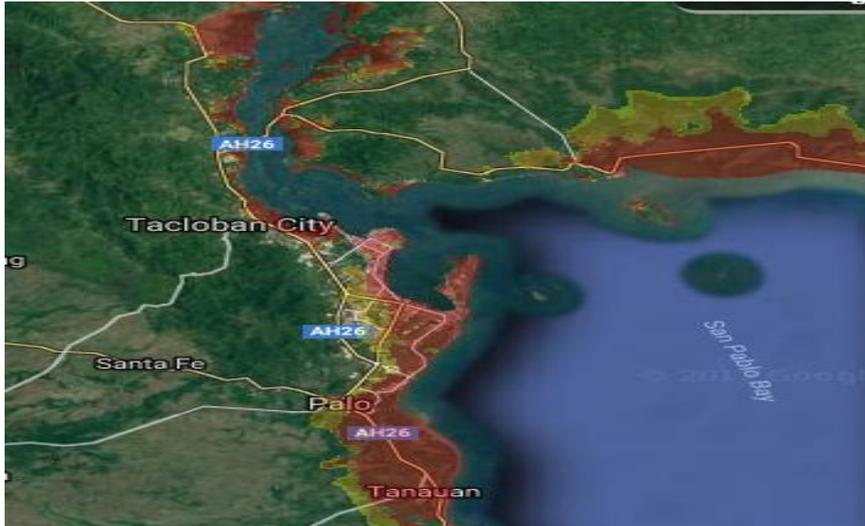
Exercise 1. Interpreting Weather Bulletins (Part 1: Tracking the Storm)

Another exercise was done which focused on interpreting weather bulletins.



The participants were asked to examine the image above and answer several questions.

1. **When will the typhoon hit your area (Give day and time)**
 - Tanauan Group: It will not hit the municipality
 - Province Group: It will not hit the province
 - Tacloban Group: It will not hit the city
2. **Are you in the path of the typhoon? Explain your answer.**
 - Tanauan Group: No. Tanauan is located in the lower part of the typhoon path.
 - Province Group: No. According to the map, the typhoon will hit the Bicol Region.
 - Tacloban Group: No. The path is above the northern part of Samar.
3. **Why do you think the circles gets larger and larger as the typhoon gets closer and closer?**
 - Tanauan Group: The typhoon intensity is getting stronger and stronger.
 - Province Group: The typhoon is getting closer and closer.
 - Tacloban Group: No answer



Based on the image, the accurate typhoon path cannot be determined. It lacks information on movement and speed. The distance of points varies. As the circles get bigger, the exact area where the typhoon will hit remains uncertain. The bigger size of the circles means that the typhoon continuously gains strength from the sea.

Session 3:

Lesson 2. Using Maps

Facilitator: Kria Jopson

To begin the lesson, the facilitator highlighted the following points:

- Maps can be useful in tracking and predicting
- Maps should be translated into a message for the community
- Message should include important elements
- Combine maps with words
- The key is to write the message (and design the map) so that people will still get the information they need if the map is missing or the message is missing.

She then presented to the participants the map below and asked them to answer the following questions:

1. Based on the map, can you determine what the predicted flood height will be in the area?

*The participants suggested to replace flood height with inundation height

Answers:

- In Palo, Barangays Baras, Salvacion, Cogon and San Joaquin could possibly experience an inundation of 2 meters while the riverine areas will be affected by an inundation of 1 meter.
- The municipality of Tanauan is a low-lying area. All barangays are vulnerable to inundation.
- In the city of Tacloban, it is difficult to determine the inundation height if the people will depend on the map alone.

By merely depending on the map, the inundation height cannot be determined accurately since some of the information are missing (e.g. names of barangays).

2. Based on your EWS, by when do you think you should evacuate?

Answers:

- Tanauan Group: Based on the municipal EWS and the map, pre-emptive evacuation will be implemented when the yellow alert level is activated.
- Province Group: Forced evacuation will be implemented when the orange alert level is activated. Some barangays have their own/ localized monitoring system.
- Tacloban Group: It depends on the situation. Barangay San Jose does pre-emptive evacuation even without warning from the city. Although they receive information from the higher LGU, some barangays still follow their own protocols/ localized warning mechanisms.

It is difficult to just rely on the provincial/city/municipal EWS. PAGASA should provide an advisory. It is also necessary to identify who needs to be evacuated first--who will be prioritized during the evacuation process.

Lunch Break

During the lunch break, videos showing the testimonials of Typhoon Haiyan survivors were shared. The online portal www.environmental-communication.space was also presented to the participants by Grace. The website where they can access the storm surge risk communication toolkit was shown to the participants including the different lessons and exercises. It was difficult for the participants to individually try the portal due to weak internet connection and limited laptop computers.

Session 4:

Lesson 3: Understanding the Event

Facilitator: Mr. Mario Penaranda
PAGASA Tacloban Station

A resource person from PAGASA was invited to provide an orientation on storm surge. The highlights of his presentation are as follows:

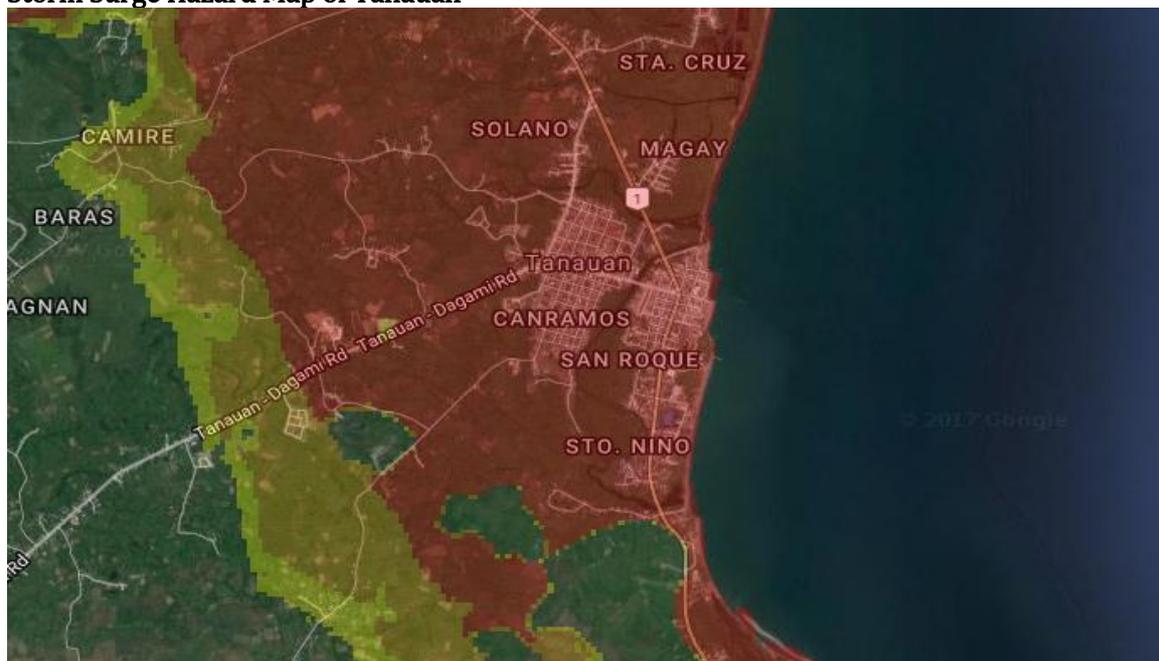
- Storm surge is the sudden and abnormal rise in sea water level associated with the passage of a tropical storm or typhoon.
- In general, storm surge occurs where winds are blowing onshore. The highest surge tends to occur near the “radius of maximum winds,” or where the strongest winds of the typhoon occur.
- Storm surge could happen at landfall or passage of a tropical storm or typhoon in a locality. It might occur ahead, during or following the coming of strong or high winds of the storm.
- The forward speed of the tropical cyclone/hurricane plays a critical role in the overall surge height
- Surge heights might be a one or two-storey building or more (3m-10m) depending on the track, speed and sustained wind of a typhoon, coastal configuration, and bathymetry (sea floor profile).
- Storm surge impacts include: destruction of houses and boats; death; coastal inundation and flooding in the low lying areas; coastal erosion; damage on dikes or seawalls ; and collapsed buildings.
- The debris along with the water cause destruction during storm surge events
- Photos of disasters caused by storm surge in the country were also shared
- He also explained the process of developing storm surge hazard maps done by PAGASA
- He ended his presentation by emphasizing the importance of disaster preparedness.

Exercise 3: Interpreting Weather Bulletins (Part 2: Storm Surge and Flood Warnings)

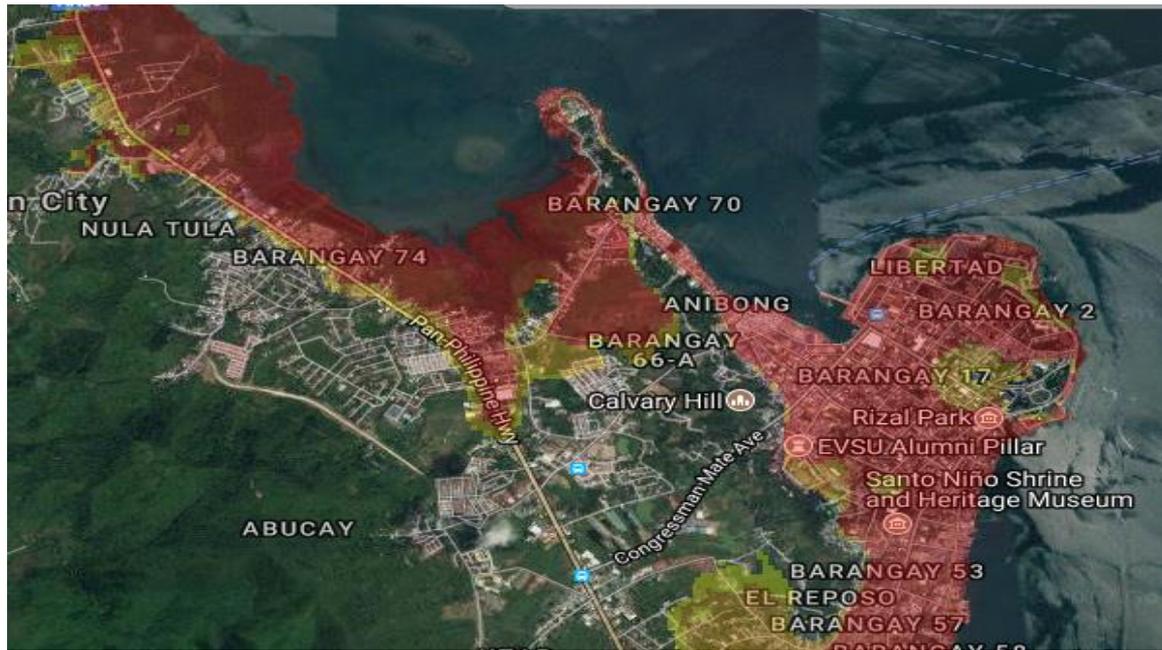
Facilitator: MK Amador

Following the input on storm surge, an exercise was done using the maps below:

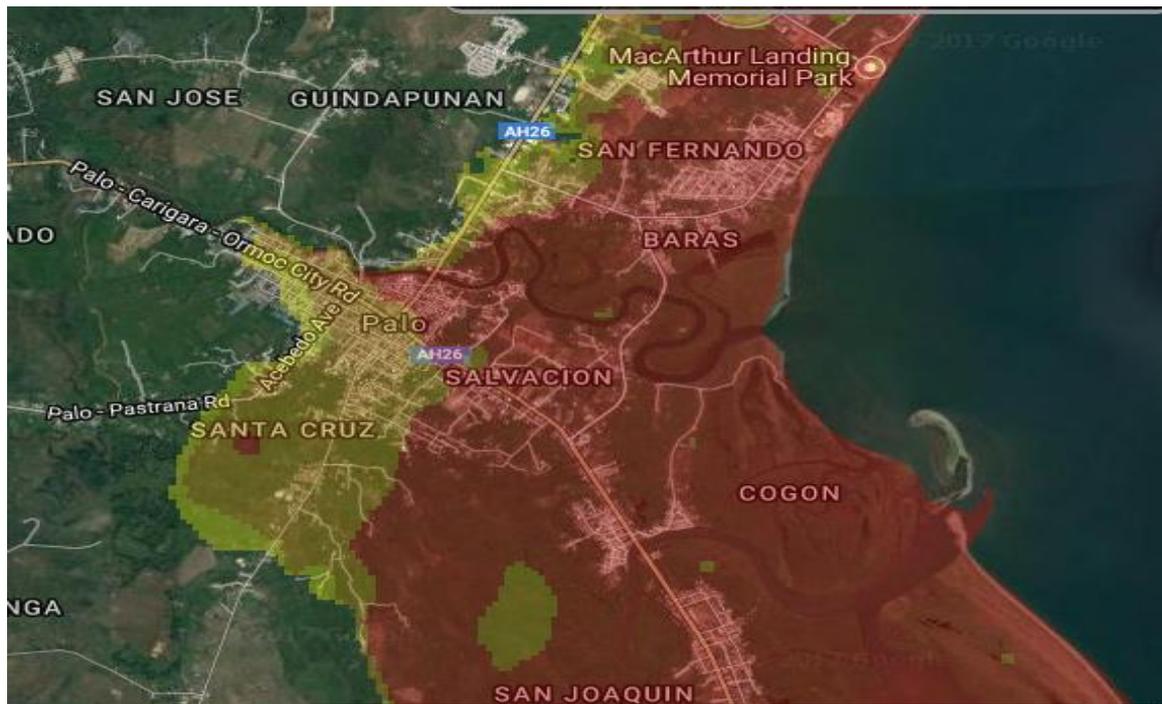
Storm Surge Hazard Map of Tanauan



Storm Surge Hazard Map of Tacloban City



Storm Surge Hazard Map of Palo



The participants were requested to answer the questions below:

1. Is there a danger of storm surge in your area?

- Tanauan: Yes
- Tacloban: Yes
- Palo: Yes

How severe will the storm surge be in your area? How many barangays (%) are high, medium and low-risk to storm surge?

- Tanauan: 29% of the barangays are high-risk, the rest are medium-risk
- Tacloban: 36 barangays are high-risk, 23 barangays are medium-risk, and 40 are low-risk
- Palo: 8% of the barangays are high-risk, the rest are medium-/ low-risk

Session 5:

Lesson 4: Interpreting the Message and Passing It On

Facilitator: MK Amador

To begin the session, a pre-activity called *Message Barrier Race* was done.

- The participants were asked to identify three (3) reasons why warning messages are not cascaded down to the barangay. What are the barriers to communication? They were given metacards and markers to write their answers.
- The fastest group to answer wins.

Answers

Tacloban

- Varying interpretation at the barangay level.
- Poor credibility of information. Source of data is not clear. Usually, PAGASA is the official source. Other sources such as indigenous knowledge needs to be validated
- Technical know-how: Some barangays do not know how to use radios
- Behavior of the population (e.g. hard-headed people living in coastal areas)

Tanauan

- No point person at the barangay level
- Lack of communication equipment (e.g. radio and megaphone)
- No sense of responsibility (e.g. concerned individuals/ groups at the barangay level)

Province

- Lack of appropriate medium (e.g. text blast- some areas lack signal)
- Lack of technology due to limited resources
- Language barrier (information disseminated is too technical)
- Lack of communication allowance (e.g. funds to buy load for mobile phone)

After the pre-activity, the facilitator shared tips on rewriting a message such as:

- Use everyday, non-technical terms
- Comment on the impact the hazard can have on the people being told
- If a map is provided, tell others what it is saying about their particular location
- Add more information about possible effects of the hazard

Exercise 4. The Necessary Ingredients of a Message

Following the input, an exercise on the necessary ingredients of a message was done.

Workshop Bulletin

A storm surge warning has been raised for parts of Region 8. Surge heights of up to 1.5 meters are predicted.

After reviewing the bulletin above, the participants were asked the following questions:

Q1: Can you find all the necessary elements of a good message in the bulletin?

A1: No

Q2: What elements are missing?

A2: Sender, specific recipient, timing, guidance, location, and description

Q3: Specific to your province/city. municipality, add the missing elements to the message

Answers:

Province

PDRRMO/ EWS OpCEn Leyte

Date Issued: September 20, 2017

A storm surge warning has been raised along the coastal municipalities in Leyte. Surge heights of up to 1.5 meters are predicted to hit these identified areas at 2 am on September 25, 2017. Affected communities/ residents are advised to proceed to designated evacuation centers in your respective municipalities.

Tanauan

Tanauan MDRRMO OPCEN

Storm surge warning (as of September 20, 2017, 3 pm)

A storm surge warning has been raised to all 16 barangays/ coastal barangays. It is expected to cause storm surge with a height of 3.5 m in the succeeding hours. You are advised to evacuate to your designated evacuation center as soon as possible and to continue to monitor for any updates. Stay alert and keep safe!

Tacloban

CDRRMO Tacloban (OPCEN)

A storm surge warning has been raised along the coastal barangays of Tacloban City. Surge heights of up to 1.5 meters are predicted. The danger level is high beginning early Wednesday morning (please specify the date). Please be advised to evacuate to safe area.

Session 6:

Lesson 5. Talking to a Friend, Personalize, Localize, Dramatize

Facilitator: Kria Jopson

The facilitator emphasized that an effective message is personalized, localized, and dramatized. She mentioned the following:

- A personalized message directly identifies and addresses the recipient (group or community) affected
- A localized message directly identifies a geographic area; can also identify local landmarks or known places

- A dramatized message provides more vivid imagery or more explicit detail instead of factual and technical descriptions

Kria also presented samples of personalized, localized and dramatized messages to the participants.

Exercise 5.1. Talking to a Friend, Personalize, Localize, Dramatize

After the input, the participants were asked to develop personalized, localized, and dramatized warning messages.

The outputs of the participants are as follows:

| Group | Waray | English translation |
|--------------|--|--|
| Province | <p>PDRRMO/EWS OPCEN Leyte Petsa han Pagpasabot: Setyembre 20, 2017</p> <p>Ginpasabot an mga residente han mga bungto han Palo, Tanauan, Dulag, Abuyog ngan San Miguel nga nangungukoy ha ligid han dagat nga may-ada nga tiarabot nga paghataas hit tubig ha dagat (daralwa) nga possible umabot hin kahitas-on nga 4.5 metros nga baga-baga kahatas-on nga makakalapos hin duha ka-andana nga balay. Maabot ini alas dos hit umagahon hit Setyembre 23, 2017. An ngatanan nga apektado in gin-aabi-abi nga pumakadto ha ira tagsa-tagsa nga evacuation center ha ira mga munisipyo. Maging preparado, maging andam para makatalwas lata.</p> | <p>PDRRMO/EWS OPCEN Leyte Date issued: September 20, 2017</p> <p>All residents living in coastal areas of the municipalities of Palo, Tanauan, Dulag, Abuyo, and San Miguel are warned that a sudden rise of sea levels will occur. The surge may reach heights of 4.5 meters or heights taller than a two-story house. The surge is expected to occur at 2 AM on September 23, 2017. All those affected are advised to evacuate to their respective municipal evacuation centers. Be prepared. Be ready in order to be safe.</p> |
| Tanauan | <p>Tanauan MDRRMO OPCEN Storm surge warning as of September 20, 2017 3:00 PM</p> <p>Ginpapasabot kamo nga tanan nga naukoy harani han dagat nga mayda tiarabot nga storm surge nga kun diin magdadara hin tubig dagat nga may kahatas-on hin ka lanyog nga lubi ngan kakusgon nga pwede makapalid/ makaanod hin tawo. Ini in maabot buwas nga adlaw September 21, 2017 hit alas tres hit aga. Kamo in gin mamanduhan nga mag evacuate han iyo designated evacuation center. Kay ini nga delobyoy in sigurado nga magdadara hin kadilikaduhan ha aton mga kinabuhi, mga panginabuhi ngan propyedad. Maging mabinantayanon. Keep safe! God bless!</p> | <p>Tanauan MDRRMO OPCEN Storm surge warning as of September 20, 2017 3:00 PM</p> <p>This is to warn all those living near the sea area that there is an approaching storm surge with sea levels that may reach as high as coconut trees and waves strong enough to sweep people away. This will occur tomorrow on September 21, 2017 at 3 AM. You are directed to evacuate to your designated evacuation centers. This disaster can endanger lives, livelihood, and properties. Be vigilant. Keep safe! God bless!</p> |

| | | |
|----------|--|---|
| Tacloban | CDRRMO Tacloban OPCEN A storm surge warning has been raised to 36 coastal barangays of Tacloban City. Surge of up to 5 feet may occur as early as 5:00 pm on September 21, 2017. Guin aabisuhan namon adton mangurukoy ha ligid han dagat na mangiwas dayon para malikayan an pagkamatay. | CDRRMO Tacloban OPCEN A storm surge warning has been raised to 36 coastal barangays of Tacloban City. Surge of up to 5 feet may occur as early as 5:00 pm on September 21, 2017. We advise those residing in coastal areas to evacuate immediately in order to avoid casualties. |
|----------|--|---|

Exercise 5.2 Comparing Messages and Dissemination

After coming up with localized messages, the facilitator asked the participants how they disseminate warning messages.

The provincial government receives information primarily from PAGASA and OCD regional office. The national office (e.g. NDRRMC) also provides them with advisories. Dissemination to the municipalities is done through text and AM/FM radio.

Tacloban City utilizes text blast for communicating advisories to the barangays. Radios and calls through mobile phones are also used to disseminate the information. The city government's main source of information is the PAGASA central office.

Tanauan uses radio and text blast for relaying warning messages to the barangays. Bandilyo (public address) in the barangay is also done.

Session 7

Lesson/ Exercise 6. Addressing Key Issues

Facilitator: Kria Jopson

A brief input on addressing key issues was provided by the facilitator. This was followed by an exercise. Maintaining the same groupings, the facilitator asked each group to choose a specific issue. They have to develop sector specific messages. The tasking is presented below:

- Tacloban Group: People think home is safe (older persons)
- DepEd: People dislike evacuation centers (persons with disability)
- Tanauan Group: People worry about theft/crime (women)
- Province Group: This storm is just like the previous ones (youth)

The matrix shows the outputs from the exercise:

| Sector | Waray | English Translation |
|--------|---|--|
| Women | Nay, ayaw kamo kabaraka, mas importante an kinabuhi kesa han mga material nga butang, madali la po ito matad-an ngan usa pa, mayda assigned security personnel nga magbabantay. | <i>Nay*</i> , do not worry. Your life is more important than material things. These things can easily be found/replaced. There are security personnel assigned to guard your homes. * <i>Nay</i> is derived from the word |

| | | |
|-------------------------|--|---|
| | | <i>nanay</i> , the literal translation of which is <i>mother</i> . However, in this context, <i>nay</i> can refer to an older woman. |
| Youth | Mga budoy, mga uday nakita man kamo hit mga ginsasalida ha news yana. Nagtitikakusog na it mga bagyo. Diri na in pareho han kahadto. Ini nga tiarabot yana paru-pareho ini han Yolanda o bangin mas makusog pa. Pan-bakwit na kamo para maging talwas na kamo. | Boys and girls, you've seen the news. Typhoons are becoming stronger. The approaching storm is not like the previous storms you have experienced in the past. This storm will be like Yolanda or even more powerful. For your own safety, evacuate immediately. |
| Older Persons | Lolo/ Lola ma evacuate kita yana kay may-ada makusog na bagyo na maabot mangin magka may-ada storm surge, maguba an aton balay. | * <i>Lolo/lola</i> , we need to evacuate now because there is an approaching typhoon. The typhoon may cause a storm surge that can destroy our homes. * <i>Lolo/lola</i> literally translate to <i>grandfather/grandmother</i> . However, in this context, <i>lolo/lola</i> refers to elderly man or woman. |
| Persons with Disability | Tay/Nay... Ayaw kamo kabaraka kay an evacuation center nga iyo kakadtuan in guin-andam nah in maupay para maisugarado nga talwas nga komportable kamo. Mayda guiha mga opisyal hit barangay/ DSWD nga mabulig para hit iyo mga kinahanglan. | <i>Tay/Nay</i> Do not worry because the evacuation that you are assigned to has been prepared to ensure your safety and comfort. There are also officials from the barangay and from DSWD (Department of Social Welfare and Development) that can assist you regarding your specific needs. * <i>Tay/Nay</i> is derived from <i>tatay/nanay</i> which mean <i>father</i> and <i>mother</i> respectively. In this context, <i>tay/nay</i> is used as a form of respect for older men/women. This may be replaced with <i>sir/ma'am</i> . |

Session 8

Exercise 7: Risk Communication Simulation (Tabletop)

Facilitator: MK Amador

The facilitator explained that the tabletop exercise aims to:

- Undertake the process of relaying enhanced storm surge warning
- Identify risk communication practices which can be integrated in the current provincial/city/municipal EWS and/or communication protocol

The participants were provided with the following mechanics:

- The facilitator will provide a hazard scenario for the province/city/municipality.
- Response time allocation for each scenario will be 15 minutes
- The province/city/ municipality will write their responses on the metacards and relay to the appropriate LGU and/or sub-committee
- The recipient LGU and/or sub-committee may provide feedback and/or supplementary warning message to be written as well in metacards.

Tabletop exercise output: Province of Leyte

| Time Received | Message Received | Personalized Message | Intended Receiver | Method of Communication | Action of the Receiver | Time Received |
|----------------------|---|-----------------------------|--------------------------|--------------------------------|---|----------------------|
| 4:00 PM | <p>PAGASA Weather Bulletin #2 Issued at 5:00 AM, 20 September 2017</p> <p>Tropical Storm Ningning has intensified and entered the Philippine Area of Responsibility (PAR).</p> <p>At 4:00 AM today, the center of severe tropical storm Ningning was estimated based on all available data at 125 kilometers North East of Guiuan, Eastern Samar (14.4N, 133.5E)</p> <p>Maximum sustained winds of up to 90kph near the center and gustiness of up to 115kph.</p> <p>Storm possible at coastal areas.</p> | | MDRRMO Tanauan | Text | Information dissemination to 54 barangays | |
| 4:35 PM | Tanauan MDRRMO OPCEN | | MDRRMO Tanauan | Radio (HH) | BDRRMC Activated | |

| | | | | | | |
|---------|---|--|----------------|------------|----------------|---------|
| | Tanauan MDRRMO is in need of human resource for search and rescue *Clarified with Tanauan MDRRMO the number of rescuers needed for search and rescue | | | | | |
| 4:38 PM | 20-man team | | MDRRMO Tanauan | Radio (HH) | DART Activated | 4:40 PM |

Tabletop exercise output: Municipality of Tanauan

Tanauan MDRRMO OpCen

| Time Received | Message Received | Personalized Message | Intended Receiver | Method of Communication | Action of the Receiver | Time Received |
|----------------------|--|---|---|---|-------------------------------|----------------------|
| 4:10 PM | PAGASA Weather Bulletin # 2 Petsa han Pagpasabot: Ginpapasabot nga an Bagyo Ningning kinusog ngan sumakob na ha Philippine | MDRRMO Tanauan OPCEN Weather Bulletin No. 2 Petsa han pagpasabot: 09/20/17 4:10 PM Ginpapasabot nga an | 54 barangays labi na an 7 coastal barangays | Radio (HH) Text message Posting of weather bulletin | BDRRM Activated | 4:20 PM |

| Time Received | Message Received | Personalized Message | Intended Receiver | Method of Communication | Action of the Receiver | Time Received |
|---------------|--|--|-------------------|-------------------------|------------------------|---------------|
| | <p>Area of Responsibility (PAR). Han alas cuatro yana nga kulop an sentro han Bagyo Ningning base han ngatanan nga abelable nga data nakadto hiya ha 125 kilometro Norte-Sinirangan han Guiuan Eastern Samar nga mayda kakusgon hin hangin nga maabot hin 90 kilometro per oras harani hit sentro ngan subasko nga maabot hin 115 kilometro per oras. Posible nga mayda paghataas hin tubig ha mga lugar ha ligid hit dagat.</p> <p>English translation: PAGASA Weather Bulletin # 2 Date Issued:</p> <p>Typhoon Ningning has gained strength and entered the Philippine Area of Responsibility (PAR). Based on all available data, at 4 PM, the eye of Typhoon</p> | <p>Bagyo Ningning in sumakob na ha alas cuatro yana nga kulop. An sentro han Bagyo Ningning in nahamumutang ha 125 m Norte Sinirangan han Guiuan Eastern Samar nga mayda kakus-gon hin hangin nga 90 km kada oras pareho hin makakatumba hin puno hin saging, subasko hin 115 km per oras nga posible nga mayda paghataas nga</p> <p>Ginmamanduhan an ngatanan nga mulopyo nga naukoy ha ligid han dagat nga mag evacuate ngadto han designated evacuation center. Gin aabisuhan kamo nga tanan padayon paghibantayon. Keep safe. God bless!</p> | | | | |

| Time Received | Message Received | Personalized Message | Intended Receiver | Method of Communication | Action of the Receiver | Time Received |
|---------------|---|--|-------------------|-------------------------|------------------------|---------------|
| | <p>Ningning is 125 kilometers north-east of Guiuan, Eastern Samar. It has sustained winds reaching 90 kilometers per hour near the center and gusts reaching 115 kilometers per hour. Possible storm surge alert is raised for coastal areas.</p> | <p>English translation: MDRRMO Tanauan OPCEN Weather Bulletin No. 2 Date issued: 09/20/17 4:10 PM</p> <p>Bagyo Ningning has entered [PAR] at four this afternoon. The eye of Typhoon Ningning can be located 125 km north-east of Guiuan, Eastern Samar and has sustained winds of 90 km per hour, which is strong enough to topple banana plants and gusts of 115 km per hour with possible storm surge.</p> <p>All coastal communities are directed to evacuate to their designated evacuation centers. You are advised to take precautions. Keep safe. God bless!</p> | | | | |

| Time Received | Message Received | Personalized Message | Intended Receiver | Method of Communication | Action of the Receiver | Time Received |
|----------------------|-------------------------|-----------------------------|--------------------------|--------------------------------|---|----------------------|
| | | | | | | |
| 4:26 PM | | | PDRRMO | Radio | Confirmed number of rescuers needed | 4:35 PM |
| 4:36 PM | | | PDRRMO | Radio | Disaster Assistance Rescue Team (DART) Leyte Activated | 4:40 PM |

Tabletop exercise output: Tacloban City

| Time Received | Message Received | Personalized Message | Intended Receiver | Method of Communication | Action of the Receiver | Time Received |
|---------------|---|---|-----------------------------------|---|--|---------------|
| 4:00 PM | During the wrath of Typhoon Ningning, additional human resource from the province/ region is needed to respond to the affected communities. | <p>Ginpapasabot na may-ada Tropical Storm Ningning in sumulod na ha (PAR) yana na alas cuatro han aga. An sentro han severe tropical storm Ningning in aada ha 125 km North East ha Guiuan, Eastern Samar (14'4 N 133' 5 E). An kabusgo han hangin ada ha 90 -115 kph harane ha sentro. Posible magka may-ada hin storm surge ha mga coastal area. #magingHANDA!</p> <p>English translation Tropical Storm Ningning has entered PAR at four this afternoon. The center of the severe tropical storm Ningning is 125 km north east of Guiuan, Eastern Samar (14'4 N 133' 5 E). It has sustained winds of 90 to 115 kph near the center. Possible storm surge at coastal</p> | All constituents of Tacloban City | <ul style="list-style-type: none"> • Text blast • Broadcast (Radio or TV) • Two-way Radio (portable radio) | <ul style="list-style-type: none"> • Local warning measures activated • BDRRMC Activated | 4:25 PM |

| | | | | | | |
|---------|--|---|-----------------|---|--|---------|
| | | areas. #bePREPARED! | | | | |
| 4:26 PM | | RDANA Team <ul style="list-style-type: none"> • 2 WASAR Teams • Logistics/ support (e.g. truck, rescue boats) | OCD Region VIII | <ul style="list-style-type: none"> • Two-way radio • Phone call | One team will be deployed in response to the request | 4:36 PM |

Reflections from the exercise

After the tabletop exercise, the facilitator asked the groups to share their reflections and realizations from the activity.

Province: Although the province has already conducted tabletop exercises in the past, it was still a challenge to transmit the message to the municipal and barangay levels. It is very important for warning messages to contain concise and complete information to avoid waste of time and for people to be guided accordingly.

Tacloban: Crafting personalized messages became a challenge (e.g. translation of technical terms). Not all Tacloban residents can understand and speak Waray. In terms of response, it is important for all the barangays to have a dedicated response team. It is important to have enough manpower to avoid over fatigue among staff. There should be a standby national team that can respond as the need arises. Conduct of Rapid Damage Assessment and Needs Analysis (RDANA) is also necessary.

Tanauan: The development of personalized messages was challenging and difficult. During emergency situations, it is a must for responders to have sense of urgency.

Assessment of the workshop/toolkit

To conclude the activity, a post-test questionnaire was administered. The results/ findings are as follows:

- Most of the participants stated that the workshop objectives were met. Some elaborated on their reasons:
 - ✓ Participants have a clearer understanding of the topic.
 - ✓ They learned a lot about how to effectively disseminate warning on storm surge.

- Most applicable lesson/exercise utilizing storm surge risk communication toolkit
While some participants stated that all lessons were applicable, some noted specific lessons such as:
 - ✓ The necessary ingredients of an effective warning message
 - ✓ Interpreting weather bulletins
 - ✓ Rewriting messages: personalize, localize, and dramatize

- Most challenging lesson/exercise utilizing storm surge risk communication toolkit:
 - ✓ The tabletop exercise was the most challenging because it involved coordination between two or more LGUs.
 - ✓ Addressing key issues
 - ✓ Personalizing and localizing the messages. Although it is a challenging task, it is very useful in the operation.

- Possible hindrances in utilizing the storm surge risk communication toolkit
 - ✓ Lack of access to the internet
 - ✓ Lack of support from government

- ✓ Lack of resources
- ✓ Behavior/attitude of community
- ✓ Negligence of individual in using this storm surge risk communication toolkit

- Suggestions to improve the activity: Most of the participants stated that they did not have suggestions and commended the participants. Those who gave suggestions mentioned:
 - More time should be allotted for the conduct of such activity
 - More activities

LIST OF PARTICIPANTS

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