

Orientation and Planning Workshop on Disaster Risk Reduction and Manage to Punong Barangays of Jagna



Capt. Goyo Hall, Municipal
Building, Jagna Bohol
October 10-11, 2011

Registration

The first day of the orientation and planning workshop began with a registration of participants. The officials coming from the thirty-one (31) barangay of Jagna queued at the registration table of Goyo Hall to sign in their names in the attendance sheets.

Opening Program

At 8:40 in the morning, the activity was formally started with an invocation and tri-color hymns which were played through multimedia presentations. Meanwhile, Engr. Gerry V. Araneta, Municipal Disaster Risk Reduction Management Officer (MDRRMO) took the floor in initiating to settle down the participants by expressing his cordial greetings for taking high regard on the invitation. He was especially thanking the Bohol Integrated Development Foundation, Inc. (BIDEF) for ably facilitating the activity despite that their municipality has been undertaking conscientiously on disaster risk reduction matters.

He stressed further that the activity was a collaborative effort between and among the special bodies of Jagna Municipal Disaster Risk Reduction Management Council and BIDEF thru the GIFT project. That one of the project's lined up activities has to do with the disaster risk reduction management despite that their municipality and its component barangays have already come across this type of activity. However, he rationalized that in undergoing the same it would further enhance their knowledge and enable them to know the salient features of the latest law which is the R.A. 10121.

Conversely, he explained that said activity was intended only for the coastal barangays following wholly on the targets of the GIFT project but he requested Francis to include the upland barangays to maximize the activity because disaster risk reduction management is not only a confronting development concern of the coastal barangays but an encompassing matter in the whole area of Jagna. Thus, the Jagna MDRRMC deliberately collaborated with BIDEF and counter-parted for this orientation and planning workshop.

Rationale

Engr. Araneta gave the rationale of the activity. He put emphasis by stating that it is a declared *policy of the state to uphold people constitutional rights to life and property by addressing the root causes of vulnerabilities to disaster risk reduction and management* by building the capacity of local communities including climate change impacts. It was also reinforced in the local government code as mandate of each LGU which states that *“it is the duty of the municipal government to adopt measures to protect the inhabitants of the municipality from the harmful effects of manmade or natural disasters and calamities and to provide relief services and assistance for victims during and in the aftermath of the said disasters and calamities.”*

In effect, he described how the present governance of each LGU is taking a strong advocacy on the disaster risk reduction activities. He was thankful that Jagna is actively doing their share on

this matter. He made the barangay captains present in the activity aware of their responsibilities to their constituents especially in times of disasters and calamities and the importance of doing preparedness activities that they should take it on with utmost coordination to MDRRMC.

Later in the discussions he notified the participants that the resource person will be tackling the R.A.10121 for them to recall the relevant provisions and that they should not hesitate to ask questions and clarifications.

Expectation and Objective Settings

Afterwards, Francis facilitated the setting of expectations of the 2-day orientation and drew from the participants the following:

- To know more about the DRRM.
- What to do in times of disasters and calamities?
- Where to find budget and the ways to expend the 5% DRRM fund.

While everyone concurred with the above expectations, the objective and contents of the activity was followed as shown in the table below:

General Objective	Contents	Purpose
<p>To equip with basic information on DRR and the salient provision of R.A. 10121 that can be useful in the development of barangay disaster risk reduction and to mainstream the DRR in the LGUs program.</p>	<ul style="list-style-type: none"> • Concepts, approaches, principles and processes of DRR. • Know what are disasters, how, why and it occur. We will understand also the different hazards. • Reducing the risk and formulation of DRRM plan based on the NEDA and DILG prescribed process on local DRRM planning and budgeting. 	<ul style="list-style-type: none"> • To level-off and establish common understanding on DRR. • To understand its (hazards) relationship to climate change. • To know the processes on how to expend the 5% fund for DRRM.

While waiting for Hon. Fortunato R. Abrenilla, to arrive for his Message, Francis thoroughly went over the flow of activities in the program. He laid emphasis by saying that they allotted time for open forum after each topic is discussed to facilitate for the questions and clarifications of the participants. Likewise he said that, the orientation is just a preparatory activity for the actual planning process which would be scheduled in the months to come.

Message

Atty. Fortunato R. Abrenilla

Municipal Mayor

Jagna, Bohol

Good morning everyone!

We are here again for another reflective intention which is the orientation and planning workshop for disaster risk reduction management.

First and foremost, I would like to congratulate our MPDC, Engr. Gerry Araneta for collaborating with this activity. In relation to this, I received a letter from the DENR for geological assessment to be conducted here in Jagna on October 13 to November 13, 2011. We know for a fact that our municipality is very vulnerable to various hazards. Relatively, we just recently saw and heard the disaster that hit in Luzon areas. It is very frightening to note that for the first time in history the Luneta park was flooded. I had been in Manila for 35 years and I have never witnessed nor experienced flooding in Luneta park before.

Consciously, I think we should take this as gradual effects of climate change that disaster truly strikes everywhere as we might have also experienced here in Jagna.

As our response to this overwhelming adversity, it is good to note that our government mandated us to allot budget or fund for the DRR that we need to properly plan for it because we don't want to happen just like what Japan had experienced. That despite their well-preparedness and their consciousness that they are tsunami and earthquake prone area however, disaster struck them simply because, it let off no one.

In closing, I am hoping that this activity would help us in knowing effective ways to mitigate disasters and to know how we could fully utilize the 5% fund for DRR activities.

Again, thank you and good morning.

CONCEPTS, APPROACHES, PRINCIPLES and PROCESSES of DRR/Understanding Hazards

The Aksyon Klima Pilipinas and Disaster Risk Reduction Network Philippines are consortium of the civil society organizations in the Philippines who were responsible in the crafting of the R.A. 10121 Climate Change Act. In fact, this group actively participated in the crafting of PDRRM Act of the Philippines later part of 2007 by collaborating issues on disasters in the Philippines because its group member organizations were coming from the different parts of the country.

Why do we need to have a new law? For 20 years of existence of the PD1566, seemingly this decree has not conceptually made to address in reducing the risks of disasters. If we are to look at it in the holistic point of view, the PD 1566 principle is centered on response only. Later the discussions will tackle on how this existing law shifted to a new paradigm and how the civil society organizations have helped in crafting it.

The Office of Civil Defense-National Disaster Risk Reduction and Management Council accepted the fact that this is the most consulted law in the Philippines. But the disheartening fact and possibly its downside was, if not of “*Ondoy’s*” catastrophe way back in September 2009 it would not have been enacted into law. But as the former president’s graceful exit the law was enacted as her enormous response to the tragedy, hence, its approval on 5 May 2010.

Multi-media Presentation of the Ginsaugon Landslide Tragedy in February 2006

The mayor mentioned in his message about some unforgettable disasters that happened now and before. So, the speaker has searched in the internet what catastrophe so devastating ever recorded in the disaster history of the Philippines that the participants could still vividly recall, relate and which happened nearest to Bohol. Hence, he shared presentation of some of the photos captured in the Ginsaugon, St. Bernard, Southern Leyte Landslide Tragedy.

Some of the highlighted points in the presentation are the following:

- The extent of landslide spanned for 300 hectares.
- The volume of land that fell down, collapsed and eroded was 20-30 million metric tons.
- More or less 3,000 lives were killed during the landslide and 10 had survived.
- All experts on disaster rescue from all over the world went to help in responding the landslide tragedy.
- It showed us that a mere response operation was futile when disaster had already taken place. And the needs to greatly consider regarding vulnerabilities are crucial factors.
- Way back 1995-1996 the risks had already been identified and the Mines and Geo-science Bureau of the DENR even categorically declared that Ginsaugon is not a livable place due to presence of a fault line.
- The catastrophe happened in Ginsaugon was due to these two reasons; geological

(*presence of fault line*) and meteorological (*it rained beyond normal causing the soil to wear off*) hazards.

- In the bigger perspective of said catastrophe, it was a combination of three events (1) rock slide, (2) mud flow and (3) debris avalanche. Said events seldom happened but it occurred simultaneously that day in Ginsaugon.
- The message that it brought to us is that the disasters nowadays have escalated with a combination of a changing climate and the existing hazards.
- If we look at these hazards, each and every one of us has capacity to determine it as part in our preparedness response – no landslides so devastating only if we're aware and prepared of it.
- In the DRR principle, the only thing that exists is natural hazards, when there is typhoon and earthquake it is because it is part of the natural system of the earth.
- Any response team who would be responding in any disaster when it already caused damaged and has lost many lives. When this team only do retrieval operation it would not appropriate and worthy for them to be called disaster response team but otherwise.
- The communities are the best responders when sufficiently capacitated. So that in times of crisis, they would not anymore be a liability but an asset.
- The latest law on DRRM intends to shift the concept of victims and responders relationship. Because in our culture, when we are vulnerable to hazards we begin to consider ourselves as victims already even when there is no disaster has yet occurred.

TOPIC 1: Basic Concept of Disaster Risk Management

Nexus of Climate Change Adaptation and Disaster Risk Reduction

For. Antonio D. Balang, Jr.

- Nexus means convergence of CCA and DRR
- An exercise to connect the 9 dots with 4 lines without lifting a pen was given. Since nobody got the exercise correctly the speaker presented his answer and emphasized that for the dots to be connected with lines one should extend out from the arrangement of the dots. The message of the exercise provided that one should “think outside the box”. Relatively, the DRR and CCA are not technical issues if everyone does their share in little ways they can.
- The effects of typhoons Reming, Ondoy, Falcon and Pedring are glaring signs of the presence climate change.
- The world's temperature nowadays is progressively rising due to global warming.
- When earth's temperature goes high it will naturally do a so-called “*healing process*” such as creating a heavy rainfall causing some parts of the globe to be heavily flooded.
- The effects of climate change are gradual processes of bringing the people into dire circumstances like absence of potable water, threats to security (*housing and livelihood*), food supply crisis, alteration of diseases and deteriorating health conditions, worsening development and future uncertainties which would result in due course to massive fatality or loss of lives.

- For every increase of temperature to 1 degree Centigrade, 10% of the agricultural production decreases. When our population increases yearly at the rate of 4.2% and given the decrease of 10% to agricultural production apparently, a new kind of disaster has come into being.
- Majority of the population depend their livelihood so much on the products of the environment.
- The climate change did already happen, now, worldwide and right at our very front yard. It is now becoming the most dominant issue of our time.
- **Climate change** is a significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions or the distribution of events around that average.
- **Disaster** is a serious disruption of the functioning community or a society causing widespread human materials, economic (assets, goods and services) or environmental losses which exceed the ability of the affected community/society to cope using its own resources
- The two types of Climate Change: Natural and Anthropogenic. The natural (*ice age*) processes of climate change evolved in million years while the anthropogenic (*human-made*) climate change only occurred thousands of years – the increase of emission of fluorocarbons is one of the causes of this type of climate change.
- What the world is now faced with is the combination of these two types of climate change.
- To fully understand the natural climate change a simulation on how the Philippine archipelago had evolved 50 million years ago was shown. Making Palawan as the oldest and the biggest land mass has ever existed before the other land masses of the Philippine archipelago came about. That for every million years of evolution a land mass occurred and production of carbon dioxide is inevitable due to presence of living things inhabiting in the land masses.
- The fluctuating presentation of temperature shows the variances of the condition of the climate in the world. As for instance, during spring season in temperate countries the flora breathe in the natural carbon dioxide and during the summer and fall seasons the ocean takes in the natural carbon dioxide.
- The Philippine Hazards (IPCC AR4) on an average, 20 cyclones cross the Philippines Area of Responsibility with about 8 to 9 landfall each year; with an increase of 4.2 in the frequency of cyclones entering PAR during the period 1990 to 2003
- Increase in mean annual, maximum and minimum temperatures by 0.14°C between 1971 to 2000
- Increase in annual mean rainfall since 1980s and in number of rainy days since 1990s, increase in inter-annual variability of onset of rainfall
- In SEA: Increase in hot days and warm nights and decrease in cold days and nights between 1961 and 1998
- In November 2008 the Manila Observatory and DENR presented the following projected risk simulation: (a) top 20 provinces at risk to draught, (b) top 20 provinces at risk to increase of temperature, (c) top 20 provinces risk to typhoons, (d) top 20 provinces at risk to projected rainfall. When these projections were presented in one of the gatherings some became dubious about it and no one took it seriously not until when the great disaster happened when “Ondoy” hit Metro Manila.
- The China and USA are two powerful countries in the world with great contributions to CO₂

emission along with other countries in Europe, Japan and Australia. The actions taken of the leaders of these nations towards climate change would have a substantial effects on the third world countries like Philippines that terribly affected by the global warming.

- CO₂ emissions of developed countries have continued to rise and the Kyoto Protocol targets are in jeopardy.
- The Copenhagen Climate Change Summit in 2009 was supposedly the deadline set by all parties to legally bind and agree with to ensure that CO₂ emission will not exceed to 2°C however, the **G-8 countries** (powerful and industrialized countries) sidestepped with another accord (Copenhagen Accord) which gradually exterminated the Kyoto Protocol. The Cop 15 was considered by other countries - **FAILURE**. It failed to find political will to meet the challenges of climate change. It was the year where most of us failed to find the courage to do so.
- The challenge is, when these powerful nations do not have the will to take appropriate and empathetic actions, the third world countries which were adversely affected should now start doing pro-active actions locally.
- Millions will be at risks in **2080** if the temperature will continue to rise beyond 2°C. Risks of coastal flooding, malaria, hunger and water shortage will significantly increase also [*Parry et. al. (2001) "Millions at Risks" Glob.Env.Change.*]
- The following inevitable climate impacts which would greatly affect the developing countries are: environmental destruction, economic disruption, social dislocation and political destabilization.
- Climate change does not need technical solutions but a fundamental **180°** shift of principles and change of lifestyle.
- Climate change will exacerbate the impact of existing non-climate stressors and institutional challenges on all sectors.
- DRR is a **systematic effort** to analyze and manage the causes of disasters by **reducing vulnerabilities** and **enhancing capacities** in order to **lessen the adverse impacts** of hazards and the probability of disaster.
- CCA is an **adjustment** in natural or human systems in response to actual or expected climate stimuli or their effects, which **moderates harm** or exploits beneficial opportunities (IPCC).
- The similarities are in **objectives and purpose** is the same which is to increase the adaptability of climate exacerbating impacts; **end goal**, to develop resiliency of the communities to combat the impacts of hazards and change the lifestyle; **benefits to society** would be safer lives; **methods**, just the same; **seeking to address root causes** and **increasing influence**.
- But it differs in origin and history, time scale, scope, perspective and others but in the question whether to take on DRR or CCA, the answer is, it does not MATTER – for as long as our actions are geared towards saving the lives of the people.
- Which brings back to the definition of **RISK = Hazard Exposure x Vulnerability/Capacity**
- **Climate Change → Climate Hazards** (*unpredictable, non-linear, variable, uncertain, extreme, unprecedented, perplexing, ever-changing, unexpected*)
- DRR and CCA mean addressing the root causes of people's vulnerability.
- Risk reduction is a development issue. Until there is a pressing issue affecting an individual just the same a disaster is not yet addressed.

Question/Clarification

Are climate change impacts selectively affect communities? Climate change impacts affect all individuals and geographic locations. Say for instance, the risk projection in 2008 presented awhile ago the Province of Bohol is not at risk of heavy rainfall and typhoon which may affect severe flooding to some municipalities but in 2010 we were affected with El Nino causing problems in the decrease of agricultural production and increasing of dengue cases.

TOPIC 2: Salient Features of Hyogo Framework and R.A. 10121 (Philippine Disaster Risk Reduction and Management Act of 2010)

What is DRRM Act?

For. Antonio D. Balang, Jr.

- The long title of the law states “**An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for the National Disaster Risk Reduction and Management Framework and Institutionalizing the National Disaster Risk Reduction and Management Plan, Appropriating Funds Therefore and for Other Purposes**”
- The said law described the need for establishing a disaster risk reduction management system.
- Disaster cannot be managed but the risk that causes it can be managed.
- The other concept of the said law is the creation of a management framework.

Two Hazard Terms

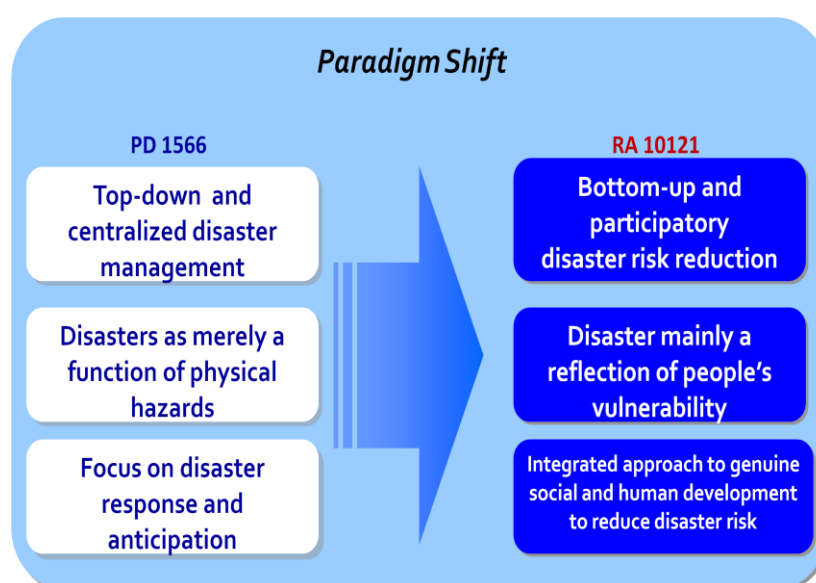
- **Disaster Response.** The provision of emergency services and public assistance **during or immediately after** a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected. Disaster response is predominantly focused on **immediate** and **short-term needs** and is sometimes called “disaster relief”.
- **Disaster Risk Reduction.** A systematic effort to **analyze** and **manage** the causes of disasters by **reducing vulnerabilities** and enhancing capacities in order to lessen the adverse impacts of hazards and the probability of disaster
- Disaster risk reduction is looking at how exposed the vulnerable communities are to hazards.

Understanding the Terms and Its Underlying Factors

Hazards	Exposure	Vulnerability/Capacity
A phenomena, event, occurrence or human activity that may cause injury, loss of lives and damage to property and the environment.	The degree to which people and properties are likely to experience hazards	The characteristics of a community that make it susceptible to a hazard or capable of coping and recovering from the damaging effects of a disaster.
• Typhoons	• Dense population	VULNERABILITY

<ul style="list-style-type: none"> • Floods • Drought • Earthquake • Tsunami • Fire • Wars • Epidemics • Terrorism 	<ul style="list-style-type: none"> • Living in high-risk areas 	<ul style="list-style-type: none"> • Poverty • Disabilities • Poor health and sanitation • Hunger • Poor land use planning • Overexploited and degraded natural resources • Poor infrastructures • Poor governance <p>CAPACITY</p> <ul style="list-style-type: none"> • Wise use of resources • Robust infrastructure • Strong and good governance
<ul style="list-style-type: none"> • Prepare for Hazards (1) Know the hazards (2) Contingency Planning • Monitor Hazards (1) Early warning systems • Mitigate Hazards (1) Protect communities through infrastructure 	<ul style="list-style-type: none"> • Minimize Exposure (1) Relocate (2) Evacuate • Transfer Risks (1) Insurance and Social protection (Encourage volunteerism) 	<ul style="list-style-type: none"> • Reduce Vulnerabilities • Enhance Capacities (1) Organized communities (2) Strong governance (3) Food security (4) Quality education (5) Health and sanitation (6) Access to safe water (7) Reduced poverty (8) Diversified livelihoods (9) Management of natural resources (9) Protection of the environment (10) Access to lifeline elements (11) Retrofitting (12) Infrastructure development

Why do we need to have a new law?



- Bottoms-up and participatory approach – the LGUs should be in the forefront and given the primary role in DRR not the military nor the AFP

What is the basis of the DRRM Act?

- The DRRM Act adopts and adheres to principles & strategies consistent with the international standards set by the Hyogo Framework for Action (HFA). The HFA is a comprehensive, action-oriented response to international concern about the growing impacts of disasters on individuals, communities & national development.
- The HFA was developed following the tsunami in 2004 (Sumatra) which claimed more than 200,000 lives and massively damaged properties and the environment. This emphasized the need for a paradigm shift from disaster response to disaster risk reduction (DRR).

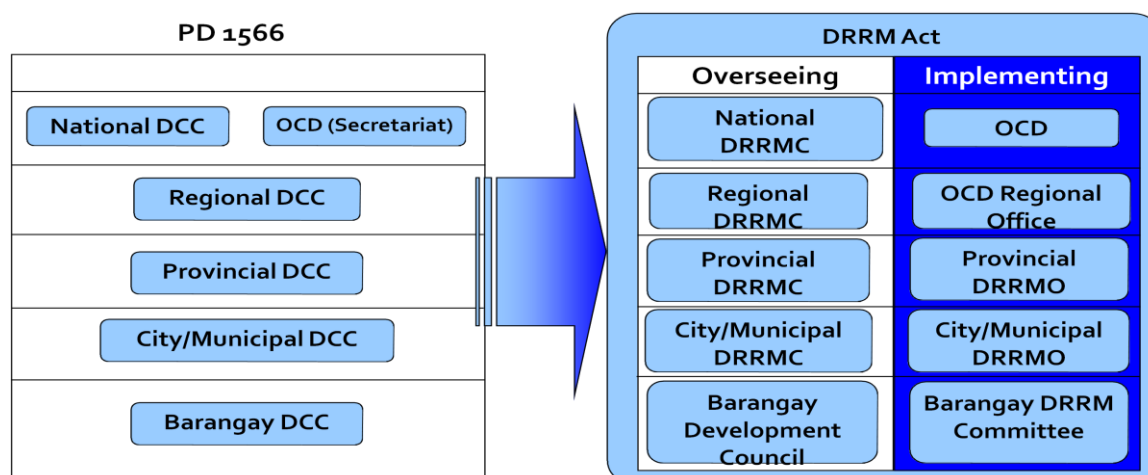


- **Governance** - the DILG is strictly giving directive to incorporate DRRM Plan in the budget preparation
- **Risk Assessment** – Assessing the possible risks
- **Knowledge Management** – the principle behind this priority action is about building safety and resiliency among communities in the vulnerable situations.
- **Vulnerability Reduction** – should have considerations in identifying those who are vulnerable sectors
- **Disaster Preparedness** – it came as the last component because if we are established and the 1st four components are effectively functioning, disaster preparedness response would be an isolated case already.

What are the salient features of the DRRM Act?

- Adherence to universal norms, principles, and standards of humanitarian assistance
- Good governance through transparency and accountability
- Strengthened institutional mechanism for DRRM
- Integrated, coordinated, multi-sectoral, inter-agency, and community-based approach to disaster risk reduction
- Empowerment of local government units (LGUs) and civil society organizations (CSOs) as key partners in disaster risk reduction
- Integration of the DRRM into the educational system
- Establishment of the DRRM Fund (DRRMF) at the national and local levels
- Providing for provisions on the declaration of a state of calamity, remedial measures, prohibited acts and penalties

How has the DRRM structure changed?



- In PD 1566 the structure is composed of councils. Technically speaking, in organizational management, a council's role is primarily a policy making body. The previous structure created an Office of Civil Defense (OCD) as an implementing arm. However, in reality, this implementing arm has not reached out through the barangay levels because the OCD acts similarly as other national government line agencies in nature.
- In the DRRM Act it was restructured by creating an overseeing and implementing bodies with DRRMOs and Committees to compose the implementing arm.
- The DRRM Committee in the barangay should not necessarily be chaired by the Punong Barangay.
- In Section 11 of this Act states that, The Barangay Disaster Coordinating Councils **shall cease** to exist and its powers and functions shall henceforth be assumed by the existing Barangay Development Councils (BDCs) which shall serve as the LDRRMCs in every barangay.
- Because technically speaking, the BDC is the one responsible to plan on what to do with the 20% development fund in the barangay.

Use of LDRRMF

- Section 21. the present Local Calamity Fund shall henceforth be known as **the Local Disaster Risk Reduction and Management Fund (LDRRMF)**.
- Not less than five percent (5%) of the estimated revenue from regular sources shall be set aside as the LDRRMF **to support disaster risk management activities such as, but not limited to, pre-disaster preparedness programs** including training, purchasing life-saving rescue equipment, supplies and medicines, for post-disaster activities, and for the payment of premiums on calamity insurance.
- Salaries and wages shall not be included in the 70% of the 5%.
- The 5% LDRRMF can now be made as continuing appropriation when said fund is unexpended.
- The community risk assessment should be the basis for DRRM planning.
- Unexpended LDRRMF goes to a trust fund which will be used solely for DRRM activities of the LDRRMF within the next five (5) years. Funds which are still not fully utilized after five (5) years shall go back to the general fund and will be available for other social services to be identified by the local *sanggunian*. (Sec. 21 par. 3)

- The LDRRMC may transfer the DRRM Fund to support disaster risk reduction work of other LDRRMCs which are declared under a state of calamity (Sec. 21 par.1)
- The **LDRRM Plan** shall be the basis for the use and disbursement of the Local DRRM Fund. This shall be monitored and evaluated by the LDRRMC (Sec. 21).

Who can declare a state of calamity?

- The President can declare a state of calamity upon the recommendation of the NDRRMC. The local *sanggunian* may now also declare and lift the state of calamity within their locality. This is upon the recommendation of the LDRRMC based on the results of the damage assessment and needs analysis (Sec. 16).
- The PDRRMC can declare that a province is under a state of calamity if 2 contiguous or more municipalities are affected. But in the Barangay level, they may declare and lift the state of calamity upon the approval of the BDRRMC.

Prohibitions and Penalties

- Dereliction of duties which leads to destruction, loss of lives, critical damage of facilities and misuse of funds.
- Preventing the entry and distribution of relief goods in disaster-stricken areas, including appropriate technology, tools, equipment, accessories, disaster teams/experts
- Buying, for consumption or resale, from disaster relief agencies any relief goods, equipment or other aid commodities which are intended for distribution to disaster affected communities
- Buying, for consumption or resale, from the disaster affected recipient any relief goods, equipment or other aid commodities received by them
- Selling of relief goods, equipment or other aid commodities which are intended for distribution to disaster victim
- Forcibly seizing relief goods, equipment or other aid commodities intended for or consigned to a specific group of victims or relief agency.
- Section 20 of the DRRM Act imposes the penalty of
Fine between P50,000 to P500,000
Imprisonment between six months to one year
Both fine and imprisonment
- Confiscation or forfeiture of the objects and instrumentalities used
- For government officials, he/she shall be perpetually disqualified from public office in addition to the fine, imprisonment and confiscation.

TOPIC 3: Understanding Hazards

Understanding Hazards

For. Antonio D. Balang, Jr.

Understanding Typhoon

- A storm is an inclement weather condition with wind speed or gustiness of 35 kilometers per hour.

- An average of 20 typhoons will come in the Philippine Area of Responsibility (PAR) yearly.
- If this weather condition will cross the PAR, it will then be called a storm in the predetermined local name.
- A storm crosses from West Philippine Sea and the Pacific Ocean.
- The three kinds of storm are: (1) tropical depression – with gustiness of 35 to 63 kilometers per hour; (2) tropical storm – with gustiness of 64 to 117 kilometers per hour and; (3) typhoon – with gustiness of 118 kilometers per hour above and a super typhoon with a wind pacing 250 kilometers per hour and above.
- A storm has an eye with a diameter measuring 10-20 kilometers. When confined in the eye of the storm, the weather condition is calm, less cloudy atmosphere and almost there is an absence of rainfall. Damage can be experienced whenever an eye wall hits.
- The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) is the only official government agency allowed to provide relevant information regarding weather conditions in the country.
- Storm advisory can also be acquired through DOST-PAGASA SMS with SMART service mobile phone by typing in the message box BAGYO INFO ADVISORY and send to 7002586 with a 2 pesos charge.
- The weather system provides information every 4 hours (5 a.m/5p.m. and 11 a.m./11p.m.)
- The risks may brought about by typhoon are: (1) landslide, (2) heavy rainfall and flood, (3) storm surge, (4) strong wind.
- Public Storm Warning Signal

Storm Signal	Gustiness of Wind (kph)	Onset Velocity (hr.)
1	30-60	36
2	61-100	24
3	101-185	18
4	Above 185	12

- The higher the storm signal and its corresponding gustiness the faster it reaches or hit the areas which are declared to be within the particular storm signal.
- Things to do before the typhoon hit on: (1) prepare flashlights, batteries and matches for possibility of blackout, (2) save and store up enough food supplies and potable water, (3) inform other family members on the preparations, (4) make necessary repair to stabilize the condition of the house , (5) plan for the likelihood of evacuation, (6) frequently monitor the radio and t.v. announcement regarding the storm warning and (7) prepare emergency kit and ensure that it's dry all the time.

Understanding Flash flood

- Two types of flash flood: (1) slow onset and (2) rapid onset.

Understanding Storm surge

- Rapid upsurge of salt/sea water due to water tide and strong wind caused by typhoon.
- The Philippines is susceptible to storm surges because it has a long stretch of shoreline.
- In the land use planning, the areas which are risky to storm surges should be given considerations.

Understanding Tsunami & Tidal Wave

- Tsunami and tidal wave are two different things.
- From time to time there are areas in the Philippines that experience 2 tidal waves yearly.
- Tidal wave is derived from the words “astronomical tide” or the results of “high” and “low” tide activity – the gravitational pull of the moon and sun to the bodies of water specifically the oceans.
- During June and November the highest tide in the Philippines is beyond normal level. In the course of this event, presence of momentary sea current is very high and when strong wind turn up it will create tidal waves.
- Tsunami occurred due to “seismic activity” and if there are raptures of “fault lines”.
- Types of faulting : normal, reverse and slide slip faulting
- Types of tsunami: local and foreign
- Tsunami is not categorically an effect of climate change.
- All hazards have ecological benefits or importance. They are natural cleansers.

Understanding Lightning

- Three forms of lightning: (1) **Forked** - crooked lightning bolts discharge from cloud to ground or cloud to air, (2) **Sheet/Flash Lightning** - clouds, rain blocks forked lightning bolt, but flash illuminates clouds, (3) **Ball** – on rare occasions, small growing balls loops from the cloud but quickly vanish.
- To avoid dangers in lightning: don’t stay out of the building, avoid staying near the objects which have electricity, don’t use electrical gadgets and appliances, don’t use telephones or mobile phones, remain inside the vehicle, don’t hold objects which are prone to electrical currents, stay away from open spaces, don’t hide in higher places of objects, knee-down, tip-toe and squeeze yourself.

Understanding Earthquake

- Origins of earthquake: (1) tectonic and (2) volcanic.
- Types of earthquake: (1) foreshocks - **small earthquakes that sometimes precede a large one**, and (2) aftershocks - **small earthquakes that follow an initial earthquake in the same vicinity**
- The Philippines is within the Pacific Typhoon Belt and Pacific Ring of Fire and Tectonic Plates
- **Intensity** - refers to the severity of an earthquake in terms of the damage that it inflicts on structures and people at a specific location (scale of I to XII) ; Modified Mercalli Intensity Scale (Scale: I to XII)
- **Magnitude** - calculated from seismic records and estimates the amount of energy released at the source of an earthquake. **Richter Magnitude Scale** the magnitude of an earthquake is estimated by measuring the amplitude (maximum displacement) of the largest seismic wave recorded.
- Worldwide Earthquake Frequency (1990)

Descriptor	Magnitude	Annual Average
Great	8 or higher	1
Major	7-7.9	18
Strong	6-6.9	120

Moderate	5-5.9	800
Light	4-4.9	c. 6,200
Minor	3-3.9	c. 49,000
Very Minor	2-3	c. 1,000/day
Very Minor	1-2	c. 8,000/day

Reminders and Other Matters

- Discussions on activities to be integrated in the BDRRM plans
- Status of hand-held radios to be discussed during the Liga ng Mga Barangay.
- Inclusion of warning systems in the contingency plans.
- The risk assessment to be conducted in the following day is required for the next planning session (5-year planning) which will be scheduled in due time.

Day 2, October 11, 2011

Preliminaries

In spite of the storm warning signal, the 2nd day of the activity was attended by equally enthusiastic participants. It started with an opening prayer thru a multimedia presentation.

Engr. Araneta took the floor and informed the participants that he has already given warning information through the radio about the weather advisory. He advised the Punong Barangays to give precautionary measures particularly those residents living near the hazards prone areas.

Francis briefly made a recapitulation to refresh participants' learnings and mentioned major points and highlights from the following topics:

- Basic concepts, approaches and principles of DRR;
- R.A. 10121 and;
- Understanding Hazards

REDUCING THE RISK AND VULNERABILITIES

TOPIC 4: Video Presentation/Film Showing

- Disaster Preparedness and Evacuation
Strength in Numbers
Barangay Mangin Dagupan City
- Community Drills conducted in Barangay Poro, Camotes
- St. Bernard, Southern Leyte (Disaster Preparedness)

Sharing:

- Importance of recognizing people's participation
- Prioritization of DRRM plan
- Need to consider more time in preparedness
- Integration of early warning systems

TOPIC 5: Participatory Capacity and Vulnerability Assessment

- Disaster risk is the probability of hazards and dangers that affect and the extent of damage it may cause to the communities.
- Disaster Risk Assessment is a systematic effort to **analyze** and **manage** the causes of disasters by **reducing vulnerabilities** and enhancing capacities in order to lessen the adverse impacts of hazards and the probability of disaster.
- Scientific data is more or less appreciated in the context of assessing risk.
- Risk mapping and hazards mapping are two different things. In the DRRM Act the LGUs particularly the barangays are only expected to come up with a hazards map.
- Hazard Mapping – outlining where the hazards are such as landslide and flood prone areas in the barangay.
- Risk Mapping – mapping out involving population density, terrain and elevation of topography (basically technical).
- Vulnerability and Capacity Assessment – identifying the extent of damage it's characteristics of a community that make it susceptible to a hazard or capable of coping and recovering from the damaging effects of a disaster.
- Importance of Community Risk Assessment: (1) to prepare the community's capacity in response to the disaster through a process that gives importance of community participation; (2) to have a common understanding on hazards and disasters (scientific and community's perception); (3) to formulate a plan and actions to mitigate the risks and vulnerabilities.
- Tools in conducting CRA: (1) Hazard Mapping (Hazard Assessment), (2) Capacity and Vulnerability Assessment Matrix, (3) Time line (Worst case scenario)

Workshop 1: Hazard Mapping

(Please see attached photos of the hazard maps/workshop outputs)

- The output will be validated against the scientific or geo-hazard map generated by the DENR.
- Agreed on the symbols or legends to be used in order to circumvent difficulties.

Workshop 2: Timeline

- To identify occurrences that happened in the community 30 years ago, that caused significant damage in the communities, properties and livelihood.

Sample Table:

Klase sa Katalagman	Types of hazards		
Unsang Tuiga	Year/Date		
Gikusgon (<i>Impact and Strength</i>)	Magnitude/Strength/descriptive		
Nakalas nga Kinabuhi o naangol	Number of loss of lives		
Nangaguba o nadaut mga propredad	Est. Amount/ number/description		
Naapektuhan nga <i>infrastructure</i> sa gobyerno ug pribado	Est. Amount/number/description		
Kadaut sa Agrikultura	Hectarage/no. Of heads/ etc.		
Kadaut sa Kalikupan	Number/description/degree/		
Bana-bana nga kantidad sa kadaut (gawas sa nakalas nga kinabuhi)	Estimate amount of damage		

(Please see attached workshop outputs of TIMELINE)

Workshop 3: Risk and Vulnerability Assessment

- Identify reasons first before objectively weigh the degree of risks of the certain hazards.

Sample Table:

TYPE OF HAZARDS	RISKS			REASON
	Low	Medium	High	
SUNOG			X	<ul style="list-style-type: none"> ■ Sikit sikit ang mga balay ■ Walay klarong road right of way nga kasudlan sa bombero ■ Kasagaran sa mga balay gihimo sa light materials ■ 90% sa household illegal connection ang kuryente ■ Wala kasinatian ang mga tawo unsay ilang buhaton sa panahon sa sunog
KULYADA		X		<ul style="list-style-type: none"> ■ 5 kilometer nga provincial road naa daplin sa baybayun nga kusog hapakan sa balud sa panahon sa kulyada ■ Daghan ang mga balay nga anaa daplin sa baybayun ■ Wala kasinatian ang mga tawo unsay ilang buhaton sa panahon sa kulyada ■ Walay bakhaw nga mutubo sa baybayun kay bato ang lapyahan ug wala puy dike nga mupugong sa kusog nga balud
BAGYO				<ul style="list-style-type: none"> ■ Kasagaran sa mga balay gihimo sa light materials ■ Walay kasinatian ang mga tawo unsay ilang buhaton sa panahon sa sunog ■ Kulang ug kabakhawan nga mupogong sa kusog nga hangin
BAHA	X			<ul style="list-style-type: none"> ■ Walay Drainage System ■ 40% sa mga balay anaa sa mga bukana ug flood plain areas.

(Please see attached workshop outputs)

Case Study Discussions and Presentation

Local Risk Disaster Planning and Budgeting Process

- Presented the Local Risk Disaster Plan of the Municipality of San Fransisco, Camotes Island, the 1st LGU to come up a DRRM Plan which was used as an entry to the United Nations International Strategy for Risk Reduction and won said competition from out of the 154 countries.
- Their entry defeated the DRR initiative of one of the entries from Australia.
- The R.A. 10121 was just fully implemented this year as its IRR was only

created in October in 2010.

- One of the uncertainties in the implementation of the said law is mainstreaming of the DRR and CCA in the local plans.
- The confusion and misunderstanding of process on BDRRM planning and budgeting. Allocation of the 5% LDRRMF (70% and 30%).
- Presentation of sample distribution of the 5% as continuing appropriation.
- DILG's interpretation: carrying over of the unexpended or unused funds from the QRF to the trust funds making LDRRMF or budget consistent in the next budget year.
- The NDRRMC interpretation: any unused amount or excess amount from the 70% and 30% shall accrue in the annual budget of succeeding year before it shall be apportioned with another 5% for DRR.
- DBM's interpretation: any excess or unused amount from both (Preparedness and Quick Response Funds) of the current year shall accrue to the PRF (70%) amount/budget of succeeding year.
- Supposedly the 2-day activity is merely an orientation but we already incorporated the reality check by doing the risk disaster assessment and vulnerability and capacity assessment.
- Emphasized on the adherence of complying the schedule of preparing and submission of budget.
- The BLGUs should create a 5-year development plan and a resolution of this plan.
- Presented a workable development structure for BLGUs. That it should replicate the same development structure in the MLGU to preclude overlapping of roles and functions and confusions.
- Create DRR Committee in the BDC and clearly define its roles and functions (preparedness, early warning, crowd control/ quick response – relief operations). Emphasizing the importance of delegating tasks and volunteerism (purok system approach).
- Possible committees: camp management/medical and first aid/rescue and crowd control/early warning/blood donation/damage needs assessment and analysis.
- PS should be charged in the actual income and should not be subtracted from the IRA.
- Presented the 5-year MDRRMP of Tudela for reference purposes (emphasizing the time lining, risk mapping, hazard mapping, formulation of disaster scenarios)

Closing Activity

Sharing of Insights/Next Steps

- We realized that our preparedness activity in the barangay is still insufficient and what I learned from today's activity would be integrated in our DRRM. We need also to maximize the practical application (community drill).
- Submission of the 5% budget allocation for DRR in each barangay.
- The GIFT project will look into the outputs of the workshops to determine which barangay needs to be prioritized in terms of the degree of risks and hazards which would be part in the next activity for 5-year DRRM planning probably in November.

Distribution of Certificates of Participation and Resource Materials

- Before the activity was formally closed, the distribution of the primer and cd's of the presentations ensued and a closing prayer was followed to mark the conclusion of the 2-day activity.

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