



Republic of the Philippines
City Government of Tacloban
Office of the City Mayor

Message

As Chairman of the Tacloban City Disaster Risk Reduction and Management Council, it is my honor to present this City Disaster Risk Reduction and Management Plan.

Although we have been proactively taking steps to strengthen Tacloban's DRRM institution even before Super Typhoon Yolanda, the Yolanda experience revealed to us the many areas in which our DRRM can still improve. Our successful preparation for Typhoon Ruby just a year after Yolanda is a testament to how far we've come. But always, there is room for growth in making our city even safer and more liveable for the coming generations.

We have made all the efforts necessary to craft this plan in precisely the same spirit and philosophy as the National DRRM Plan (NDRRMP), addressing sectoral concerns in all four of the NDRRMP's thematic areas, namely (1) Disaster Prevention and Mitigation, (2) Preparedness, (3) Response, and (4) Recovery and Rehabilitation.

May God in His wisdom lead us and guide us in our efforts to make our beloved city a safer, more resilient, and more vibrant home!

CRISTINA G. ROMUALDEZ
City Mayor

**Republic of the Philippines
Tacloban City
OFFICE OF THE CITY DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL**

RESOLUTION NO. 2016-01-000

**A RESOLUTION APPROVING THE CITY DISASTER RISK REDUCTION AND
MANAGEMENT PLAN FOR 2016 - 2022 OF THE CITY OF TACLOBAN**

WHEREAS, the Officer in Charge of the City Disaster Risk Reduction and Management Office endorsed to Mayor Alfred S. Romualdez, the City Disaster Risk Reduction and Management Council Chairman, a copy of the City Disaster Risk Reduction and Management Plan for the City of Tacloban covering the period 2016 to 2022, for approval;

WHEREAS, this plan shall be taken as a manual to control over all emergency situations and operations geared towards an immediate response to simple or multiple contingencies in the city;

WHEREAS, the objectives of this plan are to save lives, prevent sufferings, protect properties, minimize damages during disasters and calamities and restore and rehabilitate disaster stricken areas;

WHEREFORE, on motion of the City Director of the City DILG duly seconded by all members of the CDRRM Council Members present,

RESOLVED, as it is hereby resolved, to approve the City Disaster Risk Reduction and Management Plan for 2016 to 2022 of the City of Tacloban;

RESOLVED FURTHER, to furnish a copy of this resolution to the Sangguniang Panlungsod as a reference for them to duly resolve the adoption of such plan for the City.

UNANIMOUSLY APPROVED, July 18, 2016.

I HEREBY CERTIFY to the correctness of the foregoing Resolution No. 2016-01-000.

ILDEBRANDO C. BERNADAS
CDRRMC Secretary

ATTESTED:

CRISTINA G. ROMUALDEZ
City Mayor
CDRRMC Chairman



Republic of the Philippines
Tacloban City
TANGGAPAN NG SANGGUNIANG PANLUNGSOD

EXCERPT FROM THE 27TH REGULAR SESSION OF THE 13TH SANGGUNIANG PANLUNGSOD HELD AT THE SESSION HALL, LEGISLATIVE BUILDING, CITY HALL, TACLOBAN CITY, ON MARCH 15, 2017.

PRESENT:

Hon. Jerry T. Yaokasin	-	City Vice-Mayor & Presiding Officer
Hon. Edwin Y. Chua	-	Floor Leader
Hon. Eden Chua-Pineda	-	Assistant Floor Leader/ABC President
Hon. Jerry S. Uy	-	SP Member
Hon. Maria Elvira G. Casal	-	SP Member
Hon. Edward Frederick I. Chua	-	SP Member
Hon. Evangeline L. Esperas	-	SP Member
Hon. Rachelle Erica C. Pineda	-	SP Member
Hon. Aurora Aimee D. Grafil	-	SP Member
Hon. Jose Mario S. Bagulaya	-	SP Member
Hon. Raissa J. Villasin	-	SP Member

ABSENT:

Hon. Victor Emmanuel V. Domingo	-	SP Member/ Presiding Officer Protempore
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RESOLUTION NO. 2017-13-72

A RESOLUTION APPROVING THE COMPREHENSIVE DISASTER RISK REDUCTION AND MANAGEMENT PLAN OF THE CITY OF TACLOBAN FOR 2016-2022

WHEREAS, the Honorable City Mayor Cristina G. Romualdez has endorsed to the Sangguniang Panlungsod the Comprehensive Disaster Risk Reduction and Management Plan 2016-2022 of the City of Tacloban for approval, per endorsement letter dated 21 February 2017;

WHEREAS, said Comprehensive Risk Reduction and Management Plan promotes and raises public awareness of and compliance of RA 10121 with programs, disaster risk information and contingency planning activities for the protection and preservation of life and properties during emergencies.

WHEREFORE, on motion of Honorable Floor Leader Edwin Y. Chua, duly seconded by all Honorable Members present, the Sangguniang Panlungsod,

RESOLVE, as it is hereby resolved, to approve the Comprehensive Disaster Risk Reduction and Management Plan 2016-2022 of the City of Tacloban;

RESOLVED FURTHER, to furnish copies of this resolution to the Honorable City Mayor Cristina G. Romualdez and to the DILG Regional Office VIII, for their information.

UNANIMOUSLY APPROVED, March 15, 2017.

I HEREBY CERTIFY to the correctness of the foregoing Resolution No. 2017-13-72.

ATTESTED:


JERRY T. YAKASIN
City Vice-Mayor & Presiding Officer

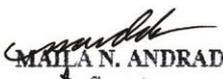

MAILLA N. ANDRADE
Secretary

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List of Abbreviations / Acronyms

BDRRMC	Barangay Disaster Risk Reduction and Management Committee
BDRRMP	Barangay Disaster Risk Reduction and Management Plan
BPLD	Business Permits and Licensing Division
CBDRM	Community Based Disaster Risk Management
CC	Climate Change
CCA	Climate Change Adaptation
CV	Climate Variability
CDP	Comprehensive Development Plan
CDRRMC	City Disaster Risk Reduction and Management Council
CDRRMO	City Disaster Risk Reduction and Management Office
CDRRMP	City Disaster Risk Reduction and Management Plan
CLUP	Comprehensive Land Use Plan
DANA	Damage Analysis Needs Assessment
DRR	Disaster Risk Reduction
HEPRRP	Health Emergency Preparedness, Response and Recovery Plan
LMWD	Leyte Metropolitan Water District
MSME	Micro, Small, and Medium Enterprises
NSAP	National Stock Assessment Program
NDRRMP	National Disaster Risk Reduction and Management Plan
NPC	National Power Corporation
OpCen	Operations Center
PAGASA	Philippine Atmospheric Geophysical and Astronomical Services Administration
PDNA	Post Disaster Needs Assessment
SRR	Search Rescue and Retrieval
TACRU	Tacloban City Rescue Unit
TOMECO	Traffic Operations Management Enforcement Control Office
TRRP	Tacloban Rehabilitation and Recovery Plan

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Executive Summary

In the early morning of November 8, 2013, Super Typhoon Haiyan, locally named Yolanda, pummelled Tacloban City with 378 km/h winds and 6-meter storm surges. In the aftermath, Tacloban City was left to deal with unimaginable destruction, death, chaos, and the pressing question of whether it was even worth it to rebuild. In no uncertain terms, the people of Tacloban realized how vulnerable their city was to Nature's wrath.

But studies conducted with development partners showed that with thorough planning and certain decisive actions, Tacloban could still be a thriving, vibrant, resilient city. Tacloban has been taking steps toward that goal with the cooperation of numerous humanitarian and development partners. Now, nearly three years since Yolanda, many pressing issues have yet to be addressed, but Tacloban has more than just reclaimed her role as the hub of Region 8. It has re-emerged to become an even stronger economy.

The enactment of Republic Act 10121 otherwise known as the Philippine Disaster Risk Reduction and Management Act of 2010 serves as the national guide on how sustainable development can be achieved through inclusive growth while building the adaptive capacities of communities; increasing the resilience of vulnerable sectors; and optimizing disaster mitigation opportunities with the end view of promoting people's welfare and security towards gender-responsive, climate smart and rights-based sustainable development.

The Tacloban City Disaster Risk Reduction and Management Plan is guided by RA 10121 and is adopted by the City of Tacloban to provide strategic guidance, propose outcomes and activities; facilitate the coordination of a large number of initiatives that are multi-sector, enable the participation of a broad range of stakeholders; function as an instrument to channel financial and technical resources that can address disaster and climate change vulnerabilities and concerns of the population and the city.

The CDRRMP proposes an integrated multi-sectoral approach that will follow the principle of devolution, i.e. providing greater responsibility and decision-making at the lowest administrative level possible as it assumes that the best knowledge of problems, needs, resources, development potentials and motivation is at the local level. Coupled with a community and participatory approach, the Plan provides the best precondition for ensuring a people-centred, gender sensitive, socially inclusive risk reduction and development process. The CDRRMP however recognizes that flexibility in approach and strategy is required given the specific development, political and governance context in Tacloban and considering the national context.

Review and development of the CDRRMP went through series of workshops involving various stakeholders. In the process of reviewing and enhancing the current CDRRM plan, analysis of Tacloban's vulnerability and exposure to various hazards, including climate change, was given due consideration.

But more importantly, the Plan considered the current Yolanda recovery efforts, as the experience provided an opportunity to review, rationalise and build on the interventions and lessons learned, while at the same time addressing weaknesses or gaps to ensure these are incorporated in the enhanced CDRRMP. The review process also took the opportunity to link recovery efforts into on-going national and local development programmes, addressing issues and plans to be identified as common in the CDRRMP.

The CDRRMP encompasses a targeted range of concrete activities that will draw on the strengths and resilience of local communities. The four thematic areas covered in the plan include: 1) Prevention and Mitigation; 2) Disaster Preparedness; 3) Disaster Response; 4) Rehabilitation and Recovery. The LDRRM plan outlines the objectives, outcomes, outputs, activities, timelines and corresponding resources needed towards its operationalization.

In the implementation process, the CDRRMP will be guided by the NDRRMP as well as by globally accepted principles and best practices. The Plan will follow a **participatory approach** that involves communities and beneficiaries and other stakeholders in all aspects of plan implementation. While pursuing to achieve the objectives and ultimately the overall goal, the CDRRMP will also adhere to global best practice principles in all its activities with communities, grassroots beneficiaries and other stakeholders. In addition, **women empowerment** will be mainstreamed in all interventions. The project will focus on the following key principles and areas to achieve its goal and outcomes:

- **Focus on the most vulnerable:** Proper identification and participation of the most vulnerable is crucial for the CDRRMP to be able to reach the people who warrant support. By identifying the vulnerability factors, the CDRRMP will be able to address the needs of the vulnerable while contributing to disaster and climate risk reduction.
- **Focus on women, children and disadvantaged groups:** The programme will be inclusive, targeting specific interventions addressing the concerns of women, children and other disadvantaged groups.
- **Strengthening governance:** Governance is also a priority to be attended to in order to address sustainability. All hazards and the resulting risks that can threaten a community and the city have to be considered. The complexity of disasters requires concerted effort and approach at various levels and sectors. Local communities, Government at national and sub-national levels as well as civil society organizations are all partners and have a stake on DRR and CCA. Private as well as the public sector have their specific roles. Mainstreaming DRR and CCA in development planning is key at ensuring development gains are not lost or at least damage is mitigated when disasters strike.

- **Building Partnerships:** The CDRRMP will build close partnerships with local and International NGOs, Community Based Organizations (CBOs), academic institutions, professional bodies, private groups and business as well as with international bodies and institutions. By partnering with various organizations, the CDRRMP would seek to build capacity to ensure the sustainability of the plan and its activities at all levels.
- **Transparency and accountability:** Accountability to beneficiaries, as well as to governments and donors includes a transparent planning process, the sharing of good practices, and rigorous monitoring and evaluation. This means putting communities as active rights-holders at the center of the risk reduction process through information and participation.

The CDRRMP also provides opportunity to look at how current interventions are being funded, and to seek ways of streamlining and monitoring the channelling of funds to the operational sectors of the plan. The quantity and timing of aid flows remain critical, and any system that can improve how funds and aid is to be prioritised, coordinated, delivered and implemented on the ground will increase the quality of strategic decision-making and of fund and aid delivery and its effectiveness.

Since DRR and CCA cut across the various development sectors, funds for CDRRM is sourced from both local and national government programmes. The plan also identifies lead departments and collaborating agencies and also provides opportunity to mobilize support from local and national NGOs, and private or business sectors through partnership.

Lastly, it is important that the CDRMMP must be reviewed and updated continuously for there will be significant changes that will occur in the course of its implementation. The CDRRM Council, through the CDRRM Office will be responsible for furthering monitoring and evaluation, in consultation with the other departments and stakeholders. Results-based management is an essential component of the Plan. In line with results-based management principles, an integrated approach will be applied to planning, monitoring, reporting, review and evaluation of the CDRRMP to ensure evidence-based decision-making. Progress towards achieving the Plan, outputs and outcomes will be regularly monitored according to the indicators and targets identified in the Plan.

1. Introduction

The Philippine Disaster Risk Reduction and Management Act of 2010 (Republic Act 10121) laid the basis for a paradigm shift from just disaster preparedness and response to disaster risk reduction and management (DRRM). The National DRRM Plan serves as the national guide for achieving sustainable development by building the adaptive capacities of communities, increasing the resilience of vulnerable sectors, and optimizing disaster mitigation opportunities. In addition, growth and development should be inclusive, rights-based, and gender-responsive.¹

The legal provision for LDRRM Planning is RA 10121 Section 2(g), which states, “*it is the policy of the State to mainstream disaster risk reduction and climate change in development processes such as policy formulation, socio-economic development planning, budgeting, and governance, particularly in the areas of environment, water, energy, health, education, poverty reduction, land-use and urban planning, and public infrastructure and housing, among others.*”

In accordance with the NDRRMP, the country aims to have “**safer, adaptive and disaster resilient Filipino communities.**” This will be achieved through the four distinct yet mutually reinforcing priority areas, namely:

- (a) Disaster Prevention and Mitigation
- (b) Disaster Preparedness
- (c) Disaster Response
- (d) Disaster Recovery and Rehabilitation

Each priority area has its own long term goal, which when put together will lead to the attainment of the country’s overall goal for DRRM. RA 10121 prescribes the creation of Disaster Risk Reduction and Management Councils at the local government level, whose primary duty is to ensure that DRRM is mainstreamed into their CDP, CLUP, and other local plans, programs and budgets as a strategy for sustainable development and poverty reduction.

A City Disaster Risk Reduction and Management Office (CDRRMO) is also established to support the CDRRMC and is responsible for the coordination, development, and implementation of the DRRM Plan. The local DRRM Plan is developed using the National DRRM Plan as an overall guide, and should be mainstreamed into the CDP and CLUP.

The Tacloban City Disaster Risk Reduction and Management Plan (CDRRMP) is created to provide strategic guidance, propose outcomes and activities, facilitate the coordination of a large number of multi-sector initiatives, enable the participation of a

¹ National Disaster Risk Reduction and Management Plan, NDRRMC, December 2011

broad range of stakeholders, and function as an instrument to channel financial and technical resources to address disaster and climate change concerns.

The Tacloban CDRRMP was developed as part of the overall Comprehensive Land Use Plan of the City of Tacloban. The process of review and development included a series of workshops that involved various stakeholders: barangay officials, city government staff, and relevant NGOs and civil society organizations. The process was informed by other existing city plans, particularly the Tacloban Rehabilitation and Recovery Plan (TRRP), the Health Emergency Preparedness, Response and Recovery Plan (HEPRRP) and the Tacloban-North Integrated Development Plan. Great care has been taken to ensure that this CDRRMP complements and integrates well with other development plans concurrently being formulated, such as the CLUP and the Local Climate Change Action Plan (LCCAP).

2. Tacloban City: A Brief Overview

A. Ecological Profile

History

Since the time it was officially proclaimed a municipality in 1770, Tacloban has served as trading point between Leyte and Samar. Because of the ideal location and characteristics of its port, Tacloban became the capital of Leyte in 1830, and finally became a chartered city in 1952.

Through the years, Tacloban grew to become the regional center for trade, education, culture, and governance. In 2008, it became the first Highly Urbanised City (HUC) in Region 8. Within just three years, the city emerged as a new entrant to the Top 10 HUC Governments in 2011 ranking 7th among all 34 HUCs in the country based on DILG's performance index.

Tacloban is famous for San Juanico Bridge, the longest and most beautifully designed bridge in the Philippines, linking the islands of Leyte and Samar.

Geography and Climate

Tacloban City is located in north eastern Leyte, one of the islands in Eastern Visayas. It lies 11° 14' 38.19" north latitude and 125° 0' 18.24" east longitudes, and is situated about 580 kilometers southwest of Manila. Its land area is 20,172 hectares (201.72 sq. km.) including small islands within its jurisdiction.

Tacloban's location and physiographic characteristics make it vulnerable to many natural hazards. The city is situated on the Pacific seaboard of the Visayas (the Philippines' central islands) – a location susceptible to the direct and indirect effects of roughly 20 typhoons that hit the country each year. 42 of the city's 138 barangays have lowlands and coastal areas that are prone to hazards like flooding and storm surges.

The city also lies only 145 kilometers west of the Philippine Trench, a subduction zone that can trigger strong earthquakes. Groundshaking in the coasts can reach Intensity VII on the Philippine Earthquake Intensity Scale (destructive), and can, in turn, cause liquefaction and landslides in the mountainous areas. Tsunamis of the same scale as Yolanda's storm surges can also be produced by these earthquakes.

PAGASA classifies Tacloban's climate as falling between Type II and Type IV. This can be described as a tropical rainforest climate, which means there are no pronounced wet and dry seasons. Except in instances of La Niña or El Niño, rainfall is more or less evenly distributed throughout the year, with mean monthly

precipitation at 60 mm. In contrast, the period for maximum rainfall runs from July to December in most other parts of the country.

The average daytime temperature for Tacloban is 29.4 °C. The warmest month on average is May, with an average daytime temperature of 31 °C. The coolest month on average is January, with an average night time temperature of 23 °C.

Demographics

The 2010 census yielded the following figures for Tacloban City:

- Total population 221,174
- Number of households 45,478
- Average household size 4.8 members
- Annual population growth rate 2.16%
- Population density 11 persons per hectare

The table below shows population growth since the year 2000, and growth projections up to 2022.

Table 2. Actual and projected population and number of households for Tacloban City, 2000 - 2022

Year	Total Population	No. of HHs
2000	178,639	34,758
2007	217,199	42,522
2010	221,174	45,478
2011	225,951	46,460
2012	230,832	47,464
2013	235,818	48,489
2014	240,912	49,536
2015	246,115	50,606
2016	251,431	51,699
Year	Total Population	No. of HHs
2017	256,862	52,816
2018	262,410	53,955
2019	268,078	55,122
2020	273,869	56,312
2021	279,785	57,529
2022	285,828	58,772

Source: NSO (2010)

Urban-Rural Population Distribution: Of Tacloban's 138 barangays, 17 are rural and 121 are urban. 86.52% of the population are concentrated in the urban barangays, while 13.48% reside in rural barangays.

Languages Spoken: 91% of the population speak Waray, which is also the name of the locally predominant cultural group. 5% speak Cebuano, 1% Tagalog, and the remainder speak Ilocano, Kapampangan, and other Philippine languages.

Religious Affiliation: Tacloban City’s religious affiliation is broken down as follows:

- 94.52% Roman Catholic
- 0.94% Evangelical
- 0.78% Iglesia ni Kristo
- 0.44% Seventh Day Adventists
- 0.23% Mormons
- 0.21% Jehovah’s Witnesses
- 0.16% Muslim
- 2.72% Others

Local Economy

Tacloban City is the center for trade and commerce in Region 8. Major economic activities include agriculture, construction, banking, outsourcing services, education, transportation, tourism and other micro, small, and medium enterprises (MSME). The table below shows the distribution of the revenue by business classification in 2013:

Table 3. Tacloban City Revenue by Business Classification

Business Classification	Revenue	%
General Merchandise (Wholesale & Retail)	61,062,776	48%
Banks & Other Financial Institutions	8,215,142	6%
Real Estate, Construction & Services	33,222,919	26%
Others	25,479,161	20%
TOTAL	127,979,998	100%

Source: City Treasurer’s Office, BPLD

Agriculture: Crop production makes use of a total of 3,374.36 hectares, which yields a total 7,821.27 metric tons of all major crops, with an estimated production value of P192,436,960.90. Coconut farming takes up the largest land area. The table below shows the acreage and human resource devoted to specific crops.

Table 4. Pre-Disaster Data on Agriculture

CROP	NO. OF HECTARES	PRODUCTION (AVE.)	NO. OF FARMERS
Rice	409	6,500 kgs./ha./year	320
Corn (including sweet corn)	20	120 MT/ha./year	125
Vegetables	195	30 MT/ha. /year	717
Banana	12	20 MT/ha./year	40 (commercial)
Pineapple	35	20 MT/ha./year	125 (commercial)
Coffee	3	500 kgs./ha./year	1 Farmer's Association 3 farmers
Other Fruit Trees (Jackfruit, Mango)	12.5	4.5 MT/ha./year	25
Coconut (250,900 trees planted)	2,509	1.5 MT/ha./year	10,729 (people involved in coconut industry)

No. of Farmers: 734 registered and 449 unregistered totalling 1,183 (excluding coconut farmers)

Source: City Agriculture Office and Philippine Coconut Authority

Education: Tacloban has 25 preschools (12 government, 23 private), 60 elementary schools (40 government, 20 private), 27 high schools (11 government, 16 private), and 19 tertiary schools (3 government, 16 private).

Health Facilities: Tacloban has seven hospitals (two government² and five private²), as well as the following public health facilities set up for easy access even by the poorest and most vulnerable: 10 barangay health facilities, six district health and birthing facilities, one primary care facility, the MASA Health Unit, and a women's health center. There is, however, a need for more Barangay Health Stations (BHS) to meet the standard of one BHS per 5,000 population, especially since the population is rapidly growing.

Infrastructure

Transportation: The Daniel Z. Romualdez Airport serves as the gateway to the region, and is a crucial asset for maintaining Tacloban's place as the regional trading hub. The (sea) Port of Tacloban primarily serves cargo vessels, but there is a weekly ferry to Cebu.

Tacloban is the regional hub for land travel. The City's Abucay Terminal is a major stop for buses connecting Manila to various destinations in the Visayas and Mindanao. Tacloban has a total of 186.66 kilometers of roads, concentrated mostly in the southeastern urban areas.

² Government hospitals in Tacloban City: Eastern Visayas Regional Medical Centre (EVRMC), Tacloban City Hospital (TCH)

Institutional Infrastructure (Public Buildings): The city government owns 36 public buildings including the City Hall, the Astrodome, local offices of national government agencies, a slaughterhouse, a public market, and the bus terminal.

Utilities (Power, Communication, Water, and Sanitation): Tacloban City's power is sourced via 69KV lines from the Tongonan Geothermal Power Plant of the National Power Corporation (NPC) in Kananga, Leyte. There are about 175 km of primary lines and 176.5 km of secondary lines from LEYECO to end users. In 2010, there were 36,536 connections in Tacloban, over 86% of which were residential connections.

The Leyte Metropolitan Water District (LMWD) supplies most of the city's running water. Tacloban accounts for 80% of the LMWD's total water connections. However, the LMWD covers only the urban barangays. Mactan Rock Industries Inc., Rio Grande Water Provider, and San Juanico Water are small potable water suppliers/contractors that operate in the northern rural barangays using simple deep wells, filtration and disinfection, but only with very limited capacity.

Sewage is a problem for the city. Too few houses and establishments have septic tanks. However, a septage treatment facility has recently been established to begin addressing this concern.

Tacloban is also the Region's hub for ITC, postal services, cable TV, radio and TV broadcasting. All telecommunication facilities in the city are privately-owned.

Environment and Natural Resources

Forest Areas: Tacloban has 4,289 hectares of timberland, consisting of 1,141 hectares of residual forest, 328 hectares of dense forest and 2,760 hectares of cultivated timberland. Intensive land uses are not allowed in certain protected areas. Currently, although there is no big infrastructure that carries significant management implications to Tacloban's forest areas, a city-wide mining exploration permit and pockets of illegal logging as well as possible engineered landfill could threaten the ecological integrity of these areas.

Coastal Areas: Tacloban's mangroves cover a total of 125 hectares and were generally in good condition prior to Yolanda. Seagrass and seaweeds were found in 6 barangays based on 2013 GTS Study but they were not significantly abundant. The marine ecosystems serve as a source of livelihood for coastal communities. According to NSAP, however, Tacloban needs to better manage its fishery resources. Poverty incidence among fishermen has risen from 35% in 2003 to 42% in 2006 – an increase of 17.6%. The catch at San Jose has steadily declined from 2009-2014, with only a slight increase in 2015.

Biodiversity: Tacloban has a good number of endemic species, but many of those species live in what has now been characterised as *disturbed habitats*. The most common threats to biodiversity include hunting, habitat alteration, illegal settlements, land conversion, invasion of alien species, and deforestation. Forest and marine habitats are becoming increasingly exposed to landslides and storms. Over the long-

term, climate change poses a big threat to the survival of vulnerable species, especially those with low tolerance to temperature and rainfall changes and increasing acidity of the soil and the sea.

Ecologically Sensitive Areas: The most sensitive ecosystems are mangroves and freshwater wetlands. 82.6 hectares of mangroves and tidal forests line Tacloban's coastline and estuaries along the San Juanico Strait. Mangroves serve as excellent spawning grounds and nursery for many species, and should be protected as coastal conservation areas. Mangroves also play an important role in storm protection for low lying land and natural protection against shoreline erosion.

B. Disaster and Climate Risk Profile

Hazards

Tacloban is exposed to various hydro-meteorological, geological, and climate-related hazards. These natural hazards have impacted Tacloban's populace, economy, infrastructure, and natural resources in varying degrees over the years.

Tropical Cyclone: Tacloban is susceptible to tropical cyclones that usually affect the Region around the last quarter of the year. The Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) recorded 63 tropical cyclones that passed through the Province of Leyte from 1948 to 2013, with Super Typhoon Yolanda as the strongest and deadliest (CCVA).

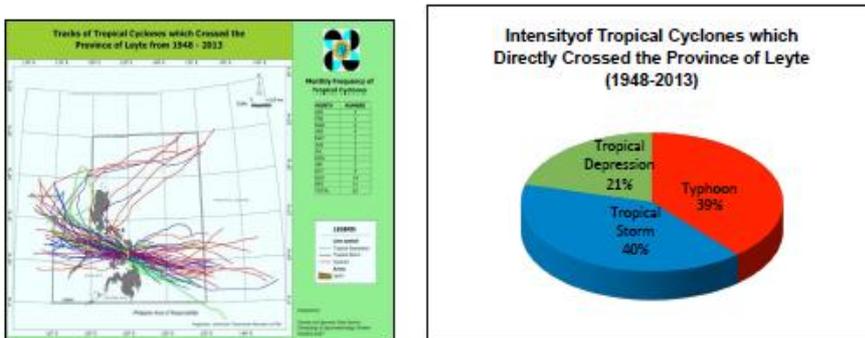


Figure 1: Tropical Cyclones that have affected Tacloban City

Storm Surge: Super Typhoon Yolanda generated storm surges that reached up to 7 meters, flattening coastal areas and sweeping as far as 1 km inland. San Jose District was most severely affected. Other densely populated areas proven to be highly vulnerable are the barangays along the San Pedro, Anibong, and Cacabato Bays, which include the downtown area. A total of 58 coastal barangays are susceptible to this hazard. Prior to super typhoon Yolanda, Tacloban was also hit by storm surge in the 1800s based on historical records.

Flooding: Twenty (20) low-lying barangays – including the downtown area – are considered flooding hotspots. Flooding has been recurring almost every year in Tacloban, but mostly in moderate degrees. The worst flooding incident was in 2011, when most residents of the flood-prone barangays had to be evacuated as flood waters rose up to 4 meters in the most low-lying areas. Flooding is triggered by typhoons and heavy rainfall lasting from 3 days to 2 weeks. Clogged drainage in the city also plays a factor in the occurrence of flooding.

Rain-induced Landslide: Landslides have been reported to happen once a year in Tacloban City. Thirty-eight (38) upland barangays in the city's northern parts are exposed to this hazard. The trigger has usually been three days or so of intermittent heavy rains. In 2011, heavy rainfall caused both flooding and landslides. In 2012,

Tacloban experienced its worst landslide incident, which displaced residents of 12 barangays in six mountainous areas. Tension cracks have been identified and are now being closely monitored in barangays Palanog and Abucay. The continuing denudations of the forest are among the man-made causes that contributed to the landslides risks.

Earthquake-induced Landslide: A fault line originating in the neighbouring municipality of Babatngon traverses Tacloban City southward to Palo, Leyte. The fault traverses 11 barangays in three areas considered as highly susceptible to earthquake-induced landslides: (1) the mountain ranges around Barangay Santo Niño, (2) the Palanog area (near the boundary shared with the Municipality of San Miguel), and (3) the Apitong area near the city proper.

Earthquake/Ground Shaking: Tacloban City is near the active Philippine Fault Zone (PFZ), the *high angle fault line* that runs through the middle of Leyte Island. Many earthquakes in Tacloban's history were generated along this fault line. Fifty-eight (58) barangays have been tagged as at-risk to earthquake/groundshaking. The worst event so far was the Bohol earthquake of 2013, which affected 12 barangays in Tacloban City.

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Liquefaction: Tacloban City has strong potential for liquefaction (Torres, et.al., 1994). The airport and 100 barangays have been tagged as susceptible to this hazard. The soil in these areas are characterized as poorly consolidated overlays.

Tsunami: Considering the city's proximity to active fault lines, there is a significant probability for tsunamis. A big one can be expected to adversely affect 58 coastal barangays.

The Climate Change Vulnerability Assessment (CCVA) conducted for Tacloban in 2015⁴ reveals that Tacloban is also confronted with the following climate risks:

Sea-level rise and coastal erosion. Sea level rise are among the hazards identified by the coastal and marine barangays during the Climate Change Vulnerability Assessment consultations. It was seen to have possible impact on the coastal and marine ecosystem particularly the mangrove forests and coral reefs. Mangroves occupy approximately three-fourths of the length of the shoreline between the northernmost tip and the Anibong Bay and reached an area of 82 hectares. A sea level increase between 1cm to 6cm may be possible per year. In addition, sea level disturbance in the coast due to coastal erosion may also lead to reduced land area, property loss, reduced revenue from the ecotourism industry and damaged industrial sites by which waste can potentially leach in to the environment and may lead to decline in economy.

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Temperature increase. The CCVA indicated that increases in temperatures are expected to affect the coastal and marine ecosystem, upland/forest, urban and agriculture ecological system of Tacloban. For the coastal ecosystem, warmer ocean temperature results in degradation of marine and aquatic resources including coral reefs and other marine habitats that further leads to decline in fish production

⁴ UN-Habitat Climate Change Vulnerability Assessment: Tacloban City February 2015

and reduced income of fisher folks. For the upland/forest ecosystem, projected temperature increases and intensity lead to forest disturbance such as insect outbreaks, invasive species and forest fires and may lead to reduction in water volume on streams, rivers, and springs. This disturbance can reduce forest productivity which can bring massive loss to commercial forestry and decrease household incomes of upland farmers. Prolonged dry season and drought could lead to groundwater and surface water depletion and threatens water availability and future water security.

Heavy Rainfall. Heavy rainfall increases the risk to surface/terrestrial run-off resulting to soil erosion and river siltation which is being aggravated by inappropriate farming practices in agricultural areas such as excessive soil cultivation.

The table below presents a historical timeline of major disasters in Tacloban City.

Table 5. History of Disasters in Tacloban City

Date of Occurrence	Type / Name of Disaster	Affected Barangays	No. of Families & Persons Affected	Damage to Properties
Jan 2015	Typhoon Amang		83 families	
Dec - 2014	Typhoon Ruby Storm Surge Heavy Rainfall	66 barangays	42,555 families 195,643 individuals	
Jan 2014	Typhoon Seniang	2 barangays (landslide) 9 areas (flooding)	66 families	
Nov 2013	Super Typhoon Yolanda Storm Surge, Strong Winds	All barangays	Casualties: 2,654 persons Injured: 3,180 persons Missing: 701 ⁵	P6.9 B total cross-sectoral damage P5.3 B total cross-sectoral losses ⁶
August 2013	Bohol Earthquake – Earthquake-induced landslide	12 upland barangays		
June 2013	Tropical Storm Gorio	No info available		
Dec 2012	Typhoon Quinta	No info available		
Dec 2012	Typhoon Pablo	No info available		
Nov 2012	Typhoon Ofel ⁷	25 barangays	24,669 persons 5,187 families	2,244 houses damaged P30M worth of damages to infra, agriculture & institution
Nov 2012	Rain-induced Flooding	24 barangays	22,192 persons 4,692 families	2,194 houses damaged

⁵ CDRRMC Summary of Cluster Reports re TY Yolanda as of 18 March 2014

⁶ NDRRMC Final Report – Effects of Typhoon Yolanda 6-9 November 2013

⁷ UN-Habitat Climate Change Vulnerability Assessment: Tacloban City February 2015

Sept 2012	Earthquake & Tsunami Alert	138 barangays	1,500 persons	With damages to infrastructure
Mar 2011	Rain-induced Flooding Landslide	10 barangays	Estimated 4,000 persons/ 80 families	
2006	Typhoon Frank ⁸	coastal barangays		
Sept 2009	Flooding			
Sept 1984	Typhoon Undang	coastal barangays		Damages to agricultural crops Food & water scarcity

Hazard Assessment

The table below shows which barangays are at risk per hazard.

Table 6. Barangays at risk per hazard

Type Of Hazard	Specific Hazard	Name Specific Barangays At Risk
NATURAL	Typhoon	All 138 Brgys. Of Tacloban City
	Earthquake	Brgys. 99, 97, 92, 98, 93, 107, 106,103, 94, 12, 104, 91, 94-A, 105, 3, 100, 102, 95-A, 37-A, 65, 66, 66-A, 67, 68, 69, 70, 71, 72, 74, 1&4, 2, 25, 27, 31, 35-A, 48, 48-A, 48-B, 51, 52, 54, 54-A, 75, 76, 60, 60-A, 61, 83-A, 83-B, 83-C, 84, 85, 86, 87, 88, 89, 90
	Tsunami	Brgys. 99, 97, 92, 98, 93, 107, 106,103, 94, 12, 104, 91, 94-A, 105, 3, 100, 102, 95-A, 37-A, 65, 66, 66-A, 67, 68, 69, 70, 71, 72, 74, 1&4, 2, 25, 27, 31, 35-A, 48, 48-A, 48-B, 51, 52, 54, 54-A, 75, 76, 60, 60-A, 61, 83-A, 83-B, 83-C, 84, 85, 86, 87, 88, 89, 90
	Storm Surge	Brgys. 99, 97, 92, 98, 93, 107, 106,103, 94, 12, 104, 91, 94-A, 105, 3, 100, 102, 95-A, 37-A, 65, 66, 66-A, 67, 68, 69, 70, 71, 72, 74, 1&4, 2, 25, 27, 31, 35-A, 48, 48-A, 48-B, 51, 52, 54, 54-A, 75, 76, 60, 60-A, 61, 83-A, 83-B, 83-C, 84, 85, 86, 87, 88, 89, 90
	Flood	Brgys. 42-A, 50, 50-A, 55, 56-A, 62-A, 62 B, 64, 78, 79, 81, 83, 83-A, 92, 96, 98,105, 109, 109-A, 110

⁸ CLUP Consultation with Barangays 13-15 January 2015

Type Of Hazard	Specific Hazard	Name Specific Barangays At Risk
	Rain-induced Landslide Earthquake-induced Landslide	Brgys. 108, 107, 102, 101, 106, 105, 98, 97, 95, 100, 99, 103-A, 103, 37-A, 12, 94-A, 94, 3, 104, 74, 73, 71, 68, 66-A, 67, 66, 65, 43-B, 42-A, 39, 49, 50-B, 55-A, 91, 92, 95, 95-A, 36-A Brgys. 107, 106, 98, 97, 93, 103, 94, 12, 104, 91, 92
	Liquefaction	Brgys. 108, 105, 97, 93, 99, 94, 74, 72, 71, 69, 70, 68, 67, 66A, 38, 39, 40, 41, 42, 43, 43A, 44, 44A, 45, 46, 47, 48, 48A, 48B, 49, 50, 50A, 51, 51A, 1&4, 2, 2A, 5, 5A, 6, 8, 8A, 13, 14, 15, 16, 17, 6A, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 35A, 52, 53, 54, 54A, 57, 58, 56, 56A, 59, 59A, 59B, 61, 62, 62B, 63, 64, 96, 76, 110, 77, 109, 109-A, 95, 83A, 83C, 78, 79, 80, 81, 83C, 83A, 84, 36, 82, 89, 87, 90, 86, 88

Type of Hazard	Specific Hazard	Name specific Barangays at risk
NATURAL	Drought	Northern Barangays
	Waterborne Diseases (Typhoid Fever)	San Jose Area, Northern Barangays
	Vector-borne Diseases (Dengue)	Brgys. 109, 109A, 91, 95, 95A, 74, 71, 78, 79, 80, 81, 82
BIOLOGICAL	Vaccine preventable diseases (Measles)	All 138 Brgys. Of Tacloban City
	Emerging/Re-emerging Diseases (SARS, etc.)	All 138 Brgys. Of Tacloban City
	Red Tide	San Jose area
TECHNOLOGICAL	Industrial/Large Scale Accident (Mass Casualty Event)	Downtown Area

	Fire	Downtown Area, Sagkahan, Informal Settlers
	Gas explosion	Anibong Area
SOCIETAL	Stampede (Mass Gathering, Population Influx)	Brgys. Near Astrodome, RTR Plaza (Brgy. 25), Capitolyo (Brgy. 1&4), Balyuan Grounds, City Hall Grounds and Grand Stand

Impact of Yolanda

The total damage incurred from Typhoon Yolanda in Leyte based on initial damage reports from both the local government and the various municipalities was estimated at P9.411 billion. The greater bulk of the damage at 96.52% or P9.083 billion covers the damage to and destruction of the various municipalities in the following sectors, namely: (1) agriculture P3.371 billion, (2) environment P118.2 million, (3) infrastructure P5.089 billion, and (4) houses / dwellings - P504.290 million. The remaining 3.48% or P327,690,061.83 was the cost of damage to the Leyte's funded infrastructure facilities at 3.01% (P283.423 million) and the hospital equipment estimated at 0.47 % (44.266 million).

The extent of damage caused by Typhoon Yolanda in the municipalities is categorized as follows as reported by the Department Social Welfare and Development (DSWD): A total of 399,473 families of 1,900,810 persons comprised the population affected by Typhoon Yolanda. The incidence of casualties reached a total number of 4,744; injured persons accounted for 16,996 and 1,484 were reported missing. The city of Tacloban and the municipalities of Palo and Tanauan topped the list with the highest number of casualties, missing and injured persons. More than the great casualty incidence, the super typhoon rendered 183,756 families totally homeless and 155,723 families with partially damaged homes aside from a completely wrecked towns and cities and brought damage to both the public and private resources and assets resulting to infrastructure gridlocks and economic setbacks.

According to NDRRMC Situation Report as of December 12, 2013, a total of 4.2 million people (850,080 families) in the six provinces comprised of seven cities, 137 municipalities and 4,387 barangays in Eastern Visayas were affected. In close cooperation with the various development institutions and partners, the Government delivered humanitarian response and relief assistance to more people affected by the super typhoon. At this point, the City Government has been working to provide and emphasize the importance of rehabilitation and reconstruction through a "build back better" strategy.

Climate Trends and Climate Change Projections for Tacloban City⁹

Using the results of the 2015 local climate study commissioned by the USAID Be Secure Project and conducted by the Manila Observatory using the data from the IPCC 5th Assessment Report, updated data, climate projections for Tacloban City point to increasing average temperature, changes in precipitation patterns, and increasing frequency of extreme weather events.

The study projected that the temperature in Tacloban will increase in the period 2011-2040 by 1.8°C and in the period 2036-2065 (2050) by 2.9°C relative to the baseline period 1971–2000 as depicted in Figure 2.

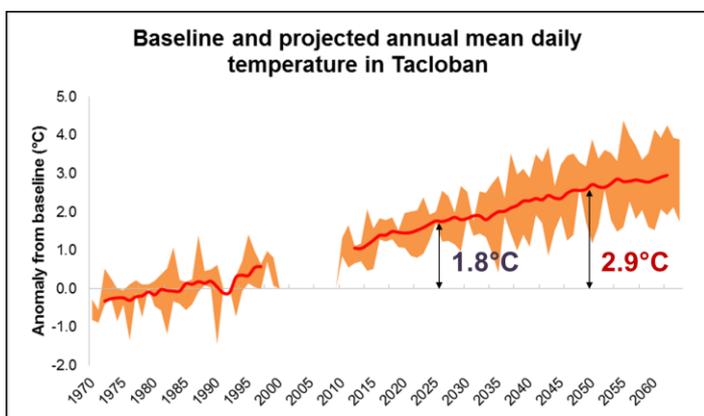


Figure 2: Baseline and projected annual mean temperature in Tacloban.

As shown in Figure 3, the monthly mean temperature in Tacloban will increase by 1.4 - 2.4°C by 2025¹⁰, and by 1.5 - 4.0°C by 2050.

⁹ Manila Observatory, Water Security for Resilient Economic Growth and Stability Project: *Technical Report on Current and Future Hydroclimatological Profiles of Iloilo City and Leyte Island*, Manila Observatory, July 31, 2015.

¹⁰ The mean values for the period 2011-2040 is referred to as 2025¹⁰, while those for the period 2036-2065 is termed as 2050 mean.

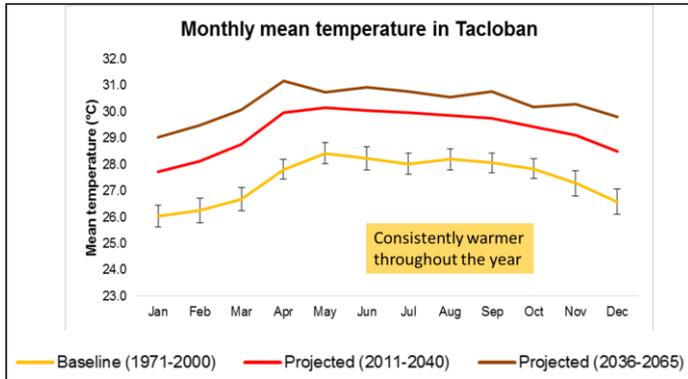


Figure 3: Monthly mean daily temperature in Tacloban for the baseline (1971-2000) and projected (2011-2040; 2036-2065).

Tacloban City is also projected to experience an increase in precipitation by 2025 and 2050. In 2025, Tacloban will experience more drastic fluctuations in precipitation and will receive as much as 52.7% increase in annual total precipitation relative to the baseline mean and 12.7% decrease in rainfall during the first projection period of 2025. For the 2050 period, longer periods with relatively higher precipitation are projected to occur, with only nine years projected to have lower rainfall relative to the baseline mean.

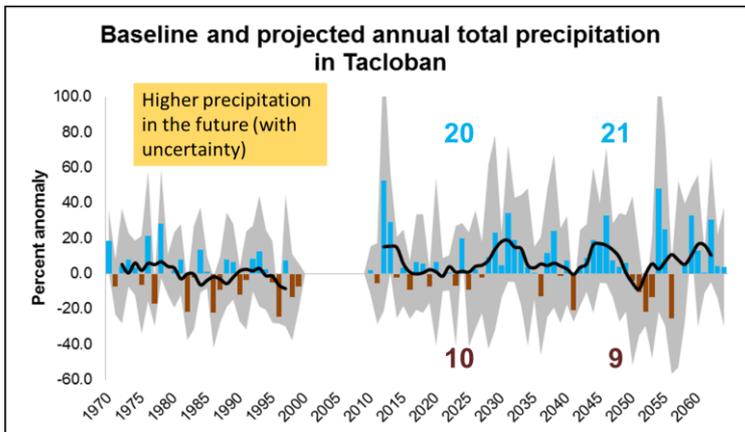


Figure 4: Tacloban City baseline and projected annual precipitation.

In terms of monthly precipitation as depicted in Figure 5, increases of 7.2% and 6.9% are projected to occur in 2025 and 2050. An increase in rainfall is projected for the dry months March to May and in the wet months December to February while an overall decrease in rainfall is projected between June to August.

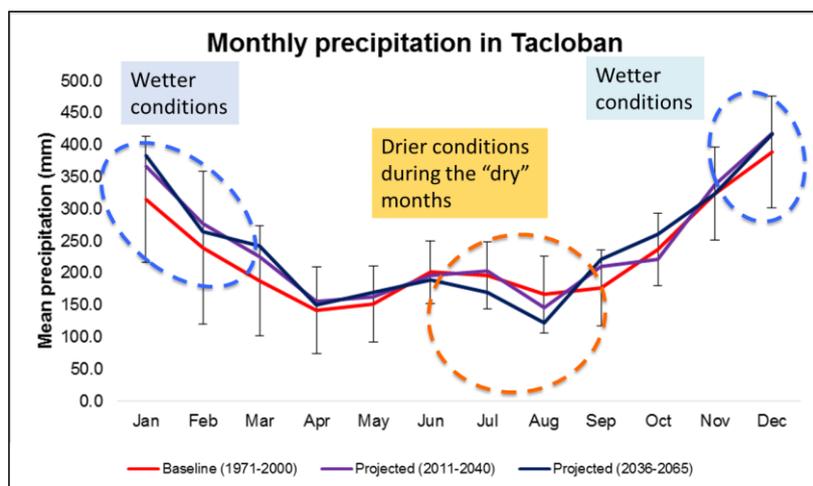


Figure 5: Monthly total precipitation in Tacloban for the baseline (1971-2000) and projected (2011-2040; 2036-2065) periods.

The table below provides a summary of these projected changes:

Table 7. Summary of Projected Climate Change in Tacloban City

Climate Variable	General Changes Expected in Climate Variables	Specific Expected Changes and Reference Periods	Information about Patterns of Change
Temperature	Increase	<p>The mean daily temperature in Tacloban City will increase by</p> <ul style="list-style-type: none"> • 1.4 - 2.4°C in 2025, • 1.5-4.0°C in 2050. <p>Increase in projected annual mean temperature by:</p> <ul style="list-style-type: none"> • 1.8°C in 2011-2040 • 2.9°C in 2036-2065 	Highest increase of temperature will be observed from December to February from 2011 to 2040 with an increase of more than 1°C.
Precipitation	Seasonal increase/decrease	<p>Increase in monthly total precipitation by</p> <ul style="list-style-type: none"> • 7.2% in 2025 • 6.9% in 2050 	An increase in rainfall is projected the dry months March and May and in the wet months December and January

		<p>52.7% increase in annual total precipitation relative to the baseline mean</p> <p>12.7% decrease in rainfall in 2025</p> <p>Longer periods with relatively higher precipitation in 2050</p>	<p>The “wet” months become wetter at a higher rate than the “dry” months.</p> <p>Decrease in rainfall projected between June to August</p> <p>Increase in decadal monthly precipitation in 2025 will occur from February to April.</p> <p>Increase in decadal monthly precipitation in 2050 from December to May and general decrease from June to August</p>
Extreme events	<p>An increase in the frequency of days with intense rainfall (>160 mm/day) is projected.</p> <p>Increase in the number of days with less than 40mm rainfall</p>		

While it is to be noted that uncertainty and disagreement in models used for projections are higher in the far future, in sum, the study emphasized that monthly trends indicate long-term shifts in the climate with impacts such as increased precipitation in historically dry months and relatively higher increments in mean temperatures during historically cooler months becoming common in the future.

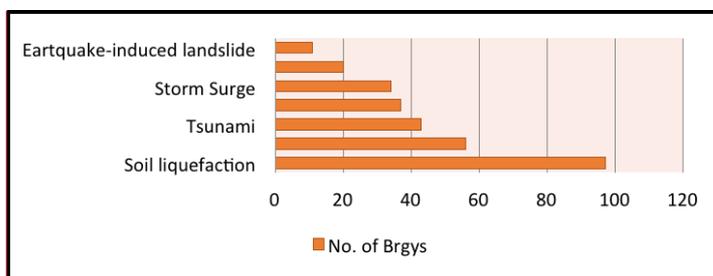
The above projections will exert climate influence over the resources and livelihoods of the populace and will have adverse implications to the development landscape of Tacloban as disaster risks are already high. If land use and resource management interventions remain insignificant, and where there is increasing population density, poor settlement patterns, increasing water demands, and business-as-usual livelihood, the levels of climate-related disaster risks for Tacloban could become even higher.

For the climate map of Leyte and Tacloban in relation to the province and component city and municipalities’ climate baseline and projections on temperature and precipitation, see Annex 4: Leyte Climate Maps.

Vulnerability (Exposure and Sensitivity)

All of Tacloban's 138 barangays are susceptible to typhoons. Only seven barangays are *not* exposed to the following natural hazards: (1) earthquake-induced landslide, (2) rain-induced landslide, (3) flooding, (4) ground shaking, (5) storm surges, (6) liquefaction, and (7) tsunami. The chart below shows how many barangays are exposed per hazard. It also clearly shows that most barangays are susceptible to liquefaction.

Figure 6. Number of susceptible barangays per identified hazard



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Hazard Maps

Tacloban City has different hazard maps that show the exposure and sensitivity of at-risk elements and systems.

The maps below are the updated Hazard Maps of Tacloban City. These were validated through a series of barangay consultations, and with technical assistance from JICA and other development partners.

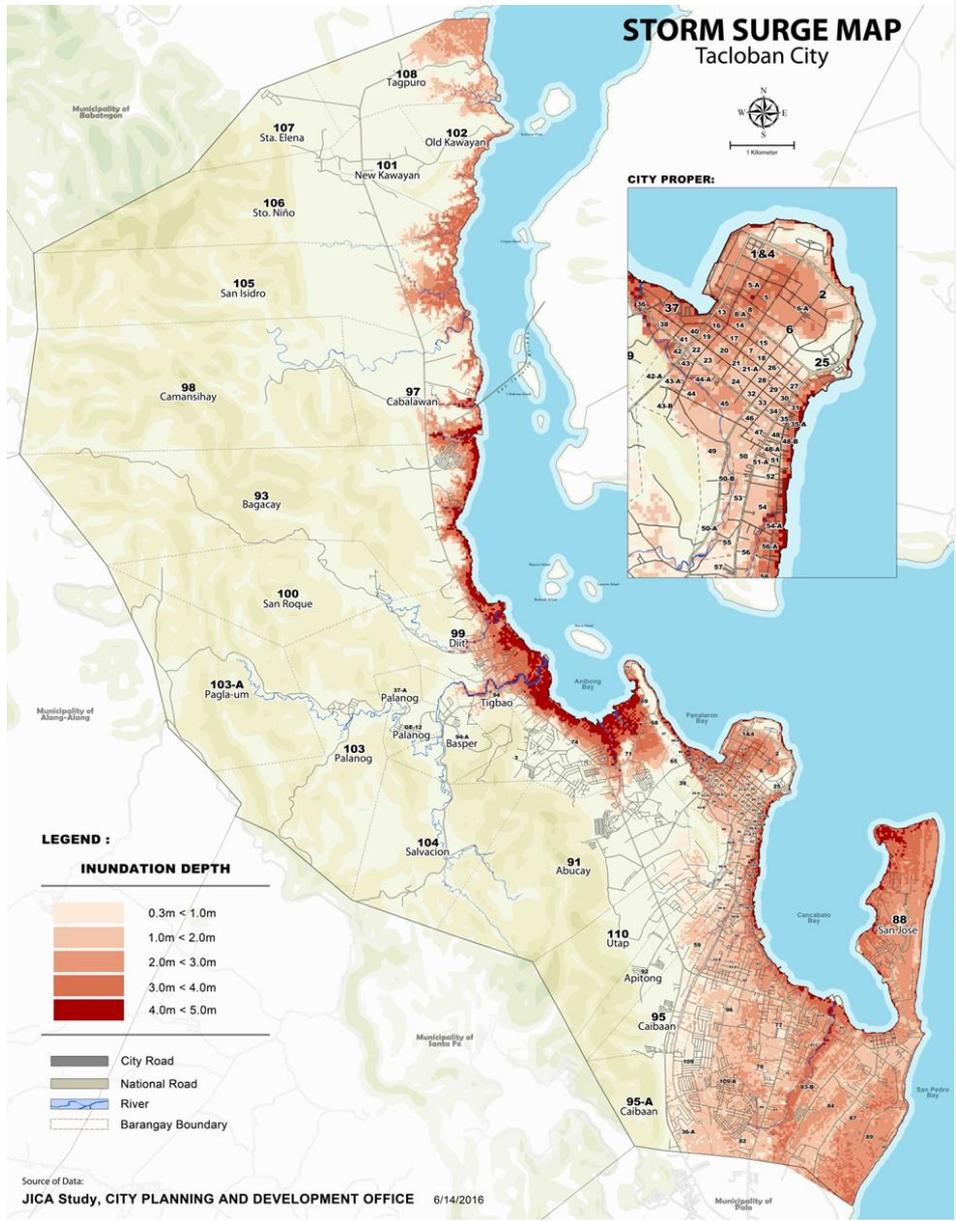


Figure 7: Storm Surge Hazard Map of Tacloban City

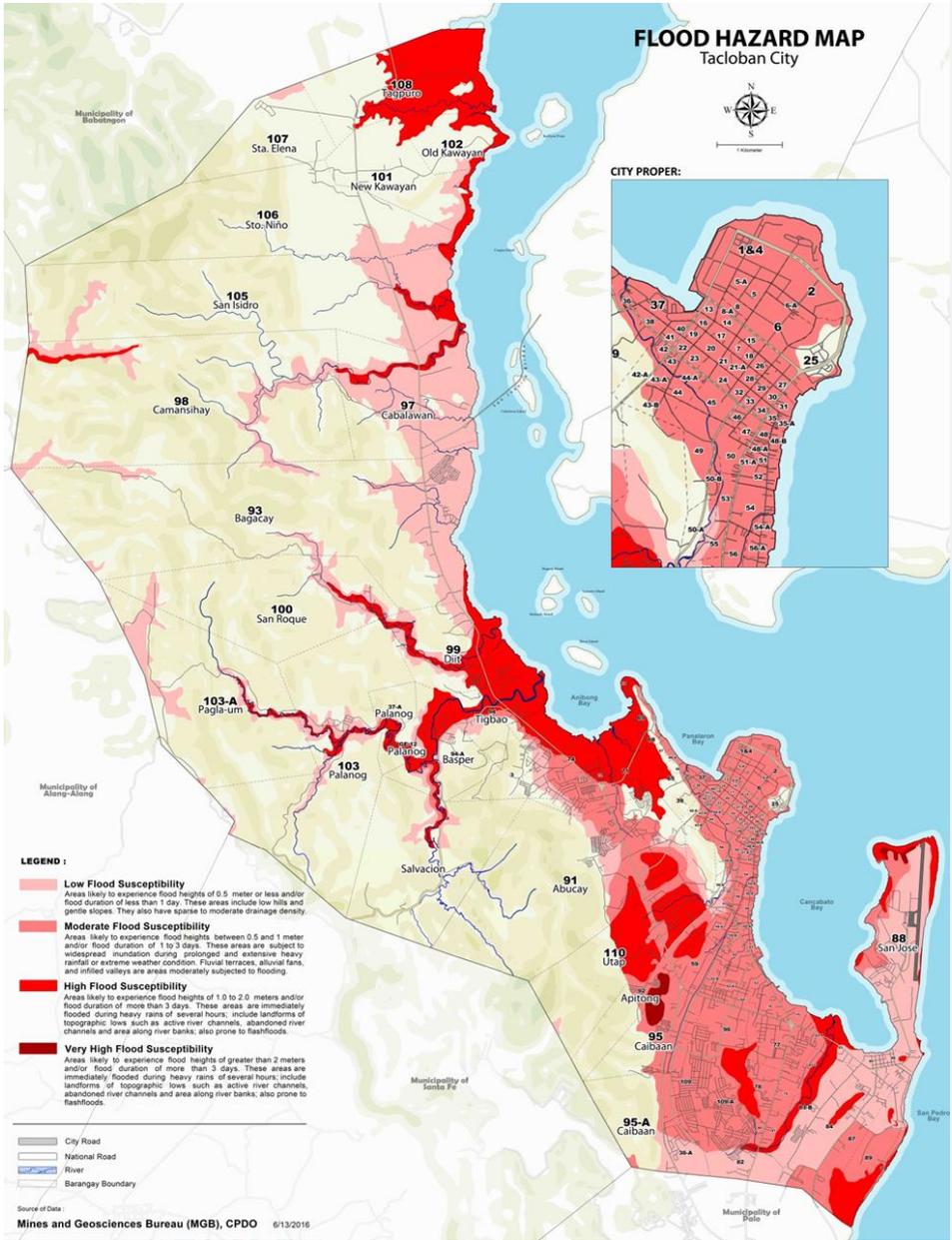


Figure 8: Flood Hazard Map of Tacloban City

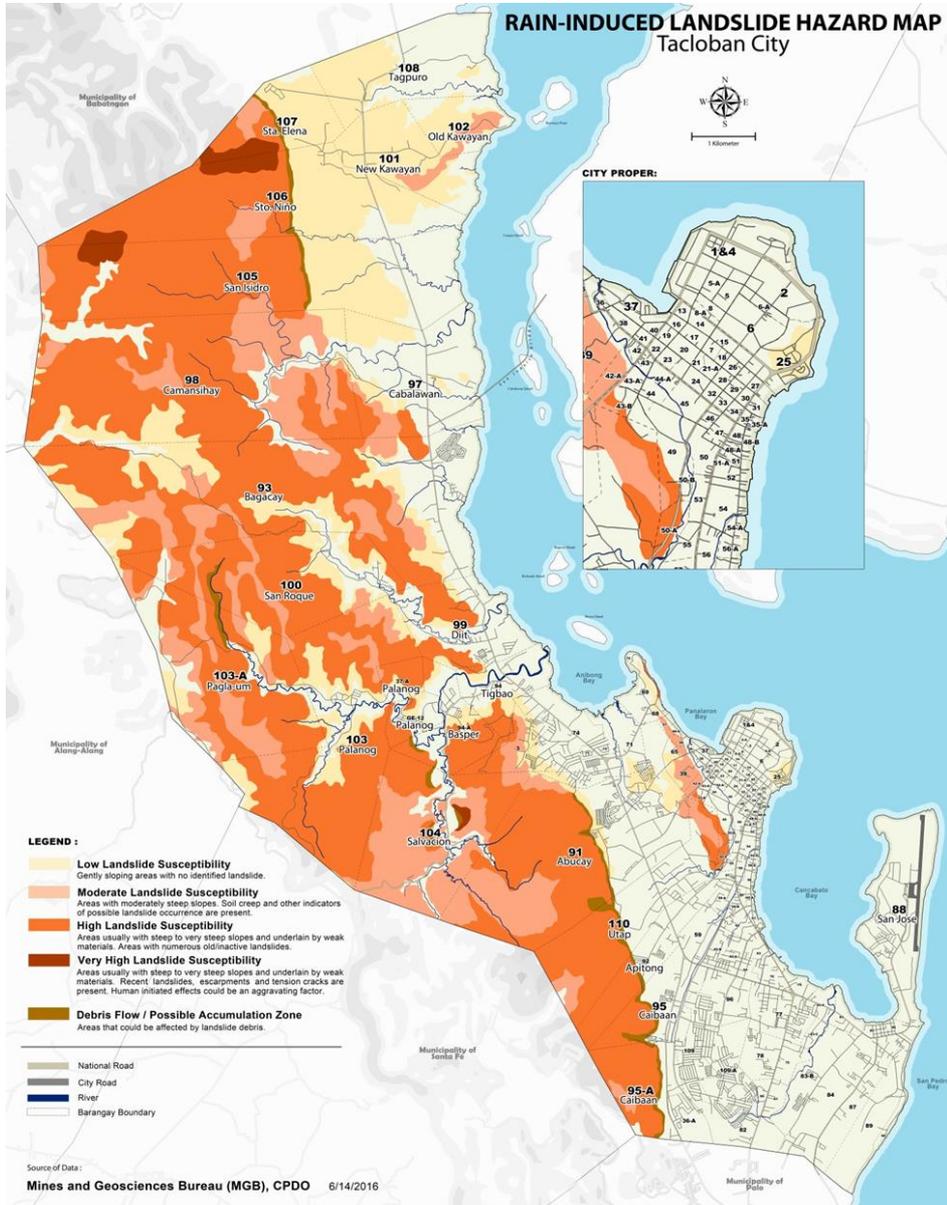


Figure 9: Hazard Map of Tacloban City for Rain-induced Landslide

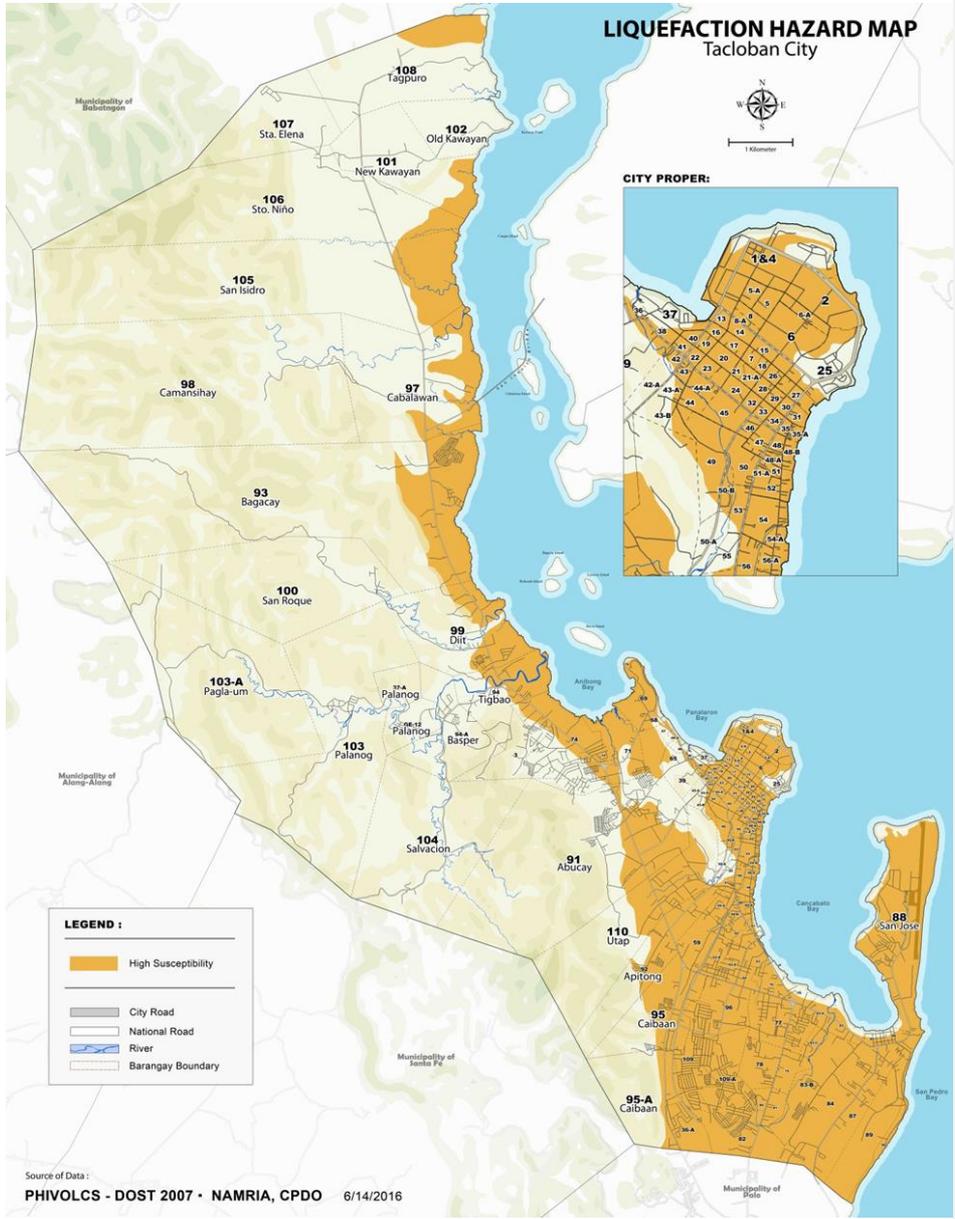


Figure 10: Hazard Map of Tacloban City for Liquefaction

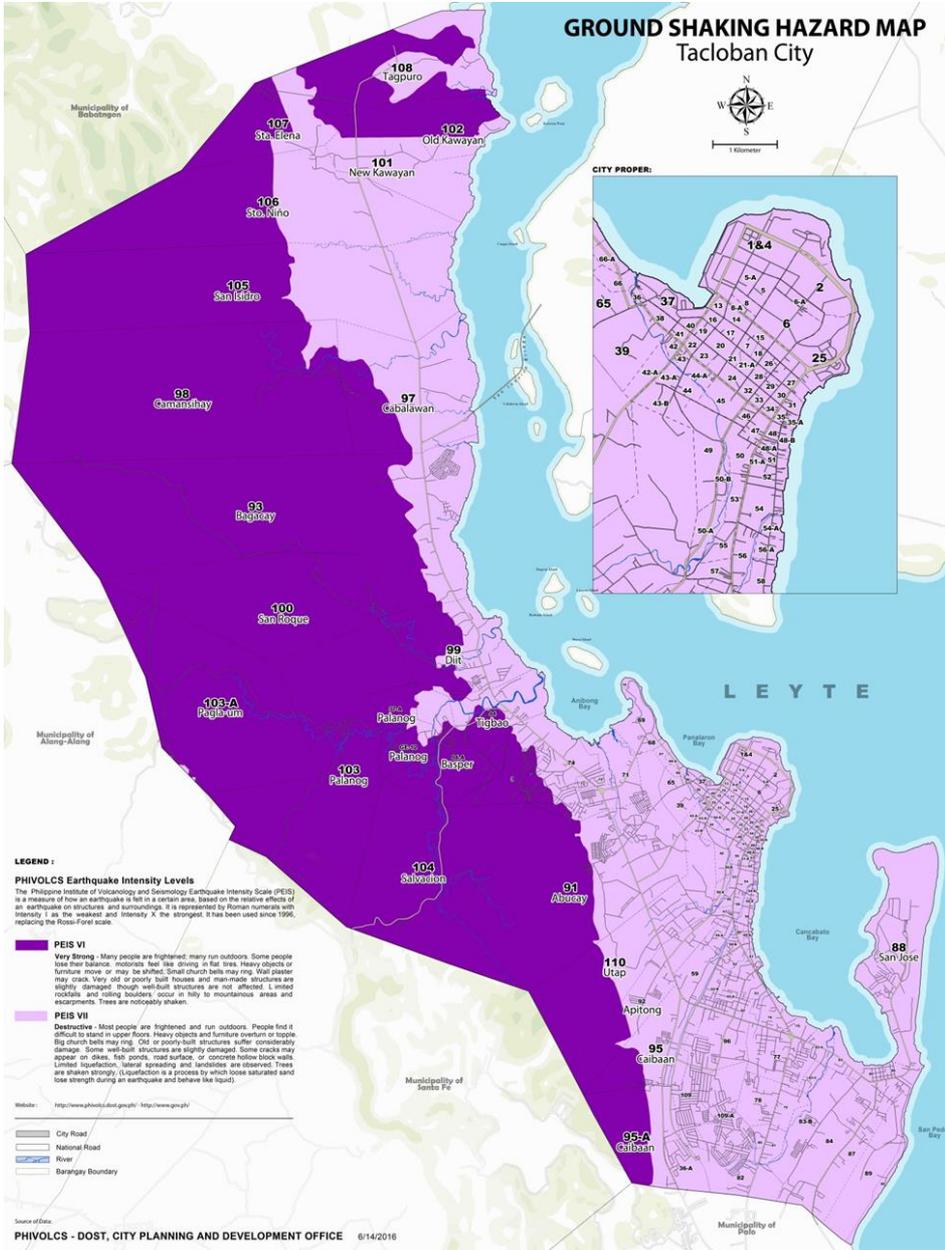


Figure 11: Hazard Map of Tacloban City for Ground Shaking

C. The State of DRRM in Tacloban

The Yolanda experience compelled Tacloban City to take a longer and harder look at its vulnerability to natural hazards and climate change effects, in light of abundant DRR knowledge that came with the influx of humanitarian and development groups.

More than two years after the disaster, affected communities have rebuilt their lives and a number of recovery projects, particularly on shelter, education, WASH, Health and livelihoods have started and are being further expanded with support from various agencies and the government albeit many challenges such as cash-flow issues and funding shortages which made it difficult for Government and humanitarian actors to sustain their efforts.

But while progress reports and lessons learning exercises indicate that much has been achieved during the period, on a much broader view of DRRM in Tacloban City, Typhoon Yolanda brought into the government and community's consciousness the need for improved disaster risk reduction and management. The disaster clearly exposed how shocks and stresses like natural hazard events coupled with lack of preparedness that includes underdeveloped preparedness and early warning systems, high poverty levels and environmental factors can pull communities already living in dire situations to more vulnerable conditions as their livelihoods and assets get destroyed. The disaster changed the perception of government and citizens alike on the need for long-term and systematic risk reduction.

The following challenges impinge on developing and implementing comprehensive DRRM in Tacloban City:

- Poverty incidence in communities highly exposed and vulnerable to hazards (notably the densely populated coastal settlements) limits social and economic capacities to cope with repeated disasters or climate shocks and restrict capacity to effectively address their vulnerabilities.
- Long line of settlements, infrastructures and other built environment located close to the coast are highly exposed to storm surges and sea level rise.
- Inadequately stocked forests result in uplands that are more susceptible to siltation and erosion, ergo, landslides. Also, since trees catch water and channel it to the ground, the aquifers are not recharging as efficiently as they could be.
- Inadequate drainage infrastructure: Some areas remain flood-prone.
- Inadequate water supply services
- Absence of a waste management system contaminates water resources and clogs waterways.
- Utilities infrastructure – especially posts for power and ICT cabling – remain vulnerable to typhoon winds.
- Inadequate reach and effectiveness of the Early Warning System

- Evacuation drills in schools, business establishments, communities, etc. are not conducted as regularly as they should be.
- Cultural peculiarities detrimental to public safety (e.g. “bahala na” attitude, drinking parties the night before a storm because there is no school or work the following day)

The City Government of Tacloban has recognized the importance of disaster risk reduction and management and has incrementally taken actions to fulfil its mandate. It has taken steps to boost the system through the establishment of the CDRRMC, the CDRRMO (and the cluster system) and local BRRMCs and by slowly enhancing the capacities of various Government Offices and agencies to fulfil their DRRM functions.

The above situation presents a unique opportunity for the City Government, together with Civil Society Organization, business and other organizations to engage in the process to ensure that the new evolving system is comprehensive and that new structures that will be set-up and reinforced have the necessary capacity to meet the goals of the CDRRMC to enhance overall DRRM services to at-risk communities.

The City of Tacloban however faces two challenges on ensuring a comprehensive and effective DRRM. ***First is the need to increase staff and organizational capacity*** to carry out responsibilities associated with appropriate policies, including planning skills that allow awareness to be translated into concrete practice, ***and second is institutional weakness and clarity on how to implement DRRM.***

In Tacloban, the government has only recently started developing a coordinated and coherent action on disaster risk reduction and management across different sectors and between city and barangay level government and communities. Until recently, institutional arrangements for disaster risk reduction and management, as the disaster exposed, tended to be anchored in disaster response.

At village level meantime, Disaster Risk Reduction and Management Committees have only started revising and enhancing their DRRMPs, with a number still lacking in capacity to develop their DRRMPs. The following weaknesses have yet to be addressed at the level of the barangay unit:

- Non-functioning BDRRMC in some barangays
- Majority of barangays do not yet have a thoroughly reviewed and approved Contingency Plan (which includes their evacuation plan)
- Poor capacity to draft project proposals and other requirements to avail of funding in some barangay units
- Inadequate engagement between some barangay units and their constituents – DRR awareness has not penetrated all households, as a result.

For disaster response, the following challenges must be addressed:

- Equipment and facilities to address the special needs of vulnerable sectors (PWD, the elderly, children, pregnant mothers) are inadequate and are not

state-of-the-art. Buildings with accessible architectural features are the exemptions in the city, not the rule.

- Weak coordination among responding organizations: the city government, national agencies, and NGOs
- Inadequate equipment for disaster response (logistics, communications, first aid, search, rescue, and retrieval, etc.)
- Inadequate fire substations and operational fire hydrants

Further to the above, the link between community based DRRM organizations and higher levels of government is weak. There is a need to ensure link between DRRM initiatives at barangay level, into City level DRRM institutions and plans. The above weakness is coupled with the lack of capacity on DRRM planning.

Also an important negating factor in ensuring comprehensive DRRM is that officials and their technical staff at local government level do not have a good understanding and capacity for disaster risk reduction and management in general. Recognizing this gap is important especially if effective DRRM is to be ensured.

According to RA10121, the CDRRMC is identified to serve as the source of required information and data on disasters. However, CDRRMC's capacity is currently limited to fulfill this role.

Tacloban City's Strengths

On the other hand, Tacloban's Yolanda experience has resulted in heightened DRR interest and awareness across the board, and greater participation in DRR activities among the constituency. Since then, Tacloban has been acquiring and strengthening the following capacities with which it can now more effectively address gaps and weaknesses:

- Strengthening of the CDRRMC's institutional structure, its human resources, the cluster approach, and its linkage with volunteer groups
- The city government is proactive in mainstreaming DRR and CCA in the CLUP, CDP, resettlement program, coastal and watershed management and protection, and other development plans and programs.
- The city government has forged significant partnerships with civil society organizations, business, NGOs, etc. that offer relevant expertise, resources, and services.
- When completed, CBMS will provide up-to-date demographics that will aid decision making.
- Proactive, functioning BDRRMC in some barangays
- Barangay tanod, TOMECO, Task Force Kanhuraw, etc. augment the PNP, which is severely undermanned for the needs of Tacloban City.
- A well-developed system for management of the dead and missing.

- Presence of many warehouses and stores make for abundant stock of food within the city for times of emergency.
- A significant uptake in all-risks insurance in the business sector
- Cultural strengths that reinforce resilience: sense of humor, family-orientedness, etc.

These systems were tested when Typhoon Ruby hit Tacloban City about a year after Yolanda which showed great improvements on the City's capacity to respond to disasters

Opportunities and Possibilities

Tacloban will do well to take advantage of the fact that Yolanda has brought it into the international spotlight. The United Nations agencies, the international humanitarian and development community, various donors as well as national government agencies, have made opportunities available for strengthening disaster risk reduction management.

This redirection of development is one of the city's primary strategies for resilience, and is more comprehensively discussed in the CLUP and the Tacloban Recovery and Rehabilitation Plan (TRRP).

However, there is the challenge to make sure development initiatives are made climate resilient given the dire climate change projections for Tacloban in the next 30 years.

Two years after the onslaught of Yolanda, Tacloban has reclaimed its role as the regional center for business, governance, education, and culture. The city remains to be the gateway to the Eastern Visayas Region, being host to the region's only high-capacity airport, a seaport, and access to both Luzon and Mindanao with just a single ferry crossing. Having transcended the devastation of one of the most destructive storms that ever made landfall in human history, more than ever, Tacloban holds great promise for resilient and sustainable growth and development.

3. Local Disaster Risk Reduction and Management Plan

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A. Vision Statement

**A Globally Competitive, Resilient Green City,
propelled by God-loving, Gender-responsive Leaders
and an Empowered Citizenry**

Nearly three years after Haiyan, Tacloban City has made significant progress in recovering from the disaster, and is now set on working toward achieving its vision of a globally competitive, resilient green city, propelled by God-loving, gender responsive leaders and an empowered citizenry. Tacloban aspires to become a model of resilience to the world.

With the assistance of international development partners, Tacloban has just recently completed its Local Climate Change Adaptation Plan (LCCAP), and is in the process of mainstreaming DRR and Climate Change Adaptation (CCA) into its CLUP, in light of lessons learned from the Haiyan experience. Tacloban is one of the first Philippine cities to accomplish this mainstreaming.

Now as another step toward long-term resilience, this DRRM Plan was crafted to institutionalize and operationalize valuable lessons in building resilience and managing the impacts of disasters.

This vision of a resilient Tacloban City ties in with the NDRRMC's goal of "**safer, adaptive, and disaster-resilient Filipino communities toward sustainable development**".

B. Mission Statement

**To ensure an exceptionally responsive and sincere
City Government**

The formulation of this CDRRMP was guided by the NDRRMP as well as by globally accepted principles and best practices. Tacloban has adopted a **participatory approach**, which means that communities, beneficiaries, and other stakeholders are involved from the first planning workshop all the way to implementation. In addition, **women empowerment** was mainstreamed in all the proposed interventions. The planning process abided by the following key principles in pursuit of its overall vision:

- ✓ **Focus on the most vulnerable:** Identifying the most vulnerable persons and enlisting their participation is crucial for the formulation of accurate budgets and plans for delivering the assistance they need in times of crisis.
- ✓ **Focus on women, children and disadvantaged groups:** The programme will be inclusive, targeting specific interventions addressing the concerns of women, children and other disadvantaged groups.
- ✓ **Strengthening governance:** is also a priority to be attended to in order to address sustainability. All hazards and the resulting risks that can threaten a community and the city have to be considered. The complexity of disasters requires concerted effort and approach at various levels and sectors. Local communities, Government at national and sub-national levels as well as civil society organizations, business, the academe and media are all partners and have a stake on DRR and CCA. Private as well as the public sector have their specific roles. Mainstreaming DRR and CC in development planning is key to ensuring development gains are not lost or at least damage is mitigated when disasters strike.
- ✓ **Building Partnerships:** The CDRRMP will build close partnerships with local and International NGOs, Community Based Organizations (CBOs), academic institutions, professional bodies, private groups and business as well as with international bodies and institutions. By partnering with various organizations, the CDRRMP would seek to build capacity to ensure the sustainability of the plan and its activities at all levels.
- ✓ **Transparency and accountability:** Accountability to beneficiaries, as well as to governments and donors includes a transparent planning process, the sharing of good practices, and rigorous monitoring and evaluation. This means putting communities as active rights-holders at the center of the risk reduction process through information and participation.

C. Four Priority Areas or DRRM Pillars

The four distinct and mutually reinforcing thematic areas outlined in the NDRRM Plan are:

I. Prevention and Mitigation

Under Section 3 of Republic Act 10121, disaster prevention and disaster mitigation are defined as:

Disaster Prevention – the outright avoidance of adverse impacts of hazards and related disasters. It expresses the concept and intention to completely avoid potential adverse impacts through action taken in advance such as construction or dams or embankments that eliminate flood risks, land-use regulations that do not permit any settlement in high-risk zones and seismic engineering designs that ensure the survival and function of a critical building in any likely earthquake

Disaster Mitigation – the lessening or limitation of the adverse impacts of hazards and related disasters. Mitigation measures encompass engineering techniques and hazard-resilient construction as well as improved environmental policies and public awareness

The **Prevention and Mitigation** (P&M) provides key strategic actions that give importance to activities revolving around hazards evaluation and mitigation, vulnerability analyses, identification of hazard-prone areas and mainstreaming DRRM into development plans. It is based on sound and scientific analysis of the different underlying factors which contribute to the vulnerability of the people and eventually, their risks and exposure to hazards and disasters.

The City Government of Tacloban has been proactive in enhancing the capacities of LGU in DRRM. However, Typhoon Yolanda exposed the need to review current knowledge and systems for prevention and mitigation and broader DRRM.

The CDRRMP goal under this pillar is **“avoid hazards and mitigate their potential impacts by reducing vulnerabilities and enhancing capacities of communities”**.

Under this Pillar, the city will continue and build upon the experience and capacity of the Government and communities for DRRM planning and implementation. In the planned outputs, the CDRRMP will provide technical advice and support in enhancing capacity of DRRM institutions in DRRM planning and implementation.

Initial priority will be supporting the establishment of DRRM institutional arrangements in all areas of Government, specifically, those under the CDRRM Council. This will include working with the various offices and departments under the city government, including barangays to support constituting and enhancing capacity of the disaster risk reduction and management council and committees at barangay levels.

Secondly, priority will be given to the development and strengthening of the capacity of staff and technical persons on disaster risk management and planning, recovery planning and emergency management. Capacity development activities will be targeted at government institutions, particularly the CDRRMC, CDRRMO and local BRRMCs as the focal agencies tasks with DRRM, and will start from a detailed capacity needs assessment and the participatory development of capacity development strategies. The CDRRMC will provide technical assistance, some logistical support and curriculum development for capacity development activities of the project including the provision of the relevant tools and maps to guide operations and planning. Cooperation and partnership with civil society organizations will be forge to support the plan.

Thirdly, the city will prioritize the implementation of specific DRRM activities aimed at demonstrating participatory disaster risk reduction and management planning. Specifically, the city will support the conduct of risk assessment at the barangay level as basis for the development of the barangay DRRM Plan which will in turn feed into and substantiate the City DRRM Plan. .

The CDRRM Plan will continue the development of local community capacities at the barangay level while also developing the capacities of City government institutions responsible for disaster risk reduction and management.

Capacity development activities will be informed and complemented by research that would inform program implementation including the link between CBDRM to the City DRRM plan, DRRM and Climate Change and technical cooperation.

Activities will be implemented taking into consideration the gradual build-up of capacity and structures of the City Disaster Risk Reduction and Management Council and Office and at various levels.

The CDRRMC will work and collaborate closely with other sectoral programs of the Tacloban Rehabilitation and Recovery Program and other organizations, especially UN, INGO and local NGOs, that have a stake on enhancing DRRM programming in the City to ensure synergies and optimum use of resources. Underlying all these, the city will improve access to and use of weather, climate data as well as geo-hazard data maps. This will ensure that the city and barangay officials get updated data which will guide local planning and decision-making.

Goal: Avoid hazards and mitigate their potential impacts by reducing vulnerabilities and enhancing capacities of communities.

To achieve the above goal, the CDRRMP identified two objectives with their corresponding outcomes, outputs and activities.

Objectives

- Enhance capacities of communities to reduce their own risks and cope with the impacts of all hazard
- Reduce vulnerability and exposure of communities to all hazards

Outcome 1:

1. Improved capacity to mainstream DRRM and CCA in City and Barangay development policies, plans and budget

Outputs:

- 1.1 Functional City DRRM Council and Barangay DRRM Committees.
- 1.2 Enhanced CSO participation in the CDRRMC and the BDRRM committees
- 1.3 Strengthened CDRRM council
- 1.4 Strengthen CDRRM office equipped with facility, manpower and budget.

Commented [MA4]: Bebet: Add
1.1 Barangay level DRRM plans
1.2 DRRM and CCA integrated in the barangay level development plans

Outcome 2:

2. Implemented CDRRM and CCA-sensitive environmental management

Outputs:

- 2.1 Environmental policies with DRRM/CCA lens and component
- 2.2 Improved capacity of farmers and fisherfolks

Outcome 3:

3. Improved coastal resource management towards building coastal resilience

Outputs:

- 3.1 Coastal protection and erosion management which include, among others, mangroves reforestation and restriction in building settlements within the no-dwelling zones.

Commented [MA5]: Bebet: Add
Restrictions in the building of structures and settlements near the coast

Outcome 4:

4. Increased density of forest cover and watershed areas

Outputs:

- 4.1 Improved forest cover and efficient soil and water conservation
- 4.2 Protect areas with high ground water recharges

Outcome 5:

5. Increased disaster resilience of infrastructure systems

Outputs:

- 5.1 Enhanced disaster mitigation and preparedness strategies for infrastructure systems
- 5.2 Disaster resilient infrastructure system

Outcome 6:

6. Reduced incidence of flood in Tacloban City.

Outputs:

- 6.1 Reduce flooding in the City and reduce number of people affected by flooding
- 6.2 Litter free/clean City

Commented [MA6]: Bebet: Add
And reduce number of people affected by flooding

Outcome 7:

7. Water security in domestic and agriculture use

Outputs:

- 7.1 Alternative water source for domestic and agriculture use

Commented [MA7]: Bebet Add
7.1 Water demand management programs which includes
7.1.1 Alternative water source for domestic and agriculture use
7.1.2 Water efficiency/conservation measures
7.1.3 Water reclamation, recycling and reuse

Outcome 8:

8. Sustained food production

Outputs:

- 8.1 Climate-adaptive food production systems/technologies are adopted

Commented [u8R7]: Add
From AFL:
May add protection of water sources from pollutants (pesticides, wastewater) and saltwater intrusion

Outcome 9:

9. Communities have access to effective and applicable disaster risk financing and insurance

Outputs:

9.1 Availability and access of poor men and women to various disaster risk financing and insurance schemes for vulnerable groups and/or communities

Commented [MA9]: Bebet: add 9.2 Alternative livelihood opportunities especially for vulnerable sectors of the city

Outcome 10:

10. End-to-end monitoring, forecasting and early warning systems are established and/or improve

Outputs:

10.1 Enhanced monitoring, forecasting and hazard warning

Commented [MA10]: Better to be separate outcome

Outcome 11:

11: Established / Improved DRRM Operation Center

11.1 Established DRRM Operations Center

Outcome 1: DRRM and CCA mainstreamed and integrated in City and Barangay development policies, plans and budget.

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Functional City DRRM Council and Barangay DRRM Committees.	Advocate for the adherence in the utilization of DRR/CCA fund at the the City and Barangay level. Awareness raising on climate change	number of advocacies done	documentation	50,000.00	70% CF		X	X	X	A713-01
Developed Barangay level DRRM plans. DRRM and CCA integrated in the barangay level development plans	Capability building on Formulation of BDRRM Plan and Contingency Plans of every barangay including provision of maps, tools to guide planning & decision-making	number of BDRRM Plan and Contingency Plans done per barangay	copy of contingency plans	150,000.00	70% CF		X	X	X	1712-0
Enhanced CSO participation in the CDRRMC and the BDRRM committees	Passage of an ordinance for the selection criteria and accreditation of CSO and NGO participation in the Tacloban DRRM Council and Committees	approved City Ordinance	copy of approved city ordinance	25,000	70% CF		X			9000-2-1
Strengthened CDRRM council	Conduct regular meeting with local City DRRM Council per RA 10121	active/functional City DRRM	attendance of council members, minutes of the meeting and other relevant documentation	27,000.00	70% CF		X	X	X	A713-04
Strengthened capacity of CDRRMO on DRR and CCA	Capacity building of CDRRMO staff	No. of trained men and women trainers/ personnel	Documentation, Certification	500,000	70% CF		X	X	X	9000-2-2

Commented [MA11]: Bebet: Add To include the provision of maps, other tools which can guide planning and decision making

Strengthened capacity of CDRRMO	SP approval of CDRRMO positions	approved CDRRMO amendment, permanent CDRRMO head and staff	hired additional employees, approved CDRRMO amendment, appointment papers	23,242,644	70% CF		X	X	X	GAA
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Outcome 2: CDDRM and CCA-sensitive environmental management

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Environmental policies with DRRM/CCA lens and component/	Capability building for BLGU on forest and environmental protection and monitoring syste, (promote gender sensitivity) including the establishment of fuelwood plantations to provide for the fuelwood needs of the communities	Increased level of awareness of men and women on forest & environmental protection	Report citing participation of women and men in forest and environmental protection activities. BLGU Reports	500,000			X	X	X	A
	Adapt NDRRM/CCA into various environmental programs, policies and projects such as (Eo 26, PD 705 and establish beach forest	Reconciliated policies between national and local	Number of policies reconciliated	50,000			X	X	X	A
Improved capacity of farmers and fisherfolks	Provision of relevant technologies and information (climate information) Provision of alternative livelihoods for vulnerable sectors	No. Of trainings conducted; No. of men and women leaders and members of groups trained in adoption of technology	Training Report Post-training evaluation	300,000	70% CF		X	X	X	A-113-08

Commented [MA12]: Bebet: Add Include the establishment of fuel wood plantations to provide for the fuel wood needs of the communities

Commented [MA13]: Bebet: Add Include the provision of alternative livelihoods for the vulnerable sectors

Outcome 3: Improved coastal resource management towards building coastal resilience

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Coastal protection and erosion management which include restrictions in the building of structures and settlements near the coasts	Mangrove and Beach Forest Reforestation (identification of appropriate species and site suitability) – policy and program	% reduction of loss of lives, livelihood and assets	44 coastal barangays saturated with mangroves and beach forest species	4,000,000	X			X	X	A713-01

Outcome 4: Increase density of forest cover and watershed areas

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Improved forest cover and efficient soil and water conservation	Upland forest rehabilitation (3323 hectares)	Reduce magnitude of landslide occurrence and siltation on water bodies	17 upland barangays	2,800,000		X		X	X	A713-01
Improved areas with high ground water recharges	Soil and water conservation measures. Protection of areas with high water recharge	Reduce magnitude of soil erosion and siltation on water bodies	17 upland barangays	20,000,000		X		10M	10M	
	Advocacy on upland forest ecosystem and climate change	-% reduction of loss of lives, livelihood and assets	17 upland barangays	5,000,000		X		5M	X	
	Rver embankment/ stabilization (bamboo plantation)	Reduce magnitude of riverbank erosion/river	Maintain 12 riverwidth/absence of river siltation	1,500,000		X		1.5M	X	

Commented [MA14]: Bebet: Add as an Activity Massive, extensive information, education and communication (IEC) campaign to raise awareness, understanding about the value of environment

Commented [MA15]: Bebet: Add More effective forest protection measures establishment of small water impounding system in the uplands

Commented [MA16]: Bebet: Add Limit development in the areas identified to have high potential for water recharge; Implement the use of pavers along the sidewalks, walkways, parking lots instead of concreting these areas to allow for more rain to infiltrate into the ground and recharge the aquifer

		sedimentation								
	Protection of wildlife habitat (conduct of biological resource assessment)	Preserve the floral and faunal composition/increase biodiversity	Increase biodiversity index	4,600,000		X		4.6M	X	

Outcome 5: Increased disaster resilience and infrastructure systems

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Enhanced disaster mitigation and preparedness strategies for infrastructure systems	Implementation of the revised building code incorporating resiliency and green technology	No. of establishments meeting the standards of the revised building code	Revised Building Code	50,000	X			X		9000-2-3
Disaster resilient infrastructure system	Conduct inventory and vulnerability and risk assessments for critical facilities and infrastructure	Number of facilities assessed	Assesment tool and reports	100,000	70% CF		X	X	X	9000-2-4
	Develop guidelines on the redesign, retrofitting or operational modification of infrastructure such as inclusion of PWD accessibility features based on BP 344. Adoption of a policy to incentivize all new developments (housing, commercial establishments, schools, malls, subdivisions,	Existence of new guidelines and policy	Inspection reports from the building officials		1% GAA					GAA

Commented [MA17]: Bebet; Add Adoption of a policy to require all new developments (housing, commercial establishments, schools, malls, subdivisions, industrial establishment, institutions) to have rainwater harvesting and storage facilities

	industrial establishment, institutions) to have rainwater harvesting and storage facilities									
	Installation of fire hydrants in strategic areas	No. of fire hydrants installed	Inspection Report	1.5M		TBI		X	X	
	Advocacy on fire safety measures in every household and establishment	Number of advocacies done	Documentation	20,000	x			X	X	
	Construction of three disaster resilient evacuation centers	Resilient evacuation centers	Three evacuation centers constructed and checked for resiliency	25, 677, 810.32	8, 559, 270.10 from 70% calamity fund 17, 118, 540.21 from 20% EDF		X	X	X	
	Various flood control projects	Reduced flood height	Water level indicator (from posts), PDNA	130M		TBI		X		20% CDF

Commented [GCB18]: From AFL Please note that fire hydrants are useless if there is not enough water/pressure.

Outcome 6: Reduced incidence of flood in Tacloban City.

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Reduce flooding in the City and reduce number of people affected by flooding	Desilting, declogging, rehabilitation and improvement of drainage	Reduced flood height Reduced no. of people affected as against baseline	Water level indicator (colored posts)	12M	MOOE		X	X	X	85
Litter free/clean City	Enforcement of City Ordinances on proper waste disposal, anti-littering and water ways protection and Strict implementation of RA 9003 Ecological Solid Waste Management	Reduction of garbage volume in the dumpsite, functional MRF's	City ENRO reports		X		X	X	X	

Commented [MA19]: What about zoning ordinance?

Commented [MA20]: Bebet: Add Strict implementation of RA 9003 on Ecological Solid Waste Management

Outcome 7: Water security in domestic and agriculture use

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Alternative water source for domestic and agriculture use	Construction of rainwater impounding facilities. Explore PPP for new source as defined by the Tacloban North Feasibility Study	Total volume of water	Total volume of water	10,000,000	70% CF	DA		X	X	
	Construction of irrigation system and resuse of treated wastewater Promotion campaign to use water efficient fixtures Promotion of more water efficient rice farming methods	No. of irrigation system constructed	Documents/report of inspection	5,000,000	70% CF	DA		X	X	

Outcome 8: Sustained food production

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Climate-adaptive food production technologies are adopted	Introduction of drought and flood resistant crops and short duration and early maturing crops	% increase of crop production	Documentation	1.2M		DA		X	X	
	Introduce or expand use of crop-mix more suited to climate change (CC) and climate variability (CV)	% increase of crop production	Documentation	500,000	70% CF			X	X	A11-

Commented [MA21]: Bebet: This basically means crop diversification. Important to select crops which require less water. Should include more extensive aqua culture including setting up of fish nurseries to reduce dependence on captive fishery.

	Conduct SALT training and other soil conservation measures	Sustainable farming system	Number of upland men and women farmers & farming households practicing agro-forestry	700,000	70% CF			X	X	A113-07
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Outcome 9: Communities have access to effective and applicable disaster risk financing and insurance

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Availability and access to various disaster risk financing and insurance schemes for vulnerable groups and/or communities	Produces IECs to encourage hazard insurance coverage for government, private infrastructures and other business establishments	increase level of awareness on the availability of hazard insurance coverage	No. of IEC's produced	100,000	70% CF		X	X	X	9000-2-5
	Promote insurance schemes among production sectors, supply sector, local communities and responders	increase level of awareness on the availability of hazard insurance coverage	No. of suppliers availed the insurance	50,000	70% CF		X	X	X	9000-2-6

Outcome 10: End-to-End monitoring, forecasting and early warning systems are established and/or improved.

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE	
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022		
Enhanced monitoring, forecasting and hazard warning	Improve access to timely weather and climate data and information by improving linkage with concerned national agencies & projects – PAGASA, PHIVOLCS, Project NOAH, MGB. Develop and institutionalize EWS information sharing and communication systems between national government, LGUs and communities	Reconciliated/ standardized Early Warning System	Ocular inspection	100,000	70% CF			X	X	X	9000-2-7
	Procure equipment and establish facilities for EWS	No. of EWS equipment procured	Ocular inspection/ delivery report	10,000,000		DOTC, DILG			X	X	
	Train and tap communities for hazard monitoring	No. of men and women community volunteers trained and mobilized	Certificate and masterlist of trained personnel	200,000	70% CF			X	X	X	9000-2-8

Commented [MA22]:

Commented [MA23]: Bebet: First activity here is to improve access to timely weather and climate data and information by improving linkage with concerned national government agencies and projects – PAGASA, PHIVOLCS, Project NOAH, MGB). The city can then use this and disseminate same to its constituents in a timely manner.

Outcome 11: Established and/or improved DRRM Operations Center.

Establishment of DRRM Operation Center and Evacuation Centers	Construction of at least 3 operation Centers (north, south & main)	Constructed 3 operation centers	Completion report	15M						x	
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Total: 58,527,810.32

II. Preparedness

Under Section 3 of Republic Act 10121, disaster preparedness is defined as

Disaster Preparedness -- the knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from the impacts of likely, imminent or current hazard events or conditions. Preparedness action is carried out within the context of DRRM and aims to build the capacities needed to efficiently manage all types of emergencies and achieve orderly transitions from response to sustained recovery. Preparedness is based on a sound analysis of DRR and good linkages with early warning systems and includes such activities as contingency planning, stockpiling of equipment and supplies, the development of arrangements for coordination, evacuation and public information and associated training and field exercises. These must be supported by formal, institutional, legal and budgetary capacities.

Disaster preparedness plays a critical role in saving lives and livelihoods particularly when it is integrated into an overall disaster risk management approach. Strengthening preparedness for hazard events is mainly concerned with two objectives: increasing capacity to predict, monitor and be prepared to reduce damage or address potential threats; and strengthening preparedness to respond in an emergency and assist those who have been adversely affected.

This priority area provides for the key strategic actions that give importance to activities revolving around community awareness and understanding; contingency planning; conduct of local drills and the development of a national disaster response plan. Likewise, in preparing our communities and governments for possible disasters, predetermined needs based on information available are crucial. Risk-related information coming from the prevention and mitigation aspect is necessary in order for the preparedness activities to be responsive to the needs of the people and situation on the ground. Also, the policies (and budget) and institutional mechanisms established under the prevention and mitigation priority area will be further enhanced through capacity building activities, development of coordination mechanisms and the like. Through these, coordination, complementation and interoperability of work in DRRM operations and essential services will be ensured.

CBDRM can be defined as *“A process of disaster risk management in which at risk communities are actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risks in order to reduce their vulnerabilities and enhance their capacities. This means that the people are at the heart of decision-making and implementation of disaster risk management activities. The involvement*

*of the most vulnerable is paramount and the support of the least vulnerable is necessary*¹¹.

In Tacloban City, CBDRM programming is mostly being initiated by NGOs. CBDRM activities included: organization of Barangay Disaster Risk Reduction and Management Committees, training on various skills including search and rescue, first aid, early warning; setting-up of community early warning and evacuation center and systems including identification and siting; small-scale mitigation works; development of contingency plans and provision for public awareness and climate change adaptation. CBDRM programs in Tacloban however are limited in coverage.

The CDRRMP will support enhancement of the LGU capability in contingency planning. Contingency plans will include preparedness and mitigation measures as well as the setting up of regular coordination meetings with the various stakeholders. The contingency plans will form part of the City Disaster Risk Reduction and Management Plan. The plan will be further developed and detailed involving various stakeholders including Government, UN, INGOs, NGOs, private groups, local media and schools where they exist. Contingency plans developed at barangay level will be incorporated into the city contingency plan.

Several CBDRM approaches are being used by various organizations. These varying approaches need to be streamlined and standardized if CBDRM is to be institutionalized in the government process. Part of the institutionalization process of CBDRM will require policy guidance on the institutional framework for DRRM at community (barangay) level. Although it is mandated in the RA10121, there is a need for further clarification on the form and function of a DRRM organization at barangay.

The CDRRMP will support and initiate CBDRM in the barangays. It will support strengthening local capacity for DRRM in barangays. Focus will be at strengthening barangay DRRMCs for disaster risk management and preparedness planning. This will include technical support for risk assessments, early warning, training, disaster risk management planning, CBDRM, EW and contingency planning. The aim of capacity development is to ensure that local government units are able to analyze risk, develop, implement, monitor and evaluate risk reduction plans that incorporate village and community needs.

At barangay level, community based disaster risk management will lead to formation of systems and networks for early warning of impending disasters, strengthening preparedness and response capacity. The CDRRMP will provide technical advice and support in strengthening DRRM institutional capacity to barangay authorities to effectively support their constituents. CBDRM will involve community-based organizations, women and children and local responsible institutions. Gender sensitive strategies will ensure the meaningful participation of men and women both in training and formation of systems and networks. Special attention will be given to

¹¹ Abarquez and Mushed, 2004, ADPC, "CBDRM: field practitioner's handbook"

persons with disabilities and other vulnerable groups. Community awareness is included as a component of the plan that consists of developing and disseminating public awareness materials, education and training provided through community facilitators and responsible authorities.

The city will prioritize the implementation of specific DRRM activities aimed at demonstrating participatory disaster risk reduction and management planning, disaster preparedness and early warning and CBDRM.

Direct capacity-building activities will be complemented by targeted pilot and demonstration activities in key areas, e.g. in strengthening community-based early warning, damage and loss assessment, emergency management, disaster risk reduction and management planning and improving coordination mechanism for DRRM and response aimed at developing integrated models on disaster risk reduction and management that can be acquired and replicated in other hazard-prone areas in the city.

Demonstration of CBDRM activities that include community early warning, community risk assessment and preparedness planning will be implemented, monitored and evaluated with participation of the whole community. Knowledge, Attitudes and Practices (KAP) Assessments will be conducted at start and end of specific activities to determine impact of public awareness campaigns. Lessons learnt will be documented and disseminated and will be used in creating models that can be replicated in other barangays and hazard prone areas. Specifically, learning will inform program development that aims to improve CBDRM approach in the city.

Community developed disaster risk reduction and management plans will be linked to the City DRRMP. The CDRRMP will make sure that community plans are reflected, integrated and supported by Disaster Risk Reduction and Management Plans at city level.

It should be noted that the activities under this pillar are not linear but they are cyclical and anticipate improvements over time. Behavioural change created by the preparedness aspect is eventually measured by how well people responded to the disasters. At the frontlines of preparedness are the local government units, local chief executives and communities. Overall, the bottom line is, having more prepared citizenry and governments.

The CDRRMP goal for this pillar is to *“establish and strengthen capacities of communities to anticipate, cope and recover from the negative impacts of emergency occurrences, disasters and to make Tacloban City a center of excellence for disaster preparedness”*. To achieve the above goal, the CDRRMP identified five objectives with their corresponding outcomes, outputs and activities.

Goal: Establish and strengthen capacities of communities to anticipate, cope and recover from the negative impacts of emergency occurrences, plan and prepare to reduce disasters and to make Tacloban City a center of excellence for disaster preparedness.

Objectives:

- To increase the level of awareness of the community to the threats and impacts of all hazards, risks and vulnerabilities.
- To equip the community with the necessary skills to cope with the negative impacts of a disaster.
- To increase the capacity of institutions at city and barangay level
- To develop and implement comprehensive local disaster preparedness policies, plans and systems
- To strengthen partnership among all key players and stakeholders

Outcome 1:

1. Increased level of awareness and enhanced capacity of community to the threats and impacts of all hazards

Outputs:

- 1.1. Communities have an increased level of knowledge and understanding of the hazards facing their communities
- 1.2. Communities have accessed on and used weather and climate forecasts and warning.

Commented [MA24]: Make this a separate output

Outcome 2:

2. Communities are equipped with necessary skills and capability to cope with the impacts of disasters

Outputs:

- 2.1. Communities know what to do before, during and after emergencies
- 2.2. Communities are equipped with emergency response skills and equipment's

Outcome 3:

3. Increased capacity of BDRRMC, different departments of the City Government of Tacloban and Operations Center

Outputs:

- 3.1. Increased capacity of BDRRMC and CDRRMC
- 3.2. Increased capacity of the City Government of Tacloban
- 3.3. Strengthened capacity of CDRRMO

Outcome 4:

4. Developed and implemented comprehensive local preparedness policies, plans, and systems

Outputs:

- 4.1. Preparedness plans are in place
- 4.2. Policies and Ordinances are revised / created to incorporate ideas in disaster preparedness
- 4.3. Systems are institutionalized to be able to cater to the smooth flow of operations during emergencies

Outcome 5:

5. Strengthened partnership and coordination among all key players and stakeholders

Outputs:

- 5.1. Establish partnership with GOs, INGOs, NGOs, CSOs, Faith –based organization and other key stakeholders

Outcome 1: Increased level of awareness and enhanced capacity of community to the threats and impacts of all hazards

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Communities have an increased level of knowledge & understanding of the hazards facing their communities.	Conduct Information and Education Campaign (IEC) through quad-media	No. of IEC materials produced No. of campaigns done No. of media institutions tapped	Documentation	1M	70% CF			x		9000-2-
Communities have access to and use weather and climate forecasts and warning.										

Outcome 2: Communities are equipped with necessary skills and capability to cope with the impacts of disasters

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Communities know what to do before, during and after emergencies	Conduct City-wide simulation drills/exercises in different barangays, schools, business establishments, offices, etc.	No. of City-wide simulation drills /exercises in different barangays, schools, business establishments, offices, etc.	Documentation	3M	70% CF				x	9000-2-
	Conduct Community-based DRRM Orientations and Seminars mainstreaming PWDs, Senior Citizens and	No. of Community-based DRRM Orientations and	Documentation, Certification	3M	70% CF				x	

	other vulnerable Individuals	Seminars conducted; No. of men and women participants trained in gender-responsive DRRM								
	Establish an Emergency Evacuation SOP – identification of emergency routes, resilient evacuation centers and pre-assigned families in each barangay to a particular evacuation center with listing of vulnerable persons per family	List of emergency routes per barangay, list of resilient evacuation centers, list of families assigned to a particular evacuation center and database of vulnerable persons in each family	Database of all listings	1.2M	70% CF			x		
Communities are equipped with emergency response skills and relevant emergency equipments	Establish Emergency Response Teams (ERT's) per barangay Procurement of needed equipment such as lifeboats, etc	No. of barangays with established (ERT's) No. of men and women volunteers trained in Water Search and Rescue (WASAR) along coastal barangays	Documentation, Certification for trained personnel and ERT's in Barangays	1M	70% CF			x		
	*Conduct of regular Basic Life Support and Advanced Cardiac Life Support emergency response trainings to all medical &	No. of personnel with certification in BLS and ACLS emergency response	Documentation, Certification	1M	70% CF			x		

Commented [MA25]: Bebet: Add Procurement of needed equipment such as lifeboats, etc

	paramedical personnel including the provision of basic rescue equipment i.e. trauma/FA kits, spine boards, splints etc.									
	*Organize and establish Mental Health and Psycho-social Support Committees and conduct of trainings for MHPSS responders in the Barangay	No. of Brgys where MPHSS committees are organized and MHPSS men and women responders are trained	Documentation, Certification	1.8M	70% CF				x	

Outcome 3: Increased capacity of BDRRMC, different departments of the City Government of Tacloban and Operations Center

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Increased capacity of Barangay Disaster and Risk Reduction Management Committee (BDRRMC) and City Disaster and Risk Reduction Management Council (CDRRMC)	Conduct BDRRMC/P/F Orientation and Training Workshop	No. of BDRRMC/P/F Orientation and Trainings Workshop conducted; No. Of women and men trained	Documentation, Certification	2M	70% CF				x	
	*Strengthen Barangay WASH Committee (BAWASHA)	No. of established Barangay WASH committees with gender-balanced representation	List of Barangays with active WASH committees	1M	70% CF				x	

Increased capacity of the City Government of Tacloban	Develop policies on NGO's, CSO's, INGO's, etc.	No. of NGO representatives/ volunteers selected, registered and accredited	Registration sheets, List of accredited organizations	50,000	70% CF			x		
	Formulate contingency plans for each department	Final preparedness plan documents from each department	Approved preparedness plans for each department	100,000	70% CF		x			
	Train department focal persons / lead persons for disasters	No. of Departments with trained focal / lead persons	Documentation, Certification	500,000	70% CF			X		
	Establish a stockroom/warehouse for food supplies, medical supplies and other emergency supply needs (mosquito nets, potable water, etc.) with equipment /tools such as kitchen, medical equipment and WASH equipment,	Identification / Construction of Stock room / Warehouse to be used for prepositioning / stockpiling furnished with equipment	Completion Report	2.5 M	70% CF			X		
	Furnish stockroom/warehouse with supplies/stockpiles for: -Food supply -Medical supplies -Other supply needs (Mosquito nets, potable water, etc.) Equipment/Tools: -Kitchen -Medical Equipment -WASH equipment	Food and non food items for 1000 families MOU with business establishments where food and non food items can be sourced out Establish credit line with suppliers	PO's, Documentation, list of prepositioned items/stockpiles	1.5M	70% CF				x	

Commented [MA26]: Bebet: Add Include portable toilets and the identification of sites for the treatment of the sewage from these portable toilets

	Ensure internet access even during emergency situations	Presence of alternative internet provider	List of all Internet Providers	100,000	70% CF		x			
	Develop a localized standard curriculum on climate change and disaster risk adaptation and mitigation for all levels. Craft City DRRM training	Workshop Output	Approved document on localized standard curriculum on climate change and disaster risk adaptation and mitigation Approved City DRRM training modules	300,000	70% CF			x		
	Establish emergency communications protocol (low or high technology) i.e. SMART's INFOCAST and Emergency Radio Communications: Warning, PRDNA, Reporting	Creation of emergency communications protocol (low or high technology) i.e. SMART's INFOCAST	Approved emergency communications protocol	3M	70% CF			x		A634-05
	Construct storage space for documents and other office equipments	Constructed (at least 2) storage space for documents and other office equipments	Completion report	1M	70% CF			x		
	Compile a data base registry of households in the different barangays including the profile of the vulnerable population with sex-disaggregated data	% of barangays with complete data registry on household and family	Updated Data base registry of households and family in the different barangays including sex-dis-aggregated data and profile of the vulnerable population	10,000	CBMS		x			
	Provide mobile kitchens in the evacuation centers. installed with a system for collecting the solid waste generated in evacuation	No. of evacuation centers with mobile kitchen	Documentation	3M	70% CF				x	

Commented [MA27]:

Bebet: Add
Provide a system for collecting the solid waste generated in evacuation centers and for properly disposing same.

	centers and for properly disposing same									
	Provide portable cages for pets in the evacuation center e.g dogs, cats, rabbit, non food animals. Provide for the collection and proper storage/treatment of the animal waste	No. of portable cages for pets in the evacuation center e.g dogs, cats, rabbits, non food animal	PO's, Documentation	1M	70% CF			x		
	Conduct community needs assessment thru Value Chain Analysis (VCA) in order to identify the livelihood support activities;	Community needs assessment report in place with scoped livelihood activities.	Community needs assessment report document	200, 000	70% CF			x		
	Conduct capacity building activities based on Community Needs Assessment (C.N.A.) focusing on gender-responsive and inclusive livelihood promotion, protection, and retention.	No of capacity building activities conducted based on Community Needs Assessment (C.N.A.) focusing on gender-responsive and inclusive livelihood promotion, protection, and retention.	Capacity Building Report Documentation	300, 000	70% CF			x		
	*Strengthen health referral systems during emergencies	Established and approved systems in health referral during emergencies	Documentation	50,000	70% CF			x		
Strengthened capacity of CDRMO	Purchase equipment and supplies and construct facilities	Acquired equipment and constructed	PO's	15M	70% CF/LPRAP		x			

Commented [MA28]:

Commented [MA29]: Bebet: Provide for the collection and proper storage/treatment of the animal waste

	1. Equipment ▫ Service Vehicles, Motorcycle first aid unit, Accessories and Maintenance ▫ Medical Equipment/Supplies/Facilities ▫ Search and Rescue Equipment/Facilities/Tools (Hydraulic Cutters/Spreader, PPE's, Rescue Boats, etc.) ▫ Communication Eq. (VHF/UHF Radios, Fax Machines, Telephones, etc.) ▫ Office Equipment (Computers, Printers, Large LCD Monitors, IT Equipment/Supplies)	facilities								
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Outcome 4: Developed and implemented comprehensive local preparedness policies, plans, and systems

Commented [GCB30]: From AFL - add computer back-up drives for remote storage of important documents

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Disaster Preparedness Plans are in place	Formulate Barangay Disaster Risk Reduction and Management Plan (BDRRMP)	No. of Brgys with approved BDRRMP	Approved copies of approved BDRRMP document	1.5M	70% CF			x		
	Development of local DRRM plan	Approved DRRM Plan	Approved DRRM Plan document	1M	70% CF	USAID, other INGO's	x			

	Development of LGU & Brgy Contingency Plans incorporating gender sensitivity and the vulnerable sector	Contingency plans developed and approved	Approved contingency plans document	1M	70% CF	USAID, other INGO's	x			
Policies and Ordinances are revised / created to incorporate ideas in disaster preparedness	Review and Revision of the Local Building Code for resilient infrastructures	Revised Local Building Code	Approved Local Building Code	100,000	70% CF			x		
	Create ordinance designating certain elevated areas to be used as parking space for vehicles during emergencies and areas where choppers can land.	Passed & approved ordinance designating certain elevated areas as parking space during emergencies	Approved Ordinance document	10,000	70% CF			x		
	Formulate policy to designate safe docking zones for water transport	Approved policy designating safe docking zones for water transport	Approved policy document	10,000	70% CF			x		
	*Craft policies on the operationalization of health facilities during emergencies (including birthing services)	Approved policies on the operationalization of health facilities during emergencies	Approved document about policies on the operationalization of health facilities during emergencies	100,000	70% CF			x		
Systems are institutionalized to be able to cater to the smooth flow of operations during emergencies	Enhancement of existing Manual of Operation	Approved enhanced Manual of Operations	Approved Manual of operations document	100,000	70% CF			x		

Commented [MA31]: Bebet: Add Include areas where choppers can land

	Enhancement of guidelines for Emergency Response Team -TACRU	Revised guidelines for Emergency Response-Team (TACRU)	Approved guidelines for Emergency Response-Team (TACRU) document	100,000	70% CF			x		
	Create and develop protocols for information gathering and reporting	Approved protocols for information gathering and reporting	Approved protocols for information gathering and reporting document	100,000	70% CF			x		

Outcome 5: Strengthened partnership and coordination among all key players and stakeholders

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Establish partnership with GOs, iNGOs, NGOs, CSOs, Faith –based organization and othe key stakeholders	Strengthen partnership with GOs, iNGOs, NGOs, CSOs, Faith –based organization	Number of CSOs; NGOs; iNGOs	MOUs with different key players /stakeholders/ pledge of commitment	50,000	70% CF			x		
	Strengthen partnership with business establishments on Food and NFIs including volunteers, logistics and transport	Partnership with Business establishments on food andNFIs strengthened.	MOA on credit sales during calamities with NFA and other business establishment / pledge of commitment	50,000	70% CF			x		
	Conduct of regular coordinative meetings with different key players and stakeholders	No. of coordinative meetings conducted	Minutes of meetings with attendance sheet	120,000	70% CF				x	

	Recruitment and organization of civic volunteer as first responders	Number of volunteers recruited	Registration sheets, List of volunteers	500, 000	70% CF			x		
	Establish institutional links with volunteer groups, CSOs and Pos and the health sector	No. of established institutional links with volunteer groups, CSOS AND Pos.	MOU with the volunteer groups, CSOs, and Pos crafted and approved	60,000	70% CF			x		
	Create Database of DRRM partners and key stakeholders	Database of DRRM partners and key stakeholders created.	Complete and up to date database of DRRM Partners and key stakeholders	50,000	70% CF			x		
	Conduct stakeholder's forum regarding disaster preparedness	No. of Conducted stakeholder's forum.	Documentation	50, 000	70% CF			x		
	Development of livelihood operational guidelines.	Approved guidelines on livelihood operations	Approved livelihood operational guidelines document	50, 000	70% CF			x		

III. Response

Republic Act 10121 defines Response as

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.”

This aspect will likewise include Early Recovery which means, under IRR Rule 2 Section 1:

Early Recovery -- multidimensional process of recovery that begins in a humanitarian setting. It is guided by development principles that seek to build on humanitarian programmes and catalyze sustainable development opportunities. It aims to generate self-sustaining, nationally-owned, resilient processes for post-crisis recovery. It encompasses the restoration of basic services, livelihoods, social services, governance, security and rule of law, environment and social dimensions, including reintegration of displaced populations.

This priority area under the NDRRMP provides for key actions that give importance to activities during the actual disaster response operations from needs assessment to search and rescue to relief operations to early recovery activities. The activities identified below will either be done before the actual response operations or during.

RA10121 serves as the governments’ disaster and contingency plan. It outlines the function, roles and responsibilities of the different departments and agencies from national, province, city/municipal and village levels. However, the quality of contingency planning and emergency management depends on building capacity of the focal institutions. And in the case of Tacloban, the City Disaster Risk Reduction and Management Council and Local DRRMCs need enhancement.

While Tacloban City authorities were able to respond to the Yolanda disaster, the response has been ad hoc and was not guided by an overarching contingency plan. While much has been improved since Yolanda, more is still needed to ensure a comprehensive and pro-active emergency management capacity.

During the first year of the Plan, an institutional review will be conducted to ascertain institutional and human resources capacities and gaps of DRRM institutions in order to effectively perform their DRRM mandate. Included in the review is an assessment of preparedness and emergency capacity that will inform the formulation of a comprehensive training program that will be rolled out in coordination with various government agencies, UN, NGOs and private groups.

For this pillar, the focus will be supporting response capacity and operations of the CDRRMC and particularly the CDRRMO, as the focal unit for emergency response.

The Plan will support the CDRRMC/O in ensuring that they are able to fulfill their role as stipulated in RA10121. This component will support actions for effective and timely disaster response, including rapid and appropriate conduct of damage and needs assessment, agency coordination, search and rescue, evacuation, and provision of relief, shelter, basic health services and psychosocial support during emergencies.

Overall, the success and realization of this aspect rely heavily on the completion of the activities under both the prevention and mitigation and preparedness aspects, including among others the early warning systems and coordination and communication mechanisms to be developed. On-the-ground partnerships and the vertical and horizontal coordination work between and among key stakeholders will contribute to successful disaster response operations and its smooth transition towards early and long term recovery work.

The CDRRMP goal for this pillar is to *“provide life preservation and meet the basic subsistence needs of affected population based on acceptable standards during or immediately after a disaster”*. To achieve the above goal, the CDRRMP identified three objectives with their corresponding outcomes, outputs and activities.

Goal: Provide life preservation and meet the basic subsistence needs of affected population based on acceptable standards during or immediately after a disaster.

Objectives:

- Decrease the number of preventable deaths and injuries
- Activated functional Incident Command System (ICS) by the first responder on site, availability of timely, accurate and reliable information during disaster
- Incident Command System (ICS) by the first responder on site, availability of timely, accurate and reliable information during disasters
- Immediately restore basic social services

Outcome 1:

1. Well established disaster response operations

Outputs:

- 1.1. Mobilized and deployed assets and personnel for search and retrieval operation.
- 1.2. Removed victims and casualties from areas affected or are being affected by disaster and undertake medical care
- 1.3. Organized Engineering and Reconstruction Service Committee
- 1.4. Organized Relief Service Committee
- 1.5. Ensured availability and accessibility of relief goods, medicines and personnel.

Outcome 2:

2. Adequate and prompt assessment of needs

Outputs:

- 2.1. Generated RDANA (Rapid Damage and Needs Assessment) DANA (Damage Analysis and Needs Assessment) reports from affected areas

Outcome 3:

3. Integrated and Coordinated Search, Rescue and Retrieval (SRR) capacity

Outputs:

- 3.1. A dignified process of managing the dead and missing
- 3.2. Mobilized and deployed assets and personnel to search, rescue, relief and retrieval operations

Outcome 4:

4. Timely evacuation of at risk communities to safe areas/evacuation centers.

Outputs:

- 3.3. Approved Evacuation Plan with Maps and Directional Guides
- 3.4. Organized Transportation and Evacuation Service Committee
- 3.5. Prioritized elders, women, children and Persons with Disability in all Evacuation Operation

Outcome 5:

4. Temporary shelter needs are adequately addressed

Outputs:

- 4.1. Prevent disease outbreaks in evacuation centers
- 4.2. Ensured continuous education of school-age children and other affected individuals
- 4.3. Ensured availability of WASH Facilities

Commented [MA32]: Will still need definition or description briefly; otherwise the user will have to refer to another manual

Outcome 6:

5. Basic health services provided to affected population whether inside or outside evacuation centers

Outputs:

- 5.1. Treatment of the injured
- 5.2. Prevented disease, outbreaks in evacuation centers.
- 5.3. Hospital referral and PhilHealth Support
- 5.4. Financially supported medical needs during and immediately after a disaster

Outcome 7:

6. Psychosocial well-being promoted and mental health problems and risk reduced

Outputs:

- 6.1. Enhanced the system for provision of timely and appropriate psychosocial immediate needs and social services

Outcome 8:

7. Coordinated system for assessment at the local level including livelihood assessment

Outputs:

- 7.1. Generated DANA (Disaster Assessment and Needs Analysis) from affected areas

Ensured continuity of livelihood activities and provided gender-responsive emergency livelihood opportunities

Outcome 9:

8. Developed a security and prevention plan to protect lives and properties whenever and wherever a disaster occurs

Outputs:

- 8.1. Mobilized all member agencies to provide security and protection of properties to affected areas during a disaster

Outcome 10:

9. Provided accurate and timely information, pronouncements, announcements and instructions to all civilian population and members of CDRRMC regarding natural or man-made disasters or emergencies

Outputs:

- 9.1. Organized an Information and Communication Service Cluster

Outcome 1: Well established disaster response operations

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Mobilized and deployed assets and personnel for search and retrieval operation.	Convene CDRRMC and open EOC in order to activate ICS	LDRRMC convened	100% Attendance of the LDRRMC members Resolution/ Minutes of Meeting			5 days before the expected day of occurrence	
Removed victims and casualties from areas affected or are being affected by disaster and undertake medical care	Organize Search, Rescue and Retrieval Cluster	Availability of Rescue Units for the entire City as well as those in the barangays	Actual presence of Rescue Units in both city as well as in the barangays	3M	Internal	5 days before / 1- 3 days after	
Organized Engineering and Reconstruction Service Committee	Make responsibilities for clearing debris on roads so responders can pass through the disaster area	Reconstructed/repared public school buildings, public roads and other utility destroyed by calamities until turn over to appropriate agency	Documents attesting of the actual conduct reconstruction and reoar to all damage facilities	200, 000	Internal	5 days before / right after the occurrence of a disaster	
Organized Relief Service Committee	Conduct DANA Undertake immediate surveys of disaster area and make a list of all victims (with sex- and age disaggregated data)	Conducted massive relief operations to the victims of disaster or civil emergencies; No. of women and men, vulnerable groups and families in evacuation cenetrs and in the affected areas received relief assistance from the City Government	Progress Monitoring Report or Post Distribution Monitoring Report Key informant interviews Evacuation site visits	7, 102, 000. 52	Internal	3 days after the occurrence of the disaster	
Ensured availability and accessibility of water, relief goods, medicines and personnel.	Activate CCCM / conduct immediate relief Operation	Well-organized CCCM System with personnel coming from the barangay, school administration and	Organizational structure of CCCM in all Evacuation Centers;	2M	Internal	3 days before and continuing after the occurrence of the disaster	

Commented [GCB33]: Add to Recom:
DTR-It would be good if a Mobile WTP can be obtained (donated or procured). Very handy in times of disaster.

		the City Government (CSWD); No. of men, women, children, PWDs and vulnerable groups have accessed to relief and medicines	Camp Management Report Situation Reports Key informant interviews				
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Outcome 2: Adequate and prompt assessment of needs

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Generated RDANA (Rapid Damage and Needs Assessment) DANA (Damage Analysis and Needs Assessment) reports from affected areas	Conduct RDANA and DANA	80-90 % of the area is covered by RDANA	Timely submission of the result of RDANA; Meeting with BDRRMCs Site visits Key informant interviews	60, 000	Internal	Immediate after the disaster	

Outcome 3: Integrated and Coordinated Search, Rescue and Retrieval (SRR) capacity

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
A dignified process of managing the dead and missing	Report and listing of identified casualties and missing persons from every affected barangays	Systematic reporting of legitimate casualties and missing persons from the affected barangays	Accurate data generated from the systematic recording of the casualties and missing persons			Immediate after the disaster	

	Conduct identification verification process for both the dead and the missing in coordination with DILG and OCD	Majority of family members of casualties and missing persons submitted identification data to both CSWD and CDRRMO	Identification of casualties submitted to CCRO	3,500,000.00	Internal	Immediate after the disaster	
Mobilized and deployed assets and trained personnel to search, rescue, relief and retrieval operations	Deployment of SAR team	Detail of SRR team	Actual accounting and reporting of casualties (dead, injured, and missing person)	700,000.00	Internal	Immediate after the disaster	

Commented [MA34]: Bebet: Trained personnel

Outcome 4: Evacuated safely and on time affected communities

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Approved Evacuation Plan with Maps and Directional Guides	Conduct Community Based DRRM Training with Hazard and Evacuation Mapping	Barangays in Tacloban submitted a Contingency Plan for all hazards affecting their barangay	All 138 Barangays in Tacloban City submitted Contingency Plan to CDRRMO	1,500,000.00	Internal		
Organized Transportation and Evacuation Service Committee	Provide transport facilities needed by action agencies immediately prior to, during and after an emergency or calamity	Barangays in Tacloban submitted a Contingency Plan with a functional and funded subcommittee on Transportation and Evacuation Service	All 138 Barangays in Tacloban City must have submitted to CDRRMO a Contingency Plan with a funded and functional subcommittee on Transportation and Evacuation Service				

Commented [MA35]: Bebet: functioning and funded

Prioritized elders, women, children and Persons with Disability in all Evacuation Operation	Provide utmost privilege to vulnerable persons during a disaster by way of an ID System	Barangays must have mainstreamed Inclusive DRRM in their Contingency Plan	Copy of Barangay Contingency Plans; Mechanisms to prioritize vulnerable groups are in placed				
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Outcome 5: Temporary shelter needs are adequately addressed

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Prevented disease outbreaks in evacuation centers	Information dissemination on WASH	Information materials on WASH duly posted in all evacuation center particular on WASH area.	Evacuees duly comply with policies and guidelines regarding water sanitation and hygiene inside the evacuation center.	5M	Internal		
Ensured continuous education of school-age children and other affected individuals	Education on Waste Segregation	Proper practices and environmentally sound garbage disposal and has specific receptacle for waste segregation.	Surrounding of evacuation camps is free of scattered garbage. Site visits	2M	Internal		
Ensured availability of WASH Facilities	Provision of WASH Facilities with sustainable supply of water and proper treatment of wastewater	WASH facilities are installed in all evacuation camps.; Women and men evacuees have adequate access to WASH facilities. Wastewater is regularly collected & properly treated.	Site monitoring visit - women, men evacuees using WASH facilities. WASH or Camp Management Monitoring Report	2M	Internal	3 days before up to the 3 days right after the disaster	

Commented [MA36]: Bebet: environmentally sound disposal of garbage

Commented [MA37]: Bebet: and proper treatment of wastewater

Commented [MA38]: Bebet: Add wastewater/sewage is regularly collected and properly treated

Outcome 6: Basic health services provided to affected population whether inside or outside evacuation centers

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Treatment of the injured	Putting up of Child Friendly Space in all Evacuation Centers with assigned Social Welfare to facilitate substantial activity	Child friendly spaces are available in all the evacuation center with assigned technical expert on child care	That children at given scheduled are inside the CFS	1M	Internal	Upon evacuation	
Prevented disease, outbreaks in evacuation centers.	Deploy Medical Team in every Evacuation Center with needed medicines for treating injuries	Presence of medical teams in the all evacuation centers	Evacuees avail of medical assistance for their medical needs	1M	External	Upon evacuation	
Hospital referral and PhilHealth Support	Regular weekly medical and dental consultation in Evacuation Centers	Actual conduct of medical and dental mission at the evacuation centers	Reduce number of medical and dental cases in Ecs	c/o City Health Office (HERP)	External		
Financially supported medical needs during and immediately after a disaster	Distribution of immediate financial assistance to legitimate victims to be used for medical needs	Listing of legitimate families as beneficiaries of financial assistance; No. of men and women in affected households have accessed to financial/medical aid.	Actual distribution of financial assistance to qualified beneficiaries; Documentation of women and men recipients of financial/medical aid	₱750,000,000.00	External DSWD	Immediate after the disaster	

Outcome 7: Psychosocial well-being promoted and mental health problems and risk reduced

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Enhanced the system for provision of timely and appropriate social services	Conduct debriefing activities to all evacuees for psychosocial well-being as well as provide technical assistance and manpower support for the delivery of basic social services	Actual conduct of psychosocial services; No. of evacuees who were provided with psychosocial support	Reduced incidence of patients with mental health problems				

Outcome 8: Coordinated, system for assessment at the local level including livelihood assessment.

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Generated DANA (Disaster Assessment and Needs Analysis) from affected areas	Conduct DANA (Damage Analysis and Needs Assessment)	Preparation issuance of disaster report	Execution of the plan for a particular disaster			Immediate after the disaster	
Ensured continuity of livelihood activities and provided gender-responsive emergency livelihood opportunities	Conduct Skills training in different focus that would fit the capacity of all evacuees	Acquisition and enhancement of skills and certification. Availment of livelihood assistance; No. of men and women who availed of emergency livelihood assistance	Site survey/ ongoing entrepreneurial livelihood activities Emergency Livelihood Report Situation Reports	1.5M	Internal		

Outcome 9: Developed a security and prevention plan to protect lives and properties whenever and wherever a disaster occurs

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Mobilized all member agencies to provide security and protection of properties to affected areas during a disaster	Organize the Security and Fire Protection Service Committee with adequate fire fighting equipment and water source	Availability of Security Officers and Fire Fighters and Fire Brigade Volunteers	Actual presence of PNP and other associated agencies, BFP and Fire Brigade Volunteers during an emergency or disasters				

Commented [MA39]: Bebet: Add With adequate fire fighting equipment and water source

Outcome 10: Provided accurate and timely information, pronouncements, announcements and instructions to all civilian population and members of CDRRMC regarding natural or man-made disasters or emergencies

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES (Internal/ External)	TIME FRAME (2016-2019/2019-2021)	FUND CODE
Organized an Information and Communication Service Cluster	Establish a working arrangement with the press, radio, TV, social network on matters of relaying information, intructions and warning to general public in a timely manner and with public feedbacking system	Existence of a continuing program of informing the people through all quad-media outfit	Actual presence of quad-media where the disaster occur				

Commented [MA40]: Bebet: Add And getting feedback; need a two way communication system

Commented [MA41]: Bebet: in a timely manner

Total: 29, 562, 000. 00 - Internal
1, 502, 000, 000. 00 - External

IV. Rehabilitation and Recovery

Under Section 3 of Republic Act 10121, rehabilitation and recovery are defined as

Rehabilitation – measures that ensure the ability of affecting communities and/or areas to restore their normal level of functioning by rebuilding livelihood and damaged infrastructure and increasing the communities' organizational capacity

IRR Rule 2 Section 1

Post Disaster Recovery – the restoration and improvement where appropriate, of facilities, livelihood and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors, in accordance with the principles of “build back better”

This section on Rehabilitation and Recovery mainly reflects the spatial framework, strategies and elements embodied in the Tacloban Recovery and Rehabilitation Plan (TRRP). The TRRP was developed as roadmap that identifies the immediate actions and operational strategies that will lead Tacloban and its people towards recovery, rehabilitation, and sustainable development after Typhoon Yolanda. This plan considers the unique character of the city and its people and emphasizes on the principle of building back better and on actions consistent with the city's long-term development vision, policies and plans. It aims to ensure the seamless transition from the recovery and rehabilitation phase towards the long-term development of Tacloban.

A guiding principle espoused for Tacloban recovery is the principle of Building Back Better and Safer. This is defined as exposure to future risk would be reduced; long-term city benefits will not be sacrificed for short-term individual gains. Actions shall address vulnerabilities and promote disaster risk reduction.

The Rehabilitation and Recovery aspect of DRRM cover areas like employment and livelihoods, infrastructure and lifeline facilities, housing and resettlement, among others. These are recovery efforts done when people are already outside of the evacuation centers.

The CDRRMP goal for this pillar is to ensure “*a psychologically sound, safe and secured citizenry that is protected from the effects of disasters, able to restore normal functioning after each disaster*”. To achieve the above goal, the CDRRMP identified five objectives with their corresponding outcomes, outputs and activities.

Goal: Restore and improve facilities, livelihood and living conditions and organizational capacities of affected communities and reduce disaster risk in accordance with “build back better” principle.

Objectives:

- To restore the people’s means of livelihood and continuity of economic activities and business.
- To restore shelter and other buildings/installation
- To reconstruct infrastructure and other public utilities
- To assist in the physical and psychological rehabilitation of persons who suffered from the effects of disasters

Outcome 1:

1. Economic activities restored, strengthened or expanded

Outputs:

- 1.1. 100% implementation of Economic Development Plan
- 1.2. Eco-Tourism and Livelihood Project implemented
- 1.3. Magsaysay Blvd. redeveloped into mix-use landscape
- 1.4. 100% affected sectors provided with assistance in terms of grant or credit and technical support
- 1.5. Networked with regional help desk for fast all risk insurance claims established

Outcome 2:

2. Houses rebuilt or repaired that are more resilient to hazard events; safer sites for housing

Outputs:

- 2.1. Developed Tacloban North as a new township (See Appendix A) with climate resilient housing design and with basic services and utilities.

Commented [MA42]: Bebet: Add
With climate resilient housing designs and with basic services such as water, wastewater treatment, and electricity provided

Outcome 3:

3. Disaster and climate-resilient infrastructure constructed and retrofitted

Outputs:

- 3.1 Design of building follows the standard of the BBB Operations Manual of DILG version 1, July 2015

Outcome 4:

4. A psychologically sound, safe and secure citizenry that is protected from the effects of disasters able to restore normal functioning after each disaster

Outputs:

- 4.1. Vulnerable population provided with adequate and appropriate risk protection interventions
- 4.2. Vulnerable groups given priority in livelihood, transitional and permanent housing and other recovery services/ programs

Outcome 1: Economic activities restores, strengthened or expanded

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
100% implementation of Economic Development Plan	Develop local tourism sites and activities— traditional, commercial (MICE), and eco-tourism	Economic Development Plan implemented	Reports on passenger volume; hotel occupancy; business permits issued; and economic statistical report	1B		TBI		X		
Eco-Tourism and Livelihood Project implemented	Implement the eco-tourism and livelihood area project at Tacloban North.	Full swing operation by 2017-2018	Documentation	160M 13,800,000 (Land)	X	TBI	X	X	X	
Magsaysay Blvd. redeveloped	Redevelopment of Magsaysay Blvd. (food park, picnic grove, local tourism, bike rentals) with preferential treatment for Tacloban North residents (provision of manpower, participation in auxiliary services)		Sector Report/ Documentation	1.9M (Farmers)	X		X	X	X	
100% affected sectors provided with assistance in terms of grant or credit and technical support	Provide sectors affected with assistance in terms of grant or credit and technical support (e.g. cash for work, sustainable livelihood program, self-employment assistance for Kaunlaran (SEA-K)	Percentage increase in livelihood and MSME established Percentage of approved credit for affected sectors	Documentation	12M		DSWD, DOLE, BFAR, CSO etc.	X	X	X	
Networked with regional help desk for fast all risk insurance claims established	Establish a regional level help desk for fast all risk insurance claims	DTI MOA with insurance companies	Guidelines set on the establishment of the operations of the help desk	TBD		DTI	X			

Outcome 2: Houses rebuilt or repaired that are more resilient to hazard events; safer sites for housing

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUN D COD E	
					INTERN AL	EXT ERN AL	2016-2017	2017-2020	2021-2022		
Developed Tacloban North as a new township (See Appendix A)	Develop Tacloban North as a new township	HOUSING SECTOR									
		13, 354 households (NHA Housing)	Documentation	678M		NHA		X			
		2, 260 households (INGO/ NGO housing)		425, 000, 000		CSO		X			
		5 hectares (LGU Owned sites-sites development)		31M	X			X			
		20 hectares (Land Acquisition)		30M	X						
		WATER									
		Short-term water supply (867 HH)	100% Completion	10M	70% CF		X				
		Mid-term water supply Ph 1 (9, 975 HH)	69.6% Completion	73.08M		TBI	X				
		Mid-term Water Supply Ph 2 (4, 356 HH)	30. 4%Completion	31.92M		TBI		X			
		Rainwater harvesting (13, 704 HH)	13,354HHCovered	33.4M		TBI		X			
		Long-Term water supply (21, 281 HH)	100 % completion by 2018	570M		TBI		X			
		ELECTRIC SUPPLY									
		Secondary Electric Lines- NHA Sites	14, 752 HH covered	44,256M					X		
		Secondary Electrical Lines- LGU Sites	466 HH covered	1, 098. 3M		X			X		
		SCHOOLS									
Permanent Classrooms	667 classrooms	1002.5M			X		X				
TLS	391 classrooms	35.19M			X		X				
ROAD AND DRAINAGE											
Tagpuro Road Widening (6m wide)	1.2 KM	17M		X		X					
Old Kawayan Road Widening (6m wide)	2 KM	27M		X		X					
Main Leyte Samar Road and Drainage (20m wide)	5.2 KM	119.6M			X		X				
Road Opening and Clearing (5m wide dirt)	34 KM	51M		X			X				

		road)							
		Secondary Roads (5m wide)	33 KM	231M	X			X	
		Secondary Drainage	33 KM	59.4M	X			X	
		Drainage River Widening and Shore Protection	7.6 KM	304M		X		X	
		By-pass road and drainage (20m wide)	11.2 KM	515.2M		X		X	
		Elevated Road and Drainage (20m wide)	5 KM	345M		X		X	
		CITY SERVICES							
		Public Market	1 facility	1M		X	X		
		Bus Terminal	1 facility	8M	X		X		
		Mass Transport System Feasibility Study	1 feasibility study	1M	X		X		
		Trading Post	1 facility	3M	X		X		
		Satellite City Hall	1 facility	10M	X			X	
		Police Station	1 facility	4.5M	X			X	
		Police Sub – Station	1 facility	2M	X			X	
		Fire Station City Center	1 facility	4.5M	X			X	
		City Center Park (11.5 km)	1 facility	10M	X			X	
		Sports Center (10 ha)	1 facility	25M	X			X	
		Shops / Retail Center	1 facility	20M	X			X	
		LIVELIHOOD							
		Agri-Industry & Light Manufacturing PEZA Area Feasibility Study	1 feasibility study	5M	X		X		
		Agri-Industry & Light Manufacturing PEZA Area Development	1 area development	300M	X			X	
		Livelihood Employment Interventions	10 quarters	34.32M	X			X	
		Eco-Tourism & Livelihood Area							
		- Site Development	1 area developed	26.1M	X		X		
		- Agricultural Park	1 area developed	21.75M	X			X	
		- Tourism Activities	1 area developed	41.8M	X			X	
		- Livestock Park	1 area developed	27.2M	X			X	
		- Fisheries	1 area developed	42.1M	X			X	
		SEWAGE							

Commented [GCB43]: From AFL: Add Septage Management Plan

		Waste Water Treatment LGU Owned Sites	1, 377 HH	6.885M	X		X			
		Waste Water Treatment NHA Sites	13, 706 HH	68.53M		X			X	
		Waste Water Treatment Public Market	1 facility	8M	X				X	
		Main Sewage Lines	21.4 KM	19.26M		X			X	
		Secondary Sewage Lines	33 KM	29.7M	X				X	
		Tacloban North Waste Water Treatment Plant	1 facility	40M	X				X	
		SOLID WASTE								
		Sanitary Landfill	1 facility	86M	X		X			
		Closure of Old Landfill	4 hectares	4M	X				X	
		MRF & Composting Facility at Public Market	1 facility	5M	X				X	
		HEALTH								
		District Health Centers	3 facilities	42M			X		X	
		DAY CARE								
		Day Care Centers	34 facilities	34M			DS WD		X	
	Conduct trainings for social preparation of host communities and those who will be relocated	Socially prepared and empowered IDP and host communities	Attendance, reports and pictures	1M	MOOE				X	
	Purchase of more land in safe areas for socialized housing	10 hectares of land purchased per year for socialized housing	Land title, reports and pictures	30M	CDF				X	X

Commented [GCB44]: From AFL: Too optimistic to be realized by 2020; Costs are too low and funding could be a problem

Total: 264, 065, 000--External

Outcome 3: Disaster and climate-resilient infrastructure constructed and retrofitted.

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Design of building follows the standard of the BBB Operations Manual of DILG version 1, July 2015	<ul style="list-style-type: none"> . Implement the CLUP and the Zoning Ordinance . Implement the building code and other relevant codes and promote green technology . Conduct monitoring and/or tracking of approval of infrastructure projects and permits based on zoning and disaster resilient standards . Undertake the necessary rehabilitation or repair of damaged infrastructures as well as construct other structures that will improve the disaster resiliency of the city 	<p>Essential services such as electricity, water and communications restored</p> <p>100% implementation of revised Building Code and other relevant codes</p> <p>Infrastructure facilities rehabilitated or retrofitted with efficient water fixtures and documented compliant with zoning and disaster resilient standards</p>	<p>Approved CLUP document</p> <p>Revised Building Code as approved by SP # of houses/ establishments with renewable energy (e.g. solar energy, water catchment, material etc.)</p> <p>More climate resilient structures constructed</p>				See TRRP Physical Infra	May 22, 2014 version page 9 T5		

Commented [GCB45]: From AFL: Implement safe distances between wells and septic tanks; Correct design of septic tanks (not bottomless) with effluent draining to street sewers

Commented [MA46]: Bebet: Add With efficient water fixtures

Outcome 4: A psychologically sound, safe and secured citizenry that is protected from the effects of disasters able to restore normal functioning after each disaster

OUTPUT	ACTIVITY	INDICATOR (OVI)	MEANS OF VERIFICATION	FUNDS REQUIRED (COST)	SOURCES		TIME FRAME			FUND CODE
					INTERNAL	EXTERNAL	2016-2017	2017-2020	2021-2022	
Vulnerable population provided with adequate and appropriate risk protection measures	Develop system for appropriate risk protection measures	No. of vulnerable population provided with adequate and appropriate risk protection	Documents	300,000	X					
	Build capacities of psychosocial care providers	No. of nurturers trained	Number of men and women who attended psychosocial processes	300,000 10,000 50,000	Can be taken from the GAD fund					
	Conduct post disaster/conflict needs analysis with affected communities	PDNA for MHPSS done	Existing number of functional Child desk, WFS and CFS	1.8M (300k/WFS or CFS)						
	Psychosocial processes for both men and women who are disaster victims	No. of women, men individuals provided with PSS								
	Functional child desk, women friendly space, and mobile child friendly space	No. of functional WFS, CFS								

4. Institutional Arrangements

A. Organization:

As stipulated in the City Ordinance No. 2012 – 11 -111 Section 4 the City Disaster Risk Reduction and Management Council (CDRRMC) shall approve monitor and evaluate the implementation of the City Disaster Risk Reduction and Management Plan (CDRRMP). The council shall coordinate the support/assistance of higher authorities for activities in disaster management through this organizational arrangement.

The City Disaster Risk Reduction Management Office (CDRRMO), as the secretariat of CDRRMC, shall ensure a concerted and coordinated disaster control efforts and shall exercise direction and control over all emergency operations from the city down to the barangay level.

City Disaster Risk Reduction and Management Council

The City Disaster Risk Reduction and Management Council (CDRRMC) shall be composed of different agencies from national, local government unit of Tacloban and civil society organizations and private sector representatives. Post – Yolanda the membership of CDRRMC has been expanded:

1. City Mayor - Chairperson
2. Vice Mayor – Vice Chairperson

Members:

- | | |
|---|---|
| 3. City Administrator | 11. Head, City Veterinary Office |
| 4. Head of CDRRMO, | 12. Head, City Agriculture's Office |
| 5. Head, HRMDO | 13. Head, City Budget Office |
| 6. Head of the City Social Welfare and Development Office | 14. Head, City Treasurer's Office |
| 7. Head of the City Planning and Development Office | 15. Head, City Accountant's Office |
| 8. Head of the City Health Office | 16. Head, IAS |
| 9. Head, Tacloban City Hospital | 17. Head, City ENRO |
| 10. Head of City Engineering Office | 18. Head, City General Services Office |
| | 19. Head, City Assessor's Office |
| | 20. Head, City Architect's Office |
| | 21. Head, TOMECO |
| | 22. Head, City Civil Registrar's Office |

- | | |
|---|--|
| 23. Head, Tacloban Security Office | 33. Head, Office of the Senior Citizens' Affair |
| 24. Head, City Legal Office | 34. Head, Motorpool |
| 25. Head, CCDLAO | 35. Head, City Sports and Development Office |
| 26. Head, PESO | 36. Head, CLEP |
| 27. Head, CHCDO | 37. Head, FLET |
| 28. Head, PDAO | 38. Head, Special Projects for Health |
| 29. Head, City Nutrition Office | 39. Head, Special Projects for Infra |
| 30. Head, City Population Office | 40. GAD, Focal Person |
| 31. Head, Supply and Procurement Office | 41. The President Association of Barangay Captains |
| 32. Head, MIS | |

AGENCIES FROM NATIONAL GOVERNMENT

1. City Director, CDILG
2. City Director, TCPO
3. The City Fire Marshall of the Bureau of Fire Protection
4. Head, City Schools Division
5. Head of the Philippine Navy at Tacloban
6. Manager, CAAP
7. Head, Bureau of Quarantine
8. Head, Phil Ports Authority
9. Head, Philippine Army
10. Head, Philippine Coast Guard
11. Head, Local PAGASA
12. Head, Department of Environment and Natural Resources

NGOs, PSR and CSOs

1. Administrator, PRC
2. Representative, World Vision
3. Head, Tacloban DELTA Volunteer Fire Rescue Inc.,
4. Head, Tacloban Chamber Fire Volunteer Association
5. Head, Tacloban Filipino – Chinese Fire Brigade, Inc
6. Representative Tacloban Filipino Chinese Chamber of Commerce
7. Representative, PICE
8. RADNET 5 Inc
9. ACCESS 5
10. KABALIKAT
11. Representative, URBAN POOR ASSOCIATES
12. Representative, Social Action Center Sto Nino Parish
13. Representative, Tacloban Evangelical Association of Ministers and Churches

Commented [MA47]: Bebet: Add Local PAGASA, DENR

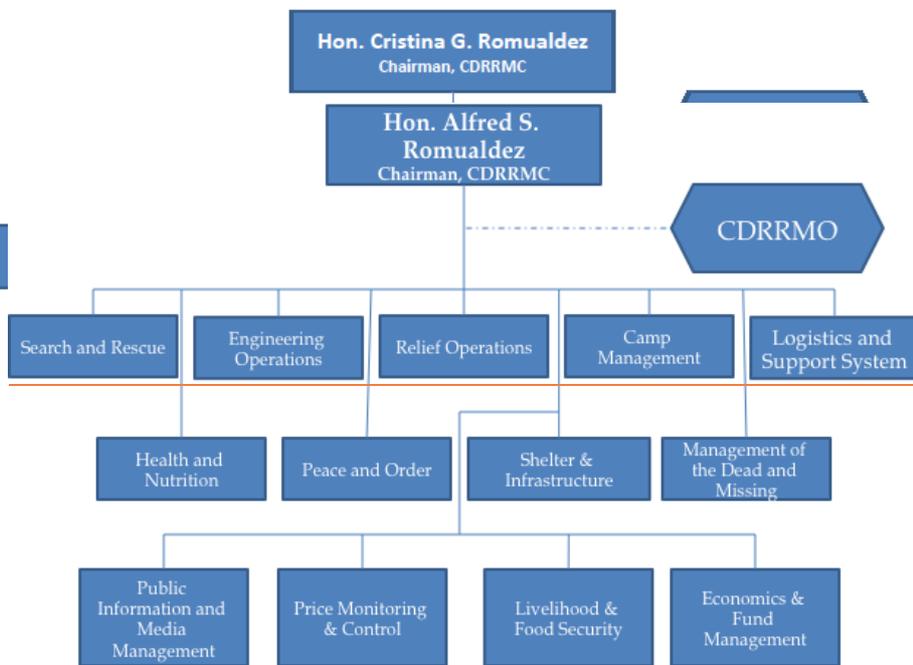


Figure 5: CDRRMC Organogram

B. Tasks and Functions:

I. CITY DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL

- a. Establishes a physical facility to be known as the City Disaster Risk Reduction Management Operations Center (CDRRMOC).

Commented [MA48]: Bebet: Add Review the recommended policies of the research and planning unit to reduce risks to the city and endorse same to the Council and/or reject the same

- b. Review the recommended policies of the research and planning unit to reduce risks to the city and endorse same to the Council and/or reject the same
- c. Approves, monitors and evaluates the implementation of the DRRMPs and regularly reviews and tests the plan consistent with other national and local planning programs;
- d. Ensures integration of disaster risk reduction and climate change adaptation into local development plans, programs and budgets as a strategy in sustainable development and poverty reduction;
- e. Recommends the implementation/ of pre-emptive evacuation of local residents, if necessary;
- f. Coordinates with the CDRRMOC the disaster operations activities;
- g. Convenes the local council once every three (3) months or as necessary; and
- h. Advises the BDRRMCs regarding disaster management.

The CDRRMOC shall also establish a Disaster Risk Reduction and Management Office (CDRRMO) staffed and manned on a 24-hour basis in compliance with R.A. 10121 to be assisted by staff responsible for: (1) Administration and Training; (2) Research and Planning; and (3) Operations and Warning. This office shall be responsible for setting the direction, development, implementation and coordination of disaster risk management programs. It shall also organize, train and directly supervise the local emergency response teams and the accredited community disaster volunteers.

II. CITY DISASTER RISK REDUCTION AND MANAGEMENT OFFICE

1. Advises the City Mayor on matters relating to disaster risk reduction and management consistent with the policies and scope in Republic Act 10121;
2. Through a participatory process, formulates the CDRRM Plan consistent with the CLUP physical framework, social, economic and environmental plans of the city;
3. Identifies, assesses and prioritizes hazards and risks in consultation with key stakeholders;
4. Develops and ensures the implementation of city standard operating procedures (SOP) in carrying out disaster risk reduction programs including preparedness, mitigation, prevention response and rehabilitation works, from data collection and analysis, planning, implementation, monitoring and evaluation. These standards and SOPs shall be developed alongside with the CDRRMP;
5. Reviews and evaluates Barangay Disaster Risk Reduction and Management Plans (BDRRMPs), in coordination with other concerned agencies, department and or instrumentalities, to facilitate the integration of disaster

Commented [MA49]: Bebet: Who evaluates the siting, design, construction of evacuation centers and supervises their operations?

Commented [MA50]: Bebet: Through a participatory process. Formulates the CDRRM Plan. Consistent with the CLUP, social, economic development and environmental plans of the city

Commented [MA51]: Bebet: Does this already include rescue and recovery?

risk reduction measures into the City Comprehensive Development Plan and Comprehensive Land – use Plan;

6. Supervises and ensures that Barangay Disaster Risk Reduction and Management Committees are properly informed and adhere to the city or national standards and programs;
7. Formulates standard operating procedures for the deployment of rapid damage assessment and needs analysis (RDANA) teams, information sharing among different departments/agencies and coordination before and after disasters at all levels;
8. Establishes an incident command system (ICS) to ensure effective consequence management of disasters or emergencies;
9. Coordinates activities and functions of various DRRMC members, instrumentalities of the government and private sectors for disaster management;
10. Monitors reports of activities of the different cooperating agencies;
11. Creates an enabling environment for substantial and sustainable participation of Civic Social Organization (CSOs), private groups, volunteers and communities and recognize their contributions in the city government's disaster risk reduction efforts;
12. Conduct early recovery and post-disaster needs assessment institutionalizing gender analysis as part of it;
13. Establishing an operating facility to be known as the City Disaster Risk Reduction and Management Operations Center (CDRRMOC) that shall be operated and staffed on a twenty-four (24) hour basis;
14. Provides advice and technical and assist in mobilizing necessary resources to increase the overall capacity of the barangays, specially the low income and in high-risk areas;
15. Records minutes of meeting of CDRRMC, prepares and tracks of resolution passed and business arising from the meeting;
16. Performs secretariat functions of the City Disaster Risk Reduction and Management Council (CDRRMC); and
17. Performs such other functions as may be necessary for effective operations and implementation of this ordinance.

Commented [MA52]: Bebet
Who approves? If the Mayor then the CDRRMO will evaluate and recommend to the Local Chief Executive?

III. FUNCTIONS OF CDRRMO SUPPORT UNITS

a. ADMINISTRATION AND TRAINING

- 1) Organizes Education and Training Committee which shall be responsible for in the conduct of training and orientation on disaster risk reduction and management at the local level;
- 2) Within the AOR, promotes and raises public awareness of and compliance with R.A. 10121 and legislative provisions relevant to the purpose of this act;

- 3) Prepares and submits, through the CDRRMC and the City Development Council (CDC), the report of the CDRRM Fund and other dedicated disaster risk reduction and management resources to the local Commission on Audit (COA), copy furnish the Regional Director of the OCD and the LGOO of the City DILG;
- 4) Consolidates and prepares training materials and publications of DRRM books and manuals; and
- 5) Coordinates with the office of Civil Defense regarding the training materials needed for the education and training.

b. RESEARCH AND PLANNING

- 1) Designs, programs and coordinates disaster risk reduction and management activities consistent with the National Council's standards and guidelines;
- 2) Facilitates and supports risk assessments and contingency planning activities;
- 3) Formulates and implements a comprehensive and integrated CDRRMP in accordance with the national and regional framework and policies on disaster risk reduction in close coordination with the City Development Council (CDC);
- 4) Prepares and submits to the Local Sanggunian through CDRRMC and the CDC the annual CDRRMO plan and budget, the proposed programming of the CDRRMP, and other dedicated disaster risk reduction and management resources, and other regular funding source/s and budgetary support of the CDRRMO;
- 5) Identifies cost effective risk reduction and includes them in the plan and budget measures/strategies;
- 6) Recommends through the CDRRMC the enactment of city ordinances consistent with the requirements of R.A. 10121;

c. OPERATIONS AND WARNING (CDRRMO)

Commented [MA53]: Bebet: Add
And includes them in the plan and budget

Note: Planning should be the one implementing. It shall be the operations and the barangays.

Commented [MA54]: Bebet
What is their linkage if any for the evacuation centers?

- 1) Consolidates city disaster risk information which includes natural hazards, vulnerabilities and climate change risks, and maintains a city risk map;
- 2) Operates a multi-hazard early warning system, linked to disaster risk reduction to provide accurate and timely advice to national and local emergency response organizations and to general public, through diverse mass media, particularly radio, landline communications, and technologies for communities within rural communities;
- 3) Conducts continuous disaster monitoring and mobilizes instrumentalities and entities of the City Government, Civil Society Organization, private groups and organized volunteers, to utilize their facilities and resources for the protection and preservation of life and properties during emergencies in accordance with existing policies and procedures;
- 4) Identifies, assesses and manages the hazards, vulnerabilities and manages the risks that may occur in the city;
- 5) Receives warning signals from the warning agencies (PAGASA, PHILVOCS, Philippine Coast Guard, DOH, PNRC, DA, OCD and others) and disseminate such warning to the public through mass media and other established communication network in a timely manner;
- 6) Disseminates information and public awareness about those hazards, vulnerabilities and risks, their nature, effects, early warning signs and counter-measures;
- 7) Maintains a database of human resource, equipment, directories, and location of critical infrastructures and their capacities such as hospitals and evacuation centers;
- 8) Organizes, trains, equips and supervises the local emergency response teams and the Accredited Community Disaster Volunteers (ACDVs), ensuring that humanitarian and workers are equipped with basic skill to assist mothers to breastfeed;
- 9) Develops, strengthens and operationalizes mechanisms for partnership or networking with the private sector, Civil Society Organizations, and volunteer groups;
- 10) Take all necessary steps on a continuing basis to maintain, provide, or arrange the provision of or to otherwise make available, suitably-trained and competent personnel for effective civil defense and disaster risk reduction and management in the city;
- 11) Responds to and manages the adverse effects of emergencies and carries out rescue and recovery activities in the affected areas, ensuring that there is an efficient mechanism for immediate delivery of food, shelter and medical supplies for women and children endeavour to create a special place where internally-displaced mothers and children can find help with breastfeeding, feed and care for their babies and give support to each other;
- 12) Coordinates other disaster risk reduction and management activities;

Commented [MA55]: Bebet
Identifies the hazards, assess exposure and vulnerabilities and manages the risks.

Commented [MA56]: Bebet: Add
In a timely manner

Commented [MA57]: Bebet
Clearly specify who will monitor the number of those rescued and dead, extent of damage t properties, infra, etc.

Commented [MA58]: Bebet: Add
Add rescue

- 13) Establishes linkage/network with other LGUs for disaster risk reduction and emergency response purposes.

C. The Cluster Approach

The cluster approach is a mechanism used by the Government and international humanitarian actors for responding to humanitarian emergencies requiring multi-sectoral support. The approach uses sectoral groupings – called ‘clusters’ – of National Government Agencies that is coordinated by a designated cluster lead to support and/or complement wherever possible the efforts of the Government in key sectors of preparedness and response. Depending on the sector they are most active in the country, International and National NGOs can be members of the clusters to provide support. The objectives of the cluster approach are:

- to ensure effective coordination of humanitarian and early recovery assistance, especially among government and international support organizations; and
- to enhance predictability, accountability and partnerships in response through the designation of Cluster Lead Agencies reporting to the disaster or recovery coordinator with clearly defined responsibilities.

Why is cluster approach important?

Clusters provide an opportunity to help assure appropriate emergency response and promote early recovery from the earliest possible moment of the humanitarian response as well as to mobilize resources. A cluster focusing on a specific sector or sectors (e.g. livelihoods) also provides a mechanism for a holistic approach to the sector.

I. CLUSTER ROLES AND FUNCTIONS:

1. Search Rescue and Retrieval

Lead Office: CDRRMO

Members: TACRU ; BFP; TCPO; FLET ; Tacloban DELTA Volunteer Fire Rescue Inc., Tacloban Chamber Volunteer & Fire Brigade Inc., Tacloban Filipino – Chinese Volunteer Fire Brigade Inc., RADNET 5 Inc., ACCESS 5 Inc., KABALIKAT, PARA, PRC, AFP, PCG)

- Organizes search and rescue committee
- Responsible for injured and trapped persons in an emergency and removing to a place where they can be safely cared for
- Directs and controls all rescue activities within a locality during emergencies
- Evaluates disaster victims and properties systematically
- Preserves life through proper medical treatment

2. Health and Nutrition

Lead Office: City Health Office

2.a WASH (Water, Sanitation and Hygiene)

Members: Sanitary Inspectors, City ENRO, CEO

2.b Nutrition in Emergencies (NiE)

Members: TCH, Special Projects for Health /MASA, CNO, CSWD

2.c Disease Prevention Surveillance & Control and Health Services

Members: CHO, TCH, Special Projects for Health /MASA

2.d Mental Health and Psychosocial Support (MHPSS)

Members: CHO; CSWDO Special Projects for Health/ MASA; City Population Office

- Organizes Health and Nutrition committee
- Coordinates with the Camp Management and Relief Operations clusters for immediate assessment of families in the evacuation center
- Supervise the sanitary conditions of the community during and after an emergency
- Ensures that the local health system is preserved including health data and access to health care including drugs and vaccines.
- Ensures the needs of affected population are addressed
- Address the psychosocial and mental health concerns
- Monitor and isolate persons with communicable diseases
- Network and coordinate with national agencies and NGOs as deemed necessary

3. Engineering Operations

Lead Office: City Engineering Office

Members: City General Services Office, TOMECO

- Organizes Engineering and Reconstruction Service Committee
- Responsible for clearing debris on roads so responders can pass through to the disaster area

4. Peace and Order

Lead Office: Tacloban City Police Office

Members: TOMECO, BJMP, City Security Office, Barangay Affairs Office

- Organizes Peace and Order committee
- Provide security to identified evacuation centers, evacuees' victims, work force, supplies, equipment etc.
- Maintain liaison with the CDRRMC OPCEN
- Mobilizes all member agencies to provide security during emergencies or disaster
- Network with Regional PNP, AFP and Philippine Army as needed
- Perform other task as directed

5. Relief Operations

Lead Office: CSWDO

Members: CGSO, CMO - Supply and Procurement Office, Barangay Affairs Office

- Organizes Relief Service committee
- Provide food, water, shelter, electric power and portable toilets at evacuation centers
- Undertakes immediate surveys of disaster area and makes all list of family victims
- Coordinates with other agencies an integrated disaster relief operations which includes acceptance and distribution of donations
- Conducts massive relief operations to the victims of disaster or civil emergencies
- Implements welfare and rehabilitation operations for eligible disaster victims in order to restore their morale
- Mobilizes volunteers who will help in the relief operations

6. Shelter & Infrastructure

Lead Office: CHCDO / CEO

Members: City Architects Office, City Assessors Office, City Planning and Development Office

- Organizes Shelter & Infrastructure committee
- Reconstruct/repairs public school buildings, public roads and other utility destroyed by calamities until turn – over to appropriate agency.
- Coordinate the operations of the different task forces relative to repairing destroyed roads and other infrastructure
- Coordinate with the DPWH, NHA , NGOs and private contractors in planning a systematized and well organized mitigating activities and rehabilitation of damaged public works

Commented [MA59]: Bebet
Is this only immediately after the disaster or until the recovery phase? If up to recovery, we should indicate that they must do so by making these climate resilient

7. Camp Coordination and Camp Management (CCCM)

Lead Agency: CSWDO

Members: CHO, CEO, CGSO, City Sports Office for Astrodome, CHCDO, Barangay Affairs Office

- Organizes a Camp Management committee
- Help provide information as to the whereabouts of missing persons, and keeps data on location of family victims to facilitate reunion and dislocated families
- Refer individuals and families to concerned agencies for their rehabilitation and other needs
- Coordinate work of other service committees and other agencies for integrated disaster relief operations which include acceptance and distribution of donations
- Report immediately to the CDRRMC Chairman the nature of disaster, extent of damage, number of casualties and families affected
- Receive stores and distribute donations for the rehabilitation of the victims and keeps records of these.
- Coordinate with the local officials and private sectors in the planning of well-organized and systematic course of action in relation to the movement of the rescue teams and equipment, rescued persons and/or evacuees, casualties, engineering and utility crew, transport of relief goods, medical supplies and basic commodities and prohibition of facilities needed in the evacuation center throughout the period of the impending calamity.

8. Management of the Dead and Missing

Lead Office: City DILG

Members: CHO, CCRO, CSWD, TOMECO, City Legal Office, Barangay Affairs Office,

- Ensures coordination at several levels: local, regional and national
- Follow SOPs in the Management of Dead and Missing
- Local Health Office coordinates with the DOH regarding health conditions and needs of responders/volunteers since protection and safety of responders/volunteers must be observed in entire MDM and should be the primary consideration of sending agencies;
- Identify required resources (forensic teams; morgues, body bags etc.)
- Coordinates with NBI (in cases of natural disasters) or PNP Crime Laboratory (in case of mass fatality incidents caused by human generated activities) for Disaster Victim Identification (DVI), NBI or PNP must provide Local Health Officer an official list of identified and unidentified victims;
- Monitor proper sanitation of collection and storage areas. ,

- Observe sanitary retrieval and disposal of body parts/dead bodies;
- Coordinates with DOH regarding assistance in medical and psychological needs of the bereaved, and PRC for provision of a support system from volunteers;
- Identify temporary mortuary facility, a place that can be converted into a make shift morgue;
- Implement plan of action for the management of dead bodies and for physical and psychological care of relief workers
- CSWDO to provide psychosocial support to the bereaved families

9. Logistics and Support System

Lead Office: CDRRMO

Members: CGSO, Motor Pool, CMO Supply and Procurement Office

- Organizes a Logistics and Support System including warehousing, inventories and trucking of deployed items
- Provide tools, heavy equipment and facilities needed for the whole disaster operations
- Ensure the vehicles are in good condition and with fuels
- Provide land transportation with canvas covers to protect relief goods from being damaged and transport the same to disaster victims
- Provide necessary safety gears for all operating personnel
- Activate the kitchen brigade for the immediate provision of cooked food for disaster victims and the working personnel

10. Public Information and Media Management

Lead Office: City Information Office

Members: Media Relations of CMO, Barangay Affairs Office, MIS

- Organize Public Information and Media Management System
- Establish a working arrangement with representatives of the press, radio and TV on matters of relaying information, instructions and warning to the general public
- Establish a continuing program of informing the people through all news media and such as industries participation, natural disaster activities, test exercises, drills, etc.
- Extends appropriate information materials and instructions to the local authorities in the barangay level in order to reach the general public especially risk communication.
- Institute mechanism of gathering feedback, queries or reports from people/public.
- Prepares and preserves exhibits and displays, including civil defense disaster publications in industry and other organizations

- Publish a simplified literature on Civil Defense Disaster Instructions and activities that can be easily understood and followed by the common man.

11. Price Monitoring & Control

Lead Office: BPLO

Members: City Treasurer, Market Office, City Legal, TCPO

- Organizes a Price Monitoring & Control Committee
- Monitors, prevents, and controls over pricing/profitteering and hoarding of prime commodities, medicine and petroleum products
- Maintains close coordination with DTI

12. Livelihood & Food Security

Lead Office: City Veterinary Office

Members: City Agriculture Office, CSWDO, CCDLAO, CPDO, PESO, CLEP

- Organizes a Livelihood & Food Security committee
- Coordinate with different agencies in connection with the Livelihood activities
- Provide livelihood projects that will help the victims to recovery immediately from the disaster

13. Economics & Fund Management

Lead Office: City Budget Office

Members: City Accounting, CTO, Internal Audit Services

- Ensure the proper utilization of the LDRRMF
- Provide, allocate, re-align funds in case of financial shortages

D. The Barangay Disaster Risk Reduction and Management Committee (BDRRMC)

The Barangay Disaster Risk Reduction and Management Committee (BDRRMC) shall be a regular committee of the existing Barangay Development Council (BDC) and shall be subject thereto. The punong barangay shall facilitate and ensure the

participation of at least (2) CSO representatives from existing and active community-based people's organizations representing the most vulnerable and marginalized groups in the barangay.

I. BARANGAY DISASTER RISK REDUCTION AND MANAGEMENT COMMITTEE

The BDRRMC shall be a regular committee of the existing BDC and shall be subject thereto. The Punong Barangay shall facilitates and ensures the participation of at least two (2) CSO representatives from existing and active community-based people's organizations representing the most vulnerable and marginalized groups in the barangay.

1. DUTIES AND RESPONSIBILITIES (BDRRMC)

1. Chairman

The Barangay Captain as Chairman of the BDRRMC is responsible in:

- a. Developing the Barangay Disaster Risk Reduction and Management Plan with the active participation of the local stakeholders to protect life and property and to minimize damage in event of a disaster/calamity;
- b. Coordinating such planning with the next higher local authority;
- c. Selecting organizing and training an adequate staff to conduct emergency operation required by the plan;
- d. Establishing designated primary and alternative evacuation areas;
- e. Directing and supervising the activities of the evacuees/victims during and enforces stay in the shelter.

Commented [MA60]: Bebet: Add
With the active participation of the local stakeholders

The Barangay Captain performs at least the following duties:

- a. Insures that the basic provisions of the plan are disseminated to all persons in the barangay;
- b. Establishes the Barangay Disaster Risk Reduction and Management Operations Center;
- c. Maintains liaison with the Mayor who is the Chairman of the CDRRMC;
- d. Maintains Liaison with other barangays;
- e. Initiates and conducts training courses for disaster activities with the assistance from appropriate agencies;
- f. Coordinates arrangements for and directs all drills and exercises;
- g. Exercises command and responsibility for the implementation of the BDRRMP;

Commented [MA61]: Bebet
What about the evacuation center?

- h. Arranges and supervise the storage and disposition of required supplies and equipment;
- i. Works closely and cooperates with the CDRRMC Chairman in all matters involving planning, organizing, training and operations;
- j. Assesses the nature and extent of damage.

2. DUTIES AND RESPONSIBILITIES OF STATUS UNITS (BDRRMC)

1. Security Staff Unit

- a. Protects persons and properties in vacated houses or areas, evacuation centers and areas of operation;
- b. Implements and enforcing personnel identification and control by checking unauthorized persons and vehicles in cordoned areas;
- c. Responds to alarm signals or other suspicious activities and reporting unusual activities to higher authorities concerned through the BDRRMC Chairman or any person on authority;
- d.
- e. Performs escort duties in the transport of persons, supplies and equipment;
- f. Coordinates with the Philippine National Police for the security of the areas.

2. Supply Staff Unit

- a. Identifies sources of supplies may be needed;
- b. Receives such supplies and channel the same service leaders as needed and keep records of these

3. Transportation Staff Unit

- a. Receives warning information from the CDRRMO or other civil defense authorities and disseminating the same to the Barangay Warning Service Leader;
- b. Maintains appropriate communication link with the CDRRMO;
- c. Organizes and equipage of couriers;
- d. Keeps records of all warning communication messages;
- e. Acts on all communications pertaining to disasters in behalf of the Barangay Captain

4. Communications Staff Unit

- a. Receives warning signals/messages from warning agencies (PAGASA, PHILVOLCS, PCG, DOH, OCD, CDRRMO) and disseminate such warning to the BDRRMOC for appropriate actions;
- b. Maintains continuous and reliable communication and adequate warning system throughout the impending and/or existing calamity;
- c. Establish a two-way communication network.

3. DUTIES AND RESPONSIBILITIES OF SERVICE COMMITTEES (BDRRMC)

1. Warning Service Committee

The warning Service Committee should ensure that warning signals can be received and understood by all residents in the barangay even to persons with communication deficiency/disability. Performs at least the following tasks:

- a. Educates all residents on the meaning of different warning signals and the different actions to be taken if such signals should be given;
- b. Organizes the warning service and assigns members to certain blocks in the barangay;
- c. Keeps and maintains appropriate warning devices such as sirens, bells, gongs, posters, horns, lights and others and operates these devices when needed;
- d. Maintains constant contact with the Barangay Captain so that the warning issued by warning agencies may be properly disseminated;
- e. Undertakes warning drills as necessary;
- f. Ensures warning information are
- g. understood by persons with disability or by their care givers.

2. Health and Rescue Service Committee

The Health and Rescue Service Committee is responsible for locating injured, trapped, and stranded persons and moving them to a place where they can be cared for safely in an emergency. Under the general direction of the Barangay Captain and performs the following duties:

- a. Organizes and trains the Health and Rescue Service Committee provided in the BDRRMP;
- b. Insures that members of the Health and Rescue Service Committee are proficient in on-the-spot first aid techniques;
- c. In cooperation with the fire brigade, obtains appropriate equipment (e.g., hand tools, ropes and others) for temporary use during rescue operations;
- d. Arranging with the government health services, DOH, CHO or the Red Cross for the sources of first aid and medical self-help training for all organization personnel who need it;
- e. Controls access to medical supplies as required to assure the proper use, conservation and availability for emergency use;
- f. Maintains adequate sanitation and hygienic standards and other matters relating to emergency health, hygiene and medical activities within the barangay during an emergency.

3. Evacuation Service Committee

- a. Plans movement routes and establishes movement procedure to give effect to the evacuation plan;

- b. Divides the barangay area into convenient zones/blocks or purok leaders;
- c. Directs and supervises evacuation activities during drills and actual emergencies.

Duties of Purok/Block Leaders:

- Makes certain that routes are clearly identified and made known to the residents concerned;
- Maintains roster of Persons with Disabilities (PWD) regularly in the area and making appropriate special provisions for their movement in an emergency;
- Assumes that procedures to be followed on the receipt of warning signals are known to all residents including specially the procedures on the “ALERT”, “TAKE COVER”, “FIRE” and other alarm signals provided for in the plan;
- Assures that all persons have vacated the assigned area when this is required by the plan.

4. Disaster Relief Service Committee

- a. Receives evacuees/victims from the Evacuation Service Committee;
- b. Provides housing for displaced persons or evacuees in the evacuation centers or in private houses;
- c. Receives supplies like canned food, clothing, medicines, water etc.
- d. Informs the CDRRMC through the Barangay Captain of the status of the disaster relief activity;
- e. Coordinates with relief agencies and NGOs.

5. Fire Brigade Committee

- a. Provides the fire fighting instructions through available sources, such as training schools, local fire departments and others;
- b. Assures the fire-fighters know their stations, locations and fire-fighting equipment in their area of responsibility and the alarm signals which direct them to their stations;
- c. Deploys fire-fighting personnel to fire areas to extinguish or contain the fire pending the arrival of regular fire-fighting forces;
- d. Provide fire-fighting personnel with ready supply of water;
- e. Works closely with the dwellers or residents on matter of fire prevention and protection.

6. Damage Control Committee

- a. Establishes a plan to attend to gas valves, power switches and others;
- b. Deploys personnel after any disaster, recommend the correct damage to utilities or to report conditions which requires assistance;
- c. Clears roadways and streets of fallen trees and other debris;
- d. Clears canals and waterways of accumulated trash/garbage;

- e. Puts marks or signs to open manholes, unrepaired dangerous structures/facilities pending the arrival of technicians;
- f. After performing primary tasks in paragraph a-e above, the damage control team may be assigned by the Barangay Captain to maintain the physical facilities of the evacuation centers and assess damages inflicted in the area.

5. Monitoring and Evaluation

Monitoring and evaluation is the process of gathering, filing, accessing and analyzing information that will enable the City Mayor as Disaster Risk Reduction and Management Council Head to determine the progress of the implementation of the City DRRM Plan, and make timely decisions to ensure that progress is maintained according to schedules and targets.

Monitoring, review and evaluation are to be performed basically for the purpose of assessing how fully and how effectively the CDRRMP is being carried out. On the whole, the process is meant to assess the overall impact of the plan to the quality of life of the population and if warranted, to make needed changes to the plan. The CDRRMP provides a monitoring and evaluation framework to guide the implementation of the CDRRM Plan. The framework is a table that describes the indicators that will be used to measure program success.

The overall aim of this Monitoring and Evaluation (M&E) Framework is to ensure that the CDRRM Plan will systematically generate, capture and disseminate knowledge as a way to strengthen its impact and effectiveness. Primarily, monitoring and evaluation will be based on the indicators, targets and activities identified in each of the four priority areas on City DRRM Plan.

The Framework's primary functions are to:

- a. Strengthen the monitoring and evaluation systems and capacities of the CDRRMO and relevant units.
- b. Support evaluation to expand lessons from evidence.

- c. Contribute to local knowledge management on programming, monitoring and evaluation.

The CDRRMO shall be primarily responsible in carrying out monitoring and evaluation activities but whose work the City Disaster Risk Reduction and Management Council shall review as the overseeing body of the city for disaster risk reduction and management.

The CDRRMP targets will be monitored by the lead and implementing agencies, in close coordination with the CDRRM council and the CDRRMO. Each lead agency will submit reports to the CDRRM Council and the CDRRMO or as required by the CDRRM Council.

The CDRRMO shall submit a consolidated monthly, quarterly and annual report to the CDRRM Council and to the City Mayor informing them of the state of the implementation of the approved CDRRM Plan for the period.

In accordance with the CDRRMP, the monitoring of the CDRRMP is set annually and evaluation every three years. Annual monitoring provides information that sets directions in setting priorities and budgets every year. Evaluation will focus on efficiency, effectiveness and impacts. Monitoring is also through the periodic conduct of meetings of the CDRRM Council and/or the CDRRMO relative to plan implementation. Below discussions describes the M&E components of the CDRRM Plan:

Annual Activities

- **Annual Monitoring** will occur through the Annual Plan Review meeting of the CDRRM Council. The Council is the policy-level body at city level directly involved in the implementation of a CDRRM plan.

A Monitoring Schedule Plan shall be developed during the initial implementation of the plan to track key management actions/events. The planning workshop to be conducted by the CDRRM Council with the CDRRMO aims to: **(i)** introduce the CDRRM Plan to various stakeholders which will support the plan during its implementation; and **(ii)** detail the roles, support services and complementary responsibilities of organizations and staff with respect to the plan.

- **Annual Review Report.** An Annual Review Report shall be prepared by the head of the CDRRMO and shared with the CDRRM Council and the Mayor. As minimum requirement, the Annual Review Report shall consist of updated information for each of the target activities of the plan as well as a summary of results achieved against pre-defined annual targets at the output level.
- **Annual Plan Review.** Based on the above report, an annual review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the Plan and appraise the Annual Investment Plan (AIP) for the following year. In the last year, this review will be a final assessment. This review shall focus on the extent to which progress is being made towards outputs, and

that these remain aligned to appropriate outcomes.

The Monitoring and Evaluation Plan encompasses the detailed gender-responsive monitoring and evaluation system that will help the CDRRMO and stakeholders monitor the progress of implementation and attainment of results essential in exercising accountability and good governance. For the detailed Monitoring and Evaluation Plan covering the four (4) Priority Areas/ Pillar of the CDRRM Plan, see Annex 5 – M&E Plan.

On the reporting, the M&E Reporting Plan below provides for the type of reports to be produced to capture results/outputs and relevant elements and issues in the implementation and review of the priority programs/areas.

M&E Reporting Plan

Report	Purpose & Coverage	Lead Agency/ Office	Source of Data	Collection Method	Frequency/ Timeframe
Monitoring Schedule Plan	To detail the roles, services and complementary responsibilities of agencies and staff in monitoring the CDRRMP targets To establish baseline data for monitoring & evaluation	CDRRMC	Inputs from stakeholders	M&E Planning Workshop	Inception period
Implementation Report	To keep track on the progress, deliveries and achievements of outputs per thematic components	Lead Agency (per thematic area per target output)	Documentation & Reports from implementing agencies per target output	Coordination meetings	Every end of the quarter
Monthly Consolidated Report	To keep track on monthly progress, deliveries and achievements of outputs	CDRRMO	Documentation & training reports from implementing agencies	Agency meetings	Every end of the month

Quarterly Consolidated Report	To determine and provide consolidated report on the progress and achievements of outputs as against targets	CDRRMO	Post-Activity Reports Monthly reports	Agency meetings Site visits or area survey	Quarterly
Consolidated Year-End/ Annual Report	To determine and provide consolidated report on the extent of achievements of CDRRMP targets	CDRRMO	Quarterly Implementation Report	Coordination Meetings Stakeholders' Consultations	Annually (at end of the year)
Annual Plan Review	To assess the implementation of the Plan and appraise the Annual Investment Plan (AIP) for the following year To assess key issues and gaps To identify areas to align or improve	CDRRMC	Year-End/ Annual Report	Annual Review Workshop	Every December
Mid-Term and Final Assessment	Assess overall extent of achievements of outputs/outcomes against baseline, significant changes, key lessons learned and identify operational and strategic recommendations	CDRRMC	Annual Reports Annual Plan Review	Mid-Term Evaluation Final Term Evaluation	June 2019 Dec 2022

Evaluation:

- A mid-term evaluation (MTE) will be undertaken at the end of the third year of plan implementation. The MTE will determine progress being made towards the achievement of outcomes and will identify corrective actions, as needed. The MTE will focus on: a) the cost effectiveness, efficiency and timeliness of project implementation and performance; b) highlight issues requiring decisions and actions; and c) present initial lessons learned about design, implementation and management. Findings of this review will be incorporated as recommendations

for enhanced implementation during the next period of the plan. The organization, terms of reference and timing of the mid-term evaluation will be prepared by the CDRRMO based on guidance from the CDRRM Council.

Monitoring and Evaluation: Disaster Preparedness

Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
Outcome 1: Increased level of awareness and enhanced capacity of community to the threats and impacts of all hazards							
Communities have an increased level of knowledge & understanding of the hazards facing their communities	No. of IEC materials produced No. of campaigns done No. of media institutions tapped	Existing ___ media institutions tapped ___ existing IEC materials used	IEC materials are in local dialect and easily understood Agreement between media institutions and CLGU is executed	City Information Office Reports from media institutions IEC materials	Reports during coordination meetings	Quarterly or as the need arises	City Information Office CDRRMO
Outcome 2: Communities are equipped with necessary skills and capability to cope with the impacts of disasters							
Communities know what to do before, during and after emergencies	No. of city-wide simulation drills /exercises in different barangays, schools, business establishments, offices, etc	No. of simulation drills conducted	Cooperation among barangays, schools, establishments and offices	CDRRMO Activity Reports Reports from DILG, DepEd	Review of Reports Key informant interviews Coordination meetings	Quarterly	CDRRMO DepEd
	No. of community-based and gender-responsive DRRM Orientations and Seminars conducted No. of men and women trained in gender-responsive DRRM	Data from the CDRRM Office ___ trainings conducted —	Commitment of BDRRMCs and barangay members Organized BDRRMCS Available technical support from LGUs	Training Documentation/ Reports Attendance / Registration List Training Certificates	Review of Training Reports Survey Coordination meetings with DILG	Quarterly	CDRRMO DILG
	List of emergency routes per barangay, list of resilient evacuation centers, list of families	___ Identified Evacuation Centers in ___ barangays	ECs are managed or maintained by assigned BLGUs	BLGUs CSWDO Schools	Review of Lists of ECs and evacuation maps in barangays	Quarterly	CSWDO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	assigned to a particular evacuation center and database of vulnerable persons in each family	CDRRMO Database on evacuation assignments/ clusters	Other possible ECs identified (MOA between CLGU and Schools)	Barangay, City Evacuation Maps Evacuation Protocols			
Communities are equipped with emergency response skills and relevant emergency equipments	No. of barangays with established (ERT's) No. of men and women volunteers trained in Water Search and Rescue (WASAR) along coastal barangays	___ no. of barangays with ERTs ___ identified volunteers trained in WASAR	Commitment of volunteers and trainees Available facilities for search and rescue Available resource experts and CLGU support for skills training of barangays	Training/ Activity Reports from CDRRMO List of barangay with ERTs Training Certificates List of trained WASAR volunteers	Review of Reports	After each training activity	CDRRMO
	No. of personnel with certification in BLS and ACLS emergency response	___ personnel in the offices of CDRRMO, BFP, PCG trained in BLS and ACLS		Training Activity Reports Training Certificates	Review of Reports	After each training activity	CDRRMO City Health Office
	No. of Brgys where MPHSS committees are organized and MHPSS men and women responders are trained		Availability of trained personnel Cooperation of committee members and responders	Training Activity Reports	Review of Reports	After each training activity	City Health Office

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
Outcome 3: Increased capacity of BDRRMC, different departments of the City Government of Tacloban and Operations Center							
Increased capacity of Barangay Disaster and Risk Reduction Management Committee (BDRRMC) and City Disaster and Risk Reduction Management Council (CDRRMC)	No. of BDRRMC/P/F Orientation and Trainings Workshop conducted	Existing speakers, internal resource persons from the offices of OCD, CDRRMO, DILG	Commitment of BDRRMC and CDRRMC members	Training Activity Reports of CDRRM Office	Review of reports	Every after training	CDRRMC
	No. of women and men trained		Available facilities, resource experts and CLGU support for skills training of BDRRMC and CDRRMC		Pre and post training tests		
	No. of established Barangay WASH committees		Co-sharing of resources and training costs between LGU and agencies	Training Certificates	Review of minutes of Inter-agency coordination meetings and council meetings		
			Orientation on WASH standards is given	City Budget			
				Database of volunteers and committee members	Review of activity reports	Quarterly or as the need arises	City Health Office
					Review of minutes of council meetings		
Increased capacity of the City Government of Tacloban	No. of NGO representatives/ volunteers selected, registered and accredited	Existing no. of accredited NGOs	Partnership or collaboration mechanisms between CLGU and CSOs are established	Accreditation records/ documents CSO, DILG, LGU, SP Accreditation LSB resolution	Coordination meetings	Quarterly or bi-annual	CDRRMC
	Final preparedness plan documents from each department		Available budget Active cooperation of departments	Copy of Preparedness Plans CDRRMC resolution	Review of accreditation records		
	No. of Departments with trained focal / lead persons	---existing no. of trained focal	Commitment and cooperation of trained	Training Report	Review of Plans	Annually	CDRRMC DILG
					Review of Report	Every after training	CDRRMO

Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
		persons	personnel Presence of management support to trained personnel				
	Identification / Construction of Stock room / Warehouse to be used for prepositioning / stockpiling furnished with equipment	None	Availability of funds Strategic location identified	DPWH, CSWDO Completion report	Field survey Review of Accomplishment Report	Annually	DPWH CSWDO
	Food and non food items for 1000 families MOU with business establishments where food and non food items can be sourced out Establish credit line with suppliers	Existing inventory of relief items Existing suppliers	Signed MOU between CLGU and private sector groups/ businesses and suppliers. Availability of warehouse, Standby fund Family food packs, Food and NF pack standards are set/observed	Inventory records/ reports Purchase requests Project proposal Copy of MOUs	Spot inventory/ audit Review of inventory records	Quarterly	CSWDO CHO
	Presence of alternative internet provider	Current lists of ISPs	Signed agreement between CLGU and ISPs	MOU	CIO		CIO
	Workshop Output on localized standard curriculum on climate change and disaster risk adaptation and mitigation	None	Approved curriculum and training modules	Training Modules	Workshop Outputs/ Report	Annually	DILG

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	Creation of emergency communications protocol (low or high technology) i.e. SMART's INFOCAST	None	Communication procedures are properly documented	Approved emergency communications protocol; operations manual	Pre-test report Field survey	Quarterly	CDRRMO
	Constructed (at least 2) storage space for documents and other office equipments	None	Strategic locations and access identified Available budget	Completion report	Field Survey	Annually	Concerned agencies
	% of barangays with complete data registry on household and family including sex-disaggregated data	None	Data registry are installed/ stored in the barangay	Updated Data base registry of households and family in the different barangays with sex-disaggregated data and profile of vulnerable population	Review of data base registry	Annually or as the need arises	DILG
	No. of evacuation centers with mobile kitchen	None	Strategic locations Available budget	Completion report	Field survey/ Site visits Review of report	Annually	CDRRMO CHO
	No. of portable cages for pets in the evacuation center e.g gogs, cats,rabbits, non food animal	None	Available budget Presence of EC policies/ guidelines on pet management	Purchase request	Site visits, survey	Annually	CDRRMO City Vet Office
	Community needs assessment report in place with scoped livelihood activities.		Availability and proper use of assessment tools	Community needs assessment report	Review of report	Annually	CSWDO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	No of capacity building activities conducted based on Community Needs Assessment (C.N.A.) focusing on gender responsive livelihood promotion, protection, and retention.	None	Available budget and resources for trainings Active participation of women and men	Livelihood Training Reports Training Certificates Partner CSOs in livelihoods	Review of Reports	Bi-annual or as the need arises	CSWDO
	Established and approved systems in health referral during emergencies		Referral procedures are documented	Documentation Referral System Chart	Key informant interview Survey	Bi-annual	City Health Office
Strengthened capacity of CDRRMO	Acquired equipment and constructed facilities	Existing ___ equipments & facilities	Available budget/ funds	Purchase request Completion Report	Field Survey	Bi-annual	CDRRMO
Outcome 4: Developed and implemented comprehensive local preparedness policies, plans, and systems							
Disaster Preparedness Plans are in place	No. of Brgys with approved BDDRMP	___ existing BDDRMP	Cooperation and active participation of BDRRMCs	Approved BDRRM Plans	Review of Plans	Quarterly or as the need arises	CDRRMO
	Approved DRRM Plan		All concerned member agencies of CDRRMC have provided inputs	Approved CDRRM Plan	Review of CDRRMPlan	Annually	CDRRMO
	Contingency plans developed and approved	___ no. of barangays with Contingency Plans	Technical support provided to BDRRMCs in drafting the plan	Approved contingency plans/ document	Review of City and Barangay Contingency Plans	Bi-annually	CDRRMO
Policies and Ordinances are revised / created to incorporate ideas in disaster preparedness	Revised Local Building Code for resilient infrastructure	Existing local building code	Disaster and climate hazards are identified and integrated. SB Resolution	Approved Local Building Code Approved Resolution CEO, CHO, DPWH, CENRO	Review of Local Building Code	Annually	City Engineers Office CPDO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	Passed & approved ordinance designating certain elevated areas as parking space during emergencies	None	Clear designation of sites SB Resolution	Approved Ordinance document	Review of ordinance Site survey	Annually	CPDO
	Approved policy designating safe docking zones for water transport		Inspection of docking zone SB Resolution	Approved Policy Document	Review of document Site Survey	Annually	CPDO
	Approved policies on the operationalization of health facilities during emergencies		Functional health facilities SB Resolution	Approved Policy Document	Review of policy Field Survey/ site inspection	Annually	City Health Office CDRRMO
Systems are institutionalized to be able to cater to the smooth flow of operations during emergencies	Approved enhanced Manual of Operations	Existing Manual of Operations	Existing manual is reviewed. Gaps are identified and addressed.	Approved Operations Manual	Review of Manual	Annually	CDRRMO
	Revised guidelines for Emergency Response-Team (TACRU)	Existing TACRU guidelines	Functional TACRU Identified gaps are addressed	Approved Guidelines	Review of guidelines	Annually	CDRRMO
	Approved protocols for information gathering and reporting		Information requirements or standards are identified and agreed.	Documentation of approved protocols for information gathering	Review of reports/ documentation Key informant interview	Quarterly or as the need arises	CDRRMO Concerned agencies
Outcome 5: Strengthened partnership and coordination among all key players and stakeholders							
Establish partnership with GOs, INGOs, NGOs, CSOs, Faith – based organization and other key stakeholders	Number of CSOs; NGOs; INGOs	__ Existing partnerships with CSOs	Clearly agreed parameters and areas of partnership or collaboration	MOUs with different key players /stakeholders/	Inter-agency meetings Review of MOUs	Quarterly	CDRRMO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	Partnership with Business establishments on food and NFIs strengthened.	___ current business partnership	Pledge of commitment of business establishments	MOA on credit sales during calamities with NFA and other business establishment	Review of MOA Market survey	Quarterly	CDRRMO DTI
	No. of coordinative meetings conducted		Clearly agreed areas/lines of coordination	Minutes of meetings with attendance sheet	Review of minutes Inter-agency meetings	Quarterly or as the need arises	CDRRMC
	Number of civic volunteers recruited		Agreed guidelines of engagement	Registration sheets, List of volunteers	Key informant interviews	Quarterly	CDRRMO
	No. of established institutional links with volunteer groups, CSOS AND Pos.		Agreed guidelines of engagement	Signed MOU with the volunteer groups, CSOs, and POs	Key informant interviews Coordination meetings	Quarterly	CDRRMO
	Database of DRRM partners and key stakeholders created.	None	A personnel is assigned to manage and update database	Complete and up to date database of DRRM Partners and key stakeholders	Review of database	Quarterly	CDRRMO
	No. of Conducted stakeholder's forum on disaster preparedness		Availability of budget and technical resources, manpower to organize forums	Documentation/ Activity Report	Review of activity reports Key informant interviews	Quarterly	CDRRMO
	Approved guidelines on livelihood operations	None	Guidelines are formulated based on consultations, needs and gaps	Approved livelihood operational guidelines document	Review of guidelines and minutes of meeting	Bi-annual	CSWDO Concerned agencies

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Monitoring and Evaluation: Prevention and Mitigation

Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
Outcome 1: DRRM and CCA mainstreamed and integrated in City and Barangay development policies, plans and budget							
Functional City DRRM Council and Barangay DRRM Committees.	Number of advocacies done	Annual Budget	Transparent utilization of DRR/CCA fund at the the City and Barangay level.	CDRRMO	Submission of document to CDRRM and CoA	Annual ((Annual Accomplishment Report)/Audit Report)	CDRRMO Barangay DRRM Committees CoA
	Number of contingency plans done per barangay	138 barangays	Capacity to formulate CPs at brgy level	Barangay	Submission pf CPs to CDRRM	Review every 3 years	Barangay DRRM Committees CDRRMO
Enhanced CSO participation in the CDRRMC and the BDRRM committees	Approved City Ordinance	Selection Criteria	Accredited CSOs and NGOs advocating continuity	CDRRMO	Upon submission of accreditation applicants	Quarterly (Status Report)	SP CDRRMO
Strengthened CDRRM council	Active/Functional City DRRM		Strict implementation of conduct of regular meeting	CDRRMO	Submission of Minutes of Meeting to Council	Quarterly (Status Report)	CDRRM Council
Strengthened capacity of CDRRMO	No. of trained trainers/ personnel		No. and quality of Capacity building of CDRRMO staff	CDRRMO	Submission of Training Certificates to CDRRMO	Quarterly (Status Report)	CDRRMO
Outcome 2: CDDRM and CCA-sensitive environmental management							
Environmental policies with DRRM/CCA lens and component	Increased level of awareness of men and women on forest & environmental protection		If capability building activities promotes gender sensitivity	Upland barangays	Submission of Status Report (GAD)	Annual (Annual Accomplishment Report)	CDRRMO DSWD CENRO
	Reconciliated policies between national and local		If environmental programs, policies and	CDRRMO	Submission of various plans	Review every 3 years	CDRRMO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
			projects adapt NDRRM/CCA framework	CPDO			CPDO
Improved capacity of farmers and fisherfolks	No. of trainings conducted No. of men and women leaders and members of groups trained in adoption of technology		If relevant technologies and information are provided	CDRRMO	Submission of Training Certificates	Quarterly (Status Report)	CDRRMO CAO BFAR DSWD
Outcome 3: Improved coastal resource management towards building coastal resilient							
Coastal protection and erosion management	% reduction of loss of lives, livelihood and assets	Coastal survey	If appropriate mangrove and beach forest reforestation is implemented	CDRRMO BFAR	Submission of Training Certificates	Quarterly (Status Report)	CDRRMO CAO BFAR
Outcome 4: Increase density of forest cover and watershed areas							
Improved forest cover and efficient soil and water conservation	Reduce magnitude of landslide occurrence and siltation on water bodies	17 upland barangays with 3,323 hectares of upland forest	If upland forest is rehabilitation	CENRO	Submission of Status Report	Annual (Annual Accomplishment Report)	CENRO
Improved areas with high ground water recharges	Reduce magnitude of soil erosion and siltation on water bodies	17 upland barangays	If soil and water conservation measures are strictly implemented	CENRO	Submission of Status Report	Annual (Annual Accomplishment Report)	CENRO
	-% reduction of loss of lives, livelihood and assets	17 upland barangays	If advocacy on upland forest ecosystem and climate change is conducted	CENRO	Submission of Status Report	Annual (Annual Accomplishment Report)	CENRO
	Reduce magnitude of	17 upland	If river embankment/	CENRO	Submission of	Annual (Annual	CENRO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	riverbank erosion/river sedimentation	barangays	stabilization is implemented	CEO	Status Report	Accomplishment Report)	CEO
	Preserve the floral and faunal composition/increase biodiversity	17 upland barangays	If wildlife habitat is strictly implemented	CENRO - biological resource assessment	Submission of Status/Assessment Report	Annual (Annual Accomplishment Report)	CENRO
Outcome 5: Increased disaster resilience and infrastructure systems							
Enhanced disaster mitigation and preparedness strategies for infrastructure systems	No. of establishments meeting the standards of the revised building code		If revised green building code and green technologies are implemented	CEO	Upon Application of Building Permits	Annual (Annual Accomplishment Report)	CEO
				CAO			CAO
Disaster resilient infrastructure system	Number of facilities assessed		If inventory and risk assessments for critical facilities and infrastructure are conducted	CEO	Submission of Structural Integrity Report on Buildings and Infrastructure	Annual (Annual Accomplishment Report)	CEO
				CAO			CAO
	Existence of new guidelines		If guidelines on the redesign, retrofitting or operational modification of infrastructure are developed	CEO		Annual (Annual Accomplishment Report)	CEO
				CAO		CAO	
	No. of fire hydrants installed		If fire hydrants are installed in strategic areas	CPDO	Upon Application of Subdivision or Development Permits	Annual (Annual Accomplishment Report)	CPDO
				BFP			BFP
	Number of advocacies done		If advocacy on fire safety measures in every household and establishment is conducted	BFP	Submission of Status Report	Annual (Annual Accomplishment Report)	BFP

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	Resilient evacuation centers		If disaster resilient evacuation centers are constructed	CEO	Upon Application of Building Permits/ Submission of Status Report	Annual (Annual Accomplishment Report)	CEO
				CAO			CAO
	Reduced flood height		If flood control projects are completed	CPDO	Submission of Status Report	Annual (Annual Accomplishment Report)	CEO
				CEO			CPDO
Outcome 6: Reduced incidence of flood in Tacloban City.							
Eliminate flooding in the City	Reduced flood height		If drainage is rehabilitated and improved	CEO	Submission of Status Report	Annual (Annual Accomplishment Report)	CEO
Litter free/clean City	Reduction of garbage volume in the dumpsite, functional MRF's		If City Ordinances on proper waste disposal, anti-littering and water ways protection are strictly enforced	CEO CENRO/CSWMO	Submission of Status Report	Annual (Annual Accomplishment Report)	CEO CENRO/CSWMO
Outcome 7: Water sufficiency in domestic and agriculture use							
Alternative water source for domestic and agriculture use	Total volume of water		If rainwater impounding facility is constructed	CEO	Submission of Status Report	Annual (Annual Accomplishment Report)	CEO
				CAO			CAO
	No. of irrigation system constructed		If irrigation system is constructed	CEO	Submission of Status Report	Annual (Annual Accomplishment Report)	CEO
				CAO NIA			CAO NIA
Outcome 8: Food production and sustainability							
Food security and sufficiency	% increase of crop production		If drought and flood resistant crops and short duration and early maturing crops are introduced	CAO	Submission of Status Report	Annual (Annual Accomplishment Report)	CAO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	% increase of crop production		If climate change (CC) and climate variability (CV) suited crops are introduced	CAO	Submission of Status Report	Annual (Annual Accomplishment Report)	CAO
	Sustainable farming system		If training and other soil conservation measures are conducted	CAO	Submission of Status Report	Annual (Annual Accomplishment Report)	CAO
Outcome 9: Communities have access to effective and applicable disaster risk financing and insurance							
Availability and access to various disaster risk financing and insurance schemes for vulnerable groups and/or communities	increase level of awareness on the availability of hazard insurance coverage		If hazard insurance coverage for government, private infrastructures and other business establishments is promoted	CAO	Submission of Status Report	Annual (Annual Accomplishment Report)	CAO
	increase level of awareness on the availability of hazard insurance coverage		If insurance schemes among production sectors, supply sector, local communities and responders is promoted	CAO	Submission of Status Report	Annual (Annual Accomplishment Report)	CAO
Outcome 10: End-to-End monitoring, forecasting and early warning systems are established and/or improve							
Enhanced monitoring, forecasting and hazard warning	Reconciliated/ standardized Early Warning System		If EWS information sharing and communication systems between national government, LGUs and communities are developed	CDRMMO	Submission of Status Report	Annual (Annual Accomplishment Report)	CDRMMO
	No. of EWS equipment procured		If equipment and establish facilities for	CDRMMO	Submission of Status Report	Annual (Annual Accomplishment Report)	CDRMMO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	No. of women and men community volunteers trained and mobilized		EWS are procured If communities are trained for hazard monitoring	CDRMMO	Submission of Training Certificates	Report) Annual (Annual Accomplishment Report)	CDRMMO

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Monitoring and Evaluation: RESPONSE

Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
Outcome 1: Well established disaster response operations							
Mobilized and deployed assets and personnel for search and retrieval operation.	LDRRMC convened	Asset list	Personnel recruited, trained and assets procured	Procurement reports, inventory lists	Review of reports	quarterly	GSO, HRDO, CDRRMO
Removed victims and casualties from areas affected or are being affected by disaster and undertake medical care	Availability of Rescue Units for the entire City as well as those in the barangays	Previous data from CDRRMO	Adequate equipment available, responders trained on rescue	Incident reports	Review of reports	Per incident and monthly summary report	TACRU, SRR units, CDRRMO
Organized Engineering and Reconstruction Service Committee	Reconstructed/repared public school buildings, public roads and other utility destroyed by calamities until turn over to appropriate agency	Inventory lists	LGU fully equipt to respond to situation	CEO, DANA reports	survey	After disaster occurrence	CEO, logistics cluster, CDRRMO
Ensured availability and accessibility of relief goods, medicines and personnel.	Conducted massive relief operations to the victims of disaster or civil emergencies	DSWD stockpile of relief goods / CHO inventory and stockpile of	Availability of stockpile for a minimum of 500 households (caseload)	Inventory reports, relief distribution reports	Gather signatures during relief distribution	After each relief distribution Weekly reports	Relief cluster CSWDO

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	No. of women and men, vulnerable groups and families in evacuation centers and in the affected areas received relief assistance from the City Government	medicines, etc.			Review of reports		
Outcome 2: Adequate and prompt assessment of needs							
Generated RDANA (Rapid Damage and Needs Assessment) DANA (Damage Analysis and Needs Assessment) reports from affected areas	80-90 % of the area is covered by RDANA	City socio-economic profile	CDRRMO and relevant units trained in DANA, PDNA and other needs assessment methodologies	PDNA, RDANA reports	Survey Review of reports	After each disaster occurrence	CDRRMO
Outcome 3: Integrated and Coordinated Search, Rescue and Retrieval (SRR) capacity							
A dignified process of managing the dead and missing	Systematic reporting of legitimate casualties and missing persons from the affected barangays		SRR units and relevant units trained and equipped to respond and manage treatment and managing dead	Incident reports Minutes of meetings	Review of reports	After each disaster event Monthly	CHO, CDRRMO
Outcome 4: Evacuated safely and on time affected communities							
Operate safe and equipped evacuation centers.	Majority of family members of casualties and missing persons submitted identification data to both CSWD and CDRRMO	Designated Evacuation centers list	Relevant units and Brgys trained on CCCM	Evacuation list and reports Brgy Contingency Plans	Survey, interviews,	Weekly after disaster occurrence	CDRRMO and CCCM cluster
Approved Evacuation Plan with Maps and Directional Guides	Barangays in Tacloban submitted a Contingency Plan for all hazards	Inventory of materials in ECs		Evacuation status reports			

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
Organized Transportation and Evacuation Service Committee	affecting their barangay Barangays in Tacloban submitted a Contingency Plan with a subcommittee on Transportation and Evacuation Service			Minutes of meetings			
Prioritized elders, women, children and Persons with Disability in all Evacuation Operation	Barangays must have mainstreamed Inclusive DRRM in their Contingency Plan	Census including PWDs, aged, disaggregated data	Available census	Evacuation center reports	Survey and interviews	Weekly after disaster occurrence	CDRRMO and CCCM cluster
Outcome 5: Temporary shelter needs are adequately addressed							
Prevent disease outbreaks in evacuation centers	Information materials on WASH duly posted in all evacuation center particular on WASH area.	Baseline morbidity rate	City health and relevant health cluster members able to conduct emergency health assessments	Emergency Health assessment reports	Survey, observation, interviews	Weekly after disaster occurrence	CDRRMO and helath cluster
Ensured continuous education of school-age children and other affected individuals	Regular collection of garbage with specific receptacle for waste segregation.	Education sector profile	School damage minimal to allow use	Assessment reports Attendance lists	Surveys, observation & interviews		CDRRMO and education cluster
Ensured continuity of livelihood activities and provided emergency livelihood opportunities	WASH facilities are installed in all evacuation camps. Women and men evacuees have adequate access to WASH facilities	Economic sector profile	Physical and land used for livelihoods usable after disaster	Assessment reports Distribution reports	Surveys meetings, research		CDRRMO and livelihoods cluster
Outcome 6: Basic health services provided to affected population whether inside or outside evacuation centers							
Treatment of the injured	Child friendly spaces are available in all the evacuation center with assigned technical expert	Inventory of child-friendly spaces in schools	Designated Ecs are equipt and staff trained to treat injured	Evacuation center reports	Incident reports	After each incident	CCCM and school board

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
	on child care						
Prevented disease, outbreaks in evacuation centers.	Presence of medical teams in the all evacuation centers	Morbidity rates	City health office and frontline services ability to monitor and respond to outbreaks	Health related reports	Survey, incident reports	Per incident and weekly summary reports	Health cluster and CDRRMO
Hospital referral and PhilHealth Support	Actual conduct of medical and dental mission at the evacuation centers	List of health providers and institutions	Hospitals and frontline health service units equipt and stocked to respond	Health related reports	Review of reports	Weekly	Health cluster and CDRRMO
Financially supported medical needs during and immediately after a disaster	Listing of legitimate families as beneficiaries of financial assistance No. of men and women in affected households have accessed to financial/medical aid			Beneficiary lists			
Outcome 7: Psychosocial well-being promoted and mental health problems and risk reduced							
Enhanced the system for provision of timely and appropriate immediate needs and social services	Actual conduct of psychosocial services No. of evacuees who were provided with psychosocial support	none	Frontline workers able to provide psychosocial interventions	Activity / service reports	Review of reports Minutes of meetings	Per incident and weekly summary reports	CDRRMO and relevant clusters
Mobilized and deployed assets and personnel to search, rescue, relief and retrieval operations	Detail of SRR team	Inventory of staff and equipment	SRR units trained and equipped	Incident reports			CDRRMO and SRR units
Outcome 8: Coordinated, integrated system for early recovery implemented on the national and local levels							
Generated DANA (Disaster Assessment and Needs Analysis) from affected areas	Preparation issuance of disaster report	Sity socio-economic profile	Capacity to conduct PDNA, DANA	Assessment reports	Survey, observation, interviews	Per incident and weekly summary reports	CDRRMO and livelihoods cluster
Ensured continuity of	Acquisition and		Land, buildings and	Minutes of	Review of reports		

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Target Outputs	Indicators	Baseline	Assumptions	Source of Data	Collection Method	Frequency	Lead Agency
livelihood activities and provided emergency livelihood opportunities	enhancement of skills and certification. No. of men and women who availed of emergency livelihood assistance		other physical assets necessary for livelihood activities are repaired and usable	meetings			
Outcome 9: Developed a security and fore prevention plan to protect lives and properties whenever and wherever a disaster occurs							
Mobilized all member agencies to provide security and protection of properties to affected areas during a disaster	Availability of Security Officers and Fire Fighters and Fire Brigade Volunteers	Risk assessment of critical facilities	Police and relevant agencies equiped and trained	Incident reports Minutes of meetings	Review of reports	weekly	Local police , CDRRMO
Outcome 10: Provided accurate and timely information, pronouncements, announcements and instructions to all civilian population and members of CDRRMC regarding natural or man-made disasters or emergencies							
Organized an Information and Communcation Service Cluster	Existence of a continuing program of informing the people through all quad-media outfit	none	Detailed communications strategy is available	IEC, info materials produced Info / communications related reports	Review of reports	monthly	CDRRMO nad information related units

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6. Implementation Strategies

The City DRRM Plan will be implemented taking into consideration the ***gradual build-up of capacity and structures of the local Disaster Risk Reduction and Management Committees at city and barangay level as well as other agencies and stakeholders supporting the CDRRM Plan***. The CDRRM Plan will ensure gender equality is considered in all activities both as a normative principle (using programme activities to demonstrate and advocate for gender equality and empowerment) as well as programme effectiveness principle (developing differentiated approaches and targeting women and girls as a specific stakeholder group, in order to improve the effectiveness of the activity).

The CDRRM Council and the CDRRMO will work and collaborate closely with other development programs of the City and the National Government as well as with the private sector to ensure synergies and optimum use of resources.

The CDRRMC will likewise work with other organizations that have a stake on enhancing DRR and CCA programming in the City (i.e. NGOs, donors, other civil society organizations, media, universities and business).

To achieve the goal and objectives of the plan, the following strategies will be implemented:

- **Strategic Partnership with Government, Private Sector and Development Partners**

The ***City Disaster Risk Reduction and Management Council*** through its secretariat, the CDRRMO, which is the focal body in-charge of Disaster Risk Reduction Management in the city, will be the main implementing unit for the DRRM Plan. The project seeks to provide technical assistance to relevant Government offices and other agencies including Barangay Disaster Reduction and Management Committees in the implementation of the project.

Over a period of six years, the CDRRMC will work alongside national partners involved in the disaster risk reduction in the realization of plan deliverables. In all activities, the CDRRMC will collaborate with key Government agencies as well as with UN, NGOs, Business and other civil society organizations, especially those with DRR and CCA programs, in increasing capacity for mainstreaming DRR and CCA. Linkage with academic, professional and private groups for research and support will be established. Finally, the CDRRMC will facilitate the linkage with other

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The private sector and development partners

stakeholders, including regional bodies such as ASEAN, UNISDR, etc., to increase coverage, effectiveness and collaboration between the various DRR and CCA programs being implemented in the city and country.

• Resource Mobilization Strategy

The City Government of Tacloban will initially allocate Php 56M from its own resources to initiate activities of the CDRRM Plan. This will be sourced from the local disaster risk reduction and management fund allocated for the above purpose.

Likewise, the program provides a framework from which donors and other partners can support city and barangay level interventions. Efforts will likewise be made to augment the CDRRM Plan's resources by collaborating with the National Government, UN and other development partners such as private sector, NGOs that have on-going activities in the City in the area of local government development, CBDRM, Climate Change Adaptation and overall DRRM. Donors can provide resources directly (or in parallel) to the City agencies or may channel resources through NGOs and other civil society organizations.

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The private sector, NGOs

• Inclusion Strategy

To ensure the needs and interest of the most vulnerable are considered and incorporated in the project, including women, PWDs, etc., the following will be fostered:

- Strengthen linkage between units working on gender, PWDs, CCA and DRRM concerns to effectively contribute in the implementation of DRR / CCA programs;
- Review existing training modules, curriculum, tools, and guidelines including communication materials from a gender perspective, and incorporate gender as appropriate (into the training modules, assessment tools and guidelines, etc.)
- In collaboration with the DRR TWG and other related inter-agency mechanisms for DRRM and CCA, provide technical assistance to strengthen the capacity of relevant government agencies, offices, departments, and agencies working for DRRM/CCA (gender analysis – e.g. capacities and vulnerabilities analysis] in mainstreaming in DRRM/CCA interventions;
- Conduct researches and studies on 1) PWD and women's access to information and services in emergency situation, 2) participation of PWD and women in disaster risk preparedness, emergency response, and reduction measures, 3) knowledge and capacities that belong to women and men, and 4) gender specific needs for post disaster recovery and rehabilitation processes. The findings and proposed interventions will be widely disseminated for effective programming and inform decision-makers for more efficient DRRM / CCA responses;

- Provide technical inputs in developing communication materials and products (documentation, media programs) for increased public awareness and to nurture the role of women as managers and the role of men as partners in DRRM / CCA.

- **Communications Strategy**

Vital to the success of the CDRRM Plan is the process of consultation and local ownership backed up by the provision of essential technical assistance and hardware resources to facilitate assessment, analysis, planning, implementation and communication. This work is strategic, integrative, focused on inter-sectoral linkages, and always aimed at strengthening institutions, governance capabilities and citizen participation. Communications will be central to the success of the plan. The different audiences and strategies include:

1. **Internal:** communications mechanisms will be developed for the immediate stakeholders i.e. City Mayor, CDRRMC, CDRRMO, city departments and offices, Barangay Officials, other local authorities, etc. The primary unit in-charge of internal communications will be the CDRRMO, which will meet regularly and will keep stakeholders aware of the big picture emerging from activities and the situation as well as assist in real time monitoring of progress in plan implementation.
2. **Stakeholders** who are to be mobilized to support the CDRRM Plan, CDRRMC/O, BDRRMC and local contingency plans. This mobilization will require various approaches (consultations, workshops, flyers, community notice boards, community meetings, joint planning, etc.). It will also require broad messaging at community, city as well as at national level that creates awareness, stimulates interest and creates agreement with the targeted activities and objectives. This can be achieved through partnerships with media; DRRM/CCA organizations and corporate/private organizations for support sponsorship etc.

7. Annexures

1. Map of Tacloban
2. List of Barangays and Population
3. Definition of Terms
4. Leyte Climate Maps
5. Monitoring & Evaluation Plan

Annex 3: Definition of Terms

DEFINITION OF TERMS¹²

- A) **Adaptation** – the adjustment in natural or human systems in response to actual or expected climactic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- B) **Capacity** – a combination of all strengths and resources available within the community, society or organization that can reduce the level of risk, or impacts of disaster. Capacity may include infrastructure and physical means, institutions, societal coping abilities, as well as social relationships, leadership and management, capacity may also be described as capability.
- C) **Civil Society Organizations or “CSOs”**- non-state actors whose aims are neither to generate profits nor to seek governing power. CSOs unite people to advance shared goals and interests. They have the presence in public life expressing the interests and values of their members or others, and are based on ethical, cultural, scientific, religious or philanthropic considerations. CSOs include nongovernment organizations (NGOs), professional associations, foundations, independent research institutes, community-based organizations (CBOs), faith-based organizations, people’s organization social movements, and labor units.
- D) **Climate Change** – a change in climate that can be identified by changes in the mean/or variability of its properties and that properties and that persists for an extended period typically decades or longer, whether due to natural variability or as a result of human activity.

¹² Source: RA 10121: 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 Therefor And For Other Purpose

- E) **Community – Based Disaster Risk Reduction and Management or “CBDRRM”** – a process of disaster risk reduction and management in which at risk communities are actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risk in order to reduce their vulnerabilities and enhance their capacities, and where the people are at the heart of decision-making and implementation of disaster risk reduction and management activities.
- F) **Complex Emergency** – a form of human – induced emergency in which the cause of the emergency as well as the assistance to the afflicted is complicated by intense level of political considerations.
- G) **Contingency Planning** – a management process that analyzes specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses such events and situations.
- H) **Disaster** – a serious disruption of the functioning of a community or a society involving widespread human, materials, economic or environmental losses and impacts, which exceeds the ability of affected community or society to cope using its own resources. Disasters are often described as a result of the combination of the exposure to a hazard: the conditions of vulnerability that are present; and insufficient capacity or measures to reduce or cope with the potential negative consequences. Disaster impacts may include loss of life, injury, disease and other negative effects of human, physical, mental, and social well-being, together with damage to property, destruction of assets, loss of services and economic disruption and environmental degradation.
- I) **Disaster Mitigation** – the lessening or limitation of the adverse impacts of hazards and related disasters. Mitigation measures encompass engineering techniques and hazard – resistant construction as well as improved environmental policies and public awareness.
- J) **Disaster Preparedness** – the knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and to recover from, the impacts of likely, imminent or current hazard events r conditions. Preparedness action is carried out within the context of disaster risk reduction and management and aims to build the capacities needed to efficiently manage all types of emergencies and achieve orderly transitions from response to sustained recovery. Preparedness is based on a sound analysis of disaster risk and good linkages with early warning systems, and includes such activities as contingency planning, stockpiling of equipment and supplies, the development of arrangements for coordination, evacuation and public information and associated training and field exercises. These must be supported by formal institutional, legal and budgetary expenses.
- K) **Disaster Prevention** – the outright avoidance of adverse impacts of hazards and related disasters. It expresses the concept and intention to completely avoid potential adverse impacts through action taken in advance such as construction

of dams or embankments the eliminate flood risks, land-use regulations that do not permit any settlement in high-risk zones, and seismic engineering designs that ensure the survival and function of a critical building in any likely earthquake.

- L) **Disaster Response** - the provision of emergency services and public assistance during or immediately after a disaster in order to save lives reduces 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”.
- M) **Disaster Risk** – the potential disaster losses in lives, health status, livelihood, assets and services, which could occur to a particular community or a society over some specified future time period.
- N) **Disaster Risk Reduction** – the concept and practice of reducing disaster risks through systematic efforts to analyze and manage the casual factors of disasters, including through reduced exposures to hazards, lessened vulnerability of people and poverty, wise management of land and the environment, and improved preparedness for adverse events.
- O) **Disaster Risk Reduction and Management** – the systematic process of using administrative directives organizations, and operational skills and capacities to implement disaster strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster. Prospective disaster risk reduction and management activities that address and seek to avoid the development of new or increased disaster risks, especially if risk reduction policies are not put in place.
- P) **Disaster Risk Reduction and Management Information System** – a specialized database which contains, among other, information on disaster and their human material, economic and environmental impact, risk assessment and mapping and vulnerable groups.
- Q) **Early Warning System** – the set of capacities needed to generate and disseminate timely meaningful warning information to enable individuals, communities and organization threaten by a hazard to prepare and to act appropriate and in sufficient time to reduce the possibility of harm or loss. A people-centered early warning system necessarily comprises four (4) key elements: knowledge of the risks monitoring, analysis and forecasting of the hazards: communication or dissemination of alerts and warnings; and local capabilities to respond to the warnings received. The expression “end-t-end warning system” is also used to emphasize that warning systems need to span all steps from hazard detection to community response.
- R) **Emergency** – unforeseen or sudden occurrence especially danger, demanding immediate action.

- S) **Emergency Management** – the organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps.
- T) **Exposure** – the degree to which the element at risk are likely to experience hazard and events of different magnitudes.
- U) **Geographic Information System** – a database which contains, among others, geo-hazard assessments, information on climate change, and climate risk reduction and management.
- V) **Hazard** – dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihood and services, social and economic disruption, or environmental damage.
- W) **Land-Use Planning** – the process undertaken by public authorities to identify, evaluate and decide on different options for the use of land including considerations of long-term economic, social and environmental objectives and the implications for different communities and interest groups, and the subsequent formulation and promulgation of plans that described the permitted or acceptable uses.
- X) **Mitigation** – structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards and to ensure the ability of at-risk communities to address, vulnerabilities aimed at minimizing the impact of disasters. Such measures include, but are not limited to, hazard resistant construction and engineering works, the formulation and implementation of plans, programs, projects and activities, awareness raising, knowledge management, policies on land-use and resource management, as well as the enforcement of comprehensive land-use planning, planning and safety standards, and legislation.
- Y) **National Disaster Risk Reduction and Management Framework (NDRRMF)** – provides for comprehensive, all hazards, multi-sectoral, inter-agency and community-based approach to disaster risk reduction and management.
- Z) **National Disaster Risk Reduction and Management Plan (NDRRMP)** – this document to be formulated and implemented by the office of Civil Defense (OCD) that sets out goals and specific objectives for reducing disaster risk together with related actions to accomplish.