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MESSAGE FROM THE SECRETARY

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My warmest appreciation to the Department of the Interior and Local Government - Bureau of Local Government Development (DILG-BLGD) for coming up with the Guidelines on Mainstreaming Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) in the Comprehensive Development Plan (CDP) or the CDP+.

The CDP+ was developed to provide guidance to cities and municipalities in integrating climate change and disaster risk concerns as they formulate their own CDPs. This is in relation to the Resilience and Preparedness toward Inclusive Development (RAPID) Program, which aims to strengthen Typhoon Yolanda-affected Local Government Units (LGUs) in Region VIII to manage the risks and adapt to the overall impacts of climate change through resilient and sustainable development.

In this way, the government ensures that parallel to the promotion of sustainable development will be the establishment of resilient communities and harmonization of actions in addressing the impacts of disasters and climate change.

Thus, the DILG thanks the Australian Department of Foreign Affairs and Trade (DFAT), the United Nations Development Programme (UNDP), and the University of the Philippines Los Baños - College of Human Ecology (UPLB-CHE) for extending the much-needed support for the RAPID Program.

As the Vice Chair for Disaster Preparedness, the Department encourages the DILG field offices to promote and local planners to utilize the guidelines in formulating their own CDPs as they chart a determined path that reduces community vulnerabilities and tread with confidence towards progress.

May these guidelines further our efforts for local development and strengthen LGU resiliency amid the threats posed by disasters and climate change impacts.

I hope for the success of all current and future advancements in disaster resiliency and climate change adaptation in the country.

Congratulations and best wishes to all of you!

EDUARDO M. AÑO Secretary

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MESSAGE FROM THE UNDERSECRETARY

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Tragedies in the past, including Typhoon Yolanda, made us realize the vulnerabilities of our communities as well as our limitations in responding to these challenges. However, these events also strengthened the resolve of local government units (LGUs) and our communities to be more pro-active and better prepared.

The Resilience and Preparedness toward Inclusive Development (RAPID) Program provided opportunities for the twelve (12) LGUs in Region VIII to enhance their capabilities to prepare for impending impacts of climate change and disasters while continuing their recovery efforts. Likewise, the program supported national government agencies to harmonize efforts in order to further assist local governments in formulating risk-informed long and medium-term spatial and multi-sectoral development plans.

The development of the "Guidelines on Mainstreaming Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) in the Comprehensive Development Plan (CDP)" or CDP+ has not been without challenges – from the series of consultation workshops to the field-level and pilot-testing activities with

the RAPID LGUs. Through the multi-stakeholder participatory approaches adopted, the mainstreaming guidelines took on a broader perspective and was completed in consideration of the varying risks, vulnerabilities, and capacities of LGUs across the country.

We would like to acknowledge the University of the Philippines Los Baños – College of Human Ecology (UPLB-CHE) for providing technical support under the project. We also recognize the invaluable participation of the twelve (12) LGUs, namely Tacloban City, Palo, Tanauan, Tolosa, Dulag, Mayorga, MacArthur, and Abuyog in Leyte; Basey and Marabut in Western Samar; and Lawaan and Balangiga in Eastern Samar as "laboratory" LGUs for CDP+ under the project.

I commend the Bureau of Local Government Development (BLGD) for upholding the Department's goal to help build local capacities for disaster preparedness and climate resilience through partnerships with the Australian Department of Foreign Affairs and Trade (DFAT) and the United Nations Development Programme (UNDP).

As we continuously innovate and improve our tools and approaches in local development planning, we encourage local planners to consider the guidance and applicable recommendations set forth in the CDP+.

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a d MARIV∉L C. SACENDONCILLO, CESO III Undersecretary for Local Government

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MESSAGE OF THE DIRECTOR

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The "Guidelines on Mainstreaming Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) in the Comprehensive Development Plan (CDP)" or CDP+ is for local government planners and other planning professionals to help them integrate climate change and disaster risk concerns in their CDPs.

It is a supplemental guide to the existing CDP Illustrative Guide, CDP Preparation Guide, and the Rationalized Planning System (RPS) with a focus on providing information and guidance on mainstreaming DRR-CCA in the CDP formulation process. This guide also complements the "Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks in the Comprehensive Land Use Plan (CLUP)" developed by the Housing and Land Use Regulatory Board (HLURB) that introduced the Climate Disaster Risk Assessment (CDRA) as a tool to analyze hazards and vulnerabilities of the community and adaptive capacities of the LGU. The formulation of CDP+ was pursued in response to the clamor for guidance on the integration of DRR-CCA analytics in the CDP.

I commend the Bureau's Local Development Planning Division (LDPD) team for their commitment and effort in the completion of the CDP+.

On behalf of the Bureau of Local Government Development (BLGD), we extend our deep appreciation to the Australian Department of Foreign Affairs and Trade (DFAT) and the United Nations Development Programme (UNDP) for their support; the University of the Philippines Los Baños – College of Human Ecology (UPLB-CHE) for the technical assistance; our DILG Regional Offices, Local Government Units (LGUs), and national government agencies that contributed in the development of the guidelines; and the target RAPID LGUs for their involvement in the completion and application of the guidelines in LGU planning processes.

We hope that this reference document can provide the much needed guidance in the utilization of risks and vulnerability analytics to ensure responsive of interventions that can strengthen LGU resiliency and coping capacities of communities.

ANNA LIZA F. BONAGUA, CESO III Director, Bureau of Local Government Development

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Message of Support

As one of the most at risk countries in the world, the Philippines has been at the forefront of developing tools and systems to improve resilience to the impacts of climate change. The United Nations Development Programme (UNDP) in the Philippines, with support from the Australian Government's Department of Foreign Affairs and Trade (DFAT Australia) and working with the Climate Change Commission (CCC) and the Department of the Interior and Local Government (DILG), has developed the Guidelines on Mainstreaming Disaster Risk Reduction and Climate Change in the Comprehensive Development Plan (CDP) and the Local Development Investment Programs (LDIP).

Building on the pioneering work of Project Climate Twin Phoenix with the Supplemental Guidelines for Mainstreaming Climate Change and Disaster Risks in Comprehensive Land Use Plans (CLUPs), which was also supported by the



Australian Government, the CCC, and the Housing and Land Use Regulatory Board (HLURB), this new document now serves as another important reference for risk-informed planning by local governments.

Recognizing that effective resilience building requires an end-to-end approach, beginning with robust data backed by scientific assessments and sound analysis which are translated into spatial plans and specific programs, projects, activities, and investment programs, the Resilience and Preparedness toward Inclusive Development (RAPID) program facilitated the development of the Mainstreaming Guidelines for CDP. The guidelines are intended for local planners and other professionals to help mainstream climate change and disaster risk concerns in local development and investment plans across the social, economic, infrastructure, environment and natural resources, and institutional spheres.

We congratulate the DILG and its Bureau for Local Government Development (BLGD) for spearheading this innovative planning approach. We recognize the level of cooperation among local governments, under the stewardship of the DILG Regional Office VIII, and stakeholders in piloting these Guidelines for application in the CDP.

As we all face the unfortunate occurrence of more extreme climate events that continue to alter our way of life, we hope this work will provide the knowledge and tools to develop national capacities and inspire others to scale up the ambition of each and every local government unit involved through risk-informed and science-based CDPs.

On our end, UNDP stands ready to continue to support these initiatives as part of our core contribution to a more climate resilient Philippines.

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Dr. Selva Ramachandran Resident Representative UNDP Philippines



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Australian Embassy

The Philippines

The Australian Government is pleased to support the Philippine Government's continued efforts in enhancing the resilience of local governments and communities against the risks associated with natural hazards and climate change.

Climate change is a challenge that Australians are very familiar with. Rising temperatures and changing weather patterns have had wide-ranging impacts on how Australians go about their daily lives. Australian government agencies are integrating disaster and climate resilience in their policies, programs, and asset management. This is also reflected in Australia's development cooperation framework where building climate and disaster resilience is a key objective including the Philippines.



Recognizing that supporting the development of policy and technical capacity across government will go a long way towards developing a culture of

resilience, Australia has been supporting the Philippine government's efforts to develop the framework and tools towards integrating and mainstreaming disaster and climate considerations into planning and decision-making processes at both national and subnational levels since 2006.

The Philippines consistently ranks as one of the most disaster-prone and climate-sensitive countries in the world. Local governments play a lead role in the ongoing quest to enhance the resilience in their communities, keep people safe, and protect their investments and development gains against disaster and climate impacts. Critical to this role is the formulation and implementation of Comprehensive Development Plans that outline key sectoral and cross-sectoral programs and projects in order to achieve the long-term development goals articulated in the Comprehensive Land Use Plans.

The Australian Government commends the Department of the Interior and Local Government (DILG) for spearheading the development of the Guidelines on Mainstreaming Disaster Risk Reduction and Climate Change Adaptation into the Comprehensive Development Plan. The Guidelines are a product of years of collaboration between DILG and local government partners in the provinces of Leyte, Samar, and Eastern Samar, other Philippine Government agencies, the academe, and other stakeholders. We are pleased to have supported this process and the guidelines through the Resilience and Preparedness toward Inclusive Development (RAPID) Program.

We look forward to the Department's continued leadership and technical support to local governments as they develop and implement risk-sensitive plans and programs, and support transparency and accountability through monitoring and evaluation. We encourage DILG and other agencies to regularly review the guidelines to ensure that these remain relevant and in tune with the changing times. Rest assured that Australia is committed to supporting the Philippine Government in its efforts to enhance disaster and climate resilience in the Philippines.

Richard Sisson Deputy Head of Mission

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ADB	Asian Development Bank
AIP	Annual Investment Program
AM	Assistance to Municipalities
BDC	Barangay Development Council
BDRRMC	Barangay Disaster Risk Reduction and Management Committee
CBMS	Community-based Monitoring System
CCA	Climate Change Adaptation
222	Climate Change Commission
CCVA	Climate Change Vulnerability Assessment
CDRA	Climate and Disaster Risk Assessment
CDP	Comprehensive Development Plan
CLUP	Comprehensive Land Use Plan
CSO	Civil Society Organizations
DBM	Department of Budget and Management
DILG	Department of the Interior and Local Government
DOST	Department of Science and Technology
DRA	Disaster Risk Assessment
DRR	Disaster Risk Reduction
DRRMC	Disaster Risk Reduction and Management Council
DRRMO	Disaster Risk Reduction and Management Office
EP	Ecological Profile
EPSFM	Expanded Problem Solution Finding Matrix
GDP	Gross Domestic Product
GEF	Global Environment Facility
HLURB	Housing and Land Use Regulatory Board
IPCC	Intergovernmental Panel on Climate Change
LCCAP	Local Climate Change Action Plan
LDC	Local Development Council
LDIP	Local Development Investment Program
LDIS	Local Development Indicator System
LDRRMF	Local Disaster Risk Reduction and Management Fund
LDRRMP	Local Disaster Risk Reduction and Management Plan
LGPMS	Local Governance Performance Management System
LGU	Local Government Unit
MENRO	Municipal Environment and Natural Resources Office
MGB	Mines and Geosciences Bureau
NCCAP	National Climate Change Action Plan
NFSCC	National Framework Strategy for Climate Change

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LIST OF ACRONYMS

PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration				
PDPFP	Provincial Development and Physical Framework Plan				
PHIVOLCS	Philippine Institute of Volcanology and Seismology				
PPAs	Programs, Projects, and Activities				
POs	People's Organizations				
PSF	People's Survival Fund				
PSFM	Problem Solution Finding Matrix				
RA	Republic Act				
RaPIDS	Rationalized Planning Indicator and Data Set				
SUCs	State Universities and Colleges				
TWG	Technical Working Group				

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GLOSSARY OF TERMS

Adaptive Capacity	the ability of ecological, social or economic systems to adjust to climate change including climate variability and extremes, to moderate or offset potential damages and to take advantage of associated opportunities with changes in climate or to cope with the consequences thereof
Descriptors	broad and general adjectives which are limited in number and are used to describe each vision element
Development impact	a state of change arising from the implementation of a plan (program/project) or on account of actions taken by agents outside the control or influence of the planning system, or both
Ecological Profile	document that contains information on an LGU's demographics, social services, state of economy, state of natural and built environment and the resources available to manage its development
Exposure	the degree to which the elements at risk are likely to experience hazard events of different magnitudes
Local Development Indicator System	an analytical tool that can be used by LGUs in monitoring and evaluating the local situation. The tool portrays information in three dimensions: topical or sectoral, temporal and geographical or spatial. The indicators for which can be sourced from RaPIDS
Objectives	more specific statements of a short or medium-range desired outcome or result. They are definite about the point to be reached or target to be achieved given the constraints of resources and time
Policy Options / Policy Interventions	broad classification of interventions to include regulatory measures and legislations, programs, projects and activities
Program	comprises the operational components of a long term plan which defines priority needs of particular clientele and breaks down strategic decisions in a plan into projects
Project	consists of interrelated activities performed by various functional units and specialists to achieve a well-defined objective over a specific period of time
Project impact	state of change over a reference point (baseline or time period) arising from the production and utilization of project outputs. Project impacts may be short term (as project outcomes/effects) or long-term (when related to the achievement of project goals)

¹Climate Change Act of 2009

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²DILG CDP Illustrative Guide

³Phiippine Disaster Risk Reduction and Management Act of 2010

⁴CDP Guide

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GLOSSARY OF TERMS

Project outcomes	effects of the utilization of the outputs produced
Project output	project deliverables arising from the activities carried out with the use of project inputs or resources
Rationalized Planning Indicator and Data Set (RaPIDS)	It is an organized compilation of indicators categorized by thematic area. It guides local planners in identifying indicators that specifically applies to LGU needs and characteristics. RaPIDS serves as the "shopping basket" of indicators that will apply to the LGU
Regulatory Measures or Legislations	take the form of resolutions and ordinances enacted by the Sanggunian or executive and administrative orders issued by the local chief executive
Resilience	ability (of the community/LGU) to revisit, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner
Risk	the combination of the probability of an event and its negative consequences
Sectoral Goals	the desired end – results that are the same, or derived from, the particular element of the vision statement that pertains to a specific sector
Sensitivity	the degree to which a system is affected, either adversely or beneficially, by climate-related stimuli
Success Indicator	measure the extent of achievement of desired results. They are needed for both goals and objectives and can be expressed either quantitatively or qualitatively
Vision	a desired state or scenario of the LGU and its people. It describes what the LGU wants to become or where it wants to go
Vulnerability	the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes

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⁵ Philippine Disaster Risk Reduction and Management Act of 2010

⁶ Philippine Disaster Risk Reduction and Management Act of 2010

⁷ CDP Guide



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RATIONALE

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The Philippines' mountainous and archipelagic geography as well as its location in the Pacific Ring of Fire and Pacific typhoon belt defines the hazard potential of the country in the form of prevalent types of hydrometeorological hazards such as, but not limited to, floods, landslides, storm surges, sea-level rise, and drought. Moreover, the country has 300 volcanoes, 22 of which are active and may produce volcanic eruptions. There are also two major tectonic plates in the Philippine area (Philippine Plate and Eurasia), making earthquakes a concern albeit in less frequency.

The Global Climate Risk Index 2019 ranked the Philippines as the fifth country most affected by impacts of extreme weather events for the past 20 years (1997 to 2017).⁸ These extreme weather events and disasters affect the state and pace of local development but impacts can be mitigated through careful planning. The observation that extreme weather events will increase in intensity with climate change underscores the need for local government units to mainstream climate change adaptation and disaster risk reduction in their development plans.

Mainstreaming is the integration of policies and measures that address climate change into development planning and sectoral decision-making.⁹ It entails different agencies, organization, and sectors integrate disaster risk analysis and impacts into policies and plans.¹⁰ Mainstreaming also means recognizing that disaster risk reduction and climate change adaptation (DRR-CCA) are part and parcel of the goal of improving the general welfare of the people. It acknowledges that risk reduction is an essential investment in sustainable development and that development planning should ensure that risks are avoided. It entails assessing implications of disaster and climate change on all sectoral development initiatives such as program/project design, implementation, monitoring and evaluation.¹¹ Mainstreaming climate change adaptation and disaster risk reduction initiatives will not only address issues of safety but will also reduce underlying costs. In the Philippines, the ADB estimates that annual cost of disasters to the economy is between 0.7% and 1% of the GDP.¹² Storms are the dominant risk in the Philippines, with annual losses valued at \$151.3M, followed by floods (US\$68.8M), earthquakes (US\$33.2M), volcanic eruptions (US\$14.9M), droughts (US\$14.7M), and landslides (US\$1.5M).¹³

⁸ David Eckstein, Marie-Lena Hutfils and Maik Winges, Global Climate Risk Index 2019 (Berlin, Germanwatche.V., 2018), page 8

⁹ Climate Change Act of 2009 (RA 9729), Retrieved from https://www.lawphil.net/statutes/repacts/ra2009/ra_9729_2009.html last February 2018

¹⁰ Philippine Disaster Risk Reduction and Management Act of 2010 (RA 10121), Retrieved from https://www.lawphil.net/ statutes/repacts/ra2010/ra_10121_2010.html last February 2018

¹¹ Angelika Planitz, Mainstreaming Disaster Risk Reduction into Development in UNDP (UNDP, 2013) Retrieved from https://www.brookings.edu/wp-content/uploads/2013/04/Presentation-by-Angelika-Planitz.pdf last April 2018

¹² Government of the Philippines, National Disaster Coordination Council, ADB, UN. 2008. National Assessment on the State of Disaster Risk Management in the Philippines. Final Report. October. Manila

¹³ United Nations International Strategy for Disaster Reduction. World Bank. 2010. ASEAN Disaster Risk Management Initiative. Synthesis Report on Ten ASEAN Countries Disaster Risks Assessment. .Switzerland.

Guidelines for Mainstreaming Disaster Risk Reduction and Climate Change in Comprehensive Development Plan (CDP+)

Legal Bases and Policy Mandate

- Republict Act (RA) 7160: Local Government Code of 1991
- RA 9729: Climate Change Act of 2009 as ammended by RA 10174 or the People's Survival Fund (PSF) Act of 2012

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- RA 10121: Philippine Disaster Risk Reduction and Management Act of 2020
- Housing and Land Use Regulatory Board (HLURB) Resolution No. 915 Series of 2014: Approving the Supplemental Guidelines for Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in the Comprehensive Land Use Plan
- Department of the Interior and Local Government (DILG) Memorandun Circular (MC) No. 2015 77: Mainstreaming CCA and DRR in the Local Development Planning
- Department of the Interior and Local Government National Economic and Development Authority

 Department of Budget and Management Department of Finance (DILG-NEDA-DBM-DOF) Joint
 Memurandum Circular (JMC) No. 1 Series of 2016: Updated Guidelines on the Harmonization of
 Local Planning, Investment Programming, Resource Mobilization, Budgeting, Expenditure
 Management, and Performance Monitoring and Coordination in Fiscal Oversight
- Department of Budget and Management Department of the Interior and Local Government Climate Change Commission (DBM-DILG-CCC) JMC No. 1 Series of 2015: Revised Guidelines for Tagging/Tracking Climate Change Expenditure in the Local Budget (Amending JMC 2014-01, dated August 07, 2014)

About the Guide

This CDP+ Guidelines is for local government planners and other planning professionals to help them integrate climate change and disaster risk concerns in comprehensive development plans. It is also a supplemental guide to the existing CDP Illustrative Guide, CDP Preparation Guide, and Rationalized Planning System with a focus on providing information and steering the process of mainstreaming DRR-CCA in the CDP. This guide complements the Supplemental Guidelines on CLUP of the Housing and Land Use Regulatory Board (HLURB) and also follows the use of Climate Disaster Risk Assessment (CDRA) as a tool that can be used for mainstreaming DRR-CCA into the CLUP and the CDP.

It is consistent with the five-step process of the CDP Illustrative Guide by DILG which includes (1) Organizing and Mobilizing the Planning Team, (2) Reviewing Existing Plans and Revisiting the LGU Vision, (3) Preparing the Ecological Profile and Structured List of PPAs, (4) Preparing the Local Development Investment Program, and (5) Preparing the Implementation Instruments. The specific sub-steps of this five-step process are shown in Figure 1.

This guide discusses the context and framework of planning in the Philippines including a harmonization framework for the CLUP and CDP mainstreaming of DRR-CCA.

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Figure 1. Process of the CDP Preparation

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CHAPTER I FUNDAMENTAL CONCEPTS FOR MAINSTREAMING

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1.1 CDP Mainstreaming Framework

Mainstreaming DRR-CCA in the CDP follows the general framework on mainstreaming different thematic concerns into the local planning process (Figure 2). This guidelines provides how DRR-CCA can be mainstreamed into the planning database (e.g., ecological profile and LDIS), inclusion of knowledgeable DRR-CCA focal persons in the planning structure, how DRR-CCA considerations are included in the entire planning process, documents that would indicate integration of DRR-CCA, and the authority levers to ensure that DRR-CCA measures are implemented. Mainstreaming actions specific for DRR-CCA will be discussed later in this chapter.



Figure 2. Mainstreaming Matrix of Thematic Concerns into the Local Planning Process

1.2 Climate and Disaster Risk Assessment¹⁴

CDRA is a six-step process that is used as a tool in analyzing the risks and vulnerabilities of exposed elements. These exposed elements pertain to population, urban areas, natural resource-based production areas, critical point facilities, and lifeline utilities.

This assessment tool provides LGUs the additional planning information for DRR-CCA mainstreaming to the CDP. It seeks to establish a deeper understanding of natural hazards (frequency of occurrence and magnitude) and climate change impacts that may affect the local territory; the vulnerabilities of the various exposed elements; and the magnitude of risk involved in order to identify the pressing development challenges and issues. The analysis of risks and vulnerabilities is needed to identify the appropriate mitigation and adaptation actions to be integrated into the CDP.

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¹⁴ Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risk in the Comprehensive Land Use Plan (Quezon City: HLURB, 2014).



Figure 3. Six-step CDRA Process

The first step of CDRA uses data from Department of Science and Technology – Philippine Atmospheric, Geophysical and Astronomical Services Administration (DOST-PAGASA) to project changes in climate variables such as temperature and precipitation, as well as extreme weather events. Collection of hazard information like records of previous disasters that contain information on the hazard events, affected barangays, casualties, damages to houses and properties, which are used to characterize and analyze the trends of disasters, is also part of Step 1.

Step 2 identifies the impacts of the projected changes in climate to the ecosystems of the locality and illustrates the relationships between the different scenarios caused by the changes in climate. The Step 3 of the CDRA process is gathering of data to complete the needed attribute data and baseline map on the exposure, sensitivity, and adaptive capacity of the exposure elements. This information will complete the exposure database that will be used in Step 4: Climate Change Vulnerability Assessment (CCVA) and Step 5: Disaster Risk Assessment (DRA). These are the most critical steps of the CDRA process for they generate the most essential results.

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CCVA follows the Intergovernmental Panel on Climate Change (IPCC) Framework and assesses climate change vulnerability by looking at different indicators of exposure, sensitivity, and adaptive capacity. It provides qualitative analysis of current and potential impacts of climate change to the different exposure units that are very useful in adaptation planning. DRA follows the United Nations (UN) Risk Framework and measures risks by looking at the severity of consequence and probability of occurrence of specific hazards. Step 6 summarizes the results of both of these assessments and analyses, and proposes measures on how to address them.

To better understand the concept of risk and vulnerability in the context of DRR-CCA, it is advised to refer to the Annex Section of the HLURB Supplemental Guidelines on Mainstreaming DRR-CCA in the CLUP.

1.3 Harmonization Framework

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The Harmonization Framework (Figure 4) shows the relationship between CLUP-CDP and the use of CDRA as the assessment tool to understand vulnerabilities and risks of the planning area. The results of this assessment are critical in mainstreaming DRR-CCA in both plans. It emphasizes that the LGU can use CDRA for both CLUP and CDP as well as other local plans such as LCCAP and LDRRMP. The framework shows that Local Climate Change Action Plan (LCCAP) and Local Disaster Risk Reduction and Management Plan (LDRRMP) can either be **a derivative plan** or as **stand-alone thematic plans** that can be integrated into the CDP and CLUP. The initial steps in both the CLUP and CDP process can be harmonized in the workplan.



Figure 4. Harmonization Framework of CLUP, CDP, CDRA and DRR-CCA Thematic Plans

1.4 Mainstreaming DRR and CCA in the CDP

Before proceeding with the mainstreaming, the LGU first needs to situate itself vis-à-vis the status of its plans (CLUP and CDP) and this guide. This guide can be used in mainstreaming DRR-CCA in the CDP given any of the following scenario (see Annex J for guide question on scenario):

Table 1. CDP Preparation and Mainstreaming Given Different Scenario's

LGU Scenario	Actions LGUs can take			
O	1. Conduct (CDRA)			
Without/outdated CDP	2. Prepare the Enhanced CLUP parallel with CDP			
Without CLUP	3. Use this Guide (CDP+) to mainstream DRR-CCA in the CDP (Steps 1-5, Chapter II of this Guide)			
Scenario 2	1. Conduct (CDRA)			
• Without/outdated CDP but	2. Update to enhance CLUP parallel with the CDP			
with CLUP (DDR-CCA not yet mainstreamed)	 Use this Guide (CDP+) to mainstream DRR-CCA in the CDP (Steps 1-5, Chapter II of this Guide) 			
Scenario 3 • Without/outdated CDP	 Build on the situational analysis done in the Enhanced CLUP 			
With enhanced CLUP (DRR-CCA mainstreamed) using HLURB Guidelines	 Prepare/Update the CDP using this Guide (Steps 1-5, Chapter II of this Guide) 			
• With recently approved CDP (with or without being risk-informed)	 Check if the recently approved CDP is risk-informed. Use the Review Parameters for Risk-informed CDP (Table 35) as suggested by this Guide. If not risk- informed, proceed in Chapter II, and do applicable steps 			
(With or without enhanced CLUP)	 If CLUP is not yet risk-sensitive, enhanced CLUP using HLURB Guide. If without CLUP, prepare enhanced CLUP. 			

Note: Parallel preparation of CLUP and CDP means that the conduct of visioning exercise up to situational analysis is harmonized, the outputs of which would feed into both plans following the succeeding steps of CLUP and CDP processes.

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General Process: CDRA - Enhanced CLUP and CDP

Scenario 1 and Scenario 2: LGUs who find themselves under Scenario 1 and Scenario 2 should conduct CDRA using the HLURB Supplemental Guidelines. The CDRA results should be used to enhance CLUP and CDP. Chapter II of this guide provides the mainstreaming process for the CDP.

Scenario 3: In cases where there **are** already enhanced **CLUP**, LGU should take advantage of, and use the Ecological Profile and the sectoral studies and ecosystem analysis done during CLUP preparation. Additional analysis for institutional sector and activities such as Sectoral Impact Chain can be done as necessary. The enhanced CLUP and CDRA results can be used to identify DRR-CCA measures and develop a risk-informed CDP (Chapter II, Steps 3-5). LGUs in Scenario 3 can already proceed to Step 3-5 of this guide after remobilizing the planning team.

Scenario 4: In cases where there are already enhanced CLUP and recently approved CDP, check the latter if it is risk-informed. Use the Review Parameters for Risk-informed CDP (Table 35) as suggested by this Guide. Use the identified gaps for updating the CDP. In scenarios without an enhanced CLUP, LGU can update its CLUP using the HLURB Supplemental Guidelines.

Note: Review existing approved LCCAP and/or LDRRMP and utilize the information contained therein in the formulation/updating of the CDP.

Figure 5 highlights the mainstreaming actions specific for DRR-CCA done in each step of the CDP process while the mainstreaming of DRR-CCA in the CDP process is summarized in Table 2.



Figure 5. Mainstreaming DRR-CCA in the CDP Process

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The matrix below basically summarizes the content of this guidelines found in Chapter II. It also provides the general idea of how the mainstreaming is expected to be done utilizing the CDRA results and integrating other DRR-CCA concerns in each step of the CDP process.

Steps in the CDP Process	CDRA Results	Importance of integrating CDRA result into the CDP	Mainstreaming Actions	Process/Methods that can be used
1. Organize and mobilize the planning team			Ensure that the Planning Team includes those who will represent DRR-CCA Concerns (i.e. LDRRMO, MAO, ENRO, local experts among others). The team's functions include ensuring the integration of CDRA results to the local plans. Include the conduct of CDRA or other forms of risk assessment in the workplan	
2. Revisiting existing plans and review LGU vision	 Step 1 – Organize and collect climate change and hazard information Local Climate Change Projections Inventory of Natural Hazards and their Characteristics Summary of Barangay-level Hazard inventory matrix Tabular compilation of Historical Disaster damages/loss data Step 4 – Climate and Vulnerability Assessment Impact Area Map CCVA Summary decision areas and issues matrix Step 5 – Disaster Risk Assessment per Hazard DRA Summary Decision areas and issues matrix Disaster risk maps 	Results from the Step 1 of CDRA feed into the analysis of the current situation and potential future condition and potential future condition which may be used as reference in crafting or revising the vision statement. Results of CDR can be used in the generation of success indicators for the LGU vision. The LGU should also reflect on the level of disaster risk in the review of vision to ensure that it is part of the consideration in terms of the development trajectory of the LGU		

Table 2. Mainstreaming DRR-CCA into the CDP Process

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Steps in the CDP Process	CDRA Results	Importance of integrating CDRA result into the CDP	Mainstreaming Actions	Process/Methods that can be used
3.1 Analyze the LGU situation	Results of CDRA Steps 1-6	Integration of the CDRA outputs into the Ecoprofile provides an overview of the risks and vulnerabilities that the LGU is facing. It feeds into analysis of the current potential future condition of the locality with regards to climate change impacts and other disasters.	Identify human security and vulnerability to hazards indicators	Integration of RaPIDS and/or Local Development Indicators System (LDIS) Table Other alternative tools: - Vulnerability & Adaptation Assessment (V&AA) results (to integrate Climate Change projections) - Risk assessment using Community- Based Disaster Risk Management (CBDRM)
3.2 Formulate Goals and Objectives/Target	Step 4 – Climate Change Vulnerability Assessment Step 5 – Disaster Risk Assessment Step 6 – Summarize Findings • CCVA and DRA Summary decision areas and issues matrix • Major decision areas	Results of the CCVA and DRA can be used in the Vision- Reality-Gap analysis. The VRG will be the basis for the development of the sectoral goals and objectives.	Set risk management goals and risk management objectives/targets based on gaps. Include DRRM-CCA objectives and targets, strategies across development sectors.	Sectoral Workshop Vision- Reality Gap analysis Expanded Problem- Solution Finding Matrix
3.3 Development Policy Options and Strategies	Step 4 – Climate Change Vulnerability Assessment Step 5 – Disaster Risk Assessment Step 6 – Summarize Findings	The combined risk and vulnerabilities identified through the CCVA and DRA feeds into the identification of detailed policy interventions including the description of the decision areas. The findings can generate policy interventions in the form of PPAs, legislative measures and capacity development requirements	Per development sector, identify programs, projects, and activities (PPAs), legislative and capacity development requirements based on CDRA that would help attain goals and objectives. Inclusion of PPAs from LDRRMP, LCCAP and CLUP if applicable.	Generation of PPAs through the Sectoral Workshops. Translation of Policy Interventions from CDRA to PPAs, legislative measures and capacity development programs.

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Steps in the CDP Process	CDRA Results	Importance of integrating CDRA result into the CDP	Mainstreaming Actions	Process/Methods that can be used
4.1 Pre-LDIP: Preparation of project brief	Results of CDRA Steps 1-6	The project brief can be risk-informed through the integration of the CCVA and DRA results.	CDRA Results highlighted in the Project Briefs.	Analyze all Project Proposals (Project Brief) with regards to how it will be affected by the vulnerability and risk findings.
				Also, analyze how the proposed project will affect the state of vulnerability and risk (eg. Risk reduction, risk enhancement, risk creation).
4.2 LDIP Stream 1: Screen and prioritize structured list of PPAs	Step 4 – Climate Change Vulnerability Assessment Step 5 – Disaster Risk Assessment Step 6 – Summarize Findings • CCVA and DRA Summary decision areas and issues matrix • Major decision areas	CCVA and DRA results can be used as guide in the prioritization of the PPAs giving importance to the vulnerability levels.	Consider levels of risk and vulnerabilities as criteria in prioritizing PPAs Ensure that risk- informed vision and goals are made basis for GAM	Conflict- Compatibility- Complementarity test Resource Impact Matrix Urgency test Matrix Goal Achievement Matrix
4.3 LDIP Stream 2: Determine investment potential	CDRA Step 1 Historical disaster damage/loss data		Include in the analysis of historical expenditure the costs due to disasters and effects of climate change.	Historical analysis and forecast of revenue and expenditures Budgeting and Financing in the LDIP
4.4 LDIP Stream 3: Formulation of corresponding Local Resource Mobilization Plan (LRMP) and Financing Plan			Ranked list of PPAs matched and allocated with available resources including potential DRR-CCA financing options (Annex F and G)	Matching of PPAs with available resources

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Steps in the CDP Process	CDRA Results	Importance of integrating CDRA result into the CDP	Mainstreaming Actions	Process/Methods that can be used
5.1 Prepare Annual Investment Program (AIP)	Step 4 – Climate Change Vulnerability Assessment	This ensures that DRR-CCA actions that address risks are included in the AIP	CCAM measures are tagged	Climate Change Expenditure Tagging (CCET)
5.2 Identify priority legislative requirements	 Step 4 – Climate Change Vulnerability Assessment Step 5 – Disaster Risk Assessment Step 6 – Summarize Findings CCVA and DRA Summary decision areas and issues matrix Major decision areas 	Policy interventions identified in the CDRA or any other legislative requirements shall be determined to support DRR-CCA actions	Ensure successful implementation of DRR- CCA actions by providing legislative support needed	Sectoral Workshop Fishbone Analysis
5.3 Identify capacity development interventions needed to implement the LDIP	Step 4 – Climate Change Vulnerability Assessment Step 5 – Disaster Risk Assessment Step 6 – Summarize Findings • CCVA and DRA Summary decision areas and issues matrix • Major decision areas	From the policy interventions identified in the CDRA, related and required capacities are identified	Ensure successful implementation of DRR- CCA actions development needs	Sectoral Workshop
5.4 Monitor and Evaluate the Plan	Step 3 – Exposure Database Development Step 4 – Climate Change Vulnerability Assessment Step 5 – Disaster Risk Assessment Step 6 – Summarize Findings • CCVA and DRA Summary decision areas and issues matrix • Major decision areas	The exposure database can serve as indicators to evaluate success of DRR-CCA PPAs	Develop Monitoring and Evaluation mechanisms for DRR-CCA PPAs	CCAM expenditure monitoring Incorporating DRR- CCA indicator for the monitoring and evaluation of impacts Plan evaluation using the RaPID-LDIS, and CDRA indicators

CHAPTER II DEVELOPING A RISK-INFORMED COMPREHENSIVE DEVELOPMENT PLAN ۲ ۲ ۲



The Local Development Council (LDC) is the body mandated to prepare the CDP. The responsibility of local development planning processes (i.e., preparation of plans, implementation, and monitoring and evaluation) rests with the LDC together with its sectoral/functional committees. These committees constitute the Planning Team that supports the LDC in the formulation of the CLUP and the CDP. The inclusivity of the Planning Team influences the responsiveness and comprehensiveness of these plans.

The DILG, pursuant to MC No. 2015-77, suggested the inclusion of DRR-CCA expert/personnel in the composition of the Planning Team to ensure that DRR-CCA concerns are considered in the formulation of local development plans. It is thus imperative that the Local Chief Executive (LCE) organize, mobilize, or remobilize the Planning Team when necessary, to ensure the integration of CDRA results into the CDP. As per MC, the core members of the Planning Team shall be composed of the following:

- a) City/Municipality Planning and Development Coordinator (C/MPDC) Lead
- b) Local Disaster Risk Reduction and Management Officer (LDRRMO)
- c) Designated DRR-CCA Focal Person
- d) City/Municipal Environment and Natural Resource Officer (C/MENRO)
- e) Architect/Environmental or Urban Planner
- f) City/Municipal Local Government Operations Officer (C/MLGOO)
- g) President of the Liga ng mga Barangay
- h) Accredited Non-Governmental Organizations/People's Organizations/Civil Society Organizations (NGO/PO/CSO) (involved in DRR-CCA)
- i) Provincial Planning and Development Office (PPDO) Representative

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The Core Planning Team shall be assisted by a Technical Working Group (TWG). Higher level advisors from NGA unit and offices that do not have offices at the local level may be included as member of the core group or the TWG. Refer to DILG MC No. 2015-77 for the full list of the suggested members of the TWG, national level advisors, and their regional counterparts.

A Stakeholders' Analysis can be undertaken to finalize the members of the Planning Team, and organizations/institutions that can be tapped to participate in multi-stakeholders workshops for the CDRA and CDP. There are two questions that should guide the Stakeholders Analysis:

- 1) What sectors will be mainly affected by climate change and disasters?
- 2) What organizations and institutions can help us better understand climate change and hazards, and can help us develop and implement DRR-CCA policies, programs, and projects for our planning area?

The LCE as Chair of the LDC shall issue an Executive Order, (re) organizing the Planning Team, indicating therein the relevant personnel and their functions, including among others the conduct of the CDRA.

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The second step of the CDP preparation revisits the existing plans and reviews the LGU vision. The inventory and review of existing plans must identify which among them needs updating and which of their components can be incorporated into the CDP. Very importantly, existing CLUP, LDRRMP, and LCCAP, when updated should align to the (re)formulated vision, and its components complementing the goals and objectives defined by the CDP. This activity will be very useful in the formulation of sectoral goals and objectives in Step 3.2 (Formulate Goals and Objectives) of the CDP process.

Review of the LGU vision aims to include DRR-CCA lens in the LGU's vision statement and/or success indicators. It begins with the review of the CDRA results (please use Annex D as guide for the important CDRA outputs). The Planning Team needs to reflect on the LGU's vision vis-à-vis findings in the CDRA and risk information gathered from sectoral plans. The idea is to craft or revise a vision that reflects the risk situation. They can use the following questions below as guide:

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What is the existing Vision?	What is the assessed risk situation?	How will the risk affect the LGU Vision?	How can the Vision be more responsive to risk situation (applying risk lens)?	Vision Statement -Descriptor- Success Indicators with risk lens
	(What is the current reality of the city/municipality based on CDRA results?)	(Does the existing vision reflect a situation wherein the assessed risk based on the CDRA is already addressed? If not, improve the existing vision)	(Which descriptors aspire for resiliency?)	(What will be the basis that the vision has been achieved? These indicators must be measurable)

Table 3. Guide	Questions	in Revisiting	the LGU	Vision
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The LGU vision is the desired state or scenario of a particular locality and its people. Adding a risk lens into the vision statement can help the LGU move towards safe and resilient community.

If the LGU does not have an existing vision, the Planning Team may follow the visioning exercise based on the CLUP Guidebook/CDP Preparation Guide bearing in mind the CDRA results when analyzing their current situation and where they want their LGU to be in the future. Take note that the LGU should have only one vision statement for the CLUP and CDP. If there is already a vision in the enhanced CLUP, adopt the vision for the CDP as well.

The risk-lens in the vision can be indicated by descriptors that aspire for resiliency such as *resilient, adaptive, safe* and/or it can also be shown by using success indicators that pertain to reducing risk or increasing adaptive capacity. It is useful to use success indicators from the CDRA document (see Annex F). This will be very helpful during the Vision-Reality Gap (VRG) Analysis that will show the current situation. The LGU may regularly conduct CDRA as necessary to build database to show trends, facilitate monitoring and evaluation of plans, and assess whether the risks were addressed and new risks prevented. To ensure the risk lens in the vision, the following primary questions should be asked in reviewing the LGU vision:

- Will it help improve the LGU's adaptive capacity?
- Will it help improve the LGU's climate and disaster resilience?

An example of a vision statement with risk lens is shown below:

"A globally competitive, green and resilient city propelled by God-loving, gender responsive leaders and empowered citizenry" -Tacloban City

Indicators measuring the achievement of a desired level of performance in specific DRR and CC mitigation and adaptation measures to enable realization of each descriptor should be identified. Such indicators should contribute to the attainment of the risk-informed vision as well as the determination of sectoral goals and objectives.

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Table 4. Sample Descriptor and Success Indicators that Can be included in the Vision

Descriptors (DRR-CCA lens)	Success indicators (examples only, inferred from CDRA results, or refined later by a CDRA-informed SEPP)
Resilient	*100% of Farmer's Coop are covered by crop insurance *90 of public infrastructure employs hazard and climate change-proof design
Adaptive	*Farmers are utilizing climate-smart agriculture *Improved livelihood and well-being of the people even after a disaster *100% access to evacuation centers
Safe	*Availability of quick response team and facilities in all barangay *Early warning systems covers all hazard areas *Only 1% population are exposed to high risk (low exposure)

STEP 1 TO DO CHECKLIST:

Scenario 1 (Without/outdated CDP, Without CLUP) and

Scenario 2 (Without/outdated CDP, With CLUP not DRR-CCA mainstreamed)

- 1. (Re)convene the Local Development Council (LDC) and the Planning Team.
- 2. If needed, conduct a stakeholders' analysis.
- 3. Prepare the Executive Order.
- 4. Prepare and adopt a workplan for the preparation/ updating of the CDP and CLUP with CDRA as one of the preliminary activities, prior to Step 2
- (Revisit Existing Plans and Review LGU Vision) of the CDP process.
- 5. Conduct CDRA

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6. Using the CDRA results, the Planning Team can simultaneously mainstream DRR-CCA in the (a) development/ updating CLUP, as well as (b) in the CDP .

Scenario 3 (Without/outdated CDP, With DRR-CCA mainstreamed CLUP):

- 1. Remobilize the Planning Team.
- 2. Prepare the Executive Order
- 3. Prepare and adopt a workplan for the preparation/ updating of the CDP.
- 4. Using the CDRA results and situational analysis from the CLUP,

the DRR-CCA Functional Committee leads the mainstreaming of DRR-CCA in the development of the CDP.

Scenario 4 Updated CDP, With or without CLUP):

1. (Re)mobilize the Planning Team to review if DRR-CCA is already mainstreamed in

- the recently approved CDP using the Review Parameters in the CDP.
- 2. Should there be gaps in the CDP, plan the necessary actions based on self-assessment using the Review Parameters for Risk-informed CDP (Table 31, Chapter III of this Guide).

Please refer to CDP Illustrative Guide for the sample of Harmonized Workplan for CDP and CLUP.

PREPARE ECOLOGICAL PROFILE AND STRUCTURED LIST OF PPAS

DRR-CCA Integration Goal: Integrate CDRA Results in the Ecological Profile, and determine risk-informed PPAs from CDRA Policy Interventions and other existing plans

Step in the CDP	DRR-CCA Mainstreaming Actions	Process/Tools that can be used
3.1 Analyze the situation	Ensure that CDRA Results are part of the situational analysis	CDRA (e.g. Summary Issue Matrix)
	Consider identified human	RaPIDS
	security damages to assets and vulnerability to	LDIS
	hazards indicators	EPSFM
3.2 Formulate Goals and Objectives	Set risk management goals and risk management objectives/targets based on gaps. Include DRR-CCA objectives and targets,	Sectoral Goals and Objectives from local plans (eg LDRRMP, LCCAP, CLUP, CDP) should be considered
	strategies across development sectors	Sectoral Workshops
	Consider human security and vulnerability to hazards indicators	Risk-sensitive Goals and Objectives Matrix
3.3 Prepare structured list of programs, projects and activities	See to it that sectoral proposals include DRR-CCA PPAs	Sectoral Workshops
	Per development sector, identify programs, projects and activities (PPAs), legislative and capacity development requirements based on CDRA that would help attain goals and objectives.	(e.g. Summary Issue Matrix)
	Translation of Policy Areas from CDRA to Legislative needs, PPAs	
	Inclusion of PPAs from updated CLUP, LDRRMP and LCCAP	

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The third step integrates results of CDRA Steps 1-6 into the Ecological Profile and translates policy interventions as identified in the results of CDRA Steps 4-6 (CCVA and DRA Summary Decision Areas and Issues Matrices, and Major Decision Area) into a Structured List of PPAs. It is important to note that this step serves as the most critical entry point in mainstreaming DRR-CCA in the CDP.

Following the DILG Illustrative Guide, two main outputs are expected from Step 3: Ecological Profile and Structured List of PPAs, with the following sub-steps and outputs documents:

Steps	Output Documents/Tool	
3.1 Analyze the LGU Situation	Risk-informed EPSFM *The outputs of the analysis will be utilized to update the ecological profile with information on the locality's disaster risk and climate change vulnerability in the next plan updating	
3.2 Formulate Sectoral Goals and Objectives	Risk-Sensitive Sectoral Goals and Objectives (Form 2a and 2b)	
3.3 Prepare Structured List of PPAs	List of Programs, Projects and Activities (PPAs) with DRR-CC PPAs (Form 2a and 2b)	

Table 5. Sub-steps in Step 3 and Output Documents

The Ecological Profile provides a comprehensive description of the LGU as basis in the preparation of the CDP. It describes the current state of the LGU as it relates to the desired state it wants to achieve in the future.

As this guide emphasizes the importance of climate and disaster risk information to be incorporated in the preparation of the Ecological Profile, having substantial information on exposure, vulnerability, and risk of the LGU to natural hazards and climate change will aid local decision makers on crafting possible solutions and direction which the LGU should focus on. This is more concretely translated to sectoral goals and objectives.

Consequently, these sectoral goals and objectives facilitate identification of appropriate policy interventions that will respond to the development needs of the locality including addressing risks and vulnerabilities. These policy interventions can be further detailed into PPAs and legislative and capacity development requirements that will contribute to achieving these goals.

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Defining a Risk-Informed Ecological Profile

The Ecological Profile presents the sectoral data of the LGU and describes its internal strengths and weaknesses. The information from the Ecological Profile aids in determining the gap between the current realities of the LGU and its vision. Having better data in the Ecological Profile would provide for a better situational analysis of the LGU which would in turn entail a better understanding of its problems and ultimately, more appropriate courses of action. Local planners should be mindful that the information to be contained in the Ecological Profile is comprehensive enough to describe the LGU's current situation in relation to its desired state.

The Ecological Profile serves as the main entry point for DRR-CCA mainstreaming. This is where the situation of the LGU is determined as reflected by the five development sectors. Making the Ecological Profile risk-informed will provide a more comprehensive scenario for the LGU especially as to how risk and vulnerability affect the planning area and/or the development sectors thereby serving as basis for decision making on the interventions to be prioritized by the LGU.

Integration of climate and disaster risk information into the Ecological Profile to make it risk-informed may vary depending on the scenario of the LGU. This will be further discussed in Climate and Disaster Risk Information on page 19.

Based on the CDP Illustrative Guide, the Ecological Profile should have, as its minimum contents, data and information on the five development sectors, namely:

- a. Population and Social Services
- b. Local Economy
- c. Infrastructure and Physical base
- d. Environmental Management and Natural Resources
- e. Institutional

The content of the Ecological Profile is similar to the Socio-Economic and Physical Profile or SEPP contained in Volume II (Sectoral Studies) of the CLUP with additional information on the institutional sector.

For the institutional sector, the organizational structure for DRRM should be included in the chapter discussion as part of DRR-CCA mainstreaming.

The information for the risk-informed Ecological Profile are generated through (i) updating and collating data from the LGU and other institutions concerned per development sector; (ii) conducting sectoral development workshops to analyze the LGU situation; and, (iii) utilizing results of CDRA in the sectoral analysis.

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Please refer to Annex B for the expanded outline of the Ecological Profile which includes the sectoral development impact chain and climate and disaster risk information. Annex K, on the other hand, shows the sectoral and sub-sectoral categories in the Ecological Profile where CDRA can be integrated.

STEP 2 TO DO CHECKLIST:

Scenario 1 (Without/outdated CDP, Without CLUP) and

Scenario 2 (Without/outdated CDP, With CLUP not DRR-CCA mainstreamed)

1. Inventory existing local plans; take note of inconsistencies and recommendrectifying measures to take during the updating (mainstreaming of DRR-CCA) of the plans.

2. Conduct CDRA and present CDRA Results

3. Using CDRA results and information gleaned from the review of the plans,

review the LGU vision if responsive to new planning mandates and current situation of the city/municipality and if it considered risks

4. (Re)formulate LGU Vision with risk lens prominently included

(descriptors and/or success indicators)e.g. resilient, safe, sustainable, inclusive.

Scenario 3 (Without/outdated CDP, With DRR-CCA mainstreamed CLUP):

 Inventory existing local plans; take note of inconsistencies and recommendrectifying measures to take during the updating (mainstreaming of DRR-CCA) of the plans.
 Present the CDRA Results

3. Adopt the enhanced CLUP's Vision in the development/updating of the CDP (w/ risk lens)

Scenario 4 Updated CDP, With or without CLUP):

1. For not fully risk-informed CDPs with vision statements and success indicators that do not have risk lens, use CDRA results and information gleaned from the review of the plans to reformulate the LGU vision

2. For CDPs that are not risk informed, same steps should be undertaken as that for scenarios 1, 2 and 3 depending on the CLUP status whichever is applicable.

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Climate and Disaster Risk Information

A risk-informed Ecological Profile incorporates disaster and climate information into its sectoral dimensions. It intends to generate new information and provide insights as to how risks and vulnerabilities affect the planning area that would serve as basis for deciding on priority interventions by the LGU.

It is up to the LGU, depending on which scenario they belong to, how they will integrate the climate and disaster risk information into their Ecological Profile. Those LGUs without CDPs (or with CDPs that are still for updating) (Scenario 1) and have not yet mainstreamed DRR-CCA into their CLUP (Scenario 2), may embed their CDRA results into the sectoral dimensions of their Ecological Profile (Scenarios 1 and 2).

LGUs that belong to Scenarios 1 and 2 may also opt to insert the climate and disaster risk information as a cross-sectoral section in the Ecological Profile which can be directly sourced out from the CDRA results as illustrated in Figure 7 on page 20.

Table 1. Population of S	Sampaloc, Quezon i	n 2017		
Barangay	Population	Population exposed to Flooding	Exposure percentage	Risk Category
Alupay	1111	841	75.72	High
Banot	1068	983	92.04	High
Bayongon	1665	63	3.81	Low
Bilucao	812	749	92.26	High
Ibabang Owain	201	201	100.00	Low
Ilayang Owain	1659	139	8.36	Moderate
San Bueno	200	45	22.39	High
San Isidro	1912	50	2.60	Low
San Isidro	173	14	8.33	Low

It is estimated that about 3,085 individuals from the municipality of Sampaloc are exposed to flooding with low to moderate susceptibility. About 2,618 residents of barangays Alupay, Banot, Bilucao, and San Bueno have high risk to flooding. While 139 individuals residing in Ilayang Owain have moderate risk to flooding and 328 from parts of Bayongan, Ibabang Owain, San Isidro and Taquico have low risk to flooding.

Figure 6. Sample Climate and Disaster Risk Information Embedded into the Population and Social Sector of the Ecological Profile

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Other examples on integration of climate and disaster risk information into the other sectoral information in the Ecological Profile are shown below:

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oding: Il	VFRASTR	UCTU	RE Expo	sure						
				Exp	osure: Infra Support to Econom	ic Developm	ent			
				Doade	Bridges		Box (Culverts	Draina	ge
arangay	Total Population (2015)	Total Land Area	Roads (in linear meter)	Density Density (road area/ land area)	Location	NO. of commercial Bldgs/Brgy	Culverts (linear meter)	Location	Pipes/ culverts (in linear meter)	sizes
III oyur	37, 007	187.19	187.11	0.07	S Marquez St Ext, Gatchalian Subd, Palanyag Road, Pque boundary. Evacom, Pque Boundary	459	0	0	4709.95	12 - 30
III o/nr	15, 405	74.85	2, 612.8	0.02	Connecting Villareal St. to C-5 Las Piñas Pque boundary C-5 Road, Manuyo 1	121	0	0	1698.1	12 - 30
⁻ ajardo	10, 425	30.77	938.1	0.02		105	0	0	533.1	12 - 30
g	6, 055	13.32	842.8	0.03		35	0	0	677.4	12 - 30
Aldana	10, 402	33.36	1, 382.8	0.02	Coastal Road, P Dieago Cera Ave boundary of E. Aldana & Pulang Lupa Uno, Tramo Road connecting Aldana & Pulang Lupa	452	0	Jimenes St	655	12 - 30
					Uno VillaEusebia, Plang Lupa Uno, Samson CPD, Ilog ng Bayan					
ang Lupa I	18, 577	72.64	7, 659.9	0.04	Coastal Road, Naga Road Pulang Lupa Uno, C-5 Road, Pulang Lupa 1, Munting ILog, Pulang Lupa Uno, Dalig Creek, CAsimiro Village, Pulang Lupa Uno, Perpetual Village	781	0	0	2000.8	12 - 30
ang Lupa II	33, 171	195.4	18, 278.7	0.06	Naga Road, Pulang Lupa Dos, Dona Julia Sulod, Pulang Lupa Dos, Las Piñas Royale Estate Subd, Rosal St, VErgon, Pulang Lupa 2, Camella Ave, Casimiro 3D, Pulang Lupa 2	781	0	Connecting DBP & Richmond	4758.3	12 - 30

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Figure 7. Sample Ecological Profile as Part of the Infrastructure Development Sector as Enhanced Using CDRA Results

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Environment:	Storm Surge					
		Exposure				Sensitivity
Barangay	Population	Lifeline	Critical Point Facilities	Mangroves	Critical Point Facilities and Lifelines	Mangrove species
Pulang Lupa Uno	31,401	Water lines and facilities Road networks	Government facilities	Part of LPPCHEA	Low since these are constructed following national standards	Varied flora and fauna, bird sanctuary, mangrove trees affected by storm surge
The menaroves	and Frandom Islan		tal defense to Par	ngoy Bulong Lun	a Line against storm s	urge However if not

The mangroves and Freedom Island serve as coastal defense to Barangay Pulang Lupa Uno against storm surge. However, if not covered with appropriate protection measures or if flooding brings in more solid waste, bio diversity will most likely degrade and will eventually reduce the forest cover which serves as coastal defense against storm surge.

Figure 8. Sample Ecological Profile as Part of the Environment Development Sector, and Enhanced Using CDRA Results

Flood: Natural	Resources	5				
				Exposure		
Barangay	Area by dominant crop	Dominant crop	Exposed areas (Hectares)	Exposure Percentage	Average potential income per hectare per year (PHP)	Exposure Value (PHP)
Bagong Kalsada	-	-	-	-	-	-
Banadero	77.10	Rice	77.10	100.00	91,800.00	7,077,780.00
Banlic	158.84	Rice	158.84	100.00	83,810.00	13,312,380.40
Bucal	37.80	Rice	37.37	98.86	89,675.00	3,351,154.74
Halang	19.30	Okra	19.30	100.00	316,250.00	6,103,625.00
La Mesa	0.48	Pechay	-	-	146,250.00	-
Lecheria	123.97	Tomato	123.97	100.00	500,000.00	61,985,000.00
Lingga	18.50	Rice	18.50	100.00	60,350.00	1,116,475.00
Looc	15.87	Rice	15.87	100.00	57,205.00	907,843.00
Pansol	14.30	Pechay	14.30	100.00	146,250.00	2,091,375.00
Parian	19.59	Rice	15.06	76.88	97,750.00	1,472,115.00
Real	18.82	Rice	18.82	100.00	72,000.00	1,362,240.00
Sucol	-	-	-	-	-	-
Sampiruhan	3.00	Tomato	3.00	100.00	500,000.00	1,500,000.00
San Cristobal	8.40	Pechay	8.40	100.00	146,250.00	1,228,500.00
San Jose	62.80	Rice	62.80	100.00	89,250.00	5,604,490.00
San Juan	-	-	-	-	-	-
Uwisan	60.96	Rice	60.96	100.00	74,000.00	4,511,040.00

Agriculture, which is a natural resource in the CDRA, is analyzed as a sub-sector of economic development. Rice and tomato products from Barangay Banlic and Barangay Lecheria, respectively, have the highest exposed values, relevant to flooding as a hazard. Both cops are also considered dominant in terms of areas of coverage by hectare.

Figure 9. Sample Ecological Profile as Part of the Economic Development Sector and enhanced using CDRA Results

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LGUs that have already enhanced their CLUPs (Scenario 3) may use their risk-informed SEPP as an alternative to the risk-informed Ecological Profile. However, additional analysis for the institutional sector should be included.

At the minimum, climate and disaster risk information that should be found in the risk-informed Ecological Profile are the following:

- 1. Climate Information and Climate Projections
- 2. Natural Hazards per Barangay Matrix
- 3. Historical Timeline of Disasters
- 4. Hazard Susceptibility Maps
- 5. Exposure Database and Maps per Hazard
- 6. Risk Maps for the Five Exposure Units per Hazard

Examples of the Climate and Disaster Risk Information that should be included in the Ecological Profile are provided in Annex C.

3.1 Analyze the LGU Situation

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Analyzing the LGU situation is the main entry point where CDRA results, i.e. climate and hazard information, summary of potential climate change impacts, exposure maps, exposure and sensitivity database, impact area map, and risk maps, are included. Its main output is an expanded Problem-Solution Finding Matrix (PSFM). The outputs of the analysis will be utilized (i) to update the Ecological Profile with information on the locality's disaster risk and climate change vulnerability in the next plan updating and (ii) as basis to formulate sectoral goals.

Climate and disaster information provide the general scenario from which the planning area is affected by climate change and disaster risk. What are the exposed units (population, urban areas, natural resources, critical facilities, lifeline utilities) with high vulnerability or high risk? Where are they located? What contributes (indicators of sensitivity and adaptive capacity) to the level of vulnerability and risk? Having information on the risks and vulnerabilities will aid decision makers to come up with better interventions for each development sector/sub-sector that are likely to be affected by climate change and hazards. This information should be utilized in analyzing each development sectoral concern.

Comprehensive, when used in the CDP, means "multi-sectoral" covering the five development sectors: social, economic, physical, environmental and institutional (RPS, 2008). Because of the multi-sectoral content of the CDP, development planning becomes integrated and holistic. Bringing the multi-sectors into planning can enhance the cross-sectoral nature of analysis.

Figure 10 illustrates how the indicators and results of CDRA can be aligned and attributed to the multisectoral concerns of the CDP.

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Figure 10. Attributing CDRA Indicators to Sectoral and Sub-Sectoral Categories of the Ecological Profile¹⁵

While some issues are confined within the conceptual boundaries of the sector/sub-sector, other issues are common to two or more sectors. These issues can be addressed jointly by the sectors concerned through inter-sectoral consultations, round-robin fashion (see Figure below).





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¹⁵ Priscella B. Mejillano, EnP

¹⁶Rationalizing the Local Planning System (Serote, 2008)

The LGUs may utilize the results of impact chain analysis as an input to this. Based on climate change projections and identified natural hazards affecting the locality, potential impacts to various thematic sectors such as agriculture, built-up/physical assets, water, health, coastal, and forestry can be cross-sectorally analyzed. This is evident as one thematic sector or several sectors are included in the impact chain diagram and could be the source of cross-sectoral analysis. Doing so can help identify the key development areas/sectors where climate change and other natural hazards will likely impact and guide the detailed study of establishing the level of risks and vulnerabilities of the area.

Sample of cross-sectoral analysis after sectors were paired to jointly discuss concerns common to them is shown below:

Observations	Explanations	Implications
 Improper location of settlements in environmentally constrained areas: Flood prone areas Areas subject to liquefaction Areas prone to storm surges 	 Lack of awareness of potential environmental hazards Acquired/inherited properties are located in environmentally constrained areas Information on environmental hazards are being made available only recently Some ISFs obstruct water passageway 	 People continue to be at risk Loss of lives and properties
2. Some settlements located along riverbanks are flooded during rainy season	 Improper disposal of wastes particularly non-biodegradable garbage which clog the drainage system Flooding is aggravated when excess water is released by the dams; and compounded when riverways are silted, flooding the houses in the nearby areas. 	 Inconvenience Susceptibility to water borne diseases Suspension of classes in flooded areas

Table 6. Sample Social-Environmental Intersectoral Issue

Samples of issues common to pairs of sectors addressed in inter-sectoral dialogues are shown in Figure 12 (lifted from the RPS). The full cross-sectoral samples can be referred to in the RPS.

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1. SOCIAL - ECONOMIC

- Household income and expenditure
- Food self-sufficiency index (latest)
- Labor force participation rate
- Employment, unemployment, underemployment
- Household savings generation and local investments
- Job-related health risks
- Labor issues, formal and informal

2. ECONOMIC - INSTITUTIONAL

- Tax yield per capital (various sources)
- Private investment incentives and regulation (local ordinances)
- Budget allocation to economic promotion
- Economic performance of public enterprises
- Local support to national economic program

3. LAND USE/INFRASTRUCTURE - INSTITUTIONAL

- Local administrative space and buildings
- Public open space provision
- Land use planning and regulation
- Budget allocation (5 of total budget) to:
 - roads and bridges
 - drainage and sewerage
 - water supply
 - power distribution
 - water transport infrastructure
- Space and buildings for the administration of justice
 - police and fire
 - court houses
 - jails and detention cells
- Barangay halls

4. ENVIRONMENTAL - LAND USE/INFRASTRUCTURE

- Infrastructure vulnerable to environmental hazards
- Infrastructure to mitigate or prevent environmental disasters
- Infrastructure for waste(solid and liquid waste) management
- Infrastructure to monitor air quality
- Sustainability in land use patterns

5. SOCIAL - ENVIRONMENTAL

- Domestic waste generation and disposal
- · Grroundwater quality and quantity and rate of extraction
- Air pollution by source
- Population to land ration

Figure 12. Sample Issues Common to All Sectoral Pairs

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3.1.1 Sectoral Analysis of Climate Change Impacts and Disaster Risk

Scoping the potential impacts of disasters and climate change is the second step of the CDRA process which involves the conduct of impact chain analysis. This analytical tool is used to illustrate and identify the scenarios that are most likely to be affected by the identified climate projection and potentially enhance other hazards. Impact chains generated from the conduct of CDRA is very useful in the analysis of vulnerability and risks to climate change and disaster. It will also serve as basis for the identification of sectoral problems and issues as well as in generating policy interventions.

The HLURB Supplemental Guide may be used as reference for the detailed steps in conducting the impact chain analysis.

3.1.2 Planning Indicator Systems: Local Development Indicator (LDIS) and Rationalized Planning Indicator and Data Set (RaPIDS)

3.1.2.1 LDIS

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The LDIS Matrix is an analytical tool for planning which is used to analyze the LGU situation as characterized in the risk-informed Ecological Profile. Fundamentally, the LDIS matrix depicts information in three (3) dimensions:

- 1. Sectoral dimension Data is arranged according to five (5) development sectors.
- Spatial dimension Prescribes the monitoring of indicators for smaller planning areas (barangays) to enable comparison of LGUs' performance in relation to higher subnational governments.
- 3. Temporal dimension Provides analysis across time to establish patterns and trends in the behavior of outcome indicators.

The completed LDIS Matrix presents the levels of development or under-development of a particular city or municipality that need to be addressed through interventions. However, many planning practitioners found the LDIS to be comprehensive but difficult to populate and complete.

3.1.2.2 RaPIDS

Te RAPIDS was developed to facilitate identification of development planning indicators. RaPIDS is presented as a shopping list of indicators where LGUs can choose from those that specifically apply to them. It contains basic minimum indicators generally applicable to all LGUs and other sets of indicators depending on an LGU's ecosystem, development thrust, and priority concern based on national policies.

RaPIDS can integrate additional data requirements in local plan preparation. It offers a mechanism for LGUs to easily and effectively choose appropriate indicators that would best capture the level of development or under-development in their localities. Figure 13 shows a snapshot of the RaPIDS indicators specific for DRR-CCA.

	Home Inser P	age tayour	Offiluias Uata Meview	New					3	3 10
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6	tte of Format Painter B I	· U · Ent	■ 2 · へ · 心	部章 理 Merge & Center *	S - % + 26 -28	Conditional Format Formatting * as Table * S	Cell Insert Delete For	mat 2 Clear - P	Sort & Find & Filter - Select -	
	Al • (*	A Disas	ter Risk Reduction (DRR) -	- Climate Change Adaptation (C	CA)	nh.	(maximum)	Provide and a second seco		3
									e	
1	Disaster Risk Reduction (DRR)	- C)mate Change	Adaptation (CCA)	2					2	-
	Sector/Neading in CDP	Applies to What Kind o Planning Area?	Core Concern' Element Descriptor: Development Anchors	What is being measured?	•	Indicator +	Data Requi	rements	Data Source	
	Population and Social Services	Applies to All	Exposed Population	Disaster Risk Reduction (DRR) and Cir Change Adaptive (CCA)	aste Population expose	d to Flooding per Barangay	Sex-Disaggregated Data (Ma population per Barangay that	le and Female) on is exposed to Flooding	CBMS DRRM Office CAMPDC Office	iii
	Population and Social Services	Apples to All	Exposed Population	Disaster Risk Reduction (DRR) and Cir Change Adaptive (CCA)	tate Population expose	d to Landside per Barangay	Sex-Disaggregated Data (Ma population per Barangay that	le and Female) on la exposed to Landside	CBMS DRBM Office CMPDC Office	
-	Environment	Applies to All	Exposed Urban Areas	Disaster Risk Reduction (DRR) and Cir Change Adaptive (CCA)	nate Area in Hectares e barangay	oposed to Flooding per	Area in Hectares exposed to	Flooding per barangay	CBMS DRRM Office CMPDC Office	
10	Environment	Applies to All	Exposed Urban Areas	Disaster Risk Reduction (DRR) and Clin Change Adaptive (CCA)	nate Area in Hectares e Barangay	xposed to Landside per	Area in Hectares exposed to	Landsåde per Barangay	CBMS DRRM Office CAIPOC Office	
F	Environment	Apples to All	Exposed Urban Areas	Disaster Risk Reduction (DRR) and Clin Change Adaptive (CCA)	nate Area in Hectares e Barangay	xposed to Tsunami per	Area in Hectsres exposed to	Tsunami per Barangay	CBMS DRRM Office CMPDC Office	
00	In frestructure	Applies to All	Exposed infrastructure	Disaster Risk Reduction (DRR) and Clin Change Adaptive (CCA)	No. of Buildings / S dilapidated / conde barangay)	tructures made in mned condition (per	No. of Buildings / Structures condemned condition (per b	made in dilapidated / srangay)	CBMS DRRM Office CAMPDC Office	
0	Infrestructure	Apples to All	Exposed infrastructure Social Support	Disaster Risk Reduction (DRR) and Clir Change Adaptive (CCA)	nate No. of Lifeline Faci (per barangay)	ties - Power / Electricity	No. of Lifelins Facilities - Pov barangay)	ver / Electricity (per	CBMS DRRM Office CANPOC Office	1
9	Economic	Applies to All	Natural Resource Production	Disaster Risk Reduction (DRR) and Clin Change Adaptive (CCA)	nate Percentage of Salt Production expose	Water Resource based d to calamity	Percentage of Sait Water Re exposed to calamity	source based Production	CBMS DRRM Office CAMPDC Office	
11	Economic	Applies to All	Economic Support	Disaster Risk Reduction (DRR) and Clin Change Adaptive (CCA)	nate Percentage of Bus (private) exposed	mess Establishments to calamity	Percentage of Business Esta exposed to calamity	bishments (private)	CBMS DRRM Office CMPDC Office	
2	Economic	Applies to All	Economic Support	Disaster Risk Reduction (DRR) and Cli Change Adaptive (CCA)	tate Percentage of Bus (public) exposed t	aress Establishments o calamity	Percentage of Business Esta exposed to calamity	bishments (public)	CBMS DRRM Office CMPDC Office	*
-	I P. N. Bask Minimum Indica	tors Cont	DRR-CCA In	dicators as found inBushe	strendness / lowe	M Aericutural / EcoS	stem-Forest Auton	With FreshWater	ostal / With Minne At	
3	utter .							(H)	- No E	4

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Figure 13. Snapshot of RaPIDS DRR-CCA Indicators

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3.1.3 Vision-Reality Gap Analysis

The VRG Analysis determines the difference between the desired state of the LGU and its current situation. It takes off from the results of the visioning exercise and the data generated from the risk-informed Ecological Profile and the LDIS. Ratings are assigned to describe the degree of attainment or non-attainment of a particular vision element vis-à-vis success indicators based on its descriptor/s. The VRG Analysis better informs the LGU how far or near it is from its desired state which aids them in creating more sound decisions when identifying priority areas for intervention.

An example of the VGA is provided below reflecting a sample DRR-CCA descriptor and success indicator.¹⁷

Vision Element	Descriptor	Success Indicator	Current Reality	Rating	Gap
People	Safe	Only 1% of population are exposed to high risk (low exposure)	90%of the informal settler areas are at high risk to flooding with houses made from light materials	1	9
Built up Environment	Resilient	90% of public infrastructure employs disaster and climate change-proof design	75%of critical facilities are at moderate risk to landslide	2	8

Table 7. Sample Vision Reality Gap Analysis

Note: Rating values range from 0-10 where 0 means that no achievement has been made of the goal while 10 reflects that the goal has been achieved. Please refer to DILG Guide for CDP Preparation for VRG Analysis.

The VRG Analysis reflects the current reality of the locality which can be based from the technical findings of the CDRA and the LDIS. It also illustrates the advantages of using CDRA indicators as success indicators for the descriptors which allows the LGU to easily measure the existing situation of their locality. Also, the regular conduct of CDRA will inform the changes in the success indicators that will be important in the monitoring and evaluation of the CDP. The identified 'gap' from the VRG Analysis can also be used as a reference in formulating sectoral goals and objectives.

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¹⁷ DILG Guide for CDP Preparation

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Another example of the VRG Analysis using indicators from CDRA is shown below:

		Vision elem	ent: People a	is Society	
Descriptor	Success Indicators	Current Reality Rating	Vision- Reality Gap	Observed Condition	Explanation for the Gap
Safe and Sustainable	100% of private establishment with teams trained on administration of first-aid and disaster response management	3	7	Some private establishments do not have adequate number of first-aid providers	Few organized team of first aid providers in private establishments No first-aid training conducted yet for private establishments
	100% of HHs with survival kit	3	7	Most HHs do not have survival kit	Limited awareness on the required survival kit
	100% of HHs are able to execute proper CBDRRM protocols (early warning system, flood-level markets, evacuation areas and routes)	4	6	Some HHs lack awareness on CBDRRM	Lack of manpower to conduct orientation and seminars to all Homeowners association
	100% of HHs are aware of disaster evacuation plan Implementation of strong security measures through upgrading of organization capability	4	6	Some HHs lack awareness on disaster evacuation plan	No existing IEC program on disaster evacuation plan Not all households are participating in organized emergency drills

Table 8. Sample VRG Analysis with CDRA Indicators andResults Integrated in the Analysis

The last two columns are already part of the PSFM. LGUs may do this at the onset of the VRG Analysis so that they can already categorize the conditions and findings which are directly linked to the element descriptors of the vision. The same observed conditions and gaps are brought forward to the Expanded Problem Solution Finding Matrix (EPSFM) so that both VRG Analysis and CDRA are reflected, as illustrated in Figure 14:

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Descriptors	Success Indicators	Current Reality Rating	Vision- Reality Gap	Observed condition	Explanation for the Gap
Safe and Sustainable	100% of barangays with trained personnel on disaster management and emergency response	5	5	Only 50% of barangays are trained and equipped with disaster management and emergency response	Emergency response trainings yet to be conducted
	100% of barangays have an updated and approved CBDRRM Plan	5	10	None of the barangays have an approved CBDRRM Plan	All barangays are still on the process of formulation/updating of their CBDRRM Plan
	100% of sitios/purok/zones/villages with teams trained on administration of first aid	3	7	Most of HH were not provided with training on administration of first-aid	Household-level orientation on first-aid not yet rolled-out
	100% of schools with teams trained on administration of first-aid	5	5	Some schools do not have adequate number of first- aid providers	Few Organized team of first aid providers in schools. No first-aid training conducted for students.

				Policy	/ Options
Observed Condition	Explanation	Implication (Positive)	Implication (Negative)	Regulatory Measures/ Legislation	Programs, Project and Activities
Informal settler areas are at high-risk to flooding with estimated flood height of 1 meter	Houses built in informal settler areas are predominantly made from light materials. Structures do not have insurance.	Significant government resources will be allocated for rescue and relief operations	 Potential deaths and injuries due to lack of early warning system and makeshift houses Isolation of families Required post-disaster assistance for affected families/ individuals far exceeds available local financial resources Available livelihood opportunities are not enough to accommodate affected families 	Zoning Ordinance – Risk areas as open spaces, recreation and parks	 Relocation of informal settlers Comprehensive housing program for affected families Establishment of early warning systems and formulation of flood contingency plan
Only 50% of barangay are trained and equipped with disaster management and emergency response	Emergency response trainings yet to be conducted				
None of the barangays have an approved CBDRRM Plan	All barangays are still on the process of formulation/ updating of their CBDRR Plan				
Most of HH were not provided with training on administration of first-aid	Household-level orientation on first- aid not yet rolled-out				
Some schools do not have adequate number of first-aid providers	Few Organized team of first aid providers in schools. No first-aid training conducted for students.				

Figure 14. VRG Analysis, Las Piñas City CDP, 2018-2027

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3.1.4 EPSFM

The PSFM is a tool used to diagnose development issues or what is known as problem-finding phase and determine appropriate policy interventions or what is called the solution-finding phase. The problem-finding phase includes making meaningful observations from the available information, determining the causes or explanations of the observed conditions and exploring the positive and negative implications if no significant intervention is made. On the other hand, the solution-finding phase entails identifying the appropriate policy interventions to curtail the negative implications and strengthen the positive ones.

The PSFM has been expanded in this guide to emphasize on disaggregating the positive and negative implications of the observed condition and on classifying policy options as programs, projects and activities or regulatory measures/legislations. The EPSFM highlights the risks in its observed condition, the sensitivity and adaptive capacity that can affect the cause of the condition, and the positive implications contributed by high adaptive capacity and negative implications due to vulnerability, risks, and low adaptive capacity. It takes off from the observed conditions from CDRA Steps 4-6 (summarized findings) which can be analyzed by looking at its causes and implications in order to arrive at specific policy options addressing the observed conditions. It captures the issues and problem posed by climate and disaster risks and presents the policy interventions that both address current needs and anticipate future impacts of climate change and disasters.

The EPSFM is ideally to be completed after the information from the risk-informed Ecological Profile were generated, the LDIS matrix was constructed, and the VRG Analysis has been performed.

Policy interventions should be able to reduce vulnerabilities and increase adaptive capacities of the LGU. Sample programs and projects linked directly to DRR-CCA are, but not limited to, resettlement/relocation programs; hazard mitigation infrastructure projects; ecosystem-based adaptation such as ecosystem restoration; Information, Education, Communication (IEC) programs for increased level awareness on disaster and climate change; disaster preparedness programs; formulation of river-basin management plans (in coordination with other municipalities); reforestation projects, comprehensive agricultural extension program (emphasis on climate change resiliency); capacity and capability building of executive and legislative officers in support of DRR-CCA.¹⁸

Shown on page 35, is a sample summary issues matrix of the CDRA process (Table 9) which can be used as reference for the analysis in the EPSFM (Table 10).

¹⁸ Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risk in the Comprehensive Land Use Plan (Quezon City: HLURB, 2014)

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Table 9. Sample Issues Matrix from the CDRA of Opol, Misamis Oriental

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Decision Areas	Description	Technical Findings	Impacts/ Implications	Policy Interventions
Areas where interventions are prioritized and placed (barangays, roads, bridges)	Description of the specific location of the decision area	Include findings for exposure, sensitivity, and adaptive capacity	Existing hazards and climate impacts in the planning area (flood, tsunami, landslide, storm surge, etc)	Actions to address effects and impacts of hazards in the decision areas
Example:				
Igpit-Informal Settler Areas (MDA-1)	Area located at the mouth of the Bungcalalan River adjacent to the Macalajar Bay	 These are areas within the high susceptible flood areas, with an estimated flood height of >1 meter. The estimated likelihood of occurrence is 10-30 years. Informal settler areas are at high risk to flooding with disastrous consequences. Potential increase in exposed population will be expected due to unregulated growth of informal settler families. There is consensus among informal settler families that relocation will be needed. LGU does not have the capacity to relocate all informal settler families within a short term period. External assistance will be required. Relocation sites can be identified within the municipality to accommodate affected families. 	 Potential deaths and injuries due to lack of early warning system and makeshift houses especially in zone 1, 2, and 5. Lack of monitoring may result in increased exposure due to increase in informal settler families in the area. Isolation of families have been observed in the past. Significant government resources will be allocated for rescue and relief operations Required post disaster assistance for affected families/individuals far exceeds available local financial resources. Available livelihood opportunities are not enough to accommodate affected families. 	 Set aside areas for open spaces, recreation or parks. Relocation of informal settlers Provision of comprehensive housing program for affected families Establishment of early warning systems and formulation of flood contingency plans

The EPSFM can be done through participatory processes such as sectoral workshops and focus group discussions (FGDs) with the technical staff taking off from the 'technical findings' as 'observed conditions'; 'implications' detailed as positive or negative; and 'policy interventions' into 'regulatory measures', 'programs', 'projects', and 'activities' or 'capacity development requirements' and the information gathered from the LDIS and the VRG. This matrix is included as part of the sectoral development Plans and does not need to be placed inside the sectoral analysis of the risk-informed Ecological Profile. Table 10 is the EPSFM with an example highlighting DRR-CCA implications.

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				Policy	Options
Observed Condition	Explanation	Implication (Positive)	Implication (Negative)	Regulatory Measures/ Legislation	Programs, Projects and Activities
LGU situation on the five development sectors Sectoral condition (level of service, production and other indicators) which may include disaster risk and vulnerability	What contributes to this situation? Understanding of indicators contributing to sensitivity (internal vulnerability), adaptive capacity	Positive implication of the condition Understanding the importance of high adaptive capacity and opportunities available.	Negative implication of the condition Negative impacts of Vulnerability and Risk	Resolutions, ordinances and executive orders responding to the observed condition	Specific actions addressing the situation
Example:					
Informal settler areas are at high risk to flooding with estimated flood height of 1 > meter	House built in informal settler areas are predominantly made from light materials. Structures do not have insurance	Significant government resources will be allocated for rescue and relief operations	 Potential deaths and injuries due to lack of early warning system and makeshift houses Isolation of families Required post disaster assistance for affected families/individuals far exceeds available local financial resources Available livelihood opportunities are not enough to accommodate affected families. 	• Zoning Ordinance- Risk areas as open spaces, recreation and parks	 Relocation of informal settlers Comprehensiv e housing program for affected families Establishment of early warning system and formulation of flood contingency plans

Table 10. Expanded Problem-Solution Finding Matrix

3.2. Formulate Sectoral Goals and Objectives/Targets

The main output for Step 3.2 is risk-sensitive sectoral goals and objectives.

Once the risk-informed Ecological Profile has been prepared, the planning team can now proceed to Step 3.2 for the formulation of development sectoral goals and objectives. This sub-step serves as a throughput in the CDP preparation as it helps define interventions for the planning area. The sectoral goals and objectives serve as the basis in the formulation of specific interventions in the planning area. Having risk-informed sectoral goals and objectives ensures that risks and vulnerabilities identified in the analysis of the LGU situation will be addressed and in the identification of interventions for each of the development sectors.

The EPSFM and VRG conducted during the analysis of the LGU situation shall be the basis for the formulation of risk-sensitive goals and objectives in the CDP. The goals and objectives of other local plans which were reviewed during Step 2 of the CDP process (Review Existing Plans and Revisit LGU Vision) should also be considered. Tables 11 and 12 are samples of goals and objectives derived from VRG and EPSFM.

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Table 11. Risk-Sensitive Goals and Objectives Derived from the VRG and EPSFM

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Objectives and Targets	Objectives/Desired results per sub-sector with DRR-CCA lens		 To ensure safety of individuals through establishment of early warning systems To provide safe and adequate housing needs 	 To have an efficient quality, safe road network system To develop a comprehensive road circulation system To development all development activities including fast transporting of products and commuters To provide road network system with appropriate road ancillary facilities for added security and safety citizens
Risk- sensitive Sectoral Goals	Sectoral Goal with DRR-CCA lens		Relocation of informal settles to safe housing	Well-maintained and adequate, resilient infrastructure facilities
Gap	Gap of the current reality from the desired state of the locality		თ	σ
Rating	Rating of the current state of the LGU		-	7
Current Reality	Risk and vulnerabilities which may be lifted from the Observed Conditions of the EPSFM or Technical Finding of the CDRA		90% of the informal settler areas are at high risk to flooding with houses made from light materials	75% of critical facilities are at moderate risk to landslide
Success Indicator	Specific and measurable results with DRR-CCA lens		Only 1% of population are exposed to high risk (low exposure)	90% of public infrastructure employs disaster and climate change-proof design
Descriptor	Descriptor from the risk-sensitive vision		Safe	Resilient
Vision Element/ Development Sector	People as individuals/ Society (Social), Local Economy (Economic), Natural environment (Environment). Built environment (Infrastructure), Local Leadership/ Governance (Institutional)	Example:	People/ Social Sector	Built up Environment/ Infrastructure Sector

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Vision Element/ Development Sector	Descriptor	Success Indicator	Current Reality	Rating	Gap	Risk-sensitive Sectoral Goals	Objective and Targets
State of the natural environment	Green City	Increased compliance by 70% to SWM Act of 9003 Increased compliance by 70% to Clean Water Act or RA 9275	Solid wastes are clogging the canals and natural water ways. Majority of barangays are prone to flooding	2	8	Reduce the vulnerability to flood hazards in order to protect the health, safety and welfare of residents. (TO)	 To increase compliance by barangay on MRF by 20% within 2021- 2023. To integrate scientific data covering potential impacts and of flood hazards, the sectoral vulnerability and risks of sectors (e.g., critical facilities, infrastructure and structures) by end of 2021.
	Smart City	Reduction GHG emissions by 30% About 15% of rural barangays still have no electricity	Significant portion of land in 2 barangays can be developed for solar farms Increased volume of waterfalls in the barangay for the past five years Electrical consumption in city hall has increased for the past 3 years	4	6	Maintenance of safety and convenience of the constituents	 To reduce energy consumption in city hall by 20% the planning year (2018- 2021) To improve energy sufficiency to 15% through advance energy mix by end of 2021.

Table 12. Risk-Sensitive Goals and Objectives (Environment Sector) Derived from the VRG

3.3. Prepare Structured List of Programs, Projects and Activities (PPAs)

The main output for Step 3.3 is the structured list of PPAs including DRR-CCA projects.

Concretizing the actions which addresses the impacts of climate change and disaster risks starts from the identification of PPAs. The long list of PPAs, which should entail DRR-CCA related projects is the one forwarded for prioritization which will eventually be funded and implemented in the LGU.

Just like the sectoral goals and objectives, PPAs can be identified during sectoral workshops. The outdated CDP can also be used as reference in generating new PPAs. Additional PPAs can be sourced out from other local plans such as the enhanced CLUP, LCCAP, and LDRRMP.

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3.3.1. Sourcing PPAs from Other Local Plans

Local plans such as enhanced CLUP, LCCAP, and LDRRMP contain PPAs directly addressing climate and disaster risks. It is important to revisit these documents for inclusion in the list of PPAs.

3.3.1.1. PPAs from the CLUP

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Table 13 contains examples of policy options from CLUP which can be considered in the preparation of the structured list of PPAs.

Parameters	Land Use Policy Options	Land Use Policy Options to be included in the CDP
Building design	 Lowest floor of structures must be two feet (freeboard) above the estimated 100-year base floor elevation (or 100-year, depending on agreed flood level) based on climate change rainfall. For a critical facility (i.e. hospitals, government building, re/police stations, evacuation sites, jail, emergency management, and facilities that store highly volatile, hazardous, toxic materials) higher protection standards will be required, where freeboards are above the 100 (sample)year base flood elevation. Encourage onsite water storage facilities. Foundation of buildings should be constructed to account for erosion, scour, or settling. Legally require retrofitting of existing buildings that are highrisk or highly vulnerable using recommended building design standards as prescribed in the Building Code and the Structural Code of the Philippines. When buildings and/or areas are totally damaged by flood, consider other options like relocation, land swapping, or land pooling 	 All Public Infrastructure Projects in the CDP should follow the Design Guideline in the CLUP of higher protection standard against 100 year flood event (School, Precincts, Barangay Hall, Evacuation center etc)
Protection of critical lifelines	 Climate proof critical access (roads) and distribution systems (water, power and communication facilities). Situate critical point facilities outside of hazard prone areas to ensure accessibility and minimize service disruption during and after flood events. 	 Road Improvement Projects to include storm water drainage that can sustain 100 year flood New road projects to serve as alternative (placed in low risk areas and serves as new connector)

Table 13. Sample Land Use Policy Options for Flood Hazard Areas

Source: HLURB Supplemental Guidelines

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3.3.1.2. PPAs from LCCAP

Table 14 shows examples of PPAs from the LCCAP which can be included in the sample Structured List of PPAs shown in Table 17 and 18.

 Table 14. LCCAP List of Options (Program, Projects, Activities, Legislations)¹⁹

Objectives	Link to Climate Change	Programs	Projects	Activities	Policies
Sector: Economic Agricultural Sub-sector To become the nature tourism attraction in the region that is climate resilient	To become the nature tourism attraction in the region that is climate resilient	Climate- sensitive Ecotourism	Site-specific flood hazard mapping Mangrove Rehabilitation cum Ecotourism Development	Training on GIS Field Validation Consultation Workshops Mangrove Tree Planting Clean-up drive	

Objectives	Link to Climate Change	Programs	Projects	Activities	Policies
Sector: Economic Agricultural Sub-sector To reduce poverty and support a prosperous economy through sustainable agriculture	Drought due to increasing temperature & longer and drier summer – 50% of Riceland affected, planting season reduced, one cropping per year during El Niño.	Agricultural Development Program Climate-smart agriculture	Capacity Building for farmers on: - Crop Rotation - Alternative livelihood	Provision of training, equipment, and technologies	MOA with training, equipment, and technology providers E.O. on program management and funding Resolution of SB allowing the Mayor to enter in a MOA

¹⁹ World Food Programme, Mainstreaming Food and Nutrition Security in DRR/CCA Local Planning page 40

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3.3.1.3. PPAs from LDRRMP

Another local plan which can be a source of the structured list of PPAs of the CDP is the LDRRMP.

It is to be noted however, that the examples in Table 15 are only for DRRM response which is one of the pillars of DRRM. PPAs for the other DRRM pillars (prevention and mitigation, preparedness, and rehabilitation and recovery) should also be considered.

Goals, Objectives	PPAs	Targets	ts Key Output Objectively Responsible Time Require Frame			ectively Responsible ifiable Person/ Frame	utput Objectively Responsible Time Budgetary Requirements	
Outcomes				Indicators	Office	Frame	Php	Source
Response Goal: TO prevent casualty and possible mortality of all causes Objectives: To facilitate mobility of response team by providing 1 rescue vehicle and other emergency equipment before the end of December 2016 Outcome: Reduced possibility of casualty and morbidity	Mobilize DRRM Operating Teams Evacuation Center Management Activation of Search and Rescue	MDRRMC/ BDRRMCs/ Quick Response Teams	Operationalized evacuation centers and rescue teams	Timely disaster response.	MDRRMC, ABC	2016-2019	100T / year	LDRRMC

Table 15. Sample PPAs from the LDRRMP

Source: Local Disaster Risk Reduction and Management Plan Formulation Training Manual

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3.3.2. Classifying and Structuring Programs, Projects and Non-Projects/Services

3.3.2.1 Sifting Solutions

A. Differentiating Projects from Non-Projects

It is important to distinguish identified solutions as program, projects, non-projects/services, and legislations. Please refer to CDP Preparation Guide (2008), *Step 5: Transforming Goals into Actions*, pages 82-85, for a more detailed discussion.

Note that services or "non-projects" are regular functions of a given office to be performed by the regular staff of that office using its existing facilities and budget. It can be included in the LDIP but not in the prioritization exercise since funding for this are carried out using the Maintenance and Other Operating Expenditures (MOOE) of the concerned offices or departments. Sometimes a service or "non-project" may be upgraded into a project, following diagram below.

- B. Classifying Solutions
 - B.1 For "Non-Projects" or Services:
 - 1. Collect all non-projects and check for possible project upgrade to upgrade.
 - 2. If project upgrade is not possible, retain activity as non-project
 - > Breakdown the service or "non-project" into activity or task components.
 - Match the activity/task components with the existing capacity of the office responsible for carrying out the activity/task.
 - Suggest appropriate actions as needed.



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B.2 For Legislations:

- 1. Consult the Sangguniang Panlungsod/Bayan (SB) Secretary or, if available, the computerized legislative tracking system for existing legislations and/or Executive Orders (EOs).
- 2. Process all needed legislations, separating those that are within the LGU to enact. The rest will be lobbied at higher levels, say provincial or national.
- 3. Sift all the needed local legislations using the fishbone analysis. Please refer to CDP Preparation Guide (2008), *Step 5: Transforming Goals into Actions*, page 125.

B.3 For Projects:

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Sift all projects according to "ownership" or responsibility using Section 17 of the Local Government Code as reference.

The classification of programs and projects based on ownership is a necessary step in preparation for the Local Development Investment Program (LDIP) as it has implications on accountabilities and the determination of financial sources and financing schemes. After all programs and projects necessary to carry out the sectoral objectives and targets have been identified, these programs and projects are classified based on the categories as shown in Table 16.

PROJECT CLASSIFICATION	ACTIONS
Those for which the national government is fully responsible	These may be the subject of lobbying before Congress or in the relevant national government agencies for inclusion in their budget proposals.
Those that are fully "owned" by the local government	These will serve as inputs in the prioritization process for the 3-year local development investment program (LDIP). A project brief needs to be prepared for each of hits
Those that have the potential of being picked up by the private sector	These are essentially self-liquidating and which may be the subject of investment incentive ordinances to be enacted by the local Sanggunian.

Table 16. Project Classification Based on Ownership

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- 1. Collect all municipality/city projects and process as inputs to the preparation of the LDIP.
- 2. Distribute the other projects to various levels and sectors concerned.
- 3. Lobby national projects before Congress or directly to the NGA concerned.
- 4. Invite private investors to take on projects that promise reasonable returns.
- 5. For the LGU's "own" projects:
 - Consolidate redundant or repetitive projects.
 - Screen out obviously impractical or undesirable projects.
 - Use the Conflict-Compatibility-Complementarity (CCC) Matrix to determine the relationship between pairs of projects.
 - > Use the "Project Resource Impact Matrix" to further short-list the projects.

The table below facilitates the classification and structuring of PPAs. Once the PPAs are classified and structured, it can finally complete the structured list of PPAs. Sample of structured list of PPAs (long list) with DRR-CCA mainstreamed are shown below in the required Forms 2a and 2b of the CDP Illustrative Guide. Table 17 contains PPAs from one sub-sector while Table 18 reflects PPAs for different sectors consolidated from the sample EPSFM and examples culled out from the CLUP, LCCAP and LDRRMP.

Classification of PPAs	Ownership (NG/LG/PS)	Title / Name of PPAs
1. Legislation	LG	EO on program management and funding
	LG	Resolution of SB allowing the Mayor to enter in a MOA
2. Projects	LG	Capacity Building for farmers on Crop Rotation
	LG	Mobilize DRRM Operating Teams
	LG	Climate-smart Agriculture Program

Table 17. CDP Preparation Template Form 2a. Structured List of PPAs per Sector (Long List)

Sectoral Goal: Highly productive agricultural center and tourism hub Strategy 1 (objective): To become the nature tourism attraction in the region that is climate resilient Actions/Interventions No. Program **Program Components** 1.1.1 Training on GIS 1.1 Site-specific flood hazard 1.1.2 Field validation mapping 1. Climate-sensitive 01 1.1.3 Consultation Workshops Tourism Program 1.2 Mangrove Rehabilitation 1.2.1 Mangrove Tree Planting cum Eco-tourism 1.2.2 Clean-up drive Development

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Table 18. CDP Preparation Template Form 2b. Structured List of PPAs per Sector and

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		ă	evelopment	Indicator (Lor	ıg List)		
Sector / Sub-sector	Goals	Objectives / Strategy	Core Concerns	Indicator of Development (LDIs / RaPIDS)	Program	Program Components	Actions / Intervention
Sector: Economic Sub-sector: Tourism	Highly productive agricultural center and tourism hub	To become the nature tourism attraction in the region that is climate resilient	Ecotourism	Increase in annual tourist arrival	1.Climate- sensitive Tourism Program	1.1 Site-specific flood hazard mapping	1.1.1 Training on GIS1.1.2 Field validation1.1.3 ConsultationWorkshops
						1.2 Mangrove Rehabilitation cum Eco-tourism Development	1.2.1 Mangrove Tree Planting 1.2.2. Clean-up drive
Sector: Economic Sub-sector: Agriculture	Highly productive agricultural center and tourism hub	To reduce poverty and support a prosperous economy through sustainable agriculture	Agriculture	Increase in crop yield and income of farmers	2.Climate- sensitive Tourism Program	2.1 Capacity building for farmers	2.1.1 Provision of training, equipment, and technologies 2.1.2 Seminar / Training on the use of climate-proof crops
Sector: Social Sub-sector: Protective Services	Well maintained and adequate resilient infrastructure facilities	To have an efficient, quality, and safe public infrastructures that employ disaster and climate change- proof design	Transportation	Reduced incidence of flooding	3. Flood and storm resilient drainage system	3.1 Construction of drainage system	3.1.1 Development of design for the drainage system
Sector: Social Sub-sector: Protective	Citizens as active and self-reliant participants of development	To prevent casualty and possible mortality of all causes	DRRM	Reduced possibility of casualty and morbidity	4.Mobilization of DRRM Operating Team	4.1 Capacity Building of DRRM Operating Teams	 4.1.1 Seminar / Training for Search and Rescue 4.1.2 Provision of equipment for search and rescue
Sector: Social Sub-sector: Housing	Citizens as active and self-reliant participants of development	To provide safe and adequate housing needs	Informal settler	Reduced possibility of casualty and morbidity	5.Comprehensive Housing Program for Affected Families	 5.1 Relocation of informal settlers 5.2 Provision of livelihood programs to relocated families 	 5.1.1 Construction of relocation sites 5.2.1 Livelihood Training

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Things to Consider

Guide questions in ensuring risk-lens in identification of development interventions:

1.What infrastructures could address the impacts of climate change in the locality?

2.What social capital is available for reducing sensitivity? For enhancing adaptive capacity? For reducing vulnerability?

3.What are the mechanisms of the local governments that will equip them before, during and after disasters?

4. What are the measures to protect ecosystems from impacts of climate change, be it upland or lowland, coastal or forests?

5. What are the available alternative livelihood and income generating activities to support the populace in times of disasters?

6.What are the mechanisms to reduce impacts of climate change in agriculture? In forestry? In trade and commerce?

7.Are there specific projects to address climate change and disasters in the locality?

STEP 3 TO DO CHECKLIST:

Scenario 1 (Without/outdated CDP, Without CLUP) and

Scenario 2 (Without/outdated CDP, With CLUP not DRR-CCA mainstreamed) 1. Analyze the LGU situation.

a. Integrate CDRA results into the EP by either embedding the climate and disaster information in each of the sectors or inserting the CDRA results as a separate section of the EP.
b. Fill-up the EPSFM
c. Conduct the VRG

2. Formulate sectoral goals and objectives

a. Build from the EPSFM and the VRG to formulate the risk-sensitive sectoral goals and objectives b. Take into consideration the goals and objectives from other local plans

- that were reviewed in Step 2.
- **3. Prepare Structured List of PPAs.** a. Consolidate PPAs identified b. Cull-out PPAs from other local plans

Scenario 3 (Without/outdated CDP, With DRR-CCA mainstreamed CLUP):

1. Analyze the LGU situation.

a. Sectoral Studies of the enhanced CLUP can be an alternative to the risk-informed EP b. Fill-up the EPSFM

- c. Conduct the VRG
- 2. Formulate sectoral goals and objectives

a. Build from the EPSFM and the VRG to formulate the risk-sensitive sectoral goals and objectives b. Take into consideration the goals and objectives from other local plans that were reviewed in Step 2.

- 3. Prepare Structured List of PPAs.
 - a. Consolidate PPAs identified in the EPSFM
 - b. Cull-out PPAs from other local plans

Scenario 4 Updated CDP, With or without CLUP):

- 1. Check whether risk and vulnerability information and analysis are included in the
- Ecological Profile/CDP. IF not, follow steps for Scenarios 1 and 2.
- 2. Check if sectoral goals and objectives are risk-sensitive.
- If not, enhance sectoral goals and objectives.
- 3. Check whether the DRR-CCA PPAS in the Structured List of
- PPAs. (Form 2a & 2b)

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The LDIP serves as the main instrument for CDP implementation. The investment program is the link between the plan and the budget (Sec. 305 (i), RA 7160). It consists of a list of programs and projects with costs to be funded by the LGU and external sources, within the timeframe of three years.

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The structured list of PPAs identified during the third step of the CDP which was generated with the guidance of CDRA results will be the needed inputs in the preparation of a risk-informed LDIP.

Based on the CDP Preparation Guide (2008), the LDIP preparation involves a pre-activity of preparing the project briefs followed by three streams: (1) screening and prioritization of structured list of PPAs, (2) determining investment potential and (3) formulating the corresponding Local Resource Mobilization Program (LRMP) and Financing Plan. Inputs and participation of the sectoral committees of the LDC shall be required in the preparation of the LDIP.

Disaster risk reduction and climate-resilient development should be pursued by including risk-sensitivity in designing, selecting, and prioritizing PPAs. Enhancing designs of PPAs to minimize impacts of climate change according to risk levels of location and population should be done in the preparation of the project brief by integrating the CDRA results.

4.1 Pre-LDIP: Preparation of Project Brief

The LDIP process commences with the preparation of project brief for each PPA in the structured list (long list of PPAs). These project briefs contain the rationale, objectives, cost and components of the with consideration of the risk information from CDRA results. Among the other project details include but are not limited to the following:

- a) Name and type of program/project
- b) Brief description
- c) Program/project/components including duration
- d) Estimated cost
- e) Proponent

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- f) Justification of the project (project benefits)
- g) Intended target beneficiaries (include gender considerations)
- h) Program/ project term
- i) Target outputs or success indicators
- j) Possible risks or external factors that could affect the realization of the project
- k) Adaptation/mitigation measures or risk reduction measures employed (if applicable). Also, indicate here if the project aims to reduce risk or enhance adaptation or has the potential to create or increase risk.
- I) Expected stakeholder's response (if applicable)
- m) Potential sources of funds (local and international, if applicable)

The project's description and rationale should highlight risk information based on CDRA results. For example, how the project can increase existing adaptive capacity and reduce risks and vulnerabilities. Intended target beneficiaries could also identify vulnerable population (e.g., poor, informal settlers, senior citizens) especially those in risk areas.

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Moreover, the inclusion of "possible risks or external factors that could affect the realization of the project as well as "adaptation measures or risk reduction measures employed" as part of the project brief template must be emphasized. The unavailability of funds or external issues, social and economic factors, project's hazard risk category and location, and associated level of vulnerability and risk based on CDRA results should be included in the project brief. Potential for new risk or increasing existing risk should also be analyzed and considered before any development project is undertaken. In case of such potential, risk mitigation options should be clearly defined.

With the identified potential risks, measures to reduce those should be included if applicable. An example of risk reduction measure of projects may include design that would address potential climate change impacts by addressing current risks, preventing future risks (e.g., climate-proofing/climate sensitivity), proper location and construction of built environments and sustainable use and management of natural resources. See CDP Preparation Template Form 3b with enhanced questions to integrate DRR-CCA in project brief preparation.

A sample project brief in Table 19 reflects the terms resilient, disaster risks, and vulnerabilities.

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5.	Target Beneficiaries
6.	 Population sectors or geographical areas Specify how men and women or specific areas will benefit Identify vulnerable population (e.g., poor, informal settlers, senior citizens) especially those in risky areas. Target Outputs or Success Indicators
	 Quantify if possible Include indicator of success and means of verification What complementary measures are needed to ensure project success or reinforce the intended effects? Will the project lower transaction cost? Will the project reduce barriers to participation? Will the project increase local area employment? Will the project increase income multiplication? What will be the public revenue and expenditure impacts of the project? Is the project meant to improve area socio-economic performance in any other ways?
7.	 Possible Risks or External Factors that Could Frustrate the Realization of the Project May be natural, social, economic, etc. Identify level of vulnerability and risk? Are there risks in establishing and implementing the project?
8.	Adaptation / mitigation measures or risk reduction measures employed

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- Are the identified possible risks provided with proposed measures to reduce them?
 - Are measures to reduce risk of adapt to climate change included?
 - Does this project have the potential to create/increase risk or increase vulnerability?
- 9. Expected Private Sector Response
 - Specify desired private sector participation, e.g., investments
 - What are the expected responses by the private sector and other stakeholders to the changes that will result from the project?
- 10. Potential Sources of Funds

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• Can this project be potentially funded outside of the LGU's fund from national or international sources?

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Table 1	9. 9	Sample	Project	Brief
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Name of Program/Project	Flood and Storm Resilient Drainage System		
Brief Description:	The construction of flood and storm resilient drainage system in the municipality will cater the urban barangays in the municipality, which was identified as flooded urban areas during the conduct of CDRA. This would lead to facilitate system of flow of water going to the SF River, mitigate, control and eliminate the inundation at central business district of the municipality especially during typhoon season and rainy days.		
Program / Project Components	Improvement / Rehabilitation of Drainage System Mapping of the Proposed Master Drainage Plan Reforestation / Massive Tree Planting Establishment of Retention Area Stakeholders consultation Consultation on flood study and review Identification of barangays/location for retention area Information, Education and Communication Advocacy		
Estimated Cost	Total Estimated CostPhP 20.0 millionImprovement / Rehabilitation of Drainage System Phase 1PhP 5.0 millionImprovement / Rehabilitation of Drainage System Phase 2PhP 7.0 millionEstablishment of Retention AreaPhP 8.0 million		
Proponent and Partner Organizations	MLO, MPDO, MDRRMO, Mayor's Office NGAs: DPWH, PEO, NEDA, DILG, DTI, DOT NGOs, CSOs, POs: Local Kiwanis Club, JICA, USAid		
Justification	In line with the municipality's goal to be resilient community, the construction of flood and storm resilient drainage system needs to be prioritized and realized. The municipality is a natural flood prone area, hence putting up retention area will help mitigate and control the flow during precipitation and natural hazards. The improvement/rehabilitation of the drainage system on the urban barangays will benefit the community, commercial establishments, thus, making the urban areas resilient and flood free community. The reduction of flooding incidence in this area due to this project will improve not just the economy but increase safety of the communities as well.		
Intended Beneficiaries	4,388 families, about 1/3 are poor households 200 commercial and financial establishments Nearby barangays and two adjacent municipalities		
Program Term	Total Project Duration Improvement / Rehabilitation of Drainage System Phase Improvement / Rehabilitation of Drainage System Phase 2 Proposed Master Drainage Plan Mapping Reforestation / Massive Tree Planting Establishment of Retention Area Years	5 years 13 months 6-9 months Years 1 and 2 Years 2 to 4 3 to 5	
Target Output	25% of drainage system rehabilitated / improved 0% of urban flooded barangays Reduce the 20.94 affected population to 10% exposed to flash flood Established retention area on identified barangay area		
Possible Risk	Lack of funds, urban areas are flooded especially during typhoon season and rainy days		
Adaptation / mitigation Measures or risk reduction measures	Use of Climate change resilient design standards for flood volume. Incorporating ecosystem-based adaptation into the strategy such as Sustainable Reforestation, Maintenance of Drainage System, Maintain and control Retention Area,		
Expected Stakeholders' Response	It is socially acceptable by the community considering that it will enhance accessibility to health, education and other services and facilities that are available at the urban center thus putting up the populace in a safe and secure community. The intention of this part is to encourage the beneficiaries of the project to put up their own projects/investments to create a synergy of benefits and/or maximize capital built up in the target community.		

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4.2. LDIP Stream 1: Screening and Prioritization of the Structured List of PPAs

The prepared project briefs are the basis for screening and prioritization of PPAs. In the initial screening of projects, redundant proposals shall be consolidated. Impractical or undesirable projects (i.e. new development proposed location is located in high risks areas not related to risk reduction/mitigation measures) and those that can be aptly implemented by and identical to those proposed by other institutions (i.e., national or regional offices) shall be eliminated from Screening list. the in terms of complementarity, compatibility and conflict and its impacts to resources (i.e., natural, human, infrastructure, and financial) should also be conducted to shortlist an inordinately long list of projects. The CCC Matrix and

PPAs identified from the Local Disaster Risk Reduction and Management Plan (LDRRMP) without funding from the Local Disaster Risk Reduction and Management Fund (LDRRMF) as well as from the local Climate Change Action Plans (LCCAP) should be considered in the prioritization exercise. PPAs identified with funding from LDRRMF shall be considered as part of the LDIP. These shall not be sujected for ranking and prioritization as fund source is already determined (DILG-DBM-NDRRMC JMC 2013-01). However, if the LDRRMP projects are unfunded, it should be included in the structured list of PPAs for prioritization. Also, projects in the CDP which are eligible for funding in th LDRRMF can be culled out and included in the LDRRMP for implementation.

Project Resource Impact Matrix as provided in the Guidelines on the CDP Preparation can be used as necessary.

Table 21 shows an example of the CCC matrix among three projects. The relationships of the proposed projects are indicated in the cells:

- If the relationship is one that is repetitive or redundant, mark the cell with "Y".
- If the relationship is one of conflict, mark the cell with "X".
- If the relationship is one of complementarity, mark the cell with an "O".
- If the relationship is one of compatibility, or if it is neutral, leave the cell blank.

Projects identified as redundant or repetitive shall be consolidated, in the example (Table 20) Project 3 and 4 located in the same area are similar or redundant project. The decision should be to retain just one of them and since Project 3 have the DRR-CCA enhancement, the LDC should decide if it is willing to pay a little more to enjoy the risk reduction benefits. The LDC may also choose to remove from the initial list projects which conflict with many/most projects. In the example, Project 5 seems to be in conflict with most of the other projects. Also, projects which conflict with some but are compatible or complementary with others may be reformulated to resolve the conflict/s.

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Proposed Projects	1. Climate- Sensitive Ecotourism	2. Climate Smart Agriculture	3. Flood and Storm Resilient Drainage System	4. Drainage Improvement	5. Quarrying Project
1. Climate- Sensitive Ecotourism					
2. Climate- Smart Agriculture					
3. Flood and Storm Resilient Drainage System	0	0			
4. Drainage Improvement			Y		
5. Quarrying Project	Х	Х	Х	Х	

Table 20. Sample CCC Matrix

With the Resource Impact Matrix (Table 21), each proposed project is examined in terms of its demand or impact to the natural, human, infrastructure, and financing resources of the LGU. Table 22 provides suggested parameters for Resource Impact Matrix to guide LGU in scoring resources based on positive or negative impact of a project. A positive sign (+) is indicated in the cell if the project contributes to an increase in the quantity or improvement in the quality of the resources. However, a negative sign (-) is indicated if the project will lead to a decline in the quantity or reduction in the quality of the resource. Put a zero (0) if no effects are seen. Total positive and negative scores are summarized in the last two columns (total impact). If the project gets a net negative score, this shall be rejected. The list of projects shall be ranked with the highest net positive score to the lowest. DRR-CCA projects usually have positive impacts on LGU's resources and thus more likely to get passed this screening procedure. Although, adaptation or risk reduction measures are often seen to have increased need for financial investment, these are usually justified by their benefits.

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Table 21. Resource Impact Matrix

Branacad Braiaeta	Natural Resources	Human Resources	Infrastructure	Financial	Total Impact	
Floposed Flojects					+	
Climate –Sensitive Ecotourism	+	+	0	+	3	0
Climate-Smart Agriculture	+	+	0	+	3	0
Flood and Storm Resilient Drainage System	+	0	+	-	2	1
Project 4						
Project 5						
Project 6						

Table 22. Suggested Parameters for Resource Impact Matrix

Resources	DESCRIPTION	PARAMETERS FOR PRIM SCORING
Natural	Use: Those that can be depleted: fossil fuels Those that can be renewed: timber and other products from plants Quality: "Carbon sinks" – forest, oceans Natural heritage, assets (e.g. eco-tourism) Fragile environment – exposed to hazard and climate change impacts Fragile flora and fauna	 (+) Promotes conservation, protection, regeneration/restoration, substitution (abundant over scarce resources) (-) Pollutive, extractive, destructive (0) No Effect
Human	Use: Those that pertain to use of knowledge, skills, capacities, time, effort, etc. of LGU staff, local labor, academe, and other institutions. Quality: Health (sanity?), safety, security, human right, labor practices	 (+) Promotes/builds KSC, respects human right and diversity (culture, gender, etc), promotes safety and security, fair remuneration and work conditions, etc. (-) Creates conditions that undermine working and living conditions and working relationships (0) No Effect
Infrastructure (+Technology)	Use of infrastructure and technology that are available to the LGU to make the delivery of the project more efficient and effective and to create quality projects	 (+) Optimal, indigenous/locally available, promotes safety and resilience, environment-friendly (-) Pollutive, Relies on too many imported inputs, creates more vulnerabilities (0) No Effect
Financial	Fiscal resources of the LGU – revenues, transfers, etc.	 (+) Creates more revenues/assets, self-liquidating, mobilizes/leverages additional funds, environmental and social cost of the project can be absorbed, promotes transparency, accountability, and equitable distribution of wealth (-) Dislodges many other programs/ projects, use of funds will result in questionable transactions. (0) No Effect

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Ranking of projects based on the Criteria for Determining Level of Urgency of Projects and the Goal Achievement Matrix (GAM) will be done through a participatory workshop. The Urgency Test Matrix subjects the different proposed projects to some indicators of necessity. It is used to prioritize projects that are sensitive in terms of time and importance to maintain or push forward the functioning of the LGU. DRR-CCA projects are deemed urgent because of some negative implications to life, property, and public welfare if they are not done. This is especially true if the levels of risk and vulnerability have reached or exceeded the threshold (refer to CDRA) that the community and ecosystems can allow. Also, the LDC can use GAM in ranking projects using the LGU's risk sensitive development goals or vision as evaluation criteria. A risk sensitive vision or goal includes DRR-CCA descriptors formulated in Steps 2 and 3, respectively.

The Urgency Test prioritization exercise is done either at the sectoral or LDC plenary level. The exercise simply subjects all the proposed projects to the Urgency Test Matrix (Table 23) that contains several criteria of determining whether the project is Urgent, Essential, Necessary, Desirable, Acceptable, or Deferrable. This is important because of the limited resources available and efficiency in its use should ensure that it is utilized for Urgent projects first before considering those essential or necessary. DRR-CCA projects usually falls on the "urgent" category due to its nature of giving "remedy conditions dangerous to public health, safety, and welfare". However, the level of risk and vulnerability based on the Steps 4 and 5 of the CDRA (CCVA and DRA) should also be taken into consideration before identifying the project as urgent.

Often, the **risk and vulnerability are** recognized to be **a safety concern** for the community and **a development impediment** to the LGU. Although, recognizing the more holistic disaster risk framework (DRRM Law) and vulnerability framework (CC Law), "Urgent" projects can also be categorized as those that "build resilience and sustainability by reducing risk or vulnerability". This can now include **projects** that significantly **impact** increase in adaptive capacity or lower sensitivity of individuals or community.

LEVEL OF URGENCY	CRITERIA
URGENT	 a. Projects that cannot be reasonably postponed b. Projects that would remedy conditions dangerous to public health, safety and welfare c. Projects that builds resilience and sustainability by reducing risk or vulnerability d. Projects needed to maintain critically needed programs e. Projects needed to meet emergency situations
ESSENTIAL	 a. Required to complete or make usable a major public improvement b. Required to maintain minimum standards as part of on-going programs c. Desirable self-liquidating projects d. External funding is available
NECESSARY	 a. Should be carried out to meet clearly identified and anticipated b. Needed to replace obsolete or unsatisfactory facilities c. Repair or maintenance projects to prolong life of existing facilities
DESIRABLE	 a. Needed for expansion of existing projects b. Designed to initiate new programs considered appropriate for a progressive community
ACCEPTABLE	a. Can be postponed without detriment to present operations if budget cuts are necessary
DEFERRABLE	 a. Recommended for postponement or elimination from immediate consideration in the current LDIP b. Questionable in terms of over-all needs, adequate planning or proper timing

Table 23. Urgency Test Matrix

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The GAM shall be conducted by various societal sectors such as women, elderly, business, government, academe, youth, Persons with Disabilities (PWDs), etc. Based on the perceived importance of each sectoral goal or vision descriptor, the societal sectors shall assign weights to each goal or vision descriptor. The numerical elements should be equal to 1.0 or 100%. Each proposed project is assessed by the groups following the scale from +3 to -3 as described by Table 24.

3	Project contributes greatly to the fulfillment of the goal or vision
2	Project contributes moderately to the fulfillment of the goal or vision
1	Project contributes slightly to the fulfillment of the goal or vision
0	Project does not contribute to the fulfillment of the goal or vision
-1	Project slightly inconsistent of the goal or vision
-2	Project moderately inconsistent of the goal or vision
-3	Project greatly contradicts the goal or vision

Table 24. GAM Rating Scale

The rating (ranging from +3 to -3) given by the group shall be multiplied to the assigned weight. The product of the rating and weight shall be indicated in the score column. Either the sectoral goals or the descriptors of the risk-sensitive vision of the city/municipality can be used as criteria of the GAM in ranking the PPAs to be included in the risk-informed LDIP. Table 25 reflects an example of GAM using the sectoral goals.

The scores per project from each of the societal sectors are summed up as shown in Table 26. The project with the highest total score is ranked first priority. A ranked list of projects, which indicates location and cost estimate, is prepared (Table 27). Refer to CDP Illustrative Guide Form 3a for the ranked list of projects for the three-year investment programming of the LGU.

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SEC	TORAL GOALS			F	ROJECT	-		
Sector	Goals	WEIGHT (100% or	Climate Agrici	-Smart ulture	Clim Sens Ecoto	ate- itive urism	Flood and Resili Drainage	l Storm ent System
		1)	Rating	Score	Rating	Score	Rating	Score
Social	Citizens as active and self- reliant participants of development	0.25	1	0.25	1	0.25	0	0
Environmental	Safe, clean and ecologically balanced environment	0.25	3	0.75	2	0.25	3	0.75
Economic	Highly productive agriculture and tourism hub	0.20	3	0.6	3	0.6	1	0.20
Infrastructure	Well maintained and adequate resilient infrastructure facilities	0.15	2	0.3	2	0.3	3	0.45
Institutional	An efficient and effective local organization	0.15	1	0.15	1	0.25	1	0.25
	TOTAL	1.00		2.05		1.90		1.65

Table 25. Sample GAM Using LGU's Risk-Sensitive Sectoral Goals

Societal Sector: Women

Table 26. Summarized GAM Ratings

Project		Sector	Rating		Total	Ponk
Floject	Women	Business	Academe	Government	Score	Rallk
1. Climate-Smart Agriculture	2.05	2.75	2.3	2.15	9.25	2
2. Climate-Sensitive Ecotourism	1.95	2.85	2.4	2.25	9.45	1
3. Flood and Storm Resilient Drainage System	1.55	2.5	2.45	2.4	8.9	3

Table 27. Ranked List of Projects Using GAM

Project Rank	Project Name	Estimated Cost (in Php million)	Cumulative Cost (in Php million)
1	Climate-Sensitive Ecotourism	1.6	
2	Climate-Smart Agriculture	2.9	4.5
3	Flood and Storm Resilient Drainage System	2.0	24.5
	Total	24.5	

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Some DRR-CCA programs and projects, especially those that are hard infrastructures, can be completed beyond the three-year period of the LDIP. These ranked and prioritized projects longer than the first three years should still be considered in the mid-term updating of the CDP and included in the succeeding three-year LDIP.

4.3. LDIP Stream 2: Determining the Investment Financing Potential

This process is conducted by the Local Finance Committee (LFC) composed of the C/MPDC, Budget Officer, and Treasurer to cross-match ranked PPA list with available resources. Understanding the investment funding needs an analysis of the historical trend of the LGU's revenue, recurring operating expenses and level of public debt, relationship of the revenue and expenditure items to its population, and economic development as a basis for projection of future revenue and operating expenditure levels. The output of this is a new Investment Financing Potential Form (Form 3c of CDP Illustrative Guide).

4.3.1 Collect Appropriate Revenue Data and Determine Historical Trends

Data on revenue for the past three to five-years shall be collected and analyzed in terms of its average annual growth rate. This includes real property taxes (RPT), business fees and licenses, other taxes, service and operations income, and internal revenue allotment among others.

4.3.2 Collect Appropriate Operating Expenditure Data and Determine Historical Trends

This include data and analysis of operating expenditures (personal services, and MOOE), general public services, social services, economic services, and other LGU's expenditure items such as debt services.

Understanding expenditures due to disasters and effects of climate change should be included in this step. These historical analyses can be retrieved from records of previous disasters which is an output of CDRA Step 1. LGU may also use the results of Post-Disaster Needs Assessment (PDNA) which reflects the damage and recovery costs due to disasters and effects of climate change.

In terms of LDRRMF utilization, trends in expenditures and investments in pre-disaster (e.g., disaster preparation and mitigation) and post-disaster events (disaster response, recovery, and rehabilitation) should be analyzed. This should not only be structural and infrastructure interventions (e.g., road dikes, drainage systems, relocation) but also non-structural initiatives (e.g. development plans, building/structural codes, and risk insurance). Studies show that 54% of LDRRMF are expended for disaster response and rehabilitation in the Philippines²⁰ while globally 65.5% and 21.7% go to emergency response and reconstruction and rehabilitation, respectively.²¹

In the LDIP preparation, climate change investments of the LGU, which include number of PPAs, budget/expenditures on CC adaptation and mitigation measures, should be considered in the historical analysis of the LGU's expenditure. The results of the historical expenditures should be a good decision point on strengthening disaster preparedness, mitigation, and climate change adaptation rather than reactive disaster and CC expenses.

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²⁰ Commission on Audit, Assessment of disaster risk reduction and management at the local level, 2014

²¹ ODI and UNDP, Finance for reducing disaster risk: 10 things to know, 2015

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4.3.3 Establish Structural Relationships of Revenue and Expenditure Items to Population and Economic Development

Among the key factors that must be considered in assessing structural relationships between revenue and expenditure items are the following:

- Overall national and regional economic picture, including development trends;
- Demographic shifts; and
- Changes in the local market, particularly in the local labor market.

4.3.4 Project Future Recurring Revenue and Operating Expenditure Levels

Future recurring levels can be projected based on a careful assessment of all probable factors that affect each revenue source. RPT collection should be projected separately because of its large contribution to LGU revenue sources; and because real properties will be the main beneficiary of LGU investments in terms of increased values. Business fees and licenses, other taxes, services and operations, and all others can be projected using either the historical growth rates (with or without adjustments). Future normal recurring expenses can be projected using either of the following techniques:

- Historical three to five-year annual average expenditure increase; or
- Historical average expenditure per unit of output in the case of LGU business enterprises.

4.3.5 Compute the Financial Surplus Available for the Financing of New Investments

The new investment capacity of the locality can be computed by looking into the projected revenues, deducting projected operating expenditures and existing debt service requirements and summarized in template Table 28.

léana Nia	l te une			Year		
item No.	item	1	2	3	4	5
1	Project Revenue					
2	Less: Projected Operating and Mandatory Expenditures					
2.1	MOOE					
2.2	Capital Outlay					
2.3	Debt Service					
2.4	Project Revenue					
2.5	Other Contractual Obligations					
2.6	5% LDRRMF					
3	Subtotal (3=item 1-2)					
4	New Investment Potential					

Table 28. New Development Investment Financing Potential, 20XX to 20XX

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4.4. LDIP Stream 3: Formulating the LRMP and Financing Plan

During the formulation of the Financing Plan, the following are identified:

- Which of the approved DRR-CCA PPAs can be funded through regular funding sources for the three-year period? The LGU can fund projects if there are financial surplus for new investment financing from estimating LGU revenue less operating expenditures and debt servicing requirements (if any).
- Which PPAs have to be financed from other sources?

The investment program is prepared when the final list of projects is deliberated upon by the LDC. The list is finalized when a proper match is attained between the total project cost and available funds on a year-by-year basis. If the aggregate cost is more than the amount of available investible funds, the LDC deliberates on and decides what financing approach to take.

The LDC with the assistance of the LFC shall determine which financing approach to take – **developmental**, **conservative**, **or pragmatic**. Should the LGU choose the conservative approach, list of PPAs to be implemented would have to be cut down to work within the New Investment Financing Potential only. On the other hand, should a developmental or pragmatic approach be used, a Resource Mobilization Plan and other financing options will be pursued. In any case, ranked PPAs should ensure that projects will promote more resilient and safe communities.

The LGU may consider various financing from its local funds, national government, private sector, as well as international sources. Aside from the local development fund, local tax collections, different funding source for DRR-CCA like the People's Survival Fund (PSF) and Support for the Local Governance Program (SLGP), and risk sharing schemes can also be sought. Government and private insurance facilities can serve as a risk-sharing option such as various government insurance provider institutions and the list of non-life private insurance providers from Insurance Commission (www.insurance.gov.ph/regulated-entities/life-and-non-life-companies/). Official Development Assistance (ODA) may also be sources of funds for the implementation of the said PPAs such as the Global Environment Facility, Special Climate Change Fund, and Adaptation Fund. (See Annex G for the list of information on international financing options).

The Local Planning and Development Office (LPDO) prepares the three-year investment program and submits the draft LDIP to the LCE. The LCE, as the Chair of the LDC approves the LDIP and endorses to the Sanggunian for adoption.

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STEP 4 TO DO CHECKLIST:

Scenario 1 (Without/outdated CDP, Without CLUP),

Scenario 2 (Without/outdated CDP, With CLUP not DRR-CCA mainstreamed), and

Scenario 3 (Without/outdated CDP, With DRR-CCA mainstreamed CLUP):

1. Prepare Project Brief using the preparation template 3b as guide.

2. Screen and prioritize PPAs from the structured list using suggested prioritization tools.

a. Screen the PPAs in terms of complementarity, compatibility and conflict using the CCC test.

b. Screen project impacts to resources using the Resource Impact Matrix.

c. Through a participatory workshop, rank projects based on the Criteria for Determining Level of Urgency of Programs.

d. Screening using risk sensitive vision and/or development goals of the LGU using the Goal Achievement Matrix (GAM).

3. Determine investment potential.

a. Collect revenue and operating data and determine trends. Analyze DRRM and CCA/M expenditures.

b. Project future recurring revenue and operating expenditure levels.

c. Compute funds available for financing new investments.

4. Formulate LRMP and Financial Plan

a. Local Finance Committee composed of the C/MPDC, Budget Officer and Treasurer should cross-match ranked PPA list with the available resources.

b. In case funding from outside sources is necessary, determine which financing options to pursue.

c. Prepare the Local Development Investment Program. Tag climate change adaptation and mitigation PPAs in the LDIP and AIP.

Scenario 4 Updated CDP, With or without CLUP):

1. Check if the PPAs in the AIP and LDIP are risk informed.

2. If the PPAs are not risk-informed, follow steps for Scenario 1-3

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The fifth and last step in the CDP formulation is the formulation of needed policy instruments and determining what authority levers that will support the implementation of priority risk-informed PPAs in the LDIP. This includes the Annual Investment Program (AIP), legislative requirements, capacity development interventions, and monitoring and evaluation strategies. This step provides the linkage from planning to budgeting and completes the cyclical nature of planning through monitoring and evaluation, which serves as a take-off point for the next planning period.

The following sub-steps should be undertaken by all LGUs once the LDIP is prepared.

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5.1 Prepare the AIP

The AIP refers to the annual slice of the LDIP which includes all the resources requirements of PPAs such as capital expenditure and operating requirements. Pursuant to DILG-NEDA-DBM-DOF JMC No.1 Series of 2016,²² the LDC for cities and municipalities shall cull out the AIP from the current slice of the risk-informed LDIP, which upon approval of the Sanggunian, shall serve as the basis for preparing the executive budget.

As part of the expenditure and investment monitoring for Climate Change, LGUs are required to accomplish the Climate Change Expenditure Tagging (CCET) using the guidelines in DBM-CCC-DILG JMC No. 2015-01 dated July 23, 2015.²³ CCET is the process of identifying and tagging PPAs as climate change adaptation or mitigation and is used as basis for determining alignment to the thematic priorities of the National Climate Change Action Plan (NCCAP).

LGUs are directed to use the prescribed AIP Summary Form/Form 4 (Annex I) which captures the amount budgeted for adaptation-related PPAs, amount budgeted for mitigation-related PPAs, and the CC typology code. LGUs must furnish the CCC an electronic copy of their AIP form and CCET Analysis Tool, in addition to their submission to DBM and DILG for budget preparation process. Inclusion of the risk-informed PPAs in the AIP ensures that these will be funded and implemented in the current year.

5.2. Identify Priority Legislative Requirements Needed to Implement the LDIP/AIP

Legislative requirements in the CDP are the priority legislations or regulatory measures that need to be enacted by the Sanggunian to support development priorities of the LGU in the medium – and long – term. These may include new legislation, amendments to existing legislations, as well as those that will enable LGUs to access and/or leverage external support to implement PPAs (e.g. resolution to enter into contract with academic institutions who can provide technical assistance in drafting proposals for the PSF or other loans and grants from national and multi-lateral development agencies). The list of other funding sources that the LGUs can tap to implement risk-informed PPAs is found in Annex H.

In mainstreaming DRR-CCA, legislative requirements supporting risk-informed PPAs should be included. Foremost among these needed legislations are:

- a. the adoption and approval of a risk-informed CDP and its sectoral plans (including its related capacity development program and monitoring and evaluation strategy);
- b. Sangguniang Panlungsod/Bayan Resolution authorizing the local chief executive to enter into a memorandum of agreement with funding institutions;
- c. regulatory measures to support effective implementation and management of risk-informed PPAs; and,
- d. legislations to implement adaptation and mitigation measures (e.g. energy efficiency, urban greening).

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²² JMC 2016-01: Updated Guidelines on the Harmonization of Local Planning, Investment Programming, Resource Mobilization, Budgeting, Expenditure Management, and Performance Monitoring and Coordination in Fiscal Oversight

²³ JMC 2015-01: Revised Guidelines for Tagging/Tracking Climate Change Expenditures in The Local Budget (Amending JMC 2014-01, Dated August 7, 2014)

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To be guided on what actions to undertake regarding legislative requirements the fishbone analysis can be used (please refer to the Guide to CDP Preparation for LGUs). It is suggested to involve the Sangguniang Panlungsod or Bayan during this process. Figure 15 describes how the fishbone analysis is used. Priority legislative requirements are summarized in the prescribed Summary Form shown in Table 29



The Fishbone Analysis or fishbone diagram is a visual analysis tool to determine root causes of a particular problem. In the case of the CDP, an inverted fishbone diagram is created to guide decisions whenever legislation is needed. When legislation is deemed necessary, it must be assessed whether it is within the powers of the LGU. If it is not, then the legislation must be lobbied at higher levels (e.g. provincial or national policy-making bodies). If the legislation is within the LGU's power but not existent, it should be enacted as a new local ordinance. If the legislation is existent, it must be reviewed in terms of its soundness and efficacy of implementation to decide appropriate actions on that particular legislation. As shown in the diagram, the texts in violet are the proposed actions as a result of the different



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 Table 29. Sample Priority Legislative Requirements Summary From (Form 5b)

Sector	Goal	Objectives	Priority program/ project / activity	Legislative requirements	Timeframe	Committee responsible
(Development sectors)	(Sectoral Goals based on vision and situational analysis)	(Objectives based from the sectoral goals)	(Inclusion of priority risk- informed PPAs)	(Policy interventions from the expanded summary issues matrix; existing ordinances	(Target year or month when the legislative requirement will be implemented	(Office in- charge of implementing the legislative requirement)
Example						
Environment	To promote pollution free and ecologically balanced highly urbanized Tacloban City	To ensure smoother delivery of basic services in relation to Environment and Natural Resources particularly on the conservation of the water bodies	Establishment of Sanitary Landfill, Composting and Material Recovery Facilities.	City Solid Waste Management Code	2019	MENRO

5.3. Identify Capacity Development Interventions Needed to Implement the Risk-Informed LDIP/AIP

Another form of implementation instrument in the CDP is the capacity development intervention identified to support the implementation of PPAs in the LDIP and AIP. The regular CDP process involves formulation of a capacity development program to address competency gaps and improve current capacities as enabling instruments to effectively implement PPAs for each sectoral goal. This is done during the sectoral workshops. In mainstreaming DRR-CCA, capacity development interventions that support or strengthen implementation of risk-informed PPAs should be included

Capacity, as defined by UNDP, is the ability of individuals, institutions, and societies to perform functions, solve problems, and set and achieve objectives in a sustainable manner; while capacity development is the process through which individuals, organizations, and societies obtain, strengthen, and maintain the capabilities to set and achieve their own development objectives over time using internal existing capacity assets.²⁴ Support from external institutions in the form of capacity building is also helpful in the initial stages of creating capacities in the assumption that there are no existing capacities to start with.

Capacity covers three levels: individual capacity-skills, knowledge, attitudes and values of an individual; institutional capacity-organizational structure, leadership, and physical facilities that helps the system operate; and systems/sector capacity-policies, societal values, development frameworks, and institutional arrangement affecting the enabling environment (Guide to CDP Preparation for LGUs). Some examples of capacity development interventions across levels of capacity are skills trainings, upgrading of technological facilities, hiring of experts, partnerships with external institutions (e.g. academe, donor agencies and international institutions), and incentives or performance-based bonuses.

The following are guide questions in crafting capacity development interventions:

- a. What capacities should be present in the LGU to support the implementation of risk-informed PPAs?
- b. From which office in the LGU do those capacity gaps exist?

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²⁴ Capacity Development: A UNDP Primer

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- c. Which capacity areas need to be prioritized?
- d. What should be done to improve or develop capacities?
- e. How much time, effort, and budget would be required to improve present capacity of the LGU?
- f. Who are the persons/office to provide the capacity development interventions?

Existing capacity gaps of the LGU must be assessed to identify appropriate capacity development interventions.

Identified capacity development interventions are summarized in the prescribed Capacity Development Program Matrix (Form 5a) as presented in Table 30. In the example, suppose a highly urbanized city identified Greenhouse Gas Management Program as one of its priority PPAs; however, upon assessing competencies, the identified office in-charge does not have enough capacity on related activities to implement the program. Thus, one of the interventions is to undergo capacity building training on Greenhouse Gas Inventory to achieve specified outcomes.

It is important to note that capacity is not limited to enhancing competencies, knowledge, or skills. The LGUs should bear in mind that capacity development covers the following pillars: ²⁵

Capacity Pillar	Definition
Structure	Presence of appropriate structure (office, committee or work group) with defined authority and accountability for performing the necessary functions within a program
Competency	Knowledge and skills of people who need to perform their assigned functions in the program, including technical competencies and program management competencies
Management Systems	System, processes and procedures for managing programs, i.e., planning and budgeting; design and development; implementation; and monitoring and evaluation
Enabling Policies	Presence of policy and legislative support for planning, developing, implementing, monitoring and evaluating service delivery functions, programs and projects
Knowledge and Learning	Mechanisms for generating, analyzing and using data information as basis for decision- making and continuous improvement
Leadership	 Presence of mechanisms for: Defining vision, mission and values, and setting strategic directions Ensuring transparency and accountability in the LGU's operations Instituting participatory mechanisms Establishing partnerships and collaboration Visible sponsorship of programs

Table 30. Six Capacity Pillars

It should be noted that identification of capacity development intervention can also be done even before the ranked list of PPAs have been identified. As early as during the PSFM analysis, capacity development can already be categorized according to the six capacity pillars. (refer to Table 32 for sample capacity development program reflecting the six capacity pillars)

The cost of implementing the CapDev Agenda shall be charged against the MOOE. For CapDev interventions which may require funds beyond the allotted MOOE of concerned offices, e.g. Information Communication Technology (ICT) as part of the Management Systems Pillar, or learning exchange as part of the Knowledge and Learning Pillar, may be considered as a major project that may be considered in the succeeding year's AIP and budgeting. The identification and analysis of CapDev shall be undertaken by the Institutional Development Sector.

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²⁵ The LGU Capacity Assessment and CapDev Agenda Formulation Toolkit (Local Government Academy, 2016)

Table 31. Sample Capacity Development Program (Form 5a)

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Sectoral Goal	Priority PPAs	Priority HRD/ Capacity Development Intervention	Target Office Staff	Desired Outcome	Implementation Details
(Goal reflected in the CLUP/CDP/ELA	(Priority PPAs based on the ranked list of PPAs)	(Capacity Development Intervention to implement risk-informed PPAs related to the achievement of the sectoral goal)	(Focal staff or office responsible to needing the intervention)	(Competencies improvement and result of the intervention)	(Length or duration of implementation and persons who will provide the capdev intervention)
Example:					
To promote pollution free and ecologically balanced highly urbanized city.	Conduct of community level GHG Inventory	GHG Inventory Training	Planning Team	 Skills acquired in GHG inventory and data collection Enhanced knowledge on environmental impacts of GHG Increased capacity in GHG management 	6months, CENRO, to be assisted by CCC, DOTr, DOE

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Table 32. Expanded Problem Solution Finding MatrixShowing Capacity Development Requirements Using the 6 Pillars

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	Policies, Regulations	Issuance of Barangay resolution for annual coastal drilling. (leadership, enabling policy)				Executive Order filling out the Office of the DRRM (leadership)	Executive Order on filling out vacancies (leadership)
Interventions, Solutions	Project	Coastal drilling to reduce typhoon and storm surge flood waters (competency, Knowledge and Learning)	Capacity building activities for GIS Team in preparing exposure, vulnerability and risk maps (knowledge and learning)	Coaching sessions to TWG members on analysis of exposure database (competency, knowledge, and Learning)	To implement MIS by sharing a common databases/ linking the database to all Departments (Management System)	Career pathing project for all employees in the city hall. (Structure)	Fill out permanent vacant positions in the city. (Structure)
	Program	Widening rainwater and sewer system pipes to increase drainage capacity in 11 puroks prone to flooding.	Mainstreaming CDRA to barangay dev't planning				
	Objectives (Examples)	To improve adaptive capacities of men and women in 5 Puroks along coastal areas against flooding by end of 2022.	To complete the climate disaster risk assessment (CDRA) by end of 2019				
Goal	(Examples)	From the CDP: To pursue well- maintained and adequate, resilient coastal defences					
ysis (Examples)	Explanations and Implications	 The area is located along the coast These are areas within the high 	susceptibility flood areas; with an estimated flood height of above 1 meter.	 The estimated likelihood of occurrence is 10-30 years. Potential 	deaths and injuries due to lack of early warning system		
Situational Anal	Observed Condition	 Approximately 715 persons or (178 families) are exposed to coastal flooding. Around 60% of 	 are informal settlers are expose to coastal flooding. Degree of impacts is high. 	 Adaptive Capacity is Low and vulnerability is high. 			

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5.4. Monitor and Evaluate the Plan

Another implementation instrument of CDP is the Monitoring and Evaluation (M&E) Strategy to track progress of PPAs and evaluate outputs, outcomes, and impacts. Monitoring refers to the continuous process of data collection and analysis to check whether a project is running according to plan and to make adjustments if needed. Evaluation is the systematic process of collecting and analyzing information about activities and results of a project in order to determine the project's relevance and/or to make decisions to improve the efficiency and effectiveness of a project. Monitoring and evaluation in the CDP are tools for effective management as well as planning for the next cycle. M & E is concerned with determining the changes and impacts attributed to planned and unplanned developments. These changes manifest themselves in terms of a changed state of: social and economic well–being of the inhabitants, quantity and quality of the physical environment, and institutional capabilities for local governance. Since DRR and CCA are being mainstreamed in the CDP, changes in the level of risk and vulnerability of the locality should be evaluated.

M&E in the CDP applies differently for short term and long-term planning cycle. For short planning cycle of one (1) year (e.g. AIP) to three (3) years (LDIP), M&E of outputs and outcomes of the LGU's policy interventions can be synchronized with the three-year term of the LCE (Figure 16). The LCE's end-of-year report containing outputs and financial performance should serve as basis for the following year. Mid-term M&E of outcomes should be conducted as input to the realignment of the LDIP. Lastly, on the second quarter of the last year of the LCE's term, an impact M&E should be conducted, whether the incumbent officials get re-elected or not, to provide inputs to the next three-year planning cycle.

	Q1	Q2	Q3	Q4
Year 1	Implementation of	of Last Year Budget a o Election M&E (Impact of Previous Administration's LDIP/ELA)	and AIP of previous End-of-Term Report Inaugural of New Term Preparation of LD Preparation of Yr AIP	administration IP/ELA 2 Budget and 1 st
Year 2	Implementation of	of Yr 2 Budget and 1 ^s	AIP Preparation of Yr	3 Budget and 2 nd
			AIP	M&E (Outputs and Financial Performance) End-of-Year Report
Year 3	Implementation of	of Yr 3 Budget and 2 ⁿ M&E (Outcome of 1 st AIP)	^d AIP Preparation of Yr AIP	4 Budget and 3 rd M&E (Outputs and Financial Performance) End-of-Year Report
Year 4	Implementation of	of Yr 4 Budget and 3" o Election M&E (Impact of Outgoing Administration's LDIP/ELA)	^d AIP End-of-Term Report Inaugural of New Term	



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For longer planning cycles such as the revision of CDP and CLUP, outcome and impact M&E should be conducted at six-year and nine-ten year intervals, respectively. This coincides with the national population census to allow correlation of socio-economic and physical changes with actual population count and changes in population characteristics.

M&E for CDP involves tracking the progress and successful implementation of risk-informed PPAs and evaluating their effectiveness (achievement of objectives) and efficiency (inputs maximized to attain outputs) through measurement of indicators (e.g. proportion of infrastructure facilities that are hazard resistant). The DRR-CCA indicators in the RaPIDs can be used to determine accomplishment of DRR-CCA actions. Vulnerability and risk indicators (Annex F) as well as success indicators can also be used to measure impacts of DRR-CCA actions.

The prescribed M&E strategy template should be accomplished by LGUs (Table 33). The vertical columns of the matrix show the cause-effect relationship of inputs and outputs which contribute to the achievement of objectives and eventually the sectoral goals. Meanwhile, the horizontal rows describe the performance and target indicators for evaluation, sources of data, appropriate methods, frequency, and focal person/s. PPAs would serve as the outputs which enable the achievement of objectives and goals.

In the sample M&E Strategy template below, notice that the target indicator - proportion of Informal Settler Families (ISFs), is a sensitivity indicator for population in the exposure database of CDRA. This baseline information is useful in determining the success of the resettlement area project. Success, meaning the project is able to provide sufficient basic services like water, electricity, and all other necessary services for a decent housing. There is high probability that ISFs would move-in, thereby reducing the population of ISFs who are at risk to hazards.

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Table 33. Sample M&E Strategy

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Result	Performance Indicators	Targets for Indicators	Data Sources	Collection Methods	Frequency	Responsibility Center
(Sectoral Goals, Objectives, Outputs and inputs)	(What defines the achievement of objectives)	Specific targets or results in relation to the objectives)	(Documents or reports that demonstrate what the outputs has accomplished)	(Tools or methods how to gather or collect the data for indicators	(How frequent the data collection should be done)	(Identified offices/staff in-charge of the M & E for each objective)
Goal: (Housing) To uplift the living conditions of informal settlers and enable them to become self-reliant and active participants of development						
	Proportion of ISFs in high risk areas relocated	Reduce proportion of ISFs by 70% at the end 2019 and 100% by 1 st quarter of 2020	Reports from Barangay, BHW, and Social Workers	Site visit monitoring	Monthly	Social Welfare Officer, MDRRMO, Population Officer
Outputs: Establishment of resettlement areas in safe zones						
Inputs: Human and financial resources site plan and design						

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Table 34. Sample M&E Indicators

Sample/Recommended Success Indicators/Targets Spatial DRR-CCA	Responsible Departments/Offices	Brief Description/ Parameters for Monitoring
 Incremental relocation of 445 informal settler families in considered highly at risk to floods and/or vulnerable to sea level-rise and storm surges 	Municipal Social Welfare and Development-Municipal Planning and Development Office	Annual number of relocated informal settler families
 Increase area allocation for new residential areas to accommodate 6420 households 	Municipal Planning and Development Office	Annual number of housing units constructed and number of household beneficiaries Increase in area allocation will be measured in terms of the changes in residential land area.
 Reduction in number of families dependent on post disaster financing/ assistance 	Municipal Social Welfare and Development	Annual data on the number of households/residents who received financial and relief assistance. Data aggregation shall be at the Purok/ Zone level
 Reduction in amount spent for post disaster financing/assistance 	Municipal Budget Office, Municipal Disaster Risk Reduction and Management Office	Annual data on the cost incurred by the local government for financial assistance and disaster response and relief assistance. Data shall be aggregated at the purok/zone level
 Reduced cases of deaths, severely affected families and totally damaged structures 	Municipal Disaster Risk Reduction and Management Office – Municipal Engineering Office/Municipal Building Official	Standardized annual data on the number of deaths due to natural hazards Standardized annual data on the number of partially and totally damaged structures to natural hazards. Aggregated by building type (residential, commercial, institutional, etc) and by purok.
 95% of highly vulnerable structures are retrofitted within 2022 Achieve 95% conformance on structures employing disaster mitigation structural design standards (risk mitigation) or those located in relatively safe areas (risk avoidance) Reduce/eliminate cases where residential/non-residential structures are constructed in highly susceptible hazard areas Increase number of property owners with the capacity to afford post disaster economic protection (properly/life insurance) 	Municipal Building Official/ Engineering Department	An extensive geo referenced building database on important parameters (i.e. building type, wall and roof materials, construction cost/ assessed value, insurance coverage) established and incorporated in the annual payment of real property taxes. Inclusion of structure engineering assessment and evaluation requirement in the real property tax payment process. Annual data on the number of building owners who employed retrofitting Annual data on the number of structures conforming to hazard resistant design Annual data of existing and new building constructed in identified no-build zones Annual data of existing and new building structures with insurance coverage

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Sample/Recommended Success Indicators/Targets Spatial DRR-CCA	Responsible Departments/Offices	Brief Description/ Parameters for Monitoring
 Increase number of property owners with the capacity to afford post disaster economic protection (life insurance) 95% of population above the Poverty Index Increase average annual income of families Reduction in unemployment rate 	Municipal Planning and Development Office	Five-year interval data on the number/percentage population with life insurance coverage aggregated by household (CBMS) Five-year interval data on the number/percentage population above the Poverty Index aggregated by household(CBS) Five-year interval data on the household income aggregated by household (CBMS) Five-year interval data on the unemployment rate (CBMS)
 Generation of 1,200 jobs Increase in number of new investors related to tourism, agri-industrial, forestry and other service related facilities/establishments 	Municipal Planning and Development Office – Business licensing	Two-year interval data on the number of new jobs generated aggregated by barangay by type of industry/profession

Source: Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks in the Comprehensive Land Use Plan

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STEP 5 TO DO CHECKLIST:

Scenario 1 (Without/outdated CDP, Without CLUP), Scenario 2 (Without/outdated CDP, With CLUP not DRR-CCA mainstreamed), and Scenario 3 (Without/outdated CDP, With DRR-CCA mainstreamed CLUP):

1. Prepare the AIP as culled out from the LDIP.

2. Identify priority, legislative requirements

a. Examine PPAs in the AIP that would require regulatory measures in a form of resolutions and ordinances to be enacted or issued.

b. Summarize decisions in the Legislative Requirements Summary Form Template provided and forward the accomplished form to the Sanggunian Secretary

3. Identify capacity development interventions needed to implement the plan

a. Assess existing capacities and needs for each sectoral goal.

b. Identify priority capacity development interventions needed by the LGU and other stakeholders to implement the LDIP and fill-out the Capacity Development Program Summary Form.

4. Monitor and evaluate the plan

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a. Accomplish the revised AIP form that includes CCET typologies

b. Identify performance indicators and target indicators from the RAPIDS and DRR/CAA indicators from the supplemental guidlines and success indicators of the LGU vision. c. Summarize the strategy in the M & E Template

Scenario 4 Updated CDP, With or without CLUP):

1. Check if the Risk-informed PPAs are prioritized in the AIP and if there are identified Legislative Requirements, Capacity Development Requirements, and Monitoring and Evaluation Strategies.

2. If the PPAs are not risk-informed, follow steps for Scenario 1-3



CHAPTER III

PARAMETERS FOR RISK-INFORMED CDP

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The simple checklist for a risk-informed CDP (CDP+) is intended for rapid assessment that will be done by the LGU to assess if DRR-CCA is already mainstreamed in CDP. It is also a helpful tool for self-assessment. The checklist can help the LGU in assessing their CDPs and identifying gaps or room for improvement for consideration in the updating.

Although intended for self-assessment, the checklist also mirrors the CDP Assessment Tool by assessing *Form, Process*, and *Content*.

Mainstreaming guide questions:		What and where to o	check?
	Form	Process	Content
 Are relevant LGU functionaries/ sectors involved in the CDP process as part of planning team, or sectoral committees? 	EO Creating Planning Team Workplan	DRR-CCA focal persons attended the participatory process	Inclusion of DRR-CCA Focal Person in EO Creating Planning Team Conduct of CDRA is part of the Harmonized Workplan
2. Does the LGU vision include vision for resiliency or DRR-CCA lens?		Did the LGU reflect on the current situation (Vulnerability and Risk) from the CDRA when reviewing the Vision	Descriptor and/or Success Indicators in the Vision Statement includes "Risk Lens" (eg. Safe/ Resilient/ Adaptive etc and/ or indicators in the CDRA)
3. Is climate change vulnerability and disaster risk included in the description of the LGU as part of the situational analysis?	*Form 1c	 CDRA or other similar risk assessment tools were conducted. Analysis of the Development Sectors vis-à-vis Vulnerability and Risk of the Municipality/LGU was conducted. How will it affect the development sector? Sectoral Impacts of climate change and disaster risks were analyzed 	 Ecoprofile includes CC and Disaster risk information. CC and Hazard Impact Chain from CDRA Problem Solution Finding Matrix contains Vulnerability and Risk situation
4. Do you have goals and objectives for DRR-CCA (or are the goals sensitive to climate change and disaster risk) in the development sectors?	*Form 2a	Sectoral Goals and Objectives were formulated/reviewed/ enhanced to ensure responsiveness to the climate change and DR situation.	Risk-informed Enhanced Sectoral Goals and Objectives

Table 35. Review Parameters for Risk-informed CDP

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Mainstreaming guide questions:		What and where to	check?
	Form	Process	Content
5. Do you have DRR-CCA PPAs in the long list?	Form 2a	PPAs from enhanced Ecological Profile, enhanced CLUP, CDRA (EPSFM),LCCAP, LDRRMP were included in the long-list of PPAs	The Structures list of PPAs includes DRR-CCA projects.
 Did you consider climate change impacts and disaster risks in project design/project brief? 	Form 3b	Project Briefs for DRR- CCA PPAs are reflective of the results of the CDRA	Inclusion of Vulnerability and risk Information in the Description/ Justification of the Project. Risk reduction/management or adaptation measures were part of the brief.
7. Is the risk considered in the prioritization of the PPAs?	Results of the Prioritization	Prioritization Criteria used include DRR-CCA (eg. Urgency Test Matrix, GAM based on Vision (with risk lens) or Sectoral Goals (withrisk- lens)	Ranked List of PPAs includes DRR-CCA Projects
8. Are prioritized (high ranked) DRR- CCA PPAs included in the LDIP?	*Form 3e	Results of the prioritization workshop are properly recorded and reflected in the LDIP. High ranked DRR-CCA PPAs are included in the LDIP form	High ranked DRR-CCA PPAs are part of the LDIP
9. Are DRR-CCA PPAs in the LDIP included in the AIP for budgeting	Form 4	The culling out of AIP from the LDIP is done properly. High ranked DRR-CCA PPAs are included in the LDIP form.	DRR-CCA PPAs in the LDIP included in the AIP
10. Are there proposed legislation to support implementation of DRR-CCA in the LGU?	Form 5b	The workshops for legislative measures to support implementation of PPAs (including DRR- CCA PPAs) were conducted. Use of tools such as Fish Bone analysis or other tools are recommended.	Includes proposed legislative measures to support implementation of DRR-CCA PPAs
11.Are there Capacity Development proposals meant to strengthen ability to implement DRR-CCA in the LGU?	Form 5a	The workshop for Capacity Development proposals strengthen the ability to implement PPAs (including DRR- CCA PPAs) were conducted.	Includes Capacity Development requirements to support implementation of DRR-CCA PPAs
12. Are there DRR-CCA indicators intended to monitor and evaluate progress in DRR-CCA?	Form 6b	The M&E strategy development workshop included DRR-CCA indicators in forming M&E plan for the CDP	M&E Strategy includes Vulnerability and Risk Indicators



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ANNEXES

Annex A. CDP+ Suggested Outline

Inside the CDP I. Pre

- Preliminary Pages
- A. Resolution approving the CDP
- B. Foreword
 - C. Acknowledgement
 - D. Table of Contents
 - E. List of Tables
 - F. List of Figures
 - G. List of Boxes
- II. LGU Brief Profile
 - Quick Facts about the LGU (Include Hazard and Risk Maps)
 - Matrix of Local Development Indicators (Form 1d)
- III. CDP +

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- A. Vision
 - i. Descriptors Success Indicators
 - ii. Vision Reality Gap Analysis
 - Cross-Sectoral and Special Issues and Concerns
- C. Sectoral Development Plans (Social, Economic, Infrastructure, Environment, Institutional)
 - i. Introduction
 - ii. ExpandedPSFM**
 - iii. Goals-Objectives-Outcome Indicators (DRR-CCA lens)
 - iv. Programs, Projects, Activities (Form 2a)
 - v. Project Ideas or Project Briefs (Form 3b)
 - vi. Legislative Requirements (Form 5b)
 - vii. CapDev Requirements (Form 5a)
 - viii. M&E Strategy (Form 6b)
- D. Legislative Requirements*
- E. CapDev Requirements*
- F. M&E Strategy*
- IV. LDIP (Form 3e)
- V. ANNEX

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- A. Executive Order Creating and Mobilizing the Planning Team
- B. Workplan
- C. Form 1c. Ecological Profile
 - i. History
 - (The LGU may include a brief history of the city or municipality to highlight the unique characteristics and significance of the locality in relation to the country or to its specific region)
 - ii. Profile

(Part II will mainly be composed of the presentation of the data into graphs and tables per sector and the results of the analysis of the data gathered as presented in the local development indicators table or matrix (Form 1d). Please present the information per development sector)

- a) Social
- b) Economic
- c) Environmentald) Physical/Infrastructure
- u) Physical/Initastru
- e) Institutional
- f) Climate and Disaster Risk Information*
- A. Template Form 2b. Structures List PPAs per Sector and Development Indicator (Long List)
- B. Template Form 3a. Ranked List of PPAs for Investment Programming
- C. Template Form 3c. Projection of New Development Investment Financing Potential
- D. Template Form 3d. Summary Medium-Term Financing Plan
- E. Template Form 4. AIP Summary Form for Year 1
- F. Urgency Test Matrix Results
- G. CCC Test Matrix
- H. GAM Results and Summary
- I. Attendance of Workshop Conducted / Photos of Workshop / Minutes of the Meeting

Other templates

*either sectoral or as a whole

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Annex B. Expanded Outline of the Ecological Profile

CHAPTER I HISTORY

CHAPTER II GEO-PHYSICAL ENVIRONMENT

- 2.0 Geographical Location
- 2.1 Political Boundaries
- 2.2 Climate and Climate Projection
 - 2.2.1 Climate
 - 2.2.2 Atmospheric Temperature
 - 2.2.3 Relative Humidity
 - 2.2.4 Cloudiness
 - 2.2.5 Rainfall
- 2.3 Hazard Information
 - 2.3.1 Natural Hazards and Barangay Hazard Matrix
 - 2.3.2 Historical Timeline of Disasters
 - 2.3.3 Hazard Susceptibility Maps
- 2.4 Topography
 - 2.4.1 Elevation
 - 2.4.2 Slope
- 2.5 Geology

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- 2.5.1 Rock Formations
- 2.5.2 Landforms
- 2.5.3 Soils
- 2.5.4 Land Capability Classes
- 2.6 Land Resources
 - 2.6.1 Land Classification
 - 2.6.2 Existing General Land Use
 - 2.6.3 Urban Land Use Pattern
- 2.7 Mineral Resources
- 2.8 Coastal Resources
 - 2.8.1 Coral Reef
 - 2.8.2 Seagrass Communities
 - 2.8.3 Mangrove Forests
 - 2.8.4 Coral Lifeforms and Associated Species
 - 2.8.5 Reef Fish Communities
- 2.9 Freshwater Resources
 - 2.9.1 Surface Run-off
 - 2.9.2 Groundwater Resources

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CHAPTER III POPULATION AND SOCIAL PROFILE

- 3.1 Social Composition and Characteristics
- 3.2 Population Size and Growth Rate
- 3.3 Growth of Barangay Population
- 3.4 Migration Patterns
- 3.5 Population Density
- 3.6 Household Distribution
- 3.7 Urban Rural Distribution
- 3.8 Tempo of Urbanization
- 3.9 Age Sex Distribution 3.10 Dependency Ratio
- 3.11 Present Status of Well-being
 - 3.11.1 Health
 - a) Health Personnel and Facilities, Public and Private
 - b) Ten (10) Leading Causes of Morbidity (All Ages)
 - c) Ten (10) leading Causes of Mortality (All Ages)
 - d) Nutritional Status
 - e) Other Health Statistical Data
 - i. Total number of births
 - ii. Total number of deaths
 - iii. Total number of infant deaths (Under 11 months old)
 - iv. Total number of maternal deaths
 - v. Total number of neo-natal deaths (1 27days old)
 - vi. Total number of deaths (50 years old)
 - vii. Total number of deaths with medical attendance
 - viii. Birth rate
 - ix. Death rate
 - x. Infant mortality rate
 - xi. Maternal mortality rate
 - f) Family Planning Services
 - 3.11.2 Social Welfare
 - a) Social welfare programs and services available
 - b) Number of types of clientele
 - c) Number and location of day care centers
 - 3.11.3. Education

a) Educational Attainment and Literacy Rate

- b) School-age population and Participation Rate, by level
 - (elementary, secondary, tertiary)
- c) Number and location of schools, by level, public and private
- d) Other Educational Statistics
 - i. Total Enrolment (past 5 school years)
 - ii. Number of teachers
 - iii. Number of classrooms
- 3.11.4 Housing
 - a) Number of housing units, by type of building single, duplex, etc.)
 - and construction materials
 - b) Tenure on the house and homelot
 - c) Source of drinking water
 - d) Type of fuel used for lighting and cooking
 - e) Types of garbage disposal
- 3.11.5 Employment and Income
 - a) Employment rate, by sector
 - b) Number of overseas Filipino workers (OFWs)
- 3.11.6 Recreation and Sports Facilities
 - a) Type, number and location of sports and recreational facilities
- 3.11.7 Protective Services
 - a) Total number of police personnel
 - b) Police population ratio
 - c) Types and volume of crime in the LGU
 - d) Fire-fighting personnel and Facilities
 - e) Occurrence of fire and response time

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CHAPTER IV LOCAL ECONOMY

- 4.1. The Primary Sector
 - 4.1.1. Agricultural Crops
 - a) Agricultural Croplands
 - b) Crop Production
 - 4.1.2 Livestock and Poultry
 - a) Number and volume of production by type of livestock and poultry
 - b) Livestock and Poultry Production Consumption Relationship
 - 4.1.3 Fisheries
 - a) Inland Fisheries
 - b) Municipal Fisheries
 - c) Commercial Fisheries
 - 4.1.4 Food Self-sufficiency Assessment
 - 4.1.5 Forestry
 - a) Forest-based Production Activities
 - b) Type and volume of production
 - 4.1.6 Agricultural Support Facilities
 - a) Production Support Facilities
 - b) Post-harvest Facilities
- 4.2 The Secondary
 - 4.2.1 SectorManufacturing
 - 4.2.2 Construction
 - 4.2.3 Mining and Quarrying
 - 4.2.4 Electricity, gas and Water
- 4.3 The Tertiary Sector

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- 4.3.1 Financial Institutions
- 4.3.2 Wholesale and Retail Trade
- 4.3.3 Transportation and Communications
- 4.3.4 Personal Services (e.g. beauty, parlors, dress and tailoring shops,

piano/photo studios, funeral parlors, etc.)

a) Community services (janitorial and security services, courier services, etc.)

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CHAPTER V INFRASTRUCTURE / UTILITIES / FACILITIES

- 5.1 Inventory of Roads by classification (Barangay, City/Municipality, Provincial and National), length and type of pavement (concrete, asphalt, gravel and earth)
- 5.2 Inventory of Bridges by classification (Barangay, City/Municipality, Provincial and National), length, type of construction(RCDG, steel truss, timber, others) and location (passable, unpassable, needs repair, etc)
- 5.3 Irrigation System
- 5.4 Flood Control and Drainage Facilities, by location, type of facility (group riprapping, concrete lining, etc.), length, width, thickness
- 5.5 Domestic Water Supply
- 5.6 Electric Power Supply
- 5.7 Transport Facilities
- 5.8 Communication Facilities
- 5.9 Waste Disposal System
- 5.10 Port
- 5.11 Municipal/ City Cemetery
- 5.12 Slaughterhouse
- 5.13 Public Market

CHAPTER VI LOCAL INSTITUTIONAL CAPABILITY

- 6.1 Local Government Structure
 - 6.1.1 The LGU'S Organizational Structure
- 6.2 Local Fiscal Management
 - 6.2.1 Status of Financial Health
 - 6.2.2 Revenues by Source
 - 6.2.3 Actual Expenditures by General Account
- 6.3 Development Legislation
 - 6.3.1 Inventory of resolutions passed/ ordinances enacted, by sector, by year
- 6.4 LGU CSO Private Sector Linkages

CHAPTER VII LOCAL INSTITUTIONAL CAPABILITY

- 7.1 Exposure Map, Exposure database, Risk maps to different hazards
 - 7.1.1 Population
 - Exposure maps to Different hazards
 - > Exposure database (sensitivity/internal vulnerability x adaptive capacity to different hazards)
 - Risk maps to different hazards
 - 7.1.2 Urban use areas
 - Exposure maps to Different hazards
 - > Exposure database (sensitivity/internal vulnerability x adaptive capacity to different hazards)
 - Risk maps to different hazards
 - 7.1.3 Natural resources-base production areas
 - Exposure maps to Different hazards
 - Exposure database (sensitivity/internal vulnerability x adaptive capacity to different hazards)
 - Risk maps to different hazards
 - 7.1.4 Critical Point Facilities
 - Exposure maps to Different hazards
 - Exposure database (sensitivity/internal vulnerability x adaptive capacity to different hazards)
 - Risk maps to different hazards
 - 7.1.5 Lifeline utilities
 - Exposure maps to Different hazards
 - Exposure database (sensitivity/internal vulnerability x adaptive capacity to different hazards)
 - Risk maps to different hazards

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Annex C. Sample Climate and Disaster Risk Information to be Integrated into the Risk-Informed Ecological Profile

The figures below are samples of CDRA results of Tacloban City to be included in the Climate and Disaster Information chapter (Chapter VII) of the risk-informed Ecological Profile. The examples below follow the numbering of the expanded outline of the risk-informed Ecological Profile.

7.1 CLIMATE PROJECTIONS (Climate, Atmospheric Temperature, Relative-Humidity, Cloudiness and Rainfall)



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INFORMATION ABOUT PATTERNS OF CHANGE	Slightly more warming in summer (MAM) and in the JJA season. Days are becoming hotter throughout the city.	Reduction during the	summer and Habagat seasons in 2020 and 2050.	Increase during Amihan season, but amount of rain	expected to be lesser than the Habaoat and transition	seasons Drier summer months Wetter Amihan months	Significant increase in the number of hot days expected		More extreme daily rainfall	expected (>150 mm) in 2020 but more in 2050 compared to baseline	
	• •	•		•		••	•		•	1	_
EXPECTED AND Period	variables variables emperature Increase 0.9°C to 1.2°C by 2020 and 1.8°C to summer (MAM) JJA season. 2.3 °C in 2050 - Days are becom throughout the cit - Days are becom	2050	+9.4%	-18.9%	+19.6%	+19.5%	35°C in 2006-	35°C in 2036-	150 mm in 2020	150 mm in 2050	ne of 1 day
C CHANGE I	n 2050 by 20 n 2050	2020	+ 3.0%	- 8.9%	+9.5%	+7.4%	s exceeding	s exceeding	vith rainfall >	vith rainfall >	erved baseli
SPECIFI	rease 0.9°C to 1.2°C by 2020 and 2.3 °C in 2050	Season	DJF	MAM	ALL	SON	1398 day 2035	2495 day 2065	10 davs v	15 days v	From obs
GENERAL CHANGES EXPECTED IN CLIMATE VARIABLES	Increase	Seasonal	decrease/				Increasing number of hot	35°C)	Heavy daily	rainfall >150 mm increasing in 2020 and	decreasing by 2050
CLIMATE VARIABLE	Temperature	Rainfall	increase/ DJF + 3.0% +9.4% seasons in 2020 and 2050.				Extreme events				

Table 35. Summary of Projected Climate Changes in Tacloban City

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BRGY.	1001	SNIC	RAIN-IN LAND	ADUCED SLIDE	EARTH INDU LANDS	OUAKE CED SLIDE	GR0 SHA	NING	LIQUEF	NCTION	FAULT LIN	¥	STORM :	SURGE	ISUN	IWI
	Vul.		Vut		Vut.				Val.				Vut.			
184							~	100	>	80	-	-	*	100		96
2	1	50					7	100	7	100		F	1	8		100
3			2	100			7	100								
5	7	100					>	100	2	100			7	100		100
5-A	7	100					~	100	N	100			N	100		100
9	7	50					~	100	>	100			-			95
6-A	2	80					7	100	~	100						100
7							>	100	>	100			7	100		100
8	7	50					7	100	>	100			7	100		100
8-A	>	50					7	100	>	100			7	100		100
12	7	\$	2	15	~		7	100	7	100						
13							2	100	2	100			7	100		100
14							2	100	2	100			7	100		100
15							~	100	>	100		-	>	100		100
16							7	100	>	100			7	100		100
17							~	100	7	100			7	100		100
18							7	100	~	100			2	100		100
19							~	100	>	100			>	100		100
20							7	100	~	100			1	100		100
21							~	100	>	100			>	100		100
21-A							2	100	~	100			2	100		100
22							7	100	>	100			7	100		100
23							~	100	7	100			7	100		100
23-A							2	100	A	100			~	100		100
24							2	100	N	100			~	100		100

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7.2 CLIMATE PROJECTIONS (Climate, Atmospheric Temperature, Relative Humidity, Cloudiness, and Rainfall

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7.3 HISTORICAL TIMELINE OF DISASTERS

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Table 1. Records of Past Disasters

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 baranpays	42.555 families 195,643 individuals	
Jan 2014	Typhoon Seniang	2 barangays (landslide) 9 areas (flooding)	66 tamiles	
Nov 2013	Super Typhoon Yolanda Storm Surge, Strong Winds	All barangays	Casualities: 2.654 persons Injured: 3.180 persons Missing: 7011	P6.9 B total cross-sectoral damage P5.3 B total cross-sectoral losses?
August 2013	Bohol Earthquake – Earthquake-induced landslide	12 upland barangays		
June 2013	Tropical Storm Gorio	No info available		
Dec 2012 Dec 2012	Typhoon Quinta Typhoon Pablo	No info available No info available		
Nov 2012	Typhoon Ofel ⁴	25 barangays	24,669 persons 5,187 families	2.244 houses damaged P30M worth of damages to infra, agricultur institution
Nov 2012	Rain-induced Flooding	24 barangays	22,192 persons 4,692 families	2.194 houses damaged
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	coastal barangays		
Sept 2009	Flooding			
Sept 1964	Typhoon Undang	coastal barangays		Damages to agricultural crops Food & water scarcity

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UN-Habitat Climate Change Vulnerability Assessment. Tackoban City February 2015 4 CLUP Consultation with Barangays 13-15 January 2015

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7.4 HAZARD SUSCEPTIBILITY MAP

Map 1. Flood Hazard Map

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7.5 EXPOSURE MAPS, EXPOSURE DATABASE, AND RISK MAPS

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AREA #	Vrea 1																			
вясу	Brgy. 3	Brgy, 3	Brgy. 65	Brgy. 65	Brgy. 66	Brgy. 66	Brgy. 66A	Brgy. 67	Brgy. 68	Brgy. 68	Brgy. 69	Brgy. 69	Brgy. 70	Brgy. 70	Brgy. 71	Brgy. 71	Brgy. 71	Brgy. 72	Brgy. 72	
BARANGAY POPULATION	2,777		1,201		1,359		1,163	1,335	1,968		2,293		1,029		4,300			466		
AFFECTED POPULATION	851	820	677	373	58	1,035	1,006	897	398	876	251	2,293	302	566	1,505	2,323	272	13	405	
EXPOSURE PERCENTAGE	30.64	29.53	56.37	31.06	4.27	76.16	86.50	67.18	20.22	44.51	10.95	100.00	29.35	55.00	35.00	54.02	6.33	2.79	86.91	
PERCENTAGE OF INFORMAL SETTLERS (IS)	100.00	100.00	100.00	11.36	100.00	100.00	100.00	100.00	100.00	100.00	54.39	51.97	100.00	100.00	13.85	13.95	17.06	33.33	60'6	
PERCENTAGE OF HIH DWELING MADE OF LIGHT MATERIALS	21.03	20.74	13.75	21.59	23.08	24.57	18.39	65.35	41.49	41.06	15.79	14.82	38.75	40.00	7.69	7.73	8.82	33.33	3.03	
PERCENTAGE OF YOUNG AND OLD DEPENDENTS	31.49	30.49	19.20	30.29	24.14	23.48	20.97	30.55	28.89	29.11	17.13	17.53	20.53	21.73	15.75	15.76	15.81	23.08	16.54	
PERCENTAGE OF PERSONS WITH DISABILITIES	0.94	0.98	0.44	0.80	1.72	0.58	0.70	1.45	2.26	2.05	0.40	0.39	1.32	1.24	0.53	0.52	0.74	7.69	66'0	
PERCENTAGE BELOW THE POVERTY THRESHOLD	85.64	82.45	58.13	93.18	69.23	71.55	65.02	86.63	89.36	88.89	49.12	49.34	43.75	45.33	29.44	29.38	29.41	66.67	30.30	
PERCENTAGE MALNOURISHE INDIVIDUALS			0.3(0.21	1.72	0.15	0.20	0.11	0.75	0.34	0.40	0.31	0.33	0.18		6		52	,	

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Annex D. CDRA Outputs	Relevant to	CDP	Preparation
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CDRA Step	CDRA Output/Results	Usefulness in CDP Preparation	Part of the CDP Process where CDRA Outputs feed into
Step 1. Organize and Collect Climate and Hazard Information	Local Climate Change Projections	Climate projection from PAGASA provides the possible changes that will occur for the Municipality/City in terms of climate variables and extremes. This feeds into the analysis of the current situation and potential future condition. This may also be used as reference in crafting or revising the vision statement	Ecoprofile - Situational Analysis Visioning
	Inventory of Natural Hazards and their Characteristics Summary of Barangay-level Hazard inventory matrix	This provides a simple but critical inventory of hazards that are existing in each Barangay including magnitude, frequency and probability of occurrence, and spatial extent, historical damages, if available. This provides an overview of the risks and vulnerabilities that the LGU is facing This may also be used as reference in crafting or revising the vision statement	Ecoprofile - Situational Analysis Visioning
	Tabular compilation of Historical Disaster damages/loss data	This will provide a historical analysis of disaster experienced by the Municipality/City including observable trend. This may also be used as reference in crafting or revising the vision statement	Ecoprofile - Situational Analysis Visioning
Step 2. Scope the potential impacts	Summary of Potential climate change impacts and potentially exposed units Impact Chain Diagrams	The Impact Chain analysis is an important tool in analyzing the impact of hazards and climate variability to the different development sectors (including sub-sectors). It is originally done by assessing impacts based on system of interest but is useful for sectoral analysis. This allows a snapshot of the impacts of hazards/climate change to development sectors and sub-sectors and generation of ideas on possible interventions.	Ecoprofile - Situational Analysis

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CDRA Step	CDRA Output/Results	Usefulness in CDP Preparation	Part of the CDP Process where CDRA Outputs feed into
Step 3 Exposure database development	Exposure Maps (Population, Urban use areas, Natural resources-base production areas, Critical Point Facilities, Lifeline utilities) to different Hazards	This provides a visualization of the hazard exposure of different units at the Barangay and Municipal/City level essential in the analysis of risk and vulnerability.	Ecoprofile - Situational Analysis
	Exposure and Sensitivity Database Attribute information on exposure, sensitivity/adaptive capacity of the various exposure elements	This provides understanding on the exposure and sensitivity that can potentially contribute to the vulnerability and riskof the LGU, and provides information on the LGU's adaptive capacity. This provides explanation on the existing LGU's condition which forms part of the Situational Analysis.	Ecoprofile - Situational Analysis
Step 4 Climate Change Vulnerability Assessment	Impact Area Map CCVA Summary decision areas and issues matrix CCVA Vulnerability assessment matrix	This provides an analysis of climate impacts (exposure and sensitivity) and the level of adaptive capacity of the LGU that contributes to its level of Vulnerability.The vulnerability level is used in the analysis of major decision areas and generation of priority policy interventions to address them. The results of CCVA can be used in the generation of success indicators and in the Vision-Reality Gap analysis. This also provides explanation on the LGU's existing condition with regards to climate change impacts and forms part of the Situational Analysis. The CCVA can generate policy interventions in the form of PPAs, legislative measures and capacity development requirements. It can also be used to guide the prioritization of PPAs giving importance to vulnerability levels.	Visioning and Ecoprofile, Situational Analysis, Identification of PPAs, Prioritization of PPAs

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Guidelines for	Mainstreaming	DRR and	CDP+
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CDRA Step	CDRA Output/Results	Usefulness in CDP Preparation	Part of the CDP Process where CDRA Outputs feed into
Step 5 Disaster Risk Assessment	Disaster Risk Assesment per Hazard DRA Summary decision areas and issues matrix Disaster risk maps	The outputs of DRA detail the risk areas per hazard and provides an analysis of the adaptive capacities of the identified risk areas. The results of DRA can be used in the generation of success indicators and in the Vision-Reality Gap analysis. This also provides explanation on the LGU's existing condition with regards to climate change impacts and forms part of the Situational Analysis.	Visioning and Ecoprofile, Situational Analysis, Identification of PPAs, Prioritization of PPAs
		The DRA can generate policy interventions in the form of PPAs, legislative measures and capacity development requirements. It can also be used to guide the prioritization of PPAs giving importance to vulnerability levels.	
Step 6 Summarize Findings	Identified major decision areas List of risk management and adaptation/mitigation measures	The Summary of findings, based on combined risk and vulnerabilities, feeds into the identification of detailed policy interventions including the description of the decision areas. The findings can be used in the generation of success indicators and in the Vision-Reality Gap analysis. This also provides explanation on the LGU's existing condition with regards to climate change impacts and forms part of the Situational Analysis. The findings can generate policy interventions in the form of PPAs, legislative measures and capacity development requirements. It can also be used to guide the prioritization of PPAs giving importance to	Visioning and Ecoprofile, Situational Analysis, Identification of PPAs, Prioritization of PPAs



Annex E. Sample Impact Chains for the Different Sectors

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Guidelines for Mainstreaming DRR and CDP+

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Safety, peace and order at risk

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Vulnerability/ Risk Framework	POPULATION	URBAN USE	NATURAL RESOURCE USE	CRITICAL POINT FACILITIES	LIFELINE UTILITIES
Exposure	Percent of Residential areas exposed to hazard	Percent of Urban Use Exposed to Hazard	Percent of Natural Resource use areas exposed to hazard	Percentage of Critical Point Facilities (enumerate) exposed to hazard	Percent of Lifeline Utilities exposed to hazard
	Percent of Barangay Population exposed to hazard		Percentage of farming dependent household exposed to flooding		
Sensitivity	Percent of Informal Settlers	Proportion of Buildings made of light materials	Percentage of farming households who attended climate field school	Percent of Structures with Light Materials used for Wall	Roads by surface type (Percent)
	Percentage of Population living in dwelling units made of light materials	Proportion of Buildings that are dilapidated / condemned condition	Proportion of farming families using sustainable farming techniques	Percent of Structures in Poor Condition	Percent of Roads by type of Condition
	Percentage of Young and Old Dependents	Percent of Structures employing hazard resistant building design	Proportion of farmers with access to hazard information	Structure Employing Hazard Resistant Design	Percent of Lifeline utilities employing hazard resistant design
	Percentage of Person with Disabilities		Percentage of production areas covered with irrigation		
	Percentage of households living below poverty threshold		Percent of areas with water impoundment		
	Percentage of Malnourished Individuals				
Adaptive Capacity	Access to post disaster financing	Percentage of Insurance Coverage	Percentage with access to Insurance Coverage	Percentage of Buildings Insurance Coverage	Percentage of Buildings Insurance Coverage
	Philhealth Coverage		Percent of agricultural areas with Early Warning System Coverage		
Vulnerability	Percent of Population with High Vulnerability to Hazard	Percent of Urban Use with High Vulnerability to Hazard	Percent of Natural Resource use areas with High Vulnerability to Hazard	Percent of Critical point facility with High Vulnerability to Hazard	Percent of Lifeline utilities with High Vulnerability to Hazard
Risk	Percent of Population with High Risk to Hazard	Percent of Urban Use with High Risk to Hazard	Percent of Natural Resource use areas with High Risk to Hazard	Percent of Critical point facility with High Risk to Hazard	Percent of Lifeline utilities with High Risk to Hazard

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Annex G. Possible Sources of International Financing

Funding Facility	Description
Global Environment Facility (GEF)	Provides financial support to programs and projects under the national government priority supporting sustainable development among GEF's focal strategies such as biodiversity, international waters, land degradation, chemicals and waste, and climate change mitigation, and cross-cutting issues like sustainable forest management.
Special Climate Change Fund	Established under the United Nations Framework Convention on Climate Change, the Special Climate Change Fund provides support to adaptation activities, programs and measures under the GEF focal areas such as water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, integrated coastal zone management and climatic disaster risk management.
Climate Investments Fund	Provides funds on the following low-emissions and climate resilient development programs: Clean Technology Fund, Forest Investment Program, Pilot Program Climate Resilience, and Scaling Up Renewable Energy Program.
Adaptation Fund	The Adaptation Fund provides funds for climate adaptation and resilience activities for vulnerable communities in developing nations based on the country needs and directives.

- 29 https://www.adaptation-fund.org/about/

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²⁶ http://www.thegef.org/abot/funding

http://www.thcgcj.org/uboc/junung
https://www.thegef.org/publications/accessing-resources-under-sccf
http://www.climateinvestmentfunds.org

Financing Mechanism	Agency In-charge	Description
People's Survival Fund (PSF)	Climate Change Commission (CCC)	The PSF is a special fund from the National Treasury for supporting climate change adaptation programs and projects which are identified through risk and vulnerability assessments. It is intended for local government units and local community organizations meeting the following criteria: poverty incidence (40%), presence of multiple hazards (30%), and presence of key biodiversity areas (30%). To access the PSF, LGUs and LCOs must apply by submitting documentary requirements once the secretariat announces the call for proposals in April and October.
Assistance Municipalities (AM)	Department of Interior and Local Government (DILG) and Department of Budget and Management (DBM)	Financial assistance to municipalities for the implementation of priority development programs and projects and efficient delivery of devolved functions, in line with the thrust of the national government.
Municipal Development Fund (MDF)	Department of Finance (DOF)	A lending facility for municipalities eligible for sub-projects on Public Economic Enterprises/Revenue Generating Projects, Social Sub-projects, Environmental Sub- projects, and Solid Waste Management, Sewerage and Sanitation Facilities, as response to increasing demand for LGUs to implement development projects. Environmental sub- projects include reforestation, soil conservation, mangrove and watershed protection, river and seashore protection, ecotourism project, freedom parks, reforestation and agro-forestry, watershed protection, biodiversity conservation and other related environmental related initiatives which can help LGUs adapt and mitigate impacts of climate change.

³⁰ Proponent's Handbook: A guide on how to access the People's Survival Fund (CCC, 2016) Retrieved from http://psf.climate.gov.ph/wp-content/uploads/2016/12/PSF-AmendedHandbook.pdf last April 2018

³¹ DILG-DBM JMC 2017-3, Retrieved from http://www.dilg.gov.ph/issuances/jc/Policy-Guidelines-and-Procedures-in-the-Implementation- of-the-FY-2017-Local-Government-Support-Fund-Assistance-to-Disadvantaged-Municipalities-LGSF-ADMProgram/81 last April 2018

³² Municipal Development Fund Project Brochure Retrieved from http://www.mdfo.gov.ph/online/wp-content/uploads/brochures/mdfp.pdf last April 2018

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Financing Mechanism	Agency In-charge	Description
Philippine Rural Development Project (PRDP)	Department of Agriculture (DA), World Bank	PRDP is a six-year national project under the DA that aims to establish a modern, value chain- oriented and climate-resilient agriculture and fisheries sector by supporting smallholder farmers and fishers to increase their marketable surpluses and improve their access to markets. The project provides key infrastructure, facilities, technology and information to raise incomes, productivity and competitiveness in targeted areas.
Performance Challenge Fund (PCF)	Department of Interior and Local Government (DILG) and Department of Budget and Management (DBM)	PCF is an incentive fund based under the performance-based incentive policy of the national government. It aims to reduce dependency on IRA of lower income class LGUs and improve local performance in governance and delivery of basic services. The fund is open to LGUs who passed the "Seal of Local Good Housekeeping" and can be utilized as subsidy for big projects, counterpart funds for foreign assisted projects, etc.
GEF Small Grants Programme (SGP)	UNDP-Global Environment Finance (GEF)	SGP provides financial and technical support to civil society organizations (CSOs), notably national and local non-governmental organizations (NGOs), community-based rganizations (CBOs), and indigenous peoples organizations to implement projects that conserve and restore the environment while enhancing people's well-being and livelihoods.
Micro- Small-, and Medium Sized Enterprises Pilot Programme	Green Climate Fund (GCF) thru DENR	The programme aims to support micro- , small-, and medium-sized Enterprises in addressing mitigation and adaptation challenges.
Adaptation Fund	United Nations Framework Convention on Climate Change (UNFCCC)	Adaptation fund finances concrete adaptation projects and programmes in developing country parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change.

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Financing Mechanism	Agency In-charge	Description
Green Green Green	Department of Budget and Management (DBM)	An assistance program that aims to make cities more livable and sustainable by developing forest parks, arboretum, and botanical gardens; and through various activities and methods such as landscaping, turfing, and tree planting; and transform streetscapes through installation of eco-friendly street furniture, fixtures, and shading.
National Disaster Risk Reduction Fund (NDRRMF)	NDRRM Council	Funds to be used for specific disaster risk reduction, prevention, mitigation, preparedness, relief, rehabilitation, and recovery programs and projects not funded out of national government agency or local government budgets. Can be accessed by LGUs through the established prioritization criteria by the NDRRM Council.

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³³ Philippine Rural Development Project Retrieved from http://www.daprdp.net/ last April 2018

³⁴ Performance Challenge Fund Retrieved from http://pcf.dilg.gov.ph/v2/ last April 2018

³⁵ GEF Small Grants Programme Retrieved from https://sgp.undp.org/ last April 2018

³⁶ Establishing a programmatic framework for engaging with micro-, small- and mediumsized enterprises (2016) Retrieved from https://www.greenclimate.fund/documents/20182/226888/GCF_B.13_15_Establishing_a_programmatic_framework_ for_engaging_with_micro-__small-_and_medium-sized_enterprises.pdf/558ec8ba-f0f8-455a-a8ce-8544de51f719 last April 2018

³⁷ Adaptation Fund Retrieved from https://unfccc.int/process/bodies/funds-and-financial-entities/adaptation-fund last April 2018

³⁸ "Liveable Cities: DBM Launches Assistance Program for Developing Vibrant and Sustainable Public Open Spaces" (2018) Retrieved fromhttps://www.dbm.gov.ph/index.php/news-update/news-releases/622-livable-cities-dbm-launches-assistanceprogram-for-developing-vibrant-and-sustainable-public-open-spaces last April 2018 ³⁹ http://www.ndrrmc.gov.ph/attachments/article/3103/Memo_No-45_s-2017.pdf

Annex I. AIP Summary Form

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Annual Investment Program (AIP) By Program/Project/Activity by Sector As of 5

Province/City/Municipality:

(hange os)	CC Typology Code (14)	
OF dimate C expenditure nousand Pes	Climate Change Mitigation (13)	
Amount (In Thousand Pesos) (In Th	Climate Change Adaptation (12)	
	Total (11) 8+9+10	
	Capital Outlay (CO) (10)	
	Maintenance and Other Operating Expenses (9)	
	Personal Services (PS) (8)	
	Funding Source (7)	
	Expected Outputs (6)	
thedule of ementation	Completion Date (5)	
So Impl	Start Date (4)	
	Implementing Office/ Department (3)	
	Program/ Project/ Activity Description (2)	
	AIP Reference Code (1)	General Services (1000)

Social

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□ No Climate Change Expenditure (Please tick the box if your LGU does not have any climate change expenditure)

Guidelines for Mainstreaming DRR and CDP+

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Annex J. Flowchart of the Different Scenarios of Mainstreaming DRR-CCA into the CDP

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ANNEX K. DEVELOPMENT SECTORS AND SUB-SECTORS

- 1.0 SOCIAL DEVELOPMENT
 - 1.1 Population (size, growth, distribution)
 - 1.2 Social Services and status of well-being
 - 1.2.1 Health
 - 1.2.2 Education, culture, recreation
 - 1.2.3 Welfare
 - 1.2.4 Housing
 - 1.2.5 Protective services
 - 1.3 Gender Equality

2.0 ECONOMIC DEVELOPMENT

- 2.1 Primary Sector
 - 2.1.1 Agricultural crops
 - 2.1.2 Livestock
 - 2.1.3 Fisheries (inland, brackish, marine)
 - 2.1.4 Forestry
- 2.2 Secondary Sector
 - 2.2.1 Mining and quarrying
 - 2.2.2 Manufacturing
 - 2.2.3 Construction
 - 2.2.4 Electricity, water, gas, utilities
- 2.3 Tertiary Sector

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- 2.3.1 Wholesale and retail trade2.3.2 Transportation and communication
- 2.3.3 Finance, insurance and related activities
- 2.3.4 Real estate
- 2.3.5 Personal and community services
- 2.3.6 Tourism
- 2.4 The Informal Sector

3.0 INFRASTRACTURE DEVELOPMENT

- 3.1 Economic support
 - 3.1.1 Irrigation systems
 - 3.1.2 Power generation (mini-hydro)
 - 3.1.3 Roads, bridges, ports
 - 3.1.4 Flood control and drainage
 - 3.1.5 Telecommunications
- 3.2 Social support
 - 3.2.1 Hospitals
 - 3.2.2 Waterworks and sewerage
 - 3.2.3 Public socialized housing
 - 3.2.4 Facilities for aged, infirm, disadvantaged

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4.0 ENVIRONMENT AND NATURAL RESOURCES

- 4.1 Lands
 - 4.1.1 Lands of the public domain
 - 4.1.2 Private and alienable and disposable lands
 - 4.1.3 Ancestral domain
- 4.2 Forest lands
 - 4.2.1 Protection Forests
 - 4.2.2 Production Forests
- 4.3 Mineral lands
 - 4.3.1 Metallic mineral lands
 - 4.3.2 Non-metallic mineral lands
- 4.4 Parks, wildlife and other reservations
- 4.5 Water resources
 - 4.5.1 Freshwater (ground, surface)
 - 4.5.2 Marine waters
- 4.6 Air quality
- 4.7 Waste management
 - 4.7.1 Solid waste
 - 4.7.2 Liquid waste
 - 4.7.3 Toxic and hazardous

5.0 INSTITUTIONAL DEVELOPMENT

- 5.1 Organization and Management
- 5.2 Fiscal Management
- 5.3 Legislative Output

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5.4 LGU-NGO-PO linkages

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