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# **CLUP GUIDEBOOK**

**A Guide to Comprehensive  
Land Use Plan Preparation  
2013**

**Volume 1  
The Planning Process**



# Foreword

The Comprehensive Land Use Plan (CLUP) Guidebook 2013-2014 is an update of the CLUP Guidebook 2006-2007 on the formulation/updating of Comprehensive Land Use Plans (CLUPs) and Zoning Ordinances (ZOs) for local governments at the city/municipal level, promulgated by the Housing and Land Use Regulatory Board (HLURB).

The CLUP guidelines were updated in compliance with two (2) landmark national laws, the Climate Change Act of 2009 (RA 9729) and the Disaster Risk Reduction and Management Act of 2010 (RA 10121), which require the mainstreaming of climate change adaptation and disaster risk reduction in all national and local development plans including the CLUP. Coupled with these directives is the recognition of the need to have an all-inclusive physical plan through the integration of our coastal and forest lands in city/municipal land use planning.

In response to these needs, the CLUP Guidebook 2013-2014 has adopted the ridge-to-reef or integrated watershed ecosystems management framework to emphasize the interrelationship between the upland, lowland and coastal ecosystems. The guidebooks have also integrated special areas and thematic concerns such as ancestral domain, biodiversity, heritage, urban design and green growth in the land use planning process to ensure the conservation and sustainable management of these critical elements.

We highly appreciate the successful collaboration between the HLURB and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in coming out with the CLUP Guidebook 2013-2014. Everyone is enjoined to utilize the guidebooks in the formulation and development of local land use plans that are not only forward looking but also adaptive and resilient to our constantly changing environment.



**ANTONIO M. BERNARDO**

Chief Executive Officer and Commissioner  
Housing and Land Use Regulatory Board

# Acknowledgement

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National Mapping and Resource Information Authority (**NAMRIA**)

Department of Science and Technology (**DOST**) – Philippine Atmospheric, Geophysical and Astronomical Services Administration (**PAGASA**); Philippine Institute of Volcanology and Seismology (**PHIVOLCS**)

Department of Agriculture (**DA**) – Bureau of Fisheries and Aquatic Resources (**BFAR**); Bureau of Soils and Water Management (**BSWM**)

National Commission on Indigenous Peoples (**NCIP**)

National Commission on Culture and the Arts (**NCCA**); National Historical Commission of the Philippines (**NHCP**); National Museum of the Philippines (**NM**)

Climate Change Commission (**CCC**)

Office of Civil Defense (**OCD**) – National Disaster Risk Reduction and Management Council (**NDRRMC**)

Department of the Interior and Local Government (**DILG**) – Bureau of Local Government and Development (**BLGD**)

League of Cities of the Philippines (**LCP**)

Department of Tourism (**DOT**); Department of Agrarian Reform (**DAR**); Philippine Ports Authority (**PPA**)

**HLURB** Technical Working Group and central and regional offices.



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COMPREHENSIVE LAND USE PLAN GUIDEBOOK VOLUME 1**

**WHEREAS**, Executive Order 648 provides that it is the policy of the state to implement an integrated program of land use control that aims to foster growth and renewal of our urban and rural communities in an integrative manner that promotes optimum land use, adequate shelter, and environmental protection - all these towards the development of man as a total human being;

**WHEREAS**, it is necessary to provide full support to local government units' (LGUs) policies and programs on the development of their communities through effective land use and development control measures;

**WHEREAS**, the Housing and Land Use Regulatory Board (formerly the Human Settlements Regulatory Commission) is empowered under Section 5 (a) of Executive Order 648 to "promulgate zoning and other land use control standards and guidelines which shall govern land use plans and zoning ordinances of local governments;

**WHEREAS**, it is essential to mainstream climate change adaptation and disaster risk reduction in land use planning given its critical role to address mitigation and adaptation measures by local communities;

**WHEREAS**, the enhanced CLUP Volume 1 reiterates that a LGU's land use plan is a systematic and organized presentation of an LGU's strategic vision, objectives and directions translated into a physical and spatial dimension that starts from the forests-to-lowland-to-coastal ecosystems of the watershed/sub-watershed system covering both public and private lands where an LGU is located;

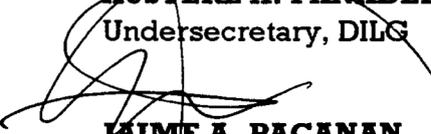
**WHEREFORE**, be it **RESOLVED** as it is hereby **RESOLVED** that the **COMPREHENSIVE LAND USE PLAN GUIDEBOOK, VOLUME 1 (2013)** be approved as the same is hereby **APPROVED**.

**APPROVED**, on the **30th** day of October 2013, Quezon City.

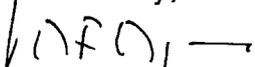
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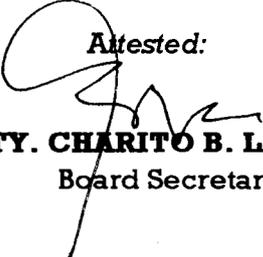
  
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# Acronyms

ABC	- Association of Barangay Captains
ADSDPP	- Ancestral Domain Sustainable Development and Protection Plan
AFMA	- Agriculture and Fisheries Modernization Act
AIP	- Annual Investment Plan
APA	- Areas for Priority Action
APIS	- Annual Property Indicators
BDP	- Barangay Development Plan
BEIS	- Basic Education Information System
BFAR	- Bureau of Fisheries and Aquatic Resources
BIR	- Bureau of Internal Revenue
BITS	- BLES Integrated Survey
BLES	- Bureau of Labor and Employment Statistics
BLUDP	- Barangay Land Use and Development Plan
BMP	- Best Management Practices
BSWM	- Bureau of Soils and Water Management
CA	- Commonwealth Act
CARP	- Comprehensive Agrarian Reform Program
CBD	- Central Business District
CBDRRM	- Community-Based Disaster Risk Reduction and Management
CBFM	- Community Based Forest Management Program
CCA	- Climate Change Adaptation
CCDP	- City Comprehensive Development Plan
CCM	- Component Cities and Municipalities
CDP	- Comprehensive Development Plan
CDIP	- City Development Investment Plan
CENRO	- Community Environment and Natural Resources Office
CFP	- Community Forestry Program
CFRMP	- Coastal and Fisheries Resource Management Plan
CMA	- Co-Management Agreement
C/M FARMC	- City/Municipal Fisheries and Aquatic Resources Management Council
C/M CLUP	- City/Municipal Comprehensive Land Use Plan
CLUP	- Comprehensive Land Use Plan
CPDO	- City Planning and Development Office
CPH	- Census of Population and Housing
CNC	- Certificate of Non-Conformance
CRMP	- Coastal Resource Management Project
CSC	- Certificate of Stewardship Contracts
CSO	- Civil Society Organization
CZC	- Certificate of Zoning Compliance
DA	- Department of Agriculture
DAR	- Department of Agrarian Reform
DBM	- Department of Budget and Management
DILG	- Department of Interior and Local Government
DENR	- Department of Environment and Natural Resources
DOT	- Department of Tourism
DOTC	- Department of Transportation and Communication
DP	- Development Permit
DPWH	- Department of Public Works and Highways
DRR	- Disaster Risk Reduction
DRRM	- Disaster Risk Reduction Management
DRRMO	- Disaster Risk Reduction Management Office
DTI	- Department of Trade and Industry
ECA	- Environmentally Critical Areas
EES	- Environmental Effects Statement

EIS	- Environmental Impact Statement
ENRO	- Environment and Natural Resources Office
EO	- Executive Order
EPA	- Environmental Protection Area
EPZ	- Export Processing Zone
EWS	- Early Warning System
FAO	- Food and Agriculture Organization
FARMC	- Fisheries and Aquatic Resources Management Council
FFL	- Forests and Forestlands
FGD	- Focus Group Discussion
FHSIS	- Field Health Services Information System
FIES	- Family Income and Expenditure Survey
FLMP	- Forest Land Management Agreement Program
FLUP	- Forest Land Use Plan
FMB	- Forest Management Bureau
FNRI	- Food and Nutrition Training Institute
FO-D	- Flood Overlay District
FSDZ	- Fisheries Strategic Development Zones
GAM	- Goals Achievement Matrix
GHG	- Greenhouse Gases
GIS	- Geographic Information System
GPS	- Global Positioning System
GSO	- General Services Officer
HDI	- Human Development Index
HLURB	- Housing and Land Use Regulatory Board
HUCs	- Highly Urbanized Cities
ICCs	- Independent Component Cities
ICCs	- Indigenous Cultural Communities
ICP	- Important Cultural Property
ICOMOS	- International Committee on Monuments and Sites
IFMS	- Integrated Financial Management System
IEC	- Information and Education Campaign
IKSP	- Indigenous Knowledge Systems and Practices
IPAS	- Integrated Protected Area System
IPCC	- Intergovernmental Panel on Climate Change
IPMR	- Indigenous Peoples Mandatory Representative
IPRA	- Indigenous Peoples Rights Act
IPs	- Indigenous Peoples
IPS	- Indigenous Political System
IRR	- Implementing Rules and Regulations
ISFP	- Integrated Social Forestry Program
JMC	- Joint Memorandum Circular
LC	- Land Classification
LC	- Locational Clearance
LCE	- Local Chief Executive
LDC	- Local Development Council
LDIP	- Local Development Investment Program
LDP	- Local Development Plan
LFS	- Labor Force Survey
LGC	- Local Government Code
LGOO	- Local Government Operations Officer
LGU	- Local Government Unit
LMB	- Land Management Bureau
LOI	- Letter of Instruction
LSA	- Land Suitability Assessment
LTO	- Land Transportation Office
LZBA	- Local Zoning Board of Appeals
LZRC	- Local Zoning Review Committee

MAB	-	Man and biosphere areas
MAO	-	Municipal Agricultural Office
MARO	-	Municipal Agrarian Reform Officer
MDG	-	Millennium Development Goals
MEO	-	Municipal Engineering Office
MENRO	-	Municipal Environment and Natural Resources Office
MGB	-	Mines and Geoscience Bureau
MHO	-	Municipal Health Office
MMC	-	Metro Manila Council
MMDA	-	Metro Manila Development Authority
MOA	-	Memorandum of Agreement
MPA	-	Marine Protected Areas
MPDO	-	Municipal Planning and Development Office
MTPDP	-	Medium-Term Philippine Development Plan
MTPIP	-	Medium-Term Philippine Investment Plan
MTRDIP	-	Medium-Term Regional Development Investment Program
MZO	-	Model Zoning Ordinance
NAMRIA	-	National Mapping and Resource Information Authority
NBC	-	National Building Code
NCCA	-	National Commission for Culture and the Arts
NCCAP	-	National Climate Change Action Plan
NCIP	-	National Commission on Indigenous Peoples
NDHS	-	National Demographic and Health Survey
NDRRMF	-	National Disaster Risk Reduction and Management Framework
NDRRMP	-	National Disaster Risk Reduction and Management Plan
NEDA	-	National Economic and Development Authority
NFPP	-	National Framework for Physical Planning
NFSCC	-	National Framework Strategy for Climate Change
NGAs	-	National Government Agency/ies
NGOs	-	Non-Government Organizations
NHCP	-	National Historical Commission of the Philippines
NIA	-	National Irrigation Administration
NIPAS	-	National Integrated Protected Areas System
NM	-	National Museum
NPAAAD	-	Network of Protected Agricultural and Agri-Industrial Areas for Development
NPFP	-	National Physical Framework Plan
NSO	-	National Statistics Office
NTFP	-	Non Timber Forest Products
NWRB	-	National Water Resources Board
OBO	-	Office of the Building Official
OCD	-	Office of Civil Defense
PAGASA	-	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PAMB	-	Protected Area Management Board
PAMP	-	Protected Area Management Plan
PARO	-	Provincial Agrarian Reform Office
PAWB	-	Protected Areas and Wildlife Bureau
PBS	-	Planning and Budgeting System
PCA	-	Preservation and Conservation Area
PCDP	-	Provincial Comprehensive Development Plan
PCLUP	-	Provincial Comprehensive Land Use Plan
PCMRD	-	Philippine Council for Aquatic Marine Research and Development
PCRA	-	Participatory Coastal Resource Assessment
PCUP	-	Presidential Commission for the Urban Poor
PD	-	Presidential Decree
PDP	-	Provincial Development Plan
PDIP	-	Provincial Development Investment Plan

PDRA	- Participatory Disaster Risk Assessment
PENRO	- Provincial Environment and Natural Resources Office
PES	- Payment for Ecosystem Services
PESO	- Public Employment Service Office
PHIVOLCS	- Philippine Institute of Volcanology and Seismology
PHS	- Philippine Health Statistics
PLA	- Participatory Learning and Action
PLPEM	- Provincial/Local Planning and Expenditure Management
PLUC	- Provincial Land Use Committee
PNOC	- Philippine National Oil Company
PO	- People's Organization
POPDEV	- Population and Development
PPFP	- Provincial Physical Framework Plan
PRA	- Participatory Rural Appraisal
PRECUP	- Philippine Registry of Cultural Property
PRRC	- Pasig River Rehabilitation Commission
PTA	- Philippine Tourism Authority
PUD	- Planned Unit Development
RA	- Republic Act
RDIP	- Regional Development Investment Plan
RDP	- Regional Development Plan
RLUC	- Regional Land Use Committee
RPFP	- Regional Physical Framework Plan
RPT	- Real Property Tax
R2R	- Ridge-to-Reef
SAFDZ	- Strategic Agriculture and Fishery Development Zones
SB	- Sangguniang Bayan
SC	- Steering Committee
SCBA	- Social-Cost Benefit Analysis
SMART	- Specific, Measurable, Attainable, Realistic and Timely
SP	- Sangguniang Panlalawigan/Panglunsod
SSS	- Social Security System
SWDO	- Social Welfare Development Office
SWOT	- Strengths, Weaknesses, Opportunities and Threats
TMP	- Traffic Management Plan
TOP	- Technique of Participation
TWG	- Technical Working Group
UDHA	- Urban Development and Housing Act
UNEP	- United Nations Environmental Programme
UNFCCC	- United Nations Framework Convention on Climate Change
UP MSI	- University of the Philippines—Marine Science Institute
URA	- Urban Renewal/Redevelopment Area
WSMP	- Watershed Management Plans
ZO	- Zoning Ordinance

# Part 1

## Introduction



# 1.0 Overview and Rationale

The Comprehensive Land Use Plan Guidebook 2013 is a response to major legislative and environmental shifts affecting land use and resource allocation and management in the country over the last five years.

It is also in recognition of the need to mainstream climate change adaptation and disaster risk reduction and the growing demand for the integration of planning for critical resources such as upland, coastal, ancestral domain, biodiversity areas, heritage and urban greening, which are not yet appropriately addressed by existing local enabling policies and planning processes. The use and management of these areas affect the LGU's and local communities' economic, social, and cultural productivity.

It has adopted the ridge-to-reef or integrated watershed ecosystems management framework to emphasize the interrelationship between the upland, lowland and coastal ecosystems.

More importantly, this Guidebook is an effort to be more relevant and adaptive to the rapidly changing conditions of land and water resources to ensure their sustainable management and conservation for the benefit of future generations.

## 1.1 Objectives

This Guidebook is meant to serve as a practical and simplified technical reference for local government units, community members, and general public in the formulation and development of their local land use plans.

It hopes to provide the users a handy tool containing the following:

- Steps on how to prepare the CLUP;
- Basic instruments in the collection and generation of key baseline data and information; and
- Simple analytical and evaluative tools to determine and decide on the strategic long-term physical vision and development goals of their localities.

## 1.2 About the CLUP Guidebook

This Guidebook is Volume 1 of the three (3) separate but complementary set of guidebooks in preparing and updating Comprehensive Land Use Plans. It is an integrated guidebook that captures the whole planning process from organizing to monitoring and evaluation.

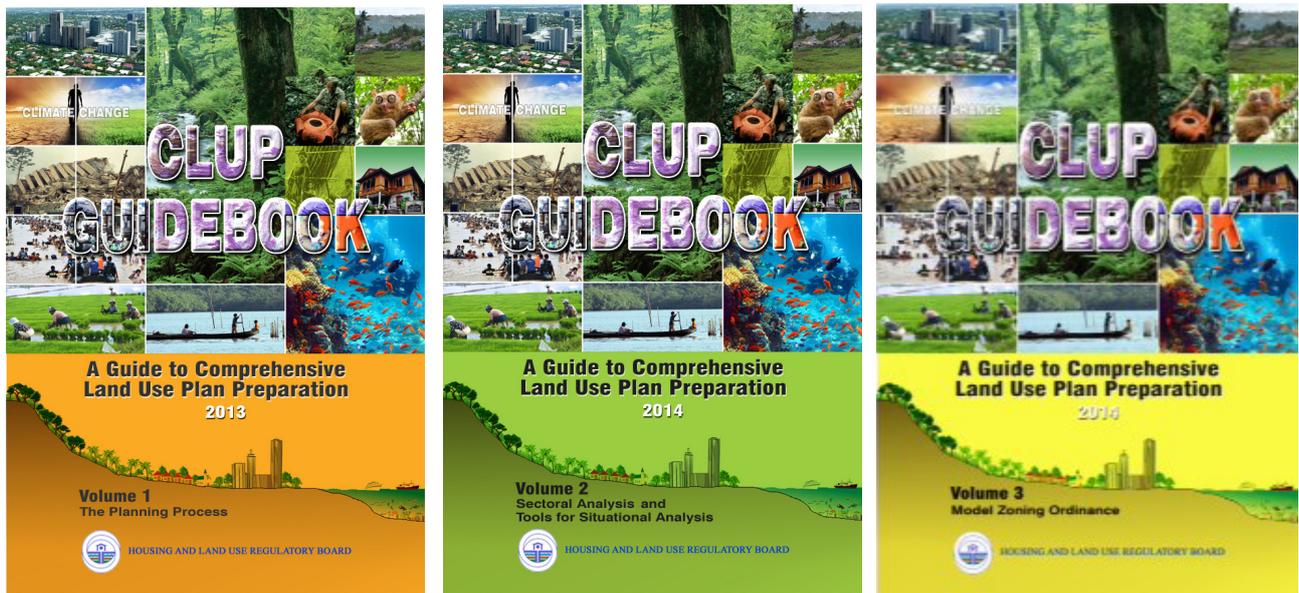
The CLUP Guidebook 2013 is categorized into three (3) volumes as follows (See Figure 1):

- Volume 1: The Planning Process
- Volume 2: Sectoral Studies and Tools for Situational Analysis
- Volume 3: Model Zoning Ordinance

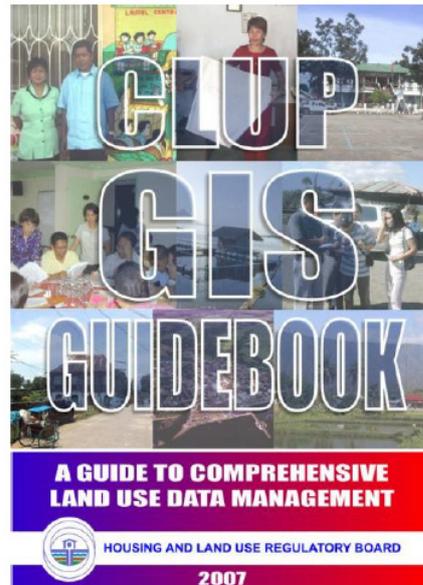
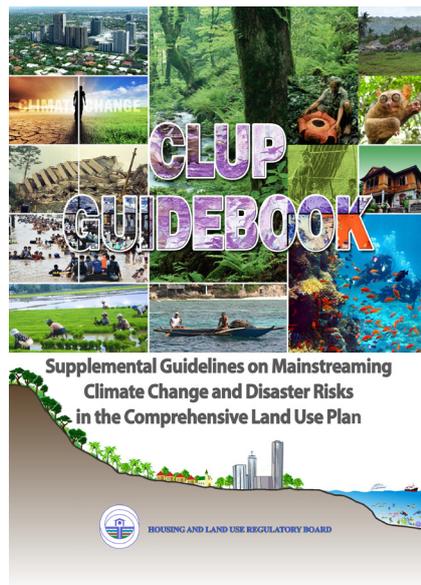
The Guidebook is likewise complemented by the following references:

- Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks in Comprehensive Land Use Plan (Project Climate Twin Phoenix: HLURB/Climate Change Commission/UNDP/AusAID) - approved by HLURB in February 2014
- A Guide to Comprehensive Land Use Data Management (HLURB CLUP Guidebook 2007, Vol.3)

Figure 1. The HLURB Guidebook Series.

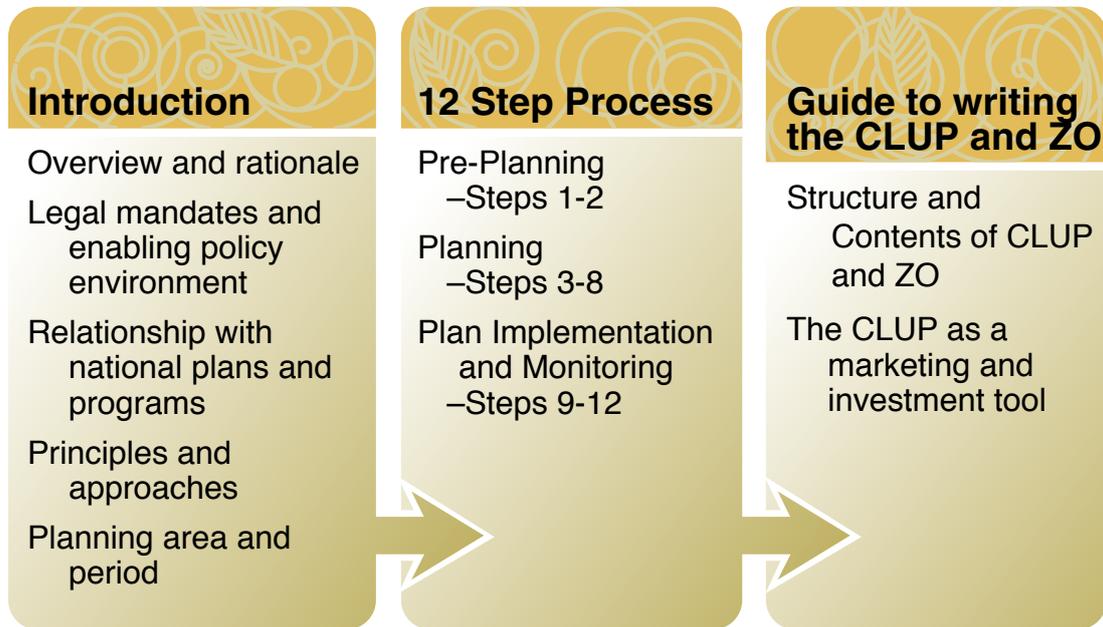


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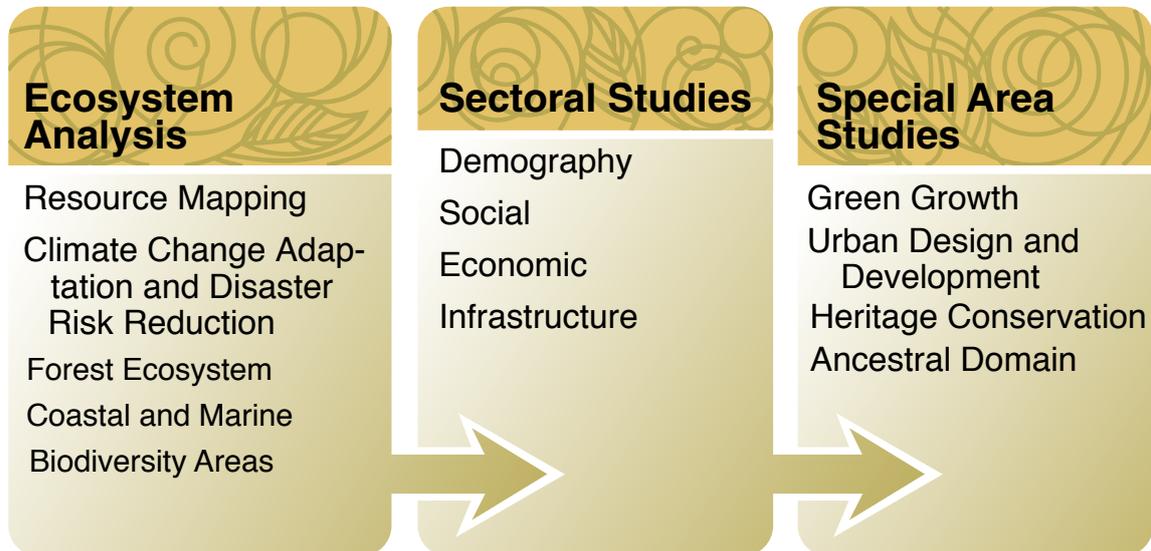
**Volume 1** is then subdivided into the following major sections:

Figure 2. Major sections of Volume 1.



The CLUP Guidebook **Volume 2** is subdivided as follows:

Figure 3. Major sections of Volume 2.



The enhancements are focused on the **Elements of the Guidebook** as shown in **Figure 4** as follows:

- Integration of climate change adaptation and disaster risk reduction;
- Adoption of the ridge-to-reef or integrated watershed ecosystems management framework to emphasize the interrelationship between the upland, lowland and coastal ecosystems (See **Figures 5** and **6**);
- Integration of public and private land use management and newly mandated land and resource use regimes such as ancestral lands, biodiversity, cultural heritage, forestlands, coastal/inland waters and protected areas, among others.
- Inclusion of green growth/eco-efficiency and urban design considerations in urban development;
- Establishment of inter-LGU and/or inter-agency arrangements to facilitate CLUP implementation (See **Figure 7**);
- Emphasis on the precedence of spatial physical plans (at the regional/ provincial/ local levels), particularly the CLUP, over other forms of sectoral and development plans in the LGU; and
- Highlighting the linkage of CLUP to the PFPF and other plans (barangay plan and other area specific plans.).

Figure 4. Elements of the Guidebook.

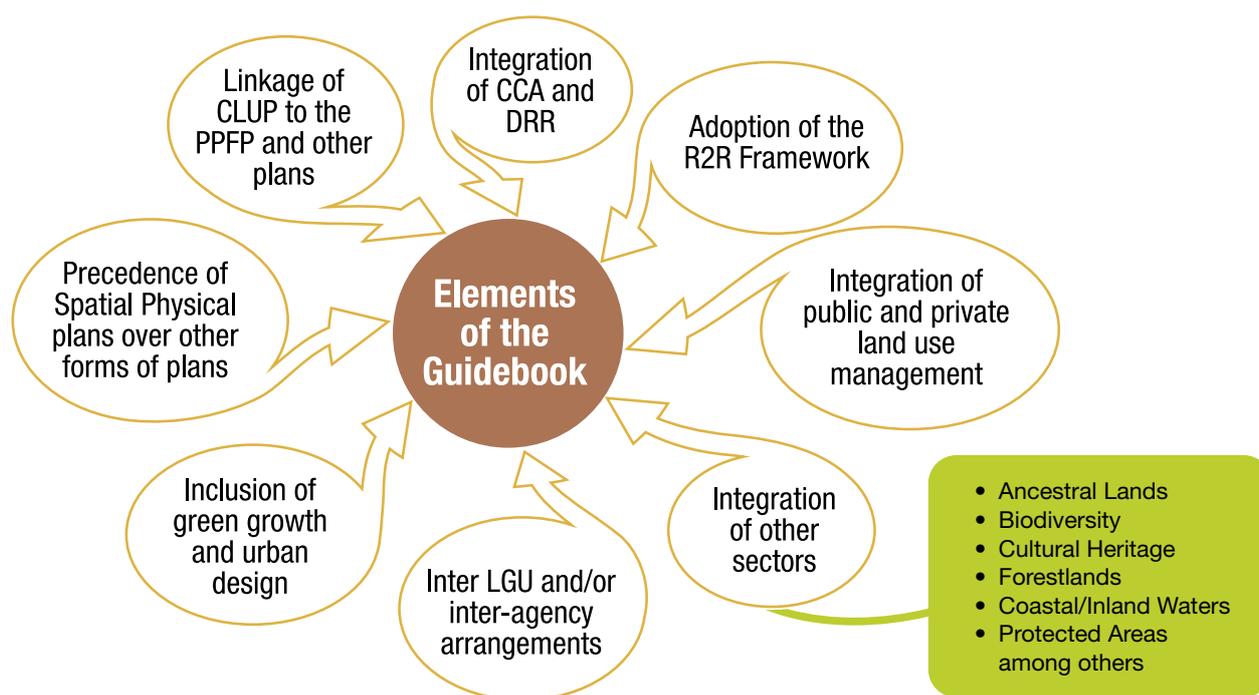
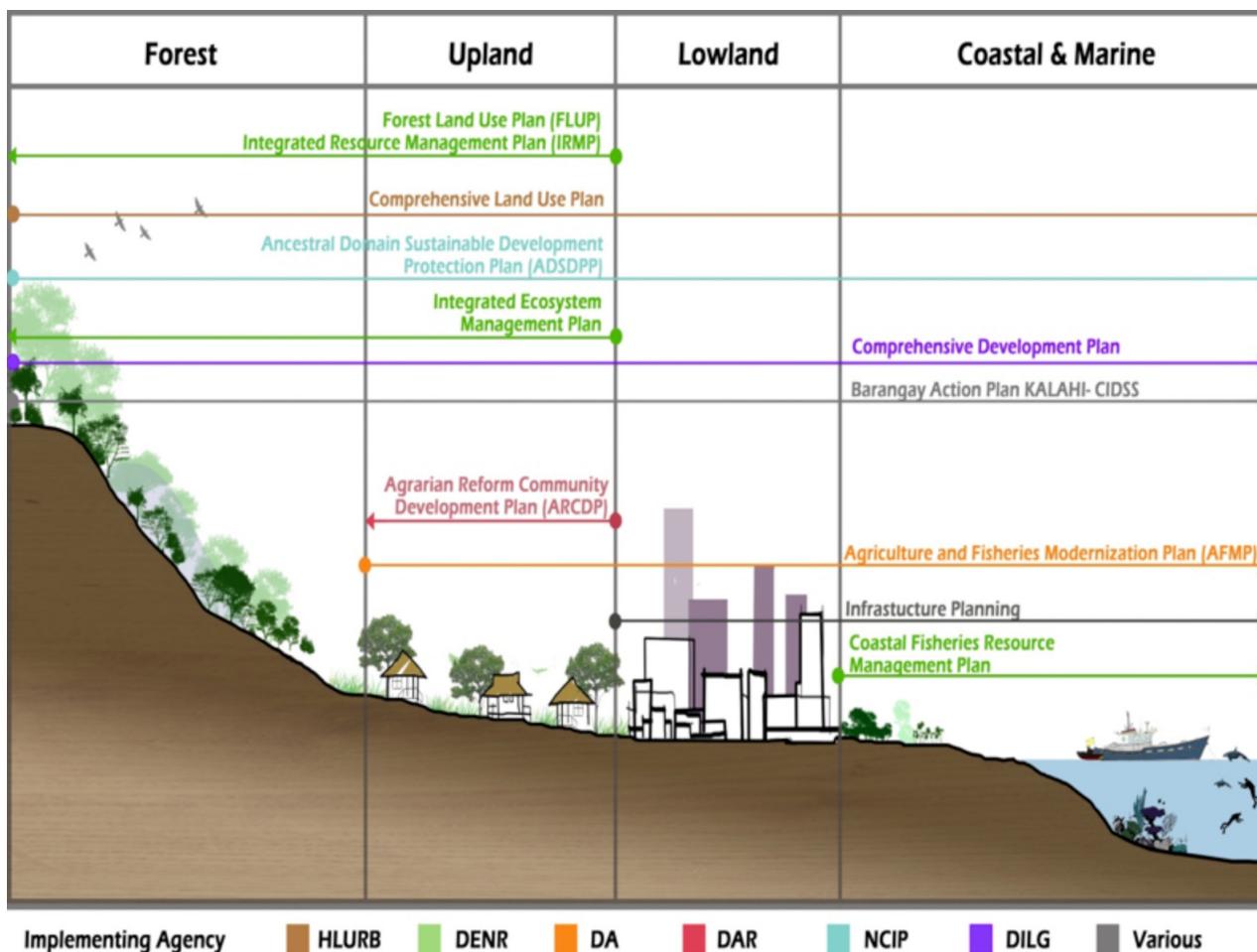


Figure 5. Ridge-to-Reef Integrated Watershed Ecosystems Framework (vertical links).



SOURCE: GIZ Environment and Rural Development Program (EnRD)

Figure 6. Horizontal Transect (institutional and administrative jurisdiction) of the Ridge-to-Reef Integrated Watershed Ecosystems Management Framework.



## 1.3 Hierarchy and Linkage of Plans

One of the critical elements of a successful land use policy will be to establish the primacy of the National Physical Framework Plan (NPFP) over all other types of plans being made for the country, including the Philippine Medium-Term Development Plan.

The national land use policy and physical planning process shall be formulated following a combined bottom-up and top-down approach. The NPFP, guides the planning and management of the country's land and other physical resources at the national and sub-national levels. It indicates broad spatial directions and development guidelines on the four major land use policy areas, namely, settlements development, production land use, protection land use, and infrastructure development.

The National Physical Framework Plan should be the reference point by which subsequent national and local sectoral or development plans are directly linked and aligned. In this way, all plans and programs prepared by national and local government agencies should be seen as contributing and supportive of the physical development objectives and goals of the adopted national, regional, and local physical plans.

The Regional Physical Framework Plans (RPFs), Provincial Development and Physical Framework Plans (PDPFPs), and Comprehensive Land Use Plans (CLUPs), shall cover the physical development of their respective territories, and shall be consistent with the National Physical Framework Plan. The integration and harmonization of the physical framework plans at all levels shall be iterative to ensure that the concerns of both top and bottom levels of government are considered. The physical and land use plans prepared at all levels shall have internal consistency specifically on, but not limited to, the development, management and conservation of critical watersheds and forest reserves, key biodiversity areas and national parks, protected areas, coastal and inland waters, cultural and heritage sites and ancestral lands found within a given territory. These plans shall likewise be consistent and linked with the identified policy guidelines and options of the four major land use policy areas to ensure their complementation in the protection, conservation, development and management of these resources.

The PFP shall determine the physical development of the entire provincial territory, consolidate and harmonize the comprehensive land use plans of component cities and municipalities. It shall reflect the indicative land use management and physical development direction of the province consistent with the RFP.

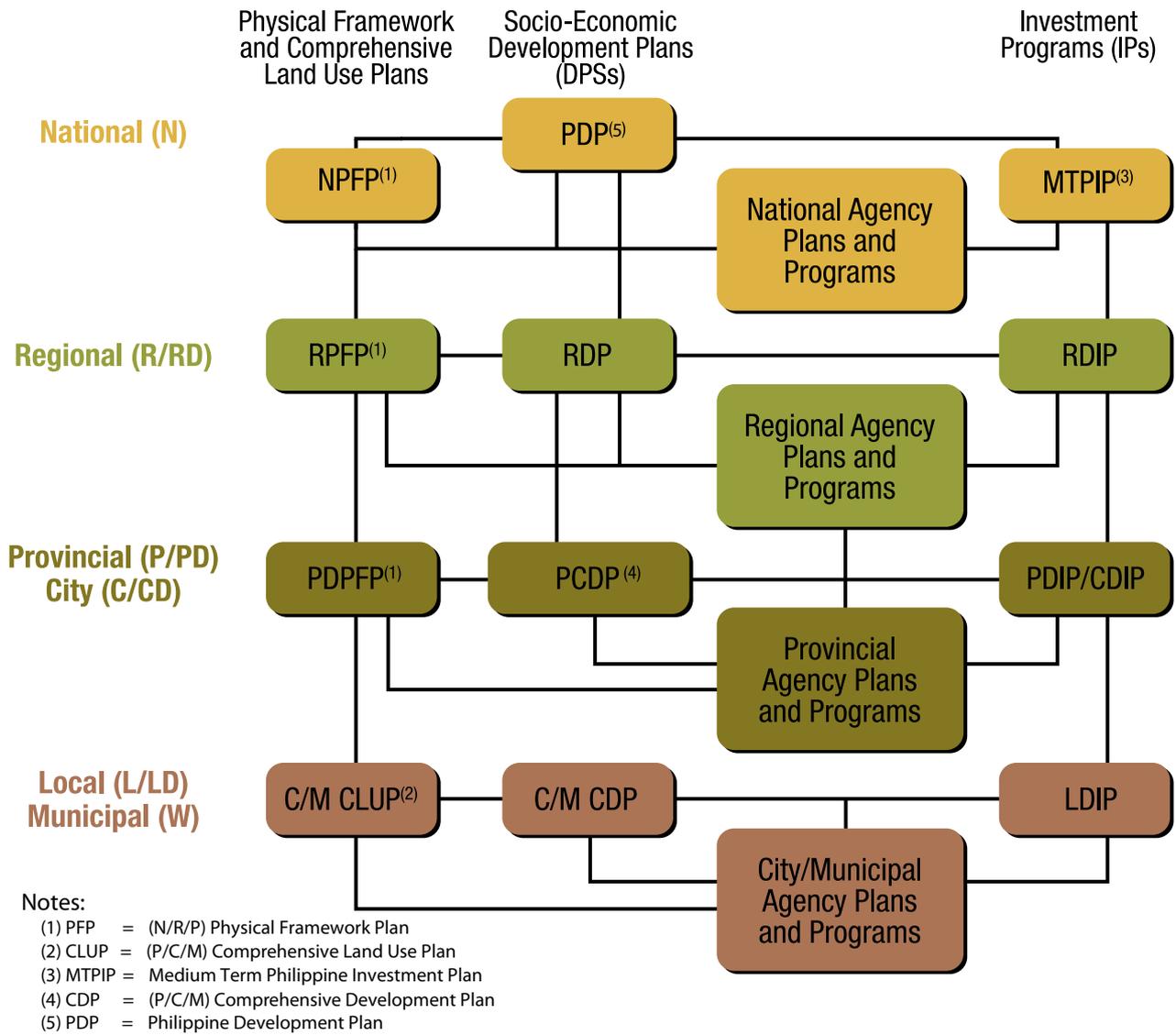
The PFP shall serve as basis for other sectoral and development plans related to land, natural resources, and infrastructure facilities, including the development plan of the province. It shall serve as the basis for the preparation of the Provincial Development Plan (PDP) and Provincial Development Investment Program (PDIP). The PFP, PDP, PDIP and/or Provincial Physical Development and Framework Plan (PDPFP) shall serve as the basis for the formulation of sectoral action plans of national government agencies in the province and all LGUs within its jurisdiction.

The Comprehensive Land Use Plan (CLUP) shall determine the specific uses of land and other physical and natural resources, both private and public, within their territorial jurisdiction including areas co-managed with the national government and, as appropriate, management plans for ancestral domains, critical watersheds, river basins, and protected areas. The CLUP shall delineate actual boundaries on the ground within the territorial jurisdiction, embody the desired land use patterns of the barangay, city or municipality, translate and integrate sectoral plans, and provide appropriate policies for each of the four land use planning categories. The spatial directions prescribed in the CLUP shall serve as the basis for the preparation and formulation of the Comprehensive Development Plan (CDP) and Local Development Investment Programs (LDIP) of the LGUs.

At the local level, the integration of barangay development and physical plans is

one methodology which the LGUs can adopt in the formulation of the CLUP. This shall ensure not only the bottom-up and participatory aspect of the land use policy but more importantly integrating local and community land use priorities with the national and regional priorities.

Figure 7. Hierarchy and Linkage of Plans.



# 2.0 Legal Mandates and Enabling Policy Environment

Comprehensive Land Use Planning (CLUP) is a constitutionally supported undertaking of the State. The State declares its land use policies and principles in terms of relation to national economy and patrimony as well as its police power for the promotion of public health, public safety, public interest, public order, and general welfare.

## 2.1 The 1987 Constitution

The 1987 Constitution is the principal enabling law that provides for the sustainable management and development of all the country's resources, particularly land. It provides for the purpose by which the country's resources should be managed, used, developed, owned and disposed.

### Article XIII, Section 1:

“The Congress shall give highest priority to the enactment of measures that protect and enhance the right of all the people to human dignity, reduce social, economic, and political inequalities, and remove cultural inequities by equitably diffusing wealth and political power for the common good. To this end, the State shall regulate the acquisition, ownership, use and disposition of property and its increments” (Article XIII, Section 1).

The reason why the State should regulate the right to use property, among other rights, is explained in Article XII, Section 6.

### Article XII, Section 6:

“The use of property bears a social function and all economic agents shall contribute to the common good. Individuals and private groups, including corporations, cooperatives, and similar collective organizations, shall have the right to own, establish and operate economic enterprises, subject to the duty of the State to promote distributive justice and to intervene when the common good so demands” (Art. XII, Section 6).

## 2.2 Republic Act 7160 (Local Government Code of 1991)

The Republic Act 7160 (RA 7160) or the Local Government Code of 1991 provides the mandate of LGUs on local planning, legislation, implementation, including budgeting, and monitoring.

### Section 16:

“Every LGU shall exercise the powers expressly granted, those necessarily implied there from, as well as powers necessary, appropriate or incidental for its efficient and effective governance, and those which are essential for the promotion of the general welfare. Within their respective territorial jurisdictions, local government units shall ensure and support, among other things, the preservation and enrichment of culture, promote health and safety, enhance the right of the people to a balanced ecology, encourage and support the development of appropriate and self-reliant scientific and technological capabilities, improve public morals, enhance economic prosperity and social justice, promote full employment among their residents, maintain peace and order and preserve the comfort and convenience of their inhabitants.”

### **Section 20(c):**

“The local government units shall, in conformity with existing law, continue to prepare their respective Comprehensive Land Use Plans enacted through zoning ordinances which shall be the primary and dominant bases for the future use of the land resources

### **Section 447(2)(vii)/Sec. 458(2)(vii):**

“Adopt a Comprehensive Land Use Plan for the municipality/city: Provided, that the formulation, adoption, or modification of said plan shall be in coordination with the approved Provincial Comprehensive Land Use Plan.”

### **Section 447(2)(ix) - Municipality/Section 458(2)(ix) - City:**

“Enact integrated zoning ordinances in consonance with the approved Comprehensive Land Use Plan, subject to existing laws, rules and regulations...”

### **Section 447(a)(2)(vi)/Sec. 458(a)(2)(vi):**

Prescribe reasonable limits and restraints on the use of property within the jurisdiction of the municipality (Sec. 447(a)(2)(vi)/city (Sec. 458(a)(2)(vi).

### **Section 444(b)(3)(vii)/Sec. 455 (b)(3)(vii):**

“Adopt measures to safeguard and conserve land, mineral, marine, forest, and other resources of the municipality” (Sec. 444(b)(3)(vii)/city (Sec. 455(b)(3)(vii).

### **Section 468, 2, Article III, Chapter 3, Book III:**

“(vii) Review the Comprehensive Land Use Plans and zoning ordinances of component cities and municipalities and adopt a Comprehensive Provincial Land Use plan, subject to existing laws.”

Other related legal bases on CLUP formulation provided for under RA 7160 are found under sections 106(a); 109, a, 1-2 and 458(2)(ix); 476(7).

## **2.3 Executive Order No. 72**

Executive Order 72 was issued providing for the preparation and implementation of the CLUP by the local government units and for the review and approval thereof by the HLURB and the Sangguniang Panlalawigan.

### **Sections 1(a, c) and 2(a, e, f):**

“(a) Cities and municipalities shall continue to prepare or update their Comprehensive Land Use Plans, in conformity with the land use planning standards and guidelines prescribed by the HLURB and to national policies.

“(c) Cities and municipalities of Metro Manila shall continue to formulate or update their respective land use plans, in conformity with the land use planning and zoning standards and guidelines prescribed by HLURB”.

“(d) ... the powers of the HLURB to review and approve the Comprehensive Land Use Plans of component cities and municipalities are hereby devolved to the province”.

“(e) Pursuant to LOI 729, S. of 1978, EO 648, S. of 1981 and RA 7279, the Comprehensive Land Use Plans of provinces, highly-urbanized cities and independent component cities shall be reviewed and ratified by the HLURB to ensure compliance with national standards and guidelines”.

“(f) Pursuant to EO 392 S. of 1990, the Comprehensive Land Use Plans of cities and municipalities of Metropolitan Manila shall be reviewed by HLURB to ensure compliance with national standards and guidelines”.

## 2.4 Republic Act 7279 (Urban Development and Housing Act)

The Urban Development and Housing Act (UDHA) or RA 7279 gives a clear-cut definition of a Land Use Plan which the LGUs are mandated to adopt.



### Definitions

**Land Use Plan** – the “rationale approach of allocating available land resources as equitably as possible among competing user groups and for different functions consistent with the development plan of the area and the program under this Act” (Section 3(k) of RA 7279).

The extent of comprehensiveness and the focus of land use planning process as well as the preparation of the CLUP document are defined within the bounds of “land resources” by this provision of UDHA which must be “consistent with the development plan of the area.”

The Housing and Land Use Regulatory Board (HLURB) is mandated by Executive Order No. 648 and RA 7160 (LGC) to formulate land use planning guidelines and standards. In particular EO 648 – Reorganizing the Human Settlements Regulatory Commission.

## 2.5 EO 648 – Reorganizing the Human Settlements Regulatory Commission

### Section 5, Article II:

“(a) To promulgate zoning and other land use control standards and guidelines which shall govern land use plans and zoning ordinances of local governments.”

## 2.6 Climate Change Act of 2009 (RA 9729)

The critical role of LGUs in the country's mitigation and adaptation strategy on climate change is distinctly mandated in Sec. 14 of the CCA (RA 9729).

### Sec. 14 of the CCA:

“The LGUs shall be the frontline agencies (boldface provided) in the formulation, planning and implementation of climate change action plans in their respective areas, consistent with the provisions of the Local Government Code, the Framework, and the National Climate Change Action Plan (2010-2022).”

The CCA law mandates the municipal and city governments as “one of their regular functions” and shall mobilize the necessary resources and personnel to implement their local climate change action plans. Provincial governments on the other hand are directed, along with national government agencies, to provide technical and resources, enforcement and information management assistance to LGUs to implement local CCA plans.

## 2.7 National Disaster Risk Reduction and Management Act (RA 10121)

This Act declares that it is the policy of the government to mainstream disaster risk reduction and climate change in development processes such as policy formulation, socioeconomic development planning, budgeting, and governance, particularly in the areas of environment, agriculture, water, energy, health, education, poverty reduction, land use and urban planning, and public infrastructure and housing, among others.

Under the Act LGUs are mandated to establish a Local Disaster Risk Reduction and Management Office (LDRRMO) whose functions include the identification and assessment of hazards, among others. The LDRRMO is also mandated produce a Local Disaster Risk Reduction and Management Plan (LDRRMP) which will identify disaster risk reduction measures that should be integrated in the Comprehensive Land Use Plan and Comprehensive Development Plan.

## 2.8 Other laws and policies

Among other laws, the following gave LGUs the responsibility to manage and conserve their local resources.

- RA 7586 (NIPAs Act) -Protected areas
- RA 8550 (Revised Fisheries Code) - Municipal waters
- RA 8435 (Agricultural Fisheries Modernization Act)- Agricultural lands
- RA 9003 (Ecological Solid Waste Management Act)- Solid waste
- RA 10066 (National Cultural Heritage Act of 2009) - Cultural and heritage conservation
- RA 9593 (National Tourism Act of 2009) – Tourism development

On the other hand, there are also several laws that affect an LGU's mandate in performing its land use planning and management function. These include:

- RA 7942 (Mining Act)
- RA 8371 (Indigenous People's Rights Act or IPRA)
- PD 705 (Revised Forestry Code)
- CA 141 (Public Land Act)
- PD 1076 (Water Code of the Philippines)
- Other Planning Guidelines:
  - ◆ DENR
  - ◆ DILG
  - ◆ NEDA

# 3.0 Relationship with National Plans and Programmes

## 3.1 Philippine Agenda 21

This Guide advocates the principles of the Philippine Agenda 21 (PA21), which is the national agenda for sustainable development. It outlines the integrating strategies for the country's overall sustainable development and identifies the intervention areas (Action Agenda) from the national to the regional level, along with the corresponding implementing platforms and plans.

PA 21 envisions a better quality of life for all through the development of a just, moral, creative, spiritual, economically-vibrant, caring, diverse yet cohesive society characterized by appropriate productivity, participatory and democratic process and living in harmony within the limits of the carrying capacity of nature and the integrity of creation.



### Definitions

**Sustainable development** as defined in the PA 21 (1996) – the ‘harmonious integration of a sound and viable economy, responsible governance, social cohesion and ecological integrity, to ensure that development is a life-sustaining process.’

PA 21 has five goal elements, as follows:

1. **Poverty Reduction:** Poverty is a central concern of sustainable development. Consistent with this, PA 21 has a poverty reduction agenda that includes measures to create an enabling economic environment for sustained and broad-based growth; improve employment, productivity and income; and attain food security.
2. **Social Equity:** Social equity should mean allocation of resources on the bases of efficiency and equity to achieve balanced development. Efficiency and equity mean the channeling of resources to developing areas where greater economic benefits accumulate and where there is greater need, distribution being dependent on the practicality and urgency of needs.
3. **Empowerment and Good Governance:** Empowerment is a precondition of informal choices. Good governance is a necessary precondition to empowerment, as empowerment is to good governance. These two are a defining element of each other.
4. **Peace and Solidarity:** The cycle of poverty and conflict goes on as the costs of war escalate in terms of various kinds of destruction while withholding funds for basic services, resulting in more poverty and underdevelopment.
5. **Ecological Integrity:** In general, the path towards enhancing the integrity of the country's ecological domain will have to involve heightened and sustained implementation of environmental laws, as well as the continued pursuit of resource conservation, and environmental restoration/enhancement programs.

## 3.2 National Framework for Physical Planning (2001-2030)

This Guide also promotes the following principles consistent with the planning and management of resources provided for in the National Framework for Physical Planning (NFPP):

- **Food security:** Utilizing the country's land and water resources in a manner that provides sufficient and affordable food products to all Filipinos of the present and future generations through local production and/or importation.

- **Environmental stability and ecological integrity:** Achieving environmental stability through the observance of appropriate standards and ensuring ecological integrity through effective natural resource management and balancing the demand of land using activities vis-à-vis preservation of ecosystems. Ensuring the proper selection of a site to minimize the damage both to the environment and human health (Appropriate location principle)
- **Regional Urban Development:** Encouraging the sustainable growth of cities and large towns while complementing the growth of rural areas by adopting alternative development approaches.
- **Spatial Integration:** Linking consumption and production areas to achieve physical and economic integration through appropriate infrastructure systems.
- **Equitable access to physical and natural resources:** Ensuring equitable access to resources through a just distribution of the country's resources and by providing equal opportunities to all Filipinos in the use and acquisition of land and other resources.
- **Private-public sector partnership:** Encouraging shared responsibility between the government and the private sector in the development and management of the country's physical resources.
- **People Empowerment:** Establishing pragmatic appropriate flexible and dynamic structures or mechanisms that involve the participation of key stakeholders.
- **Recognition of the rights of indigenous people:** Ensuring the Indigenous Peoples (IPs) right to develop, control, and use lands within their ancestral domains.
- **Market orientation:** Adopting the interplay of market forces within the framework of ecological and intergenerational factors as a basic parameter in the allocation and use of physical resources.

### 3.3 National Strategic Framework for Climate Change (2010-2022) and National Climate Change Action Plan (NCCAP)

This Guide supports and complements the National Strategic Framework for Climate Change (2010-2022) adopted by the Government of the Philippines as its national strategy towards 'ensuring and strengthening the adaptation' of our natural ecosystems and human communities to climate change.

The NSFCC aggressively highlights the critical aspect of translating the country's adaptation strategy at all levels of governance, particularly in local land use and development plans.

This Framework shall guide the national and sub-national development planning processes, specifically the formulation of the Medium-term Philippine Development Plan (MTPDP), Medium-term Public Investment Program (MTPIP) and sectoral plans; at the sub-national level, the Medium-term Regional Development Plan (MTRDP), Medium-term Regional Development Investment Program (MTRDIP), Provincial Development Plans (PDPs) and Provincial Physical Framework Plan (PPFPs); and at the local level, the Comprehensive Land Use Plans (CLUPs) and Comprehensive Development Plans (CDPs).

Under the NSFCC, the adoption of the integrated ecosystem-based management is one of the adaptation pillars of the country's national strategy on climate change. Specifically:

- **Integrated Ecosystem-based Management.** Addressing the country's multiple vulnerabilities to climate change requires an integrated ecosystem-based management approach which not only acknowledges the interrelationships across the country's ecosystems, but also strengthens the integrity of decision-making processes towards the formulation of comprehensive adaptation strategies from ridge-to-reef.
- **Local Climate Change Action Plan.** Appropriate land use and land development is one of the most concrete ways to implement CCA and DRRM, and to harmonize these with sustainable development goals.

### Section 14 of RA 9729:

At the local level, Section 14 of RA 9729, or the Philippine Climate Change Act of 2010 states that:

“LGUs shall be the frontline agencies for the formulation, planning and implementation of climate change action plans in their respective areas, consistent with the provisions of the Local Government Code, the National Framework Strategy on Climate Change (NFSCC) and the National Climate Change Action Plan (NCCAP).”

The Climate Change Act aims to systematically integrate the concept of climate change in the policy formulation and development plans of all units of government to prepare for the impact of climate change. The Local Government Units (LGUs) have also been tasked to formulate and implement their respective Local Climate Change Action Plans (LCCAP) consistent with the Local Government Code, the NFSCC and the NCCAP. The LCCAP as an action plan, should likewise be consistent to the CLUP.

## 3.3 Millennium Development Goals (MDG) 2000-2015

Finally, this Guidebook is consistent and supportive of the country's targets for the Millennium Development Goals, particularly Goal 7 on ensuring environmental sustainability.

Similarly, the Guidebook directly contributes to achieving Target 9: “Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources”.

The integration of public and private land use management in the Guidebook especially public land areas covering forestlands, protected areas, and coastal areas are key MDG target indicators for rehabilitation and restoration, which the Guidebook emphasizes, especially as part of the protection land use areas under the enhanced CLUP guidelines.

# **4.0 Principles and Approaches Adopted in the CLUP preparation process**

## **4.1 Watershed as platform for land use planning**

The watershed covering the ridge-to-reef features of the land shall serve as the common strategic physical planning (vertical) platform for the formulation and preparation of all land uses and physical plans. It shall be the unifying and integrating (horizontal) framework in the identification of both public and private land use management strategies and policies including disaster risk reduction and climate change adaptation and mitigation measures.

The increasing threat and impact of climate change and natural disaster and calamities arising from extreme weather occurrences further highlights the need to analyze local physical planning and development initiatives using an area's bio-physical condition as critical focal point. This is particularly significant at the provincial level where watersheds and sub-watershed are more clearly defined and interrelated. The integrated watershed or ecosystems management framework shall also be the physical reference for the formulation of specific sectoral and development plans by national and local government agencies.

In the determination of specific land uses and development controls, the analysis and assessment of the watershed or its sub-watershed area, either within the territorial jurisdiction of an LGU and/or its adjacent LGUs, shall start from the uplands to the lowland areas down to the coastal areas, including municipal waters, as defined under RA 8550 or the Revised Fisheries Code. A prioritization of critical watershed areas, including its impact and affected communities and barangays, shall be ascertained based on the use values—economic, social, ecological, cultural, historical, institutional or infrastructural, at the community and LGU levels.

## **4.2 Inclusive and expansive governance**

This Guide advocates that all three actors in governance, namely: government (state), civil society, and the private sector are actively involved in the enhanced CLUP process. Good local governance allows for collaborative partnerships among the local government, business, and civil society. Good governance is characterized as sustainable, participatory, transparent, accountable, legitimate and acceptable to the people, and promoting equity and equality.

## **4.3 Co-management principle**

Section 3 (i) of the Local Government Code provides that "local government units shall share with the national government the responsibility in the management and maintenance of ecological balance within their territorial jurisdiction." Local governments and the national government are therefore mandated by RA 7160 to act as co-managers of the national territory and patrimony.

## **4.4 Gender responsiveness and sensitivity**

The integration of gender, explicit consideration of development (socio-economic, physical, cultural, etc.) and population interrelationships in the entire planning process – plan formulation, plan implementation, monitoring and evaluation. The utilization of the POPDEV planning approach ensures or provides a mechanism for integrating sustainable development indicators in planning.



Refer to Volume 1 Annex 12.1 – Core Indicators for Gender Responsive Population and Development Planning.

## 4.5 Integration of Barangay Development Plans (Bottom-Up Approach)

Under the Local Government Code of 1991, the Local Development Councils, the Barangay Development Councils (in the case of barangay) are tasked to prepare Barangay Development Plans to be submitted to the Sangguniang Barangay for review and approval.

Thus, integration of Barangay Development Plans into the city or municipal plan is one methodology which the LGUs can adopt in the formulation of the CLUP.

The integration aims to harmonize development goals and objectives of all barangays in cities or municipalities. It also identifies and reconciles inconsistencies and incompatibilities in land use proposals among adjacent barangays.

## 4.6 Top-to-Bottom Approach

In the absence of barangay and municipal development plans, the local planners adopt the top to bottom approach to planning. In this case, the Provincial Land Use Plan/Physical Framework Plan (PPFP), if available, may serve as basis and framework for the formulation and updating of the CLUP without precluding consultation with component LGUs.

Similarly, other national or sub-national plans could be referred to by local land use plans particularly key strategic development priorities identified in the regional physical framework or development plans in the area where the LGUs are located.

Likewise, detailed area-specific plans such as coastal management plans, waste management plans, forest land use plans, heritage preservation plans, ancestral domain management plans, etc. shall be considered and integrated in the course of the preparation of the CLUP if such plans have already been prepared/approved. The incorporation of such plans shall be subject to review and harmonization with the city/municipal vision, goals and objectives. If such resource management plans have not been prepared, they shall be automatically integrated into all the activities under the enhanced CLUP process.

# 5.0 Planning Area and Period

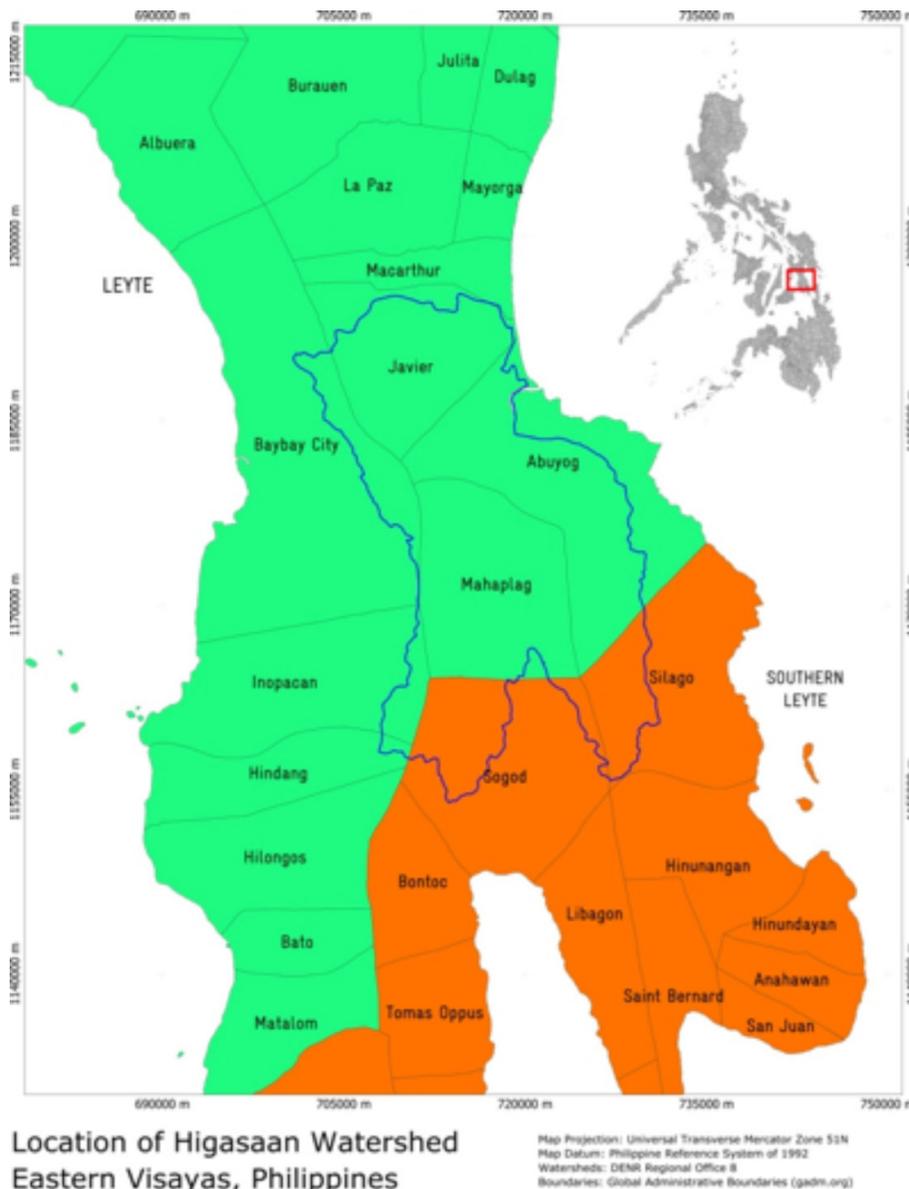
The primary planning area is defined by the cities'/municipalities' political boundaries. This includes all component barangays and the city/municipal waters extending **15 kilometers from shoreline for coastal LGUs**.

Under the 'ridge-to-reef' or integrated ecosystems management framework, the physical coverage area of an LGU's CLUP shall be **referenced from the specific watershed/sub-watershed basin area** within the municipality or city and other adjacent localities (trans-boundary). Thus, the CLUP shall cover both land and water resources of the city/municipality. However, it shall also consider other LGUs within the boundaries of its watershed/sub-watershed area (Refer to Figure 8).

The CLUP covers a planning period of **nine years** at the minimum. It may be reviewed every **three years** coinciding with the term of the locally elected officials.

Local implementation and development plans such as the 3-year CDP can be reviewed and updated accordingly to reflect priorities and targets, and achieve the objectives of the plan. This may be done by the Mayor and other locally elected officials, for their appreciation and continuity of plan implementation. Such review will also provide an opportunity for the incumbent or incoming local officials to harmonize the new administration's development agenda with the approved CLUP and use the CLUP as basis for budget preparation and fund sourcing initiatives.

Figure 8. Sample LGUs with overlapping watershed boundaries.



# Part 2

## The Process



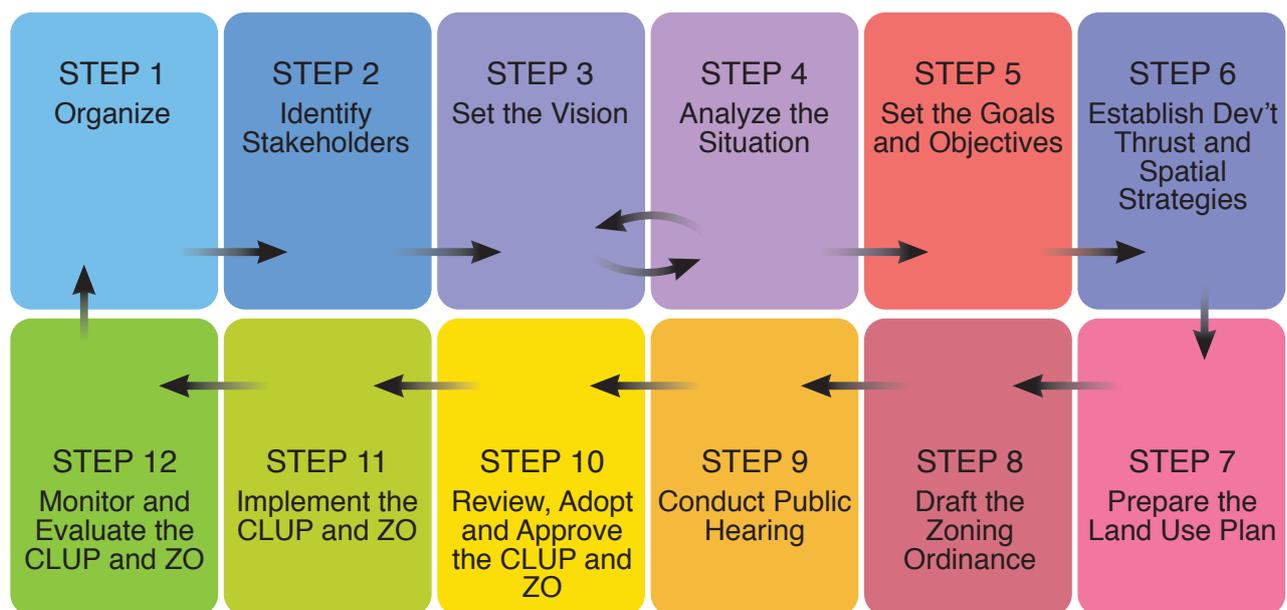
# The 12-Step Process to Comprehensive Land Use Planning

The Guidebook is oriented towards assisting LGUs in conducting an evidence-based and technically-sound revision and updating of existing/current CLUPs. The Guidebook also emphasizes the holistic and integrative view of land use planning in the context of a watershed or ridge-to-reef framework which normally extends beyond the LGU's territorial jurisdiction. This is in recognition that land use patterns and impacts are not only influenced by internal conditions and activities but also by external factors such as other LGU development or changing climate patterns.

This guidebook reiterates that an LGU's land use plan is a systematic and organized presentation of its strategic vision, objectives and directions which are then translated into a physical and spatial dimension. Covering both public and private lands, a land use plan starts from the uplands-to-lowlands-to-coastal ecosystems of the watershed/ sub-watershed system where the LGU is located. The detailed implementation of the enhanced CLUP's strategic vision, objectives and directions is then presented through the various local development plans such as Comprehensive Development Plans (CDP) and sectoral/ thematic plans within the LGU's area or shared area with other LGUs.

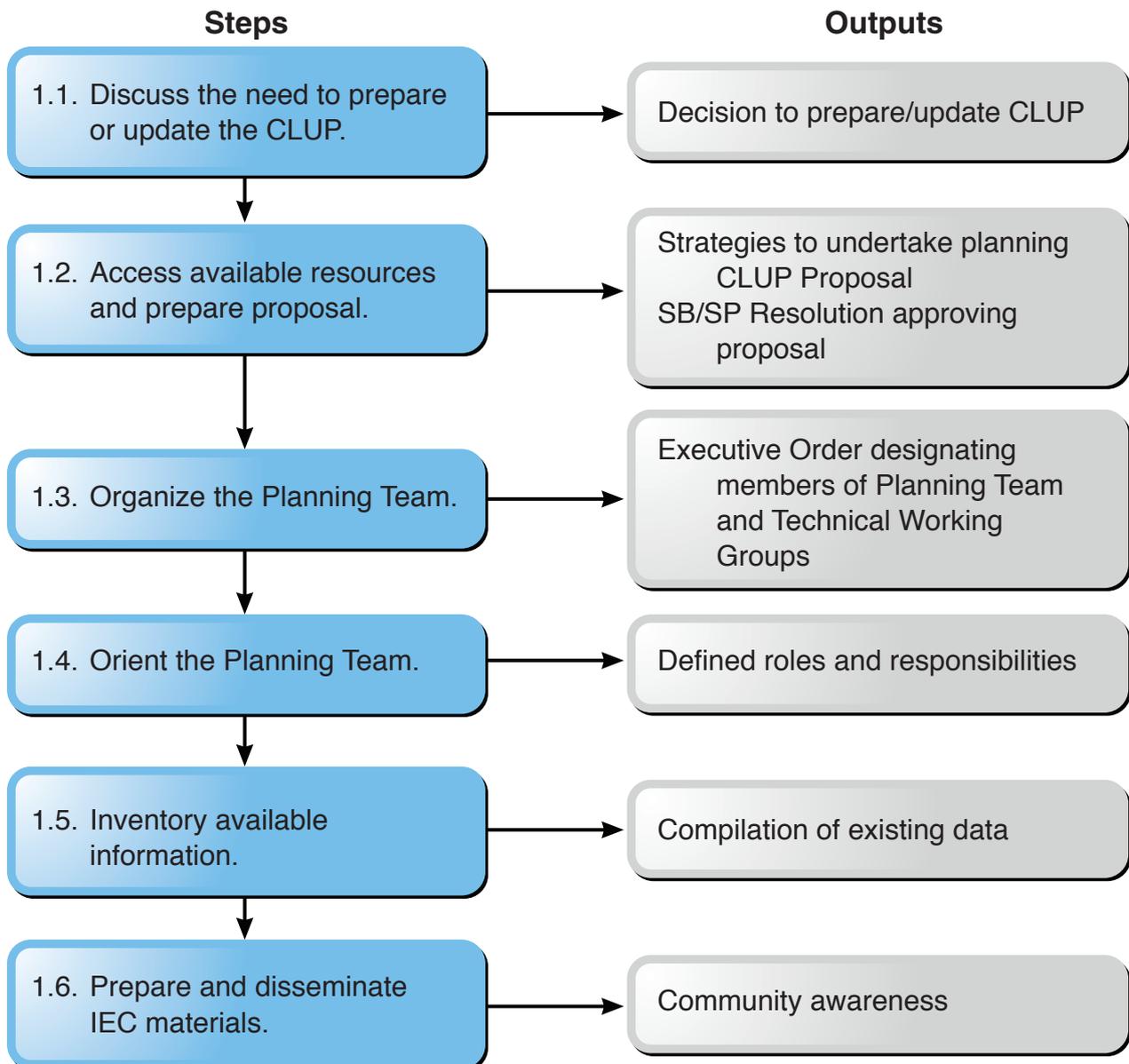
**Figure 9** presents the 12-step process, which provides the general procedures from which the planning team can proceed with the CLUP and ZO preparation. While the process is vision-oriented, it also reiterates the importance of gathering information to provide a more realistic basis for and effectively formulate the city/municipality vision. Step 3 (Set the Vision) and Step 4 (Analyze the Situation) therefore, may be carried out interchangeably.

Figure 9. CLUP process



# Step 1: Organize

Assemble the personnel, resources, and support needed for the planning process



## Introduction

Getting organized is an important first step to take before doing the actual plan preparation activities. Anticipating and preparing for the resources that will be needed for the planning activities will lead to the smooth implementation of accomplishment of planning outputs in time.




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### Objective/s

- Obtain the commitment, support, and participation of the Local Executive, Sangguniang Bayan (SB)/Panlungsod (SP) members, Local Development Council (LDC), City/Municipal Department Heads and their staff, and the whole community.
- Assess the availability of resources in terms of funds, personnel, logistic support and available data and information for the planning activities.
- Establish the' guiding framework and focus of the planning activities.




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### Key Input/s

- Planning and policy guidelines from national agencies and province
- Summary reports of key sectoral/thematic areas (i.e. socio-economic, demographic/income, production/productivity, land use/resource conditions, settlements, ecological/environmental/biodiversity, among others)
- Local and national agency sectoral plans, maps, accomplishment reports and baseline information and data
- Relevant studies and assessments
- Updated satellite maps/photos and boundary delineations/thematic maps




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### Expected Output/s

- Proposal for CLUP preparation/updating (including work program and budget)
- SB/SP resolution approving the proposal for the preparation of CLUP
- Executive Order designating members of the Planning Core Team, TWGs, etc.
- Defined roles/responsibilities of the Planning Team and TWGs
- Information and Education Campaign (IEC) materials for community awareness and participation




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### Key Technical Persons/Responsible Groups

- Lead: City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-making Authority: Local Chief Executive, Sanggunian Bayan

- Consultative Body: Local Development Council (LDC) and local communities/ barangays



## Annexes

Annex 1-1: Sample Schedule of Planning Activities

Annex 1-2: Suggested Composition of the Planning Team



## Steps

The Office of the City/Municipal Planning and Development Coordinator (C/MPDC) will undertake the following activities:

### 1.1. Discuss the need to prepare/update CLUP

Discuss with local officials/officers the need to prepare/update the CLUP and identify rationale, framework of activities, and timeframe for planning.



SEE VOLUME 2: Discussion of the rationale may already include the need to adopt the ridge-to-reef framework as well as the mainstreaming of disaster risk reduction and climate change adaptation into the land use plans. See Volume 2 for reference materials.

### 1.2. Assess available resources in terms of funds, personnel, and other logistic support.

- Resources needed for planning may include the following:
  - funds to finance planning activities
  - personnel for carrying out the planning activities
  - supplies and materials to be used for the planning activities
  - computers and other equipment to prepare documents, maps and other planning materials
  - transportation and communications
  - available reference materials: studies, profiles, etc.
- Review the suggested work program in **Annex 1-1** and budget proposal. The work program shall include the timelines/schedule of planning activities.



SEE ANNEX 1-1: The CLUP preparation process normally takes a maximum of 18 months depending on availability of resources, materials, and prevailing circumstances. The schedule must be flexible enough to allow sufficient time to accomplish each activity. Refer to Annex 1-1 for the sample schedule of planning activities in Gantt Chart.

- Present the proposal to the Local Chief Executive and SB/SP for approval.
- Prepare and issue the Executive Order.

### 1.3. Organize the planning team.

- Organize the planning team. The planning team shall be composed of a Planning Core Group assisted by TWGs.



REFER TO Annex 1-2 presents the suggested composition and responsibilities of the planning team and TWG.

- Identify members of the City/ Municipal Technical Working Group (TWG) to be mobilized for CLUP preparation/updating/revision.



The Planning Core Group shall be the over-all committee responsible for coordinating all technical and administrative activities in the preparation of the CLUP, including stakeholder consultations and meetings; it shall also facilitate the presentation of the draft CLUP to the LDC for endorsement to the SB.

The core team will coordinate the planning activities, draft and consolidate the contents of the CLUP document.

The TWGs on the other hand will assist the Planning Core Group in the following:

- Conduct of sectoral/intersectoral analysis, validation and reports
- Conduct of surveys, consultations/ meetings, workshops
- Integration/ finalization of studies, research findings, and consultation/survey outputs

### 1.4. Orient the planning team.

The orientation should focus on informing the planning team on the purpose, responsibility, expected outcomes, and the anticipated benefits of the planning activity.

- Carry out this activity with key local LGU/national agency offices, SB and LDC members, community/stakeholder representatives, etc.
- Brief the planning team on how planning activities will be undertaken.

### 1.5. Inventory available information.

This can include the following:

- Previous/current CLUP; current PFPF;
- Local sectoral plans and key national agency plans (i.e. DA, DPWH, DENR, DOTC, NIA, DOT, etc.)
- Key watershed/sub-watershed divides/delineation (c/o DENR/CENRO);
- Progress or annual reports, assessments, and evaluations;
- Surveys on socio-economic and demographic conditions, land use, productivity, poverty/income, environment/ biodiversity;
- Studies and relevant information on climate change vulnerability, hazards, and threats experienced by the LGU during the existing/previous CLUP period.
- Recent satellite photos/maps of LGU's land, settlements and vegetative cover;

<sup>1</sup>The CPDO/MPDO is the office primarily concerned with the formulation of integrated economic, social, physical, and other development plans and policies as per Sec. 476(b) (1) and (5) of RA 7160 or the Local Government Code of 1991.

- Laws and ordinances on or affecting their land uses in the area such as environment code, investment code, tax code, fisheries code, delineation ordinance, among others
- Inventory of tenurial instruments/claims issued in the area (i.e. ancestral lands, free patents, CBFMAs, ISF/CSCs, mining claims/tenements, energy/tourism sites, etc.)
  - ♦ Local tax map and property assessment maps from the Assessor's Office and BIR;
  - ♦ Special designated areas—cultural/historical zones, special economic zones, socialized housing/resettlement areas, protected areas (land/marine), highly vulnerable and extremely hazardous zones, coastal and inland water buffer zones /legal easements, among others.
- Present in map format all applicable information generated such as:

Consolidated city/municipal-wide data

- ♦ Disaggregated data by barangays (at the minimum)
- ♦ Further disaggregated data by gender, age (children, youth, working population, elderly), income levels, etc.
- ♦ Watershed, biophysical, vegetative, tenurial, CCA/disaster risks, and all other CLUP-related information generated from the inventory carried out in Activity 1.3.



The collection and gathering of progress information should focus on establishing level of change (no change) or progress reached by the LGUs based on targeted levels of key outcome indicators in identified key sectoral/thematic areas during the covered planning period. Preferably these outcome indicators should reflect or represent the existing/previous CLUP's targeted strategic vision, goal and objectives.



Examples of key sectoral/thematic outcome indicators are:

- Socio-economic—Targeted average income levels or increase/decrease in poverty levels (i.e. No. of households below or above (municipal/provincial or regional) poverty threshold).
- Production/productivity—Targeted average yield per hectare or % increase in yield/hectare compared to previous average or comparative reference (i.e. provincial/regional or national average).
- Demographic—Targeted % increase in population density/distribution or increases in population by barangay;
- Environmental/ecological/biodiversity—Targeted increase/decrease in water levels, forest cover or fish catch levels.
- CCA/DRRM—Targeted % of HHs per barangay affected by disasters; % reduction in damaged areas/barangays or HH evacuated in affected areas/barangays.

## 1.6. Prepare and disseminate IEC materials.

Disseminate information on the planning activities to the general public through barangay assemblies and other forums, posters, publications, broadcasts, etc. to encourage public participation at the earliest stage of plan formulation.

# Annex 1-1. Sample Schedule of Planning Activities

## Workprogram for CLUP and ZO Formulation/Revision

Activity	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18
1. Organize																		
• Getting endorsement/approval of SB/SP																		
• Preparation of work program																		
• Organization and briefing of planning team																		
2. Identify stakeholders																		
• Listing of stakeholders																		
• Action planning																		
• Information dissemination																		
3. Set the Vision																		
• Conduct of visioning workshops																		
• Adoption of the vision and informing public of the adopted vision																		
4. Analyze the Situation																		
• Sectoral Studies and Physical Land Use Studies																		
a. Base map preparation																		
b. Data gathering and land use survey																		
c. Mapping of results (organizing results with maps, graphs, tables, etc.)																		
d. Consultation/Validation workshops																		
e. Needs/Issues analysis and projection																		
f. Cross - sectoral analysis and integration																		
5. Set the Goals and Objectives																		
• Goals and objectives formulation workshop																		
6. Establish Development Thrusts and Spatial Strategies																		
7. Prepare the Land Use Plan																		
8. Draft of Zoning Ordinance and Other Development Controls																		
9. Conduct of Public Hearing																		
• Refinement of draft CLUP and ZO																		
10. CLUP Review, Adoption and Approval	Subject to appropriate review/approving/ratifying body's timetable																	
• Endorsement for review to appropriate body																		
• Conduct of review by appropriate body																		
• Return of CLUP to LGU for refinement																		
• Refinement of CLUP																		
• SB/SP adoption of refined CLUP																		
• Endorsement to SP/HLURB for Ratification/Approval																		
• Ratification of SP/HLURB																		

# Annex 1-2. Suggested Composition of the Planning Team

## Planning Core Group

MPDC/CPDC	Planning Officer	Architect/Env'l/ Urban Planner/ME	DRRMO/CCA Specialist	C/M ENRO
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## Support Group

Encoder, Writer Mapper/Draftsmen, Staff/Researcher	SB Rep on Housing DEPED/DS. MHO MSWDO, PNP/JMBA, SK/FD	As needed: Legal Expert Real Estate Developers
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## TWG

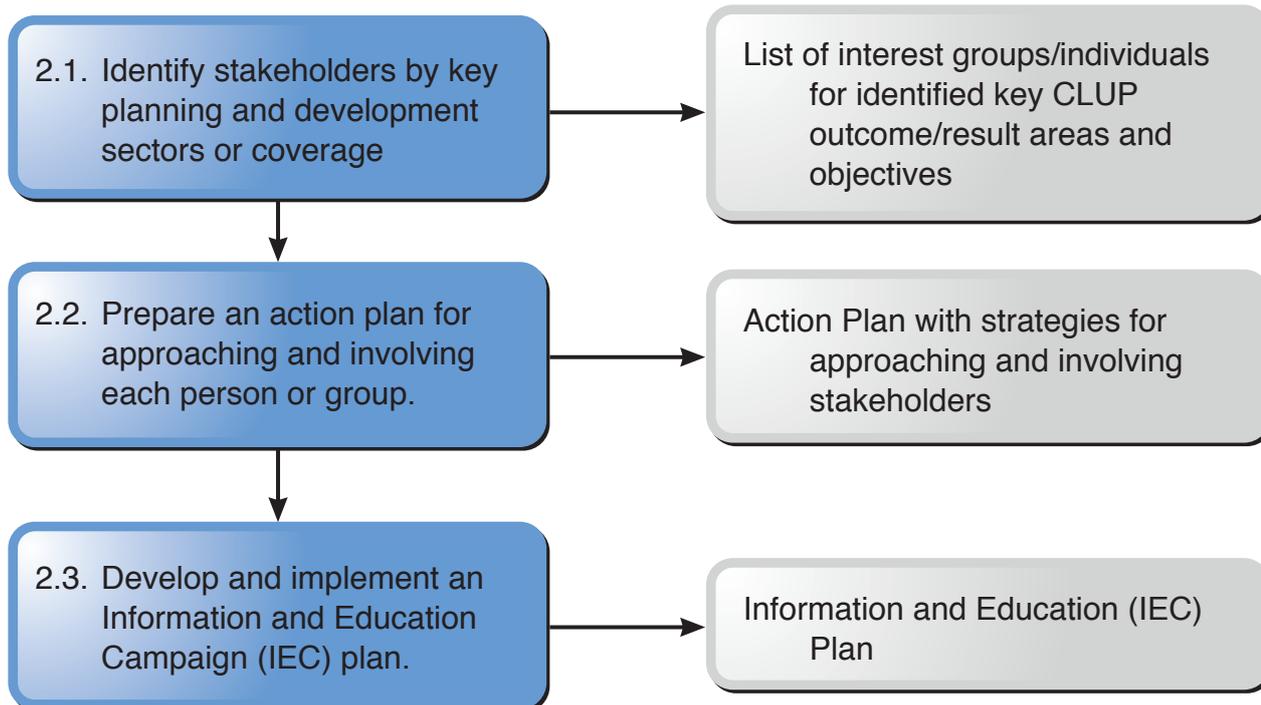
Social	Economic	Infra-structure	Physical	Forest and Ancestral Domain	Coastal and Marine	CCA-DRR	Heritage	GG Urbanism
Comm. Group Rep	MAO	Local Water Utilities Rep.	Academe	Rep. from Ancestral Domain	BFAR	Academe	DOT	Architects
Concerned NGA	MARO	Electrical Corp. Rep.	Assessor	Assessor	Fisherfolks Org. Rep.	Brgy. Chairman	Cultural Heritage Conservation	PIEP
Pres. of Liga ng Barangay	Tourism Officer	PPC Rep.	CSCAND Agencies	DENR-FMS	PO-NGO	PAGASA/ CSCAND Agencies		
Senior Citizen	DTI, TESDA	DOTC, NIA	Real Estate Developer	CBFM/ etc.	MAO	DENR		
SP/SB Committee Chair/Sector Committee Rep.	PESO, DOST	DPWH, PNP	PPDO Rep	PO-NGO	Coastguard			
GAD Concerned Local Heads	NGO, PO	LTO, Irrigators Assoc.		DOT				
		PPA, Marina		IPs				
		Coastguard, DOE		Biodiversity Sp.				

# Step 2: Identify Stakeholders

Recognize and engage participants who can play an active role in the planning process.

## Steps

## Outputs



## Introduction

Public participation is a fundamental part of the planning process. It ensures the involvement of all stakeholders in order to enhance awareness, raise the quality of the plan, and increase the likelihood of the plan's acceptability and success of implementation. Stakeholder participation has two essential and related components: information sharing between the LGU and the citizenry, and active involvement of stakeholders in identifying issues, evaluating options, and formulating strategies.




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### Objective/s

- Identify the key stakeholders and assess their knowledge, interests and concerns related to the CLUP formulation, and how they might affect or be affected by the plan.
- Understand the relations between stakeholders and the real or potential conflicts of interest and expectations between and among stakeholders.
- Develop an action plan for involving the stakeholders in the planning process.
- Interact more effectively with key stakeholders to get their support for the plan preparation, implementation and monitoring.
- Avoid potential misunderstandings about and/or opposition to the plan.




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### Key Input/s

- Key planning and development sectors and coverage
- Information from past stakeholders consultations
- List of organized sectoral groups, NGOs, COs, POs, etc.




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### Expected Output/s

- List of identified stakeholders, their interests, and related information
- Action plan/strategies for stakeholders' participation
- Stakeholder support and commitment to the planning activities




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### Key Technical Actors/Responsible Bodies

- Lead: City/Municipal Planning and Development Office (C/MPDC)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-making Authority: Local Chief Executive, Sanggunian Bayan
- Consultative Body: Local Development Council (LDC) and local communities/barangays



## Steps

The activities under this step are:

### 2.1. Identify stakeholders by key planning and development sectors or coverage.

- Organize the Local Development Council (LDC) members and representative interest/stakeholder groups based on coverage and the identified key CLUP outcome/result areas and objectives. (See Annex 2-1 for the List of Recommended Stakeholders)
- Do the same organization/distribution for participants at the barangay/community levels, as may be necessary.



#### Notes:

A stakeholder is any person, group or institution that has an interest in a development activity, project or program. This definition includes intended beneficiaries and intermediaries, winners and losers, and those involved or excluded from decision-making processes.

Stakeholders can be divided into two very broad groups:

1. Primary stakeholders are those who are ultimately affected, i.e. who expect to benefit from or be adversely affected by the planned interventions;
2. Secondary stakeholders are those who are indirectly affected by the impacts of the CLUP but may have a particular knowledge and/or significant roles related to its formulation, implementation, and/or evaluation.

Key stakeholders are those who can significantly influence the project, or are most important if the CLUP objectives are to be met. Both primary and secondary stakeholders may be key stakeholders.

In designing a consultation process, it is important to identify all of the stakeholders because they are likely to be affected by the CLUP, and they can affect the outcome of the CLUP through their access to, or influence on, the use of resources and power.

In addition to stakeholders who you think may be directly or indirectly affected, it is also important to identify and include stakeholders who:

- Perceive they may be affected even though you think otherwise
- Think they should be involved because of their standing in the community, and are likely to get annoyed if not invited to participate
- May be neutral in their views about the project but could become critical if not handled well.

Primary considerations in the identification of key stakeholders:

- Identify those stakeholders directly and indirectly affected by the (implementation/non-implementation) of plan/project.
- Identify those whose interests determine them as stakeholders.
- Be strategic and prioritize by identifying those directly affected or influence results or outcomes of the implementation of the plan/projects.
- Refer to past stakeholder information and consultation.
- Develop socio-economic fact sheets with a focus on vulnerable groups.
- Verify stakeholder representatives.
- Engage with stakeholders in their own communities.
- Remember that government is a key stakeholder.
- Work with representative and accountable NGOs and community-based organizations.



### Recommended Tools for Stakeholder Identification:

1. Stakeholder Identification Workshop (Annex 2-2)
2. Venn Diagram and Stakeholder Influence Diagram: Identifying stakeholder links and relationships (Annex 2-3)
3. Power-Interest Grid: Identification of influence and roles of key actors/ players in the community (Annex 2-4)
4. Typology of Stakeholder Analysis Methods (Annex 2-5)
5. The Basic Methods of Technology of Participation TOP (Annex 2-6)
6. Principles of Effective Consultation (Annex 2-7)

## 2.2. Prepare an action plan for approaching and involving each person or group.

- Decide on the timing and extent of involvement of the various stakeholder groups. (See Annex 2-8 for the Guide in Conducting Consultations in the preparation of CLUPs).
- Involve communities at the earliest planning stage to encourage ownership of the plan. Though general community participation is not always possible, extensive involvement may be facilitated through representation, focus group discussions, interviews, surveys, and other innovative forms of indirect participation.
- Include in the action plan conflict resolution mechanisms to effectively solve any animosities or conflicts that may arise among the groups or individuals in public consultations. Problem solving processes and constructive handling of differing viewpoints should be part of skills training for consultation managers and facilitators. Knowing the participants beforehand could lead to a better consultation processes.



### Involving Vulnerable Groups

In the case of LGUs with indigenous peoples (IPs) and ancestral domains, the participation of the IP groups either as a separate sector, especially in distinctively IP settled communities, or integrated with the other members of the community must be ensured. In predominantly IP communities, the tribal practices of communal consultation and decision-making maybe adopted and integrated into the enhanced CLUP process.

Similarly, the participation and representation of women and use of gender-sensitive processes in stakeholder consultation and activities must be integrated in the whole CLUP process. The conduct of women only focus group discussions or workshops is a possible approach to obtaining relevant inputs from women members of the community.

The frequency and immediate threats of climate-induced extreme weather events and disasters demand that the most vulnerable and threatened community members be properly included, if not prioritized, in public discussions related to land and resource usage and development controls.

Vulnerable groups include, among others, those from the basic sector (NAPC).

## 2.3. Develop and implement an Information and Education Campaign (IEC) plan to inform and solicit support and commitment of the identified stakeholders and the general public.



**Notes:**

The IEC plan can include the following:

1. Detailed information on the plan preparation and processes involved
2. Conduct of consultation activities
3. Timelines for the whole planning process so that stakeholder participation is maximized.
4. Benefits of having a CLUP
5. Contribution of the stakeholders

### Annex 2-1. List of Recommended Stakeholders

As part of promoting transparency, accountability and participation in CLUP, the following stakeholders will have to be engaged in the CLUP process. These are apart from those already identified as members of the Planning Core Group and TWG.

Prior to the selection of stakeholders the GIS specialist of the planning team should be able to delineate the watershed boundaries and overlay it with an admin boundary map to determine the neighboring LGUs that should be part of the consultation of stakeholders. If the watershed boundary includes other LGUs, it should be noted that their activities might also have potential impact to the whole watershed up to the coastal areas.

Coverage Area/ Theme	Stakeholder	At what stage should be involved?	How best to engage?
All	Mayor and Legislative Council	Organize Set the Vision  Establish Development Thrust and Spatial Strategies Prepare Land Use Plan Draft Zoning Ordinance  Review, Adopt and Approve CLUP and ZO	Executive briefing  Orientation for the chief executive and council members should come first. They should also be updated at key points during the process. Eventually also they will be the ones to review and endorse the plan to SP.
All	Local Development Council	Set the Vision Set the Goals and Objectives  Establish Development Thrust and Spatial Strategies Prepare Land Use Plan Draft Zoning Ordinance  Review, Adopt and Approve CLUP and ZO	Workshops, Public Hearing  This activity may be taken as an opportunity to strengthen the role of the Local Development Council in the planning process. The LDC members can be the main participants for the visioning/ goal setting, and provide key feedback when the plan is being refined.

<p><b>Forest</b> Condition of irrigation water and other sources of water Agricultural practices Traditional uses and indigenous practices Non-timber livelihood opportunities Wood-based enterprises Nature-based tourism Fisheries conditions Barangay plans</p>	<p>Irrigators or farmers association Upland farmers/POs Indigenous communities NTFP gatherers Enterprise owners Resort owners Fisherfolks Barangay officials PG-ENRO PENRO MENRO CENRO</p>	<p>Step 2. During the conduct of IEC  Step 3. Set the Vision  Step 4. Analyze the Situation  Step 5. Set the Goals &amp; Objectives  Step 6. Establish Dev't Thrust and Spatial Strategies  Step 7. Prepare the Land Use Plan  Step 9. Conduct Public Hearing</p>	<p>Barangay meetings  Public consultations  Focus group discussion  Public consultation  Public consultation  Public consultation  By invitation</p>
<p><b>Coastal</b> Condition of the coastal and marine waters, habitats</p>	<p>Existing industries at the coast and up the watershed MFARMC and BFARMC MAO and the Municipal CRM Office PG-ENRO PENRO MENRO CENRO BFAR-RFO NAMRIA PDRRMC PPA and SUCs in the Province or LGU- accredited NGOs engaged in marine/coastal related work</p>	<p>They should be involved at each of these stages:  Target Consultation  Stakeholder's Meeting  Public Hearing</p>	<p>Through spatial surveys, FGDs, and IEC.</p>
<p><b>Heritage</b>  Tangible Heritage  a. Natural Heritage          b. Built-Heritage (Man-Made)          Intangible Heritage (sites, venues of local socio-cultural celebrations, and practices, including rivers &amp; bodies of water, paths, routes, natural sites, etc.)</p>	<p>Local Historians, Scientists, Naturalists, Geologists, Teachers, Anthropologists          Local Heritage Historians, Architects, Artists, Clergy, Teachers          Local Heritage Historians, Architects, Artists, Clergy, Anthropologists, Sociologists, teachers</p>	<p>From the Inception/ Reassessment stage of Vision</p>	<p>Brief lectures on Heritage Conservation Principles Fieldwork</p>

<b>Climate Change Adaptation and Disaster Risk Reduction</b>	Vulnerable communities	Analyze the Situation (Data Collection and Validation; Issues Identification)  Set the Vision Set the Goals and Objectives Establish Development Thrust and Spatial Strategies Prepare the Land Use Plan Draft the ZO Review, Adopt and Approve CLUP	Community FGDs, Field Assessment, Targeted Consultations, Workshops  These are people who live in hazard prone areas. Particular attention should be made to those who have less capacity to cope. Initial studies would reveal where these people are. They may be involved at the outset; during data collection and validation (when it is necessary to localize hazard information), identification of issues; visioning and goal setting, and feedback on the final plan.
	Businessmen, large landowners	Set the Vision Set the Goals and Objectives Establish Development Thrust and Spatial Strategies Prepare the Land Use Plan Draft the ZO Review, Adopt and Approve CLUP	Targeted Consultations  The decisions of these people often drive the development patterns of a city. Thus it is important to orient them of the risks such that they may be made more aware and don't contribute to exacerbating the impacts themselves. Targeted consultations/ discussions with such groups particularly during strategizing and refining the plan would be valuable.

## Annex 2-2. Stakeholder Identification Workshop

Participants to the workshop will include the Planning Team, the Local Development Council (LDC) members and other committees that have been organized for the planning exercise. It is best to have an independent facilitator to handle the workshops.

1. Explain the objectives of the exercise to the participants.
2. Organize the participants into workgroups.
3. Ask the members of each group to identify, list, and classify individuals and groups who may have a stake in the CLUP.
4. List as many stakeholders on a sheet of paper. It may help to list them in rough order of importance. There may be changes in order of importance after the analysis. See Annex 2-1 for List of Recommended Stakeholders.
5. Ask the workgroups to choose from the list of stakeholders those individuals, groups, organizations and institutions who may be affected directly or indirectly, positively or negatively, and write these choices on metacards for ease of sorting and arranging.
6. Fill up a matrix that creates categories for stakeholders that will be directly and indirectly affected in a positive or negative way by the plan. See sample table.

## List of Stakeholders Affected by the CLUP

Groups/Individuals	Interests	+/- Effects
A. Directly Affected		
B. Indirectly Affected		

**Checklist for identifying stakeholders:**

1. Have all primary (directly affected) and secondary (indirectly affected) stakeholders been listed?
2. Have all potential supporters and opponents of the plan been identified?
3. Has gender analysis been used to identify different types of female stakeholders (at both primary and secondary levels)?
4. Have primary stakeholders been divided into user/occupational groups or income groups?
5. Have the interests of vulnerable and disadvantaged groups (especially the poor) been identified?
6. Are there any new primary or secondary stakeholders that are likely to emerge as a result of the plan?

**Checklist for drawing out stakeholder interests**

- Interests of all types of stakeholders may be difficult to define, especially if they are 'hidden'; or in contradiction with the openly stated aims of the organizations or other groups involved.
- A rule of thumb is to relate each stakeholder to the problems which the plan is seeking to address.
- Interests may be drawn out by asking:
  - ♦ What are the stakeholders' expectations of the plan?
  - ♦ What benefits are there likely to be for the stakeholders?
  - ♦ What resources will the stakeholder wish to commit (or avoid committing) to the plan?
  - ♦ What other interests does the stakeholder have which may conflict with the plan?
  - ♦ How does the stakeholder regard others in the list?

Information on stakeholders may be available from a review of the mandates of the different institutions and from social analyses. Many of the interests will have to be defined by the persons with the best 'on-the-ground' experience. Double check the interests being ascribed to stakeholder groups, to confirm that they are plausible.

## Annex 2-3. Venn Diagram and Stakeholder Influence Diagram

### I. Description

This relatively simple tool is based on a modified Venn diagram and concepts of stakeholder mapping. It can be used to assess current stakeholder partnerships and to articulate desired relationships.

### II. Resources

- A large piece of paper to hang up or lay flat on a table that the group can gather around
- Construction paper circles of various sizes (small, medium, large)
- Tape
- Markers or other writing utensils

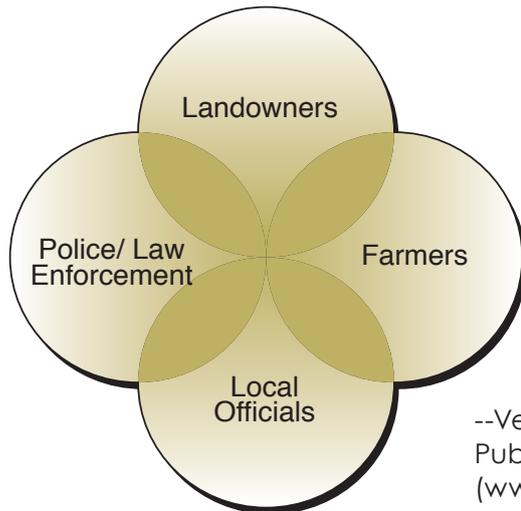
### III. Instructions

These instructions focus on assessing current stakeholder relations, but the process is the same for assessing desired relationships.

1. Decide whether you are assessing current or desired stakeholder relationships. Label and date your paper. Also helpful is assigning a note taker to record any insights uncovered through the process.
2. List the organization whose stakeholders you are assessing (e.g., the local health department or environmental health program) by writing the organization name on one of the large circles and placing it in the middle of the paper.
3. Have the group identify stakeholders and partners. (You may already have a list that provides a good starting point.) Have the group decide how important each stakeholder is to your organization, choose a corresponding circle size (small = somewhat important; medium = important; large = critically important), and write the stakeholder's name on the circle.
4. Decide how close the current relationship is between the selected stakeholder and your organization. If the relationship is close, tape the circle very close to or touching the organization. If the relationship is distant, tape the circle toward the edge of the paper, etc.
5. Assess each stakeholder this way, encouraging group members to write the names on the circles and post them. Disagreement about the importance of stakeholders is okay. Ask questions to understand why members feel the way they do.
6. You have now created a stakeholder map. Have the group assess it as a whole.
  - ♦ Does anything strike the group?
  - ♦ Are any groups missing?
  - ♦ Are any relationship patterns surprising?
  - ♦ Does an existing partner have a strong relationship with a partner you would like to work more closely with?
  - ♦ Do any problems or opportunities present themselves?
  - ♦ Does the group lack a good relationship with any important stakeholders?

This is a good time to develop a second stakeholder map assessing the desired state of relationships so that you can compare the two and identify areas for improvement. You can also conduct this mapping process with community groups and use it as an evaluation tool to assess how relationships (and perceptions of relationships) changed over time.

Figure 2-1.Venn Diagram (Linkages and Connections of Stakeholders)



--Venn Diagram, modified for the Environmental Public Health Performance Standards ([www.cdc.gov/nceh/ehs/envphps](http://www.cdc.gov/nceh/ehs/envphps)).

## Annex 2-4. Power-Interest Grid

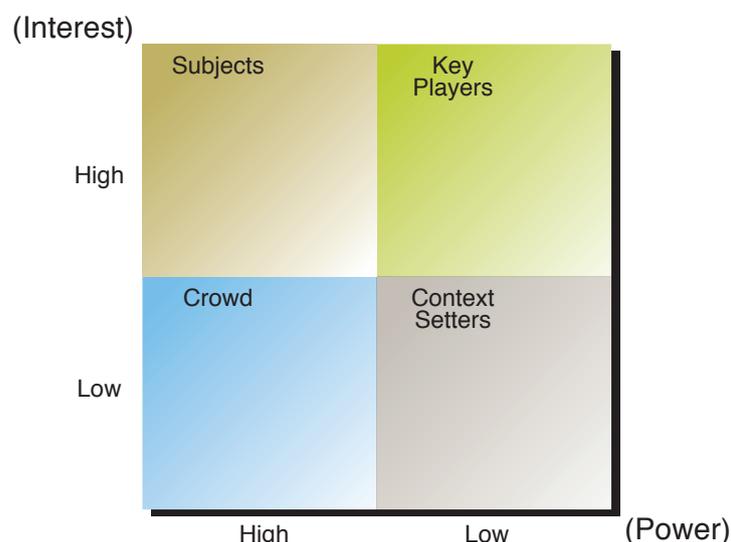
Power versus interest grids was first developed by Eden and Ackernlann (1998:121-5, 344-6) (see Figure 2-2). The power vs. interest grids array stakeholders on a two-by-two matrix where the dimensions are the stakeholder's interest (in a political sense as opposed to simple inquisitiveness) in the organization or issue at hand, and the stakeholder's power to affect the organization's or issue's future.

Four (4) categories of stakeholders result: Players—are those stakeholders who have both an interest and significant power; Subjects—are those who have an interest but has little power; Context setters – are those who have power but little direct interest; and the Crowd which consists of stakeholders with little interest or power in a given organization, plan or issue.

Power versus interest grids typically help determine which players' interests and power bases must be taken into account in order to address the problem or issue at hand. They also help highlight coalitions to be encouraged or discouraged, what behavior should be fostered and whose 'buy in' should be sought or who should be 'co-opted'.

Finally, they provide some information on how to convince stakeholders to change their views. Interestingly, the knowledge gained from the use of such a grid can be used to help advance the interests of the relatively powerless. (Bryson et al. 2002)

Figure 2-2. Power versus Interest Grid



A power versus interest grid is constructed as follows:

- Tape four flip chart sheets to a wall to form a single surface two sheets high and two sheets wide.
- Draw the two axes on the surface using a marking pen. The vertical axis is labeled interest from low to high; while the horizontal axis is labeled power from low to high.
- Planning team members brainstorm the names of stakeholders by writing the names of different stakeholders as they come to mind on a 3" x 5" index card, one stakeholder per label. Alternatively, if the basic analysis technique has been performed, the names should be taken from that list.
- Guided by the deliberations and judgments of the planning group members, a facilitator should place each label in the appropriate spot on the grid. Labels should be collected in round-robin fashion, one label per group member, until all labels (other than duplicates) are placed on the grid or eliminated for some reason.
- Labels should be moved around until all group members are satisfied with the relative location of each stakeholder on the grid.

With the emerging power versus interest grid, a stakeholder influence diagram can then be created in order to establish the extent of influence and relationship (direct/indirect) with each other of the different key stakeholders identified in grid.

Based on these results (stakeholder influence diagram and power versus interest grid), the group should discuss the implications of the resulting stakeholder placements.

How to prepare a stakeholder influence diagram with a power versus interest grid?

- From the power versus interest grid, the planning team should draw lines of influence (either direct or indirect; or flowing in/being influenced or flowing out/influencing) for each stakeholder on the grid to other stakeholders in the grid.
- A facilitator should draw in the lines with a soft-lead pencil.
- Two-way influences are possible, but an attempt should be made to identify the primary direction (either primarily influencing or being influence; direct or indirect) in which influence flows between stakeholders.
- Engage in a dialogue about which influence relationships exist, which are most important and what the primary direction of influence is.
- Once final agreement is reached the pencil lines should be made permanent with a marking pen.
- The results and implications of the resulting diagram should be discussed, including identifying who the most influential or central stakeholders are.

## Annex 2-5. Typology of Stakeholder Analysis Methods

Method	Description	Resources	Strengths	Weaknesses
<b>Focus groups</b>	A small group brainstorm of stakeholders, their interests, influence and other attributes and categorize them	High quality facilitation; room hire, food and drink; facilitation materials e.g. flip-chart paper and post-its	Rapid and hence, cost-effective; adaptable, possible to reach group consensus over stakeholder categories; particularly useful for generating data on complex issues that require discussion to develop understanding.	Less structure than some alternatives; requires effective facilitation for good results
<b>Semi-structured interviews</b>	Interviews with a cross-section of stakeholders to check/ supplement focus group data	Interview time; transport between interviews; voice recorder	Useful for in-depth insights to stakeholders relationships and to triangulate data in focus groups	Time-consuming and hence, costly; difficult to reach consensus over stakeholder categories
<b>Snow-ball sampling</b>	Individuals from initial stakeholder categories are interviewed, identifying new stakeholder categories and contacts	As above: successive respondents in each stakeholder category are identified during interviews	Easy to secure interviews without data protection issues; fewer interviews declined	Sample may be biased by the social networks of the first individual in the snow-ball sample
<b>Interest-influence matrices</b>	Stakeholders are placed on a matrix according to their relative interest and influence	Can be done within focus-group setting, or individually by stakeholder during interviews (see other methods) or by researcher/practitioner	Possible to prioritize stakeholders for inclusion; makes power dynamics explicit	Prioritization may marginalize certain groups; assumes stakeholder categories based on interest-influence are relevant
<b>Stakeholder-led stakeholder categorization</b>	Stakeholders themselves categorize stakeholders into categories which they have created	Same as semi-structured interviews	Stakeholder categories are based on perceptions of stakeholders	Different stakeholders may be placed in the same categories by different respondents making categories meaningless
<b>Q methodology</b>	Stakeholders sort statements drawn from discourse according to how much they agree with them, analysis allows social discourses to be identified	Materials for statement sorting; interview time; transport between interviews	Different social discourses surrounding an issue can be identified and individuals can be categorized according to their "fit" within these discourses	Does not identify all possible discourses, only the ones exhibited by interviewed stakeholders
<b>Actor-linkage matrices</b>	Stakeholders are tabulated in a two-dimensional matrix and their relationships described using codes	Can be done within focus-group setting, or individually by stakeholder during interviews (see other methods) or by researcher/practitioner	Relatively easy, requiring few resources	Can become confusing and difficult to use if many linkages are described
<b>Social Network Analysis</b>	Used to identify the network of stakeholders and measuring relational ties between stakeholders through use of structure interview/ questionnaire	Interviewer, questionnaire, training in the approach and analyses, time, software	Gain insight into the boundary of stakeholder network; the structure of the network; identifies influential stakeholders and peripheral stakeholders	Time-consuming questionnaire is a bit tedious for respondents; need specialist in the method
<b>Knowledge mapping</b>	Used in conjunction with SNA; involves semi-structure interviews to identify interaction and knowledge	Same as semi-structure interviews	Identifies stakeholders that would work well together as well as those with power balances	Knowledge needs may still not be met due to differences in the types of knowledge held and needed by different stakeholders
<b>Radical transactiveness</b>	Snow-ball sampling to identify fringe stakeholders; development of strategies to address concerns	Training in the approach, time	Identifies stakeholders and issues that might otherwise be missed and minimizes risk to future project	Time-consuming and hence, costly

Source: Reed, M. S. et.al (2009), "Who's in and why? A typology of stakeholder analysis methods in natural resource management", Journal of Environmental Management, [www.elsevier/locate/jenvman](http://www.elsevier/locate/jenvman). Accessed 01 March 2013.

## Annex 2-6. The Basic Methods of Technology of Participation (TOP)

Reference: Materials given during the Refresher Course on Basic Group Facilitation and Conflict Resolution, Philippine Urban Forum, 6 June 2003, Innotech, Quezon City

The basic methods of TOP as provided below have been successfully tested and applied in the planning process.

### 1. Discussion method

This is a method of facilitating group conversations and discussions which allows a group to deepen its insights and creativity on a common topic or experience. It allows the members of the group to share their any and diverse perspectives in a non-confrontational manner. And it also reveals the bounds of consensus the group is willing to draw.

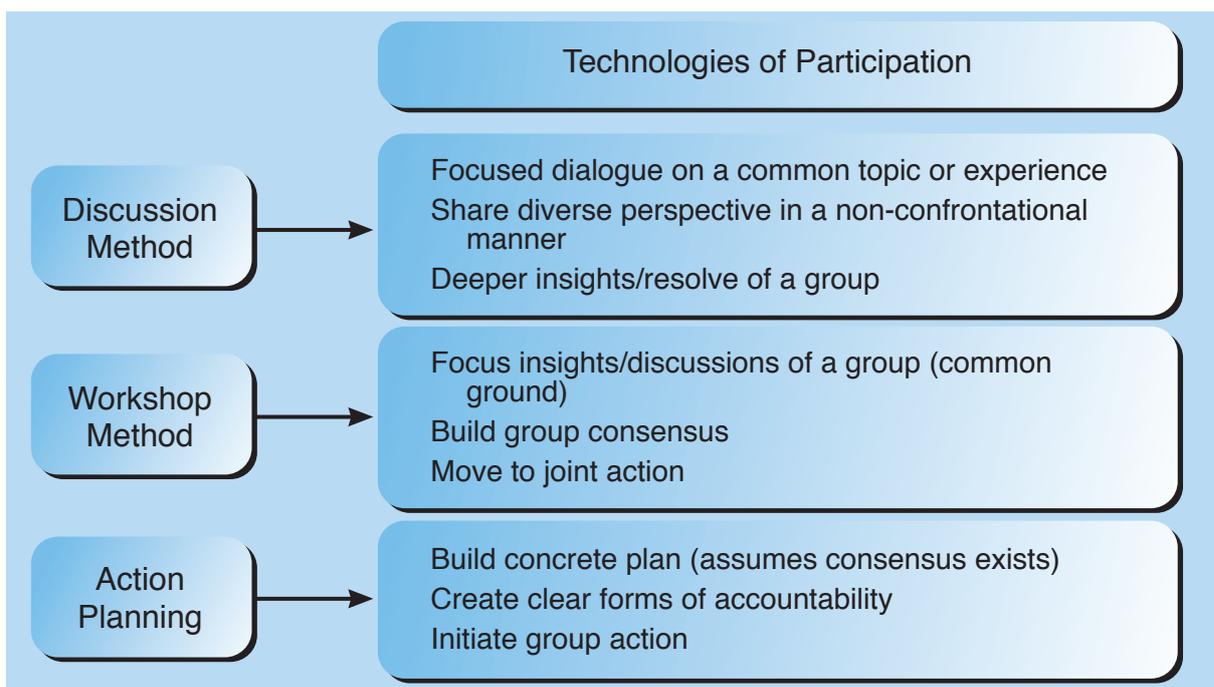
### 2. Workshop method

This method is a way of facilitating a group's thinking about a particular topic into focused decisions and action. It is an effective way of building group consensus and moving it to joint resolve and action.

### 3. Action planning method

This method, which combines both the discussion and workshop methods, is an effective structure for moving a group from a good idea to a concrete plan of action within specific time periods and with specifically outlined assignments and responsibilities.

These methods may be applied to an infinite number of situations and purposes. Creatively combined and even adapted, these methods can serve as powerful tools for both satisfying and empowering group experiences.



Source: CLUP Guidebook 2006

## Annex 2-7. Principles of Effective Consultation

The following points summarize the key aspects or principles that underpin an effective consultation process. They are useful as a checklist when planning and undertaking a consultation process.

1. Clearly define the purpose and scope of the consultation process including:
  - The aims of the consultation process;
  - The extent to which the consultation can influence the outcomes having clearly identified what decisions have already been made and what remains to be made.
2. Involve all those likely to be affected, recognizing:
  - The diversity of the community, including minority groups;
  - Opportunities to link into existing networks.
3. Involve the community as early as possible and in all stages of the project in:
  - Identifying issues and ideas for addressing these issues;
  - Providing input into and feedback on options and draft plans.
4. Provide information about the topic under discussion as well as a consultation process that is:
  - Accurate and unbiased;
  - Clear and free of jargon;
  - Appropriate to the reader's level of interest, literacy and cultural background.
5. Use a range of techniques to inform and involve the community recognizing:
  - Different levels of interest and awareness about the topic under discussion;
  - The need for different techniques for different situations.
6. Allow adequate time and resources insuring:
  - Longer time frames that will be needed for more complex projects or proposals;
  - Consultation events that do not conflict with other commitments such as holidays, peak times for business and major community events.
7. Treat people with respect by:
  - Actively listening and valuing all ideas and opinions;
  - Providing information in a non-defensive manner;
  - Accurately recording what people have said.
8. Ensure that decision making processes are open and accountable by:
  - Advising those who have participated about the outcomes of the decision making process which followed consultation;
  - Demonstrating how the outcomes of the consultation have been considered in making the final decision.
9. Continue to improve consultation process by:
  - Evaluating the consultation process both during and at the end of the process;
  - Learning from these experiences

## Annex 2-8. Guide in Conducting Consultations in CLUP Preparation

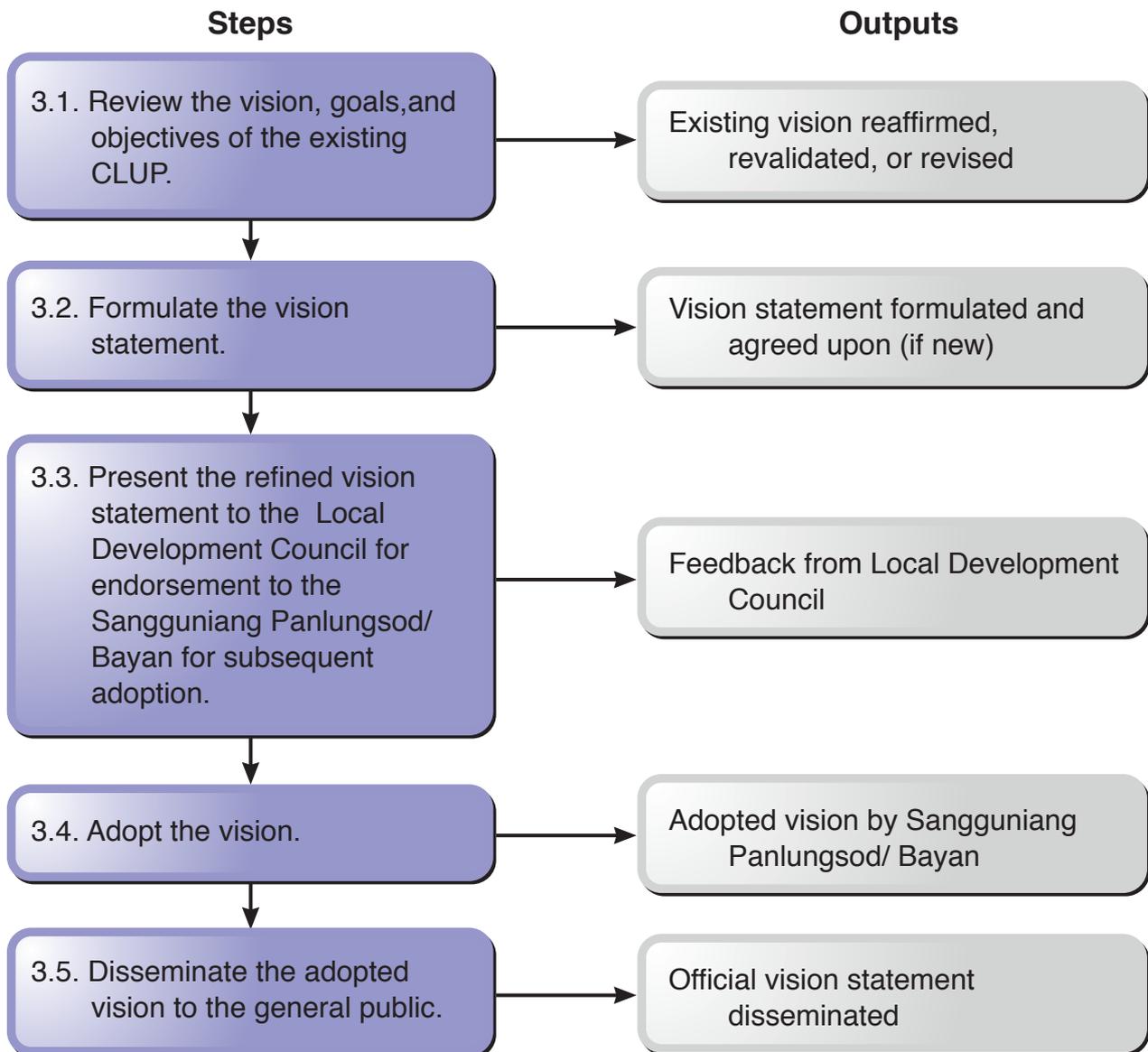
WHAT (Stage)	WHEN (Step)	WHO to consult	HOW to consult
Getting started	1	Key decision makers	Present proposal and generate commitment.
Identifying stakeholders	2	Planning team/ committees/TWGs	Generate list of primary and secondary stakeholders.
<b>Planning</b> <ul style="list-style-type: none"> <li>• Gathering information/ ideas to formulate/ validate and establish:           <ul style="list-style-type: none"> <li>– the vision</li> <li>– the existing conditions</li> <li>– the objectives</li> </ul> </li> </ul>	3 4 5	All members of the community	Identification of issues and ideas through broad-based discussions such as workshops, focus groups, surveys, meetings with existing groups, and interviews.
<ul style="list-style-type: none"> <li>• Analyzing data to generate and evaluate options</li> </ul>	6	Planning team and interested members of the community	Explore the pros and cons of various options through participatory design workshops, evaluative workshops, and interactive displays/exhibits.
<ul style="list-style-type: none"> <li>• Developing a draft CLUP</li> </ul>	7	All members of the community	Gather feedback to fine-tune the draft through presentations /displays, public hearings, work- shops and submission of written comments.
<ul style="list-style-type: none"> <li>• Finalizing the plan</li> </ul>	7, 8, 9 &10	All members of the community	Inform the community of the final outcomes and decisions through use of tri-media, flyers, and various levels of public assemblies.
<b>Implementation</b>	11	Concerned individuals/groups	Consult concerned implementing offices/ departments/individuals, affected areas, property owners, users, etc. depending on the specific nature of the program or project for implementation.
<b>Monitoring and Evaluation</b>	12	All members of the community	Broad-based consultation regarding the overall success of the plan and targeted consultation to monitor, review, and commence the revision of the CLUP.



**Note:** For every step of the planning process, some forms of consultation will be required such as those involving the planning team, TWG, steering committees, and/or selected stakeholder groups/individuals. The purpose of these consultations range from preparing drafts, organizing reports/activities, sector analysis, review and finalization of documents, etc.

# Step 3: Set the Vision

Define the future that you want. The vision shall serve as the driving force that will move the entire city/municipality towards the achievement of a common development direction and also guide the succeeding stages of the planning process.



## Introduction

This activity may be done interchangeably with Step 4: Analyze the Situation. The connectivity of these steps is critical for the analysis of the current and projected needs of the LGU and will help ensure that the new CLUP vision is rational, evidence-based, viable, and strategic. The new CLUP vision should then be translated to goals, objectives, key outcomes and output indicators (Step 5).

Setting up a new CLUP vision is a participatory and iterative exercise among the key stakeholders and community members of the LGU. This process can be set-up at several levels—community, barangay and municipal levels. There is no right or wrong answer in setting up a new CLUP vision. It is a process-oriented exercise that may take several iterations or discussions, normally facilitated by an external person, before arriving at a consensus for a new CLUP vision among local stakeholders.

However, what should be clear in this process is that all the necessary scientific, baseline assessment and technical information, e.g. climate change, disaster risk, biodiversity, are made available and understood by participants, key interest groups such as private sector, women, indigenous communities, children/youth, and basic sectors groups are made to participate. There are various methods of setting the vision for the city/municipality. These can be done through town meetings, community assemblies, focus group discussions, surveys, interviews, workshop, etc. See Step 2, Annex 2-6 for the Basic Methods of Technology of Participation.




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### Objective/s

- Formulate a widely acceptable vision statement for the city/municipality.
- Achieve a common understanding of the vision and directions of the LGU with all key stakeholders based on technically-sound, evidence-based analysis.
- Foster ownership of the vision statement.




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### Key Input/s

- Elements on sustainable development and human ecology (See Annex 3-1 for examples)
- Results and findings of baseline assessment and studies on CLUP implementation and accomplishments; identified levels of change and improvements in identified outcome areas;
- Identified issues, gaps and challenges arising from CLUP implementation
- Results and analysis of key projections and estimations on key land use allocation/demands, demographics, climate change/disaster risks, biodiversity conditions, resource uses/demands (i.e. water, lands, productive lands, energy, infrastructure, road networks, etc.)
- Strategic sub-national and provincial development directions and targets, i.e. Provincial Development and Physical Framework Plan (PDFFP), and key national agency sectoral plans and targets;
- Projection maps and conditions; public perception and stakeholder survey results and desires




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### Expected Output/s

- Revalidated existing or redefined new strategic CLUP vision that are relevant to the LGU's needs and requirements

- Developed better communication among stakeholders
- A basis for formulation of goals, objectives, outcome and output indicators, programs, and policies



## Key Technical Actors/Responsible Bodies

- Lead: City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-Making Authority: Local Chief Executive, Sanggunian Bayan
- Consultative Body: Local Development Council (LDC) and local communities/barangays



## Steps

### 3.1 Review the existing vision, goals, and objectives (for existing CLUP).

The focus of this activity is to revisit the current CLUP vision, goals, and objectives using information from the data inventory (Step 1) and CLUP review and updated situation analysis (Step 4). The objective is to reaffirm or validate whether a certain level of change or development has been achieved over the implementation period of the CLUP and that significant enough outcomes or qualitative changes have been achieved at the current CLUP period that would necessitate changing or revising the said CLUP vision, goals, and objectives

The review of the existing CLUP vision should also clearly be reflected in the context of the integrated ecosystem/watershed-based or 'ridge-to-reef' management planning framework and climate resilient and risk. The CLUP vision, either revised or new, should also be clearly linked and complementary to the higher level strategic provincial and sub-national management plans.

This activity is a group process that can be conducted as a stakeholder workshop at the level of the Local Development Council facilitated by the Planning Group/TWG. Revisit/revalidate the existing vision based on the findings of the situational analysis. This technique is best undertaken through a multi-stakeholder workshop after the situation analysis stage (Step 4) of the CLUP process.

If, after the review, the vision is refined, proceed to Step 3.4 (Present the refined vision statement to the LDC for endorsement to the SP/SB for subsequent adoption) and Step 3.5 (Disseminate the adopted vision to the general public.)



#### Suggested tools:

Vision-Reality Gap Analysis  
(See Annex 3-1).  
Simple guide questions

If there is no revision, proceed to the next step of the CLUP process.



**Tip:** Present a brief summary of the updated Situation Analysis during the visioning workshop/review to raise awareness and start discussions on how the city/municipality can address new challenges. The updated Situation Analysis can include the key sectoral and land use development issues, the basic hazard profile, plus additional studies such as risk and vulnerability analysis, forest & coastal assessments, heritage assessment, etc.



## Formulating Guide Questions for Review

Aside from rating the existing vision through the Vision-Reality Gap Analysis, guide questions can also be formulated to stimulate further discussion on how the LGU has progressed. An example is shown below:

### Economic Growth

#### 1. Immediate Economic Performance

- Pedestrian activity—can people flow indicate increased economic activity?
- More expenditure—do the people seem to spend more for leisure activities?
- Use of street—are there more cafes, street traders, stalls, events, on the streets?
- Site regeneration—has there been much improvement of sites? (level of activity)
- Increased local character—have local events, image, attitude & shops increased? by climate change?

#### 2. Strategic Economic Performance

- LGU's improved performance—have local shops, visitor activity, and quality of life improved?
- Strategic roles of public space—has the role of public space improved?
- Integration of emerging economic assets—has previously low-key economic activity become more common? (local cuisine, handicrafts, hotels, etc)
- Creation of new economic quarters—has there been a growth of areas for visitor activity? (shops, restaurants, etc)
- Improvement in quality of life—have the overall living conditions improved?
- Creation of "new town" image—has there been a conscious effort to change image of community? (re-branding, image campaigns, increasing green economy, etc)
- Potential impact of climate change—How could the goal be affected by climate change?
- Potential impact of climate change—How could the goal be affected by climate change?

#### 3. Climate Change Adaptation and Disaster Risk Reduction

- How would the current climate hazards (floods, droughts, changing rainfall patterns, cyclones, etc.) affect the area?
- Are there evidence of climate change that is already being observed by the community and supported by scientific information?
- How would the frequency and intensity of climate events change in the future based on climate change scenarios? For example, are droughts likely to occur more frequently? Will floods become more extensive?
- What resources that are most important to livelihoods and adaptation for different groups are most at risk from climate change?
- How would the current and projected needs of the different sectors (e.g., spatial/land requirements for agriculture or infrastructure) be affected by changing climatic conditions?
- What pressing development problems/issues and constraints being experienced by the various sectors (e.g. agriculture) will be further exacerbated by climate change?
- What issues might be most important on a shorter time horizon? A longer time horizon?
- Where could the competition between the land-uses become more challenging?

## 3.2. Formulate the vision statement.

It is advised to carry out this activity based on the results and findings of both baseline conditions or level of development achieved from the implementation of the existing CLUP and the projection and estimations of land use demands, demographic projections and spatial development patterns, climate change/disaster risk projections, biophysical and biodiversity conditions, and key local resource needs and capacities of Step 4. It involves leveling off first on the existing situation and generating ideas

on the future/ desired state of the city/ municipality. See Annex 3-2 for the Visioning Workshop process. The CLUP visioning exercise should be complemented by a public or stakeholders perception survey which would provide a reference for the CLUP planning team or local development council (LDC) on the future expectations and demands of its people.

To involve the community in formulating the city/municipal vision, visioning exercises may also be conducted at the barangay level prior to the visioning at the city level. Another exercise which can complement the community visioning is the Visual Preference Survey (see below) which will enable the LGU to better understand what appeals to residents.



### Visual Preference Survey

Visual surveys consists of sets of photographs of buildings, streets, sidewalks, shopping centers, parks, and/ or other examples of a region's built or natural environment. The images are generally taken from within the community, although some images may be from other areas if a depiction of a certain design principle cannot be conveniently found in the survey area. The images are then shown to residents at public workshops and meetings. Viewers are asked to rate each image on a scale from -10 to +10 (or -5 to +5). The average rating for this image is calculated and the results are presented to the viewers. In this way, participants build consensus on how they would like their communities to be. (Local Government Commission, 2010)

#### Examples of Vision Statements:

1. Silago, Leyte  
"a leading agri-eco-tourism destination in the region with climate resilient, empowered, peace loving, healthy, God fearing, self-reliant, and environment-friendly Silagonhons living in a safe, clean and sustainable environment with a diversified economy governed by competent civil servants."
2. San Enrique, Iloilo  
"San Enrique to become diversified, sustainable, agro - industrial, disaster resilient community, ecologically balanced environment, where God loving, disciplined, empowered people live orderly with a transparent local leader."
3. Sta. Rosa City  
"Santa Rosa is a roaring world class, highly sustainable, urbanized, smart and green city driven by transparent leaders and an empowered citizenry" (Sta. Rosa City CLUP Vision 2014-2028)
4. Makati City (CLUP 2013-2023)  
"Makati shall lead the Philippines in the 21st century; its global and national enterprises, leading the creation of a new responsible and sustainable economy; its citizens, productive, empowered and God-loving."
5. Tabaco City Vision Statement  
"By 2027, we see Tabaco, the City of Love as the gateway of international and domestic trade and tourism, the agro-industrial center of Bicolandia, with a globally competitive economy and the home to a God-centered, progressive, healthy, disciplined and empowered people living in a safe and well-managed environment, led by strong and dynamic leadership, supported by competent, client friendly civil servants, all committed to the principles of good governance, sustainable growth and balanced development."

Slogan Vision Statement for Tabaco City CLUP 2027

"City of EXCELLENCE, COURAGE, LOVE Excellence in Education, Health Care & Public Service Courage in the Fight Against Poverty & Malnutrition Love of God, Environment, Heritage & Culture."

### 3.3. Present the refined Vision Statement to the LDC for endorsement to the Sangguniang Panlungsod/Bayan for subsequent adoption.

After the vision review or visioning workshop, disseminate the selected Vision Statement to the Sangguniang Panglungsod/ Bayan and the general public for feedback.

Validate and refine the Vision Statement considering the feedback.

### 3.4. Adopt the Vision

Once the vision has been adopted by the SP/SB, proceed to the next step.

### 3.5. Disseminate the adopted vision to the general public.

## Annex 3-1. Vision-Reality Gap Analysis

The workshop process will have the following steps:

1. Discuss the objectives and mechanics of the visioning workshop.
2. Present a brief situationer/profile of the community.
3. Define and discuss the elements of a vision, specifically its relation to the planning process.
4. Group the participants into smaller groups (ideally 6-8 persons per group).
5. Complete the vision-reality gap matrix. Consider the result of the situation analysis.
6. Fill in the matrix with the elements of the vision statement.
7. Fill in the matrix with descriptors (desired quality) of the vision.
8. Identify and agree on the success indicators for each descriptor.
9. Compare success indicators with current state of development (existing situation).
10. Rate each indicator according to its position in relation to achieving the vision. Use the following suggested rating scale.
  - 0 = Nothing at all has been achieved
  - 1 = Very little (1% to 25%) has been attained
  - 2 = Attainment is about 26% to 50%
  - 3 = Attainment is quite high (51% to 75%)
  - 4 = Vision is very close to being realized (76% to 100%)
  - N = Inadequate information
11. Identify vision-reality gap (result of deducting the rating from the highest possible score).
12. Identify the planning concerns for action derived from descriptors with low achievement rating. These planning concerns will be essential when identifying initial policy options.
13. Refine the vision statement as may be necessary based on the vision-reality gap analysis.



### Examples:

#### People as Individuals (element)

Descriptor	Success Indicator	Rating
God-loving	Peace-loving	3
	Honest	2
	Reliable	3
	Caring	1
	Law-abiding	2
	Child-friendly	2
Healthy	Long life expectancy	3
	Low morbidity rate	2
	Drug-free	1

#### People as Society (element)

Descriptor	Success Indicator	Rating
Empowered	Public consultation made an integral part of the decision-making process	1
	POs/NGOs participate in planning, implementation, monitoring and evaluation of LGU programs and projects	1
Vigilant	Disaster prepared citizenry	2
Resilient	Capacity to respond	2

#### Environmental Management (element)

Descriptor	Success Indicator	Rating
Clean and Safe	Quality at allowable water level set by Phil. National Drinking Water Standard	N
Attractive	Density of greens within the urban core	1
Balanced	Built-up area integrated with city's open space network	1
Sustainable, ecologically sound	Clean water	1
	Improved air quality	1

## Local Economy (element)

Descriptor	Success Indicator	Rating
Diversified	Increased no. of financial institutions	4
	Increased no. of service establishments	3
Environment Friendly	Maximum 10% of surface water for aquaculture	0

## Local Governance (element)

Descriptor	Success Indicator	Rating
Firm	Enforcement of local laws (e.g. zoning ordinance)	4
	Low apprehended violators, filed cases/ imposed penalties, sanctioned violators	3
Progressive (not only LGU administration but also governance)	Less IRA dependent	2
	Registered NGO/PO increased	2
	NGO/PO active participation	2

## Annex 3-2. Visioning Workshop

- Conduct preparatory activities for the visioning workshop
  - Identify participants/ stakeholders to be involved in the visioning workshop session(s). At the minimum, participants shall include the members of the Local Development Council (LDC).
  - Schedule the visioning workshop.
  - Announce and publicize the schedule of the visioning workshop/s and send out invitations well in advance for maximum participation. Avoid scheduling meetings that will conflict with holidays or other important community events.
  - Prepare the workshop design using Technology of Participation (TOP) (Refer to Annex 2-6 for some technologies of participation)
- Conduct the visioning workshop according to the workshop design/program of activities. During the workshop:
  - Discuss the objectives and mechanics of the visioning workshop
  - Make a brief presentation on the importance of a vision in CLUP preparation and to the city/municipality.
  - Define and discuss the elements of a vision, specifically its relation to the planning process.
  - Group the participants into smaller workshop group (ideally 6-8 persons per group). Use metacards during the workshop to encourage participation and to facilitate the generation and processing of data.
  - Generate ideas on the perceived conditions of the city/municipality by posing the questions below:
    - What do you like about the municipality/ city as it is now?(aspects you may wish to preserve)
    - What don't you like about the municipality/city? (issues to be resolved/ changed)

- What do you think should be done to improve the municipality/city? (things you want to have/create in your municipality/city)
- What does the community wish to preserve, maintain, and enhance, in their existing community?



**Tip:** In case the situation analysis has been conducted earlier, a brief summary may be presented during the visioning workshop to raise awareness and start discussions on how the city/municipality can address new challenges. The summary shall include the key sectoral and land use development issues, the basic hazard profile, plus additional studies such as risk and vulnerability analysis, forest & coastal assessments, heritage assessment, etc.

The result of this activity will provide an approximate description of the current situation as a form of leveling-off for the participants'/community's perception of their city/municipality.

- Generate ideas on the future/desired state of the city/municipality by posing the question: What do you want your city/municipality to become 10-20 years from now? Use descriptors or adjectives to write ideas on metacards (one idea/descriptor per metacards)
- Group the meta-cards/ideas according to the following essential elements of a vision:
  - Qualities of the people as individuals
  - Qualities of the people as society
  - Nature of the local economy
  - State of the natural environment
  - Condition of the built environment
  - Capacity of local leadership
- Summarize and validate in a plenary the relevant descriptors as shown below:

Elements	Descriptors (Sample)
Natural Environment	Scenic, ecologically balance, safe, resilient, etc.
Local Economy	Self-reliant, diversified, etc.
People as Society	Empowered, vigilant, etc.
People as Individuals	Disciplined, honest, law-abiding, etc.
Local Leadership	Transparent, responsible, firm, etc.
Built Environment	Orderly, clean, vibrant, etc.

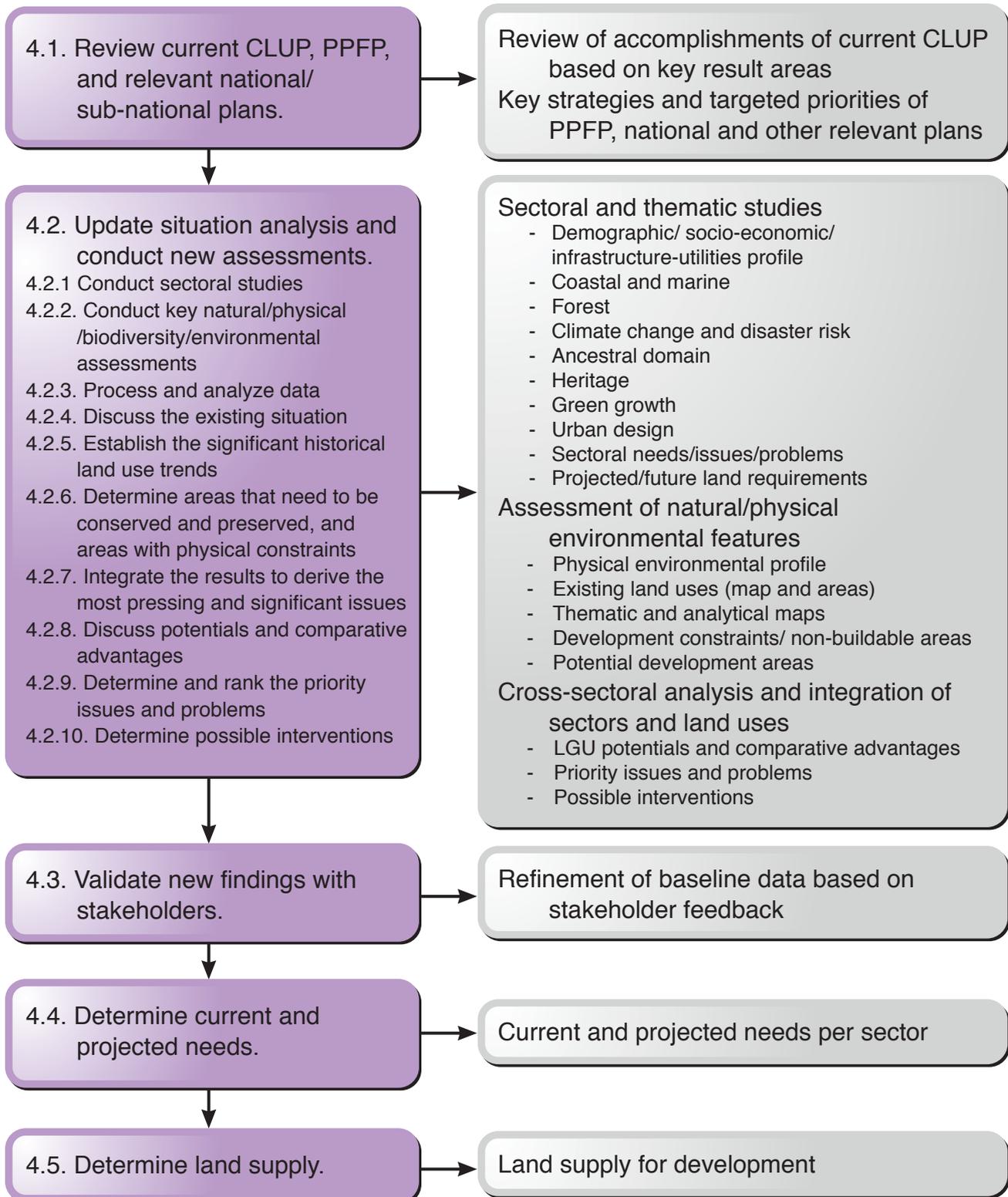
- Formulate at least two Vision Statements using the agreed descriptors generated in the previous step
- Evaluate, select, and reach consensus on the Vision Statement that best captures what the stakeholders want for their city/municipality.
- Evaluation of the vision may be guided by the following questions
  - Does it capture the ideas/descriptions generated?
  - Is it easy to remember/memorize?
  - Is it inspiring, motivating and powerful?
  - Can it be felt or experienced?
  - Does it capture the aspirations of the community, and is it shared by all sectors of the community?
  - Is it attractive, ambitious and achievable?
  - Is it unique to the city/ municipality? Does it capture the distinct character of the area?

# Step 4: Analyze the Situation

Identify the issues, potentials and future development needs and spatial requirements of the city/municipality. Assess the situation using both technical and participatory methods.

## Steps

## Outputs



## Introduction

Step 4 of the planning process, the Situation Analysis, basically answers the question: Where are we now? It is both analytical and diagnostic, geared towards identifying issues, potentials and future development needs and spatial requirements of the city/municipality. Assessment involves technical and participatory methods.

Technical assessment is based on factual data derived from surveys, official publications and records of the city/municipality, concerned national agencies and other entities. Assessment involves the use of indicators such as proportions, rates, frequency, quality/condition (e.g. severity, critical, etc.), standards and other parameters that are vital in characterizing the situations.

Participatory assessment is based on the outcome/results of barangay/community consultations, focus group discussions, meetings with key informants, multi-sectoral meetings, etc. This activity facilitates the generation of the community's felt needs, desires, and perceived issues and opportunities. Suggestions to address issues and concerns can also be derived from this exercise.

Volume 2 (Sectoral Studies and Tools for Analysis) of the Guidebook series is a companion guide for Step 4 of the planning process. It provides the details for conducting ecosystems analysis, demographic, sectoral, thematic and special area studies including the tools and techniques for its analysis. Planning tools such as SWOT, Problem Tree Analysis, Sieve Mapping Technique, Geographic Information Systems (GIS), etc. are also helpful tools in situation analysis. The HLURB A Guide to Data Management in the CLUP Preparation provides the applications, layouts and examples of CLUP formulation using GIS as a tool.

The results of this step may also greatly affect the prioritization of stakeholders as well as the setting of the strategic vision. This step may therefore be carried out interchangeably with Step 3—Set the Vision.



### Objective/s

- Identify/gather/update baseline data in order to assess the existing socio-economic and physical and environmental characteristics of the LGU.
- Identify the needs, issues and concerns to be addressed by the CLUP and the opportunities/potentials that can be tapped to achieve the community vision.
- Identify Indigenous Knowledge Systems and Practices (IKSP).
- Systematically review and assess the over-all accomplishments of the existing CLUPs based on its planned results and outcomes in the different development areas/sectors of the LGU.
- Determine available land supply and demand for land use allocation



### Key Input/s

- Summary reports of key sectoral/ thematic areas (i.e. socio-economic, demography, income, production/ productivity, land use/ resource conditions, settlements, ecological/ environmental/ biodiversity, among others).
- Estimated projections and scenarios (for at least 10 years) of key CLUP sector/ thematic areas (i.e. socio-economic, demographic/income, production/ productivity, land use/ resource conditions, settlements, ecological/ environmental/ biodiversity, among others) baseline and data indicators, including climate change and disaster-risk related projections of threats and vulnerabilities.



## Expected Output/s

- Established and agreed level of development or baseline indicator achieved in key development sectors of the LGUs representing the strategic vision, objectives and directions set in the existing CLUP
- Identified key issues, gaps and challenges in the achievement of the existing CLUP's strategic vision, goals and objectives
- Consolidated, prioritized major and significant development needs, issues, strengths and potentials of the LGU which have spatial components and are necessary in the achievement of the vision
- Updated sectoral and thematic profile/database of the city/municipality
- Existing land use map, thematic maps, and analytical maps of the entire area covered by the city/municipality, including the marine and coastal areas and freshwater wetlands such as rivers and lakes.
- Revalidated and reaffirmed existing or redefined new strategic CLUP vision, goals and objectives relevant to the LGU's/community's potential/future needs and requirements
- Technically-sound projections and estimates of both internal and external conditions as well as future needs and requirements of the LGU and its people for at least 9 years
- Projected climate change and disaster risk-related vulnerabilities, threats and its potential impact integrated into the LGU's plans and communities.
- Land supply map for allocation



## Key Technical Actors/Responsible Bodies

- Lead: City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-making Authority: Local Chief Executive, Sanggunian Bayan
- Consultative Body: Local Development Council (LDC) and local communities/barangays



## Steps

The activities under this step are:

### 4.1 Review current CLUP, PFP, and relevant national/sub-national plans

#### 4.1.1. Review existing CLUP.

The review of existing CLUP shall include its vision, goals, objectives, outcomes, baseline data and information, accomplishments and milestones.

This activity shall take-off from the accomplishment reports, surveys and studies, assessment and evaluation, baseline data and information generated by the planning group and TWG members.

As much as possible, the findings of these reviews shall be presented based on the key outcomes/result areas of the existing CLUP.

- Consolidate all information generated from Step 1. Identify key findings and results based on the key outcome/ results indicator areas of the existing CLUP.
- Rate the key results and findings on the accomplishments. The ratings may be based on a scale of 1-5 with equivalent weights or ranking levels of desired changes or development. Some examples of such ranking or grading levels of desired changes or development are:
  - 1 = worst or significant deterioration or very poor or failing
  - 2 = poor or deteriorating
  - 3 = fair or no improvement or average
  - 4 = good or slight progress or above average
  - 5 = excellent or significant progress

The equivalent range or weights for each rating or grading scale should be pre-determined prior to the ranking of the accomplishment. See Annex 4-1 for Developing and Identifying Ranking and Scalar for Rating Progress.

This is critical especially if there have been no ranking or weights developed prior to the implementation of the existing CLUP. In this situation, the identification of a scale and rating system for key outcome indicators and results areas should be formulated during this process. See Step 5–Formulate goals and objectives for details on how to identify outcomes and output indicators.

The ratings could be done at several levels:

- First level—Technical units/representatives and implementing agencies
- Second level—Direct beneficiaries and recipients
- Third level—Other stakeholders/community members or general public/members of sectoral committees (selective or optional).
- Consolidate the results given by the different key stakeholder levels to arrive at an average rating.
- Present these results to the LDC, SB and LCE for information and affirmation.

### **4.1.2. Identify the strengths, constraints, challenges and opportunities.**

This activity can be done through the different stakeholder groups organized within the LDC and community levels. Using the results of the accomplishment review and performance ratings in Step 4.1.1, a facilitated focused group discussion or workshop among stakeholder groups at the LDC and community levels may be conducted. The recommended tool for this process of identifying gaps, issues, opportunities and challenges is the SWOT analysis. (See Annex 4-2 for SWOT Analysis Methodology)

### **4.1.3. Review current Provincial Physical Framework Plan priorities and agenda.**

- Present and review the current Provincial Physical Framework Plan (PPFP) priorities and agenda and the LGU role.

This involves a technical review and presentation of the Province's current PPFP, its key strategies and targeted priorities. This shall be presented by the Provincial Government to the respective Technical Working Groups (TWGs) and the Local Development Council (LDC), with a focus on identifying the role of the LGU in the province's overall development plan.

- With this information, the TWGs and LDC should assess and evaluate the LGU's

possible role and contribution to the province's strategic priorities and plan. Specific contributions of the LGU to the province's development in terms of outcome and results will also be identified.

#### **4.1.4. Review relevant national/sub-national management plans and CLUPs of neighboring/adjacent LGUs and other relevant plans.**

For purposes of consistency and complementation of land use policies, review the following plans: Ancestral Domain Sustainable Development and Protection Plan (ADSDPP), Protected Area Management Plans (PAMP), Water and Air Quality Management Plan, Infrastructure Plans, Forest Land Use Plan (FLUP), Coastal Resource Management Plan (CRMP), etc.) and existing CLUPs of neighboring/adjacent LGUs and other relevant plans. Also include barangay development plans in the review.

### **4.2. Update situation analysis and conduct new assessments.**

Because of the adoption of the 'ridge-to-reef' planning framework, additional baseline information (i.e. quantitative and qualitative) related to climate change and disaster risk, public land resources (i.e. forestlands, protected areas, biodiversity, coastal/inland waters/foreshore areas) and other special planning areas (such as ancestral lands, cultural/historical areas, tourism zones) have to be generated and integrated into the enhanced CLUP process.

The steps outlined below are focused on the assessment of the existing land uses in the city/municipality. Details for conducting the situation analysis are found in CLUP Guidebook 2014 Volume 2: Sectoral Studies and Tools for Situational Analysis and are categorized as in the following table. All these studies may be done simultaneously.

Table 4-1. List of Sections and Sub-Sections under CLUP Guidebook 2014, Volume 2

<b>Major Section</b>	<b>Sub-Section</b>	<b>Code</b>
Ecosystem Analysis	Resource Mapping	RM
	Climate Change and Disaster Risk Assessment	CL
	Forest Land Use Planning	FO
	Coastal Planning	CO
	Biodiversity	BD
Sectoral Studies	Demography	DE
	Social	SO
	Economic	EC
	Infrastructure	IF
Special Area Studies	Green Growth	GR
	Urban Development	UD
	Heritage	HE
	Ancestral Domain	AD

### 4.2.1 Conduct sectoral studies of the planning area in parallel with the conduct of natural/physical/environmental, and land use assessment (step 4.2.2, below).

This step involves updating of the existing demographic and socio-economic data and their subsequent analysis to come up with information that will characterize the current and past situations in the city/municipality.

### Sectoral Studies

The sectoral assessment may be guided by Volume 2 which covers the following:

- Demography
- Social
- Economic
- Infrastructure

### 4.2.2. Conduct key natural/physical/biodiversity/environmental studies and assessments and existing land uses of the city/municipality following these steps:

- Collect data/map requirements as shown in Table 4-2.
- Prepare base map (both presentation and report size maps) of the whole planning area. (See 2007 HLURB: A Guide to Data Management in the CLUP Preparation).
- Conduct actual land use survey. Determine the existing land uses within the entire boundaries of the city/municipality including uses of its freshwater and marine water boundaries. See Annex 4.4

The following table presents a list of maps and data requirements that are necessary in the planning process.

Table 4–2. Maps and Data Requirements with Corresponding Sources

Data Requirements	Sources
<b>A. Geographical, Administrative/Political Profile</b> 1. Geographic location of municipality Coordinates (longitudinal/latitudinal location) 2. Location and significant role in relation to the province, region and country, if any. 3. Municipal land area & boundaries 4. Political Subdivisions (Urban-Rural Barangays) 5. Alienable and disposable land	NAMRIA/Topo Map  LGU/PPFP/RPFP (other national, local area plans) DENR-FMB & LMB, LGU  DENR
<b>B. Natural and Physical Characteristics</b> 1. Climatological conditions-type of climate-prevailing winds, average annual rainfall & mean temperature- tidal current patterns (for coastal areas) 2. Topography <ul style="list-style-type: none"> <li>• topographic relief, elevation</li> </ul>	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)  NAMRIA

<ul style="list-style-type: none"> <li>• slope</li> <li>• surface drainage (bodies of water within the city/municipality)</li> <li>• watershed (indicates watershed divide, rivers and creeks)</li> </ul>	<a href="http://srtm.csi.cgiar.org/">http://srtm.csi.cgiar.org/</a> <a href="http://gdem.ersdac.jspacesystems.or.jp/">http://gdem.ersdac.jspacesystems.or.jp/</a>
<p>3. Vegetation/Vegetative cover for 2 periods (e.g. baseline year and current year)</p> <ul style="list-style-type: none"> <li>• Old-growth forest (closed canopy forest),</li> <li>• Second-growth forest (open canopy forests),</li> <li>• Industrial Tree plantations,</li> <li>• Mangrove forests,</li> <li>• Grasslands/brushlands,</li> <li>• Agricultural lands, etc.</li> </ul>	BSWM & LGU
<p>4. Soil</p> <ul style="list-style-type: none"> <li>• type/classification</li> <li>• soil suitability</li> <li>• land capability (if any)</li> </ul>	BSWM
<p>5. Hydrogeologic Features</p> <ul style="list-style-type: none"> <li>• groundwater resources</li> <li>• faults, etc.</li> <li>• volcanoes</li> <li>• bedrock foundation</li> </ul>	DENR – MGB, PHIVOLCS
<p>6. Conservation areas and other Special Interest Areas</p> <ul style="list-style-type: none"> <li>• Protected Areas (NIPAS and non-NIPAS) both terrestrial and marine</li> <li>• Ancestral domains</li> <li>• Prime Agricultural Lands (NPAAAD)</li> <li>• Fish Sanctuaries</li> <li>• Historical, cultural and natural heritage sites</li> <li>• Wetlands (lakes, rivers, coral reefs, mangroves, seagrass beds, marshes, etc.)</li> <li>• Critical watersheds</li> <li>• Geothermal Sites/Plants</li> <li>• Mining and Quarrying Areas</li> </ul>	<p>DENR</p> <p>National Commission on Indigenous People (NCIP), DENR</p> <p>DA</p> <p>DA-BFAR, PCMRD</p> <p>NHI, NCCA, DENR</p> <p>DENR, BFAR</p> <p>DENR, NIA, PNOC</p> <p>PNOC</p> <p>DENR, MGB, Provincial Government</p>
<p>C. Existing Land Use (Refer to <b>Annex 4-5</b> on Land Use Categories) including the following Special Interest Areas:</p> <ul style="list-style-type: none"> <li>• Ancestral Domain</li> <li>• Historical and cultural heritage areas</li> <li>• World heritage areas</li> <li>• Location of manmade structures e.g. dams, reservoirs, if any</li> </ul>	<p>Primary Survey</p> <p>National Commission on Indigenous People (NCIP)</p> <p>NHI/DOT/PTA/NCCA, LGU</p> <p>NHI, NCCA</p> <p>LGU</p>

<ul style="list-style-type: none"> <li>Location/extent of mining/quarrying activities, such as sand, gravel, etc.</li> <li>Previous land use plan and maps (10-20 yrs. ago, if any )</li> <li>Resource map showing agro-forestry, settlement, cultivated areas, hunting areas, sacred areas, NTFP gathering, etc.</li> </ul>	<p>LGU/DENR-MGB/Provincial Office</p> <p>LGU</p> <p>NAMRIA, DA-BFAR, CLUP, community maps</p>
D. Land Classification Map	NAMRIA-DENR
<p>E. Environmental Condition</p> <p>1. Classification of rivers/bodies of water within the municipality</p> <p>2. Quality of rivers, marine waters, etc. (polluted or not; degree of pollution)</p> <p>3. Probable sources of pollution, if any</p> <p>4. Geological/ environmental hazard areas)</p> <ul style="list-style-type: none"> <li>earthquake faults</li> <li>volcanoes</li> <li>tsunami prone areas</li> <li>areas susceptible to landslides, erosion, subsidence, sinkholes, etc</li> <li>areas prone to noise, air pollution</li> <li>probable causes of hazards or risk</li> </ul>	<p>DENR, Project studies, surveys, interviews DENR-EMB, LLDA (for Metro Manila and within Laguna Lake)</p> <p>- do -</p> <p>- do -</p> <p>PHIVOLCS, DENR/ MGB; community mapping, interview with community, surveys, special studies, if any.</p> <p><a href="http://www.phivolcs.dost.gov.ph">http://www.phivolcs.dost.gov.ph</a></p> <p><a href="http://www.gdis.denr.gov.ph/mgbviewer/">http://www.gdis.denr.gov.ph/mgbviewer/</a></p>
<p>F. Other Land Related Data</p> <p>1. On-going projects: type, location, area covered</p> <ul style="list-style-type: none"> <li>pipeline projects</li> <li>Forestry Projects Map - showing forestry operation by various agencies, e.g. reforestation projects</li> </ul> <p>2. Policies covering Production, Protection, Infrastructure and Settlement areas as defined in the Provincial Physical Framework Plan (PPFP)</p> <p>3. Tenure &amp; Allocation Map (Areas with CSCs, CBFMA, land grant, protected area, special agreements and other tenure instruments)</p> <p>4. Conflicts/Issues Map (e.g. overlapping tenures/claim, identified boundary conflicts, location of new and old kaingin, location of illegal cutting areas)</p>	<p>NGAs (i.e. DPWH), LGU Project documents</p> <p>PPDO</p> <p>DENR, DAR, DA-BFAR, MGB</p> <p>LGU, barangays, and other agencies (i.e. DAR, DENR, NCIP, DA-BFAR, LRA, etc.)</p>
G. Key Biodiversity Conservation Areas and Zones	PAWB
H. Infrastructure Map (showing the bridges, roads, communal irrigation system, water sources for domestic use, power distribution systems, ports, dams and other infrastructures)	LGU, DPWH, NIA, DA, community mapping
I. Institutional and Social Facilities Map (e.g. schools, hospitals, day care, tribal meeting areas, etc.)	LGU and barangays
J. Settlements Map (showing population distribution by barangay, and areas of settlements; location of sitios)	Barangays/ Municipality., LGUs, community mapping
K. Mineral Map, if any (showing location of Mineral Production Sharing Agreement, exploration permits, Financial or Technical Assistance Agreements, mining claims) and Minahang Bayan (small-scale mining areas)	DENR-MGB, Provincial LGU
L. Tourism areas map (Existing and potential tourism sites (caves, waterfalls, lakes, etc)	Tourism office, community mapping

<p>M. Coastal area assessment</p> <ol style="list-style-type: none"> <li>1. Tide level</li> <li>2. Storm surge data</li> <li>3. Sea Level Rise Data</li> <li>4. Location/distribution/condition of: <ul style="list-style-type: none"> <li>• fish sanctuaries</li> <li>• coral reefs</li> <li>• mangroves</li> <li>• seagrass beds</li> </ul> </li> <li>5. Designated tourism areas</li> <li>6. Coastal facilities and infrastructure</li> <li>7. Foreshore, easements and buffer zones</li> </ol>	<p>NAMRIA Hydrographic Survey Office PAGASA</p> <p>UP MSI: MIDAS (Physical Oceanography and E. Salamante) (<a href="http://midas.mandaragat.com">http://midas.mandaragat.com</a>)</p> <p>LGU, BFAR, DENR, Land Management Bureau, PPA, DPWH</p>
<p>N. Hazard Information</p> <ol style="list-style-type: none"> <li>1. Climate Information &amp; Climate Change Projections</li> <li>2. Philippine Fault Zone Maps</li> <li>3. Active Faults and Trenches (Philippine and Regional Maps)</li> <li>4. Liquefaction Susceptibility Map (Philippine and Metro Manila Map)</li> <li>5. Earthquake-Induced Landslide Susceptibility Map (Philippine and Regional Maps)</li> <li>6. Tsunami-Prone Areas (Philippine and Regional Maps)</li> <li>7. READY Project Multi-hazard Maps for Earthquake-related hazards such as landslide, ground rupture, tsunami, ground shaking, liquefaction (Provinces of Aurora, Bohol, Cavite, Dinagat, Leyte, Southern Leyte, Surigao del Norte, Surigao del Sur)</li> <li>8. Landslide Susceptibility Maps</li> <li>9. Flood Susceptibility Maps</li> </ol>	<p>Climate Change in the Philippines (February 2011), by Adaptayo, MDGF, and DOST <a href="http://kidlat.pagasa.dost.gov.ph/cab/climate_change/main.html">http://kidlat.pagasa.dost.gov.ph/cab/climate_change/main.html</a></p> <p>National Framework Strategy on Climate Change <a href="http://climate.gov.ph/index.php/documents/category/5-national-framework-strategy-on-climate-change-nfsc">http://climate.gov.ph/index.php/documents/category/5-national-framework-strategy-on-climate-change-nfsc</a></p> <p>Project NOAH <a href="http://www.phivolcs.dost.gov.ph">http://www.phivolcs.dost.gov.ph</a></p> <p><a href="http://www.phivolcs.dost.gov.ph">http://www.phivolcs.dost.gov.ph</a></p> <p><a href="http://www.phivolcs.dost.gov.ph">http://www.phivolcs.dost.gov.ph</a></p> <p><a href="http://www.phivolcs.dost.gov.ph">http://www.phivolcs.dost.gov.ph</a></p> <p>Community mapping, interview with community; surveys, special studies, if any. <a href="http://www.phivolcs.dost.gov.ph">http://www.phivolcs.dost.gov.ph</a></p> <p>Community mapping, interview with community; surveys, special studies, if any. <a href="http://www.phivolcs.dost.gov.ph">http://www.phivolcs.dost.gov.ph</a></p> <p><a href="http://gdis.denr.gov.ph/mgbviewer/">http://gdis.denr.gov.ph/mgbviewer/</a> <a href="http://gdis.denr.gov.ph/mgbviewer/">http://gdis.denr.gov.ph/mgbviewer/</a></p> <p>LIDAR</p>

- Conduct consultation workshops or interviews to gather perception of the community regarding the environmental condition of the city/municipality, including perceived causes/sources of degradation, if any, and the perceived impacts.



### Tips for the Preparation of Base Maps:

The base map shall serve as the working map where the different land use categories of the whole municipality/city shall be delineated.

To facilitate a more accurate delineation of land uses, the working base map may be enlarged to cover certain districts (i.e. CBD, growth/urbanizing areas) and/or by clusters of barangays.

A topographic map provides important physical information and reference points for the base map while a cadastral map gives more accurate parcellary boundary information of the municipality/city.

Use the standard scales as suggested by the Inter-Agency Task Force on Geographic Information for uniformity and ease in overlaying techniques.

Suggested scales are:

1:5,000/1:10,000/1:25,000 (for basemaps)

1:5,000/1:10,000 (for zoning maps or specific areas)

1:2,000/1:4,000 (for enlarging specific areas in the LGU)

The use of GIS gives greater flexibility in preparing the base/working map in any desired scale.

Road networks and surface drainage (water bodies) shall be properly delineated in order to facilitate the conduct of land use survey.

Coastal and marine areas should be reflected in the maps, showing the boundaries of the municipal water.

Samples of base maps, existing land use and other thematic maps are presented in Annex 4-3.



**Note:** This activity may be done through barangay consultations and/or focus group discussion(s) with key stakeholders usually with the elderly in the community, who have good knowledge or have experienced natural calamities, disasters, or other environmental degradation that affected/is affecting the community. Guide questions shall be structured to cover the following:

- Type/s of environmental degradation, calamity or disastrous events such as flashfloods, erosion, earthquakes, etc.
- Extent of damage to lives, properties, and impact to the community
- Frequency of occurrences
- Perceived causes
- Suggestions on how the community and the government can help mitigate such occurrences.

Some of this information may already be generated/gathered during the conduct of sectoral studies

### 4.2.3. Process and analyze data/information gathered.

- Plot/Delineate in the working base map all data/information on physical attributes of the city municipality for better appreciation of its spatial dimension. Sample thematic maps are presented in Annex 4-3.

- Prepare the existing land use map including water uses based on the information from the base map and the gathered land use data. The map shall include the following:
  - ♦ Delineation of the various land uses (See color codes in Table 7-1. Step 7)
  - ♦ Coastal and marine areas; boundaries of municipal waters
  - ♦ Existing major wetlands, inland waters
- Quantify and determine the extent of distribution of each land use category and present in a tabular form and in any possible visuals or illustrations. A tabular presentation (see Table 4-3) is recommended to summarize the results of this step.

Table 4-3 Existing Land Use Area, Distribution and Percent to Total

Land Use Category	Sub-Category	Area (ha)	% to Total
<b>Forest &amp; Forest Land</b>			
	Forest Reserve		
	National Park		
	Military and Naval Reservation		
	Civil Reservation		
	Forest Buffer		
	Fishpond		
	Mining		
	Plantation		
	Settlements		
	Other Uses (Specify)		
<b>Agriculture</b>			
	Crops		
	Orchard		
	Pasture		
	Settlements		
	Other Uses (Specify)		
<b>Agri-Industrial</b>			
<b>Water</b>			
	Fishery Refuge and Sanctuary		
	Foreshore Land		
	Fishery Reserve		
	Delta/ Estuary		
	Lakes		
	Mangrove		
	Seagrass beds		
	Reef systems		
	Algal forest		
	Sand dunes		
	Rivers & creeks		
	Mariculture Parks		
	Aquaculture		
	Commercial Fishing		
	Municipal fishing		
	Sea Lanes		
	Tourism		
	Port		
	Wharf		
	Mining/Quarrying		
	Settlements		
	Other Uses (Specify)		
<b>Tourism</b>			
<b>Eco-tourism</b>			
<b>Residential</b>			

Land Use Category	Sub-Category	Area (ha)	% to Total
Socialized Housing			
Informal Settlements			
Commercial			
Industrial			
Institutional			
Parks and Recreation			
Cemetery/Memorial Parks			
Buffer/Greenbelts			
Infrastructure/Utilities, Transportation and Services (Specify)			
Landfill/dumpsite			
Other Uses (Specify)			
TOTAL			100%

- Establish the relationship of each data with other relevant data.
  - ♦ Examine/assess data relative to the geographical location and administrative/political jurisdiction of the city/municipality. Determine the situation of the city/municipality within the region/province in terms of area and its significant role, if any.
  - ♦ Analyze barangay distribution in terms of rural and urban areas; population size/concentration; economic activities and employment opportunities and accessibility to social services.
  - ♦ Determine/analyze extent of alienable and inalienable lands within the city/municipality in terms of area, location, and barangays covered.
  - ♦ Analyze impacts of existing land uses on the environment of the city/municipality, e.g. subdivision projects on sloping areas.
  - ♦ Determine existing environmental condition and validate the perception of the community.

#### 4.2.4. Discuss the existing situation of the city/ municipality in terms of the following:

- Geographical, Administrative and Political Domain
  - ♦ Geographic location, boundaries and land area, to include watersheds and sub-watersheds where the LGU is located
  - ♦ Political units (barangays: number, location, and area per barangay)
- Natural and Physical Characteristics
  - ♦ Topography and Slope (prevailing topography and location, degree of slopes)
  - ♦ Climate (climate type, climatic conditions and prevailing winds)
  - ♦ Soil types and soil suitability (general soil types and suitability for agriculture, settlements, other uses)
  - ♦ Surface drainage (major water bodies, including coastal and marine, and freshwater lakes and rivers, marshlands, and other wetlands)
  - ♦ Hydrogeology (presence and extent of fault zones, types of bedrock formation, and location of surface and groundwater)
  - ♦ Mineral resources
- Existing Land Uses
  - ♦ Area per existing/actual land use category and percentage to total land area (include table of these information).
  - ♦ Prevailing dominant land use and their location/distribution/intensity of use
  - ♦ Physical condition, adaptability for future use, and constraints to development (e.g. typhoons, faults, etc.)

- ♦ Conflicting land uses and other land use problems and issues (e.g. settlements inside forest areas, flooding, blight, etc.)
- ♦ Urban form and development trend (direction of physical/land use change and intensity of development)
- ♦ Development potentials
- Existing Uses of Coastal and Marine Areas
  - ♦ Coastal and marine areas—describe significant features and natural attributes, length of coastline, and total boundary of marine municipal waters
  - ♦ Area and location of each utilization category
  - ♦ Present utilization—include other commercial activities such as resorts, or tourism sites, ports, fishing, quarrying activities, and aquaculture developments.
  - ♦ Location and extent of settlements, if applicable.
  - ♦ Point out specific problems, issues, particularly on conflicting uses within the coastal zone, resulting in environmental degradation and the like.
  - ♦ State of marine and coastal resources
- Environmental Condition
  - ♦ Existing situation of coastal and marine areas-discuss manifested environmental stresses like beach erosion, marine pollution, damaged aquatic life, siltation or sedimentation
  - ♦ Freshwater bodies like lakes and rivers(quality and extent of water pollution, if any)
  - ♦ Risk areas/environmentally critical areas (nature, location, extent and frequency of occurrences)
  - ♦ Protected Areas (area covered, location, NIPAS category), forest areas, watersheds, and other natural resources
  - ♦ Land classification (location and area of forest/public lands and alienable and disposable lands)
  - ♦ Infrastructure facilities (focus on adequacy, capacity, condition, and loads for current and future population. A more detailed assessment is presented in the sectoral manual on infrastructure, Vol2).

#### **4.2.5. Establish the significant historical land use trends by describing the major land uses and general characteristics of such uses that prevailed in the city/ municipality in previous plans or at certain points/eras in the past.**

- Trace historical land use from as far back as existing records (documents, maps, pictures, etc.) and verified information are available;
- Presentation shall be in chronological order, from the earliest time to the present;
- Identify the major land use activities and their location
- Establish the historical land use trends by describing significant changes noted from one point to another.

#### **4.2.6. Prepare and consolidate the maps to reflect areas that need to be conserved and preserved, and areas with physical constraints as follows:**

- ♦ Natural risks and hazard areas (volcanic, seismic, flood-prone, erosion-prone, tsunami-prone, etc.)
  - ♦ Protected areas such as National Integrated Protected Areas System (NIPAS), Non-NIPAS, Network of Protected Agricultural and Agro-Industrial Areas for Development (NPAAADs)

- ♦ Wetlands, lakes, rivers, marshes, coastal/marine etc.
- ♦ Salvage areas
- ♦ Historical and cultural areas (if any), natural and cultural heritage sites and other globally designated areas
- ♦ Key biodiversity areas
- ♦ Ancestral domain claims
- ♦ Fish sanctuaries
- ♦ Watersheds and forest areas
- ♦ Existing land uses



### Recommended Tool:

Sieve Mapping, Land Supply and Suitability Analysis. See Annex 4-6 and Table 4-7 for details.

- Conduct a cross-sectoral analysis and integration of the results of the demographic and the socio-economic and environmental studies/ ecosystems and special area studies to derive the most pressing and significant problems and issues.

This activity requires a series of consultative workshops with key stakeholders to be conducted by the planning team.

This step should result to the identification of the following:

**Internal strength** of the city/municipality in terms of:

- ♦ Natural/physical features
- ♦ Socio-economic and manpower resources
- ♦ Administrative/institutional and financial capacities
- ♦ Other internal resources/capacities

### Opportunities

- ♦ Development role assigned by higher-level plans
- ♦ On-going or pipeline investment plans, development projects of the national government and/or private investors
- ♦ Developments in the region, province, offering opportunities for tapping the LGUs resources
- ♦ Other internal national, regional, or local circumstances/events offering opportunities for the LGU.

**Weaknesses**, such as:

- ♦ Poor soil quality;
- ♦ Lack or shortage of infrastructural support facilities such as irrigation, road, power, water and telecommunication;
- ♦ Lack of market;
- ♦ Credit facilities, health, recreational and educational facilities;
- ♦ Lack of skilled labor force;
- ♦ Located in a typhoon prone area or along geologic fault lines;
- ♦ Presence of erosion prone areas;
- ♦ Adherence to traditional values and farming practices;
- ♦ Low literacy rates;
- ♦ Lack of response to incentives;
- ♦ Unresponsive government machinery and deteriorated peace and order condition;

**Threats**, such as:

- ♦ Environmental degradation (include air/water/soil pollution) from existing or proposed manufacturing/processing facilities;
- ♦ Ecological changes (water/moisture supply) brought about by extent of degradation of mangrove and swamps;

- ♦ Extent of damage to flora and fauna;
- ♦ Irreversible land degradation from existing mining explorations or mineral exploitation;
- ♦ Pollution of river systems from solid wastes; siltation due to erosion from denuded forests;
- ♦ Depletion of coral reefs/fish sanctuaries;
- ♦ Destruction of aesthetics;
- ♦ Historical and human interest features in the province and change in government policies or leadership;

The procedural steps for the conduct of SWOT and Cross-Sectoral analysis techniques are presented in Annexes 4-2 and 4-6, respectively.

#### **4.2.7. Discuss the city/municipality's potentials and comparative advantages as identified in the previous step.**

#### **4.2.8. Determine and rank the priority issues and problems which need to be addressed using the list of issues and problems generated from the sectoral studies. The following simple criteria may be useful**

- Urgency of problem
- Seriousness of the problem
- Extent/magnitude of population directly or indirectly affected
- Impact of problem on the strengths, potentials, and opportunities of the city/ municipality and or other localities
- Other applicable criteria



**Note:** Prioritization of issues and problems will be best undertaken through a sectoral committee workshop.

This step is vital in determining what values the community attaches to a certain problem. Such values will be useful in determining which problems/ issues need to be addressed first and those which can wait and so on. This will also be useful in identifying criteria for prioritizing programs and projects for implementation given the limited resources of the LGUs.

At this stage, prioritized problem situations can also be appropriately classified whether it be the national, regional, provincial concern, and the local or private sector concern. Knowing such will help facilitate coordination and partnership arrangements during the implementation proper.

The process may result to a short listing of problems due to some duplication and problems that spill over adjoining location, which may be a common concern of LGUs or national governments.

#### **4.2.9. Determine possible interventions to address ranked priority issues and problems, grouped according to levels of government agencies or private sectors concerned. Provide possible courses of action/strategic options (policies, programs/projects, etc.). This can be presented as below:**

<b>Problems/Issues</b>	<b>Possible Interventions</b>	<b>Responsibility Center</b>
High unemployment	Access to micro financing	LGU (CPDO/MPDO) DTI

### 4.3. Validate new findings with the stakeholders.

This activity involves validation of baseline data/information, findings, results, issues and challenges/gaps/limitations.

Data and information collected from the previous activities shall now be integrated and presented into a series of maps representing each areas/sector analyzed, including CCA/DRRM findings and results. (See suggested list of thematic maps on Annex 4-7)

Identify and delineate major watershed/sub-watershed traversing the LGU jurisdiction. Include other areas outside of the LGU sharing the same watershed/sub—watershed. See Table 4-4. (Assistance can be obtained from DENR-CENRO or Province ENRO.)

Table 4.4 Watershed/Sub-watershed traversing the LGU

Watershed/ Subwatershed	Barangays Covering the Watersheds					
	Within Municipality			Outside Municipality		
	Name of Barangay	Number of Households	Area (ha)	Name of Barangay	Number of Households	Area (ha)
a						
b						
c						
Total Area (ha)						

### 4.4. Determine current and projected needs.

These include key baseline CLUP indicators and database (socio, economic, infrastructure, settlements, demographics, biodiversity, etc.); resources and land requirements and demands.



Refer to Volume 2 for the tools and methodologies to determine current and projected needs per sector.

## 4.5. Determine land supply and demand.

### 4.5.1. Determine the available land supply for development/future expansion areas.

This activity should be conducted after establishing the baseline information (i.e. level of change achieved after the implementation of the existing CLUP review and sectoral/socio-economic projections). This may be carried out using the formula:

#### Land Supply for development/future development areas

$$= \text{TLA} - (\text{PCA} + \text{UA} + \text{SLU})$$

Where:

TLA	=	Total Land Area of the city/municipality
PCA	=	Protection/Preservation and Conservation Areas (Refer to identified development constraints and quantified areas)
UA	=	Urban Use Areas are the built-up areas or those areas with urban activities/land uses
SLU	=	Special Land Uses that are significant and unique to the city/municipality, e.g. agro-industrial, tourism areas designated for projects in the pipeline

(Refer to Table 4-3, Existing Land Uses)

Sample Computation:  
(Figures are hypothetical)

Total Land Area	50,000 has.
Preservation and Conservation Areas (PCA)	25,000 has.
Urban Use Areas (UA)	10,000 has.
Special Land Uses (SLU)	5,000 has.

Land Supply for Development/

$$\begin{aligned} \text{Future Expansion Areas} &= 50,000 - (25,000 + 10,000 + 5,000) \\ &= 10,000 \text{ has.} \end{aligned}$$

### 4.5.2. Estimate the total land area required or needed for urban development and other special planning areas.

This may be the total land requirements determined in the sectoral studies or derived through various methods as follows:

- Use of various national agency standards
- Land for future expansion of urban and other uses is projected on the basis of the given standard area/space requirement per sector multiplied by the population growth index.

$$\text{Future space requirement} = \text{space standard} \times \text{growth index}$$

Where the growth index is an appropriate factor to which standards are applied; specifically, it refers to forecast levels of housing stocks, employment, production and facility requirements.



**Note:** This simple formula is not applicable to all types of land use activities. Space requirements for some uses such as government or civic centers, art centers, museums, and open space systems (greenbelts, land reserves) are best determined by special studies and on a case to case basis. Also, initial computations using space standards are usually adjusted to include allowances for flexibility (say 20% addition to the computed area requirement) and to conform to availability of appropriate locations and desired density/intensity.

The LGU may however, opt to agree on parameters for determining space requirements unique to their local situation and consistent with the adopted vision.

- Current urban density

This approach assumes that future land allocation for urban use shall be based on existing urban density regardless of the growth in urban population.

Future land requirement = current urban density X projected population

The derived sum will be redistributed according to the existing share of each land use category to the total urban land requirement.

## Lessons from the Real Estate Industry

Real estate developers usually conduct a formal market analysis before embarking on a project to make sure that their “products” will sell. The factors which they are concerned with (which are the basic elements of a market analysis) are the market area, supply and demand, and net market absorption. For a LGU, a market analysis would be useful in estimating land supply and demand in connection with updating its CLUP.

The LGU's market area could be its own territory, or includes adjacent LGUs depending on its attractiveness to different market segments, such as residential, commercial, and industrial uses. Usually, it is the employment center or corridor that influences and defines the broader market. In real estate development, projects perform better (ie. they sell faster) in areas that have distinctive identities.

On the demand side, the market study of residential land use, for example, measures the number of households with particular age, size, and income characteristics. This often entail statistical techniques, but the basic approach takes into account the following factors:

- Employment growth in basic industries (e.g., manufacturing and other industries that generate sales outside the LGU territory);
- Employment growth in service industries (retail, banks, professionals, and others whose activities support the local community);
- Percentage of growth expected to occur in market segments;
- Household size – families with children, couples without children, singles, etc.;
- Age distribution;
- Social characteristics;
- Educational characteristics; and
- Income distribution

Each of these factors are carefully analyzed in order to understand the characteristics of the target population groups for different types of residential land. From these statistics, an estimate is made of the number of households expected to appear over the next few years, and hence the number of residential lots expected to be needed.

Further on residential land use, the supply of housing includes the existing housing stock, the units currently under construction, and the units that may be under construction in the future. The vacancy rate and/or number of unsold lots are usually considered the most important indicators of market demand. This information can best be determined by personal inspection and interviews with housing developers. Other sources of information are subdivision homeowners' associations, public utility companies (water and power), and lending institutions.



**Note:** Other methods or standards as may be agreed by the planning team

The estimated land requirements shall be properly justified in terms of the method used, and the vision and functional role of the city/municipality.

The land requirements may also increase or decrease, as needed, during the final stages of the plan formulation and as a result of sieve mapping and suitability analysis, etc.

## Estimating Market-Based Land Supply and Demand

The first question LGUs must ask when estimating land supply and demand is, “What is the highest and best use of the land?” This can be answered by performing a market analysis to determine the best use and to estimate absorption (units sold or square meters leased per month) for the site or area being analyzed

From the landowner’s perspective, every site at any point in time has a highest and best use that will maximize the property’s value. The objective of market analysis is to identify the needs of the marketplace. A landowner and/or developer’s primary market decisions concern the project site’s land use, location, and size. For an LGU which may not have any specific site or use in mind, then it must analyze each segment of the market – residential, commercial, industrial, or mixed-use. Real estate markets are highly segmented, and it is often necessary to also analyze particular market-segments (for instance, mid-priced single-family houses) and the location where the demand is greatest.

The major source of information for the analysis include the LGU itself, lenders (banks), real estate brokers, developers, the Registrar of Deeds, and HLURB. The most important questions to which the analysis will answer concern the market for the envisioned or proposed land use type:

- Where are the hot areas or parts of town?
- What are the hot segments of the market?
- If the landowner were to develop his/her land, what would he/she build?
- For what types of developments or buildings are lenders/banks giving loans?
- For what types of developments or buildings are lenders/banks not giving loans?
- Who else is developing in a particular area? What are they developing?
- How many lots are they selling a year? What are the sizes and selling price of the most sellable lots?

Based on the answers to these questions and an analysis of the data gathered, the LGU can project the annual demand for certain types of land uses. It is useful to look at the historical absorption rates of different land use types in different locations. These can be derived from LGU records, such as subdivision approvals, Building Permits, Occupancy Permits, Business Licenses, and lot titles issued by the Registrar of Deeds. Trends in the location of new developments can also be analyzed through the records of new water and power connections.

## Annex 4-1. Developing and Identifying Ranking and Scalar for Rating Progress

Developing a ranking or grading system to rate a CLUP's implementation is an important monitoring and public reporting tool to obtain local stakeholders and other groups understanding and support to CLUP activities of the LGU.

### Using a 5-scale system

A ranking or grading system is normally divided into several levels to represent the different levels of progress or changes targeted to be achieved in a desired indicator or outcome condition. Most often, a 5-scale system is adopted, i.e. 1-to-5 levels, to represent the least to best or most desirable-to-least desirable levels or vice versa, depending on the agreed representation of each scale by the LGU or local stakeholder. Examples of 5-scale level are shown in the table below:

Scale/Level	Very Poor-to-Excellent	Highest-to-Lowest
1	Very Poor/Fail	
2	Poor	
3	Fair	No change
4	Above Average	
5	Excellent	

The higher ranks (i.e. 4 or 5) can represent the targeted desired levels agreed upon by the LGU or its stakeholders which could be based on nationally-defined standards or agreed upon levels by the LGU and its stakeholders. For example, socio-economic and poverty indicators can be referenced to the national Human Development Index (HDI) or Millennium Development Goal (MDG) targets. On the other hand, the LGU or its stakeholders may want only to adopt a certain percentage (%) or portion of the national standard (e.g. local income increases above poverty levels or forest cover recovered) as its targeted acceptable levels of change to represent the higher grade or rating levels. The middle rank or 3 is normally used as the reference baseline representing the current condition/status of the LGU.

The opposite grade or rating levels (i.e. 2 or 1) will represent levels of deterioration or non-improvement of outcome conditions. The LGU and its stakeholders can identify the minimum or maximum levels of deterioration/non-improvement of key CLUP conditions the same way it identified the maximum or minimum levels of progress/improvement to represent grade or rank levels 4 or 5.

This 5-scale system can be presented in various forms such as numeric (i.e. 1-to-5), alphabetical (i.e. A-to-E), color code (i.e. green-to-red); symbols/avatars (i.e. palm signs, stars, etc.). The important factor is that the scales/levels have been commonly agreed and understood by the LGU and its stakeholders. Examples of 5-scale symbols are shown below:

Scale/Level	Alphabetical	Symbol (Stars)	Colors	Weights or Points	Description
1	A	★	Red	1	Very Poor/Fail
2	B	★ ★	Orange	2	Poor
3	C	★ ★ ★	Yellow	3	Fair
4	D	★ ★ ★ ★	Yellow Green	4	Above Average
5	E	★ ★ ★ ★ ★	Green	5	Excellent

Likewise, appropriate points or weights can be assigned for each scale in order to compute over-all or average rankings/levels given by specific stakeholders or raters. The average ranking or results of this computation can be used as the scores or level achieved for each particular indicator.

## Annex 4-2. SWOT Analysis Technique

SWOT Analysis is a method that enables a planner to generate feasible alternative strategies for the LGU through an assessment of the present conditions, characteristics, and current state and utilization of the LGU's natural/physical, human and fiscal resources.

- Serves as basis for evaluating where the LGU's strength lies. Thus, serves as guide in determining which aspects to pursue and what weaknesses and threats to overcome, what opportunities to take advantage of.
- Internal strengths can be used to take advantage of external opportunities or to overcome external threats.
- The planners can formulate and pursue defensive-type strategies aimed at overcoming weaknesses and avoiding external threats.
- The planners can formulate and pursue strategies that will improve on the LGU's internal weaknesses by taking advantage of external opportunities.

The SWOT Matrix is an important strategy-formulation matching tool that results in the development of four types of strategies: **Strengths-Opportunities (SO) strategies, Weaknesses-Opportunities (WO) Strategies, Strengths-Threats (ST) strategies and Weaknesses-Threats (WT) strategies.**

### How is SWOT Analysis Done?

SWOT Analysis is done through a workshop with the participation of the local officials and the various representatives of the different sectors of the LGU and key stakeholders

**Step 1.** Divide the participants into groups/sectors. Assign a presenter for each group/sector.

**Step 2** Using the SWOT Matrix (refer to example below), each group/sector can now proceed to the succeeding steps.

Always leave this blank	<b>Strengths (O)</b>	<b>Weaknesses (W)</b>
<b>Opportunities (O)</b>	<b>SO Strategies</b>	<b>WO Strategies</b>
<b>Threats (T)</b>	<b>ST Strategies</b>	<b>WT Strategies</b>

**Step 3.** List the key internal strengths in the upper middle cell.

Strengths refer to the present or inherent features, attributes or characteristics of the LGU that enhance or aid in its development or progress. Strengths should be identified to be able to enhance them. (e.g. vast tract of agricultural roads and power supply, strong political will among local officials)

**Step 4.** List the key internal weaknesses in the upper right cell.

Weaknesses refer to the present human, fiscal or physical attributes that tend to or inhibit the development or progress of the LGU. Weakness should be analyzed to be able to overcome them. (e.g. inadequate irrigation facilities poor maintenance of existing facilities)

**Step 5.** List the key external opportunities in the middle left cell.

Opportunities refer to the external economic, social, political, technological and competitive trends, conditions, events or circumstances that could significantly benefit the LGU to further improve its existing situation, (e.g. Location of foreign assisted projects, within the BIMP-EAGA)

**Step 6.** List the key external threats in the lower left cell.

Threats consist of external economic, social, political, technological and competitive trends and events that are potentially harmful to the LGU's present and future development or progress, (e.g. presence of EPZA in the adjacent city/municipality)

**Step 7.** Match internal strengths with external opportunities and record the resultant SO Strategies in the middle right cell. SO strategies are based on using key internal strengths to take advantage of external opportunities.

**Step 8.** Match internal weaknesses with external opportunities and record the resultant WO strategies in the middle right cell. WO strategies are based on overcoming of weaknesses by taking advantage of opportunities.

**Step 9.** Match internal strengths with external threats and record the resultant ST strategies in the lower center cell. ST Strategies are based on using strengths to avoid threats.

**Step 10.** Match internal weaknesses with external threats and record the resultant WT Strategies in the lower right cell. WT strategies are on minimizing weaknesses to avoid threats.

The purpose of each matching tool is to generate feasible alternative strategies, not to select or determine which strategies that were developed in the SWOT Matrix will be selected or implemented.

**Step 11.** Let each group/sector present their respective output: SWOT Analysis Matrix. Refer to sample SWOT analysis matrix below.

Always leave this blank	<b>Strengths (O)</b>	<b>Weaknesses (W)</b>
	Vast tract of agricultural land. Adequate roads, bridges and power supply. Strong political will among local officials.	Inadequate irrigation facilities. Poor maintenance of existing utilities.
<b>Opportunities (O)</b>	<b>SO Strategies</b>	<b>WO Strategies</b>
LGU is among the small irrigation project areas of the JICA. Within the BIMP-EAGA.	Local officials to make representations with the JICA project team for early implementation. Expansion and development of commercial and production areas.	To cooperate with the JICA authorities to facilitate construction of irrigation facilities in the area. Rehabilitation and maintenance of existing facilities.
<b>Threats (T)</b>	<b>ST Strategies</b>	<b>WT Strategies</b>
LGU is located within the typhoon belt. Traffic congestion.	Raise crops which can withstand typhoon. Develop alternative roads.	Construct facilities to mitigate floods during heavy downpour. Provide additional roads and improve or maintain existing roads.

**Step 12.** Generate comments from other groups, select common entries from the groups' outputs and agree to come up with a final matrix using the group work as inputs.



## Annex 4-4. Methods of Land Use Survey

### I. Foot survey

Area inspection is done on foot (walking). This is recommended for high-density areas to produce precise survey checks, specifically for the urban areas or poblaciones.

**Step 1.** Determine pace factor.

Pace factor is applied to calculate frontage distance for each structure in the block/zone being surveyed.

A block is a portion of land usually bounded by streets. It can accommodate a number of structures used for different purposes.

The pace factor is computed as follows:

1. Get a 50-meter tape measure. Spread tape.
2. Let the fieldworker walk at least three times along the tape. Record the number of paces in every direction.
3. Add number of paces and divide by the number of times the fieldworkers walked along the tape.
4. Divide 50-meters by the average number of paces. The result is the pace factor.
5. To get the frontage distance, simply multiply the number of recorded paces by the pace factor.

**Step 2.** Note down the exact use of land areas and structures on them. The information should be recorded on the survey sheet plotted on the working map.

### II. Windshield survey

Windshield survey is done while riding a vehicle. It involves a rapid survey of land uses particularly in low density areas. It is used for a general land use survey of the entire municipality/city.

**Step 1.** Set odometer reading to zero. A working map and topographic map/aerial photo must be on hand to record land uses and note changes, if any.

**Step 2.** Use a compass to ensure correct orientation on the working map. A pair of binoculars would also be helpful in conducting the ocular survey.

**Step 3.** Note changes in land uses leading for instance, in area expansion.

With the use of reference points like rivers, roads and other land marks, boundaries of specific uses may be approximated on the topographic map/material photograph. The odometer must be read to determine the approximate distance where the changes occur along the highway. Boundaries may also be counterchecked with recent aerial photographs.

**Step 4** Transfer the survey findings on the base map. Use appropriate color in the delineation of the land use categories. Refer to Annex 4-5 for standard color code per land use category.

The following technology will facilitate the determination and/or validation of actual land uses:

- Global Positioning System (GPS)—The use of handheld GPS receivers is the best way to perform actual ground survey and ground truthing.
- Aerial photos and satellite imagery—Available aerial photographs and satellite imagery, combined with GIS technology, is used to derive and analyze land use data.

### III. Global Positioning System (GPS) survey

**Step 1.** Familiarize yourself with the GPS receiver being used.

Read and follow the manufacturer's instruction on the use and operation of the GPS receiver. Make sure that all settings are correct and appropriate and that satellite and weather conditions for GPS reading are satisfied before conducting the survey.

**Step 2** Proceed to the points of observation and get the GPS reading. Record these readings (usually the latitude and longitude) and a description of the points being occupied.

**Step 3** Transfer readings on a base map by either manual plotting or by uploading the data from the GPS to a computer. Software is available which can get and process data from GPS receivers.

GPS survey can also be used to verify data on a GIS system. Method of data gathering is the same as the steps above and once the information is uploaded in a computer, most GIS applications can read GPS data and can be processed using these applications. Furthermore, some GPS receivers can be uploaded with the points to be verified and others can store digital maps so validation of boundaries can be done in the field.



Refer to Volume 3. A Guide to Data Management in CLUP Preparation for a comprehensive discussion on land use related survey and mapping.



**Note:**

- Parks and Cemetery should be the same color
- Residential 1 to 5 should be from light to dark yellow; hatches should be used for basic and maximum residential zone
- Commercial 1 to 3 should be from light to dark red
- Industrial 1 to 3 should be from light to dark violet
- Institutional zones should use different shades of blue

Overlay Zones may also use other types of hatches.

## Annex 4-5. Inter-Cross Sectoral Analysis Technique

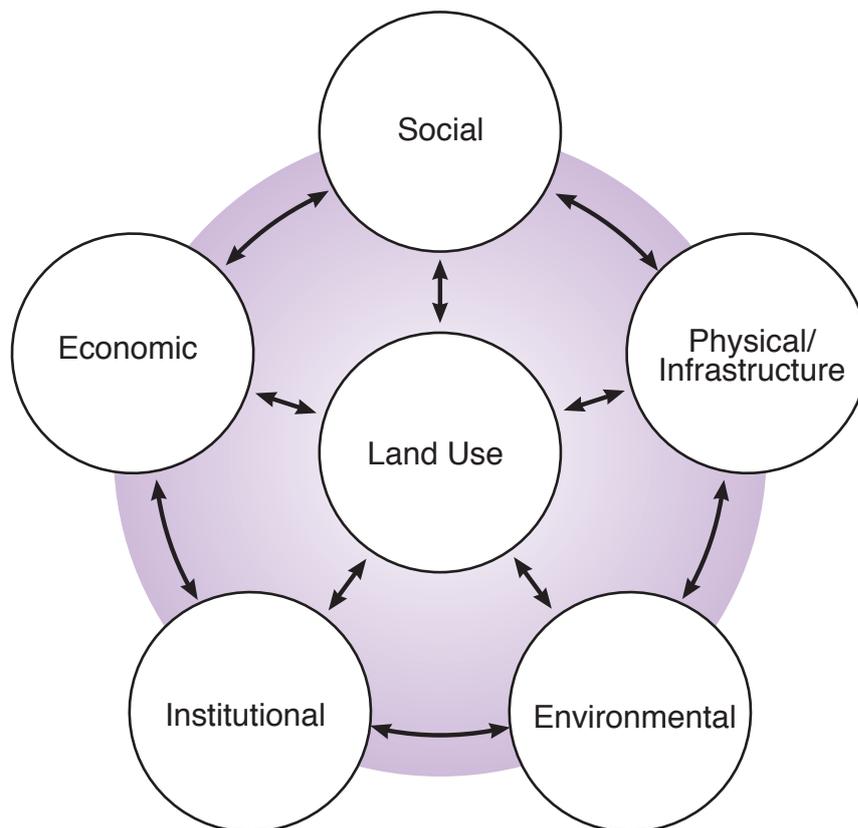
Inter/cross sectoral consultations and planning workshops provide for an opportunity for the stakeholders to discuss issues/concerns and opportunities that directly or indirectly affect their respective sectors as well as in identifying possible solutions and policy options.



The process involves a series of stakeholders' workshops by the different sectoral committees. The purpose of these meetings is for the individual sectoral committees to identify and analyze development issues and opportunities peculiar to their own sectors (e.g. for social sector: inadequate number of classrooms to house additional students, absence of hospital, absence of daycare centers).



This is the venue wherein pairing of individual sector is done with other sectors. (Refer to Figure below). The arrows illustrate the linkage among sectors. The circle at the center shows that the results of sectoral pairings or cross sectoral analysis are integrated in the land use, it being an integrating component in the system.



The secret of an effective plan lies in the proper matching of its sectoral elements: economic, social, physical/infrastructure and environment.

3

Divide the participants into groups/sectors

The participants may be grouped into the: (a) Social Sector, (b) Economic Sector, (c) Environment Sector, (d) Institutional Sector, and (e) Physical/Infrastructure Sector. Each group/sector elect a presenter/rapporteur to present the group's output at the end of the workshop.

4

Pair each sector with other sectors following the suggested pairings

In pairing these sectors, possible conflicts, inconsistencies, duplications or omissions are crosschecked before integration in the land use plan.

The following pairings are suggested:

- a) Social-Physical Infrastructure
- b) Economic-Physical Infrastructure
- c) Institutional-Physical Infrastructure
- d) Environment-Physical Infrastructure
- e) Economic-Environment
- f) Social-Economic
- g) Social-Institutional
- h) Social Environment
- i) Economic Institutional
- j) Environment Institutional

The exercise will result in several issues and opportunities which may be presented using the sample matrix below. Further, foreseen implications will result to policies that will serve as bases in the generation of Preferred Development Options, Alternative Spatial Strategies and the Land Use Plan.

Observations	Explanations	Implications	Policy Options
• Encroachment of informal settlements into mangrove areas	• Absence of a system to monitor encroachment on public properties	• Loss of breeding grounds for fish	• Relocate squatters
	• Unavailability of affordable housing units	• Loss of natural defense to coastal soil erosion	• Provide affordable housing units to squatters who will be relocated
		• Decrease in fish production	• Establish a system to periodically monitor encroachment on mangrove areas

Repeat the exercise with other sectoral pairs as listed above.

## Annex 4-6. Sieve Mapping Techniques and Suitability Analysis

One of the many activities in land use planning is related to the choice of an optimal future land use for a particular space in the land or the selection of an optimal area to locate a specific activity. This process is more commonly known as "site selection" in the context of urban planning and is in a number of ways comparable to "land evaluation". A general example might be to determine where or which land in the locality is available for future urbanization and how much people could be accommodated. Site selection can also be very specific. One specific urban application is the determination of the best location for a new site and services scheme. This process is called "Suitability Mapping" which identifies constraints and opportunities.

Depending on the importance of the proposed activities and objectives of the selection, the attention given to each of the aspects may vary.

### Suitability Analysis

The first thing to be done is to formulate criteria for suitable development areas (Table 4–5). The appropriate base data can now be gathered and interpreted for the specific study. The base data can be in the form of aerial photos, topographic map and other thematic maps where aspect maps can be derived. An aspect map is a map dealing with only one factor. They are usually derived from the original thematic maps which are professional interpretations of base data into customized categories. They describe specific properties that can be used for further comparison with other aspects.

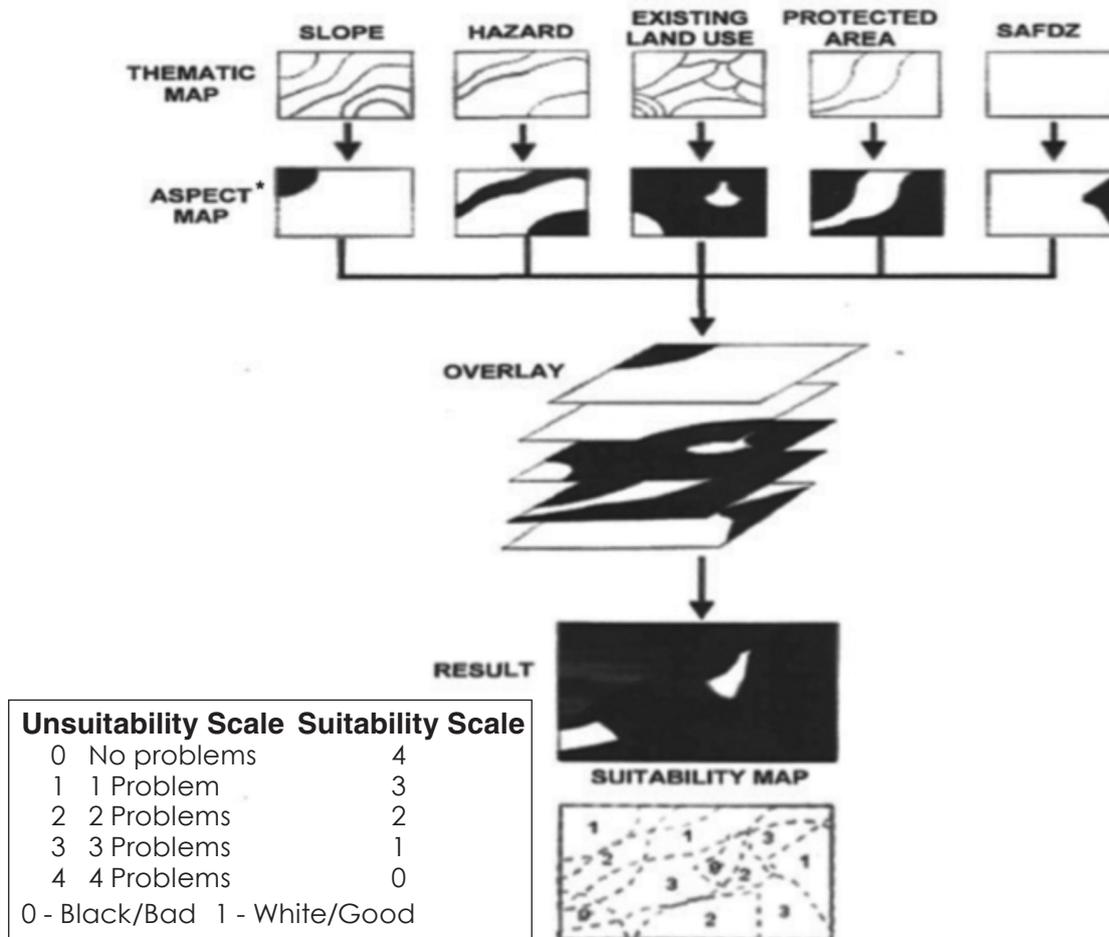
**Table 4–5. Land Suitability Matrix**

Land Suitability Classification	Soil Suitability Class	Slope	Flooding	Other Hazards*	Fault Zone	Existing Land Use	Protected Areas (PA)**
Highly suitable (good)	Good	0-3%	No flooding	Outside	Outside fault zone	Agricultural	Outside PA
Moderately suitable	Fair	3-8%	Moderate drainage problem	Outside	Outside fault zone	Agricultural	Outside PA
Not suitable (bad)	Poor	8-18%	Soil drainage good or fair but excessive due to their steep slopes	Within	Within fault zone	Agricultural	Within PA
	Very Poor	> 18%	Extreme submerged problem	Within	Within fault zone	Other uses	Within PA

### Methods

1. The binary method can be easily applied by sieve mapping. From each aspect map, overlays are made with the unsuitable areas painted a dark color. Then all map layers are put together (overlaid) on a light table where only the suitable areas (areas that have no negative aspect) will light up. (see Figure 4-1)

Figure 4-1. Sieve Mapping and Suitability Analysis



Note:

\*Aspect Map shows particular information needed for analysis purposes. Aspect maps are usually derived from original thematic maps and are translations/interpretations of base data into customized categories such as severe flooding, severe erosion, steep slopes, etc.

Suitability levels could also be handled on a light table but in an incremental approach. First, we compare the first aspect and delineate on an overlay the areas that qualify for the aspect. Those areas will get a value of "1". Then we put the overlay over the second map and delineate the areas that qualify for the second aspect. When they coincide with areas that have already got "1", this will be upgraded to "2". If these are new areas, they will get a value of "1". When all the factors are considered the highest values indicated the areas that qualify on all aspects (e.g. areas with value "5" if 5 aspects are considered). These are the same areas that we found with binary sieve mapping. When the value is "4" it will mean that the site is not falling in the suitability range for one aspect. If we like to know which aspect that is, we have to compare with the original maps.

In the identification of the physical conditions that determine the suitability of the land for urban use or future development areas, the following sample questions may serve as guide to the planner.

1. Where are the areas that are too steep to build upon or prone to landslides?
2. Where are the areas prone to flooding?
3. Where are the areas where ground conditions are not good for construction?
4. Where are the forest areas?
5. Where are the rights of ways for major roads not yet fully built and for high tension electricity lines?
6. Where are the built up areas?
7. Where are the good quality agricultural lands?
8. Where are the areas that cannot be served by easy extension of existing systems?

9. Considering the said factors, what are the constraints and opportunities for using lands in and around the town for urban use?

Before answering the last question, carry out a Sieve Map Analysis of the town and its surroundings using the answers to the other questions.

Basic Steps of Sieve Mapping Technique (Manual Preparation)

- Step 1.** Make several transparent sheets (reproduce) of previously prepared base maps on tracing paper based on the number of the thematic maps. (The transparent sheets will be used for tracing the derived aspect maps to be overlaid to come up with the map containing suitable areas.
- Step 2.** Prepare criteria for suitability for each thematic map. Make a classification according to suitability for urban areas (See Table 4-6)

**Table 4-6. Risk and Suitability Analysis Matrix**

Indicator	Rural		Urban	
	Area not suitable for urban development	Area suitable for urban development	Existing urban area exposed to hazards and or in conflict with other legislations/regulations	Existing urban area in accordance with zoning and land use
Slope	18%>	18%<	18%>	18%<
GeoHazard	Within	Outside	Within	Outside
Air & water quality	Poor	Good	Poor	Good
Protected areas	Within	Outside	Within	Outside
Land classification	not A&D	A&D	not A&D	A&D
Recommendations for CLUP	No future urban area development recommended	Potential for future urban area development	Rezoning and/or take other measures to control development to site conditions that reduces vulnerability to man-made hazards  Strict enforcement of regulations  Mitigating measures to control hazards	Existing zoning can prevail

- Step 3.** Prepare aspect maps by enlarging or reducing the thematic maps (slope, hazard, etc.) according to the scale of your base map. Using the transparent sheets, trace the enlarged/reduced thematic map. You have the flexibility to add or delete other thematic maps other than the ones prescribed)
- Step 4.** For each aspect map, delineate the areas which are highly suitable and not suitable depending on your criteria. Color the unsuitable areas with a dark color or patterns of hatching and leave the suitable areas blank.
- Step 5.** Overlay (put on top) the different aspect maps and tape them together on the light table. Those areas that light up are those areas which have satisfied all criteria and which is deemed suitable for development. This will be the land supply map.

By carrying out sieve analysis, you can locate the areas where there are physical constraints on the use of lands for urban purposes. By placing at a time the overlays on the base map, the sum of the areas marked upon by the overlays can be built up on a single transparent sheet that each time is placed over the others and upon which any marked areas are placed. The result is a map showing all those areas where there is constraint upon the use of the land for urban purposes. At the same time the blank areas where nothing is marked indicates areas where the best opportunities are for development to take place.

This classical method can be done faster and more accurately by GIS. By overlaying maps, a new data set with new entities and attributes is created. The new map inherits characteristics of the original data sets. (See HLURB, A Guide to Data Management in CLUP Formulation)

Please note that before utilizing the identified areas for urban uses, other techniques such as densification and infilling may be utilized if the community would like to preserve their land.



### Suggested Thematic Maps

- Slope map—this can be obtained from BSWM.
- Hazard map—flooding, fault lines, volcanic eruption, tsunamis, erosion or landslide-prone, etc. can be derived from several source maps: NAMRIA, PHIVOLCS, MGB, PAG-ASA
- SAFDZ-LGU, BSWM
- Updated existing land use—current aerial photos and satellite images is the best source map to show exact location of land use.
- Protected Areas—PAWB for NIPAS, FMB
- Soil Suitability—BSWM

## Incorporating Climate Change and Disaster Risk Considerations

Land suitability must be guided by medium- (2020) and long-term (2050) climate projections. It is not enough to screen land suitability according to current conditions (e.g. already known flooding areas, arid regions, etc.) since these conditions may change in the future.

In addition, not all areas with some level of risk necessarily have to be avoided when it comes to development. In fact, given the demand for land area, it may not be practical to completely restrict development in all these areas. In the planning process, areas with manageable risk should be differentiated from areas of high and difficult-to-manage risk. Risk may be managed, for example, through infrastructural innovations such as houses on stilts to avoid flooding. Being able to make this distinction between “manageable” and “unmanageable” risk at certain time periods requires, however, the determination of thresholds (e.g. level of flooding) beyond which the community would be unable to cope. Areas experiencing hazards beyond these thresholds are those to be avoided completely, necessitating, in some instances, transformational change if relocation is required. (CLUP Resource Book, CCC)

Given the above considerations, two levels are recommended for Risk and Suitability Analysis/ Sieve Mapping/ Determination of Land Supply: delineation of Protection Areas and Limited/Low-Intensity Development Areas. Protection Areas will be strict no-build areas while Limited/Low-Intensity Development Areas may be developed but with restrictions.

### Protection Areas

Criteria: Areas where risk is unmanageable/ unacceptable (refer to Volume 2—Climate Change and Disaster Risk Assessment for further details on defining risk areas)

- Flood—defined floodway; 10-year flood extent; or flood-prone area where flood height and velocity combine to make safe evacuation difficult during flood
- Sea level rise and coastal erosion—area projected for permanent inundation
- Storm surge—high susceptibility
- Landslide—high susceptibility
- High susceptibility to lahar
- Volcanic danger zone
- Fault danger zone

Limited/ Low-Intensity Development Areas (Production/Settlement/Infrastructure)

Criteria: Areas where risk is manageable/ acceptable

- Floodplain Area—flood-prone area where safe evacuation is possible during flood
- Landslide—medium susceptibility
- Storm surge—medium susceptibility
- Liquefaction prone areas
- Tsunami prone areas
- Ground subsidence prone areas

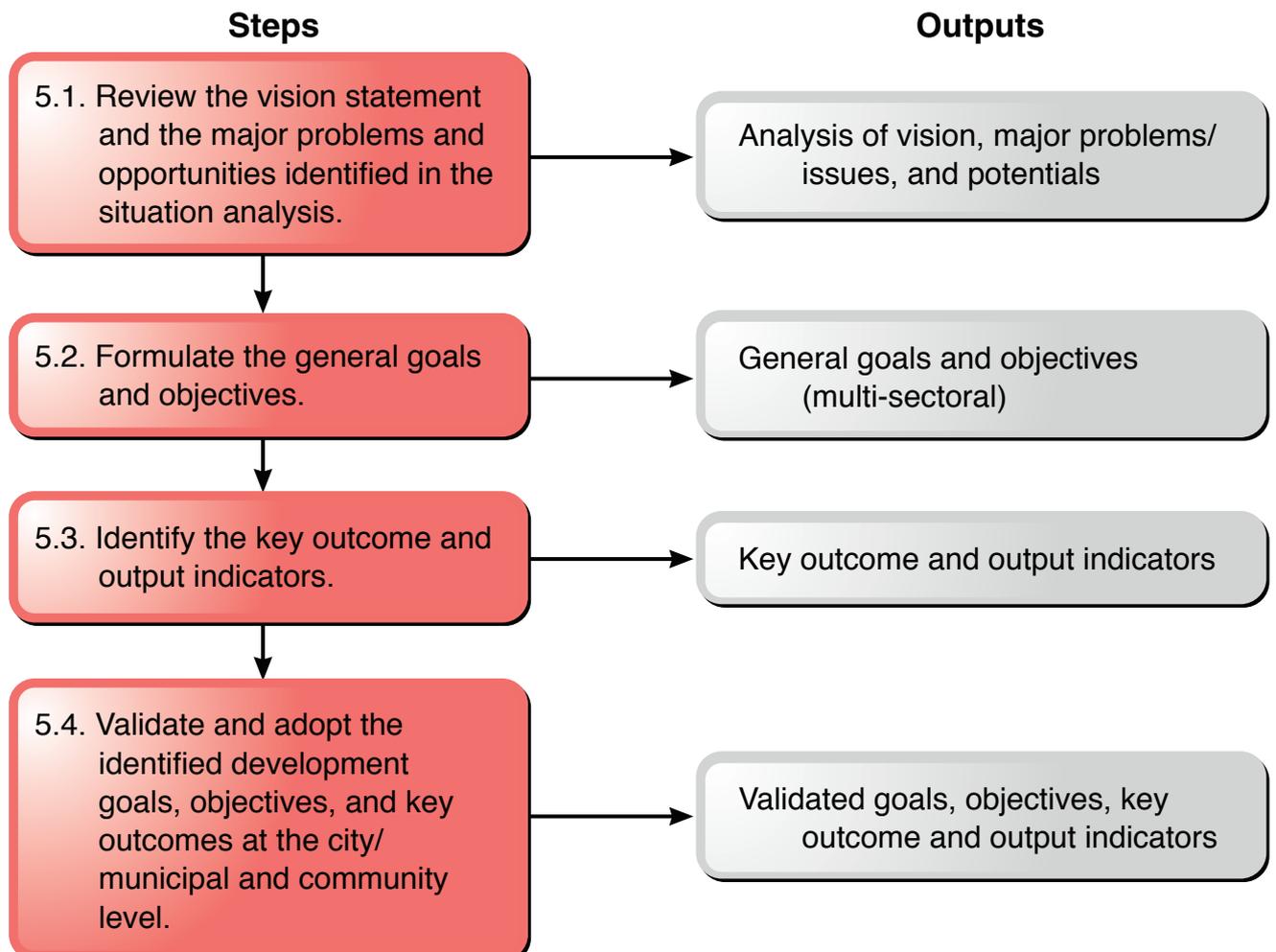
### **Determining land use trends/growth patterns**

Land use trends/ growth patterns should be analyzed to determine areas for priority action such as areas with land use conflicts. This could be the following:

- New settlements encroaching on Protection Areas
- Fast-growing existing built-up areas situated in either Protection Areas or Limited/ Low Intensity Development Areas
- Agricultural areas being converted to higher order uses situated in either Protection Areas or Limited/ Low Intensity Development Areas
- (Refer to Volume 2– Climate Change and Disaster Risk Assessment for details)

# Step 5: Set the Goals and Objectives

Formulate achievable goals and objectives, outcomes and output indicators that are responsive to the issues, needs, and potentials of the municipality/city.



## Introduction

The formulation of goals and objectives will help the city/municipality achieve its vision. It is important that the goals and objectives are formulated with the consensus of the broader community. In this way the plan is able to engage all sectors and ownership of the plan is shared by the community. Participatory goal setting is a good way to achieve this.

The situational analysis will likely have revealed weaknesses or gaps in the city/municipality's resources or capacities. The goals and objectives should address these gaps, building on strengths and taking advantage of opportunities.

The working draft of the goals and objectives may initially be prepared by the Planning Team in consultation with key stakeholders. This will later be presented to the various stakeholder group workshops for further comments/ revisions, validation, and acceptance.




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### Objective/s

- Concretize the preferred state of the key elements of development goals: socio-economic; environmental/ecological/biophysical; physical characteristics; and human conditions (e.g. quality of life)
- Identify key development outcome indicators and the recommended strategies and options to achieve the development goals




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### Key Input/s

- New strategic CLUP vision relevant to the LGU's/community's potential/future needs and requirements
- Technically-sound projections and estimates of both internal and external conditions as well as future needs and requirements of the LGU and its people in the next 10-15 years
- Projected climate change and disaster risk-related vulnerabilities, threats and their potential impact integrated into the LGU's plans and communities




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### Expected Output/s

- Identified and validated set of goals, objectives, key outcome and results indicators
- Identified targeted levels of change using overall and key sector/thematic/physical areas




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### Key Technical Actors/Responsible Bodies

- Lead: City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-making Authority: Local Chief Executive, Sanggunian Bayan Consultative Body: Local Development Council (LDC) and local communities/barangays



## Steps

### 5.1. Review the CLUP vision statement.

The result of the situation analysis (Step 4) may be presented as input for validation, and these results will become the bases for the formulation of goals and objectives during the workshop/consultation.

### 5.2. Formulate the general development goals and objectives.

The general development goals and objectives must be appropriately formulated so that these would translate the CLUP's vision into concrete and physical realities.

The process of identifying the CLUP's general development goals and objectives is an iterative process similar to the revision or formulation of the new CLUP vision. It may also take several iterations or cycles before achieving a consensus. Employ the different techniques of stakeholder participation such as the basic methods of Technology of Participation (See Annex 2-6). It is suggested that the identification of the CLUP's general development goals and objectives shall be simultaneously prepared with the formulation of key outcome and output indicators as discussed in Step 5.3.

A **Goal** is a broad statement of desired outcome in the medium or long term. It aims to address a general problem situation of a municipality/city as derived from the situation analysis.

#### Things to consider in formulating a goal:

A Goal must be able to translate the municipality/city's vision statement into more realistic terms.

A Goal must be multi-sectoral in nature to be able to address more than one problem situation.

A Goal may be formulated for each of the identified key problem areas necessary for the attainment of the vision.

Sample:

“ An accessible, well developed City that provides high quality services and facilities.”

**Objectives** are more specific statements of short-range desired out comes or results towards which development activities in the municipality/city are directed. These may be viewed as subsets of a goal and therefore contribute to the attainment of a stated goal. They respond to specific problem situations usually sectoral in nature.

#### Objectives must be SMART:

- **Specific** in terms of place.
- **Measurable**, preferably in performance terms-what is achieved rather than how to achieve it.
- **Attainable**. Objectives must be attainable, otherwise, it will backfire and create failure.
- **Realistic**. It is important that the support of the key stakeholders should be obtained, thus, objective setting should be participatory.
- **Time-bound**. It is critical that objectives have a meaningful timeframe. The timeframe should be linked to political and social realities as well as to physical development aspects.

## 5.3. Identify the key outcome and output indicators.

### 5.3.1. Translate the vision statement from Step 3 into concrete physical characteristics or expressions. Identify the key outcome indicators (over-all and key thematic/sectoral areas) of these characteristics.

The CLUP key outcome or result indicators can be single indicator, or an index/set of indicators, which incorporates multiple parameters (e.g. income level). Parameters may be physical, social, economic, ecological or spatial. Some examples are shown in Table 5-1. See Annex 5-1 for Guide in Selecting Appropriate Indicators.

As mentioned in Step 5.2, this process may be done simultaneously with the identification of CLUP development goals and objectives. The indicators must concretely translate the goals and objectives, and consequently reflect the achievement of the vision.

Some of the key CLUP outcomes may require other interventions that are dependent or delivered by other agencies or groups besides the LGU. This should be given due consideration by the local planning team and decision-making bodies in the identification of key CLUP outcomes.



**Note: Outcomes** are the results or changes expected from a local condition or LGU level of development. An outcome can be a series of outputs or interventions delivered by an LGU or NGA or activities done in a particular sector.

Example: Clean air is an outcome arising from reduction of smoke-belching vehicles, increased greenery in an urban area, repair of dilapidated roads, etc. In most cases, CLUP outcomes come from different interventions or delivery of outputs by various institutions or sectors from both local and national agencies.

### 5.3.2. Identify the key outputs that are necessary to achieve the desired outcomes or results.

This process can be initially started at the TWG levels to provide technical inputs and validate cause and effects of the identified outcomes and outputs.



**Note: Outputs** are the products, goods, services or facilities that are directly delivered and provided for by the LGU or local agencies/ organizations that are needed to achieve the desired key outcomes of the CLUP. It can include services and products offered and facilities provided/created/ established by the LGU or local community group. See Annex 5.1 on Selecting Appropriate Indicators.

They are what you 'put out' as a result of an activity. Outputs are not the benefits or changes that occur in a community or an LGU but the interventions introduced so that communities or people in that community may be able to achieve a desired outcome or goal.

Example: New farm-to-market road may lead to increased incomes for upland farmers in Compostela Valley.

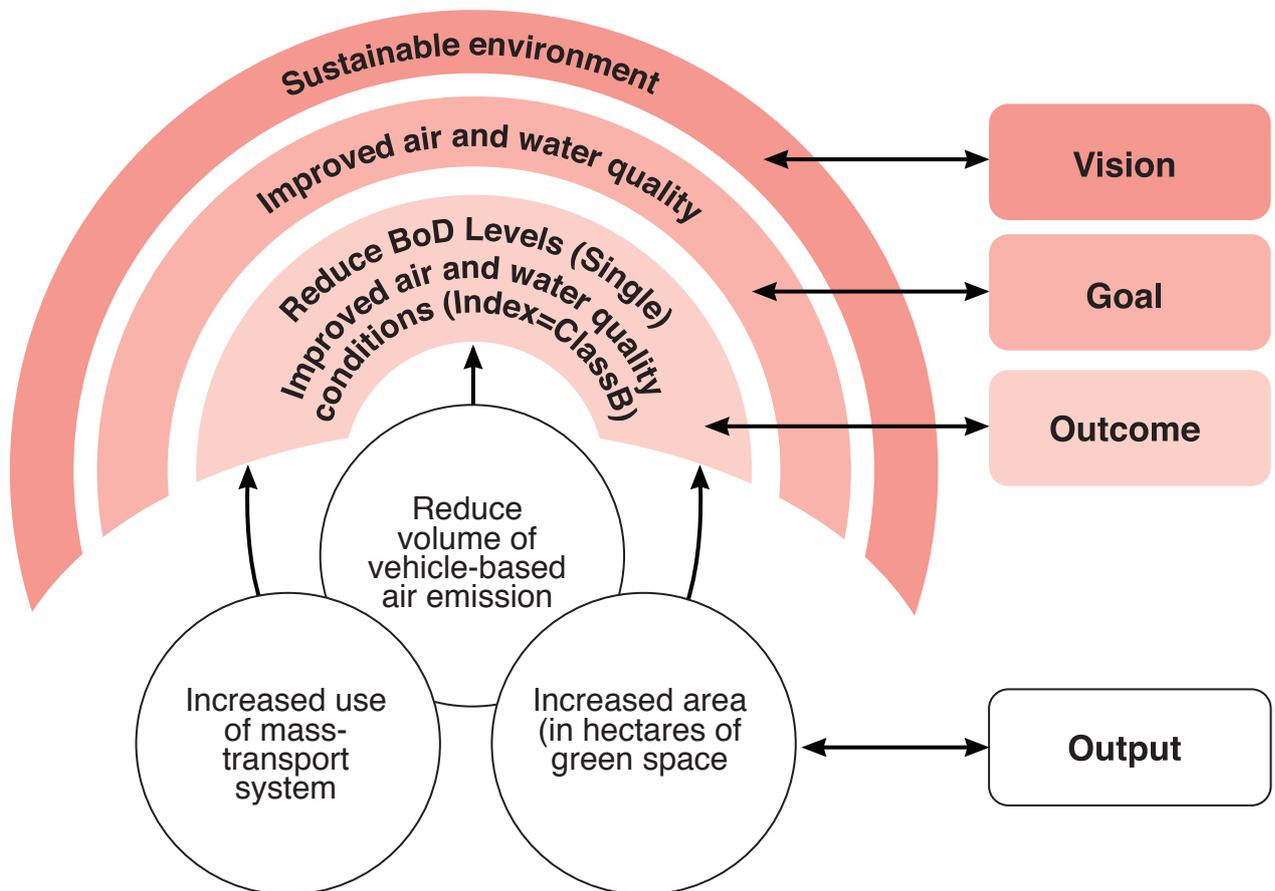
The clear set of desired outcome indicators as well as the outputs or interventions may now serve as the basis for prioritization of local investments and action by an LGU. These shall also help focus the monitoring of CLUP implementation.

The outputs can come from several activities accomplished by different sectoral or thematic areas. See Table 5-1 below:

Table 5- 1. Sample Outcome and Output Indicators

Vision	Goal/Objective (translated into a concrete/physical characteristic)	Output Indicator (activities from different sectoral/ thematic areas)	Outcome Indicator
Sustainable environment	Improved air and water quality	Reduced volume of vehicle-based air emission Increased area (in hectares) of green space/trees planted  Increased use of mass-transport system Reduced use of private vehicles Reduced reported road accidents	Reduced BoD levels (Single)  Improved air and water quality conditions (Index = Class B)
Globally competitive economy	Increased agricultural productivity	Increased number of support infrastructure in key farmland/production areas  Increased number of available technologies Increased number of constructed farm-to-market roads	Increased rice production/hectare (Single)  Increased average yield/hectare of land (Index)

Figure 5-1. Sample Outcome and Output Indicators for Sustainable Environment



### 5.3.3. Characterize the physical and concrete descriptions and outcome indicators in terms of timelines, stages, or scenarios (for at least 9 years). See the sample table below.

Table 5- 2. Vision Indicator and Timeline Matrix

Vision Statement	Concrete/ Physical Characteristics	Possible Spatial and Quantitative Indicators	2012-2017	2017-2022	2022-2027
Sustainable Environment	<ul style="list-style-type: none"> <li>Clean air and water; less pollution</li> </ul>	<ul style="list-style-type: none"> <li>Air and water quality; reduction in vehicle/industrial emissions;</li> <li>Controls of disposal of solid waste in waterways and reduced extraction of groundwater sources</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of air pollution in main CBD area;</li> <li>Improved WQ in primary river and coastal (tourism zone)</li> </ul>	<ul style="list-style-type: none"> <li>Increased forest cover in denuded priority sub-WS</li> <li>Expand green spaces in key urban barangays</li> </ul>	
Globally Competitive Economy	<ul style="list-style-type: none"> <li>Increased agricultural productivity</li> </ul>	<ul style="list-style-type: none"> <li>Improved support infrastructure in key farmlands/ production areas;</li> <li>Improved technologies/utilities availability</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of rainwater harvesting and water impounding facilities in strategic upland areas in priority sub-WS</li> <li>Expansion of production areas; crop diversification</li> </ul>	<ul style="list-style-type: none"> <li>Improved access to water/ irrigation facilities for non-primary agriculture areas</li> <li>Mechanization of key agricultural production areas</li> </ul>	<ul style="list-style-type: none"> <li>Full integrated agricultural farm systems and logistics hub for agricultural produce</li> <li>Expanded transport facilities (i.e. land, air and sea)</li> </ul>

### 5.4. Validate and adapt the identified development goals, objectives, and key outcomes at the city/municipal and community level.

This step can be integrated or built in the whole identification process under Steps 5.2 and 5.3.

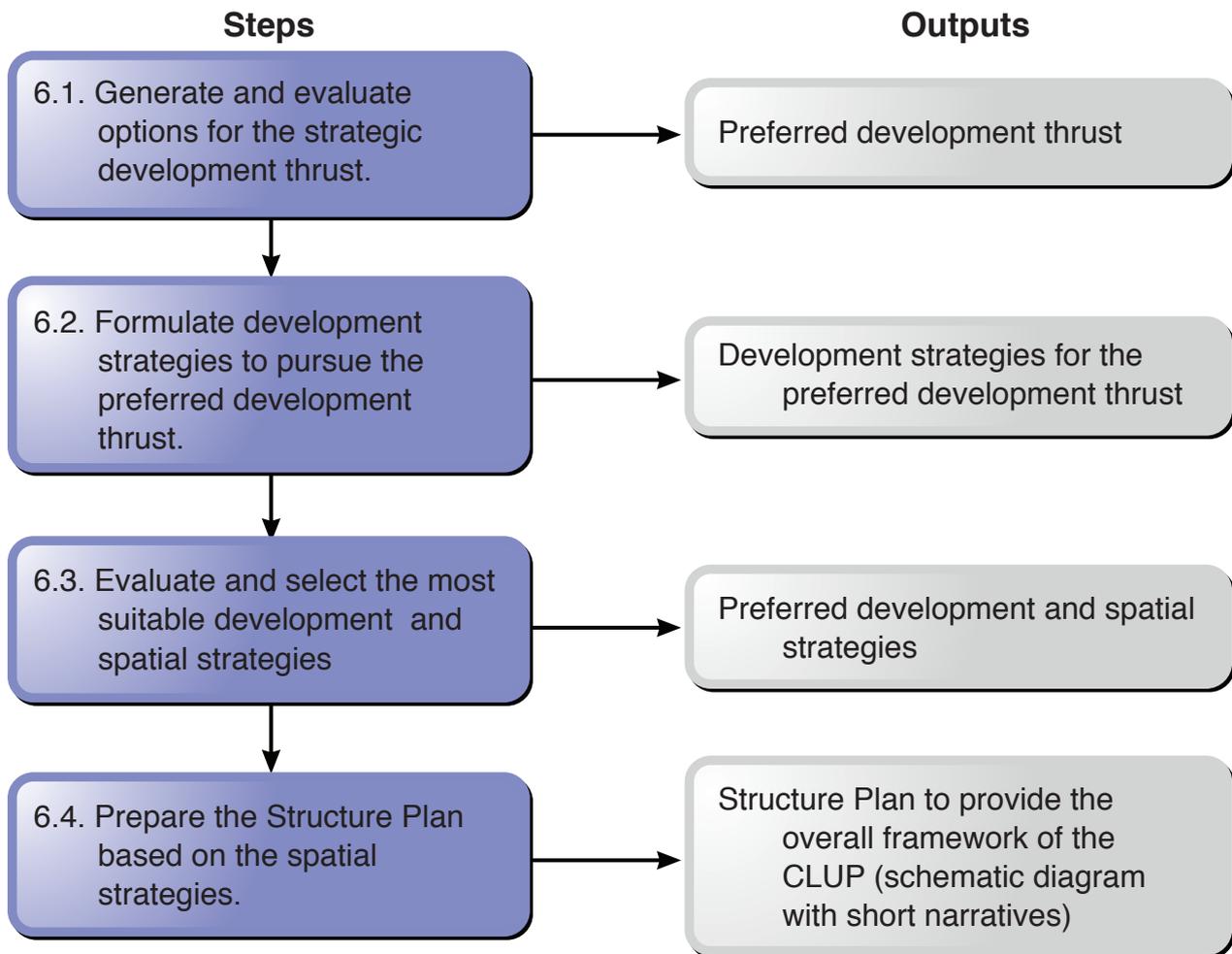
## Annex 5.1. Selecting Appropriate Indicators

Some questions that may be asked to help draw up a set of output indicators that would measure the progress of an outcome indicator are:

- Is the indicator a critical technical process or an input to the outcome? For example, the laboratory testing of water samples collected from different source areas are critical inputs to determine or assess water quality.
- Is the indicator (or activities leading to the achievement of an output) directly attributable or within the control of the agency/ implementing body? For instance, the poverty reduction cannot be achieved by any single intervention but will require several inputs or interventions coming from different agencies aside from the LGU. However, the DSWD CCT programme can be considered an input to achieve poverty reduction and can thus be considered an input to this goal.
- Is the indicator objective, measurable and comparable? This is critical in terms of ensuring the consistency and sustainability of data collection and information and analysis of historical or time-series records of data/information, current conditions and trends. An example would be the regular annual rainfall data and other climatologic data being collected by the PAGASA, which are important inputs in assessing vulnerabilities and projections on climate change impacts in a locality.
- Is the indicator (or data/ information on the indicator) available and accessible to other groups or the general public? For practical purposes, it is important to ascertain the accessibility and availability of data for the effective monitoring of output indicators, especially if the agency or group collecting the data is not part of the LGU. This will also be tied to the cost-effectiveness of obtaining data/ information and making it available for inclusion in the progress reporting of the CLUP's implementation.
- Is the indicator relevant to societal or stakeholder concerns? This aspect of identifying an indicator for CLUP is related to its relevance and significance to the general public and watershed stakeholder. One must not forget that a CLUP is also a communications and advocacy tool. The CLUP should serve to address community issues and concerns related to watershed management and its conditions. Therefore, an indicator should be understandable to the larger community. It should also be defensible and integrative, meaning that in achieving a positive outcome to it, there would be benefit to many and not just a few; that it would meet the objectives of several stakeholders rather than that of only one or two.

# Step 6: Establish Development Thrust and Spatial Strategies

Translate the vision and situation analysis into a desired physical form.



## Introduction

Establishing the development thrust and spatial strategies is critical in determining the future development of the city/municipality. It involves the translation of the city/municipality's vision, goals, and objectives into various development alternatives or scenarios and choosing one or a combination of scenarios to serve as a framework for detailing the future land use plan. The inputs from the various sectoral, thematic, and area studies should serve as input to this framework.

This exercise is also an opportunity to test public reaction to various scenarios given competing goals and objectives. Public participation is encouraged before the development thrust and spatial strategy are finalized. The Technology of Participation (ToP) tool may be used for handling focus group discussions and stakeholder meetings. See detailed steps in Step 2, Annex 2-6.




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### Objective/s

- Translate the vision into broad physical and development terms;
- Identify the physical and spatial character based on preferred land uses and allocations that will represent the vision;
- Identify the development strategies and spatial options to achieve the development goals.




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### Key Input/s

- Base, thematic and analytical maps (land supply map)
- Estimated projections and scenarios (for at least 9 years) of key CLUP sector/thematic areas
- Baseline and data indicators
- Climate change and disaster-risk related projections of threats and vulnerabilities




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### Expected Output/s

- Structure plan/map showing preferred strategic developmental direction and spatial configuration based on projected time-scales (for at least 9 years)
- Development thrust and spatial strategy




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### Key Technical Actors/Responsible Bodies

- Lead: City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-making Authority: Local Chief Executive, Sanggunian Bayan
- Consultative Body: Local Development Council (LDC) and local communities/ barangays



## Steps

### 6.1. Generate and evaluate options for the strategic development thrust.

Conduct a workshop to generate ideas on the appropriate development thrust which the city/municipality can pursue within the planning period.

#### During the workshop:

- Make a clear presentation of the objectives of the workshop.
- Present the various possible development options a municipality/city can adopt (See Annex 6-1 for Examples).
  - ♦ Present the adopted vision, goals, objectives, key outcomes, and outputs.
  - ♦ Present the result of the situational analysis particularly the following:
    - Comparative advantage/potentials
    - Physical and environmental constraints
    - Land use trend and growth pattern
    - Environmental quality
    - Sectoral needs/requirements/assessments
    - Population characteristics and projections
    - Functional role
    - Local economic structure
    - Infrastructure and utilities
  - ♦ Brainstorm on the possible development options for the city/municipality such as those listed below considering the formulated vision, goals, and objectives and the results of the situational analysis.
  - ♦ Reach consensus on the development thrust to be pursued within the planning period. The use of common or known terms that will best describe the development thrust is encouraged particularly when adapting a combined development thrust. The following are some examples:
    - Agri-industrialization
    - Ecotourism
    - Agri-ecotourism
    - Industrialization
    - Intensified Agricultural Development

### 6.2. Formulate development strategies to pursue the preferred development thrust.

A strategy is a logically consistent set of individual actions, combined to create a comprehensive plan or policy response. Using the outputs of Activity 6.1, brainstorm and prepare at least three possible development strategies to pursue the identified development thrust. (See boxed notes below for the considerations in preparing development strategies.)

The following are sample development strategies corresponding to some development thrusts.

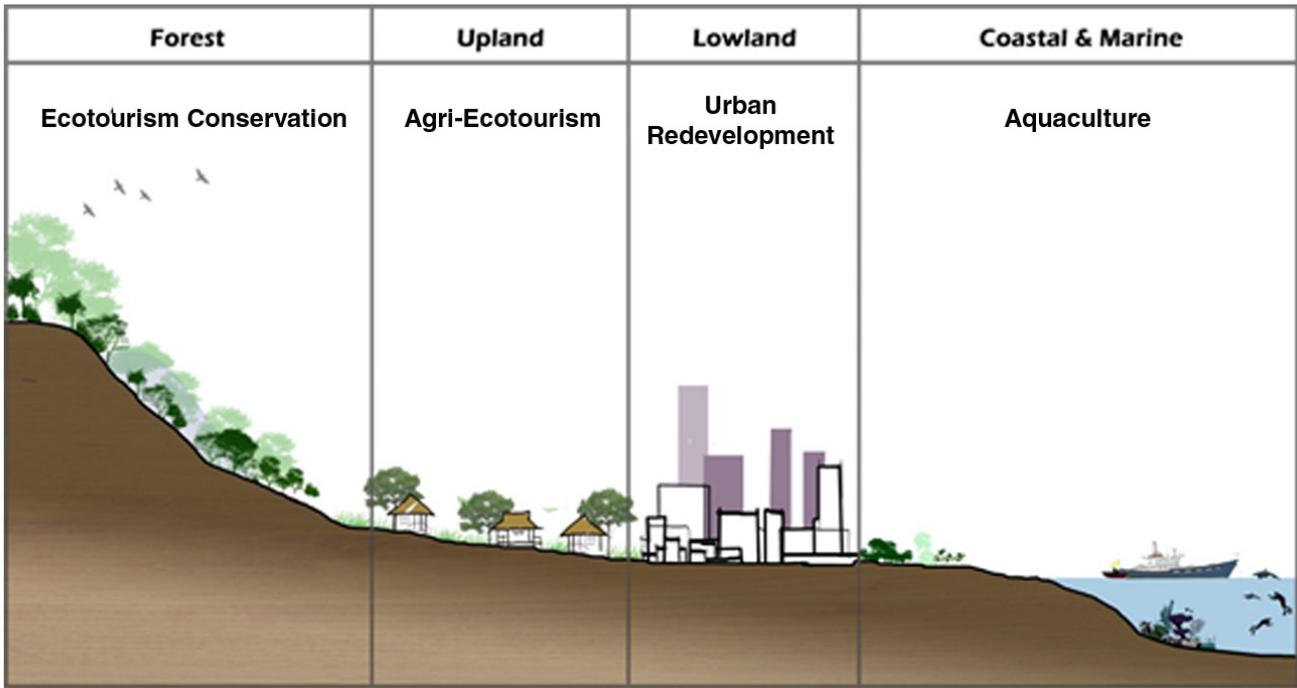
Example:	
Development Thrust	Strategies/Options to pursue Development Thrust
Agricultural Development	<ul style="list-style-type: none"> <li>- Crop Diversification</li> <li>- Industrial Plantation</li> <li>- Agri-Processing</li> </ul>
Industrialization	<ul style="list-style-type: none"> <li>- Light and Medium Industrial Development</li> <li>- Heavy Industrial Development</li> <li>- Small and Medium Scale Industrial Development</li> </ul>

Development strategies can be linked to specific locations. This may be illustrated visually through a map or according to the ridge-to-reef transect diagram (See Figure 6-1). In this way the impact of various strategies to surrounding areas can be assessed.

Example:

- Coastal areas (aquaculture development)
- Urban center (urban redevelopment/ heritage conservation)
- Urban expansion area (light industrial development)
- Agricultural plains (agri-ecotourism)
- Upland forests (conservation/eco-tourism)

Figure 6-1. Transect Diagram



### Some Considerations for Determining Development Thrusts

#### External environment

- National economic policies
- Trading environment
- Trends in foreign direct investment
- Demand for exports

#### Internal environment

- Accessibility
- Human resources
- Infrastructure capacity
- Institutional and financial capacity
- Social infrastructure
- Availability of services

#### Functional role

- Role based on higher level or inter-area development plans
- Land use policies as defined in higher plans
- Major institutional sites (e.g. provincial capitol, military base)
- Major infrastructure sites/ linkages (e.g. ports, airports, industrial corridors.)

#### Comparative advantage/ potentials

- Importance of its produce
- Tourism value of its natural resource
- Geographic proximity to markets
- Geologic stability and climate suitability of the territory
- Socio-political stability of the local government
- Uniqueness, spirit, and special character (its "Spirit of Place")
- Cultural heritage and traditions

#### Environment

- Existing conditions/ carrying capacity of its natural resources
- Unique landscapes, seascapes, endemic species
- Potentials for sustainable utilization of natural resources
- Climate change and disaster risks

#### Demographics/urban growth dynamics

- Fast-growing/stagnating areas
- Migration trends

#### Socio-economic conditions

- Access to services
- Disadvantaged sector/ vulnerable populations
- Employment needs

## 6.3. Evaluate and select the preferred development thrust

Evaluate the three development strategies/options using appropriate evaluation and analytical techniques. There must be an agreement among the key stakeholders and decision-makers on the primary evaluation tool that will be used for this process. A minimum of two to three evaluation tools may be used. A weights system (i.e. in terms of significance) must be placed on the result value of each selected evaluation tool. This shall facilitate the computation of the over-all result of the analysis. The final results should also be subject to confirmation and acceptance by the Local Development Council before arriving at a final decision.

The following evaluation tools are recommended in the selection of preferred development thrust and spatial strategy:

- Social Cost-Benefit Analysis (SCBA) (Annex 6-2)
- Goals Achievement Matrix (GAM) (Annex 6-3)
- Other innovative evaluation criteria/techniques as may be agreed upon

To facilitate the selection process, use the table below to summarize the results of the evaluation.

**Table 6-1. Evaluation of Development Thrust**

Development Thrust: Industrialization				
Strategies/Options	Evaluation Results 1	Evaluation Results 2	Implication	Positive Intervention
Option 1: Heavy Industrial Development				
Option 2: Light to Medium Industrial Development				
Option 3: Micro, Small and Medium-Scale Enterprises				

## 6.4. Prepare the Structure Plan based on the Spatial Strategies.

The Structure Plan provides the overall framework for the preparation of the City/Municipal Land Use Plan in Step 7. The structure plan shall be presented in a map that depicts the envisioned development concept or the visual outline or shape of the overall physical and development framework of the city/municipality.

### The Structure Map shall contain the following:

- General location of areas for conservation/protection such as forest areas, critical watersheds, historical/cultural sites, etc.
- General location of development areas for agriculture, tourism, industry, and agro-forestry;
- General location of buffers surrounding or bordering areas under protection/production and development areas;
- Areas for climate resiliency adaptation measures or projects;
- General location of proposed major infrastructure projects;
- Overall direction of urban expansion;
- Proposed circulation system that shows the linkage among the identified development areas within the municipality/city, linkage of the municipality/city with the other municipalities/cities, province and region; and
- Targeted growth areas/nodes for production purposes or with specific development role.

The following are the steps for preparing the Structure Plan:

### 6.4.1. Identify the key protection and production areas.

**Protection areas** are private lands, public lands and waters that are set aside for conservation, preservation, and rehabilitation because of their long-term strategic benefit and because of the observed and projected impact of climate-related events and disasters to these areas.

**Production areas** are where all types of activities and uses can be conducted subject to restrictions imposed by LGU zoning ordinances. The basic land use zones and activities inside production and multiple land use areas would be those areas identified for settlements, commercial, industrial, institutional, infrastructure, agriculture/fisheries and production forestry.

See Annex 6-4 General Land Use Policy Areas for a more detailed definition of protection and production areas.

### 6.4.2. Identify possible buffer areas in the following:

- Protection and production and development areas
- Major inland waters and coastal areas
- High risk (geo-hazard) and severely threatened (climate-based) areas within production areas

### 6.4.3. Evaluate the existing transport network within the designated probable development and functional areas to determine the needed and required linkages.

Identify the national/provincial, city/municipal, barangay transport networks. Include land, water and air linkages, inter-nodal transport schemes, public transport, alternate transport systems and terminals. Determine the required linkages, including linkages with other LGUs, provinces, regions. Identify project road-right of ways (RRoWS), alignments and facility areas.

## 6.4.4. Describe or characterize the emerging form of the spatial strategy resulting from the above steps and illustrate in a map.

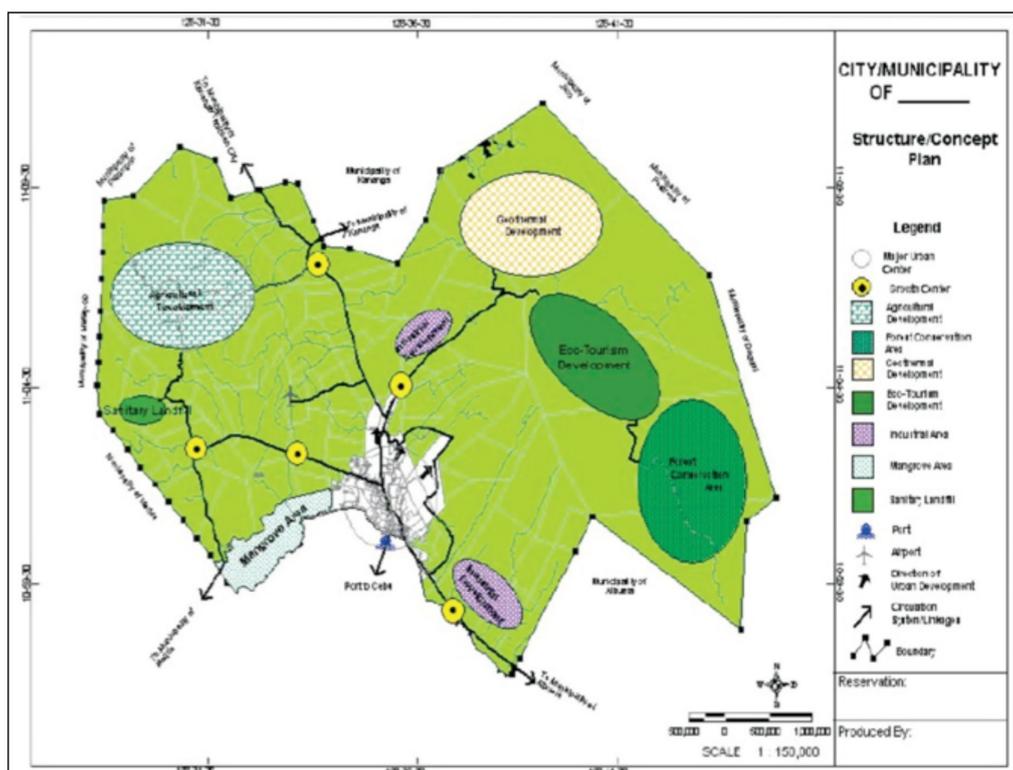
The spatial strategy shall cover the entire city/municipality (i.e. upland, lowland, and coastal) including the growth pattern of urban development. In this way, the emerging physical and spatial development strategy/option will be seen in relation to the development patterns of its adjoining/neighborhood LGUs, as well as its relation and/or consistency with the Provincial Physical Framework Plan (PPFP).

The growth pattern options may be concentric, multi-nodal, radial, and circumferential or combined alternatives. The LGU should provide a description of the preferred growth pattern. Refer to Annex 6-7 for the Basic Urban Form Conceptual Frameworks.

### Drawing a Structure/Concept Plan

1. Secure a satellite image (such as Google Earth map) of the town/city, and indicate its boundaries on the map.
2. Overlay (a transparent plastic/acetate sheet or a separate layer if using GIS) over the map and: a) draw the outline of the existing built-up areas, coastal areas, forests, protection areas, production areas; b) mark the lines of rivers and creeks, and roads and other transport lines (e., railroads) and terminals;
3. Mark on the acetate sheet or layer the location of environmentally sensitive areas or points, as well as areas of heritage significance, which require special attention;
4. Indicate on the acetate sheet or layer the preferred or desired direction of growth of the existing urban areas, taking into account the environmentally sensitive areas (Protection Land) as well as the desired extent of Production Land (eg. agricultural and fisheries);
5. Indicate also on the acetate sheet or layer the policies, programs, regulations as well as specific projects, necessary to support and implement the desired growth pattern; and
6. Prepare a short write up explaining in more detail what is contained in the structure map. This narrative together with a printed form of the diagram will constitute the Structure Plan.

Figure 6-2. Sample Structure/Concept Map



## Annex 6-1. Description of Development Thrust of a City/Municipality

The identification of development thrusts is the concretization of the vision and objectives set in the CLUP. This translation reflects and considers the physical, natural, biological, economic, social, cultural and institutional conditions, assets and features that are present in the locality that the LGU would want to anchor the realization of their desired visions and goals. For example, a highly agricultural or underdeveloped rural community like Tagum City would want to pursue its vision of economic development by pushing for “agro-industrial development” as its thrust. Or in the case of a coastal-LGU such as Malay or Siargao with undeveloped coastal resources and beaches into a ‘eco-tourism’ center and push for “tourism development” as it thrust. Based on this development thrust, the LGU would then try to align and rationalize the use of its resources, both natural and human, to support this development thrust or option.

### Agricultural Development

This option focuses on the agricultural sector as its main engine for growth. The LGU provides the required physical infrastructure and services such as irrigation facilities, farm to market roads, credit/lending facilities, technology, training/educational programs and other support systems. Protection of prime agricultural lands or areas covered by the Network of Protected Agricultural and Agri-Industrial Development Areas (NPAADs) is prioritized. Export of locally produced agriculture products are encouraged after ensuring that the local food requirement/s of its population is addressed.

### Industrialization

The LGU ensures that the support services, facilities and utilities required such as power, water, roads, telecommunication and efficient solid waste disposal, are available, well-planned and provided for. The LGU puts mitigating measures to address the impacts of industrial operations while taking advantage of processing activities that will complement and further increase the output/s of other productive sectors like agriculture and commerce and trade.

### Tourism development

Depending on the type of tourism that the LGU will adopt (i.e. Eco-Tourism, Agri-Tourism, Cultural/Religious Tourism, etc.), the LGU provides the required infrastructures to support, improve and strengthen the city/municipality’s tourism thrust. The LGU also provides measures to conserve its coastal or upland areas to ensure that tourism will not cause the degradation of the environment, harm or affect the social or local customs/traditions of the city or municipality. The LGU prepares a tourism plan to layout the detailed activities, programs and projects that support the thrust.

### Commercial development

Cities and municipalities with higher level of urban functions and services may choose or opt to adopt intensified commercialization/trading center or urbanization as a development thrust or option. With this thrust, the LGU intensifies the commercial base and strengthens its role within the province or region (e.g. trade centers, financial and support service centers, education and cultural centers, business process/outsourcing center).

The LGUs ensure the availability of facilities, utilities, measures and incentives to encourage investors to further diversify and increase investments. The required programs and mitigating measures are identified to address the impacts of intensified commercial activities such as increased volume of solid and liquid wastes, demand for more parking areas, management of traffic, workers’ housing, business/personal services, health facilities, warehouse/storage facilities, etc.

### Sustainable Forest Management

The LGU promotes Community-based Forestry Management Options for its forest areas in accordance with recent government policies. The LGU focuses on encouraging the use of non-timber forest products such as fruits, fiber, resins, instead of harvesting timber products.

The legal status of lands within the jurisdiction of the city/municipality are identified, established and mapped accordingly to appropriately allocate lands for development.

The LGU adopts policies that will ensure the 1) sustainable utilization of forest resources; 2) control the expansion of settlements within forestlands; 3) observe the rights of Indigenous Communities; and 4) settle conflicts between land suitability and legal land status; among others. Forestlands and resources cannot be classified for other purposes. Coastal area development

### **Coastal area development**

Cities and municipalities with extensive coastlines and/or sizeable bodies of inland waters within their respective territorial jurisdiction may opt for the development of coastal areas. It becomes essential to integrate coastal area management plans in the LGUs CLUP.

The LGU ensures the compatibility of land uses within the coastal zone that will include uses both within the innermost (land) and the outermost (water) limits. There are various processes and options recommended for integrated coastal management regimes which are currently advocated by national government agencies such as DENR, and the LGUs will do well to consult with these agencies for the appropriate development options which are aimed at achieving sustainable coastal development.

### **Combined Development Options**

LGUs may also opt to adopt combined development options if and when two or more thrusts play significant functions in the existing local economic structure, and, if the combination of development thrusts will transform the LGU into a well-developed city/municipality. Examples would be agri-tourism and combination of industrial and commercial development.

## **Annex 6-2. Social Cost Benefit Analysis**

Social-Cost Benefit Analysis (SCBA) is a comprehensive approach for appraising the social worth of the options/alternatives or programs/projects which entail commitment of resources. SCBA is more commonly applied within single sectors, such as the health and transportation sectors, although inter-sectoral comparisons may also be applied. It is a useful aid in selecting the development strategy for carrying out a project as well as in choosing among a number of investment programs/projects competing among a limited amount of funds.

This analysis is mainly concerned with the strategy's effects on the welfare of the community rather than on any smaller group within it. The benefits and costs of the alternative development strategies are identified and measured based on the references of individuals, who are affected. Benefit is measured by the quantity of alternative goods and services which would give the same amount of satisfaction to the beneficiaries while cost is measured by the goods and services which would provide sufficient compensation to the losers, or which restore them to their initial level of well-being.

The results would show the appropriate Alternative Spatial Strategy according to the stakeholders. This would guide the local planners and decision-makers in discerning the most acceptable spatial strategy to be employed in order to achieve the LGU's goals and objectives.

A TWG or Stakeholders Workshop may be organized to evaluate alternative spatial strategies. The participants may evaluate the generated development alternatives using the Social Cost- Benefit analysis (SCBA) as indicated in Table 6-2.

**Step 1.** Prior to rating the alternative development strategies, discuss the strategies as these relate to the situation (problems, issues and needs) of the LGU to make sure that the meaning is clear to the participants of the Stakeholders Workshop on this planning stage.

**Step 2.** List the alternative development strategies in column to the left. It is assumed that all these adequately solve the problem.

**Step 3.** Using the scales in Table 6-3, rate each problem/issue in the alternative development strategies and compute the total. Refer to Worksheet 1 to apply this evaluation method.

**Step 4.** Develop a team score for each strategy by sharing your individual ratings for each category and then computing a total. It would be useful to post the ratings on a flipchart and then discuss the reasons for each (Refer to Worksheet 2).

Encircle the highest-rated strategy and proceed to the preparation of the detailed strategy and action plan.



**Note:** Another way of evaluating a proposed strategy is by rating according to the benefits, costs, ease of implementation, time and secondary impacts.

Table 6- 2. Evaluation of Alternative Development Thrusts

Characteristics	Alternative 1 Industrial Development	Alternative 2 Agricultural Development	Alternative 3 Micro, Small and Medium Scale Enterprise
What it takes to realize this option (Cost)			
Cost of new roads and other infrastructure	Low	Moderate	Moderate
Community adjustments to risks	High	High	Low
Preservation of protected croplands and fishponds	Low	Moderate	Low
Strict government enforcement of regulations	Low	Moderate	High
People's compliance with regulations desired	Low	Moderate	High
Implications when development option is realized (Benefits)			
Access of people to city-wide services	Low	Low	High
Amount of air and water pollution produced	High	High	Low
Traffic problems reduced	Low	Low	High
Overall attractiveness of the city	Low	Low	High
Potential for increased LGU revenue	Low	Moderate	High
Prospects for more jobs and higher compensation	Low	Moderate	High
LGUs role in the region maintained	Low	Low	High

Table 6- 3. Rating Scales in Evaluating Alternative Development Thrusts

Benefits	Costs	Ease of Implementation	Time	Secondary Impacts
The expected benefits will be minimal = 1	The cost will be very high = 1	It will be very difficult to implement = 1	It will be more than 5 yrs. Before the benefits are seen = 1	It also results in some negative impacts = 1
The expected benefits will be good = 2	The cost will be high = 2	It will be difficult to implement = 2	It will be 1-5 years before benefits are seen = 2	It also results in some negative impacts = 2
The expected benefits will be very good = 3	The cost will be low = 3	There will be a few obstacles to putting it into practice = 3	It will be 1 to 3 years before benefits are seen = 3	It also results in some positive impacts = 3
The expected benefits will be outstanding = 4	There will be no added cost = 4	It can be easily put into practice = 4	Benefits will be seen in fewer than 365 days = 4	

A Participant Assessment may be conducted using Worksheet 1 below.

Characteristics	Alternative 1 Industrial Development	Alternative 2 Agricultural Development	Alternative 3 Micro, Small and Medium Scale Enterprise
What it takes to realize this option (Cost)			
Cost of new roads and other infrastructure			
Community adjustments to risks			
Preservation of protected croplands and fishponds			
Strict government enforcement of regulations			
People's compliance with regulations desired			
Implications when development option is realized (Benefits)			
Access of people to city-wide services			
Amount of air and water pollution produced			
Traffic problems reduced			
Overall attractiveness of the city			
Potential for increased LGU revenue			
Prospects for more jobs and higher compensation			
LGUs role in the region maintained			

## Worksheet 2 Solution Worksheet

Alternative Development Strategies	Benefits	Costs	Ease of Implementation	Time	Secondary Impacts
Alternative 1 Industrial Development					
Alternative 2 Agricultural Development					
Alternative 3 Micro, Small and Medium-Scale Enterprise Development					

## Annex 6-3. Goal Achievement Analysis

Goal-Achievement Analysis is conducted to determine the extent to which alternative development proposals will achieve a pre-determined set of "goals" or "objectives." The approach has the following characteristics:

Goals or objectives are formulated at the outset of the planning process. However, these may later be modified in the light of new developments or experience gained during the various stages of planning process.

- The objectives are "multi-dimensional" (i.e., these include environmental, political, economic, social, and aesthetic aspects).
- All goal-achievement methods aim to compare development options/alternatives or program/projects which represent alternative ways of achieving goals.
- The objectives are ranked in the order of importance by assigning each a "weight" taking into consideration the priorities of the planning area.

Simple ranking of plans with respect to the objectives, e.g., creditor's policy evaluation matrix in which effectiveness of the alternatives in achieving the stated policy objectives is qualitatively expressed using the following terms:

- A significant positive effect

- A partial or marginal effect
- A significant negative effect
- No significant relationship

**Step 1.** Organize a multi-sectoral workshop to be participated in by the various sectors of society. As indicated in Checklist 1, they shall be grouped accordingly, each group representing a particular sector of society namely:

### Checklist 1

Participants of the Stakeholders Workshop

Check (✓)	Stakeholders
	Farmers
	Fisher folks
	Environmentalists
	Business & Industrialists
	Youth
	Women
	Elderly/Physically Challenged
	Civic groups
	Elective officials
	Appointive officials
	Health Workers
	Media

**Step 2.** During the workshop, list evaluation criteria. The general welfare goals as provided for in Section 16 of the Local Government Code of 1991(RA7160), vision of the LGU and/ or the pre-determined set of goals may be used as evaluation criteria. As reflected in Matrix 3, prioritization of programs and projects use the vision elements/descriptors as the evaluation criteria.

**Step 3.** Based on the perceived importance of each vision element-descriptor/goal to the interests of the sector, each group shall assign weights to each goal. The numerical total of the weights should be 100%. Subsequently, each proposal shall be rated using the following rating scale:

- 0 = Option/Alternative does not contribute to the fulfillment of the particular goal from the sector's point of view
- + = Option/Alternative does contribute to the fulfillment of the particular goal
- = Option/Alternative is inconsistent with, or contradicts the goal

When the project contribution is (+) or (-), the extent of the contribution shall be indicated using the following scale:

1. Option/Alternative contributes slightly
2. Option/Alternative contributes moderately
3. Option/Alternative contributes greatly

**Step 4.** Multiply the rating by the corresponding weight of the goal and enter the product score in the appropriate cell.

**Step 5.** Sum up the scores algebraically up for each Option/Alternative, and then add all sectoral group scores as presented below (GAM Matrix).

**Step 6.** Rearrange the options/alternatives according to their total scores. The Option/ Alternative with the highest total score is ranked as number one, the next number two, and so on, as shown in Matrix 4.

## Matrix 3

## Example of a Goal Achievement Matrix (GAM)

Vision/Goals		Weight (100%)	Alternative Development Thrusts		
Element	Descriptor		1	2	3
			Industrial Development	Agricultural Development	Micro, Small and Medium Scale Enterprise
People as Individuals		5	(.15)	(.10)	.10
	God-loving				
	Healthy				
	Well-informed				
People as Society		15	(.30)	.15	.30
	Empowered				
	Vigilant				
	Self-reliant				
Local Economy		10	(.30)	(.10)	.20
	Competitive				
	Diversified				
	Environment-Friendly				
Natural Environment		10	(.30)	.20	.20
	Clean				
	Safe				
	Attractive				
	Restored				
Built Environment		10	(.30)	(.20)	.20
	Balanced				
	Planned				
	Safe				
	Attractive				
Local Governance		50	(1.50)	(1.00)	1.50
	Firm				
	Decent				
	Progressive				
TOTAL		100	(2.85)	(.95)	2.5

## Matrix 4

## Sample Summary of the GAM Scores

Societal Sector	Option 1 Industrial Development	Option 2 Agricultural Development	Option 3 Micro, Small and Medium Scale Enterprise
Group 1–Farmers	-1.15	1.25	3.00
Group 2–Fisherfolks	-0.97	-0.55	1.41
Group 3–Environmentalists/ Planners	-1.54	-1.45	2.20
Group 4–Businessmen/ Industrialists	-0.25	0.15	1.76
Group 5–Youth	-0.81	0.02	2.59
Group 6–Women	-0.16	0.45	1.36
Group 7–Elderly/Physically Challenged	-1.64	0.85	2.55
Group 8–Civic Groups	-1.55	-0.59	1.56
Group 9–Elective Officials	-0.54	-0.52	1.77
Group 10–Barangay Captains	-2.85	0.95	2.50
Group 11–Appointive Officials	-1.32	1.42	2.70
Group 12–Health Workers	0.92	0.60	2.62
Group 13–Others	-3.00	-0.15	2.95
TOTAL	-14.86	2.43	28.97
RANK	3	2	1

## Annex 6-4. General Land Use Policy Areas

This annex describes the three general land use policy areas—protection, production and buffer/s. Within these general policy areas, the specific land uses and regulations are discussed.

### A. Protection

These are private lands, public lands and waters that are set aside for conservation, preservation, and rehabilitation because of their long-term strategic benefit and because of the observed and projected impact of climate-related events and disasters to these areas.

These may include the following:

1. Water source
2. Biodiversity area,
3. High-risk areas climate change/disaster risk,
4. Areas with cultural and historical value,
5. Prime agriculture/production lands,
6. Shoreline easement and buffer zones,
7. Salvage areas,
8. Inland waters and marine protected areas,
9. Other areas classified by law for protection/conservation.

Allowable activities in protected policy areas shall be restricted to those that complement and enhance the areas' existing functions or purpose (restricted land use). Any human activity that shall be destructive, injurious, disruptive, or disturbing to the efficient, sustainable, and effective functioning of the protection land use areas shall be prohibited, if not, banned (prohibited or strict protection land use). In this context, zoning arrangements within the protection land use categories shall only be divided into restrictive land use zones and prohibited or strict protection land use zones.

In case of protection policy areas which are high risk and severely threatened by geo hazard and climate-induced disasters, settlements, production and infrastructure development in these areas shall be highly restricted, if not, prohibited. These risk areas should be zoned as 'unfit for habitation' due to severe threats to lives and property.

Allowed uses or activities in strict protection or prohibited use zones may be limited only to scientific research/inventory/assessments and specie/resource monitoring activities. Settlements and major infrastructure projects/facilities (i.e. telecoms towers, etc.) are totally banned. No mechanical or motorized equipment/vehicles may be used in protected policy areas except in prime agricultural lands.

In designated restricted zones, activities may be limited to non-mechanical, non-motorized and passive actions; no permanent forms of structures/facilities for habitation/settlements are allowed except for scientific monitoring/observation posts/decks and resting areas that are made of light and natural materials only. Human activities are limited to traditional spiritual/cultural practices by IPs.

Except in prime agricultural lands, the utilization of resources in protected policy areas is not allowed except for limited extraction of natural resources related to scientific research and cultural/spiritual practices of IPs.

Protection policy areas can be in public, private, and ancestral lands as identified and designated based on existing laws (i.e. PD 705, National Integrated Protected Areas System, Agriculture and Fisheries Modernization Act, Indigenous Peoples Rights Act, Climate Change Act, National Disaster Risk Reduction and Management Act, Water Code, etc.) or agreements by local stakeholders as they see it fit to satisfy strategic local land use and long-term development objectives and purposes.

Protection policy areas maybe identified from existing resource management plans such as forest land use plans (FLUPs), coastal resource management plans (CRMPs), protected area management plans (PAMP), watershed management plans (WSMPs) and ancestral domain sustainable development and protection plans (ADSDPP), among others.

**Table 6-4. Types of Protection Policy Areas by Ecosystem- type in a “Ridge- to- Reef” Landscape**

UPLAND	<ul style="list-style-type: none"> <li>• Critical Watershed Areas</li> <li>• Primary Forest or Old Growth Forests</li> <li>• Biodiversity/Conservation Areas (i.e. Critical species habitats, cave systems, waterfalls, etc.)</li> <li>• Critical Geo hazard- High Risk Areas (i.e. landslide/erosion/liquefaction/earthquakes)</li> <li>• IP spiritual, cultural, foraging/hunting and burial sites/areas</li> <li>• Major archaeological and historical sites</li> <li>• Areas with high aesthetic/visual value</li> </ul>
LOWLAND	<ul style="list-style-type: none"> <li>• Riverbank/Lakeshore easements and riparian buffer zones (Inland waters)</li> <li>• Critical geo-hazard high risk areas (same as upland)</li> <li>• Prime agricultural lands</li> <li>• Cultural/heritage/historical zones/areas</li> <li>• Severely threatened (climate-induced) areas—i.e. flooding, storm surges, drought</li> </ul>
COASTAL	<ul style="list-style-type: none"> <li>• Marine Protected Areas</li> <li>• Fish Sanctuaries</li> <li>• Mangroves/Sea grass Areas</li> <li>• Foreshore and Salvage Zones</li> <li>• Main navigational lanes</li> <li>• Coral Reef Areas</li> <li>• Fish/critical species/turtle spawning areas</li> <li>• Underwater archaeological sites</li> <li>• Spiritual/Religious/Cultural Sites (i.e. IPs)</li> <li>• Ancestral waters/traditional fishing grounds (by IPs and marginal fishermer)</li> <li>• Treacherous/dangerous water areas</li> <li>• Severely threatened (climate-induced) areas—storm surges, sea level rise, coral bleaching, flash flooding, high temperature</li> <li>• Critical/high risk geo-hazard areas—tsunami, landslides, erosion, liquefaction, land subsidence</li> </ul>

## B. Buffer Areas

These are areas that surround or bound identified protection land areas. They serve as a layer (either in land or water form) to separate protection, production, and development areas. They lie between policy areas, i.e. protection and production, and water areas. Buffer areas shall be under limited or controlled use depending on the specific purpose or function of the protection areas it serves as a buffer. Allowable activities or zoning arrangements inside the buffer areas can be divided into progressive layers of activity zones (from restrictive to less restrictive activities/uses) as the layer moves farther away from the outer boundary of the protection area and draws closer to production and development areas.

Buffer areas may also be designated within production and development Areas. These buffer areas serve to separate different land use categories within production or multiple use areas, i.e. residential vs. industrial, and transit corridors vs. settlement areas. Green and open spaces can serve as barriers against other conflicting land uses, easements/corridors along inland waters and residential/commercial activities. (See Annex 6-5 for Types of Buffer Zones)

## C. Production

Production areas are areas where all types of activities and uses can be conducted subject to restrictions imposed by LGU zoning ordinances.

Activities inside production areas would be those identified for residential, commercial, industrial, institutional, infrastructure, agriculture/fisheries and production forestry.



(Refer to Volume 3: The Zoning Ordinance for the details of proposed zoning and regulations for the production areas)

## Annex 6-5. Types of Buffer in Production Areas

### Agriculture and Forestland/Timberland Buffer Areas

These are normally areas used to separate agriculture and forest areas from urban development activities and vice versa. They serve to minimize disturbance and population intrusion to agricultural or timberland operations while protecting residential/settlement areas from possible safety and noise/pollution effects of agricultural and timberland operations.

Allowable uses in exclusion areas within the buffer areas may be limited to simple and non-machinery based activities. There is limited density and the allowed individual physical structures (i.e. non-habitable) have restricted floor areas/building footprint (e.g. less than 100 sq. m). Structures should be made of light materials, single storey and non-permanent.

Distances of structures should be scattered over wide areas or if clustered, density and cluster areas shall be controlled and should be located in the edge of the buffer zone areas nearer the more developed/urbanized section. (Note: LGU can set a maximum total area for clustered areas in the buffer zone (e.g. less than 3 hectares; with lot sizes of less than 500 sqm; and floor area/building footprint of less than 100 sqm or set a maximum allowable physical development ratio of 30% of total cluster area, i.e. 30% of 2 hectares = 6,000 sqm; and floor area/building footprints per structure of maximum 100 sqm.)

Figure 6-3. Agriculture/Timberland Buffer Areas (Residential Planned Development with Open Space Buffer)

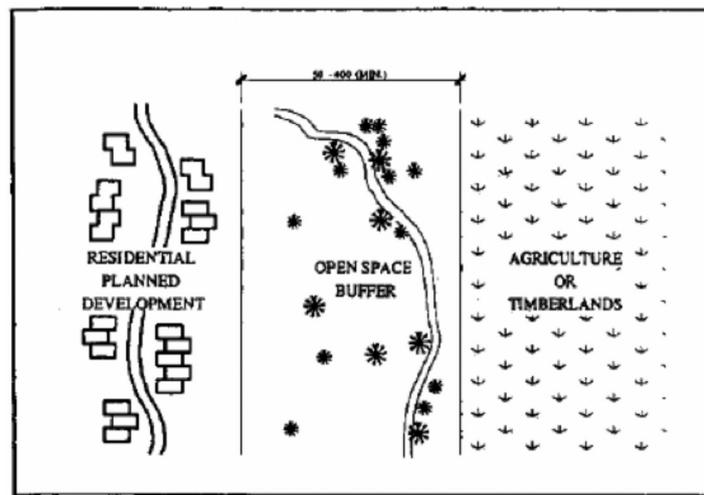
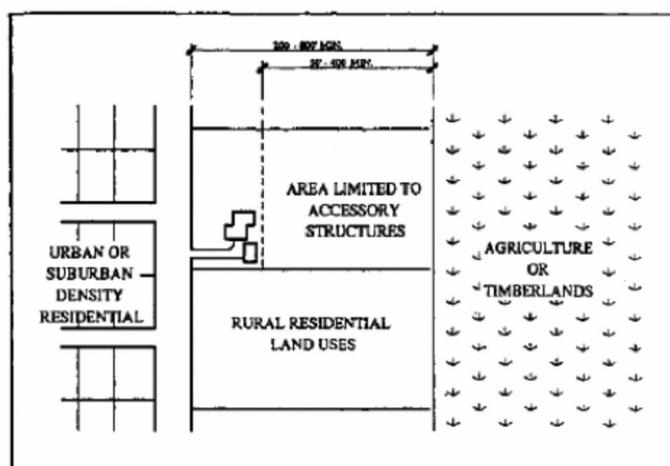


Figure 6-4. Agriculture/Timberland Buffer Areas (Urban/ Suburban Residential with Rural Residential Buffer)

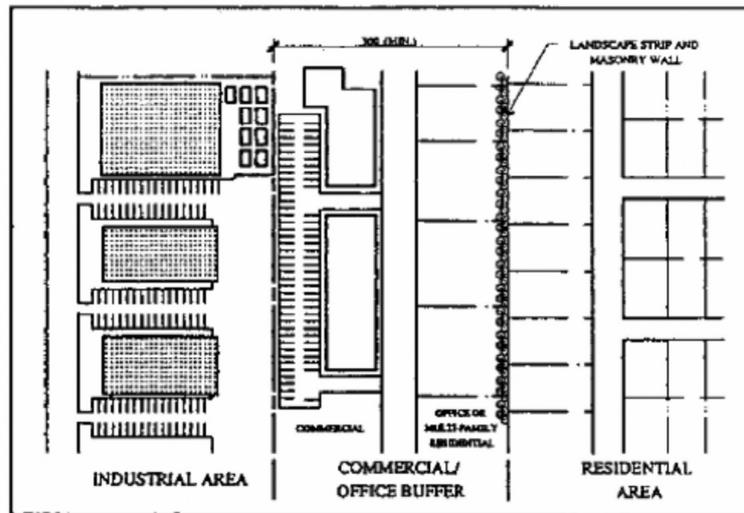


## Industrial/Residential Buffer Areas

These buffer areas are required to separate residential land uses from designated Business Park/Industrial areas where noise from vehicles and equipment, the use of hazardous materials in manufacturing processes, truck traffic, and otherwise heavy traffic volumes would be incompatible with nearby residential uses.

Generally, recommended widths for industrial/residential buffers are a minimum of 100 m. However, this may be reduced to not less than 50m if the buffer includes features like screening walls, landscaped berms, and/or dense landscaping, with guarantees of proper, ongoing landscaping maintenance. Commonly allowed uses are commercial and office uses; and open space and recreation uses such as greenbelts, parks, and playgrounds.

Figure 6-5. Industrial Buffer Areas



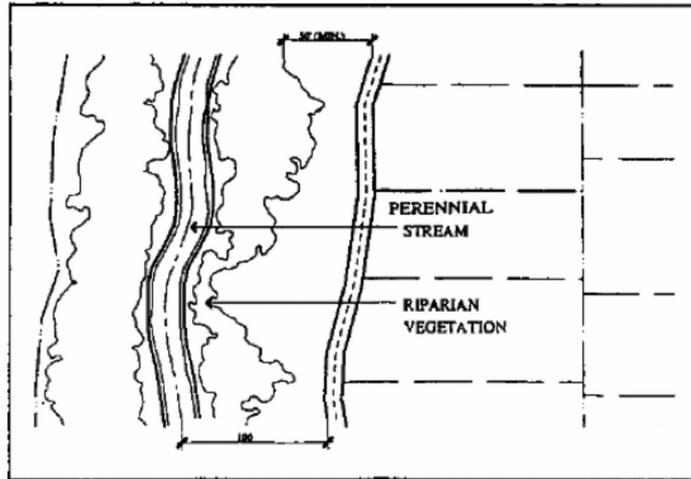
## Sensitive Habitat Buffers

Buffer areas may be required to separate pockets of sensitive habitat areas such as stream/creeks or river corridors, wetlands, sensitive species habitats, and urban greenery/open spaces, from any type of urban development that is inside identified production and multiple land use areas. Buffer areas for such sensitive habitat areas are designated when the land-altering aspects of development itself, and/or the secondary effects of development (e.g., runoff from pavement carrying pollutants, air pollution emissions, traffic, noise, glare, increased pedestrian access) may degrade important habitat areas.

Allowed uses in sensitive habitat buffers may range from restricted or limited physical access to controlled/prohibited activities (i.e. physical, mechanical, vehicular and people). Most often activities allowed are passive activities in clearly defined areas or paths such as walking/hiking trails and bike paths.

In the case of the Water Code, easements or buffer areas in riparian areas or riverbanks/lake shores/sea shores are 40 meters in forestland areas, 20 meters in agriculture areas and 3 meters in urban areas throughout the entire length of a water body. Allowed uses in the easements for water bodies are only for public use in the interest of recreation, navigation, floatage, fishing and salvage.

Figure 6-6. Sensitive Habitat Buffers



## Public Facility Buffers

These buffer areas are required to protect the long-term viability of critical public facilities such as solid waste transfer and disposal sites, sewage treatment plants, and airports that may have significant nuisance characteristics. Public facility buffer areas are intended to separate residential, commercial, and other land uses continuously or frequently occupied by people from the uses stated above. They also separate areas that are perceived as a nuisance or incompatible with other land uses, considering the presence of odors, wind-borne debris, noise from vehicles, equipment and aircraft, and potentially hazardous materials.

All public facility buffer areas may include greenbelt and open space. Physical restrictions may also be imposed such as building heights (along flight paths) in airports.

## Annex 6-6. Other Land Use Planning Tools and Techniques for Analysis

### Carrying Capacity Analysis

A method of studying the effects of population growth and urban development on ecological systems, public facility systems, and environmental perception

The procedure for conducting this analysis varies according to the system whose capacity is at issue.

### Committed Lands Analysis

This method identifies where excess community service capacity exists and where the cost of additional distribution for each new customer is no greater than the value of the increased efficiency in producing the service.

**Step 1** Delineate the boundaries of committed lands for each public

**Step 2** Overlay the maps to show the aggregate committed land areas

**Step 3** Highlight the cluster of new development in areas that existing facilities already serve

### Market forecasts

An attempt to project future land development. Simple forecasts rely on projections of

past trends, population and economic growth along with information on development regulations, land use plans, and forthcoming development proposals, to estimate the location, type, amount, and cost of future development.

## Perceptual Analysis

This relies on people's perceptions which are important determinants of travel behavior, locational choice, social relationships, and political actions. Surveys are employed in order to maintain systematic perceptual information. The four aspects of perception are:

- Legibility—refers to the clarity of its spatial organizations and ease with which people can “read its structure.”
- Attractiveness—degree to which it is positively perceived. From a non-professional perspective, visual quality must be the most important influence on how people experience and respond to urban areas and planning initiatives.
- Symbolism—refers to the meanings that people attach to various parts of the urban area.
- Quality of life—is a synthetic perceptual measure based on resident ratings of local trends of change over time in such factors as open space, urban design, crime traffic, schools and housing affordability

## Projecting Demand

The convenient way of determining the need (demand) by using population-land resources relationship (man-land relationship) assumption on per capita space requirements for every sector is indicated in Volume 2-Sectoral Studies and Tools for Situational Analysis. It must be noted, however, that standards do not address the uniqueness of individual localities. The per capita allocation may be applicable only to predominantly rural areas/ towns where urban growth is associated with the normal increase in the urban population usually in the poblacion.

## Basis for Projecting Demand for Urban Land Uses (Chapin, 1965)

For industrial use (manufacturing)

- Ratio of industrial space to projected total population
- Forecast increase in industrial establishments, by type
- Forecast levels of industrial employment, by type
- Forecast changes in industrial floor space ratio

For commercial use (wholesale, retail services)

- Forecast number of establishments
- Forecast of employment
- Employment to shop floor ratio
- Ratio of commercial area to built-up areas

For residential neighborhoods (including areas for dwelling and related uses)

- Additional housing requirements consistent with affordability levels
- Areas for public low-income housing

For institutional areas

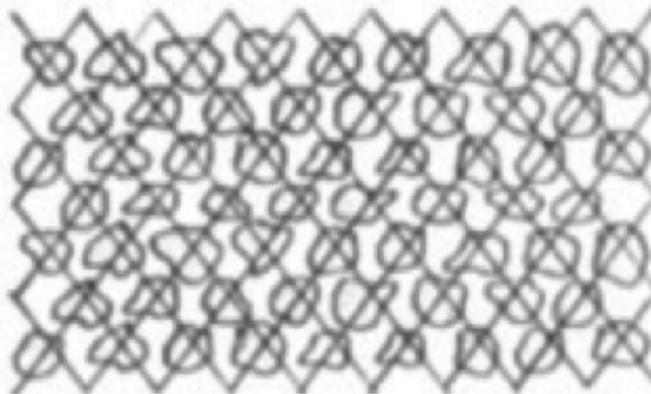
- Based on prescribed standards for each sector
- Based on special studies

## Annex 6-7. Growth Pattern Options

The local government units may select or decide on any of the spatial development concepts or combination thereof that will put emphasis or underscore the identified development thrusts and the corresponding spatial strategy.

### Option 1: Multi-Nodal Urban Form

Figure 6-7. Galaxy Form



The multi-nodal urban form re-directs development away from the urban core or city center toward identified urban growth areas to nodes. It approximates Lynch's Galaxy form (Figure 6-7), which is characterized by clusters of development with each cluster having its own specialization. The major center provides specialized facilities and services to its nodes and acts as its external linkage to the other centers of the city or municipality. The nodes

support the major center as its captive market while providing neighborhood facilities and services to its area of influence (Figure 6-8). Under this urban form, a number of additional mixed-use growth areas will be developed outside the Poblacion area or existing center of development. Another related nodal-central type of development is radial and circumferential (Figure 6-9). It shows a development channel fanning out from a given center where points of activities are interconnected by radial and circumferential road systems which are potential development corridors.

Figure 6-8. Centric and Nodal Form

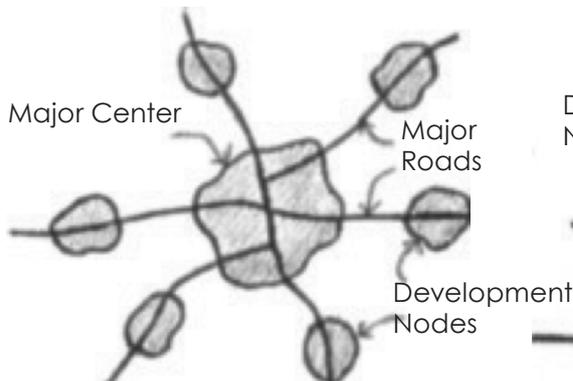
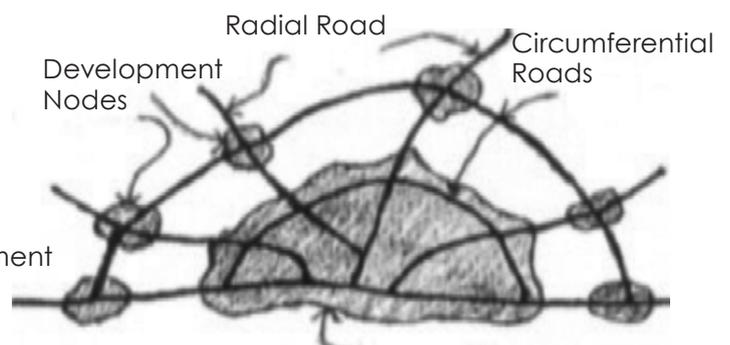


Figure 6-9. Radial and Circumferential



### Option 2: Concentric Urban Form

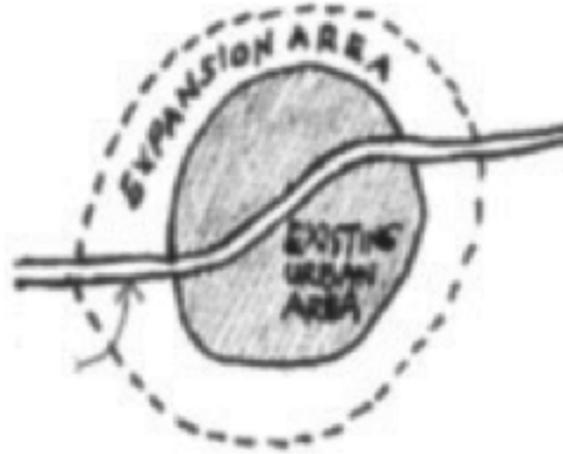
Figure 6-10. Core City



The concentric urban form reflects an outward expansion of urban development from the city center/core induced by the construction of new circumferential and radial roads. This spatial pattern matches the Core City of Kevin Lynch which has the unique characteristic of concentrating development into one continuous body originating from the center or core (Figure 6-10). Aiming to maximize land use in the Poblacion or city center to provide more open space outside, this urban form redirects future development in and around the Poblacion/city center, extending

to the adjoining barangays or barrios (Figure 6-11). As a result, the direction of growth enlarges the urban core. Confining development into one continuous body implies high density urban activities that can increase discomfort from noise, pollution, etc. Likewise, housing types are limited to high-rise apartments or compact dwelling units to maximize space.

Figure 6-11. Concentric Development



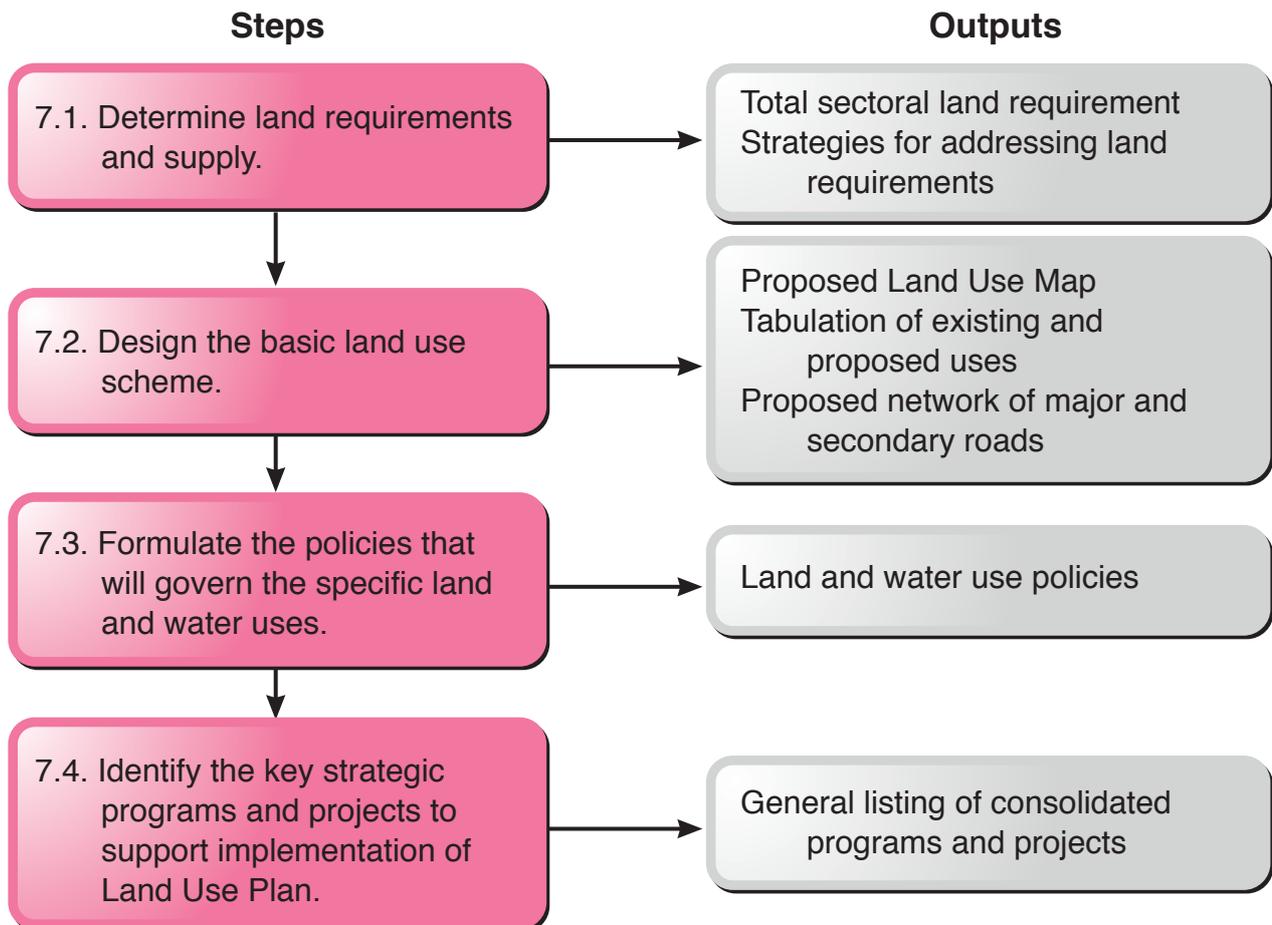
### Other Options: Combined

The LGU may opt to adopt a combination of development alternatives.

The basic urban form conceptual frameworks only serve to guide the LGUs in formulating the schematic diagrams that will best characterize the preferred growth of development. As such, the resulting urban form must not be a precise replication of these forms. Likewise, the preferred urban form shall be identified in terminologies that are reflective of the local situation.

# Step 7: Prepare the Land Use Plan

Translate the vision, goals and objectives, development thrust, and spatial strategies into a land use plan.



## Introduction

The CLUP leans towards physical planning. It expresses the social, and economic values that guides the physical development of the city/municipality.

At this stage in the planning process, the development thrust and spatial strategy will be translated into a Land Use Plan that will describe how, why, when, and where to build, rebuild, and preserve.

In allocating and detailing of land uses, the Land Use Plan integrates the mandatory elements such as the transportation network, public facilities, economic development, ecologically critical areas, and natural hazards. Land use conflicts are reconciled and adjustments in the whole matrix of relationships are made.

The Land Use Plan specifies the features of the preferred development thrust and spatial strategy, guided by the details and policies governing the following:

- Growth centers and corridors
- Residential developments and basic facilities/services
- Ecological system and cultural heritage protection/conservation
- Economic development and local governance
- Infrastructure support systems
- Development intent
- Use of city/municipal waters




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### Objective/s

- Translate the vision, development thrust, and spatial strategies into a Land Use Plan that describes physically and spatially what, where, why, when, and how a LGU's land and water resources are allocated within its territorial jurisdiction (upland, lowland and coastal).
- Identify land and water resources of the LGU that shall be under protection and production use; infrastructure; urban and other development uses consistent with and complementary to the CLUP's vision, development goals, and objectives.




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### Key Input/s

- Outputs from Steps 2-6 such as maps, sectoral studies, and other thematic/special area studies




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### Expected Output/s

- Land Use Plan with the following:
  - ♦ Proposed land and water uses
  - ♦ Land and water use policies essential in physical development
  - ♦ Proposed circulation network
  - ♦ Major programs/ projects



## Key Technical Actors/ Responsible Bodies

- Lead: City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-making Authority: Local Chief Executive, Sanggunian Bayan
- Consultative Body: Local Development Council (LDC) and local communities/barangays



## Steps

The steps put into detail the development areas as reflected in the Structure/Concept Plan, which in turn is the interpretation of the preferred Spatial Strategy/ies.

### 7.1. Determine land requirements and supply.

Review and match the lands available for development (supply) and the quantified land requirements (demand) derived from the conduct of sectoral studies, current and projected population, vision and development thrust, and market analysis to determine adequacy of supply.

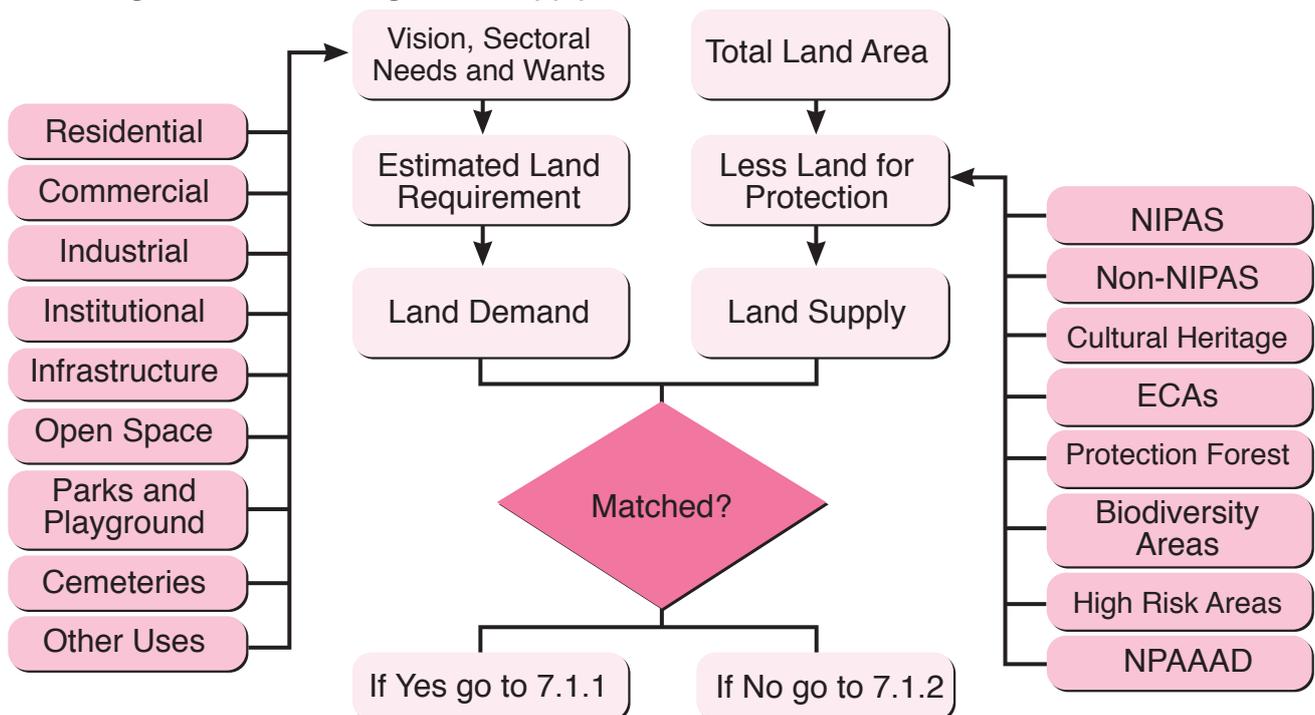
All related sectoral/thematic and development plans prepared by the LGU or national agencies shall be integrated into the CLUP such as the following:

- Forest Land Use Plan
- Coastal Resources Management Plan
- Tourism Master Plan
- Protected Area Management Plan
- Ancestral Domain Sustainable Development and Protection Plan
- Solid Waste Management Plan
- Agriculture Development Plan, etc.

These sectoral/thematic plans should complement and contribute to the attainment of the strategic objectives of the CLUP. Land use management and zoning arrangements of these sectoral/thematic plans should be consistent and made compatible with the designated local land use and zoning arrangements of the LGU.

The figure in the succeeding page illustrates the details of this activity.

Figure 7-1. Balancing Land Supply and Demand



### 7.1.1. If the supply is adequate for the quantified needs and requirements, determine if modifications or adjustments are necessary

Adjustments may be in the form of:

- Additional expansion areas or growth areas
- Allocation policies that would ensure the progressive realization of the city's/ municipality's development vision.

### 7.1.2. If the supply is inadequate (less than the demand), identify strategic interventions to ensure the provision or availability of land to address space or land requirements.

The following are some suggested strategic interventions:

- Increase in use density (densification/ intensification) e.g., infilling of vacant lots, vertical (high-rise) development, redevelopment
- Reclamation subject to environmental and other laws and regulations
- Possible conversion of developmentally constrained areas with the least perceived negative impact and subject to appropriate mitigating measures.

### 7.1.3. If the demand is lower than the supply, the planner/s may decide on the appropriate use(s) of the remaining land supply to ensure the achievement of the development thrust.

The following may be considered, as may be appropriate for the LGU:

- Reversion of lands zoned as urban uses to agricultural uses to ensure and enhance food security
- Identification of new growth nodes/corridors
- Identification of areas for additional infrastructure support services

- Improvement of rural services and amenities
- Possible relocation or socialized housing sites for informal settlers or families, if any, and for families which may be affected by pipeline projects and renewal/redevelopment programs in the urban areas
- Other relevant uses, subject to existing laws.

## **7.2. Design the basic land use scheme.**

### **7.2.1. Translate and map the land use requirements and land use policy areas generated in the structure/concept plan into land use categories.**

### **7.2.2. Make a schematic diagram of the location and area of the identified land use categories on the base map. Make sure that the following land use areas and zones are clearly defined and marked in the base map:**

The map produced in this activity should serve as the draft proposed land use.

Aside from studies in Steps 2-6, the scheme should take into account the following:

- Proposed transport layout (main roads, network of secondary roads)
- Public sentiment on land use issues
- Land values
- Cost considerations
- Aesthetic factors
- Location criteria/standards (Refer to Volume 2 for the sector standards and location criteria). Location standards will normally vary from one use to another and from one planning area to another. Local planners should be aware that standards are not absolute but are more in the nature of guides or criteria to be followed under normal circumstances.
- Convenience standards—location of land use is determined by considering time and distance as the primary units of measurement;
- Performance standards—the main determinants of land use areas are health, safety, and amenity.

New space needs can be accommodated in three ways:

- Use of vacant areas and urbanizable lands;
- Re-use of areas slated for clearance; and
- “Invasion” or change in use of existing built-up areas from one use to another use.

### **7.2.3. Overlay the land use schemes with the land supply map, to see the extent of new areas for urban development and for adjustments and revisions where necessary.**

### **7.2.4. Delineate the transportation network and proposed circulation pattern.**

In this activity, achievement of the following must be considered:

- Efficient internal and external linkages
- Improved community access to basic social services and facilities/infrastructures
- Stimulate development in identified development areas or growth nodes
- Desired impacts on service provision and influence on development pattern

of the LGU

Land use and transport are directly interrelated. Land provides the platform for almost all kinds of human activities, while transport provides the connection between these lands. The origins and destinations of vehicle trips (or transport) are the different locations where human activities take place.

A plan for a network of collector roads, particularly for the planned urban expansion areas, will facilitate access to lands unserved by roads and thus make more efficient use of land resources. If the land use plan prescribes that a certain area of the city/ municipality should be industrial, for example, a plan showing roads that will provide access to that area will facilitate the realization of the proposal.

The network of collector roads should consist of roads that are properly spaced. Walkable distances must be observed, e.g. the longest distance a person needs to walk to reach a collector road (which logically is a public transport route) should ideally be a maximum of 250 meters. The road right-of-way should follow DPWH standards.

### 7.2.5. Quantify the proposed land uses.

Tabulate and quantify the proposed land uses following Table 7-1. It shall also include the proposed uses of water bodies within the jurisdiction of the city/municipality.

Table 7- 1. Existing and Proposed Land Uses and Color Codes

Land Use Category	Sub-Categories	AREA (in hectares)			Symbology		
		Existing	Proposed	Increase/ (Decrease)	CODE	RGB	
<b>Forest and Forestland</b>							
Protection	Forest Reserve				FR	0,100,0	
	National Park				NP	0,100,0	
	Military and Naval Reservation				MR	0,100,0	
	Civil Reservation				CR	0,100,0	
	Forest Buffer				FB	0,100,0	
	NIPAS: Strict Protection Zone				NSP	0,100,0	
Production	NIPAS: Multiple Use Zone				NMU	0,100,0	
	Fishpond				FP	0,100,0	
	Mining				MI	0,100,0	
	Plantation				PL	0,100,0	
	Other Uses* (Specify)						
<b>Agriculture</b>							
Protection	NPAAAD				NPA	0,150,0	
	SAFDZ				SAF	0,150,0	
Production	Crops				CRO	0,150,0	
	Orchard				OR	0,150,0	
	Pasture				PA	0,150,0	
	Other Uses* (Specify)						
<b>Water</b>							
Protection	Fishery Refuge and Sanctuary				FRS	175,200,225	
	Foreshore Land				FL	175,200,225	
	Fishery Reserve				FR	175,200,225	
	Delta/ Estuary				DE	175,200,225	
	Lakes				LA	175,200,225	
	Mangrove				MN	175,200,225	
	Seagrass beds				SB	175,200,225	
	Reef systems				RS	175,200,225	
	Sand dunes				SD	175,200,225	
	Rivers & creeks				RC	175,200,225	
	Algal forest				AF	175,200,225	
	Production	Mariculture Parks				MP	175,200,225
		Aquaculture				AC	175,200,225
Commercial Fishing					CF	175,200,225	
Municipal fishing					MF	175,200,225	
Other Uses* (Specify)							

Tourism					T	255,153,0
Eco-tourism*					ECT	255,153,0
Residential					R	255,255,0
Socialized Housing					SH	255,255,0
Informal Settlements					IS	255,0,0
Commercial					C	255,0,0
Agri-Industrial					AGI	200,150,255
Industrial					IND	150,0,200
Institutional					INT	0,0,255
Parks and Recreation					PR	100,225,100
Cemetery/Memorial Park					CM	100,225,100
Infrastructure/Utilities, Transportation and Services (Specify)					INF	190,190,190
Landfill/Dumpsite					LF	190,190,190
Other Uses* (Specify)						
TOTAL						

\*Other uses may use codes other than the above and should include identifying letters/symbols.

## 7.2.6. Finalize the land use plan by making adjustments and/or revisions where necessary.

This process is a critical stakeholder engagement and negotiation process that must be carefully handled and facilitated.

These adjustments and/or revisions are made in any of the following areas:

- Conflicts between land use and transportation
  - ♦ Possible conflicts between location and magnitude of land uses and existing or proposed transportation lines should be ironed out.
  - ♦ Proposed land uses should be located as much as possible in areas which are served or to be served by transportation lines or in areas where transportation lines can be feasibly extended.
  - ♦ Where locating uses in certain areas becomes the greater imperative, the transportation plan should be adjusted or revised accordingly.
  - ♦ Areas with heavy densities (in some cases, heavy daytime densities such as CBDs, industrial areas, and school zones) should be served by adequate transportation routes and facilities such as parking areas, service centers, etc.
- Conflicts between land uses may be possible in two ways:
  - ♦ Compatibility or incompatibility between land use—This shall be evaluated in such terms as:
    - Possible nuisance (noise, smoke, fumes, glare, etc.) from one use to another adjacent area;
    - Incompatibility in terms of aesthetic considerations;
    - Traffic generation where one area is exposed to heavy traffic generated by another use or where adjacent uses (i.e. commercial and industrial areas) generate undesirable traffic levels.
  - ♦ Sitings of lands uses—evaluated according to:
    - Whether a particular area is allocated for the most suitable use in terms of land value, land suitability, cost-revenue considerations (i.e. viable commercial housing in proposed residential area), and exploitation of locations with good aesthetic qualities.
    - The feasibility of extending transportation and utilities (water, power,

sewerage, communication lines) to new locations.

Adjustment for space allocation—tentative allocations for space requirements may need to be adjusted in terms of reduction or expansion of areas. Adjustments may be done as follows:

- In cases where there is not enough land to accommodate all estimated space requirements, the proposed areas of some uses may be reduced but with corresponding increase in density to satisfy the requirements.
- Tentative allocations may be increased to introduce flexibility in some uses, such as, allowances for unforeseen space needs or set aside areas with good potential as industrial land reserves.

The final land use plan that would emerge from the foregoing adjustments and revisions should as much as possible, be the most balanced and harmonious land use design in terms of area, location, and layout.

Use the standard color codes in delineating the proposed land uses as presented in Table 7-1 (Refer also to HLURB's Guide to Data Management for CLUP Preparation, to facilitate mapping activities.)

The proposed Land Use Map will reflect the resultant land use proposals for the entire city/municipality, including coastal and marine areas. For purposes of having a more detailed presentation, the urban core and other urbanizing areas may be enlarged to a bigger scale to show the detailed land uses within. The components of urban use areas must be clearly specified and explicitly presented to avoid subjectivity of interpretation.

### **7.3. Formulate the policies that will govern the specific land and water uses in the entire city/ municipality.**

This shall serve as inputs in the formulation of development control and zoning arrangements for each land use management zone category and sub-categories. Similarly, Indigenous Knowledge Systems and Practices (IKSP) that can be adopted to ensure sustainable use of special areas, i.e. Ancestral Domains, should be identified and integrated into the proposed development controls and zoning arrangements.

A policy refers to a statement indicating specific guidelines, methods, procedures, rules and forms that will guide all development activities in the city or municipality to support and further encourage actions toward the achievement of the vision, goals, objectives, and targets.

Policy statements may cover any or all of the following concerns:

- Strategic functions of identified growth areas/corridors;
- Extent of area to be occupied and types of future commercial and industrial activities;
- Intensity of activities to be generated;
- Visual impact regulations;
- Special assessment, compensation, and tax incentives and disincentives to be effected in the implementation of the plan;
- Conservation, preservation, maintenance, and development of ecological system (i.e. coastal, forest, lakes, etc.), cultural heritage sites, natural resources, and the like;
- Climate Change Adaptation and Disaster Risk Reduction Land Use Policies; and
- Other policies considered by the locality as necessary and relevant to the local land development plan.

Policies are formulated through workshops or brainstorming sessions by the planning team, the results of which are to be presented to other stakeholders. This activity may also result to further refinement of sectoral policies for the purpose of consistency with the defined vision, goals, and objectives.

## Workshop on Land Use Policies

The workshop activities shall include the following:

- Review of the vision, goals and objectives and the findings of the situation analysis on issues/problems, and the recommended interventions;
- Assessment of land use relationships (compatibility and linkages between land uses, inter-intra-area compatibility);
- Identification of policies that respond to specific situations in order to attain the vision, goals and objectives;
- At this stage, due consideration and consistency with the general policies stipulated in higher plans such as the Provincial Physical Framework Plan, Regional Physical Framework Plan, or National Physical Framework Plan on production, protection, settlements and infrastructure areas shall be observed.
- Checking the consistency of policies with the issues, goals and objectives.

Guide questions are as follows:

- ♦ Does each policy address the cause(s) of the priority problems identified in the situation analysis?
- ♦ Are the policies consistent with the stated vision, goals and objectives and with each other?
- ♦ Are the policies consistent with national, regional and provincial development policies and plans?
- ♦ What actions will these policies require? Is there a need for executive and legislative action?
- Consolidating the identified policies for the functional development areas according to sectors, and for the subsequent identification of responsibility centers.

## 7.4. Identify key strategic programs and projects that will support the implementation of the Land Use Plan.

It is critical that the identification of development projects and programs must be directly linked to the provision or delivery of the necessary outputs to achieve the CLUP outcome indicators formulated in Step 5. The major implementation mechanism of any approved CLUP is through its approved zoning ordinance and local development plan (or Comprehensive Development Plan) and Local Development Investment Plan. The CDP/LDP provides a concrete identification of programs and projects that the LGU will implement, and more importantly, budget in a definite time period (e.g. normally 3-years to coincide with the terms of office of LGU officials/executives). The zoning ordinance serves as the specific policy instrument that implements the strategic thrusts and objectives of the approved CLUP. (Detailed discussion of the integrated ZO is presented in Step 8 and Volume 3: Model Zoning Ordinance Guidebook).

### 7.4.1. Determine the relevant programs and projects that arise from the structure/concept plan, the detailed land use plan; and the identified policies. The following are some examples:

- Additional linkages in terms of circulation system
- Socialized housing
- Parks and playgrounds and greening projects
- Waste management systems such as sanitary landfills
- Renewal or redevelopment programs
- Cultural and heritage conservation programs

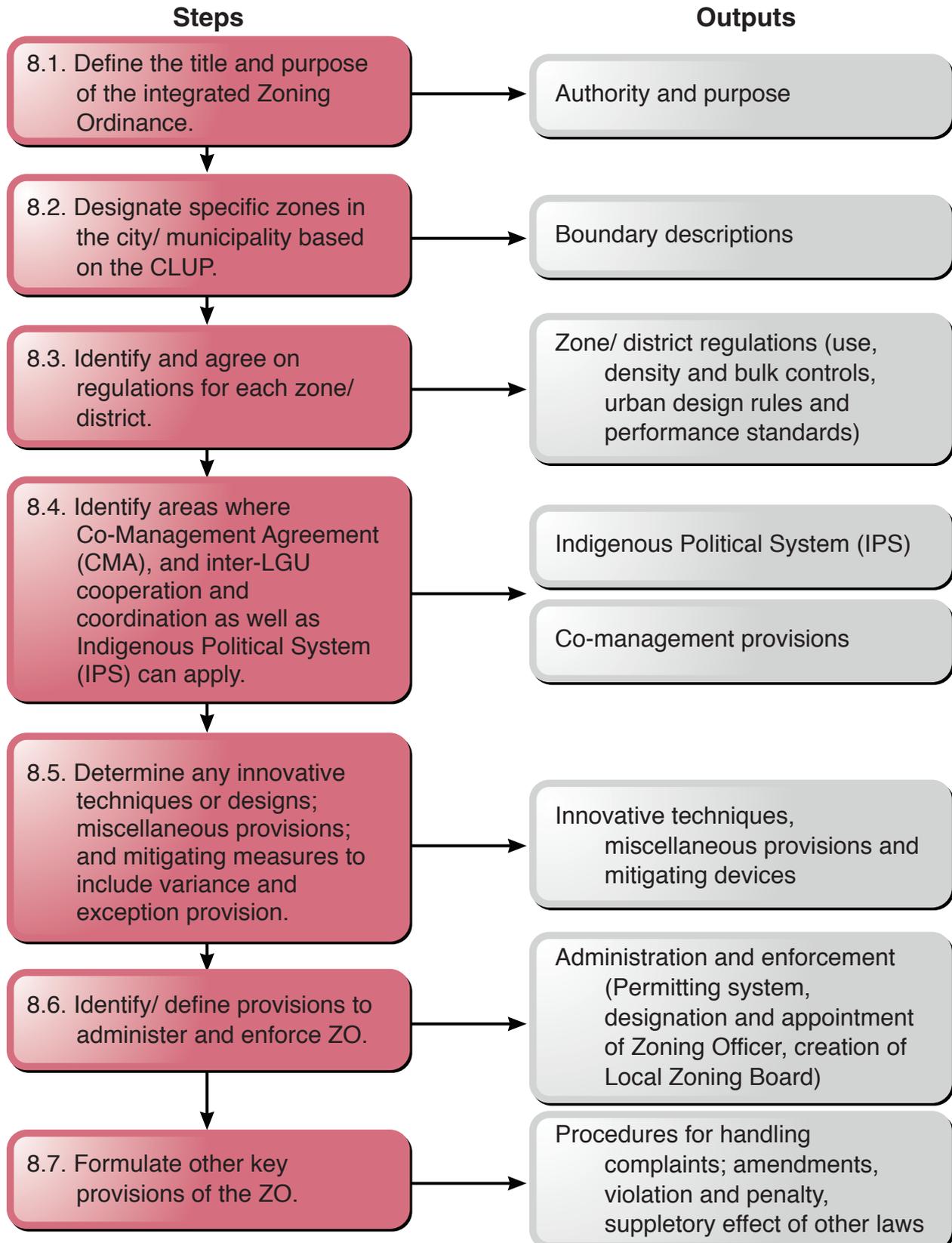
- Upgrading of sanitation and drainage system
- Irrigation projects
- Reforestation projects
- Climate Change and Disaster Risk Adaptation and Mitigation programs and projects

#### **7.4.2. Review and identify the key list of programs and projects resulting from the sectoral studies and sectoral/thematic plans of national government agencies that are consistent and contributory to the objectives and goals of the CLUP.**

This will provide the basis for prioritizing projects/programs for implementation by the city/ municipality. The identified key outcome and results indicators in the CLUP shall serve as the main parameters for the prioritization of all the projects and programs coming from both local and national sectoral development and implementation plans.

# Step 8: Draft the Zoning Ordinance

Translate the Land Use Plan into an integrated Zoning Ordinance (ZO) and complementary ordinances.



## Introduction

Zoning is the division of a community into districts (e.g. commercial, residential, industrial, institutional, etc.) in order to maximize, regulate and direct their use and development according to the CLUP. It takes the form of a locally enacted ordinance which embodies, among others, regulations on the allowed uses in each zone or district including district regulations and implementing schemes.

Drafting the integrated ZO is basically translating the CLUP into a legal document/ tool. In general, zoning has the same features or land use classifications as the CLUP, except that it provides more detailed information on zone boundaries and use regulations/ controls, among others. This activity is seen as complementary to the preparation of the Land Use Plan in an iterative manner. Land use policies that were defined in the Land Use Plan shall serve as primary inputs to the preparation of an integrated ZO.

Why an integrated ZO? The integrated ZO shall cover both public and private lands in the upland, lowland, and coastal ecosystems of the LGU. It provides a mandate for an LGU to enforce development controls and zoning restrictions in public lands subject to co-management arrangements with the appropriate national agencies.

The integrated ZO shall not restrict the LGU from approving complementary ordinances (e.g. fiscal and revenue incentives, environmental code, traffic code, etc.) and/or additional ordinances on local zoning or development controls so long as they are consistent and complementary to the land use management arrangements in the approved CLUP.

The integrated ZO consists of two major elements, namely, Zoning Ordinance Regulatory Statements and Zoning Map.

The Model Zoning Ordinance (Volume 3 of this Guidebook) contains the suggested details of preparing or drafting a Zoning Ordinance,

## Regulatory Statements

ZO Regulatory Statements comprise a legally binding set of rules and regulations governing the use of land in a city/ municipality. This document contains a set of allowed uses and regulations that apply to each designated zone. It shall have the following minimum components:

- Title of the Ordinance
- Authority and Purpose
- Definition of Terms
- Zone Classifications
- Zone Regulations
- General Regulations
- Innovative Techniques
- Performance Standards
- Mitigating Devices
- Administration and Enforcement

## Zoning Map

A Zoning Map is a duly authenticated map defining divisions of different planned land uses and regulations of land into zones in a city/ municipality. It is a graphical translation of the Regulatory Statements to facilitate their application. For purposes of accountability, the zoning map shall be provided with transparent overlay(s) depicting critical information that the users/ public should know, e.g. fault lines, subsidence areas, protected areas, etc.

The integrated ZO should take the form of a statute, with a title and an enacting clause.



## Objective/s

- Define/delineate the zone boundaries in the map
- Formulate development controls and integrated zoning arrangements (for upland, lowland, and coastal areas) that will govern both public and private lands of the LGU
- Reflect the development controls and zoning in a zoning map that shall accompany the CLUP. The zoning map shows the detailed zoning/ sub-zoning arrangements that will govern the specific land use categories identified in the CLUP



## Key Input/s

- Proposed Land Use Plan
- Laws and regulations governing activities in proposed land uses



## Expected Output/s

- Zoning Ordinance
- Zoning Map



## Key Technical Actors and Responsible Bodies

- Lead: Office of the Zoning Administrator/Zoning Officer and City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Decision-making Authority: Local Chief Executive, Sangguniang Panlungsod/ Bayan
- Consultative Body: Local Zoning Review Committee (LZRC), Local Development Council (LDC) and local communities/barangays



## Steps

The LGU Core Planning Team shall take the lead in cases of cities/ municipalities that will prepare their ZOs for the first time. The LGU Core Planning Team should be assisted by the concerned TWG, chairperson of the SB/ SP Committee on Land Use (and/ or related committee), and a representative from the LGU's Legal Office.

The Local Zoning Review Committee (LZRC) should be convened in cases of LGUs that will update their zoning ordinances. The said committee should be assisted by the LGU Core Planning Team and the concerned TWG.

## Guide Notes on Preparing an integrated Zoning Ordinance:

### a. Integrated Zoning Ordinance

Whenever applicable, cities/ municipalities should prepare an integrated ZO that includes zoning arrangements for public and private lands in urban, agricultural, forest, coastal and other areas. For example, the Municipality of Silago developed an integrated ZO which provided a detailed description of its forest zone/ marine zones, aside from its urban areas. The zoning arrangements for the forest zone and coastal/ marine zones were generated from the Forest Land Use Plan (FLUP) while those for the coastal/ marine zones were generated from the Coastal and Fisheries Resource Management Plan (CFRMP). The Municipal Government prepared these two plans and integrated them with the CLUP.

Other public land zoning arrangements can also be included in the integrated ZO such as those contained in a Protected Area Management Plan (PAMP), foreshore management plan or ancestral domain management plan.

### b. Related Land Use Regulations

There may be areas in the City/Municipality where more specific and detailed regulations will be needed as required by unique circumstances and where such regulations may only be developed by conducting special technical studies. For example, a City/Municipality may designate a Heritage Zone, such as in Vigan, Ilocos Sur or Intramuros, Manila where related land use regulations were developed only after thorough studies in relation to historic planning and architectural practices were undertaken. Similarly, a City/Municipality may designate an Urban Renewal Zone where specific design guidelines to govern the development and design of private properties will have to be formulated. Another example is the need to further define the development restrictions and limits in disaster-affected areas or buffer zones.

Such related land use regulations may be prepared after the passage of the ZO. It is, however, important that LGUs should ensure that these are harmonized with the ZO.

### c. Zoning Approaches

There are various approaches that cities/ municipalities can use in formulating their integrated ZOs. The choice will depend on the type/ level of development and the locality's stated vision, goals and objectives. Following are examples of zoning approaches:

- Euclidean Zoning—also called conventional zoning, it is characterized by the segregation of land uses into specified geographic zones with provisions on limitations of activities (such as use, building height, etc.) within each type of zone. Easy to administer but has been criticized as being based on outdated planning theory anchored on the ability of planners to pre-determine land use activities. This approach is suitable for traditional residential subdivision developments as well as in well-established residential neighborhoods.
- Performance Zoning—also called “effects-based planning,” it does not rely on the segregation of land uses but on a set of performance-based or goal-oriented criteria used and a points-system to evaluate development proposals in any part of the city/ municipality. Its strength is on the ability to accommodate environmental considerations, transparency of decision-making and market-responsiveness. It is, however, complex to administer and provides a high-level of discretion to zoning administrators. An example is to create mixed-use zones where residential, commercial and industrial uses may be allowed subject to minimizing or eliminating possible adverse nuisance effects through controls on air pollution, noise levels, traffic generation, etc.
- Incentive Zoning—anchored on a rewards-based system for developments that meet a city/municipality's development objectives such as by allowing increases in building heights or building floor areas. This also allows a high degree of flexibility but is also complex to administer. For example, a ZO may allow relief from building height restrictions or building floor areas if a development will fund the construction of access roads or construct smart urban drainage systems.
- Form-based Zoning—does not fully regulate the type of land use (similar to Performance Zoning) but is intended to guide the form that the proposed development will take such as through regulations on building setbacks, building heights, floor areas, pedestrian access, etc. A type of Form-based Zoning is Smart Zoning which incorporates subdivision

regulations, urban design guidelines, architectural design standards, and some land use regulations (for critical activities only such as heavy industries), etc. into a unified ordinance. This type of zoning is also highly flexible and facilitates the creation of mixed-use and walkable communities but may also be relatively complex to prepare and administer.

LGUs may adopt any or a combination of the above or use other approaches as long as they are consistent with CLUP provisions and related laws and regulations such as the National Building Code, PD 957, BP 220, etc. Moreover, LGUs should ensure that they have the appropriate capability to implement the ordinance.

The following activities shall be undertaken in preparing the integrated ZO:



**Guide Note:** In all these steps, the Model Zoning Ordinance version 2013 (Volume 3 of this Guidebook) published by HLURB shall serve as reference for the suggested details of the ordinance.

## 8.1. Define the title and purpose of the integrated ZO.

The stated purpose of an integrated ZO should be directly linked to the goals and objectives of the land use development and management arrangements defined in the CLUP.

Sample Purpose:

- To guide, control and regulate future growth and development of (name of city/municipality) in accordance with its CLUP.
- To protect the character and stability of residential, commercial, industrial, institutional, forestry, agricultural, open space and other functional areas within the locality and promote the orderly and beneficial development of the same.
- Promote and protect the health, safety, peace, comfort, convenience and general welfare of the inhabitants in the locality.



### Guide Notes on Defining Authority and Purpose:

#### a. Authority

In this section it is important to refer to the approved CLUP ordinance aside from references to other relevant laws (i.e. Local Government Code, Commonwealth Act 141, RA 8550 – Fisheries Code, PD 705 Forestry Code, Water Code and other relevant ordinances that are applied in the ZO) or it can be covered as a separate section that may be entitled Enabling Policies and Ordinances.

#### b. Purpose.

The above sample purposes are the broad objectives of a typical local ZO and may be adopted by any local government. Some local legislative bodies may, however, find these purposes stated too broadly and may wish to translate them into more specific terms appropriate to the specific goals and objectives of the CLUP. They may also include other purposes, which are more expressive of the specific development needs, goals and directions of their respective localities.

It is important to indicate in this section the institutional and management zoning principles adopted in this ordinance such as community participation, transparency and good governance principles; coverage of public and private land uses; and compliance with specific legal mandates or premises. This is aside from the overall land use objectives stated in the approved CLUP and other sectoral objectives that the LGU adopted in the formulation of their CLUP.

### c. General Zoning Principles

Clearly identify and lay down the coverage of protection and production land use categories in both public and private land uses as stated/reflected in the CLUP.

## 8.2. Designate specific zones in the city/ municipality based on the CLUP.

The designation of zones should be based on the CLUP and on the zoning approach preferred by the LGU and should be translated into a map. LGUs may designate general zones as exemplified in the table below:

Table 8- 1. General List of Zone Classifications

Base Zone	Sub-Zone	Description
<b>Forest &amp; Forestland Zone</b>		
(Protection)	Forest Reserve	This is essentially for biodiversity conservation and no human activity is allowed in this zone except for scientific studies, burial sites and religious ceremonies of ICCs/IPs.
	National Park	
	Military Reservation	
	Civil Reservation	
	NIPAS: Strict Protection	
	Mangrove	
(Production)	Forest Buffer	<p><b>Limited Production Sub-Zone:</b> The following regulated activities may be allowed provided these will not destroy the soil, water and biodiversity resources:</p> <ul style="list-style-type: none"> <li>- Existing settlement</li> <li>- Traditional and/or sustainable land use including agriculture, agroforestry and other income-generating or livelihood activities</li> <li>- Recreation, tourism, educational or environmental awareness activities</li> <li>- Installation of national significance such as development of renewable energy sources, telecommunication facilities and electric power lines</li> <li>- Hunting and gathering of non-timber forest products.</li> </ul> <p><b>Full Production Sub-Zone:</b></p> <ul style="list-style-type: none"> <li>- Tree plantation development</li> <li>- Fruit orchard</li> <li>- Pasture</li> <li>- Agroforestry development</li> <li>- Agriculture incorporating soil and water conservation measures</li> <li>- Existing settlements,</li> <li>- Production of non-timber resources,</li> <li>- Tourism/recreation and</li> <li>- Special forestland uses, such as industrial processing site, herbal plantation, bodega site, school site, nipa plantation, communication station site, right of way, power station site, impounding dams and other lawful purposes</li> </ul>
	Industrial Forest Plantation	
	Special Use	
	NIPAS: Multiple Use	
	Grazing	
<b>Agriculture Zone</b>		
	Protection Agricultural	
	Production Agricultural	
<b>Agri-Industrial Zone</b>		
<b>Municipal Waters Zone</b>		
(Protection)	Fishery Refuge and Sanctuary	
	Foreshore Land	
	Mangrove	
	Fishery Reserve	
	Delta/Estuary	
	Lake	
(Production)	Aquaculture	
	Commercial Fishing	
	Municipal Fishing	
	Sealane	
	Mariculture Zone and Park	

Base Zone	Sub-Zone	Description
<b>Mineral Land Zone</b>		
	Mineral Reservations	
	Quarry	
	Small-scale Mining	
<b>General Residential Zone</b>		
<b>Residential-1 (R-1) Zone</b>		Low-density residential
<b>Residential-2 (R-2) Zone</b>		Medium-density residential
	Basic R -2	Lower limit of medium-density residential in terms of building height
	Maximum R -2	Upper limit of medium-density residential in terms of building height
<b>Residential-3 (R-3) Zone</b>		High-density residential
	Basic R -3	Lower limit of high - density residential in terms of building height
	Maximum R -3	Upper limit of high - density residential in terms of building height
<b>Residential-4 (R-4) Zone</b>		Medium -to high-density residential
<b>Residential-5 (R-3) Zone</b>		Very high - density residential
<b>Socialized Housing Zone</b>		Housing projects in accordance with BP 220
<b>General Commercial Zone</b>		
<b>Commercial-1 (C-1) Zone</b>		Neighborhood or community level commercial
<b>Commercial-2 (C-2) Zone</b>		Municipal or city level commercial
<b>Commercial-3 (C-3) Zone</b>		Metropolitan level commercial
<b>Industrial-1 (I-1) Zone</b>		For non -pollutive/non-hazardous and non - pollutive/ hazardous manufacturing/ processing establishments
<b>Industrial-2 (I-2) Zone</b>		For pollutive/ non-hazardous and pollutive/ hazardous manufacturing and processing establishments
<b>Industrial-3 (I-3) Zone</b>		For highly pollutive/ non-hazardous; highly pollutive/hazardous; highly pollutive/extremely hazardous; non -pollutive/ extremely hazardous manufacturing and processing establishments
<b>General Institutional Zone</b>		For general types of institutional establishments e.g. government offices, schools, hospital/ clinics, academic/research, convention centers, etc.
<b>Special Institutional Zone</b>		For particular types of institutional establishments e.g welfare homes, orphanages, home for the aged, rehabilitation and training centers, military camps/reservation/ bases/training grounds, etc.
<b>Tourism Zone</b>		
<b>Parks and Recreation Zone</b>		
<b>Cemetery Zone</b>		
<b>Buffer/Greenbelts Zone</b>		
<b>Utilities, Transportation and Services (Infrastructure/Utilities) Zone</b>		

As applicable, LGUs may seek to provide more detailed zone classifications, depending on the prevailing conditions in the locality and on the categorization of land uses, and objectives for each, as provided in the CLUP. Some of the general zones mentioned above can be detailed as shown in the same table above.



### Guide Notes in designating Zones

- a. The provisions of relevant laws, such as the National Building Code, Revised Forestry Code, Fisheries Code, Agriculture and Fisheries Modernization Law, Heritage Act, Tourism Code, etc. with regards to zone divisions should be considered in designating zones.
- b. For urban areas, it is recommended that consideration be given towards harmonizing the zone classifications provided in the integrated ZO and in the Revised Implementing Rules and Regulations (IRR) of the National Building Code (NBC) dated April 30, 2005, as provided in the example above. This will facilitate

coordination between the Office of the Zoning Administrator/ Zoning Officer and the Office of the Building Official (OBO) especially regarding the related review of applications for Locational Clearance and Building Permit.

c. Refer to the following for the details in designating the following zones:

- For Forestlands (Annex 8-1)
- For Coastal Areas (Annex 8-2)
- For Climate Change Adaptation and Disaster Risk Reduction (Annex 8-3)
- For Heritage Areas (Annex 8-4)

d. A zone may also be divided into sub-zones in cases where more detailed land use regulations are desired. As shown in the above example, an R-2 Zone may be divided into a Basic R-2 and Maximum R-2 where the allowable uses may be similar but with varying density controls. Forest and Coastal Zones should also be divided into sub-zones with varying land use control regulations as provided by existing laws.

(Flexibility can be applied in the regulatory portion Step 8.3)

e. As applicable, LGUs may also want to use various techniques in designating zones such as:

- Base Zones—refers to the primary zoning classification of areas within a City/ Municipality that are provided with “basic” regulations such as a list of allowable uses. This technique is usually done in conjunction with Overlay Zones.
- Overlay Zones—a “transparent zone” that is overlain on top of the Base Zone or another Overlay Zone and provides an additional set [or layer] of regulations intended to address specific objectives for the zone in consideration. For example, an R-2 Zone (Base Zone) will be provided with a list of allowable uses. However, its location may be susceptible to flooding hence “overlay” regulations, such as requiring buildings/structures to be elevated, may be provided. This technique is useful in addressing CCA-DRR concerns.
- Planned Unit Development (PUD) Zones—is a form of Cluster Zoning intended to facilitate unitarily planned or master-planned mixed-use developments, such as commercial, industrial and residential.

As much as practicable, zone boundaries should be delineated by its longitude and latitude coordinates. Otherwise, zone boundaries may be delineated by either natural or man-made features such as rivers, roads etc. or by measuring depth and breadth of the zone, or by establishing radial distance in case the zone is circular, or their combinations in irregular zones.



### Guide Notes in Delineating Zone Boundaries

a. Zoning Maps

In addition to the Zoning Map for the entire City/Municipality, an LGU can prepare enlarged maps that will clearly show the zones and boundaries of urban centers, barangay centers, settlement clusters and other areas that may become too small that said information cannot be seen in the Zoning Map. The Zoning Map for the entire City/Municipality may be drawn to the scale of 1: 5,000M, 1: 10,000M or 1: 25,000M depending on the land area . Other specific areas may be drawn to the scale of 1:2,000m or 1:4,000M.

b. Use of New Mapping Technologies

Satellite images, Google maps and aerial photos may be used in the validation of the zoning map. Whenever feasible, use Geographic Information Systems (GIS)/Global Positioning Systems (GPS) technical descriptions and information as tools for delineating the boundaries of all the zoned areas.

### c. Consistency of Management Arrangements

The agreed management arrangements in these different resource/sectoral management plans, e.g. Protected Area Management Plans, ADSDPP, etc., should be aligned and made consistent with the over-all management arrangements reflected in the approved CLUP.

The textual descriptions of boundaries should correspond accurately and exactly with the boundaries in the Zoning Map. (In cases of inconsistencies between the map and textual description, the textual description shall prevail). The identified zone boundaries may be enumerated in the Appendix of the integrated ZO.

The basic zone classifications shall use the same color codes as the land use categories (See Step 7, Table 7-1 Existing and Proposed Land Uses and Color Codes) while each sub-zone classification shall be superimposed with different patterns /symbols, e.g. hatching with diagonal/straight lines, letters, and/or numbers, etc. (Refer also to Guide to Data Management in CLUP Preparation, Volume 3, HLURB 2007)

The output of this sub-step will be a Zoning Map, boundary description of each zone/sub-zone in the map and the accompanying text.

## 8.3. Identify and agree on regulations for each zone.

Similar to the choice in the use of an overall zoning approach, there will be varying degrees in the detail and complexity of regulations depending on the objectives of the CLUP and the level of development of cities and municipalities. At the minimum, controls on development normally comprise three kinds of inter-related regulations: (1) use; (2) density and bulk controls; and (3) performance standards. Additions to these may include regulations on the building design and others that may address specific and unique concerns.

### 8.3.1. Use Regulations

These provide a specified list of allowable land uses or activities unique to each zone. Use regulations can be developed through:

1. For Protection Land Use Zones, the list of allowable uses should be in accordance with existing laws such as the Revised Forestry Code, Fisheries Code, AFMA, etc. These should also be consistent with resource management plans such as Forest Land Use Plan, Protected Area Management Plan, Community Based Forest Management Plan, Ancestral Domain Sustainable Development and Protection Plan, Coastal Fisheries Resource Management Plan, etc. Only low-impact and none-intrusive uses and activities should be allowed.
2. For Built-up and Production Land Use Zones and Other Land Use Zones, reference should be made to the related applicable provisions of the above cited laws, the list provided in the revised IRR of the NBC, BP 220, PD 957, and other related laws.
3. Within the parameters of related laws, LGUs have a variety of available tools in developing the list of allowable uses per zone such as:
  - Uses maybe categorized into Principal Uses (those that are readily allowed) and Conditional Uses (those that support principal uses but subject to more detailed evaluation by the Local Zoning Board of Adjustment and Appeals). A simple example for a Residential—1 zone is that a single-detached residential may be considered as Principal Use while a neighborhood-scale commercial establishment is considered as Conditional Use.
  - Use traditional zone classifications (residential, commercial, industrial, etc.)

and list of allowed uses. In addition, allow intra-zone transfers from lower to higher order (Residential-1 uses to Residential-2 Zone or R2 to commercial), provided these are lateral or lower to higher order movements.

- Use a mixed-use approach by providing a combined list of compatible uses, such as allowing residential, commercial, and institutional within each zone. This is applicable for Performance, Incentive or Form-based zoning regulations.

#### 4. For Residential Zones

To make zoning more implementable and suitable in a given type of locality, two approaches may apply in the designation of residential zones:

- Designate a generalized residential zone without reference to density level, i.e. Residential Zone (R).
- Designate residential zone in relation to different density levels: low density residential zone (R-1), medium density residential zone (R-2), high density residential zone (R-3) and Socialized Housing Zone (SHZ)
- For highly urbanized cities and urban/urbanizing municipalities, additional residential zone with specific use regulations may be provided such as Residential Zone-4) (medium to high density residential suitable for townhouse developments) and Residential Zone-5 (very high density residential suitable for residential condominiums).

The local planner/Zoning Administrator/Zoning Officer shall recommend or adopt only one approach in relation to the policies and objectives of the locality as expressed in their CLUP.



Refer to MZO 2013 for different residential zone models.

#### 5. For Commercial Zones

Two approaches may apply in the designation of commercial zones:

- Designate a generalized Commercial Zone without reference to the type of commercial activities provided in the locality, i.e., General Commercial Zone (GCZ).
- Designate Commercial Zones in relation to different types of commercial activities/services offered i.e. Commercial-1 (C-1) Zone (neighborhood or community level commercial), Commercial-2 (C-2) Zone (municipal or city level commercial) and Commercial-3 (C-3) Zone (metropolitan level commercial)

The local planner/Zoning Administrator/Zoning Officer shall recommend or adopt only one approach in relation to the policies and objectives of the locality as expressed in their CLUP.



Refer to MZO 2013 for commercial zone models.

#### 6. Other Zone Considerations

For municipalities with no potential for manufacturing industries or do not encourage the setting up of one, there is no necessity to include industrial zone in its ZO.

### 8.3.2. Density and Bulk Controls

Aside from varying use regulations, zones may also be distinguished by Density and Bulk Controls. Among others, these pertain to controls on building setbacks, footprints, floor areas, and heights, among others. It may also provide regulations regarding ground level open spaces and ground level coverage of impervious surface areas. These controls may vary from zone to zone according to the objectives of the CLUP.

Density and Bulk Controls should be expressed in numeric terms. It is a form of incentives and dis-incentives inasmuch as it can direct urban growth to intended locations and discourage it in areas deemed un-suitable for intense developments. Some considerations in establishing these controls are provided below:

- Land limitations—only low density developments should be provided in areas that have significant land limitations such as steep slopes, soft soils, earthquake faults, flood-susceptibility, etc.
- Weather conditions – densities should be controlled in areas susceptible to typhoons and strong winds
- Designated growth areas—high intensity developments should be directed to designated urban growth areas determined in the CLUP
- Land and property values—densities will normally be highest in areas with high values such as CBDs
- Neighborhood characteristics—densities should be carefully controlled to preserve the stability of well-established low-density residential neighborhoods
- Surrounding environments—densities may be affected by proximity to heritage sites or to an airport
- Service infrastructure—allowed densities should consider the adequacy of service infrastructure provisions such as potable water, storm drainage, etc.

Attention should also be given to maintaining consistency with related controls provided in the revised IRR of the NBC. This pertain to provisions related to building heights, floor-area ratios, ground level impervious surface areas, building setbacks, etc. Examples of building height provisions from the NBC are:

Table 8- 2. Density and Bulk Controls in terms of Building Height per NBC

Major Zone Classification	Sub-Zone Classification	Building Height Limits
<b>Residential</b>		
Residential-1 (R-1) Zone		Low-density residential <ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: three [3]</li> <li>• Meters above highest grade: 10m</li> </ul>
Residential-2 (R-2) Zone		Medium-density residential
	Basic R -2 Sub -Zone	<ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: three [3]</li> <li>• Meters above highest grade: 10m</li> </ul>
	Maximum R -2 Sub -Zone	<ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: five [5]</li> <li>• Meters above highest grade: 15m</li> </ul>
Residential-3 (R-3) Zone		High-density residential
	Basic R -3 Sub -Zone	<ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: three [3]</li> <li>• Meters above highest grade: 10m</li> </ul>
	Maximum R -3 Sub -Zone	<ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: twelve [12]</li> <li>• Meters above highest grade: 36m</li> </ul>
Residential -4 (R -4) Zone		Medium-to high-density residential <ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: three [3]</li> <li>• Meters above highest grade: 10m</li> </ul>
Residential -5 (R -5) Zone		Very high -density residential <ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: 12 –18</li> <li>• Meters above highest grade: 36m –54m</li> </ul>

Commercial		
Commercial -1 (C -1) Zone		Neighborhood or community level commercial <ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: 3 –5</li> <li>• Meters above highest grade: 10m –15m</li> </ul>
Commercial -2 (C -2) Zone		Municipal or city level commercial <ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: 6</li> <li>• Meters above highest grade: 18m</li> </ul>
Commercial -3 (C -3) Zone		Metropolitan level commercial <ul style="list-style-type: none"> <li>• Number of allowable storeys/floors above established grade: 16 –60</li> <li>• Meters above highest grade: 48m –180m</li> </ul>

Other forms of density controls are:

- Cluster Zones—is a tool that may be used if an LGU wants developments, such as residential, in certain areas to be clustered thereby ensuring that open spaces will be maintained.
- Transfer of Development Rights—is a tool that is usually intended to preserve open spaces and heritage sites while directing developments to desired growth locations. Development rights, such as in the form of allowed building floor areas, are transferred from a “sending district” (such as a zoned open space) to a “receiving district” (such as a zoned central business district).

Density and bulk controls should likewise be consistent with resource management plans that were mentioned earlier. Examples include the use of endemic or local tree species for reforestation/replanting in Protected Areas; use of organic or floating artificial reefs/materials for Marine Protected Areas; use of bio-engineering and natural slope protection materials for riverbank rehabilitation, etc.

LGUs may also wish to implement physical planning/urban design rules in addition to those contained in the NBC. Urban design rules (e.g. related to sidewalks, parking, store frontage, etc.) will help ensure that this objective is met. These additional controls can be issued as part of a complementary ordinance. See Annex 8-5 for Innovative Land Use and Urban Design Rules.

### 8.3.3. Performance Standards

These are “all applicable” standards that may be applicable to one or more zones. These standards are usually intended to ensure neighborhood compatibility and environmental integrity as well as mitigate possible nuisance effects of developments. Developed properly, these can provide a checklist which Zoning Administrators/Zoning Officers can use in evaluating development proposals more closely. Performance Standards can address a diverse range of development issues, some of which are:

- Environmental Conservation and Protection
- Maintenance of a network of Green and Open Spaces
- Heritage Preservation and Conservation
- Site Development
- Capacities of Service Infrastructure
- Socio-Economic Impact of Development Proposals



See Annex 8-6 for Green Urban Development Performance Guidelines.

## 8.4. Identify areas where Co-Management Agreement (CMA) and inter-LGU cooperation and coordination can apply.

Because public lands are under the jurisdiction of national government agencies (NGAs)—particularly the Department of Environment and Natural Resources—not LGUs, partnership and management arrangements between NGAs and the LGU are important to strengthen coordination, complementation, and effective enforcement and implementation of public land use zoning arrangements. Such areas for co-management and inter-LGU cooperation can easily be identified based on the shared watershed/sub-watershed areas or coastal waters.

CMA provisions could be included in the Administration and Enforcement Article of the integrated ZO. This could also include other institutional or management arrangements with other agencies or LGUs, such as inter-LGU alliance/agreement for watershed management; common service facilities for solid waste management or waste water; and coastal law enforcement.

## 8.5. Determine any innovative techniques or designs; miscellaneous provisions; and mitigating measures to include variance and exceptions provisions.

Innovative techniques and designs shall apply to LGUs that introduce flexibility and creativity in design.

The granting of exception and variances is necessary to reduce the possible harshness that may result from the enforcement of the ZO.

- Variance

An application for Locational Clearance will be considered a Variance if it does not comply with the technical requirements of the Zoning Ordinance such as building height limit and/or applicable Performance Standards. An example would be an application for a seven-storey office building located in a C-1 Zone where the allowed maximum building height is only five storeys. Or the same application may “impair the entry of light and ventilation and cause the loss of privacy” of existing adjacent developments” which may be a Performance Standard provision. Subject to the evaluation of the Local Zoning Board of Appeals (LZBA), applications for Variance may be allowed only after it conducts public hearing(s) and provided further that proposals satisfy all of the following provisions:

- a. Conforming to the provisions of the Ordinance will cause undue hardship on the part of the owner of the property due to physical conditions of the property (topography, shape, etc.), which is not self-created.
- b. The proposed variance is the minimum deviation necessary to permit reasonable use of the property.
- c. The variance will not alter the physical character of the zone and adversely affect the use of the other properties in the same zone such as blocking-off natural light, causing loss of natural ventilation or encroaching in public easements and the like.
- d. That the variance will not weaken the general purpose of the Ordinance and will not adversely affect the public health, safety or welfare.

The variance will be in harmony with the spirit of this Ordinance.

- Exception

An application for Locational Clearance will be considered an Exception if it does not comply with the allowed use provisions of the Ordinance. For example, an industrial use is being applied for in an R-2 Zone. Again subject to the evaluation of the Local Zoning Board of Appeals (LZBA), applications for Exceptions may be allowed only after it conducts public hearing(s) and provided further that proposals satisfy all of the following provisions:

- The exception will not adversely affect the public health, safety and welfare and is in keeping with the general pattern of development in the community.
- The proposed project shall support economic based activities/ provide livelihood, vital community services and facilities while at the same time posing no adverse effect on the zone/community.
- The exception will not adversely affect the appropriate use of adjoining properties in the same zone such as generating excessive vehicular traffic, causing overcrowding of people or generating excessive noise and the like.
- The exception will not alter the essential character and general purpose of the zone where the exception sought is located.



### **Guide Notes on Determining Innovative Techniques or Designs:**

#### **a. Climate change adaptation and mitigation/disaster risk reduction initiatives and incentives.**

This Article provides the opportunity to use the integrated ZO as an enabling environment for individual adoption by residents or businesses of innovative designs or technology for climate change adaptation and mitigation/disaster risk reduction, such as the use of solar panels, rainwater harvesting, green architecture/building systems, etc., that an LGU wants to promote as part of an overall strategy. Refer to Annex 8-6 for Green Urban Development Performance Guidelines that can be incentivized.

An LGU could provide either discounts in payment of local taxes and permit fees (i.e. locational clearances, business permits, real property taxes, etc.) over a period of time. Including these incentives and provisions for climate change adaptation and mitigation/disaster risk reduction in the ZO provides not only a legal basis for the incentives but more importantly provides a more concrete way of implementing initiatives at the community level.

#### **b. Consistency and compliance with approved CLUP and integrated ZO.**

A new section under the Article on Miscellaneous Provisions could reiterate the LGU's strong advice and intent that any new physical development or projects by both public and private groups will have to be consistent and compliant with existing CLUP and zoning regulations. And no variance or exemptions should be granted unless consistent with the development intentions of the CLUP and the integrated ZO. (Example: Silago ordinance on ban on black sand mining in foreshore lands or an LGU's declaration of 'infrastructure ban' in local protected areas.)

It could also include restrictive criteria that should be imposed during implementation. The re-classification of an existing land use function to a higher order land use function (e.g. agriculture land to residential or commercial zone) is strictly governed by existing laws (e.g. Local Government Code, Agriculture and Fisheries Modernization Act / Strategic Agriculture and Fisheries Development Zones and Comprehensive Agrarian Reform Program/Comprehensive Agrarian Reform Program Extension with Reforms

Law, JMC #54 Series of xx ). Such dramatic changes in the defined land use function should not be allowed in the duration of the approved coverage period of the CLUP. In the cases of land under Protection, conversion or changes in its original land use function is not permitted.

**c. Other zone management arrangements (i.e. issuance by national governments of tenorial agreements/arrangements and permits)**

This section will cite restrictions or compliance with existing zone management arrangements in public lands or protected land for the issuance of any local permits or nationally-imposed permits (i.e. Environmental Compliance Certificates, foreshore lease agreements, mining permits, Community-based Forest Management Agreements, Certificate of Ancestral Domain Claims/ Certificate of Ancestral Domain Titles, utilization permits or tenorial arrangements) without due consideration or consistency with the approved CLUP or ZO.

## 8.6. Identify/define provisions to administer and enforce ZO.

These provisions shall include among others, the following:

- Establishment of permitting systems for various land development regulations and economic activities;
- Designation and appointment of a Zoning Officer
- Creation of Local Zoning Board of Appeals composed of:

**Table 8- 3. Suggested Composition and Responsibilities of Local Zoning Board of Appeals (LZBA)**

Composition	Responsibilities
<ul style="list-style-type: none"> <li>• City or Municipal Mayor as Chairman</li> <li>• SP/SB Committee Chairperson on Land Use/Zoning (If said committee is non-existent, the SP/SB may elect a representative).</li> <li>• City or Municipal Legal Office</li> <li>• City or Municipal Assessor</li> <li>• City or Municipal Engineer</li> <li>• City or Municipal Planning and Development Coordinator (if other than the Zoning Officer)</li> <li>• City or Municipal Environment and Natural Resources Officer</li> <li>• Two (2) representatives of the private sector nominated by their respective organizations and confirmed by the city or municipal mayor.</li> <li>• Two (2) representatives from non-government organizations nominated by their respective organizations and confirmed by the city or municipal mayor.</li> </ul>	<ul style="list-style-type: none"> <li>• Act on applications of the following nature:               <ul style="list-style-type: none"> <li>- Variances</li> <li>- Exceptions</li> <li>- Non-Conforming Uses</li> <li>- Complaints and oppositions to application/s</li> </ul> </li> <li>• Act on appeals on Grant or Denial of Locational Clearance by the Zoning Officer.</li> </ul> <p>Decisions of the LZBA shall be appealable to the HLURB.</p>



**Note:** For purposes of policy coordination, the LZBA shall be attached to the Municipal or City Development Council.

Decisions of the LZBA shall be appealable to the HLURB.

- Creation of Local Zoning Review Committees (LZRC) composed of the following sector representatives:

Table 8-4. Suggested Composition and Responsibilities of Local Zoning Review Committee (LZRC)

Composition	Responsibilities
<ul style="list-style-type: none"> <li>• Sangguniang Panlungsod/Bayan Chairperson on Land Use (or related committee)</li> <li>• City/ Municipal Zoning Administrator/ Zoning Officer</li> <li>• City/ Municipal Planning and Development Coordinator</li> <li>• City/ Municipal Assessor</li> <li>• City/ Municipal Legal Officer</li> <li>• City/ Municipal Engineer</li> <li>• City/ Municipal Environment and Natural Resources Officer</li> <li>• City/ Municipal Agriculturist</li> <li>• Two (2) Private Sector Representatives (e.g. Local Chamber of Commerce, local Housing Industry, Homeowner's Association, etc.)</li> <li>• Two (2) NGO representatives (e.g. Women, Indigenous People, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Review the Zoning Ordinance for the following purposes::               <ul style="list-style-type: none"> <li>- Determine amendments or revisions necessary in the ZO because of changes that might have been introduced in the CLUP.</li> <li>- Determine changes to be introduced in the CLUP in the light of permits given, and exceptions and variances granted.</li> <li>- Identify provisions of the ordinance difficult to enforce or are unworkable.</li> </ul> </li> <li>• Recommend to the Sangguniang Panlungsod/ Bayan necessary legislative amendments and tot the local planning and development staff the needed changes in the plan as a result of the review conducted.</li> <li>• Provide information to the HLURB that would be useful in the exercise of its functions.</li> </ul>

- Other zone management arrangements (i.e. issuance by national governments of tenurial agreements/arrangements and permits).
- This section will cite restrictions or compliance with existing zone management arrangements in public lands or protected land for the issuance of any local permits or nationally-imposed permits (i.e. Environmental Compliance Certificates, foreshore lease agreements, mining permits, Community-Based Management Agreements, Certificate of Ancestral Domain Claims/Certificate of Ancestral Domain Titles, utilization permits or tenurial arrangements) with due consideration and consistency with the approved CLUP or integrated ZO.
- Other modes of enforcement may also include deputation of local volunteers and zoning enforcers at the barangay levels.

## 8.7. Formulate other key provisions of the Integrated Zoning Ordinance.

These provisions can include the ff:

- Procedures for handling complaints and opposition.
- Procedures for amending the Zoning Ordinance.
- Provisions on violation and penalty.
- Provision on supplementary effect of other laws and decrees.



### Guide Notes on Formulating Other Key Provisions of the Integrated Zoning Ordinance:

- a. Changes in the integrated ZO as a result of the review by the Local Zoning Review Committee shall be treated as an amendment, provided that any amendment to the ZO or provisions thereof shall be subject to public hearing and review evaluation of the LZRC and shall be carried out through a three-fourths vote of the Sangguniang Panlungsod/Bayan. Said amendments shall take effect only after ratification and authentication by HLURB or Sangguniang Panlalawigan.
- b. Mobilization and roles for local barangays, community members and organizations.

This section could also cover creation of local enforcement and implementation bodies specifically mandated to enforce local ZOs. This could be achieved through deputation or appointment of local volunteers/organizations enforcement powers. Such mandates could be stipulated in the ZO as part of its Administration and Enforcement provisions.

However, the limits and powers of such deputized and appointed local people/residents are limited by area assignment, specific ZO provisions to be enforced/mandated, and arresting/enforcement authority. This is normally limited by the appointment given by the Local Chief Executive as stipulated in the ZO.

Other elements include open, transparent, and active participation of local communities/residents in the permitting and refinements of ZO provisions such as issuance of locational clearances, deviations, amendments, petitions for appeals and re-appraisal, monitoring of zoning limits and conditions in local areas, among others.

- c. Creative and innovative penalties, incentives, awards and enforcement activities.

This section could also include incentives for ZO enforcement such as fee sharing, reductions/discounts/exemptions in other LGU permit fees, and respites to LGU permits/sanctions.

- d. Add provision on Suppletory Effect of Other Laws and Decrees.

The Suppletory Effect section will clarify national-local relationship, specifically providing answer to the common problem that usually arises from decisions made by national agencies which are in conflict with the CLUP and which could frustrate its implementation.

An LGU could include and indicate specific laws and local ordinances that are relevant and related to the implementation and enforcement of the zoning provisions in the ZO. These can include relevant national laws cited in Section 2.–Authority or in a (new) Section that may be entitled Enabling Policies and Ordinances of the Zoning Ordinance.

More importantly, the LGU can also cite specific administrative sanctions, penalties and fees that will be imposed for any violations of these "other laws and decrees" as part of its administrative powers of enforcement.

- e. Ensure consistency and/or amendment of other local ordinances such as the local revenue code, real property tax assessments/payments, or business license permitting.

Possible administrative sanctions (e.g. cancellation or non-renewal of business permits, non-issuance of locational clearances, occupancy permits, fines in real estate taxes, etc.) due to non-compliance with the ZO and its implications on local ordinances such as the local revenue code or business permits and licensing ordinances/guidelines can be stipulated and identified to ensure consistency of the ZO and the affected laws/specific local ordinances. If these are not consistent, ensure that the local ordinance is amended.

## 8.8. List and define the terms used in the ZO.

Some of the terms used in the ZO are technical and carry specific meanings which should not be subject to varying interpretation by the reader/s. Also, there are definitions of terms which may be applicable only to the local government concerned. Hence, the need for a section on definition of terms. Only those terms, which are actually employed or used in the Ordinance, should be included.

The definition of protection and production land use categories, including sub-categories of production zones (i.e. agro-forestry, industrial tree plantations, Community-Based Forest Management areas, etc. and buffer areas) in the public land areas should be stated in this section.

This section can include other definitions of key terminologies, management zones, areas and uses in the public land area that are reflected in existing sectoral plans on forest land use, protected area management, foreshore, coastal resource management, etc. and in the approved CLUP.

The City/Municipality have the option to place this Article at the end of the Ordinance as an appendix or to have it as the third article, just like the Model integrated Zoning

Ordinance. The advantage of placing it as an appendix is that it follows a more logical sequence because, usually, readers refer to this section only when they meet the terms in the course of reading the Ordinance.

## 8.9. Present the draft integrated Zoning Ordinance and accompanying zoning maps to the LDC and SB/P for validation prior to the conduct of public hearing.



### Pointers for presentation:

1. Clearly state objective and link to CLUP
2. Use of visuals and maps, pictures and tables
3. State main differences of previous and proposed ZO;
4. Open up for discussion and suggestions

## Annex 8-1. Determining Zones and Development Regulations for Forestlands

1. Forestlands are broadly categorized into protection and production zones
2. Steps in determining the appropriate forest zones:
  - a. Establish the protection criteria (This should include forestlands with slopes > 50%, more than 1,000 meters, in elevation, virgin or close canopy forests, mangrove forests, areas within 40 meters on both sides of rivers, proclaimed protected areas, hazard areas)
  - b. Using applicable thematic maps for the identified criteria overlay these maps with the land classification map and delineate all areas within forestlands satisfying the protection criteria. This comprises the protection zone.
  - c. The remaining areas within forestlands outside the protection zone comprise the production zone.
  - d. In the case of protected areas (terrestrial ecosystems), the application of biodiversity conservation parameters/datasets are required to establish the required spatial needs of an identified specie (e.g. flora or fauna) or area needed to sustain and maintain its feeding, breeding and grazing cover. In this context, the application of the protection criteria for forestlands will have to be overlaid with the findings of a biodiversity assessment conducted in the area. In some extent, the protection area for biodiversity may extend beyond the identified physical limits of protection forests. Please note that biodiversity conservation requirements can cover also lowland ecosystems or built-up areas and coastal ecosystems.

The Revised Implementing Rules and Regulations of NIPAS (DENR AO No. 2008-26) divides the protected areas into strict protection zones and multiple use zones. The strict protection land use area for protected areas is similar to the protection criteria for forestlands, which is basically no human disturbance, except for allowed scientific studies/researches, biological monitoring and IP accepted practices. The latter category allows some regulated use, consistent with an approved management plan, such as agro forestry, settlement, agriculture, tourism, and other income generating and livelihood activities.

- e. The designation of multiple use zones in protected areas creates confusion in management since the allowed activities essentially involve production use. It is suggested therefore that multiple use zones shall be under the production zone. Refer to Table 8-1. Zone Classification

### 3. Development regulations

The following development regulation is proposed:

Proposed zones	Sub-zone	Allowable Uses
Protection zone		This is essentially for biodiversity conservation and no human activity is allowed in this zone except for scientific studies, burial sites and religious ceremonies of ICCs/IPs.
Production zone	Multiple use	The following regulated activities may be allowed provided these will not destroy the soil, water and biodiversity resources: <ol style="list-style-type: none"> <li>1. Existing settlement</li> <li>2. Traditional and/or sustainable land use including agriculture, agroforestry and other income-generating or livelihood activities</li> <li>3. Recreation, tourism, educational or environmental awareness activities</li> <li>4. Installation of projects of national significance, such as development of renewable energy sources, telecommunication facilities and electric power lines</li> <li>5. Animal hunting and gathering of non-timber forest products</li> </ol>
	Full production	<ol style="list-style-type: none"> <li>1. Tree plantation development</li> <li>2. Fruit orchard</li> <li>3. Pasture</li> <li>4. Agro forestry development</li> <li>5. Agriculture with soil and water conservation measures</li> <li>6. Existing settlements,</li> <li>7. Production of non-timber resources, e.g. rattan</li> <li>8. Tourism/recreation; and</li> <li>9. Special forestland uses, such as industrial processing site, herbal plantation, bodega site, school site, nipa plantation, communication site, right of way of communications and power transmission lines not exceeding 20 meters in width; road right of way not exceeding designed road width including embankments, power station site not to exceed 5 hectares impounding dams subject to the joint recommendation of the Regional Technical Director for Forestry and the Heads of agencies concerned; and other lawful purposes</li> </ol>

## Annex 8-2. Determining Zones and Development Regulations for Coastal Areas

The zones and development regulations for coastal areas are largely determined based on the provisions of the Philippine Fisheries Code of 1998 (RA 8550), the Water Code of the Philippines (RA 9275), the Philippine Clean Water Act of 2004 (RA 9275) and related issuances.

The Fisheries Code provides among others, that LGUs, in consultation with their Fisheries and Aquatic Resources Management Council/s (FARMCs), may recommend to the Department of Agriculture – Bureau of Fisheries and Aquatic Resources (DA-BFAR) portions of municipal waters to be declared as fishery reserves for special or limited use, for educational, research, and/or special management purposes. The LGUs, also in consultation with the FARMCs, shall establish fishery refuge and sanctuaries of at least fifteen percent (15%), where applicable, of the total coastal areas.

The process of delineation and delimitation of municipal waters lay down the basis for coastal zoning. The next step is to demarcate the coastal boundaries and layers of the coastal areas such as climate change adaptation and disaster risk reduction areas, foreshore boundaries, easement/buffer or salvage areas, river network and riparian areas, accreted lands, existing infrastructures, etc. A Participatory Coastal Resource Assessment (PCRA) shall likewise be conducted to establish the status of coastal and marine resources. The information from the PCRA activities can provide the basis in delineating areas that are essential for protection, not only of lives and properties, but more so of ensuring sustainable resource management to protect biodiversity and food security. The details of conducting coastal delineations and assessments are discussed in volume 2 of the CLUP Guidebooks 2013.

The proposed zones and allowable uses under coastal zones are as follows:

Proposed zones	Sub-zone	Allowable Uses
Protection zone	Fishery Refuge and Sanctuary	Regeneration of marine life; cultivation of mangroves
	Foreshore Land	Legal easement
	Mangrove	Mangrove plantation
	Fishery Reserve	Regeneration of marine life; regulated educational and research activities
	Delta/Estuary	Regulated fishing; shell gathering
	Lake	Regulated fishing; aquaculture
Production zone	Aquaculture	Raising and culturing fish and other fishery species
	Commercial Fishing	Small, medium and large scale commercial fishing, as defined in the Fisheries Code
	Municipal Fishing	Fishing not requiring the use of fishing vessels; Fishing using fishing vessels of three (3) gross tons or less
	Sealane	Navigation of water vessels

The definition of zones and allowed uses are elaborated in volume 3. Volume 3 also shows the development restriction and regulations that could be used as guide in policy-making. The development regulations should be guided by the principles of ecological carrying capacity, risk reduction and management and sustainable development (link between development and social, economic and ecological impact of the area). The coastal development and sectoral plans should be harmonized with the CLUP.

## Annex 8-3. Determining Zones and Development Regulations for Climate Change Adaptation and Disaster Risk Reduction



### The following are the contents of this section:

- Basic Principles in the Formulation of Regulations
- Guides on Setting Land Use Zones and Development Regulations
  - a. No-Build Zones and Expanded Easements
  - b. Areas for Priority Action or Urban Renewal/Redevelopment Areas
  - c. Hazard Overlay Zones
  - d. Special Management Districts

### I. Basic Principles in the Formulation of Regulations

The Zoning Ordinance should effectively promote safety and resilience by ensuring that regulations to reduce or prevent increasing risk are formulated based on the following principles:

- In areas highly susceptible to hazards,
  - ♦ Prevent development and maintain as open space where possible. This can be done through:
    - ❖ Limiting use to conservation, recreation (parks), or agriculture
    - ❖ Prohibiting reclassification to residential, commercial, or industrial use.
  - ♦ Where development has already occurred, protect life and existing development from losses. This can be done through:
    - ❖ Protective infrastructure (where feasible)
    - ❖ Setting up early warning and evacuation systems
    - ❖ Redevelopment and retrofitting
- In areas moderately susceptible to hazards,

- ♦ Keep land use intensity, buildings value, and occupancy to a minimum. This can be done through:
  - ❖ Density restrictions
  - ❖ Minimum lot cuts
  - ❖ Clustering of development where risks are lowest
- ♦ Where the above strategy is not feasible, risk mitigation can be done through application of the following:
  - ❖ Urban design standards
  - ❖ Site planning standards

In general, development should not create conditions that contribute to risk, such as disturbing protective environmental systems (such as mangroves, wetlands, and corals).

## II. Guides on Setting Land Use Zones and Development Regulations

### A. No-Build Zones and Expanded Easements

#### 1. Determining No-Build Zones

**Areas highly susceptible to hazards where risk is unmanageable or unacceptable** can be designated as Parks and Recreation, but to emphasize the danger and the restrictions on use, the term No-Build Zone can be used for areas where building is not allowed.

It is applicable for areas which are relatively undeveloped or severely damaged from past disasters. For already developed or built up areas, the declaration of Areas for Priority Action (See Section D) may be explored. The following are the proposed criteria for declaring No-Build Zones:

- Easements (as required by law or expanded by the LGU—see item 2—Determining Expanded Easements)
- Designated Floodway or High Susceptibility to Flood (where risk is unmanageable due to high water level, velocity and potential debris, which can damage structures severely and make evacuation impossible)
- Projected permanent inundation area for sea level rise and coastal erosion
- High Susceptibility to Storm Surge
- High Susceptibility to Landslides
- High Susceptibility to Lahar
- Permanent Danger Zone around volcanoes (as defined by PHIVOLCS)
- Earthquake Fault easement. This is a set distance from a fault as defined by PHIVOLCS or the LGU. This can be the minimum 5m distance or increased according to the following criteria:
  - ♦ Uncertainty in exact fault location
  - ♦ Development plans (e.g. planned access roads or parks along the easement)
- Areas with severe damage from previous disasters (e.g. houses completely covered or washed out by flood, landslide, or debris slides) where protection or disaster mitigation measures are not deemed feasible within the plan period of the CLUP/ZO.



#### Regulations for No-Build Zones

No-Build Zones shall be treated as Protected Land where buildings for human habitation or use as well as critical facilities are not allowed. Under no circumstances shall the following uses be allowed:

- Hazardous uses such as solid waste disposal facilities, petroleum depots, sewage treatment plants, and the like
- Civil emergency structures such as evacuation centers, hospitals, fire stations, police stations and the like

But under certain conditions the following uses may be allowed:

- Nature reserve
- Agriculture/ fisheries
- Parks and outdoor recreation spaces
- Access roads and pathways
- Memorial/ shrine monuments
- Docks, piers, wharves, and similar structures
- Non-structural industrial and commercial uses such as loading areas and open parking areas
- Extraction of sand and gravel

Existing developments and structures on identified No-Build Zones, would have to be removed or relocated. This could either be through expropriation (i.e. government buys the land) or relocation.

## 2. Determining Expanded Easements

An easement is defined as the distance from the highest tide line (for coastal areas) or edge of the normal high water line/ banks (for rivers and streams), within which development is not allowed. There are minimum easements prescribed by the Water Code (3m for urban, 20m for agricultural and 40m for forest areas) but the local government can declare an expanded easement should risk considerations make it necessary to protect life and property, based on its mandate to regulate development within its territory.

The expanded easement can be a uniform distance (e.g. 10m), or a designated control line (the distance of which may vary from the water line). The area within the easement shall be designated as open space, park, recreational area, or no-build zone.

The following are the recommended basis for defining expanded easements, based on level of risk, ecological buffers and other development considerations:

### a) Easement criteria for rivers based on risk level:

- River Area or Floodway—defined as the area of High Susceptibility to Flood within which flood risk is unmanageable, due to high water level and velocity (including potential debris), which can damage structures severely and make evacuation impossible. The Floodway is contained within the Floodplain, a larger area with low to moderate flood susceptibility (See Figure 8-1).

For highly urbanized areas, the Master Plan for Flood Management in Metro Manila and Surrounding Areas provides an alternate definition. It defines the Floodway as areas near the rivers with Levels 3 (high flood risk on danger of casualty) and 4 (very high flood risk on danger of casualty), and defines it as: "the channel of river or stream and those portions adjoining the floodplain needed to carry the regional flood. Floodwaters are generally deepest and swiftest in the floodway, and anything in this area is in the greatest danger during a flood. Also, encroachment by development will potentially increase flood elevations significantly and worsen flood conditions."

The delineation of the Floodway should be based on flood hazard/ flood modeling and risk assessment studies. The expanded easement can cover the Floodway plus the required Water Code easement (e.g. for urban areas, if the Floodway is 10m from the normal high water line, the total easement will be 10m + 3m = 13m). See Figure 8-1 and 8-2 below.

Figure 8-1. Recommended Expanded River Easement

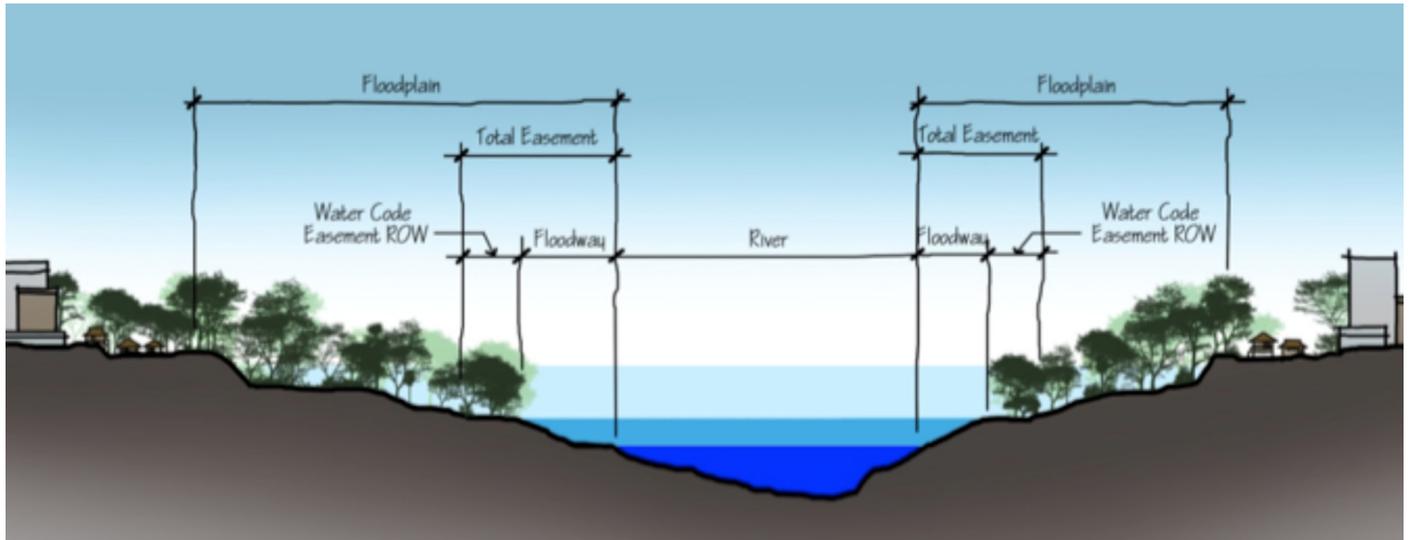


Figure 8-2. Aerial photos of Mandulog River in Iligan City after Typhoon Sendong.

The photo shows the area which can be declared a floodway (brown area) based on flooding impact. The floodway shows extensive damage due to water velocity and debris—with houses completely washed away and vegetation flattened. Areas beyond the floodway were also flooded but not as extensively damaged.



- Changes in water courses. River beds are dynamic and prone to erosion, sedimentation, and meandering. Where the floodway is an inadequate allowance for these natural processes, additional site-specific studies and easement width may be required.



### CASE EXAMPLE: Expanding the River Easement in Marikina

The City of Marikina's Zoning Ordinance sets a 96m easement from the center line of the Marikina River and a 10m easement for Nangka River. Both of these exceed the required Water Code easement of 3m. The following are the provisions:

“SECTION 53. Maintaining a linear park along Marikina River. A minimum setback of ninety six (96) meters from the center line of the river shall be maintained as easement in accordance with ordinance no. 10 series of 1994 and the study of DPWH as contained in their letter dated 01 December 1993. Fencing along the river shall conform to Ordinance No. 192, series of 1994 as amended.

SECTION 54. Maintaining an easement of Right-Of-Way along Nangka River. In consonance with the provisions of PD No. 1096 (National Building Code of the Philippines) a minimum setback of ten (10) meters shall be maintained as easement/access for the clearing/dredging of natural waterways. Fencing along the river shall conform to Ord. No. 192, series of 1994.

Should there be change in the existing shoreline or banks of the rivers, the setback shall be construed as moving with the actual river banks or shoreline.”

Special Provisions, Marikina Zoning Ordinance

After the flood-mitigation work in the river and removal of structures, the Marikina river banks were designated as recreational land. The land use was converted into parks, sports facilities, historical and cultural structures (such as the Chinese Pagoda and Roman Garden).

**b) Easement criteria for lakes and coastal areas based on risk level:**

- Storm surge and projected permanent inundation areas.

This includes the area projected for future permanent inundation (for combined sea level rise and coastal erosion) and high risk to storm surge (See Figure 8-3). Historical trends and projections in sea level rise and coastal erosion in the area must be studied to determine the adequate easement. As sea level rise is continuous, the development strategy—whether it is to protect the coast or allow a managed retreat – will affect the easement. If the coastline is protected adequately, the easement remains the same. In the case of managed retreat, the concept of a rolling easement can be introduced, where the easement moves with the high water mark and developments on inundated land are eventually phased out (See Figure 8-4).

Figure 8-3. Recommended Expanded Easement for Coastal Areas

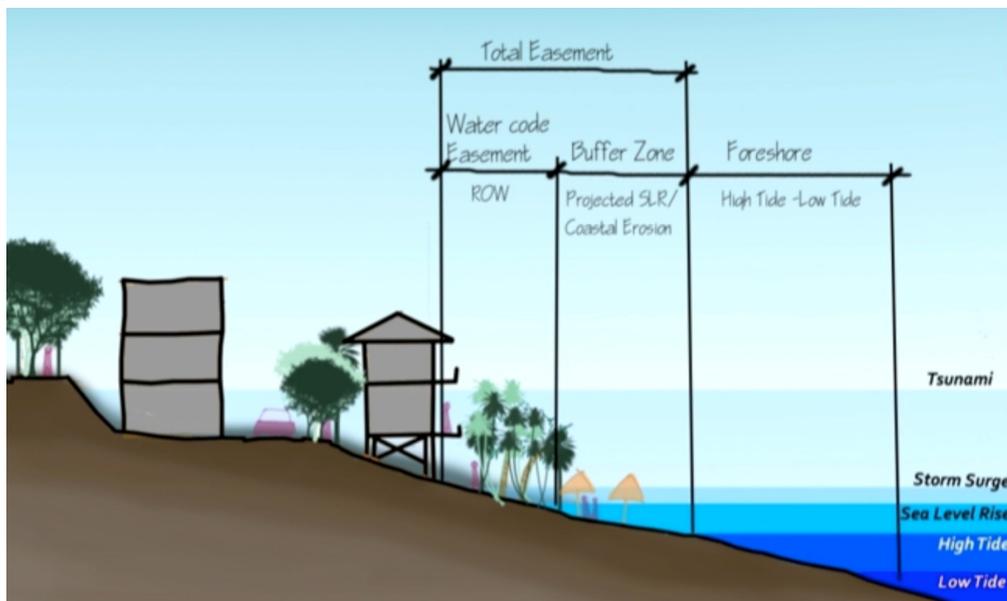
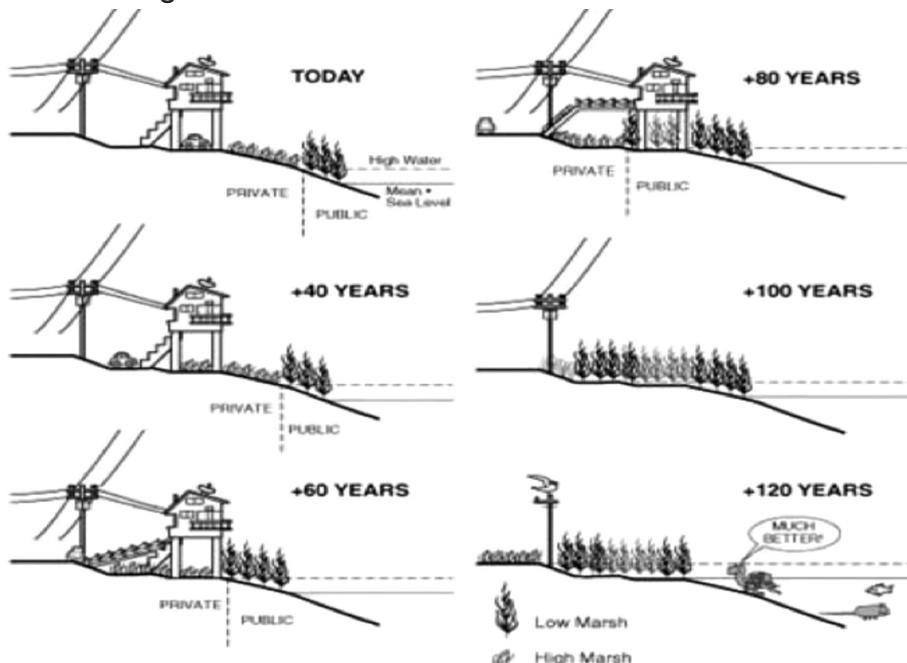


Figure 8-4. Rolling Easement



**c) Easement criteria for both coastal and river areas based on ecological buffers and other development considerations:**

- Ecological buffer area

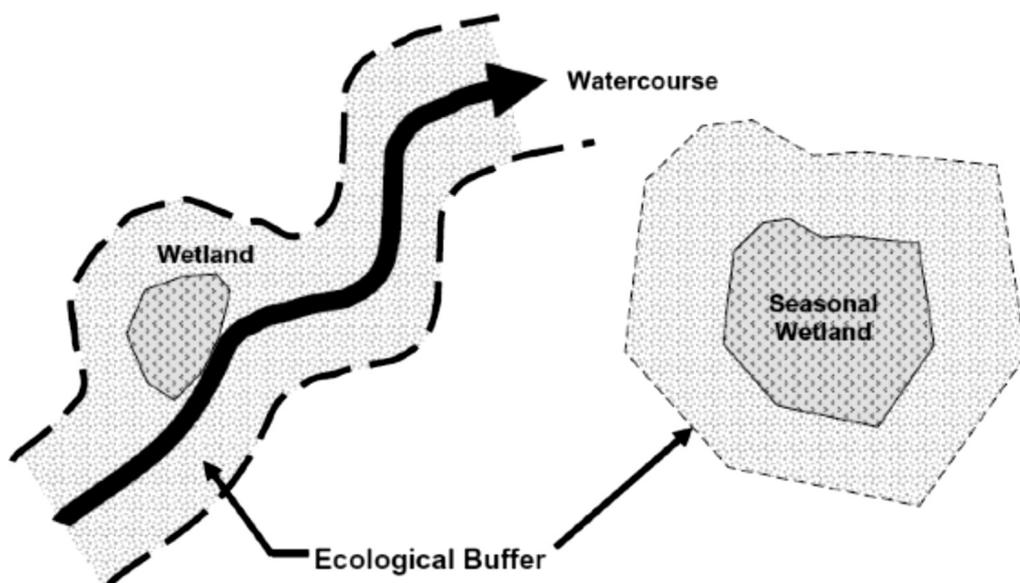
Aside from flood risk, an ecological buffer is also one reason for expanding an easement (See Figure 8-5). Ecologically significant water courses must be protected or “buffered” from the impacts of adjacent development or activity. These buffers can provide the following benefits:

- ♦ Continuous corridors and habitat for flora and fauna, thereby improving biodiversity
- ♦ Water quality improvement
- ♦ Stream bank and erosion protection
- ♦ Socio-economic benefits such as public open space and recreation areas, which can improve views and property values.

Even when watercourses have been canalized, buffers are still required to aid maintenance, and in some cases, allow adequate space for possible restoration.

Site/case specific adjustment of the recommended minimum easement width may be done to allow for the presence of sensitive habitats, fauna or flora which require wider buffers for adequate protection, and the intensity of adjacent land use and nature of anticipated impacts.

Figure 8-5. Ecological Buffers



- Development considerations

Water bodies are resources which have the potential to stimulate local economies. The establishment of easements must recognize this potential. Thus the city can also expand easements in consideration of the layout/ configuration and nature of adjacent development, and/ or the following associated activities:

- ♦ Areas for functional and non-functional open space
- ♦ Areas for walkways, bikeways, picnic facilities
- ♦ Areas for roads/ public access



**What to do with private properties falling within the expanded easement?**

The following are some options:

- Treat existing private development/ buildings within the easement as non-conforming uses under the conditions in the approved Zoning Ordinance.
- Restrict use for the portion of the property falling within the easement (e.g. open space/ agricultural use only)
- Land swap or buy out. The primary advantage of this option is that it ensures that the land will be controlled by the government. This is feasible when development pressure has not yet driven up land prices. The primary disadvantage is cost. But if land acquired is sizeable, it may be possible to recoup cost through reconfiguring the lots (land readjustment) and leasing the portion of the land located outside the easement.
- Acquisition of development rights. Easements can be purchased by government, or donated by a landowner, as a less-than-fee-simple status. This transaction incurs a land control status whereby a parcel will be used for conservation purposes and the owner agrees not to put the property to any incompatible use. Future owners are also subject to the terms of such an easement.

## **B. Areas for Priority Action (APA) or Urban Renewal/Redevelopment Areas (URA)**

These can be used for areas highly susceptible to hazards that are fully built out that need urgent intervention whether relocation, upgrading, or redevelopment with mitigation actions. These are typically areas with vulnerable populations such as informal settlements or older areas of the city which have deteriorated over time. It is important to identify these areas within the CLUP so that they are subsequently planned in more detail (i.e. a Master Plan, Redevelopment Plan, Area Improvement Plan, Upgrading Plan, or Resettlement Action Plan prepared). Programs and projects which arise from these detailed plans can subsequently be integrated into the regular programming cycle and plans such as the CDP.



### **CASE EXAMPLE: Pasig River Urban Renewal Areas (URAs)**

Today, the Pasig's riverbank easements, 3- to 10-meters wide, have been declared environmental protection areas (EPAs) and have been transformed into public parks and esplanades, thanks to the Pasig River Rehabilitation Commission (PRRC), which coordinates all rehabilitation efforts. Some 24.63 kilometers of linear parks have been completed.

The establishment of EPAs meant relocating thousands of squatter households to adequate resettlement areas and providing them with affordable housing, livelihood opportunities, and other development support. Thus far, some 10,000 families (about 55,000 people) living in deprived conditions within EPAs have been relocated in resettlement sites at in-city and near-to-town locations that meet ADB standards for involuntary resettlement.

Land and communities beyond the 3- to 10-meter EPAs were also declared Urban Renewal Areas (URAs) and were provided basic municipal services, such as improved water supply and sanitation, essential infrastructure, and security of tenure. A total of 4.91 hectares have been completed, benefitting a further 80,000 families (about 440,000 people).

Source: <http://www.adb.org/features/country-water-action-resuscitating-pasig-river>

## **C. Hazard Overlay Zones**

In areas where risk is manageable, development can be allowed but with limitations on land use, intensity of development, site development and building design. Hazard overlay zones can be used on top of the traditional base zones (residential, commercial, etc.). A set of restrictions can be attached per overlay zone. For areas with multiple hazards, there can be one "Multiple Hazard Overlay Zone" where all the restrictions are attached. The following table shows the recommended criteria for declaring overlay zones and the potential restrictions to be attached. Some restrictions can be applied generally and may not necessarily be attached to an overlay zone, e.g. building design requirements for wind loads and earthquakes.

Table 8-5. Sample Criteria and Restrictions for Hazard Overlay Zone

Hazard Overlay Zone	Criteria	Potential Restrictions
Flood Overlay Zone	<ul style="list-style-type: none"> <li>• Moderate Susceptibility to Floods</li> <li>• Floodplain Area (outside the Floodway) where risk is manageable and evacuation (whether vertical or horizontal) is possible during flood</li> </ul>	<p>Allowable Land Uses:</p> <ol style="list-style-type: none"> <li>1. Agriculture</li> <li>2. Recreational</li> <li>3. Residential*</li> <li>4. Commercial*</li> <li>5. Industrial*</li> </ol> <p>*With appropriate density, building design, and environmental restrictions below:</p> <p>Building Design Standards</p> <ol style="list-style-type: none"> <li>1. Required elevation requirements for the lowest floor line of new constructed and improved buildings</li> <li>2. Requirements for construction of structures on stilts where applicable</li> <li>3. Limitations on uses of enclosed spaces below flood elevation (for parking, access, or limited storage only)</li> <li>4. Wet and dry flood proofing measures such as backflow valves, waterproofing for doors and windows, elevated electric circuits, etc.</li> <li>5. Measures to compensate storm water retention capacity of the building site due to infilling; and</li> <li>6. Measures to retrofit existing buildings on Floodplain Zones.</li> </ol> <p>Environmental Conservation and Protection Standards</p> <p>Developments shall:</p> <ol style="list-style-type: none"> <li>1. Preserve riparian strips/ ecological buffers along water channels</li> <li>2. Not alter natural drainage patterns</li> <li>3. Not alter or fill or build on the floodplain without proper drainage design and without proper consideration of possible inundation effects of nearby properties</li> <li>4. Avoid/ minimize culverting or canalization of watercourses unless necessary for access</li> <li>5. Use permeable pavement materials and sustainable urban drainage systems such as filtration trenches, retention ponds, swales, rainwater storage, green roofs and other related technologies that can improve storm water quality, decrease runoff, manage peak flows, and make productive use of stormwater.</li> <li>6. Protect water bodies from sedimentation and erosion.</li> <li>7. Design internal drainage so as not to increase turbidigy, sediment yield, or discharge harmful substances.</li> <li>8. Retain at least 10% of the property for open space.</li> </ol> <p>The following may also be required for the locational clearance of allowable residential, commercial, industrial uses: Drainage Impact Assessment Statement, Environmental Compliance Certificate, and evaluation of existing infrastructure capacity for drainage</p>

<p>Landslide Susceptibility Overlay Zone</p>	<ul style="list-style-type: none"> <li>• Low-Moderate Susceptibility to Landslide or</li> <li>• Area where landslide risk is manageable through low-intensity development or site development</li> </ul>	<p>Allowable land uses</p> <ol style="list-style-type: none"> <li>1. Low-density residential (R-1)</li> <li>2. Neighborhood commercial (C-1)</li> </ol> <p>Site Development Requirements:</p> <ol style="list-style-type: none"> <li>1. Locate buildings away from steep slopes, streams and rivers, or the mouths of mountain channels</li> <li>2. Maintain low density (as designated for R-1 use)</li> <li>3. Employ slope stabilization measures such as control of surface and ground water drainage, earth buttresses, restraining walls, terracing, etc.</li> </ol>
<p>Liquefaction Susceptibility Overlay Zone</p>	<ul style="list-style-type: none"> <li>• Areas Susceptible to Liquefaction</li> </ul>	<p>Allowable land uses</p> <ol style="list-style-type: none"> <li>1. Agricultural</li> <li>2. Recreational</li> <li>3. Low Density Residential (R-1)</li> <li>4. Low Density Commercial (C-1)</li> <li>5. Industrial</li> </ol> <p>Building Design Requirements:</p> <ol style="list-style-type: none"> <li>1. Conduct geotesting to verify soil suitability</li> <li>2. Employ soil mitigation such as engineered fill if found necessary</li> <li>3. Employ structural mitigation such as mat foundation or piles if found necessary</li> </ol>
<p>Storm Surge Overlay Zone</p>	<ul style="list-style-type: none"> <li>• Moderate Susceptibility to Storm Surge or</li> <li>• Area where storm surge risk is manageable through site development or building design</li> </ul>	<p>Allowable land uses</p> <ol style="list-style-type: none"> <li>1. Forest (mangroves)</li> <li>2. Agricultural</li> <li>3. Recreational</li> <li>4. Residential*</li> <li>5. Commercial*</li> <li>6. Industrial*</li> </ol> <p>*With restrictions on building design and environmental performance as below:</p>
		<p>Building Design Requirements:</p> <ul style="list-style-type: none"> <li>▪ Required elevation requirements for the lowest floor line of new constructed and improved buildings</li> <li>▪ Requirements for construction of structures on stilts as applicable</li> <li>▪ Limitations on uses of enclosed spaces below flood elevation (for parking, access, or limited storage only)</li> <li>▪ Wet and dry flood proofing measures such as backflow valves, waterproofing for doors and windows, elevated electric circuits, etc.</li> </ul> <p>Environmental Conservation and Protection Standards</p> <p>Developments shall:</p> <ol style="list-style-type: none"> <li>1. Build only in the allowable areas beyond the required coastal easement</li> <li>2. Preserve and maintain mangroves and natural vegetation along the coast</li> </ol>

Tsunami Inundation Overlay Zone	<ul style="list-style-type: none"> <li>• Tsunami Inundation Area</li> </ul>	<p>Allowable Land Uses:</p> <ol style="list-style-type: none"> <li>1. Agriculture</li> <li>2. Recreational</li> <li>3. Residential</li> <li>4. Commercial</li> <li>5. Industrial</li> </ol> <p>The following critical facilities should not be built on the Tsunami Inundation Area:</p> <ol style="list-style-type: none"> <li>1. Government centers (city/ municipal hall)</li> <li>2. Civil emergency structures such as evacuation centers and hospitals</li> </ol> <p>Or if unavoidable, the following should be ensured:</p> <ol style="list-style-type: none"> <li>1. The structure can withstand a tsunami</li> <li>2. Vertical evacuation is possible</li> </ol>
Ground Subsidence Overlay Zone	<ul style="list-style-type: none"> <li>• Areas Susceptible to Ground Subsidence</li> </ul>	<p>Allowable land uses</p> <ol style="list-style-type: none"> <li>1. Agricultural</li> <li>2. Recreational</li> <li>3. Low Density Residential (R-1)</li> <li>4. Low Density Commercial (C-1)</li> <li>5. Industrial</li> </ol> <p>With the following restrictions:</p> <p>Developments shall:</p> <ol style="list-style-type: none"> <li>1. Conduct geotesting to verify soil suitability</li> <li>2. Employ soil mitigation such as engineered fill if found necessary</li> <li>3. Employ structural mitigation such as mat foundation or piles if found necessary</li> <li>4. Follow government regulations on ground water use</li> </ol>



### CASE EXAMPLE: Flood Overlay District & Environmental Conservation and Protection Standards: Iloilo City

Iloilo City has designated a Flood Overlay District (FO-D) in their Zoning Ordinance with the following provisions:

#### “Allowable uses:

The following uses shall be permitted within the FO-D provided they are not prohibited by any other code or ordinance:

- a. Agricultural uses
- b. Forestry uses
- c. Industrial or commercial accessory uses such as loading areas, parking areas, rail sidings, and airport landing strips, if located within an underlying zoning in which the use is permitted.
- d. Residential accessory uses such as lawns, gardens, parking areas, and play areas, if located within an underlying Zoning District in which the residential use is permitted.

In addition to the requirements of the applicable zoning district, the Zoning Board may grant a conditional use permit for the construction of structures and accessory structures thereto of residential, community facility, commercial, manufacturing, and agricultural and extractive activities within the FO-D only under the following conditions:

- a. The approval must be based on a plan prepared by a registered engineer or architect.
- b. The minimum floor elevation of that portion of any structure intended for

human occupancy shall be either equal to or higher than three (3) feet above the flood protection elevation estimated as that level of the Jaro Floodway Channel's high water profile or the 50-year return flood defined by the DPWH.

- c. Those portions of such structures not intended for human occupancy shall be either equal to or higher than the flood protection elevation.
- d. All other related facilities thereto such as electrical equipment, water service, and sanitary sewer connections shall be either equal to or higher than the flood protection elevation or shall be flood proofed to the flood protection elevation.

The minimum floor elevation of any structure not intended for human occupancy, as defined, shall be either equal to or higher than the flood protection elevation.

- a. Flood proofing of these structures will only be authorized by the director of public works as specific individual exceptions to minimum floor elevation requirements where it can be shown that the proposed flood proofing is acceptable from an engineering standpoint.
- b. Structures shall be placed on the site to minimize obstruction to the flow of floodwaters."

Iloilo City has also imposed performance standards to minimize flooding in their Zoning Ordinance with the following provisions (excerpt):

"Section 50.Environmental Conservation and Protection Standards. – It is the intent of the City to protect its natural resources. In order to achieve this objective, all development shall comply with the following regulations:

1. Land use activities shall not cause the alteration of natural drainage patterns or change the velocities, volumes, physical, chemical, and biological characteristics of storm water and watercourses.
2. All developments shall limit the rate of storm water run-off so that the rate of run-off generated is no more than that of the site in its natural condition.
3. All developments shall undertake the protection of rivers and tributaries from sedimentation and erosion damage.
4. Floodplains shall not be altered, filled and/or built upon without proper drainage design and without proper consideration of possible inundation effects on nearby properties."

## D. Special Management Districts

Human activities and urban development can intensify the impact of hazard events on an area. For example developments within a watershed can increase the quantity of water going down into a floodplain. Developments along the coast can contribute to coastal erosion (.e.g. inappropriate location and design of ports may drastically increase the rate of coastal erosion in adjacent areas). There are also natural features that can offer hazard protection (e.g. mangroves and corals can reduce the impact of storm surges). It is important to identify these areas, particularly those which also need to be co-managed with other local government units. Certain development regulations may need to be set within these areas. A Special Management District can be created accompanied by the creation of a management body or council as well as the formulation of a management plan so that the area is developed or protected in an integrated manner.

Table 8-7. Sample Criteria and Potential Restrictions for Special Management Districts

District	Criteria	Potential Restrictions
Coastal Management District	1 km inland from coastline up to municipal water boundaries or as defined by the LGU according to the following criteria: <ul style="list-style-type: none"> <li>• Hazard susceptibility</li> <li>• Topography</li> <li>• Development plans</li> <li>• Existing land uses</li> </ul>	Performance standards (e.g. pollution, waste management, etc.) Other regulations as defined by management body
Watershed Management District	Watershed boundaries (within the LGU territory) *May be designated for significant watersheds (e.g. those with critical water resources, or those with major rivers traversing urban areas	Performance standards (e.g. pollution, waste management, etc.) Site development standards Other regulations as defined by management body

## Annex 8-4. Determining Zones and Development Regulations for Heritage Areas

### Declaring Heritage Zones (Heritage Law R.A. 10066 Implementing Rules and Regulations)

The IRR of RA 10066, states the following on the declaration of Heritage Zones:

#### Rule V – Heritage Zones/Districts

Section 15. Designation of Heritage Zones. The National Historical Commission of the Philippines, the National Museum, in consultation with the Housing and Land Use Regulatory Board or other concerned agencies shall designate heritage zones to protect the historical and cultural integrity of a geographical area.

Section 15.1 Declared Heritage Zones. These shall be subject to the environmental impact assessment laws, rules, and regulations of the DENR and shall henceforth be considered a culturally sensitive area for purposes of complying with the requisites of the said laws, rules, and regulations.

Section 15.2 Petition for declaration of Heritage Zones. Local government units may apply with the NHCP or National Museum for the designation of a heritage zone in its jurisdiction.

Section 16. Maintenance of Heritage Zones. A Heritage Zone shall be maintained by the local government unit concerned, in close coordination with the appropriate cultural agency. The local government unit having jurisdiction over a declared Heritage Zone shall have the following guidelines:

- (a) Implementation of adaptive reuse of cultural property;
- (b) Appearance of streets, parks, monuments, buildings, and natural bodies of water, canals, paths, and barangays within a locality shall be maintained as close to their appearance at the time the area was of most importance to Philippine history as determined by the National Historical Commission of the Philippines; and
- (c) Local government units shall document and sustain all socio-cultural practices such as but not limited to traditional celebrations, historical battles, recreation of customs, and the reenactment of battles and other local customs that are unique to a locality.

## How to apply land use and development regulations in heritage zones

The document, Guidelines, Policies and Standards for the Conservation and Development of Historic Centers/Heritage Zones by the National Historical Commission of the Philippines (NHCP) apply to sites that the NHCP or the National Museum (NM) has declared Historic Centers or Heritage Zones, by virtue of:

Sec. 4 of PD 260: "The National Museum and the National Historical Commission are hereby vested with the right to declare other such historical and cultural sites as National Shrines, Monuments and/or Landmarks, in accordance with the guidelines set forth in R.A. 4846 and the spirit of this Decree," Sec. 12, Art. IV of RA 10066: "The National Historical Institute and the National Museum in consultation with the Commission and, and the Housing and Land Use Regulatory Board or other concerned agencies, shall designate Heritage Zones to protect the historical and cultural integrity of a geographical area."

The guidelines shall constitute an integral part of the memorandum of agreement that accompanies the official declaration of the site, between the NHCP or NM and the local government unit (LGU) where the site is located. The guidelines not only set the standard but vest responsibility in the LGU for maintaining and conserving the Historic Center/Heritage Zone.

### Objectives

The guidelines aim to promote the preservation of significant historical, cultural and social sites and environment, consisting of tangible and intangible cultural and historical properties; and enhance and provide order, continuity and identity to the growth and progress of our historic towns for the benefit and enjoyment of succeeding generations of Filipinos.

LGUs shall thus be guided in the management and maintenance of Historic Centers or Heritage Zones found in their localities. The guidelines shall also serve as reference for the Department of the Interior and Local Government (DILG), the Housing and Land Use regulatory Board (HLURB), the Department of Public Works (DPWH), and other official regulatory agencies, national and local, whenever and wherever applicable.

LGUs may also use these guidelines as the basis for granting tax holidays and financial incentives to private builders and site developers who engage in and support the conservation and preservation of historic and cultural sites and structures.

(Guidelines, Policies and Standards for the Conservation and Development of Historic Centers/Heritage Zones, NHCP)

### Definition of Terms (Applicable to Heritage Conservation in Land Use Planning) (see also Glossary and Applicable Laws)

**Adaptive Reuse** – utilization of buildings, other built-structures, and sites of value for purposes other than that for which they were originally intended, in order to conserve the site, its engineering integrity and authenticity of design.

**Buffer Zone** – special protective zone (area, strip, belt) around an historic district, center, town or property. It must be part of the local land use and zoning regulation; such as, for example, road right of way.

\***Buffer Zone** – is a well-defined zone outside the protected area whose role is to shield the cultural values of the protected zone from the impact of activities in its surroundings. This impact can be physical, visual or social. (the Valetta Principles for the Safeguarding and management of Historic Cities, Towns and Urban Areas (ICOMOS 28 November 2011)

Conservation – all the processes and measures of maintaining the cultural significance of a cultural property, including but not limited to, preservation, restoration, reconstruction, protection, adaptation or any combination thereof. Conservation is part of development.

Conservation Plan – program for the preservation and protection of sites and structures, including allowable uses and practices. The conservation plan is an element of the master development plan of the town or city.

Environmental Protection – safeguarding the environment for the benefit of inhabitants.

Heritage at Risk – endangered sites of cultural and historical significance.

Heritage Zone – see historic center.

Historic Center – 1) historic zone, district, core, precinct, town, legacy zone, heritage area, zone, or town; 2) a designated area with historical and other special significance, consisting of buildings or group of buildings and their environs that collectively contribute to the area's importance and character; 3) a place where a significant event in history occurred; 4) any town, district, or ancient settlement site with specific historic and/or cultural significance. Historic centers are sometimes called living museums, outdoor museums, or museum preserves. Whether inhabited or uninhabited, historic centers are preservation areas.

Preservation – see Conservation.

Urban Renewal – regeneration, modernization, revitalization, of an old, deteriorated or blighted portion of a town or city, with the objective of preparing the town or city for present and future demands of urban living. Urban renewal is also implemented to address urban problems or upgrade existing conditions that are no longer compatible with modern times, provided old buildings are adaptively reused.

Urban Regeneration – urban renewal with emphasis on historic preservation.

Visual Corridor – a stretch of cohesive buildings, streetscape, open spaces, and natural landscape, consistent with the historicity and architecture of the historic town.

Vista Point – selected viewing station where beautiful townscape and striking panorama can be appreciated. Vista points enhance visual experience and interests. There can be several vista points, which can be located either within or outside the historic core. Vista points must be preserved, protected and developed.



#### Examples of Places with Heritage Zones

- Vigan, Ilocos Sur
- Taal, Batangas
- Silay, Negros Occidental

## Annex 8-5. Zoning Color Code

Base Zone	Sub-Zone	Color Code	RGB
<b>Forest Zone</b>		<b>FZ</b>	
(Protection)	Forest Reserve Sub-Zone	<b>FR-SZ</b>	0,100,0
	National Park Sub-Zone	<b>NP-SZ</b>	0,100,0
	Military Reservation Sub-Zone	<b>MR-SZ</b>	0,100,0
	Civil Reservation Sub-Zone	<b>CR-SZ</b>	0,100,0
	NIPAS: Strict Protection Sub-Zone	<b>NSP-SZ</b>	0,100,0
(Production)	NIPAS: Multiple Use Sub-Zone	<b>NMU-SZ</b>	0,100,0
	Forest Buffer Sub-Zone	<b>FB-SZ</b>	0,100,0
	Industrial Forest Plantation Sub-Zone	<b>IFP-SZ</b>	0,100,0
	Special Use Sub-Zone	<b>SU-SZ</b>	0,100,0
	Grazing Land Sub-Zone	<b>GZ-SZ</b>	0,100,0
<b>Agricultural Zone</b>		<b>AGZ</b>	
	Protection Agricultural Sub-Zone	<b>PTA-SZ</b>	0,150,0
	Production Agricultural Sub-Zone	<b>PDA-SZ</b>	0,150,0
<b>Municipal Waters Zone</b>		<b>WZ</b>	
(Protection)	Fishery Refuge and Sanctuary Sub-Zone	<b>FRS-SZ</b>	175,200,225
	Foreshore Land Sub-Zone	<b>FL-SZ</b>	175,200,225
	Mangrove Sub-Zone	<b>Mn-SZ</b>	175,200,225
	Fishery Reserve Sub-Zone	<b>FyR-SZ</b>	175,200,225
	Delta/ Estuary Sub-Zone	<b>D/E-SZ</b>	175,200,225
	Lake Sub-Zone	<b>La-SZ</b>	175,200,225
(Production)	Mariculture Zone and Park Sub-Zone	<b>MZP-SZ</b>	175,200,225
	Aquaculture Sub-Zone	<b>Aq-SZ</b>	175,200,225
	Commercial Fishing Sub-Zone	<b>CF-SZ</b>	175,200,225
	Municipal Fishing Sub-Zone	<b>MF-SZ</b>	175,200,225
	Sealane Sub-Zone	<b>SL-SZ</b>	175,200,225
<b>Mineral Land Zone</b>		<b>MLZ</b>	
	Mineral Reservation Sub-Zone	<b>MNR-SZ</b>	153,51,0
	Quarry Sub-Zone	<b>Q-SZ</b>	153,51,0
	Small-scale Mining Sub-Zone	<b>SsM-SZ</b>	153,51,0
<b>General Residential Zone</b>		<b>GR-Z</b>	255,255,0
<b>Residential – 1 (R-1) Zone</b>		<b>R1-Z</b>	255,255,0
<b>Residential – 2 (R-2) Zone</b>		<b>R2-Z</b>	255,255,0
	Basic R-2 Sub-Zone	<b>BR2-SZ</b>	255,255,0
	Maximum R-2 Sub-Zone	<b>MR2-SZ</b>	255,255,0
<b>Residential – 3 (R-3) Zone</b>		<b>R3-Z</b>	255,255,0
	Basic R-3 Sub-Zone	<b>BR3-SZ</b>	255,255,0
	Maximum R-3 Sub-Zone	<b>MR3-SZ</b>	255,255,0
<b>Residential – 4 (R-4) Zone</b>		<b>R4-Z</b>	255,255,0
<b>Residential – 5 (R-5) Zone</b>		<b>R5-Z</b>	255,255,0
<b>Socialized Housing Zone</b>		<b>SH-Z</b>	255,255,0

General Commercial Zone	GC-Z	255,0,0
Commercial – 1 (C-1) Zone	C1-Z	255,0,0
Commercial – 2 (C-2) Zone	C2-Z	255,0,0
Commercial – 3 (C-3) Zone	C3-Z	255,0,0
Agri-Industrial Zone	AgIndZ	200,150,255
Industrial – 1 (I-1) Zone	I1-Z	150,0,200
Industrial – 2 (I-2) Zone	I2-Z	150,0,200
Industrial – 3 (I-3) Zone	I3-Z	150,0,200
General Institutional Zone	GI-Z	0,0,255
Special Institutional Zone	SI-Z	0,0,255
Tourism Zone	T-Z	255,153,0
Parks and Recreation Zone	PR-Z	100,225,100
Cemetery /Memorial Park Zone	C/MP-Z	100,225,100
Buffer/ Greenbelt Zone	B/G-Z	50,225,50
Utilities, Transportation and Services Zone	UTS-Z	190,190,190



**Note:** Overlay Zones can be reflected as broken lines over the Base Zones. These broken lines may use different colors to reflect different types of Overlay Zones.

e.g.  Ancestral Domain

## Annex 8-6. Innovative Land Use and Urban Design Rules

Conventional zoning is essentially a legal framework that initiates development and directs the type, density, and location of land use. By itself, conventional zoning cannot prevent development where land is available and buildable. This is where innovative land use tools such as transfer development rights, and overlay zones with site specific urban design rules must supplement conventional zoning tools to preserve natural environmental features and the unique character of community, or control the kind of development in greater detail. The following innovative land use and urban design rules serve as a menu of possibilities for crafting ordinances that directly influence the physical form of development. Some clearly go beyond the minimum requirements of the national building code, demonstrating a deliberate attempt to shape the city or municipality. Other examples are outside the basic scope of building codes having to do more with aesthetics and environmental performance standards. These examples are not best practices. All rules must be used selectively and with care in order to support the desired development thrust.

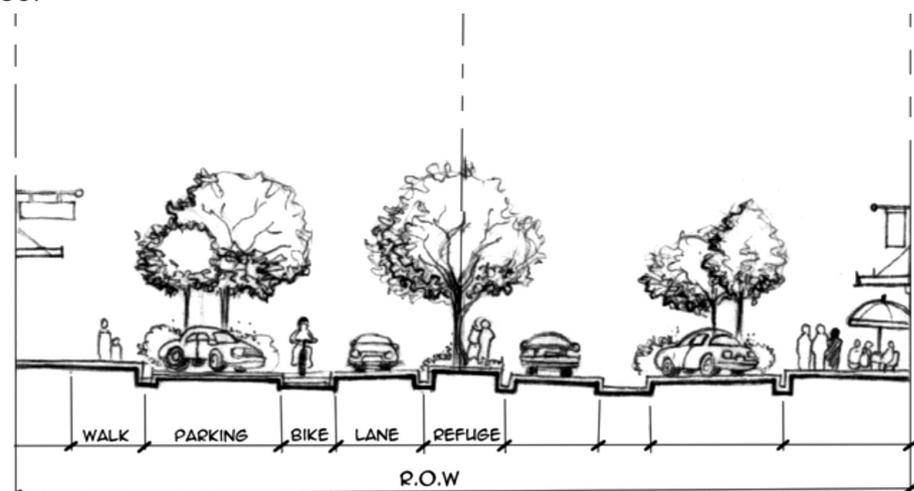
### 1. Pedestrian Oriented Development Overlay Zones

Pedestrian Oriented Development Overlay Zones are planning tools that provide better pedestrian access to commercial and residential areas and transit stops through compact development, mixed-use, traffic calming and pedestrian and transit-orientation. Safe, convenient opportunities for walking and biking to school or work are emphasized over car-dependent development. Pedestrian and transit-oriented development is more inclusive and helps reduce congestion and air pollution, loss of open space, road maintenance. New developments should provide pedestrian friendly alleys, walkways, landscaping, lighting and other features that encourage people to walk (New Hampshire Department of Environmental Services, October 2008).

In Zamboanga “portions of the Old CBD will be pedestrianized, landscaped and provided with people movers (tranvia-looking buses). Parking buildings in strategic locations will be constructed in the periphery in the pedestrianized area. Along Gov. Lim, pedestrian and vehicular segregation will be provided either through a vehicular skyway, skywalks or underpasses...” (City of Zamboanga, 2013).

In Minneapolis, Massachusetts, a Pedestrian Oriented Overlay District was established “to preserve and encourage the pedestrian character of commercial areas and to promote street life and activity by regulating building orientation and design and accessory parking facilities, and by prohibiting certain high impact and automobile-oriented uses.” (City of Minneapolis, 2013).

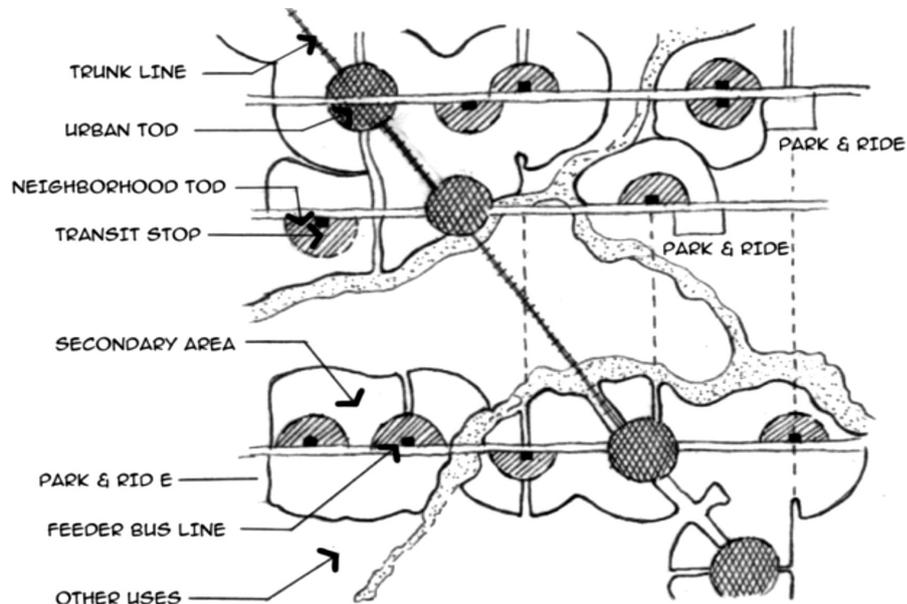
Pedestrian Oriented Development is an Overlay Zone that can be integrated under Article V Zone Regulations Section 13 Overlay Zones. See Volume 3, Model Zoning Ordinance.



## 2. Transit Oriented Development Overlay Zones

Transit Oriented Development Overlay Zones are planning tools that concentrate commercial and residential growth around transit centers to maximize access to public transit. They can be described as development less than a kilometer from a transit station that provides sufficient densities, mixes of activities, and convenient pedestrian links to support significant transit ridership. Focusing development in proximity to transit stations can create interesting and functional urban centers, and reduce urban sprawl.

Areas appropriate for Transit Oriented Development should be identified, along with the criteria for creating such a district, and the regulatory changes that would be required. These areas should allow mixed uses, increased densities, and create choice in transportation modes. Standards for setbacks and buffering, restrictions on building heights, and density may need to be adjusted to ensure transit-friendly design since most conventional zoning ordinances prohibit the proper mix of uses, building designs and densities suitable for generating transit ridership. In addition to local policies, regional transit provider networks are necessary to implement successful local Transit Oriented Development in more rural settings (New Hampshire Department of Environmental Services, October 2008).



The Quezon City Business District is “envisioned as a world-class, highly transit-oriented, mixed-use community, walkable, vibrant night and day, with easy access to amenities that make urban living comfortable, convenient and ecologically compliant” (The Local Government of Quezon City, 2013).

“The City Code of Eugene, Oregon provides for a Transit Development Overlay Zone (TD) in the hopes of encouraging mixed land uses in areas that have a high potential for enhanced transit and pedestrian activity” (City of Eugene, 2013).

Transit Oriented Development is an Overlay Zone under Article V Zone Regulations Section 13.8 Overlay Zones. See Volume 3, Model Zoning Ordinance.

## 3. Urban Growth Boundaries

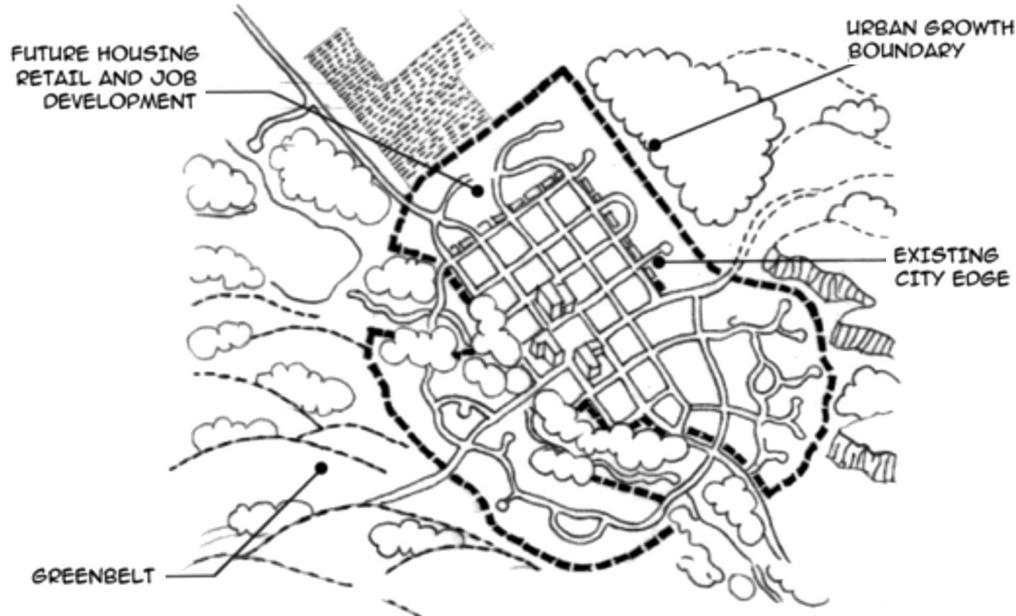
Urban Growth Boundaries are planning tools that promote more efficient, orderly and compact development while preserving community character and natural resources, and stimulating community and economic development. An urban growth boundary divides land between concentrated and less development. On one side of the boundary are predominantly low-density land uses, such as farms, residential lots, and natural or protected lands. On the other side are more intensive land uses such as commercial and industrial uses, multi-family and small lot residential buildings, schools, government facilities, and transit services. It could be used with Transfer of Development Rights to ensure that property owners receive fair compensation for their

land (New Hampshire Department of Environmental Services, October 2008).

Within an urban growth overlay district, permitted land uses would be defined as well as development standards. Economic incentives for development may be provided. All or some development could be subject to planning board approval. All development would be subject to review and development regulations.

The City of Portland, Oregon uses the Urban Growth Boundary as a “planning tool for protecting rural lands and preventing sprawl” (Metro, 2013).

The Urban Growth Boundary is an Overlay Zone under Article V Zone Regulations Section 13.7 Overlay Zones. See Volume 3, Model Zoning Ordinance.



#### 4. Infill Development Overlays

Infill Development Overlays are planning tools for the redevelopment of underutilized land bypassed by continuous development. Infill development can occur anywhere land is underutilized or misused compared to the surrounding land use activities. It is often a component of mixed-use development and is a technique that is frequently used to provide affordable housing. Infill development also helps conserve land, create community centers, and reduce urban sprawl.

One approach to promote infill development involves the development of a special district which identifies the specific areas within a municipality. Another approach involves identifying areas of infill development by a set of defined criteria for “adaptive reuse” or “redevelopment” for the entire community. In both instances, a community may also enhance a zoning ordinance by identifying design guidelines. The key to successful infill development is flexibility, both in zoning and in the design standards for existing and proposed buildings and infrastructure.

To implement infill development adjustments must be made to the community’s existing regulatory structure of setbacks, minimum lot size, minimum frontage, maximum lot coverage, parking ratios, and other requirements that affect the ability to implement an infill development project. Crafting an ordinance that is flexible to make the project fit into the surrounding neighborhood and that also provides adequate economic incentives is necessary for successful implementation.

Makati has defined Special Development Areas in its latest Comprehensive Land Use Plan for 2013-2022 in order to unlock the potential of underdeveloped areas while retaining the area’s original residents and enhancing its character.

The City of Mesa Arizona defined an Infill Development District to promote and facilitate the development and redevelopment of by-passed, underutilized, or abandoned properties. The district provides for the establishment of specific land uses, development standards, altered fees and streamlined review processes as incentives to stimulate

re-investment and development of properties in a manner that will contribute to the creation of a high quality context for employment opportunities and improve the overall economic viability of that area of the city (The City of Mesa, 2013).

The Infill Development Overlay is an Overlay Zone that can be integrated under Article V Zone Regulations Section 13 Overlay Zones. See Volume 3, Model Zoning Ordinance.

## 5. Mixed Use Zones

Mixed Use Zones provide greater housing variety and density, reduce travel distances, and serve a variety of functions which are essential for vibrant urban areas. This concept is often used with Pedestrian and Transport Orientation, Urban Growth Boundaries and Infill Development.

The City of Makati has designated some residential zones, all commercial zones, and all institutional zones for mixed use in its Land Use Plan (Sangguniang Panlungsod City of Makati, 2000).

Provisions for Mixed Use can be integrated into selected base zones or overlay zones under Article V Zone Regulations Section 13 Overlay Zone Regulations.

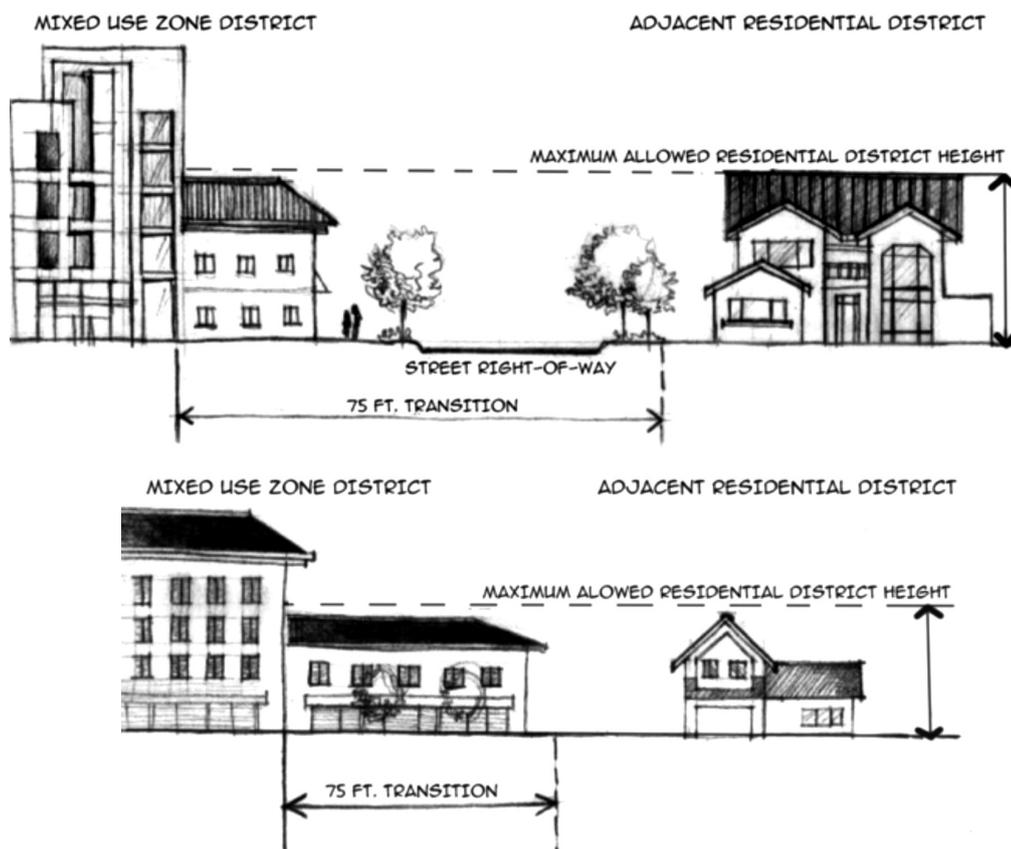
## 6. Transition Zoning

Transition Zoning defines special regulations that only apply to boundaries between incompatible uses or developments that can help connect two very different zones.

The City of Yuma in Arizona uses transition zoning “to provide a transition between the low density residential areas and nonresidential uses and facilities” (City of Yuma, 2012).

The Boston Redevelopment Authority has more specific rules on the uses along a district boundary line. (City of Boston, 1990).

Transition Zoning rules can generally be inserted in Article IV Zone Classifications Section 10 Interpretation of the Zone Boundary, or in the particular base or overlay zone under Article V Zone Regulations Section 12 Base Zones or Section 13 Overlay Zones. See Volume 3, Model Zoning Ordinance.



## 7. Design Standards and Neighborhood Compatibility

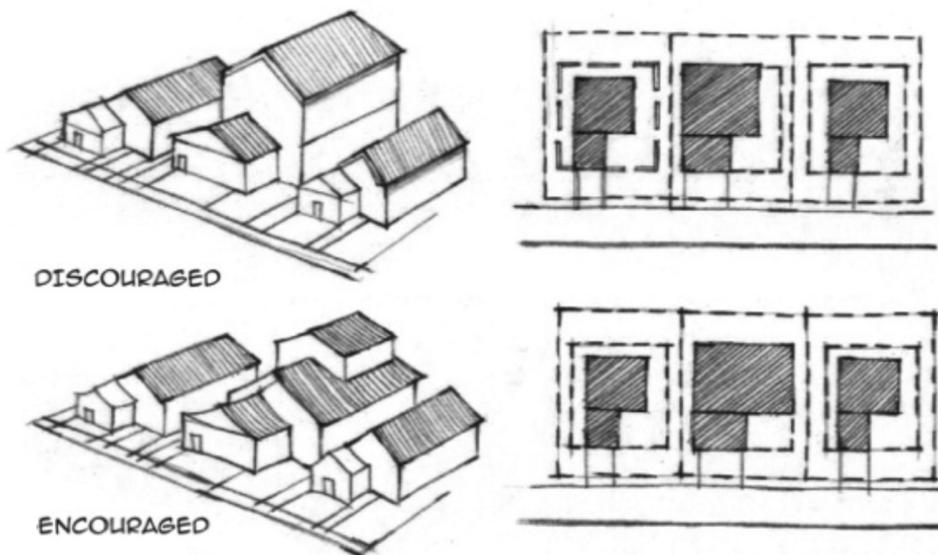
Design Standards and Neighborhood Compatibility are urban design rules that control the appearance of buildings to establish a distinct and coherent character for a place. Rules that control the appearance of buildings are often associated with themed developments or historic districts. This concept is often used with Pedestrian Orientation and Infill Development.

Design standards must still comply with the mandatory requirements of the national building code, but architectural style, mass and bulk, height, number of stories, roof design, scale, orientation, setbacks, open space, texture, color, and building materials may be specific to the defined zone since the design concept relies on spatial dimensions and relationships between elements such as buildings, streets, and open areas. The rules can be set up as a conditional use ordinance under the jurisdiction of a planning board. Procedures for waiver and for review of decisions made by the planning board should be included in the language.

A general design standard is used in Intramuros, Manila where "no structure, including stone walls, fences, light or other fixtures, steps and paving shall be erected, altered, restored, moved or demolished within Intramuros without the Administration's Certificate of Appropriateness as to external architectural features and its congruity with the historic district, including style, general design and arrangement, types of windows, doors, light and other fixtures and signs, material and location of advertisements and bill posters." (Malacanang, 1980).

A more complex rule is Neighborhood Compatibility which is accompanied by guidelines such as the Neighborhood Compatibility Handbook of the City of Rancho Palos Verdes in 2003. Compliance with the guideline is then determined by a planning commission (City of Rancho Palos Verdes, 2003).

Design Standards or Neighborhood Compatibility Rules are normally enumerated under Development Standards for a specific Overlay Zone under Article V Zone Regulations Section 13 Overlay Zones. (See Volume 3, Model Zoning Ordinance.) In addition, the Design Standards and Compatibility Rules can be described separately from the zoning ordinance in the form of a guideline to supplement the ordinance.



## 8. Façade Zones

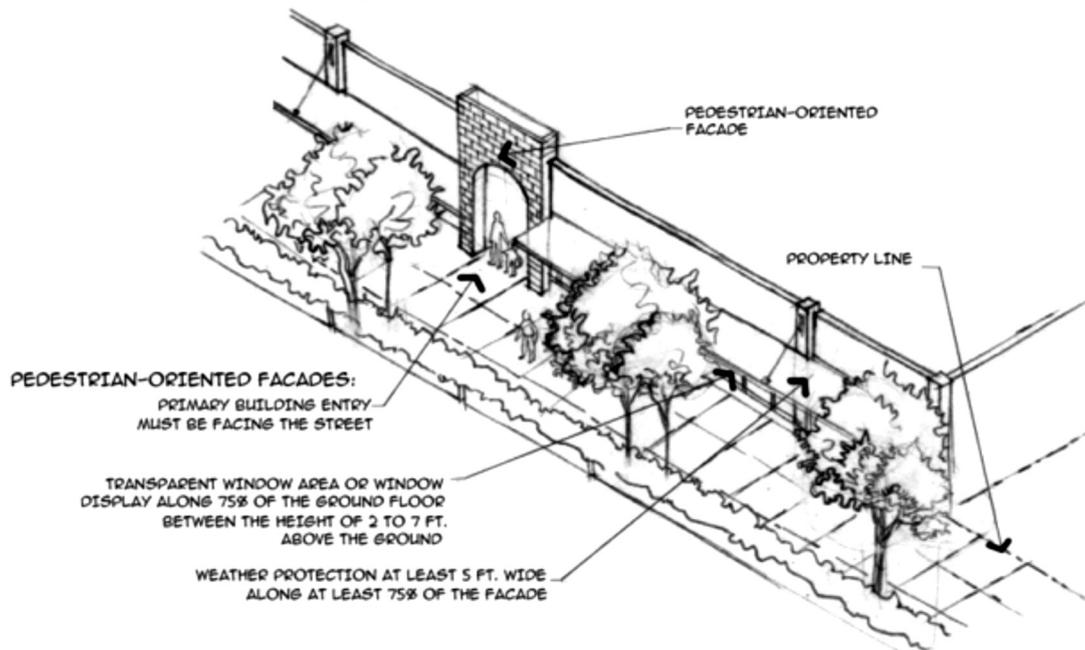
Façade Zones are urban design rules that focus on the control of publicly accessible parts of the building such as storefronts or facades instead of controlling the design of the entire building. The transparency and physical design of facades can be set to encourage pedestrian activity in pedestrian oriented zones or to preserve the external look of historic districts. This concept is often used with Pedestrian Orientation and Infill Development.

Façade zones must still comply with the mandatory requirements of the national building code, but the façade's architectural style, height, roof design, scale, orientation, setbacks, open space, texture, color, and building materials may be specific to the defined zone since the design concept relies on spatial dimensions and relationships between elements such as buildings, streets, and open areas. The rules can be set up as a conditional use ordinance, under the jurisdiction of a planning board. Procedures for waiver and for review of decisions made by the planning board should be included in the language.

For the purpose of heritage conservation, Iloilo City has very specific rules for façade design, differentiating the upper façade and the storefront below (Iloilo City Cultural Heritage Conservation Council, 2009).

In the City of West Hollywood, "to encourage the continuity of visual and pedestrian services, at least 60 percent of the total street frontage ground floor width of any new or reconstructed building shall be differentiated architecturally by recessed windows and entries, display windows, offset surfaces, differentiated piers and columns, offset planes, textured materials, awnings, and compatibility landscaping or other details, or other displays which are of interest to pedestrians." (West Hollywood, 2012).

Façade Zone rules are normally enumerated under Development Standards for a specific Overlay Zone under Article V Zone Regulations Section 13 Overlay Zones. See Volume 3, Model Zoning Ordinance.



## 9. Setbacks, Open Spaces and Yards

Setbacks, Open Spaces and Yards can also be required to follow formal or functional rules so that property owners can also contribute to the community by preserving beautiful views of buildings and backgrounds, creating a sense of community, and encouraging pedestrian movement by providing amenities such as greenery, shade and street furniture in publicly accessible areas of the property. Certain types of open space can also reduce impervious cover that prevents infiltration and increase surface runoff. Pervious surfaces reduce soil erosion, and preserve green space, recreation space and wildlife habitats.

Setback, Open Space and Yard rules must comply with the minimum requirements of the national building code, but the property's setbacks, perimeter fence, open space, street furniture and landscaping may be specific to the overlay zone since the design concept may rely on spatial dimensions and relationships between elements such as buildings, streets, and open areas. In addition, the functional concept may rely on public accessibility.

Naga City requires "lot parcels with an area of 500 square meters or more shall

provide a front yard setback or easement of at least 6.0 meters; while buildings to be constructed on lot parcels with an area of less than 500 square meters shall provide a front yard setback or easement of at least 3.0 meters" In certain areas in Naga City, building owners are "required to plant shade trees at least one (1) tree for every 5.0 meters width distance in the front yard of their building. No occupancy permit shall be granted to a building owner unless there are grown trees in their front yard at least 4.0 feet in height." (Tanggapannng Sangguniang Panlungsod City of Naga, 2001).

On the other hand, setback requirements can also maintain a "street wall" consistently defining the edge of the sidewalk. In New York City any lot up to 50 feet wide, must be as deep as one adjacent wall and no deeper than the other (New York City Department of City Planning, 2013).

The island of Boracay has minimum open space requirements for both commercial and residential uses: 10% for lots 200 square meters or less, 20% for lots greater than 200 square meters but less than 1,000 square meters, and 40% for lots more than 1,000 square meters (Province of Aklan Municipality of Malay Office of the Sangguniang Bayan, 2008).

Open Space Requirements can be inserted as a separate Section entitled Open Space Regulations under Article VI General Regulations.

Setback rules are normally placed under the heading of Bulk Regulations for selected Districts, Base Zones or Overlay Zones under Article V Zone Regulations Section 12 Base Zones or Section 13 Overlay Zones. See Volume 3, Model Zoning Ordinance.

Specific yard rules are normally enumerated under Development Standards for a specific Overlay Zone under Article V Zone Regulations Section 13 Overlay Zones.

## 10. Driveway Width and Curb Cuts

Driveway Width and Curb Cuts for vehicular access ways can be limited for better pedestrian accessibility and safety.

New York requires curb cuts to be spaced at least 16' apart and driveways range from 10' to 18' wide (New York City Department of City Planning, 2013).

Driveway width and curb cut rules can be placed under a separate section entitled Parking Regulations under Article VI General Regulations.

## 11. Building Height

Building Height limitations can control development volumes, and when increased over time allow economic pressures to trigger the replacement of older economically challenged buildings. The desired result is buildings of different ages and heights. Rules that require variations in the height and form of building roofs can also generate a coherent yet interesting city profile.

Mulholland Drive in Los Angeles requires that "no portion of a proposed project located within 15 feet of the side property line should exceed any portion of an existing main structure on an abutting lot within 15 feet of the property line by more than 10 feet in height" (City of Los Angeles, 2009).

The base of the building can also be limited in height to form a podium from which upper floors can be set back to allow ventilation and daylight to reach the pedestrian level, as well as to provide additional open space and amenities on top of the podium for building occupants.

Hong Kong has nondomestic podium height restrictions of 15 meters (Hong Kong Buildings Department, 1998).

Specific building height rules are normally placed under the heading of Building Height Limit for selected Districts, Base Zones or Overlay Zones under Article V Zone Regulations Section 12 Base Zones or Section 13 Overlay Zones. See Volume 3, Model Zoning Ordinance.

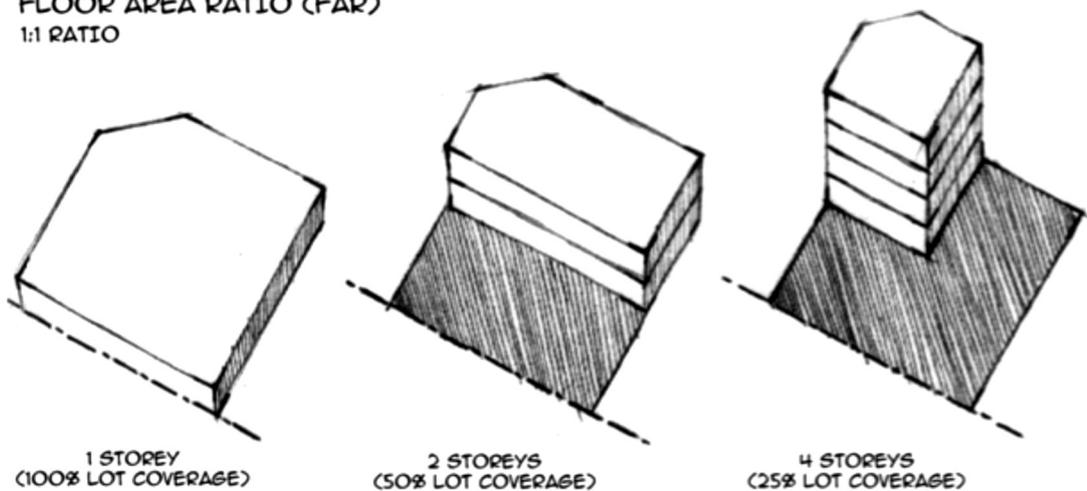
## 12. Floor Area Ratios

Floor Area Ratios as opposed to height regulations can regulate both the density and height of buildings in a given area, allowing the developer some leeway in the distribution of floor area and the form of the building.

In Makati “building density shall be controlled by a maximum Floor Area Ratio. Floor Area Ratio (FAR) is defined as the ratio between the Gross Floor Area (GFA) of a building and the area of the lot on which it is built. The total GFA of any building or buildings in a lot should not exceed the prescribed maximum FAR multiplied by the lot area. Unless otherwise prescribed in this Ordinance, prescribed maximum FARs shall apply only to developable lots and not to roads and other lots or parcels of land not intended for vertical development” (City of Makati, 2000).

Specific floor area ratio rules can replace or supplement Building Height Limits for selected Districts, Base Zones or Overlay Zones with Development Standards under Article V Zone Regulations Section 12 Base Zones or Section 13 Overlay Zones.

### FLOOR AREA RATIO (FAR) 1:1 RATIO



## 13. Transfer of Development Rights

Transfer of Development Rights is a zoning technique that can redirect future development potential from one location to another in a way that is fair and equitable to the involved property owners. Transfer development rights programs allow for the development value associated with one property to be sold and removed from that property and bought and added to another. In so doing, transfer development rights creates and uses market incentives to stimulate the voluntary redirection of development away from the places a community wants to save and to the places where it wants to grow without necessitating expenditure of public funds in the acquisition. Transfer development rights programs are not intended to control the amount of growth in a community, but rather to direct where and at what density that growth will occur. In addition, Transfer development rights avoids the consequences of bidding up land and housing prices due to scarcity caused by a conservation only strategy, because additional development opportunities are created to offset the development rights removed from the areas to be conserved.

Conventional Transfer Development Rights requires the establishment of sending zones or areas and receiving zones or areas, and relies on an active real estate market with sufficient growth to stimulate the sale and transfer of development credits. Sending zones are the land areas the community seeks to protect from development (conservation lands, agricultural lands, water supply protection lands, critical habitat, etc.). Receiving zones are the areas where the community wants to grow (town centers, special development districts, areas capable of accepting “in-fill” development). Ideally, receiving areas are places with supportive infrastructure already in place (roads, public water and/or sewer), and perhaps close to employment centers and services such as schools, community services and public transportation. Zoning in the

receiving areas is modified with the establishment of a Transfer Development Rights program to allow for an additional development increment or bonus that can only be accessed by purchasing a development credit from land, or intermediary “bank,” located in the sending area. Proceeds from the sale of development credits are used to purchase permanent deed restrictions or conservation easements in the sending area.

Density transfer ordinances are potentially useful in any community that seeks to preserve important natural or cultural resources and has done the necessary planning to support its use. In concept, transfer of development rights is adaptable to a wide variety of circumstances and objectives. Appropriate circumstances can range from an urban community wishing to preserve historic sites under pressure for redevelopment, to a growing suburban community wishing to displace future development to a more centralized node or downtown area, to a small town seeking to preserve open space while promoting the creation or expansion of a village or town center (New Hampshire Department of Environmental Services, October 2008).

Makati has Transfer of Development Rights in its Comprehensive Land Use Plan for 2013-2022.

Transfer of development rights rules can be placed under a separate Section entitled Transfer of Development Rights under Article VI General Regulations.

## 14. Preservation

Preservation rules can allow controlled development while retaining desirable environmental site features such as natural topography, hydrology, biodiversity, as well as erosion and sedimentation control and views.

A rule that preserves natural topography is followed along Mulholland Drive, Los Angeles where “grading and structures should be designed to fit the project to the natural topography and existing site conditions, rather than altering the site to fit the project. The plan should minimize grading and preserve the existing topographic features.” (City of Los Angeles, 2009).

The Town of Rindge, New Hampshire defined a Wetlands Conservation District to protect the quality of water by regulating the development of buildings and land use within the Wetlands Conservation District that would contribute to the pollution of surface and ground water by sewage or other contaminants, prevent the destruction of wetlands which provide flood protection and natural habitats, and to prevent unnecessary or excessive expenses to provide and maintain essential services and utilities which arise because of improper use of wetlands (Town of Ridge, 2006).

Tagaytay city requires spacing in between obstructive buildings and/or in-between buildings on adjacent properties to be sufficient to allow lateral unobstructed views of Taal Lake from the Tagaytay-Nasugbu and Tagaytay-Calamba Roads, for this purpose, Obstructive Structures are required to have a maximum PLO of 30% and a BHL of five (5) meters from the geometric center of the structure. (Tagaytay City, 1997).

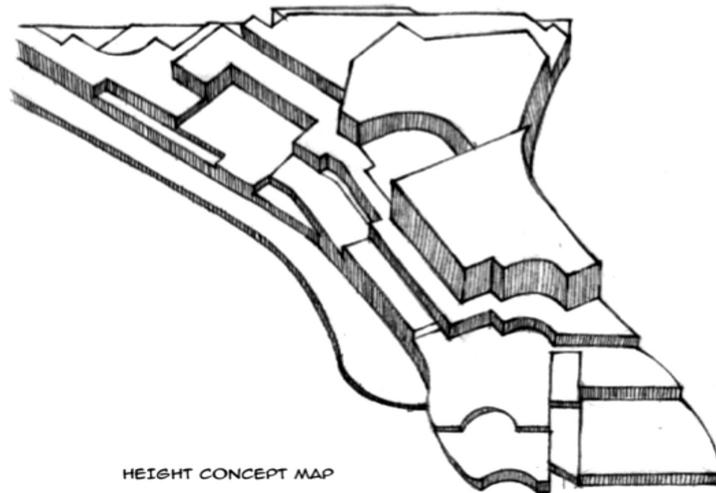
Tagaytay City also requires fences along the Tagaytay-Nasugbu and Tagaytay-Calamba Roads, as well as those directly viewing Taal Lake to be “see-through and have a maximum height of 1.80 meters from the finished grade line” and to be “of good quality such as wrought iron; cyclone wire fences are also allowed; fence base made of concrete, hollow blocks, rock or any material shall have a height of no greater than 0.40 meters from the finished grade line.” (Tagaytay City, 1997).

Preservation rules may be developed at the community level as part of a barangay development plan, or in the case of citywide infrastructure or resources, a specific plan or overlay zone for the defined area. The Conservation Overlay Zone can be included under Article V Zone Regulations Section 13 Overlay Zone Regulations. If the preservation of topography rule is to be applied to the city or municipality as a whole, the rule can have its own separate section entitled Preservation of Topography under Article VI General Regulations.

## 15. Urban Envelopes

Urban Envelopes are three dimensional boundaries that can set the maximum developable volume by setting a fixed height and clear boundaries for development. An urban envelope can control the skyline making it terrace down toward the waterfront or flat terrain to preserve views or achieve a desired shape. A clearly defined urban envelope can also encourage developments to maximize the use of the land within the set boundary. An example of an urban envelope is Seattle's Downtown Urban Center Neighborhood Plan (Downtown Urban Center Planning Group, 1999).

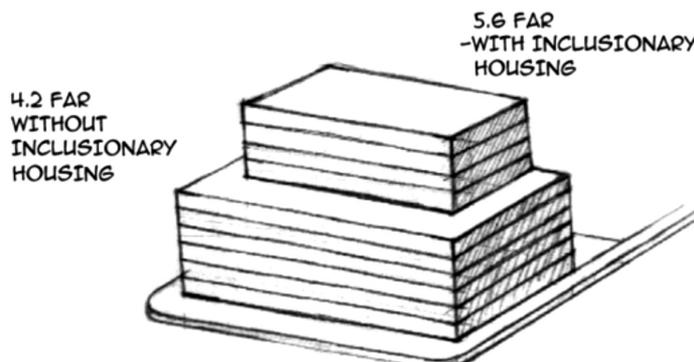
Figure 8-6. Seattle Urban Envelope (Downtown Urban Center Planning Group, 1999)



## 16. Affordable Housing Agreements

Affordable Housing Agreements set a certain percentage of development for affordable housing keeping communities diverse and affordable. Inclusionary housing ordinances can spur affordable housing development within the private market by establishing incentives in the form of zoning exemptions and density bonuses in return for units reserved for low and moderate income households in order to assist communities to meet their share of affordable housing needs. It helps establish the workforce housing needed to keep community employees in the community where they work. Ordinances that facilitate mixed developments allocate a portion of the new units for qualified low to moderate income households, while the remaining units are sold or rented at or above market value. Developments should be designed with a common aesthetic, making the affordable units blend in and unidentifiable from the rest. This concept is best used with Infill Development.

Republic Act 7279 has a section on Balanced Housing Development stating that "the Program shall include a system to be specified in the Framework plan whereby developers of proposed subdivision projects shall be required to develop an area for socialized housing equivalent to at least twenty percent (20%) of the total subdivision area or total subdivision project cost, at the option of the developer, within the same city or municipality, whenever feasible..." (Congress of the Philippines, 1991).



## 17. Adopt a neighborhood

Adopt a neighborhood schemes allow private organizations to display discrete advertising in an area as long as they attend to the maintenance, cleaning and other neighborhood revitalization projects. Adopt-a-barangay projects are local examples.

The adoption of a district can be documented in a Memorandum of Understanding between the private and public entity outlining a program of actions, parties responsible, and the duration of the program.

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## **Annex 8-7. Green Urban Development Performance Guidelines**

Green development performance guidelines focus less on form but more on the effects of development on the environment. Some guidelines can be implemented community-wide by inclusion into the Performance Standards based on the desired development thrust. Other guidelines can be implemented in specific base and overlay zones by including them in the development standards along with other innovative land use and urban design rules enumerated above. These guidelines are not best practices. All guidelines must be used selectively and with care in order to support the desired development thrust. Being performance guidelines, the following merely serve as a menu of possibilities in setting performance standards that can directly influence the environmental impact of cities.

### **1. Water and Wastewater Infrastructure**

Only develop sites served by existing water and wastewater infrastructure or within a legally adopted, publicly owned, planned water and wastewater service area, and provide new water and wastewater infrastructure for the project (United States Green Building Council, 2012).

This concept can be used with the Urban Growth Boundary and/or Article VII

Performance Standards under Section 22 Environmental Conservation and Protection Standards.

## **2. Floodplain Avoidance**

Only develop sites that do not contain any land within a 100-year high-or moderate-risk floodplain (United States Green Building Council, 2012).

This concept can be used with Preservation rules and/or Article VII Performance Standards under Section 22 Environmental Conservation and Protection Standards.

## **3. Protection of Ecological Features**

Protect trees of ecological value as declared by the DENR Forest Management Bureau (Philippine Green Building Council, 2010).

This concept can be used with Preservation rules and/or Article VII Performance Standards under Section 22 Environmental Conservation and Protection Standards.

## **4. Protection of Wetlands and Water Bodies**

Only develop sites that include no wetlands, no water bodies, no land within 15 meters of wetlands, and no land within 30 meters of water bodies (United States Green Building Council, 2012).

This concept can be used with Preservation rules and/or Article VII Performance Standards under Section 22 Environmental Conservation and Protection Standards.

## **5. Protection of Imperiled Species and Ecological Communities**

Consult with the Department of Natural Resources to determine whether species listed as threatened or endangered have been or are likely to be found on the development site because of the presence of suitable habitat and nearby occurrences. If site conditions indicate that imperiled species or ecological communities could be present, using a qualified biologist, perform biological surveys using accepted methodologies during appropriate seasons to determine whether such species or communities occur or are likely to occur on the site then create and implement a conservation plan. (United States Green Building Council, 2012).

This concept can be used with Preservation rules and/or Article VII Performance Standards under Section 22 Environmental Conservation and Protection Standards.

## **6. Protection of Agricultural Land**

Locate the project development footprint such that it does not disturb prime soils, unique soils, or soils of state significance as identified by the Bureau of Soils (United States Green Building Council, 2012).

This concept can be used with Preservation rules and/or Article VII Performance Standards under Section 22 Environmental Conservation and Protection Standards.

## **7. Stormwater Management**

Implement a comprehensive storm water management plan for the project that retains rainwater on-site, through infiltration, evapotranspiration, and/or reuse (United States Green Building Council, 2012).

This concept can be applied community-wide by inclusion in Article VII Performance Standards under Section 22 Environmental Conservation and Protection Standards:

- 7.1. Use vegetated surfaces**
- 7.2. Use pervious paving**
- 7.3. Install an open grid paving system**
- 7.4. Provide a rainwater catchment system**

## **8. Construction Activity Pollution Prevention**

Developments must create and implement an erosion and sedimentation control plan for all new construction activities. The plan must incorporate practices such as phasing, seeding, grading, mulching, filter socks, stabilized site entrances, preservation of existing vegetation, and other best management practices (BMPs) to control erosion and sedimentation in runoff from the project site during construction. The plan must list the BMPs employed and describe how they accomplish the following objectives (United States Green Building Council, 2012).

This concept can be applied community-wide by inclusion in Article VII Performance Standards under Section 22 Environmental Conservation and Protection Standards:

**8.1. Prevent loss of soil during construction by storm water runoff and/or wind erosion, including but not limited to stockpiling of topsoil for reuse.**

**8.2. Prevent sedimentation of any affected storm water conveyance systems or receiving streams.**

**8.3. Prevent polluting the air with dust and particulate matter.**

**8.4. The erosion and sedimentation control plan must describe how the project team will do the following:**

- 8.4.1. Preserve vegetation and mark clearing limits.
- 8.4.2. Establish and delineate construction access.
- 8.4.3. Control flow rates.
- 8.4.4. Install sediment controls.
- 8.4.5. Stabilize soils.
- 8.4.6. Protect slopes.
- 8.4.7. Protect drain inlets.
- 8.4.8. Stabilize channels and outlets.
- 8.4.9. Control pollutants.
- 8.4.10. Control dewatering.
- 8.4.11. Maintain the BMPs.
- 8.4.12. Manage the erosion and sedimentation control plan.

## **9. Detention and Infiltration Structures**

Use underground detention structures—made from reinforced concrete, pre-manufactured corrugated metal, plastic pipe, etc.—or infiltration structures—including trenches, vaults/ galleries, injection wells, dry wells, leaching fields, etc.—within or adjacent to the right-of-way to reduce storm water runoff volumes and peak flows, improve water quality, and promote groundwater recharge (New York City Department of Design and Construction, 2005).

This concept can be applied by local governments for public infrastructure projects and included in the development standards for specific base and overlay zones and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 10. Bioretention

Design shallow swales and basins with diverse landscaping in an engineered soil medium to reduce, detain, and treat storm water runoff. Depending on site characteristics and storm water management requirements, bioretention areas can be designed either to convey runoff into the municipal storm sewer, to infiltrate runoff, or to provide a combination of conveyance and infiltration (New York City Department of Design and Construction, 2005).

This concept can be applied by local governments for public infrastructure projects and included in the development standards for specific base and overlay zones and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 11. Pedestrianization

Provide continuous sidewalks or equivalent all-weather provisions for walking are along both sides of 90% of streets or frontages. New sidewalks, whether adjacent to streets or not, must be at least 2.4 meters wide on retail or mixed-use blocks and at least 1.2 meters wide on all other blocks (United States Green Building Council, 2012).

This concept can be used with Pedestrian Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 12. Enhance and Maintain Streetscape

Work with community groups, local businesses, and key stakeholders to enhance and maintain streetscape (New York City Department of Design and Construction, 2005).

This concept can be used with Pedestrian Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 13. Street Trees

Provide street trees on both sides of at least 60% of new and existing streets between the vehicle travel way and walkway, at intervals averaging no more than 12 meters (United States Green Building Council, 2012). This concept can be used with Pedestrian Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 14. Optimize Street lighting

Achieve the most energy efficient street lighting while maintaining a safe, uniformly lighted, and aesthetically pleasing nighttime environment (New York City Department of Design and Construction, 2005).

This concept can be used with Pedestrian Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 15. Increase and Improve Public Space and Green Areas

Increase the quality and quantity of right-of-way public spaces, green spaces, street furniture, and parks within or adjacent to the public right-of-way. Where adequate space exists, encourage economic, cultural, and recreational activities to enhance streetscape vitality (New York City Department of Design and Construction, 2005).

This concept can be used with Pedestrian Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 16. Maximize Pavement Life Cycle

Undertake a comprehensive regime of planning, budgeting, construction, maintenance, and monitoring strategies to maximize pavement lifecycle. Develop a pavement management system to ensure that the entire roadway system is performing as well as possible at all times. Coordinate pavement management system with other citywide infrastructure planning processes to reduce disruption and coordinate construction work, redouble the value of infrastructure investments, and minimize unanticipated future work that would lead to pavement degradation (New York City Department of Design and Construction, 2005).

This concept can be used with Pedestrian Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 17. Public Transportation

Work with the transit groups serving the area to identify transit stop locations within and/or bordering the project boundary where shelters will be installed. Shelters must be covered, be at least partially enclosed to buffer wind and rain, and have seating and illumination. Provide kiosks, bulletin boards, and/or signs that display transit schedules and route information at each public transit stop (United States Green Building Council, 2012).

This concept can be used with Pedestrian and Transit Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 18. Private Transit

Provide year-round, developer-sponsored private transit service (with vans, shuttles, buses) from at least one central point in the project to other major transit facilities, and/or other destinations such as a retail or employment center, with service no less frequent than 45 daily weekday trips and 30 daily weekend trips. The service must begin by the time the project total square footage is 20% occupied and must be guaranteed for at least three years beyond project build-out. Provide transit stop shelters adequate to meet projected demand but no less than one shelter at each transit stop. Shelters must be covered, be at least partially enclosed to buffer wind and rain, and have seating and illumination (United States Green Building Council, 2012).

This concept can be used with Pedestrian and Transit Orientation and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 19. Local Food Production

Do not restrict the growing of produce in any portion of residential front, rear, or side yards; or balconies, patios, or rooftops (United States Green Building Council, 2012).

This concept can be used in appropriate Base and Overlay Zones and/or Article VII Performance Standards under Section 25 Site Performance Standards.

## 20. Recycled Content in Infrastructure

Use materials for new infrastructure such that recycled content constitutes a significant percentage of the total mass of infrastructure materials. Count materials in public infrastructure items as applicable (United States Green Building Council, 2012):

This concept can be applied by local governments for public infrastructure projects and included in the development standards for specific base and overlay zones and/or Article VII Performance Standards under Section 25 Site Performance Standards:

## 21. Heat Island Reduction

Use any combination of the following strategies for hardscape (including roads, sidewalks, courtyards, parking lots, parking structures, and driveways) (United States Green Building Council, 2012).

This concept can be applied community-wide by inclusion in Article VII Performance Standards under Section 25 Site Performance Standards:

- 21.1. Provide shade from open structures, canopied walkways, and vine pergolas, all with a solar reflectance index (SRI) of at least 29.**
- 21.2. Use paving materials with an SRI of at least 29.**
- 21.3. Install an open-grid pavement system.**
- 21.4. Provide shade from tree canopy (within ten years of landscape installation).**
- 21.5. Use roofing materials that have an SRI equal to or greater than 79 (for low slopes) or 29 (for steep slopes) for the roof area of all new buildings within the project; or install a vegetated roof.**

## 22. Solid Waste Management

Include at least one recycling or reuse station, available to all project occupants, dedicated to the separation, collection, and storage of materials for recycling.

This concept can be applied community-wide by inclusion in Article VII Performance Standards under Section 25 Site Performance Standards.

Include at least one drop-off point, available to all project occupants, for potentially hazardous office or household wastes. If a plan for post collection disposal or use does not exist, establish one.

Include as part of the project at least one compost station or location, available to all project occupants, dedicated to the collection and composting of food and yard wastes. If a plan for post collection use does not exist, establish one (United States Green Building Council, 2012).

## 23. Construction Waste Management

Recycle and/or salvage at least 50% of nonhazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and specifies whether the materials will be stored on-site or commingled (United States Green Building Council, 2012).

This concept can be applied community-wide by inclusion in Article VII Performance Standards under Section 25 Site Performance Standards.

## 24. Water Efficient Landscaping

Reduce water consumption for outdoor landscape irrigation. Reductions can be attributed to any combination of the following strategies (United States Green Building Council, 2012).

This concept can be applied community-wide by inclusion in Article VII Performance Standards under Section 25 Site Performance Standards:

- 24.1. Plant species, plant density, and microclimate factor.**
- 24.2. Irrigation efficiency.**
- 24.3. Use of captured rainwater.**
- 24.4. Use of recycled wastewater.**
- 24.5. Use of water treated and conveyed by a public agency specifically for non-potable uses.**
- 24.6. Use of other non-potable water sources, such as storm water, air-conditioning condensate, and foundation drain water.**

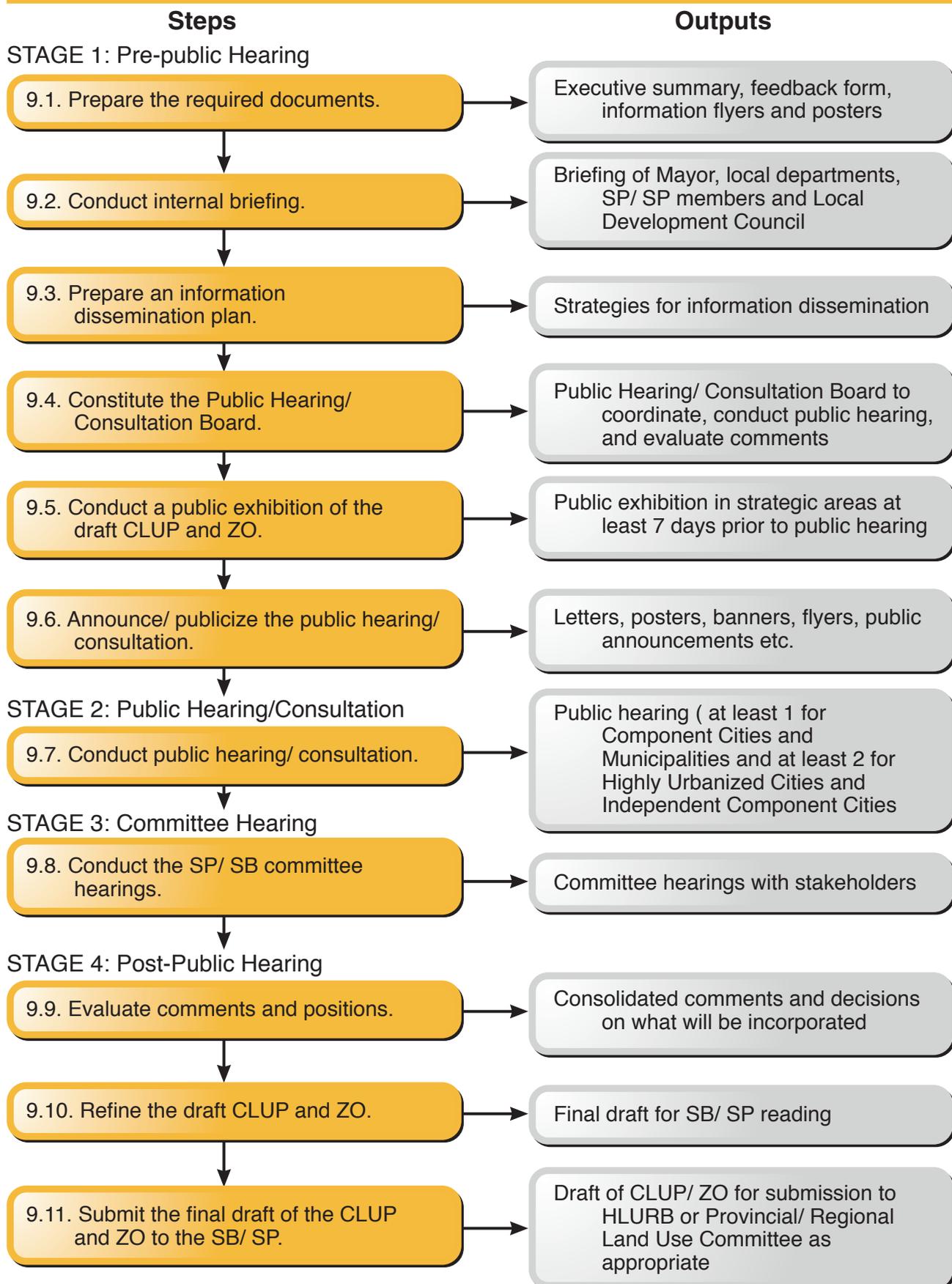
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# Step 9: Conduct Public Hearing/Consultation



## Introduction

This step provides a systematic approach to consensus building on the final draft of the CLUP/ ZO prior to its submission for approval/ ratification. This involves a 3-stage process: public display and information dissemination, conduct of public hearing/consultation, and the refinement of the CLUP/ ZO as a result of the public hearing/ consultation.



### Objective/s

- Present the plan to the general public and ensure an objective and participatory review of the draft CLUP/ZO
- Ensure stakeholder acceptability of the CLUP/ZO
- Obtain common ownership of the plan and gain support for plan implementation



### Key Input/s

- Draft CLUP/ZO for public hearing
- Executive Summary and presentation maps



### Expected Output/s

- Refined draft of Comprehensive Land Use Plan (CLUP) and Zoning Ordinance (ZO)



### Key Technical Actors/Responsible Bodies

- Lead: Local Chief Executive, City/Municipal Planning and Development Office (C/MPDO)
- Contributors: TWGs from NGA local/regional field units, other critical local private, NGOs/CSOs, community, academic/research institutions/agencies
- Consultative Body: Public Hearing/Consultation Board (PHCB), Local Development Council (LDC) and local communities/barangays, SB Representatives



## Steps

The 4-stage process of consensus building is as follows:

- Pre-public hearing/Consultation
- Public hearing/Consultation
- Committee hearing
- Post-public hearing

## STAGE 1

### 9.1. Prepare the required documents for consensus building.



#### Required Documents for Pre-Public Hearing/Consultation (Stage 1):

- Executive Summary of the Plan (Refer to Annex 9-1. Outline for Executive Summary of CLUP for the suggested outline)
- Feedback form where stakeholders can write reactions/comments/suggestions. (Provide suggestion boxes)
- Information flyer and poster on the proposed public hearings/consultation, stating the following information:
  - ♦ Schedule of public hearing/consultation(s).
  - ♦ Deadline for submission of position papers
  - ♦ Venue
  - ♦ Purpose of the consultation
  - ♦ Stakeholders invited and committee in-charge of the activity and contact numbers
  - ♦ Steps/process by which a concerned person/stakeholder can air his/ her position on the plan

The above information for the poster/flyers shall be as agreed upon and provided for by the Hearing Board constituted for public hearing/ consultation purposes.

### 9.2. Conduct an Internal briefing prior to public hearing.

Orient the City/Municipal Mayor, Local departments, Sangguniang Panlungsod (SP) or Sangguniang Bayan (SB) members, and Local Development Council on the draft CLUP. This may be conducted in one general session or a series of sessions for different cluster groups.

The internal briefing is aimed at local officials' familiarization and understanding of the draft CLUP/ZO. Some of them will constitute the members of the hearing board during public hearings and the conduct of stakeholders' committee meetings.

### 9.3. Prepare an information dissemination plan for the draft CLUP/ZO. This activity also involves designating the implementing department or office.

Strategies for information dissemination may include publication in local newspapers, radio broadcast, and distribution of posters/flyers in schools, offices and public assemblies, depending on the level of development or complexity of the municipality/city concerned. These will also depend on the budget and funds available for the purpose.

## 9.4. Constitute the Public Hearing/Consultation Board.



### Suggested composition of the Public Hearing/Consultation Board (PHCB):

- City/Municipal Mayor as Chairperson
- City/Municipal Planning and Development Coordinator
- HLURB Technical Representative
- Sangguniang Panlungsod (SP) or Sangguniang Bayan (SB) Representatives
- SP/SB Secretary
- Local Sectoral Representatives
- Other technical agency representatives as needed (e.g. DENR, MGB, DOST-PAGASA, DA, BFAR, BSWM, CCA-DRR, Coastal, Forestry, IP, Heritage Conservation)

#### Functions of the PHCB:

- Coordinate activities prior to and after the conduct of public hearing/consultation. Such activities may include organizing, designing, facilitating, documenting, disseminating information, and evaluating.
- Actual conduct of public hearing to be presided by the chairperson of the PHCB. Refer to Annex2-7 for the principles of an effective consultation process.
- Evaluate and decide on comments, suggestions and position papers for incorporation in the plan.
- Produce official and approved minutes/documentation of every public hearing conducted
- Produce a Certificate of Public Hearing once consensus regarding draft CLUP and ZO has been achieved

A quorum is necessary to convene the session. A simple majority (50% + 1) of the total membership of the Public Hearing/Consultation Board constitutes a quorum.

The Mayor, as Chairperson of the PHCB, shall preside over the public hearing. In the absence of the Chairperson or inability to preside, the members of the hearing board shall elect among themselves the Presiding Officer of the day.

The Chairperson may appoint a moderator and SP/SB secretary to assist during the proceedings of the public hearing. The Moderator need not be a member of the Public Hearing Board.

## 9.5. Conduct a public exhibition of the draft CLUP and ZO

Identify strategic areas to display the above documents. Suggested places are: the provincial/city/municipal halls, barangay centers, public markets, civic centers, shopping centers, and other places frequently visited by the public.

Exhibit the plan and other information documents at least seven (7) days prior to the public hearing/consultation. Public display of CLUP is a more effective way of getting public reaction and in making the public more aware of the proposed city/municipal development plan.

Disseminate information on the CLUP through any of the following ways: publication in local newspapers, radio broadcast, and distribution of posters/ flyers in schools, offices and public assemblies.

## 9.6. Announce/publicize the public hearing/consultation through the following:

- Letters, posters, banners, flyers, advertisements and use of internet
- Verbally, by phone or face-to-face contact through meetings, presentations, displays in public, house-to-house visits
- Through print media, radio and television

## STAGE 2

### 9.7. Conduct public hearing/consultation

Public hearing/consultation on the draft CLUP can be undertaken in several stages depending on the budget and complexity/level of development of an LGU. This is undertaken prior to endorsing the plan to the SP/SB for deliberation and enactment.

- For Component Cities and Municipalities (CCMs), at least one public hearing is recommended.
- For Highly Urbanized Cities (HUCs) and independent component cities (ICCs), at least two (2) public hearings are recommended.

In addition to the said minimum number of public hearings, SP/SB committee hearings may be conducted with the participation of the committee stakeholders.

The design of the public hearing/consultation process may be guided by the following questions:

- Why conduct the public hearing/consultation?
- Who to consult?
- When to consult/accept reactions?
- How to consult/submit position papers/reactions?
- How to evaluate the consultation?



Refer to Chapter 4 of Planning Strategically by HLURB (2000) for Designing a Consultation Program.

The presence of the Provincial Land Use Committee (PLUC) members during this stage is suggested to facilitate the subsequent review of the draft CLUP/ZO. The public hearing may be conducted with the following suggested activities:

- Briefing of participants on mechanics, purpose and scope of the public hearing/consultation
- Presentation of the Executive Summary and highlights of the draft CLUP and ZO
- Open forum to solicit reactions/comments on the plan.
- Presentation of next steps to be undertaken or subsequent activities of Hearing Board to include the tentative date when the finalized CLUP is expected to be ready

Briefing of the participants shall include the following:

- Objective of the public hearing
- The importance/benefits/use of having a CLUP(may be explained before the objective of the public hearing)
- The process undertaken

The Public Hearing/Consultation Board shall be guided by the following parameters to ensure accountability of actions relative to the consultation/hearing:

- Who will make the final decision?
- How will the outcomes of the consultation process be used?
- In addition to the views of the community, what factors will need to be taken into account?
- How will the community be informed of the outcomes of the consultation process?
- Will they be able to see clear evidence of how their views have been taken into account?
- When is the likely final decision?

## STAGE 3

### 9.8. Conduct the SP/SB committee hearings to be participated in by concerned stakeholders.

Discuss the importance of having SP/SB committee hearings.

The committee hearings can be done after the public hearing/consultation, while waiting for the comments and refining the draft CLUP/ZO.

## STAGE 4

### 9.9. Evaluate comments and positions.

The public should be given at least fifteen (15) days after the public hearing/consultation to submit position papers. The Public Hearing Board shall then decide on what will be incorporated/ considered in the final draft. The Public Hearing Board shall produce official documentation of the public hearings/consultation conducted (including list of attendees and represented sectors) and a Certificate of Public Hearing conducted.

### 9.10. Refine the draft CLUP and ZO.

The refinement shall take into consideration the result of Step 3 (Set the Vision). A series of meetings/workshops may be conducted, as necessary.

### 9.11. Submit the final draft CLUP and ZO.

Brief the LDC and submit to the Sangguniang Panlungsod (SP) /Bayan (SB) the refined draft CLUP and ZO for their First and Second Readings prior to the subsequent mandatory review by the concerned offices/agencies at the provincial, regional, or national levels.

After passing the 1st and 2nd readings of the SP/SB, the CLUP/ZO will then be submitted to the Sangguniang Panlalawigan through the PLUC or to the HLURB through the Regional Land Use Committee (RLUC) as appropriate. The CLUP and ZO shall be finally adopted by the SP/SB after the comprehensive review and favorable endorsement by the appropriate body.

## **Annex 9-1. Outline for Executive Summary of CLUP**

### **City/Municipality Planning Period \_\_\_\_\_**

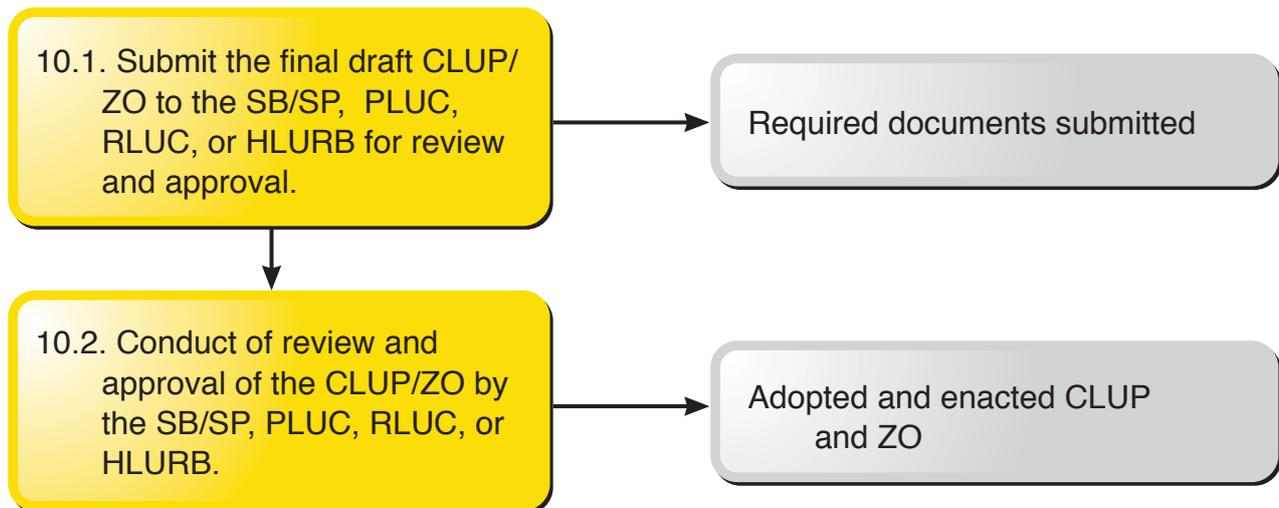
- I. Vision
- II. Brief Situationer
  - Physical Profile (location, land area, general topography including natural and built elements, hazards and risks, etc.)
  - Impacts of Climate Change and Hazards
  - Demography
  - Social Services
  - Economy
  - Physical Infrastructure(urban development)
  - Natural Environment (forest, coastal, marine and water bodies, ancestral domain, biodiversity, solid/liquid wastes, etc.)
  - Heritage Conservation Profile
  - Land Use Development Trend
- III. Development Constraints , and List of Prioritized Issues and Concerns,
- IV. Development Opportunities and Challenges
- V. Major Development Goals and Objectives
  - [Note: ensure alignment with vision statement]
- VI. Development Thrust(s) and Spatial Strategy (Structure/Concept Plan)
- VII. Proposed Land and Water Uses and Zoning Ordinance
  - [Note: include table of land and water use categories]
- VIII. Proposed Major Spatial Programs and Projects

# Step 10: Review, Adopt and Approve the CLUP and ZO

Conduct a comprehensive review, adoption and approval/ratification of the CLUP/ZO

## Steps

## Outputs



## Introduction

This step provides the guide to conducting the mandatory comprehensive review, adoption and approval/ratification of the CLUP/ ZO. This section is structured according to the requirements for each of the following:

- Component cities and municipalities
- Highly-urbanized cities and independent component cities
- Metro Manila cities/municipality



### Objective/s

- Review the plan in terms of its consistency with national, regional and other relevant plans
- Legitimize the CLUP and ZO for implementation



### Key Input/s

- Final draft of CLUP and ZO
- Supporting documents listed in 10.1



### Expected Output/s

- Adopted and enacted CLUP and ZO by SP/SB
- Approved/ratified CLUP and ZO by Sangguniang Panlalawigan or HLURB



### Key Technical Actors/Responsible Bodies

- Sangguniang Panlungsod/Sangguniang Bayan
- MMDA/MMC
- PLUC/RLUC Members
- Sangguniang Panlalawigan
- Housing and Land Use Regulatory Board



## Steps

### 10.1 Submit the final CLUP and ZO draft for review and approval.

The LGU, through the Mayor, shall endorse and transmit the final draft of CLUP and ZO together with the supporting documents to the Sangguniang Panlalawigan or HLURB for review by PLUC/RLUC/MMDA/MMC.



**Required Documents for Submission:**

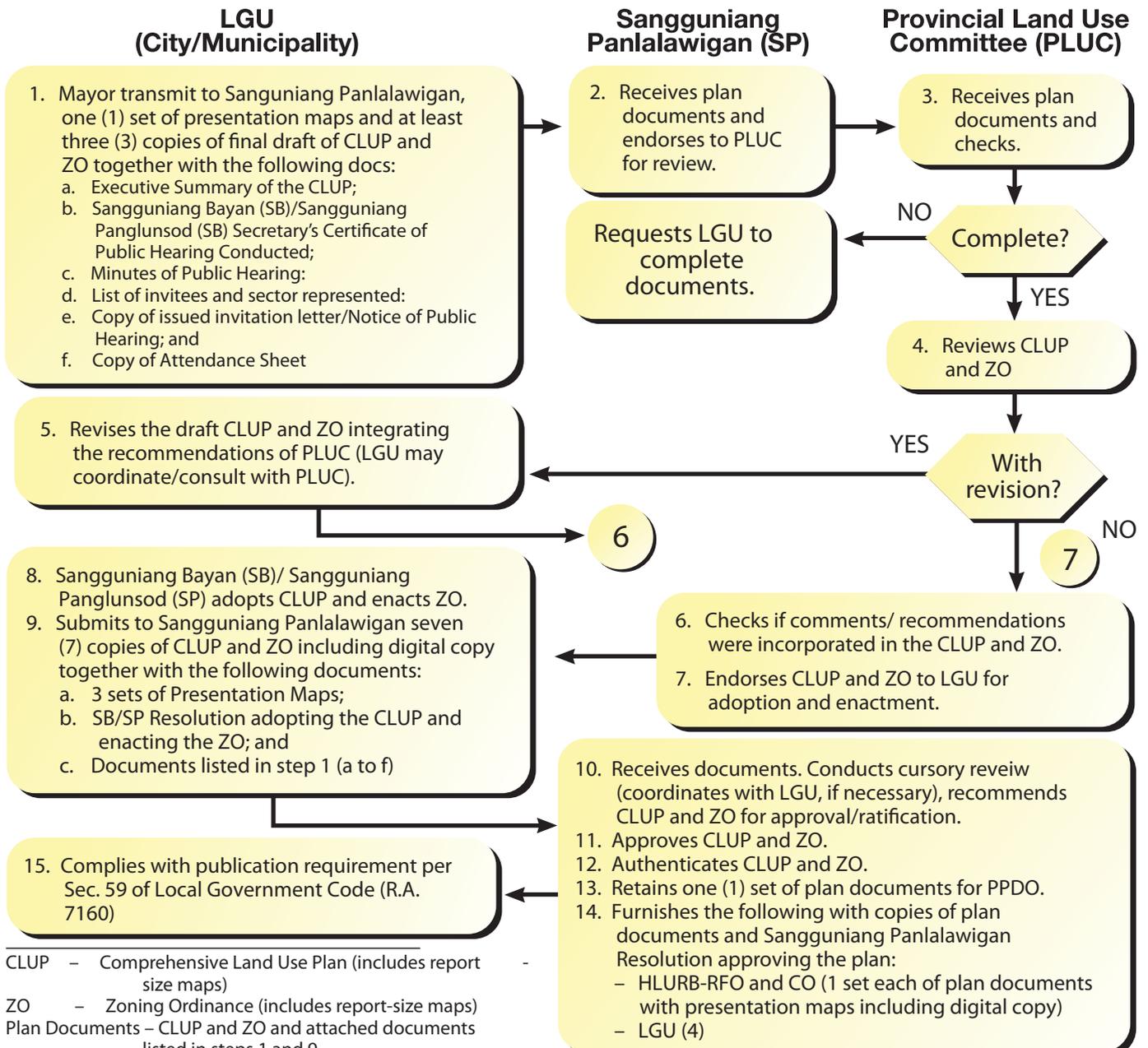
- At least 3 copies of the draft Comprehensive Land Use Plan (CLUP) and Zoning Ordinance (ZO) including digital copy
- One set of presentation map including digital copy
- Executive Summary of the CLUP (refer to Annex 9-1 of CLUP Step 9)
- SBayan/SPanlungsod Secretary's Certificate of Public Hearing conducted
- Minutes of Public Hearing/Consultation
- List of invitees and sector represented
- Copy of issued invitation letter/Notice of public hearing
- Copy of Attendance Sheet

**10.2. Conduct review and approval of the CLUP and ZO.**

The PLUC/RLUC members may expand the review parameters provided herein, with respect to the impacts, approach, strategies, etc. across sectors and ecosystems.

**A. Component Cities and Municipalities**

Figure 10-1. Revised CLUP Review and Approval Process Flowchart for Component Cities and Municipalities (CCMs)



CLUP – Comprehensive Land Use Plan (includes report size maps)  
 ZO – Zoning Ordinance (includes report-size maps)  
 Plan Documents – CLUP and ZO and attached documents listed in steps 1 and 9

10.2.A.1. The review of the CLUP and ZO shall be conducted by the Sangguniang Panlalawigan through the Provincial Land Use Committee (PLUC).

### Composition of the PLUC by virtue of EO 72

- Provincial Planning and Development Coordinator (PPDC) –Chair
- Provincial Agriculturist
- Housing and Land Use Regulatory Board (HLURB)
- Department of Environment and Natural Resources (DENR)
- Department of Agrarian Reform (DAR)
- Department of Trade and Industry (DTI)
- Department of Public Works and Highways (DPWH)
- Department of Tourism (DOT)
- Department of Interior and Local Government (DILG)
- Other suggested committee members:
  - ♦ Climate Change Commission (CCC)
  - ♦ Office of Civil Defense (OCD) - National Disaster Risk Reduction and Management Council (NDRRMC)
  - ♦ Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - ♦ Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - ♦ Mines and Geosciences Bureau (MGB)
  - ♦ National Commission on Indigenous Peoples (NCIP)
  - ♦ NCCA/NHCP/NM
  - ♦ Non-Government Organizations (NGOs)

10.2.A.2. The PLUC returns the CLUP and ZO to the LGU for integration of comments and recommendations; or for adoption and enactment if no revisions were recommended.

10.2.A.3. The LGU shall refine the plan consistent with the recommendations of the reviewing body. Close coordination between the LGU and the reviewing body is recommended to facilitate the refinement.

10.2.A.4. The LGU shall transmit the refined CLUP/ZO to PLUC to ensure that recommendations were integrated.

10.2.A.5. The PLUC shall endorse the CLUP/ZO to LGU for adoption and enactment. Furnish the Sangguniang Panlalawigan a copy of endorsement.

10.2.A.6. The LGU through the SBayan/SPANlungsod adopts the CLUP and enacts the ZO.

10.2.A.7. The LGU submits the adopted CLUP and enacted ZO to the Sangguniang Panlalawigan (thru the PLUC) for cursory review and approval.



### List of documents to be submitted:

- Seven (7) copies of the adopted CLUP and enacted ZO including digital copy
- Three (3) sets of presentation maps
- SP/SB resolution adopting the CLUP
- Documents listed in Step 10.1

10.2.A.8. The PLUC endorses the CLUP/ZO for SPanlalawigan approval. The Sangguniang Panlalawigan approves the CLUP/ZO.

10.2.A.9. The Sangguniang Panlalawigan authenticates the approved CLUP/ZO and other plan documents, and retains 1 set for the PPDO, and distributes remaining copies to:

- HLURB-RFO and CO (1 set each) including digital copy
- LGU (4 sets) (Office of the Mayor, C/MPDC, Sangguniang Bayan/Panlungsod and Zoning officer)

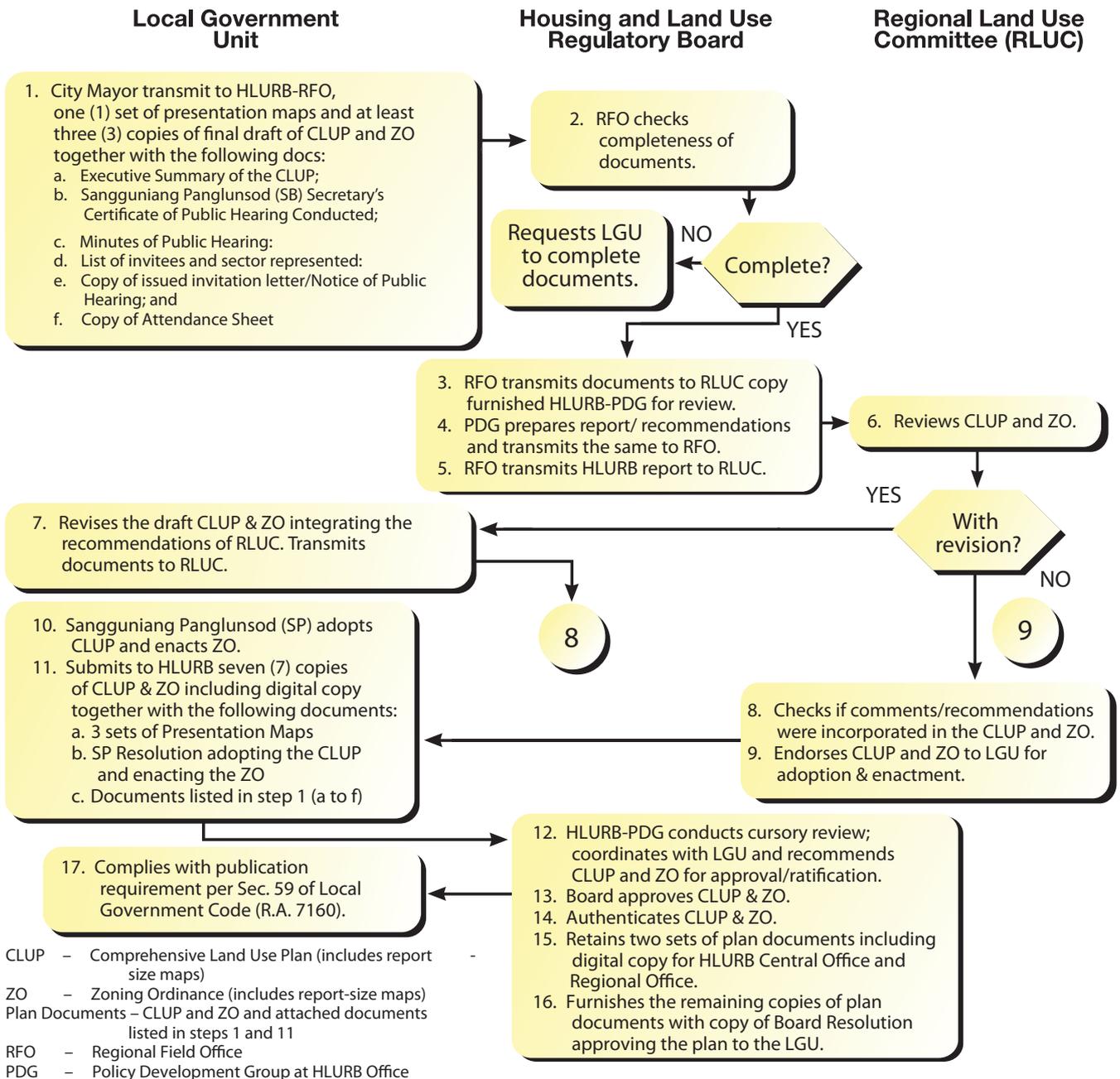
10.2.A.10. The LGU shall publish the ratified CLUP and Zoning Ordinance consistent with Section 59 of the Local Government Code (RA 7160).



See Annex 10-1 for detailed process and review parameters of Component Cities and Municipalities (CCMs).

## B. Highly-Urbanized Cities and Independent Component Cities (HUCs/ICCs)

Figure 10-2. Revised CLUP Review and Approval Process Flowchart for Highly-Urbanized Cities (HUCs) and Independent Component Cities (ICCs)



10.2.B.1. The LGU, through the Mayor, submits the final draft CLUP and ZO including the other documents as mentioned in Step 10.1 to HLURB-Regional Field Office (RFO). HLURB-RFO then checks completeness of documents submitted.

10.2.B.2. If the documents are complete, the HLURB-RFO officially transmits the documents to the RLUC and to the HLURB-Policy Development Group (PDG) for review.

10.2.B.3. The RLUC and HLURB-PDG review the CLUP and the ZO. The RLUC shall convene the Committee and invite the HLURB-PDG as well as the other agencies concerned.

### **Composition of the RLUC by virtue of EO 72**

- National Economic and Development Authority (NEDA)–Chair
- Housing and Land Use Regulatory Board(HLURB)
- Housing and Urban Development Coordinating Council(HUDCC)
- Department of Trade and Industry(DTI)
- Department of Tourism(DOT)
- Department of Transportation and Communication(DOTC)
- Department of Interior and Local Government(DILG)
- Department of Agriculture(DA)
- Department of Environment and Natural Resources(DENR)
- Department of Agrarian Reform(DAR)
- Department of Public Works and Highways(DPWH)
- Department of Science and Technology(DOST)
- Other Agencies concerned may be invited as needed:
  - ♦ Climate Change Commission (CCC)
  - ♦ Office of Civil Defense (OCD) - National Disaster Risk Reduction and Management Council (NDRRMC)
  - ♦ Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - ♦ Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - ♦ Mines and Geosciences Bureau (MGB)
  - ♦ National Commission on Indigenous Peoples (NCIP)
  - ♦ NCCA/NHCP/NM
  - ♦ Non-Government Organizations(NGOs)

10.2.B.4. The RLUC returns the CLUP and ZO to the LGU for integration of comments and recommendations; or for adoption and enactment, if no revisions were recommended.

10.2.B.5. The LGU shall refine the plan consistent with the recommendations of the RLUC, if any. Close coordination between the LGU and the RLUC is recommended to facilitate the refinement.

10.2.B.6. The LGU shall transmit the refined CLUP/ZO to RLUC for review to ensure that recommendations were integrated.

10.2.B.7. The RLUC shall endorse the CLUP/ZO to LGU for adoption and enactment. Furnish the HLURB-RFO a copy of endorsement.

10.2.B.8. The LGU through the SPanlungsod adopts the CLUP and enacts the ZO. The LGU submits plan documents to RLUC for endorsement to HLURB-CO (thru the HLURB-RFO) for approval/ratification.



### **List of documents to be submitted:**

- Seven (7) copies of the adopted CLUP and enacted ZO including digital copy
- Three (3) sets of presentation maps
- SP resolution adopting the CLUP
- RLUC endorsement for approval of the CLUP and ZO
- Documents listed in Step 10.1

10.2.B.9. The HLURB-PDG conducts cursory review of the submitted documents and endorses the CLUP and ZO to the Board of Commissioners for approval/ratification.

10.2. B.10. The HLURB Board of Commissioners approves/ratifies the CLUP/ZO.

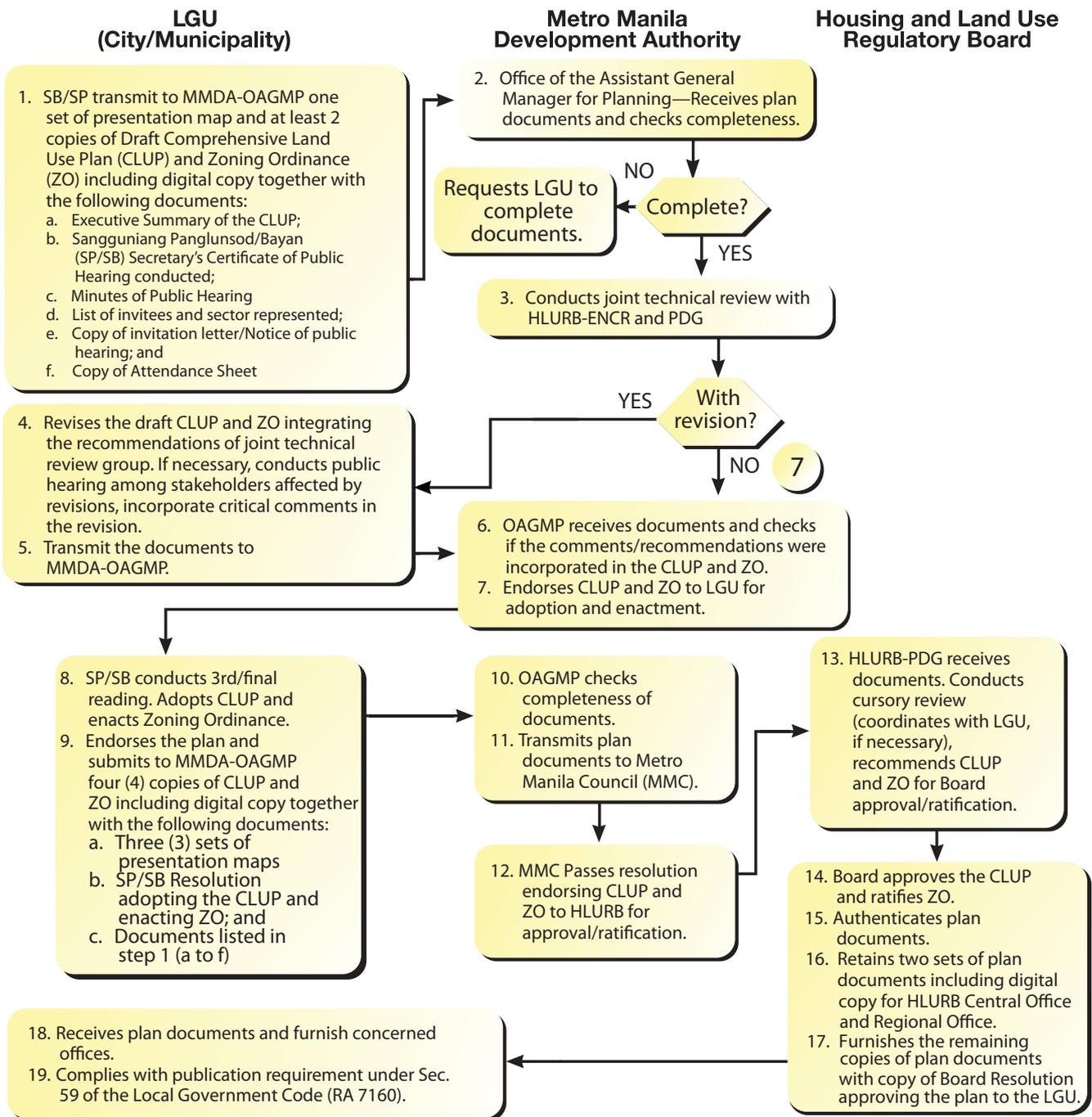
10.2.B.11. The HLURB Board Secretariat authenticates the approved/ratified CLUP and ZO as well as the other plan documents and, retains 1 set each including digital copy for the HLURB Central Office and the RFO. The remaining five (5) copies shall be transmitted to the LGU (Mayor, Sangguniang Panlungsod, CPDC and Zoning Officer)

10.2.B.12. The LGU shall publish the ratified CLUP and Zoning Ordinance consistent with Section 59 of the Local Government Code (RA 7160).

See Annex 10-2 for the detailed process and review parameters for Highly-Urbanized Cities (HUCs) and Independent Component Cities (ICCs).

### C. Metro Manila Cities and Municipality

Figure 10-3. CLUP Review and Approval Process Flow for Metro Manila Cities and Municipalities



10.2.C.1. The LGU, thru the Mayor, submits final draft of the CLUP and ZO to MMDA-Office of the Assistant General Manager for Planning (OAGMP), together with the supporting documents listed in Step 10.1. MMDA-OAGMP checks completeness of documents submitted.

10.2.C.2. The MMDA-OAGMP, Housing and Land Use Regulatory Board Expanded National Capital Region and Policy Development Group (HLURB-ENCR/PDG) conduct joint review of the submitted plan documents.

Other agencies concerned may be invited as needed such as OCD-NDRRMC, CCC, PRRC and Technical Agencies: DPWH, DENR (EMB, MGB LLDA, PAWB), DOH, DOTC, DOST (PAGASA, PHIVOLCS), among others.

10.2.C.3. The MMDA returns the CLUP and ZO to the LGU for integration of comments and recommendations; or if no revisions were recommended, for adoption and enactment.

10.2.C.4. The LGU shall refine the plan integrating the recommendations of the reviewing body, if any. Close coordination between the LGU and the reviewing body is recommended to facilitate the refinement.

10.2.C.5. The LGU transmits the refined CLUP/ZO to the MMDA-OAGMP to ensure that recommendations were integrated.

10.2.C.6. The MMDA endorses the CLUP/ZO to LGU for adoption and enactment. Furnish the HLURB-PDG a copy of the endorsement.

10.2.C.7. The LGU through the SBayan/SPanlungsod adopts the CLUP and enacts the ZO.

10.2.C.8. The LGU submits the adopted CLUP and enacted ZO together with the supporting documents as listed in Step 10.1. to the MMDA-OAGMP. Thereafter, the MMDA-OAGMP transmits the plan documents to the Metro Manila Council (MMC).

10.2.C.9. The MMC passes a resolution endorsing for approval the adopted CLUP and enacted ZO to HLURB.

10.2.C.10. The HLURB-PDG conducts cursory review and endorses the CLUP and ZO to the Board of Commissioners for approval/ratification.

10.2.C.11. The Board of Commissioners approves/ratifies the CLUP and ZO.

10.2.C.12. The Board Secretariat authenticates the plan documents and retains 2 sets including digital copy for HLURB-CO and ENCR. The remaining copies are returned to the LGU concerned.

10.2.C.13. The LGU shall publish the ratified CLUP and Zoning Ordinance consistent with Section 59 of the Local Government Code (RA 7160).

See Annex 10-3 for detailed process and review parameters for Metro Manila Cities and Municipality.

## Annex 10-1. Plan Review, Adoption and Approval Process for Comprehensive Land Use Plans of Component Cities and Municipalities (CCMs), Highly Urbanized Cities (HUCs) and Independent Component Cities (ICCs)

### CCM

RESPONSIBLE PARTY	ACTIVITIES
Local Government Units (LGU) - City/Municipality	1. Mayor transmits to Sangguniang Panlalawigan, one (1) set of presentation maps and at least three (3) copies of final draft of Comprehensive Land Use Plan (CLUP) and Zoning Ordinance (ZO) together with the following documents: <ol style="list-style-type: none"> <li>Executive Summary of the CLUP*;</li> <li>Sangguniang Bayan(SB)/Sangguniang Panglungsod (SP) Secretary's Certificate of Public Hearing conducted;</li> <li>Minutes of Public Hearing;</li> <li>List of Invitees and sector represented;</li> <li>Copy of Issued Invitation letter/Notice of Public Hearing; and</li> <li>Copy of Attendance Sheet.</li> </ol>
Sangguniang Panlalawigan	2. Receives plan documents and endorses to PLUC for review.
Provincial Land Use Committee (PLUC)	3. Receives plan documents and checks completeness. <ol style="list-style-type: none"> <li>If incomplete, requests LGU to complete documents.</li> <li>If complete, proceed with activity 4.</li> </ol> 4. Reviews CLUP & ZO. <ol style="list-style-type: none"> <li>Schedules review.</li> <li>Routes copies of plan documents to PLUC members at least two (2) weeks before the actual review.</li> <li>The PLUC Chairman invites other stakeholders as needed.</li> <li>PLUC member confirms attendance to the Secretariat.</li> </ol>
The PLUC Chairman	4.5 Convenes the members of the PLUC. <ol style="list-style-type: none"> <li>If there is quorum, proceeds with the review.</li> <li>If there is no quorum, defers review until quorum is met. A quorum is met when majority [50%+1] of the members are present.</li> </ol>
Local Government Units (LGU)	4.6 Presents the plan to PLUC.
Provincial Land Use Committee (PLUC)	4.7 Conducts review of CLUP & ZO consistent with the review parameters hereto attached. 4.8 Committee members present respective comments and recommendations. 4.9 Prepares report/recommendations. <ol style="list-style-type: none"> <li>If with comments/recommendations, transmits documents to LGU.</li> <li>If none, proceeds with activity 7</li> </ol>

Local Government Units (LGU)	5. Refines the draft CLUP and ZO integrating the recommendations of PLUC. (LGU may coordinate/consult with PLUC). Proceeds with activity 6.  Transmits refined CLUP and ZO to PLUC.
Provincial Land Use Committee (PLUC)	6. Checks if comments/recommendations were incorporated in the CLUP and ZO.  7. Endorses CLUP and ZO to LGU for adoption and enactment.
Local Government Units (LGU)	8. SB/SP adopts CLUP and enacts ZO.  9. Submits to Sangguniang Panlalawigan, seven (7) copies of adopted CLUP and enacted ZO together with the following documents:  a. Three (3) sets of Presentation Maps; b. SB/SP Resolution adopting the CLUP and enacting the ZO; and c. Documents a to f in step 1.
Sangguniang Panlalawigan	10. PLUC receives documents; conducts cursory review and endorses the CLUP and ZO to Sangguniang Panlalawigan for approval.  11. Approves CLUP and ZO.  12. Authenticates CLUP, ZO and other plan documents.  13. Retains 2 sets of plan documents, one each for Sangguniang Panlalawigan and PPDO.  14. Furnishes the following with copies of plan documents, presentation maps and Sangguniang Panlalawigan Resolution approving the plan: - HLURB-RFO (1 set) - HLURB – Central Office (1 set) - LGU (Mayor, Sangguniang Bayan/Sangguniang Panlungsod, C/MPDO and Zoning Officer)
Local Government Units (LGU)	15. Complies with publication requirement per Sec. 59 of Local Government Code (R.A. 7160).

NOTE: \* Refer to Annex 9-1 of CLUP Step 9 for Sample Executive Summary.

## HUCs and ICCs

RESPONSIBLE PARTY	ACTIVITIES
Local Government Unit (LGU)	1. City Mayor transmits to the Housing and Land Use Regulatory Board - Regional Field Office (HLURB-RFO), one (1) set of presentation maps and at least three (3) copies of final draft of Comprehensive Land Use Plan (CLUP) & Zoning Ordinance (ZO) together with the following documents:  a. Executive Summary of the CLUP*; b. Sangguniang Panlungsod (SP) Secretary's Certificate of Public Hearing conducted; c. Minutes of Public Hearing; d. List of Invitees and sector represented; e. Copy of Issued Invitation letter/Notice of Public Hearing; and f. Copy of Attendance Sheet.
Housing and Land Use Regulatory Board (HLURB)	2. RFO receives plan documents and checks completeness.  a. If incomplete, requests LGU to complete documents. b. If complete, proceeds with activity 3.

Housing and Land Use Regulatory Board (HLURB) (cont'd)	<p>3. RFO transmits documents to RLUC copy furnish PDG for review.</p> <p>4. PDG reviews the plan, prepares report/ recommendations and transmits the same to RFO.</p>
RLUC	<p>5. RFO transmits HLURB report to RLUC.</p> <p>6. Reviews CLUP and ZO.</p> <ol style="list-style-type: none"> <li>Schedules review.</li> <li>Routes copies of plan documents to members at least two (2) weeks before the actual review.</li> <li>Invites other agencies and stakeholders as needed.</li> </ol>
RLUC Chairman	<p>6.1. Convenes the members of the RLUC.</p> <ol style="list-style-type: none"> <li>If there is quorum, proceed with the review.</li> <li>If there is no quorum, defers review until quorum is met. A quorum is met when majority [50%+1] of the members are present.</li> </ol>
Local Government Unit (LGU)	6.2 Presents the plan to RLUC.
RLUC	<p>6.3 Conducts review of CLUP and ZO consistent with the review parameters provided herein.</p> <ol style="list-style-type: none"> <li>Committee members present respective comments and recommendations.</li> <li>Prepares report/ recommendations. <ol style="list-style-type: none"> <li>If with revision, requires LGU to incorporate comments and recommendations.</li> <li>If no revision, proceeds with activity 9.</li> </ol> </li> </ol>
Local Government Unit (LGU)	7. Revises the draft CLUP and ZO integrating the recommendations of RLUC (LGU may coordinate with RLUC). Transmits documents to RLUC.
RLUC	<p>8. Checks if comments /recommendations were incorporated in the CLUP and ZO.</p> <p>9. Endorses CLUP and ZO to LGU for adoption and enactment.</p>
Local Government Unit (LGU)	<p>10. SP adopts CLUP and enacts ZO.</p> <p>11. Submits to HLURB Central Office - PDG, seven (7) copies of CLUP and ZO together with the following documents.</p> <ol style="list-style-type: none"> <li>Three (3) sets of presentation maps;</li> <li>SP Resolution adopting the CLUP and enacting the ZO; and</li> <li>Documents a to f in step 1.</li> </ol>
Housing and Land Use Regulatory Board (HLURB) Central Office	<p>12. PDG receives documents. Conducts cursory review (coordinates with LGU, if necessary), recommends CLUP and ZO for Board approval. .</p> <p>13. Subjects the plan for Board deliberation and ratification.</p> <ol style="list-style-type: none"> <li>City Mayor or his duly authorized representative presents the plan.</li> <li>BOARD approves/ratifies CLUP and ZO.</li> </ol> <p>14. Authenticates CLUP, ZO and other plan documents.</p> <p>15. Retains 1 set of plan documents with one (1) set of presentation maps.</p> <p>16. Furnishes the following with copies of plan documents and Board Resolution approving the plan:</p> <ol style="list-style-type: none"> <li>HLURB-RFO (1 set of plan docs.) with 1 set of presentation maps</li> <li>LGU (remaining copies for Office of the Mayor, CPDO, Zoning Office, Sangguniang Panlungsod, City Assessor/Building Office)</li> </ol>
Local Government Unit (LGU)	17. Complies with publication requirement per Sec. 59 of Local Government Code (R.A. 7160).

NOTE: \* Refer to Annex 9-1 of CLUP Step 9 for Sample Executive Summary.

## Parameters for the Review of CLUPs of Component Cities and Municipalities (CCMs), Highly-Urbanized Cities (HUCs) and Independent Component Cities (ICCs)

	CCMs	HUCs and ICCs
Provincial Planning and Development Coordinator (PPDC)	<p>a. Checks if local plan conforms or is in harmony with the Provincial Physical Framework Plan (PPFP) and Provincial Development Plan (PDP).</p> <p>b. Checks if plan conforms with development thrust and policies of the province and does not conflict with the land use plans of adjacent municipalities.</p> <p>c. Checks if the CLUP is consistent with the Provincial CCA/DRRM plan.</p> <p>d. Evaluates the CLUP vis-à-vis other approved provincial policies, plans and programs.</p>	
National Economic and Development Authority (NEDA)		<p>a. Checks if the CLUP and ZO is consistent with the PPFP, RPFP and other national/regional policies set by NLUC/RLUC.</p> <p>b. Checks if the CLUP and ZO is in harmony with the land use plans of adjacent cities and municipalities.</p> <p>c. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
<p>Provincial Agriculturist (PA) for CCM</p> <p>Department of Agriculture (DA) for HUCs/ICCs and MMCs</p>	<p>a. Checks if irrigated and irrigable lands are identified, quantified and delineated per RA 8435 (AFMA);</p> <p>b. Determines if areas identified for urban expansion are outside the identified Network of Protected Areas for Agricultural and Agro-Industrial Development (NPAAAD) and Strategic Agriculture and Fisheries Development Zones (SAFDZ).</p> <p>c. Checks consistency with and compliance to MC 54 (...Reclassification of Agricultural Lands to Non-agricultural Uses).</p> <p>d. Determines if high-/medium-risk agricultural and fishery/marine areas are delineated and if appropriate, conflict- and gender-sensitive policy options to address climate change and disaster impacts are established.</p> <p>e. Checks compliance to Fisheries Code (RA8550), DAOs and other relevant laws.</p> <p>f. Evaluates CLUP vis-à-vis approved policies, plans and programs of the DA and its instrumentalities.</p>	
Housing and Land Use Regulatory Board (HLURB)	<p>a. Checks whether LGU clearly identified its functional role and whether the proposed land use plan and development strategies are consistent with its vision.</p> <p>b. Evaluates if the plan is in harmony with the land use plans of adjacent cities and municipalities, and takes into account existing and potential conflicting land uses, and shared climate and disaster risks, with other municipalities.</p> <p>c. Evaluates the CLUP if it is in accordance with the development policies of the Region and Province.</p>	

<p>Housing and Land Use Regulatory Board (HLURB) (cont'd)</p>	<p>d. Evaluates if the land/space requirements for basic services and facilities are identified, quantified and properly delineated.</p> <p>e. Evaluates if the location of different land uses are suitable, properly allocated, and delineated, such as forest and coastal/marine ecosystems, including required easements along inland water, coastal and marine bodies; and buffer areas to reduce land use conflicts and risks.</p> <p>f. Evaluates if proposed socio-cultural and other infrastructure support facilities are adequate and supportive of the city's/ municipality's functional role and development thrust.</p> <p>g. Checks if sites for socialized housing are identified and properly delineated pursuant to R.A. 7279 (Urban Development and Housing Act of 1992).</p> <p>h. Checks if the locality has other programs and projects to address the squatting problems.</p> <p>i. Checks consistency with and compliance to MC 54 (...Reclassification of Agricultural Lands to Non-agricultural Uses).</p> <p>j. Checks whether the land use plan is translated into the requisite Zoning Ordinance with clear zone boundaries.</p> <p>k. Checks integration/ mainstreaming of climate change and disaster risk reduction management, biodiversity, heritage conservation, ancestral domain and green growth in the CLUP and ZO.</p> <p>l. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
<p>Department of Environment and Natural Resources (DENR)</p>	<p>a. Checks whether present and proposed residential/settlement sites are free from legal (e.g. tenure) and environmental constraints.</p> <p>b. Checks whether there are inconsistencies between areas proposed for protection and areas for production (e.g. mining leases/permits within protection zones).</p> <p>c. Checks if there are sites identified for disposal and projects for management of solid and other hazardous waste within the city/municipality.</p> <p>d. Checks the consistency of the City/Municipal Solid Waste Management Plan with the CLUP.</p> <p>e. Checks if the plan promotes the enhancement of environmental quality through local initiatives to control water, air and land pollution.</p> <p>f. Checks if there are plans for sustainable development and management of natural resources within the city/municipality.</p> <p>g. Ensures that the identified areas for urban use are not within the coverage of DENR's ECAs, if applicable.</p> <p>h. Checks/evaluates the proposed solid waste management program if these conforms with the provisions of Ecological Solid Waste Management Act (RA 9003).</p> <p>i. Ensures the protection of watershed and national parks..</p> <p>j. If there are forestlands, checks if forest land use is integrated into the CLUP.</p> <p>k. If applicable, ensures that areas with slope 18% and above are not designated for urban use. Delineate which is for the forest and which is A&amp;D.</p> <p>l. Checks if there are endangered flora and fauna in the area and if there are corresponding programs/ projects for the protection or conservation of such areas.</p> <p>m. Checks if the land use plan and zoning ordinance directs development away from medium- and high-risk areas.</p>

Department of Environment and Natural Resources (DENR) (cont'd)	<p>n. Check if municipal waters, foreshore and coastal areas are delineated, mapped and reflected in the CLUP/ZO.</p> <p>o. Evaluates the CLUP vis-à-vis approved agency related policies plans/programs.</p>
Department of Agrarian Reform (DAR)	<p>a. Checks/evaluates if there are agricultural lands within the coverage of CARP that were reclassified.</p> <p>b. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
Department of Trade and Industry (DTI)	<p>a. Checks if Special Economic Zones identified by PEZA are delineated in the plan.</p> <p>b. Evaluates if the proposed industrial sites are suitable for industrial development such as not within prime agricultural area, Environmentally Critical Areas, Key Biodiversity Areas and Critical Habitats, etc.</p> <p>c. Checks if proposed industrial sites are not located in high-risk areas for climate and disaster risk.</p> <p>For medium-risk areas, check if appropriate mitigation and/or adaptation measures shall be provided for industries to be located in the area.</p> <p>d. Checks if the Small and Medium Enterprise Development plan, Investment Priority Program sites are identified quantified and delineated in the CLUP.</p> <p>e. Checks if the requisite utilities and facilities are adequate and are climate- and disaster-resilient.</p> <p>f. Evaluates the CLUP vis-à-vis approved agency related policies/plans/ programs</p>
Department of Public Works and Highways (DPWH)	<p>a. Checks/evaluates if the proposed road network and other infrastructure facilities and utilities are adequate to support the various land uses.</p> <p>b. Evaluates if the CLUP is consistent and in sync with the DPWH plans and programs for implementation within the planning period.</p> <p>c. Determines if appropriate mitigation and adaptation measures for climate change and disaster risks are identified.</p> <p>d. Checks if the proposed Traffic Management Program (TMP) has linkage with the TMPs of adjacent cities and municipalities.</p> <p>e. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
Department of Tourism (DOT)	<p>a. Checks if potential tourism sites are identified and considered in the plan.</p> <p>b. Checks if the sites identified for local tourism development is supportive of the Regional and Provincial Tourism Master Plan.</p> <p>c. Determines if there are adequate utilities/facilities to support tourism activities.</p> <p>d. Determines if tourism facilities are resilient to climate change and disaster risks.</p> <p>e. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
Department of Interior and Local Government (DILG)	<p>a. Checks the institutional capacity of the LGU to implement the CLUP and enforce the ZO.</p> <p>b. Ascertain the complementation and harmony of CLUP and ZO with other local codes such as Revenue Code, Environment Code, Investment and Administrative Code.</p>

<p>Department of Interior and Local Government (DILG) (cont'd)</p>	<p>c. Checks if the proposed implementing and monitoring schemes are consistent with the Local Government Code.</p> <p>d. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
<p>DOST - Philippine Institute for Volcanology and Seismology (DOST-PHIVOLCS)</p>	<p>a. Checks if the land use plan and zoning ordinance reflect information on earthquakes, faults, volcanic danger zones, and areas at high risk to lahar and earthquake-induced hazards, e.g. landslide, tsunami, etc., including their implications to land use planning.</p> <p>b. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
<p>DOST - Philippine Atmospheric, Geophysical and Astronomical Services Administration (DOST-PAGASA)</p>	<p>a. Checks if the land use plan and zoning ordinance reflects climate information on areas prone to storm surge, severe wind, flood, and tropical cyclones, including their implications to land use planning.</p> <p>b. Checks if the CLUP provides for early warning systems.</p> <p>c. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
<p>Department of Science and Technology (DOST)</p>	<p>a. If applicable, furnishes LGU list of projects/studies/researches useful for land use within the city that are programmed for implementation by DOST but not identified in the plan.</p> <p>b. Checks or recommends whether there are available technologies for the development of low cost housing materials in the locality.</p> <p>c. Checks or recommends the suitability of technology identified in the proposed projects.</p> <p>d. Checks whether there are indigenous technology worthy of development which can be adopted, innovated or improved.</p> <p>e. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs</p>
<p>National Commission on Indigenous Peoples (NCIP)</p>	<p>a. Checks if there are ancestral domain areas in the LGU and if the following are integrated in the CLUP and ZO, among others:</p> <ul style="list-style-type: none"> <li>• Inventory of the resources within the ancestral domain</li> <li>• Assessment of the condition of resource assets within the ancestral domain</li> <li>• Endemic flora and fauna, critical habitats and biodiversity conservation areas</li> <li>• Traditional or indigenous uses of these resources and its community map</li> <li>• Agreed proposed land uses and zoning of the ancestral domain</li> </ul> <p>b. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs</p>
<p>National Commission for Culture and the Arts (NCCA)</p> <p>National Historical Commission of the Philippines (NHCP)</p> <p>National Museum (NM)</p>	<p>a. If there are heritage areas/sites, checks if these are integrated in the CLUP and Zoning Ordinance in accordance with Republic Act No. 10066 otherwise known as the National Cultural Heritage Act of 2009” and its IRR; and the guidelines and standards applied to sites declared by the National Historical Commission of the Philippines (NHCP) or the National Museum (NM) as Historic Centers or Heritage Zones.</p> <p>b. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
<p>Non-Government Organization (NGO)</p>	<p>a. Checks whether the plan provides access to socio-economic opportunities of the under-privileged and other basic sectors, especially persons at high/medium-risk to impacts of disasters and climate change.</p>

Non-Government Organization (NGO) (cont'd)	<p>b. Evaluates if the CLUP development strategies, programs and projects promote the interests of the basic sectors.</p> <p>c. Evaluates the CLUP vis-à-vis laws and regulations affecting human rights, gender, and other sectoral concerns.</p>
Department of Transportation and Communication (DOTC)	<p>a. Checks if the proposed transportation and communication facilities and utilities are adequate to support the various land uses.</p> <p>b. Evaluates if the CLUP is consistent and in sync with the DOTC plans and programs for implementation within the planning period.</p> <p>c. Determines if appropriate mitigation and adaptation measures for climate change and disaster risks are identified.</p> <p>d. Checks if the proposed Traffic Management Program (TMP) has linkage with the TMPs of adjacent cities and municipalities.</p> <p>e. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>
Mines and Geo-sciences Bureau (MGB)	<p>a. Checks if the land use plan and zoning ordinance reflect information on areas at high risk to geological hazards, including their implications to land use planning.</p> <p>b. Evaluates the CLUP vis-à-vis approved agency related policies/plans/programs.</p>

## Annex 10-2. Plan Review, Adoption and Approval Process for Metro Manila Cities and Municipality (MMCM)

RESPONSIBLE PARTY	ACTIVITIES
	<p>Important: Step 1 below shall only take place after the following activities had already been undertaken:</p> <ul style="list-style-type: none"> <li>• Plan formulation (in consultation with HLURB, MMDA and PRRC, among others)</li> <li>• Passed SB/SP 1st and 2nd readings.</li> <li>• Required Public hearing conducted.</li> </ul>
Local Government Unit (LGU)	<p>1. SP/SB transmits to the MMDA planning office (OAGMP), one set of presentation maps and at least 3 copies of final draft of Comprehensive Land Use Plan (CLUP) and Zoning Ordinance (ZO) together with the following documents:</p> <ol style="list-style-type: none"> <li>a. Executive Summary of the CLUP*;</li> <li>b. Sangguniang Panlungsod/Bayan (SP/SB) Secretary's Certificate of Public Hearing conducted;</li> <li>c. Minutes of Public Hearing;</li> <li>d. List of invitees and sector represented;</li> <li>e. Copy of issued Invitation letter/Notice of public hearing; and</li> <li>f. Copy of Attendance Sheet</li> </ol>
Metro Manila Development Authority (MMDA)	<p>2. Office of the Assistant General Manager for Planning (OAGMP) receives and checks completeness of plan documents.</p> <ol style="list-style-type: none"> <li>a. If complete, schedules technical review and invites LGU to present the plan.</li> <li>b. If incomplete, requests LGU to complete documents.</li> </ol>

<p>Metro Manila Development Authority (MMDA) and Housing and Land Use Regulatory Board (HLURB)</p> <p>Other agencies shall be invited as member of the technical review: OCD-NDRRMC, CCC, PRRC, DPWH, DENR (EMB, MGB, LLDA, BMB), DOH, DOTC, DOST (PAGASA, PHIVOLCS)</p>	<p>3. Conduct joint technical review and prepare report/recommendation.</p> <p>a. If without comments/recommendations, requests LGU to adopt CLUP and enact ZO. Proceed to activity 7.</p> <p>b. If with comments/recommendations, proceed to activity 4.</p>
<p>Local Government Unit (LGU)</p>	<p>4. Revises the draft CLUP and ZO integrating the recommendations of joint technical review group. If necessary, conducts public hearing among stakeholders affected by the comments/recommendations, incorporates critical comments in the refinement.</p> <p>5. Transmits the final draft of CLUP and ZO to MMDA-OAGMP.</p>
<p>Metro Manila Development Authority (MMDA)</p>	<p>6. OAGMP receives documents and checks if the comments/recommendations were incorporated in the CLUP and ZO.</p> <p>7. Endorses CLUP and ZO to LGU for adoption and enactment. Furnish HLURB with a copy of the endorsement.</p>
<p>Local Government Unit (LGU)</p>	<p>8. SP/SB conducts 3rd / final reading. Adopts CLUP and enacts Zoning Ordinance.</p> <p>9. Endorses the adopted CLUP and enacted ZO and submits to MMDA-OAGMP seven(7) copies of CLUP &amp; ZO together with the following documents: a. Three (3) sets of presentation maps. b. SP/SB Resolution adopting the CLUP and enacting ZO; and c. Documents listed in step 10.1.</p>
<p>Metro Manila Development Authority (MMDA)</p>	<p>10. OAGMP checks completeness of documents.</p> <p>11. Transmits plan documents to Metro Manila Council (MMC). Invites the LGU to present the plan.</p>
<p>Metro Manila Council</p>	<p>12. MMC passes resolution endorsing the adopted CLUP &amp; enacted ZO to HLURB for approval/ratification.</p>
<p>Housing and Land Use Regulatory Board (HLURB)</p>	<p>13. PDG receives documents. Conducts cursory review (coordinates with LGU, if necessary), recommends adopted CLUP &amp; enacted ZO for Board approval/ratification.</p> <p>14. Mayor and the city/municipal planning and development officer present the plan.</p> <p>15. Board of Commissioners approves/ratifies the CLUP and ZO.</p> <p>16. Board secretariat authenticates plan documents, and retains 2 copies for HLURB Central Office and ENCR.</p> <p>17. Returns remaining copies of plan documents with copy of Board resolution approving the plan to LGU. (MMDA, Mayor, Sangguniang Panlungsod/ Bayan, C/MPDO and Zoning Office)</p>
<p>Local Government Unit (LGU)</p>	<p>18. Complies with publication requirement under Sec. 59 of the Local Government Code (RA 7160).</p>

NOTE: \* Refer to Annex 9-1 of CLUP Step 9 for Sample Executive Summary.

## Parameters for the Review of Metro Manila Cities and Municipalities' Comprehensive Land Use Plan (CLUPs) and Zoning Ordinances (ZOs)

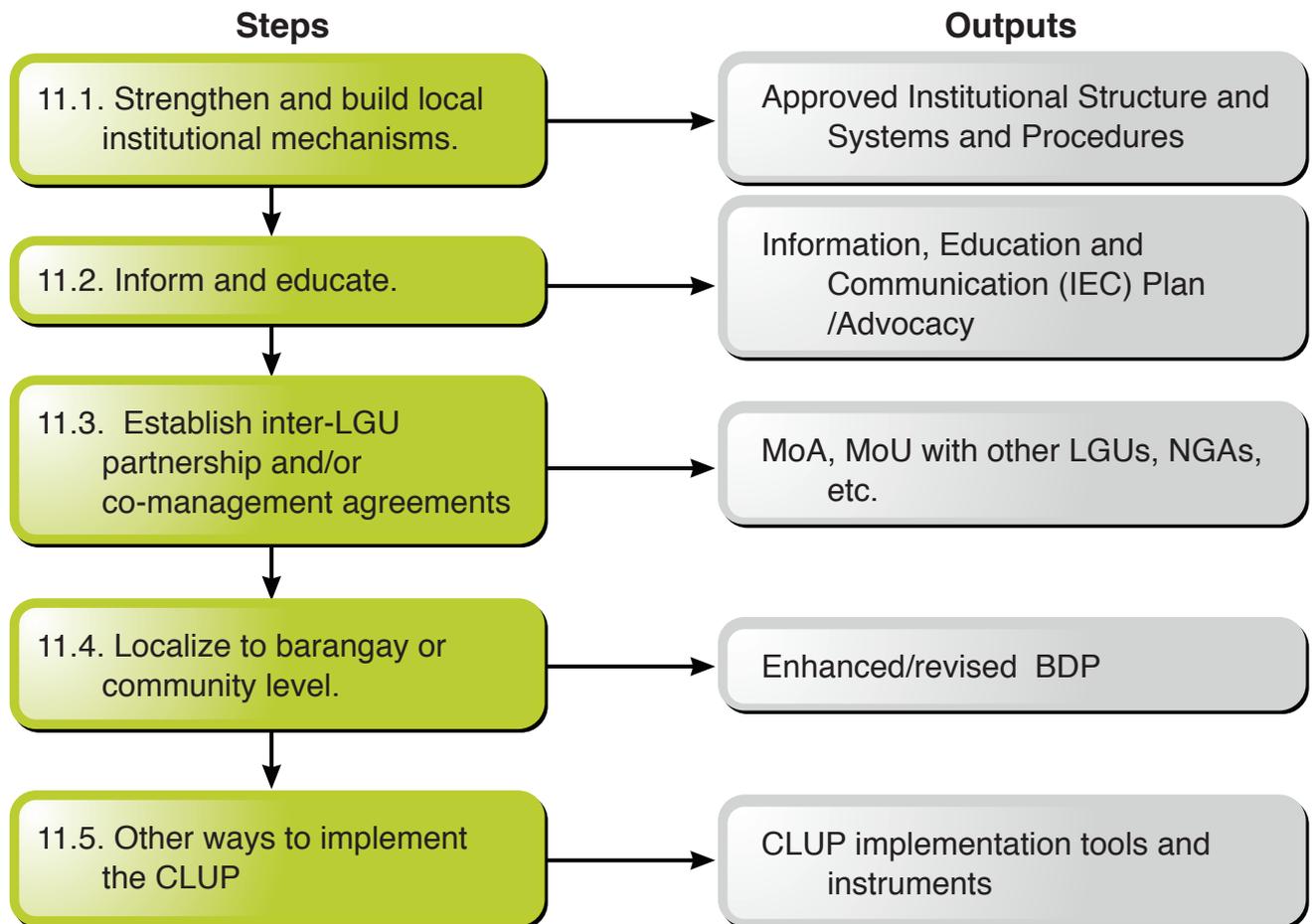
RESPONSIBLE PARTY	ACTIVITIES
MMDA – OAGMP and HLURB	<ol style="list-style-type: none"> <li>1. Check if local plan conforms with the Metro Manila Physical Development Framework Plan and other national or regional plans.</li> <li>2. Checks whether LGU clearly identified its functional role and whether the proposed land use plan and development strategies are consistent with its vision.</li> <li>3. Evaluate if the plan adequately defines the role of the city/municipality in relation to the development of Metro Manila and if it pursues synergy and promotes inter-local cooperation with adjoining LGUs.</li> <li>4. Evaluates if the plan is in harmony with the land use plans of adjacent cities and municipalities, and takes into account existing and potential conflicting land uses, and shared climate and disaster risks, with other municipalities.</li> <li>5. Determine if the proposed development strategy is responsive to the social and economic needs of its residents, pursuant to the principles of sustainable development.</li> <li>6. Evaluates if the land/space requirements for basic services and facilities, socio-cultural and other infrastructure support facilities and other services (e.g. waste management, traffic management, drainage and sewerage, flood control) are identified, quantified and properly delineated.             <ol style="list-style-type: none"> <li>6.1 Ensures the inclusion of a proposed traffic management program which is consistent with MMDA's Metro wide Traffic Management Plan.</li> <li>6.2 Ensures the presence of flood and fire control programs</li> <li>6.3 Ensures that local flood control programs are consistent with agency flood control programs, such as MMDA and DPWH</li> <li>6.4 If applicable, ensure inclusion of proposed government and private infrastructure projects within the LGU that are supportive of its development thrust.</li> </ol> </li> <li>7. Evaluates if the location of different land uses are suitable, properly allocated, and delineated, such as forest and coastal/marine ecosystems, including required easements along inland water, coastal and marine bodies; and buffer areas to reduce land use conflicts and risks.</li> <li>8. Checks if sites for socialized housing are identified and properly delineated pursuant to R.A. 7279 (Urban Development and Housing Act of 1992).</li> <li>9. Checks if the locality has other programs and projects to address the squatting problems.</li> <li>10. Checks whether the land use plan is translated into the requisite Zoning Ordinance with clear zone boundaries.</li> <li>11. Checks integration/ mainstreaming of climate change and disaster risk reduction management, biodiversity, heritage conservation, ancestral domain and green growth in the CLUP and ZO.</li> <li>12. Evaluate if proposed strategies, land use, and programs and projects directly address identified climate and disaster risks.</li> <li>13. For MMA LGUs along Pasig River, check if the following policies covering the adoption of a uniform easement provision along the Pasig river system including its major and minor tributaries, as provided in MMDA Resolution No. 3 - series of 1996 are complied with/integrated in the CLUP and ZO:             <ul style="list-style-type: none"> <li>• Establishment of a continuous 10-meter Environmental Preservation Area (EPA), determined from the existing bank of the river, along both banks of the 27-km stretch of Pasig River, from Manila Bay to Laguna Lake, including the major tributaries of Marikina River and San Juan River and developing the same into linear parks, roads, walkways, or greenbelts, conducive to transport, recreation and tourism.</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>• Establishment of a 3-meter easement along secondary tributaries, creeks and esteros of the Pasig River.</li> <li>• Construction of permanent structures are not allowed within the 10-meter EPA for pocket parks, linear parks, plazas, viewpoints, pedestrian promenades, bike lanes, play lots, open air sports facilities (basketball courts, tennis courts), reflexology areas, urban agriculture, plant nurseries and wastewater gardens.</li> <li>• Construction of the following structures are allowed but shall be subject to PRRC guidelines: ferry stations; sewage treatment plants; emergency call boxes or stations; security stations or coast guard stations; public toilets, pergolas, gazebos, trellises; tourist information facilities, shops and snack bars, ambulant carts, newsstands; benches; drinking fountains; public art; plant boxes; parking; existing roads and underground power/cable lines.</li> <li>• The following activities/uses are strictly not allowed along the easement: residential uses; service facilities; storage uses; pollutive activities; solid waste transfer stations; and landfills.</li> <li>• Immediate adjacent developments are to face the Pasig River and provide a maximum view of the river through provision of a maximum height of 1.80 meters. Materials are to be made of wooden lattice, grill, or interlink wire materials. CHB walls are allowed subject to a maximum height of 0.60 m, in combination to the above materials.</li> <li>• Maintenance of architectural and visual qualities of existing historic buildings and streetscapes through preservation and adaptive re-use of historically and culturally important sites/buildings.</li> <li>• Check if proposed development plans and guidelines for the rehabilitation and improvement along the 500 meters from the banks, for the entire length of the Pasig river, conform to the goals and objectives, land uses and development strategies of the approved Pasig River Rehabilitation Master Plan (PRRMP).</li> </ul>
Housing and Land Use Regulatory Board (HLURB)	<p>In addition to above parameters, HLURB reviews the following:</p> <ol style="list-style-type: none"> <li>1. Zoning Ordinance       <ol style="list-style-type: none"> <li>a. Evaluates if the zone categories correspond to the proposed land uses in the CLUP.</li> <li>b. Checks if the allowable uses of the zone categories are consistent with the development intent and policies of the CLUP.</li> <li>c. Checks if the zoning boundaries or zoning districts are accurately delineated on the maps and corresponds with the text description.</li> <li>d. Evaluates if proposed performance zoning or other innovative zoning techniques/ approaches and other forms of development regulations correspond to the locality's requirement.</li> </ol> </li> <li>2. CLUP and ZO Implementation       <ol style="list-style-type: none"> <li>a. Evaluates if the proposed project/ programs are the actual translation of the LGU's needs and requirements given its functional role and development thrust and as identified in the socio-economic, land use and infrastructure sectors and whether these are prioritized.</li> <li>b. Determines if proposed institutional mechanism is consistent with the Local Government Code and responsive to its development requirements.</li> <li>c. Checks and evaluates innovative approaches or solutions to the LGU's need for additional sources of funds for project implementation.</li> <li>d. Checks if the proposed implementing and monitoring schemes are consistent with the new Local Government Code and requisite for the attainment of the set development goals, objectives and strategies.</li> </ol> </li> </ol>
Mines and Geosciences Bureau	Checks if the land use plan and zoning ordinance directs development away from areas at high risk to flood, and rain-induced landslides.
DOST- Philippine Institute for Volcanology and Seismology (DOST-PHIVOLCS)	Checks if the land use plan and zoning ordinance directs development away from earthquakes faults, volcanic danger zones, and areas at high risk to lahar and earthquake-induced landslides.
DOST-Philippine Atmospheric, Geophysical and Astronomical Services Administration (DOST-PAGASA)	<ol style="list-style-type: none"> <li>a. Checks if the land use plan and zoning ordinance directs development away from areas prone to storm surge, severe wind, flood, and tropical cyclones.</li> <li>b. Checks if land resources are made available for installation of early warning systems.</li> </ol>

National Commission for Culture and the Arts/ National Historical Commission of the Philippines (NHCP)/ National Museum (NM)	If there are heritage areas/ sites, checks if the plan and ordinance are conformant to the “Implementing Rules and Regulations of Republic Act No. 10066 otherwise known as the National Cultural Heritage Act of 2009” and the guidelines and standards applying to sites that the National Historical Commission of the Philippines (NHCP) or the National Museum (NM) has declared Historic Centers or Heritage Zones.
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# Step 11: Implement The CLUP and Zoning Ordinance

Set prerequisite measures to realistically implement the CLUP and ZO.



## Introduction

Implementing the CLUP requires resources, institutional structures, and procedures, among others, to be realized. (See Annex 11-1 Capacity Assessment for Implementation) The Local Government Code allows flexibility for LGUs to design and implement their own organizational structure and staffing pattern according to their vision, goals, and objectives. Other measures and instruments maybe enacted by the LGU to realistically implement the CLUP/ ZO. These measures and instruments are laid out in this section. LGUs will have to judge what is appropriate for their own situation. The LGU's creativity in governance will be a key to successful plan implementation.




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### Objective/s

- Establish detailed operational plans for the implementation of the CLUP and ZO
- Establish institutional mechanisms responsive to the vision, goals and objectives of the CLUP
- Present other modalities of implementing the CLUP outside of the integrated Zoning Ordinance (ZO)
- Present complementary instruments such as revenue/fiscal incentives, planning and policy instruments, permits/fees and licensing structures of the LGUs in order to achieve the desired results of the CLUP
- Establish/strengthen partnerships and cooperation arrangement with stakeholders




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### Key Input/s

- Approved CLUP and Zoning Ordinance
- Existing operational and institutional cooperation among LGU implementing units
- Related laws and local ordinances




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### Expected Output/s

- Approved Institutional Structure and Systems and Procedures
- Investment Programs
- Information, Education and Communication (IEC) Plan /Advocacy
- Links to other CLUP implementation tools and instruments




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### Key Technical Actors/Responsible Bodies

- Decision-making Authority: Local Chief Executive, SanggunianPanlungsod/ Bayan
- Lead Technical and Implementing Arm: City/Municipal Planning and Development Office (C/MPDO);Local Zoning/Enforcement Office; Local Zoning Board of Appeals
- Other Implementing Bodies: Relevant LGU offices and Barangays



# Steps

## 11.1 Strengthen and build local institutional mechanisms

### 11.1.1 Review the LGU’s organizational structure, staff composition, and responsibility centers vis-a-vis the requirements to effectively implement the approved CLUP and Zoning Ordinance.

Review all existing operating units (mandated by law or generic to the LGU) and special bodies created to implement the CLUP and Zoning Ordinance. Special bodies may be on a permanent or ad hoc tenure. (See Table 11-1 for Sample Review of Organizational Structure). The review of organizational structure shall be governed by the limitation set forth by the Local Government Code (LGC), Civil Service Commission (CSC) and other relevant laws and legally constituted authorities.

In most cases, LGUs will require changes in their organizational structure to improve development performance and eventually attain the vision, goals, and objectives of the CLUP. Some offices may need to be strengthened by additional staff and/or capacity building programs. There may also be cases when establishment of new offices/units or ad-hoc bodies (e.g. one stop shop) is necessary in order to implement the CLUP

Table 11- 1. Sample: Review of Organizational Structure and Support

Offices/Adhoc Bodies Implementing CLUP	Issues and Concerns	Recommended Action
C/MPDO	Inadequate staff; lack of expertise/training	Additional plantilla position, budget for capacity building program
Office of the Municipal Engineer	Concern: LC pre-requisite to issuance of Building Permit	Conference/Conduct of coordinative meetings
Office of the Municipal Assessor	Consideration of CLUP/ZO in land assessment/valuation	-do-
Local Disaster Risk Reduction Management Office	Implementing DRR measures	As mandated by RA10121
Housing Board	Absence of a housing affairs unit	Creation of Housing Affairs Unit
Urban Poor Affairs Office	-do-	-do-
Zoning/Enforcement Office	Absence of or/ inadequate capacity of the Zoning Enforcement Office	Creation of a separate Zoning/Enforcement Office; Capability building training/Seminar to strengthen staff of said office
Local Zoning Review Committee	Not yet constituted	Constitute LZRC and establish internal organizational structure and processes
Local Zoning Board of Appeals	Not yet constituted	Constitute the LZBA per ZO and establish internal organizational structure and processes



#### Recommendation:

#### Creation of Special Bodies/Committees

The formation of the following are recommended to improve implementation for specific areas:

- Steering Committee (SC) for Forest Lands. Consistent with DENR-DILG JMC 2003-01, a multi-sectoral Steering Committee can be organized which would provide oversight in the implementation of the Zoning Ordinance within forestlands. All permits and application for tenure instruments will have to be endorsed by the SC through the office of the Municipal Environment

and Natural Resources Officer (MENRO) and the Zoning Administrator before processing by the DENR. Under existing policy, the Steering Committee is headed by the local chief executive co-chaired by the DENR. As part of the SC, a multi-sectoral forest protection team may also be organized to enforce forestry laws and regulations.

- Heritage Conservation Committee. The Citizens Advisory Subcommittee for Heritage Conservation (proposed as part of the Planning Technical Working Group) can be transformed into the Heritage Conservation Committee who can provide oversight in developments which would affect heritage conservation.



### Examples of Special Bodies/Committees

Some recently approved CLUPs/ZOs have resulted in the creation of special bodies/committees where the stakeholders are aptly represented. These include:

- Area Development Council—composed of multi-sectoral representatives created to ensure an effective partnership in implementing the policies, programs and projects in the designated Area Development Zones (ADZs) provided for in the CLUP and ZO (Pasay City CLUP).
- Local Housing Boards—composed of local government unit officials, private sectors and informal settlers association created to manage the housing program in the LGU. These are based on the Housing Sector Plan as well as the land use plan on residential areas as reflected in the CLUP/ZO of the LGU (Office of Population and Urban Affairs, Ormoc City).
- Citizen Participation Committee—a multi-sectoral committee established to ensure the active participation of community in governance. (Naga City)

## 11.1.2. Revisit details of existing operational guidelines vis-à-vis the requirements to implement the approved CLUP and Zoning Ordinance.

This activity is necessary to ensure transparency, accountability, efficiency, and compliance with recent national policies. In many cases existing operational guidelines need only to be amended to be consistent with the development framework, vision, goals, objectives and policies in the approved CLUP.

- Establish operating units as provided for in the approved Zoning Ordinance such as:
  - ♦ Local Zoning Officer
  - ♦ Local Zoning Board of Appeals
  - ♦ Local Zoning Review Committee

Membership, functions and duties of the units shall be based on the approved Zoning Ordinance.

- Establish a permitting system (See Table 11–2) to govern land and water use development regulations consistent and in compliance with the approved CLUP and Zoning Ordinance. This shall be in terms of processing and approval of local applications for:
  - ♦ Locational clearance of development projects
  - ♦ Building permits
  - ♦ Development permits for subdivision and condominium projects
  - ♦ Business permit and investment potentials
  - ♦ Local revenue assessment
  - ♦ Environmental clearance
  - ♦ Procurement clearance and permits
- Assess applications for land use development permits and management schemes based on the following considerations:
  - ♦ Conformity with the approved integrated Zoning Ordinance and

- CLUP in terms of site zoning classification, use regulations, area regulations, documentary requirements and others;
- ♦ Determine whether proposed development project is a permitted use, allowable use or a possible variance within the zone applied for ; and
- ♦ Use Decision Guidelines for Land Development Projects/Development Assessment Guidelines in assessing projects.



(See Annex 11-2 for the Decision Guidelines for Land Development Projects).

Table 11-2. LGU Permitting System

License	Office/Institution
Locational clearance of development projects	Zoning Officer
Building permits	Engineering Office
Development permits for subdivision and condominium projects	Zoning Officer or City/Municipal Planning Development Office
Business permit and investment potentials	Business Permits and Licensing Office
Local revenue assessment	Assessor's Office
Environmental clearance	Environment and Natural Resources Office (if created) or Agriculture Office or Engineering Office or Administrator
Procurement clearance and permits	Administrator or Treasurers, PBAC

**11.1.4. Identify other development regulations in addition to the approved zoning ordinance needed to fully implement the approved CLUP, as follows:**

- Review existing local ordinances related to land use development/control for possible inconsistencies with the approved CLUP/ZO and possible gaps in existing local development ordinances. These include:
  - ♦ Provide revenue and non-revenue incentives
  - ♦ Detailed area development regulations/standards particularly for such areas as cultural heritage sites/zones, high risk/danger zones, etc.
  - ♦ Industrial estates/subdivision development regulations
- Prepare amendments in existing statutory ordinances found to be inconsistent with the CLUP/ZO.
- Prepare draft ordinance that will respond to the identified gaps in legislative measures needed to implement the approved CLUP/ZO.

**11.1.5 Consolidate the results of the above steps and reach consensus on the changes in organizational structure and additional mechanisms needed to implement the CLUP/ZO.**

Consider the following for submission/deliberation by SP/SB:

- Revised organizational structure to include special bodies/committees to be constituted as a result of the above steps.

The creation of the special bodies through an Executive Order shall likewise define the following:

- ♦ functions of the committee/body
- ♦ membership requirements and qualification standards
- ♦ time frame of the committee (the same special bodies are created for short term/urgent programs hence may be short-lived)
- ♦ operating procedures/linkages with other departments/offices

The revised organizational structure shall identify the following:

- ♦ staff requirements and qualification standards
- ♦ training/capacity building program
- ♦ new office/unit to be created/strengthened
- ♦ budget requirements



### Working with National Agencies

The LGU should work hand-in-hand with the following agencies to effectively implement the CLUP and Zoning Ordinance:

For infrastructure: Department of Public Works and Highways

For forest management: Department of Environment and Natural Resources (DENR) FMB and PAWB

For mariculture farms: Bureau of Fisheries and Aquatic Resources (BFAR)

For port development: Philippine Port Authority (PPA)

For fishing port/fish landing development: DA Phil. Fisheries Development Authority (PFDA)

For ecotourism: Tourism Infrastructure and Enterprise Zone Authority (TIEZA)

For navigational lanes: Department of Transport and Communications (DOTC) and Maritime Industry Authority (MARINA)

For foreshore management: Department of Environment and Natural Resources (DENR) and Land Management Bureau (LMB)

For Marine Protected Areas: DENR PAWB, DA-BFAR

For climate change adaptation and disaster risk reduction and management: Climate Change Commission; OCD-National Disaster Risk Reduction and Management Council; and CSCAND Agencies (Philippine Institute of Volcanology and Seismology (PHIVOLCS), Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), Mines and Geosciences Bureau (MGB), and the National Mapping and Resource Information Authority (NAMRIA)

## 11.2. Inform and educate

Upon the approval of the CLUP/ZO and guidance from the Mayor/SB, the C/MPDC shall prepare together with relevant LGU offices, information, education and communication (IEC) campaign materials on the key provisions of the approved CLUP and ZOs. The IEC campaign materials shall include explanations on the adopted vision, development goals, and spatial strategies of the new CLUP; general land use policies and allocation adopted; and development controls and zoning arrangements to be implemented.

Make sure that these materials are disseminated to different LGU departments/offices and barangay centers. Display maps in conspicuous places within the LGU. Orient stakeholders such as the business sector, NGOs/POs, civic society, and prepare brochures/flyers for the general public. The CLUP and ZO shall be posted in the official website of the LGU.

As much as possible, the IEC campaign materials shall include visual presentations of the land use and zoning maps. These may be in the form of a 3D maps and/or barangay-level translation of the CLUP and ZO maps. (See 11.4 Preparing Local Maps for Public Use). Where possible, a video presentation highlighting the salient features of the CLUP including the vision, goal, functional role, development thrust and concept and proposed land uses incorporating DRRM and climate change adaptation and mitigation shall be prepared to further promote the plan.

Barangay level technical orientation and briefings should be held to facilitate understanding of the implications of the approved CLUP and ZO to certain arrangements in each community. Where possible, the land use and zoning policies should be integrated into local barangay plans and ordinances.

Involving local communities and ordinary citizenry in local governance is one of

the principles of effective governance and sustainable resource management. An important aspect of ensuring that the approved CLUP is being enforced consistently and effectively is to let the citizenry know the Which, Where, What, How and Whys of the land use and zoning provisions covering their respective localities or barangays.

### 11.3. Establish inter-LGU partnership and/or co-management agreements

The adoption of an integrated ecosystems management planning platform for the CLUP means that an LGU's development pattern is directly linked to the watershed/ sub-watershed ecosystems that cover an LGU

Because areas covered by ecosystems such as watersheds are not defined by political or territorial boundaries, the implementation of an LGU's approved CLUP shall be coordinated closely with other LGUs sharing the same upland, lowland, or coastal ecosystems.

Several inter-LGU alliances or cooperation agreements have been established on coastal management, lake area management, watershed, disaster risk/rehabilitation, solid waste management facilities, and other basic services based on the provision of Sec. 33 of the Local Government Code on inter-LGU cooperation. In most cases, the Provincial LGU initiated the formation of inter-LGU alliances within its territory such as watershed management councils (e.g. Iloilo province and Albay) or bay-wide coastal alliances (e.g. Sarangani and Laguna).

Similarly, national agencies such as the DENR, DILG and DOH have issued departmental and joint memorandum circulars on co-management agreements with LGUs for common resource areas. (See Annex 11-3 for Co-Management Guidelines on Forest areas and Watersheds).

#### 11.3.1. Discuss the LGU's intended management strategy.

The intended management strategy, including level of activities and efforts, shall be adopted for the identified common resource areas, as set out in the approved land use plan and its applicable management and zoning arrangements. This shall be the locus of the discussion on cooperation arrangement, whether the LGU decides to directly administer the area or seek cooperative management with another LGU or national government agency (NGA).



#### Co-Management of Forest Lands

The DENR is the primary government agency responsible for the management, development, and conservation of forests and forestlands. The LGU can take an active role in the management of these areas by entering into a co-management/ partnership agreement with DENR.

Consultation meetings between the LGU and the DENR can be initiated once the Forest Land Use Plan has been included in the CLUP to thresh out partnership arrangements. LGUs may also request DENR to declare portions of forestlands as communal forest (as sources of forest products for local communities) or community watersheds (as local water source), so that they gain direct management responsibility over these areas.

#### 11.3.2. Seek SB resolution to authorize the LCE to enter into a MOA or MOU on ILC/CMA

Upon issuance of SB resolution to the LCE, the LCE may appoint or designate a focal person or create/organize the TWG that shall facilitate the discussion with the concerned LGU or NGA.

The focal person or TWG shall serve as liaison that will coordinate with the representative of the partner LGU or National Government Agency (NGA) in formulating the

cooperation or co-management agreements (through a Memorandum of Agreement or Understanding). The TWG shall then subsequently prepare local area management plans for the shared resource area.

Normally in the case of LGUs, it is the Mayor who initiates the cooperation agreement with other LGUs. The local LGU league chapter president (League of Municipalities or League of Cities) or Provincial Government can also facilitate the formation of inter-LGU alliances.

### **11.3.3. Enter into a Memorandum of Agreement (MoA) or Memorandum of Understanding (MoU).**

The MoA and MoU shall serve as the basis for the identification and implementation of activities in the shared resource areas. It shall also affirm the identified CLUP land use management classification of the area and enforce local and national laws within the respective jurisdiction of the participating LGUs.

In the case of enforcing national laws in public lands, it is advisable to have LGU officials and LGU designated enforcers or volunteers formally 'deputized' by the NGA. This deputation of LGU volunteers or designated enforcers can be one of the provisions of the MoA/MoU.

## **11.4. Localize to barangay or community level.**

A CLUP outlines the general land use and strategic development spatial strategies of an LGU to achieve a common long-term vision, goal and objective over a specific period of time (i.e. 10 years, 15years, or more).

Its realization and accomplishment will largely depend on how the identified land uses and spatial arrangements, including zoning and development controls, are applied at the ground level. A land use plan and zoning map presents a broad and macro-level picture of the land use and zoning policies at the city/municipality level. These land use and zoning policies need to be reflected further at least at the barangay level.

### **11.4.1. Review and localize the city/municipal land use plan and zoning maps at the barangay or community level.**

Using the approved CLUP and ZO, the C/MPDC shall call for a technical orientation and briefing of local barangay officials and facilitate the discussion and provisions of the CLUP/ZO and other relevant ordinances and programs. The concerned barangay officials and members shall then conduct a review of their current barangay development plans (BDPs)/ADS DPP for consistency and refinements, if warranted.



#### **Planning for Areas for Priority Action (APA) or Urban Renewal/Redevelopment Areas (URA)**

Planning at the barangay level provides the necessary input needed to flesh out development strategies, detailed land uses, development regulations, as well as projects for the CDP. This exercise should ideally be done for all barangays.

But there may be some areas which may need more urgent intervention than others, and these can be designated as Areas for Priority Development (APD) or Urban Renewal/ Redevelopment Areas (URA). APAs can include high risk areas with vulnerable populations such as informal settlers while URAs can include older areas of the city which have deteriorated over time.

The extent of APAs and URAs can cross barangay boundaries thus these may need to be identified prior to barangay-level planning. It is also possible for these areas to be identified during the barangay or community-level planning exercise.

Once identified, these APAs/ URAs should subsequently be planned in more detail. The detailed plans can be a subset of the BDP (if only one barangay is affected), or be a plan parallel to the BDP (in the case of several barangays being affected). The detailed plans can take the following forms depending on the needs of the LGU:

- Master Plan (typically done for undeveloped areas with proposed new development)
- Redevelopment Plan (typically done for built-up areas with proposed strategic projects to catalyze development)
- Area Improvement Plan (typically done at the community level; a set of actions to meet various social, economic, or environmental objectives for an area)
- Upgrading Plan (typically done for existing informal settlements that need infrastructure and housing improvement)
- Resettlement Plan (typically done for informal settlements than need some form of new housing or relocation)

The formulation of these plans may be sourced out to consultants or assigned to relevant departments (e.g. the Housing Office for Upgrading or Resettlement Plans).

Detailed planning can also be conducted for areas with topographical boundaries as basis. For example planning for the “river corridor.” The river corridor comprises the watercourse and/or associated wetlands (as applicable), the floodplain, the ecological buffer and the area required for specific aesthetic, recreational and/or socio-economic needs. This combined area can be planned in an integrated manner which balances the flooding, environmental, social and economic issues.

### **11.4.2. Assist in localizing the CLUP and ZO at the barangay levels.**

The Office of the CPDC/MPDC shall provide technical assistance and support to barangays who will revise and update their BDP/ADSDPP to be consistent with the land use and zoning arrangement policies in the approved CLUP and ZO. This process could be facilitated by technical staff of the CPDO/MPDO who can act as resource persons/facilitators to the barangays. The output of this activity will be an enhanced or revised BDP that will be consistent with CLUP/ZO.

### **11.4.3. Adopt and integrate the enhanced/revised BDP into the CDP.**

The enhanced BDP/ADSDPP shall then be presented for adoption by the barangay council and submitted to the Local Development Council and SB for subsequent adoption and integrated into the LGU's Comprehensive Development Plan.

## **11.5. Other ways to implement the CLUP**

There are other ways of implementing the CLUP aside from the integrated Zoning Ordinance (ZO). The Local Government Code provides a lot of power for the LGU to impose or provide incentives to pursue its development goals and objectives. These include the use of revenue and fiscal incentives (particularly for cities and provinces); application of permits; licensing and fees systems for delivery of services; regulatory mechanisms; and planning and policy instruments.

- Revenue and Fiscal Incentives—the main form of fiscal incentives for CLUP implementation is the Real Property Tax (RPT) payments and land valuation assessment. RPT which is levied on properties can be relaxed or increased depending on whether the LGU wants to encourage investors and promote development in a certain area.
- Land value assessment also provides incentives for developers to concentrate their investments on areas with high market value. In other cities, the imposition of idle land taxes also compels landowners to utilize their vacant lands or accelerate development plans in order to avoid payment of unnecessary taxes.
- Permits, Licensing and Fees Systems (e.g. impact fees, missionary fees,

environmental fees, utility service fees, etc.)—Another key LGU power that can be used to implement CLUP policies and goals is the use of permitting, licensing, and fee collection systems. The issuance of building permits, locational clearance, fire safety clearance, environmental clearances, traffic management permits, etc., should be consistent and compliant with local land use management ordinances or zoning restrictions.

- Other LGUs impose fees such as impact fees or development fees for residences, industries, or commercial operations that locate their structures/activities way beyond the current infrastructure, social service, and utilities network of the LGUs.
- Such impact or development fees are imposed on these locators as a payment scheme for services, which the LGU does not normally provide due to high capital requirement and are limited only to common users. This is similar to development fees charged by utility companies like Meralco or Manila Water for areas with far-flung areas or service areas with low density.
- Regulatory Mechanisms—Regulatory mechanisms are related to ordinances that impose specific physical, spatial, or environmental quality standards or requirements for compliance. These include floor-area ratios (FARs) or levels imposed by local zoning ordinances, no catch zones (for coastal areas and wildlife areas), easement and buildable areas, anti-littering and smoking zones, restrictive vehicle movements (i.e. truck or motorcycle bans) and use of public spaces/roads, pollution ordinances (e.g. smoke belching and motorcycle 'silencer' policies, safety standards (e.g. helmets for motorcycles and pedestrian sidewalks), and building code restrictions among others.
- Other Planning and Policy Implementation Instruments—Other complementary instruments to support the implementation of the CLUP includes planning and policy mechanisms such as creation of citizen's watchdog bodies, conduct of consultation prior to any major changes in the CLUP/ZO, prioritization and rationalization of CDP, allocation of services/infrastructure to targeted development areas or constituencies, and adoption of local environmental codes and building codes, among others.

### **Payment for Ecosystem Services (PES) as Revenue Source**

Forest Land Use Plan (FLUP) should focus on generating revenue for the LGU as source of financing for CLUP implementation. The LGU can explore Payment for Ecosystem Services (PES) as sustainable source of financing forest management activities.

This practice has been initiated in a number of LGUs, such as in Wao, Lanao de Sur. In this case the Municipal Mayor negotiated with the Water District for the latter to contribute to the rehabilitation of the watershed draining towards its water reservoir. As a result, the Water District agreed to contribute P100,000 annually to a special account created by the LGU for its watershed rehabilitation fund.

In addition, the Mayor also negotiated with Unifruitti, a private company using the water coming from the same watershed for washing pineapple fruits exported abroad, for the latter to also contribute to the watershed rehabilitation fund. Unifruitti also agreed to contribute Php100,000 annually to the fund. These schemes together with contributions from the truck owners association operating in the uplands provide annual funds to the LGU estimated at about Php300,000 for watershed rehabilitation.

### **One-stop shops for LGU permits and licenses**

One of the administrative innovations that can be established by LGUs to facilitate businesses and investments in their area is the simplification of administrative procedures, particularly in securing necessary permits and licenses, to conduct business in the city.

One-stop shops are integration of key LGU offices and units that are co-located in a single physical space within the LGU to facilitate faster processing and approval of LGU documents. These include the City Treasurer's Office, City Assessor's Office, Zoning Officer, City Planning and Development Office, Business Permits and Licensing Office, City Engineering and General Services Offices.

Several LGUs such as Quezon City, Lapu-lapu City, Ormoc, Calbayog, Dumaguete, Lipa and Baguio City have established one-stop shops for the processing business permits and payments of licenses and real property taxes. They have also included the issuance of locational clearances in these one stop shops that facilitates the development of local residences and building in the areas.

### Capital Investment Programming

Infrastructure projects should reinforce land use planning policies. The location of roads, water lines, and other public facilities and services is a major factor in determining development patterns. These can either discourage or encourage development in hazard-prone areas. Climate change and disaster risk mitigation should be incorporated into infrastructure location and design.

## Annex 11-1. Capacity Assessment for Implementation

The following questions for LGU can be used to assess if they are capable of implementing provisions in the CLUP:

THEMATIC AREA	QUESTIONS
General	<ul style="list-style-type: none"> <li>• Is the strategic and development plan of the city/municipal and provincial harmonized with the enhanced CLUP?</li> <li>• Are there existing instruments/modes of enforcing and monitoring the zoning ordinance and enhanced CLUP?</li> <li>• Is there political will on the ground to prioritize disaster risk reduction? To prioritize food self-sufficiency? To harmonize ridge-to-reef activities in light of these 2 crucial priorities?</li> </ul>
Forestry	<ul style="list-style-type: none"> <li>• Does the LGU have a focal unit, such as the MENRO, responsible for implementing the FLUP component of the CLUP?</li> <li>• Does it have enough personnel with appropriate skills in forest management?</li> <li>• Is there a corresponding fund allocation to support FLUP implementation activities?</li> <li>• Is there a clear institutional arrangement established with DENR?</li> <li>• Does it have clear system for coordinating sustainable forest development and monitoring performance of this?</li> </ul>
Coastal	<ul style="list-style-type: none"> <li>• Does the LGU have a focal unit such as a CRM unit responsible for coastal and marine ecosystems?</li> <li>• Does this unit have a corresponding budget to carry out measures for coastal and marine ecosystems?</li> <li>• Does the LGU have a mangrove zone, seagrass, coral reef and or any combination of these?</li> <li>• Does the LGU have an MPA, fishery reserve or similar protected area?</li> <li>• Are there existing local ordinances supporting any or all of these?</li> <li>• Is there an existing fisheries ordinance?</li> </ul>
Climate Change/ Disaster Risk	<ul style="list-style-type: none"> <li>• Does the planning/ zoning office have sufficient staff, budget expertise, and tools to coordinate measures, check and monitor additional restrictions related to risk reduction?</li> <li>• Does the permit approval process have mechanisms which trigger more thorough checking of plans in areas highly susceptible to hazards?</li> <li>• Have management agreements been set up for shared areas with other LGUs? (e.g. coastal areas, watersheds, river corridors)?</li> <li>• Have management councils been set up for special areas within the LGU? (e.g. river corridors, beaches)?s)?</li> <li>• Does the planning office have the staff and expertise to plan for high risk areas in more detail?</li> </ul>

Ancestral Domain	<ul style="list-style-type: none"> <li>• Is there an ancestral domain within the LGU territory?</li> <li>• Has the LGU already mapped the extent of the ancestral domain and the IP population (ancestral domain holders)?</li> <li>• Is there an IP mandated representative in the SB?</li> <li>• Is there an IP focal unit within the LGU?</li> <li>• Does the existing CDP include support programs or projects for IP communities?</li> <li>• Is there an existing mechanisms for LGU and IP coordination?</li> <li>• Is there an existing mechanisms for LGU and NCIP coordination?</li> <li>• What departments of the LGU extend services to the IP community?</li> </ul>
Biodiversity	<ul style="list-style-type: none"> <li>• Does the LGU have any knowledge of the Key Biodiversity Areas (KBAs) and/or NIPAS area of which the LGU may be a part of?</li> <li>• Is the LGU an active member of a Protected Area Management Board?</li> <li>• Does the LGU have budget for activities in the Protected Area Management Plan?</li> <li>• Does the LGU have ordinances on locally declared protected areas in the forest forestland, coastal and lowlands?</li> <li>• Are there existing instruments to enforce local laws, rules and regulations on protected areas?</li> <li>• Do the LGU MENRO, MAO and staff have adequate knowledge of the NIPAS Law, Forestry Code, Fisheries Code, AFMA and other related laws on biodiversity?</li> <li>• Does the LGU regularly coordinate with DENR, DA, NCIP or other national technical agencies dealing with protected areas?</li> </ul>
Heritage Conservation	<ul style="list-style-type: none"> <li>• Do you have knowledge of the “Implementing Rules and Regulations of Republic Act No. 10066 otherwise known as the National Cultural Heritage Act of 2009”, and the guidelines and standards applying to sites that the National Historical Commission of the Philippines (NHCP) or the National Museum (NM) have been declared Historic Centers or Heritage Zones?</li> <li>• Do you have connections with any local representatives of the appropriate cultural agencies?</li> <li>• Do you have any citizens with the Study Team (Citizens Advisory Subcommittee) that have Heritage expertise?</li> </ul>
Green Urbanism	<ul style="list-style-type: none"> <li>• Does the LGU work closely with the DTI in the conduct of value chain analysis and development of industry clusters?</li> <li>• Does the LGU have organized and active business membership organizations? Industry cluster groups?</li> <li>• Are there service providers/consultants within the LGU/vicinity who can provide expert advice on greening initiatives for businesses and eco efficient infrastructure for LGUs?</li> <li>• Does the LGU have updated geohazard maps and ot identifying areas at risk for climate change?</li> <li>• Does the LGU vision support green growth/development?</li> <li>• Is the LGU aware of the principles of urban design, new urbanism and green development? her maps</li> <li>• Is the LGU willing to provide a budget for training in Gree Development?</li> <li>• Is the LGU amenable to upgrading its zoning and building policies to institutionalize Green Development?</li> <li>• Do the concerned officials/ departments have available staff and tools to check and monitor the application of green building standards?</li> <li>• Does the permit approval process have mechanisms which encourage existing and new buildings to apply green building standards? Is the LGU willing to give incentives?</li> <li>• Does the existing CDP include support programs or projects for urban design and development?</li> </ul>

## Annex 11-2. Decision Guidelines for Land Development Projects

The following provides a useful checklist of guidelines to assess an application for land use development projects. In general this is termed as Development Assessment Guidelines.

Not all criteria can apply at all times and they will vary from zone to zone and from use-type to use-type.

Zoning/Enforcement officers will need to exercise their own judgment as to which criteria is relevant for a particular application.

Assessment/decision guidelines for development applications:

- Compliance with all relevant national laws and policies;
- Compliance with all relevant ordinances and resolutions of the city's SP;
- Compliance with the relevant policies of the zoning ordinance;
- The primary purpose of the zone;
- That the proposal is not prohibited under the zone;
- Complies with any special requirements for such a use within the zoning ordinance;
- That the proposal does not inhibit the orderly planning of the area generally;
- That the proposal enhances the amenity of the area (but at the very least, does not detrimentally affect the amenity of the area);
- The proximity of the development to any public land and the likely impacts;
- Factors likely to contribute to land degradation, salinity, or reduction of water quality;
- Whether the proposal will generate undesirable off-site impacts from uncontrolled or untreated storm water flows;
- The extent and nature of vegetation on the site and the likelihood of its destruction;
- Whether on-site vegetation can be protected, planted, or allowed to regenerate;
- The degree of flood erosion or fire hazard associated with the location of the land or the proposed use or development, or any proposed management measures to minimize such hazards;
- The effect that existing uses on nearby or adjacent land may have on the proposed use;
- The availability and provision of utility services such as:
  - ♦ Storm water drainage;
  - ♦ Electricity/power/gas
  - ♦ Reticulated water/reticulated sewer and other approved sewer system
  - ♦ Telecommunications;
  - ♦ Any other relevant matters.
- The effects of any traffic to be generated by the use or development;
- The use (or interim use) of those parts of the land not required for the proposed use or development;
- The design of the building(s), including adequate provision for daylight and solar access;
- The design of buildings to maximize conservation and energy efficiency;
- Provision for on-site car parking and loading bay facilities;
- Requirement for professionally prepared traffic generation and traffic impact assessment for major developments (major developments to be defined by SP ordinance, resolution or policy direction);
- Provision for on-site landscaping, particularly fast growing shade trees;
- For use or development in areas adjoined by different zones; extent of proposed buffers (distances and other approved/functional treatments),

or the compatibility (or otherwise) of the proposed use to other existing developments;

- For industrial uses or developments; the effect that the proposal may have on nearby existing or proposed residential areas, or other uses that are sensitive to industrial off-site effects;
- The effect on the free movement of pedestrians, cyclist, supply vehicles, waste removal, emergency services, and public transport;
- The location of garbage storage or waste collection area or facilities, and areas for sorting.
- Storing and removal of recyclables (critical in shopping areas);
- Defining who is responsible for on-going and regular maintenance of buildings, landscaping, and paved areas;
- Any natural or cultural values on or near the land such as heritage classified sites, objects, or buildings;
- The capability of the land to accommodate the proposed use or development, addressing site quality attributes including such things as: soil type, soil fertility, soil structure, soil permeability, soil stability, aspect, contour, slope, and drainage pattern;
- For agricultural applications; how the use or development relates to agricultural land use, agricultural diversification, and natural resource management;
- The maintenance of farm production and the impact on the agricultural economy;
- The suitability of the site for the proposal and the compatibility with adjoining and nearby farming activities;
- The need to prepare an integrated land management plan;
- The requirements of any existing or proposed rural industry (especially value-added or downstream industries);
- The impact in agricultural areas of any existing or proposed agricultural infrastructure;
- The need to prepare an Environmental Effects Statement (EES), or an Environmental Impact Statement (EIS) for any proposal;
- Any likely environmental impacts on the natural physical features and resources of the area, in particular any impact caused on the soil or water quality or by the emissions of noise, dust or odors;
- Any likely impacts upon flora, fauna, and landscape features of the area, particularly endangered native vegetation or fauna;
- The need for particular requirements for the repair or restoration of the environment;
- The need or otherwise for any dwelling(s) in association with the proposed use or development;
- The need for and impact(s) of any roads, access ways, paths, on the agricultural environment, and the justification for their need in support of the proposal;
- The need for, and visual impact (or otherwise) of any proposed advertising signage, either free-standing or attached to the proposed development;
- In flood plains, the compatibility of the proposal having regard to known flood risks;
- Any local flood plain plans or flood risk reports;
- Any comments or requirements from the relevant flood plain management authorities.
- Compliance with distance/ buffer requirements for project developments adjoining risk such as fault zones, sinkholes, water bodies, etc.

Development Control/Assessment Planning

<p>These decision guidelines are advisory only. Their application will produce better assessment and outcomes: however the extent to which they are applied in each case should be decided on a case-to-case basis</p> <p><b>Assessment/Decision Guideline to Development Applications</b></p>		General Res. Zone (GRZ)	Socialized Housing Zone (SHZ)	Low Density Res. Zone (R -1)	Medium Density Res. Zone (R -2)	High Density Res. Zone (R -3)	General Commercial Zone (GCZ)	Low Dens. Comm. Zone (C -1)	Medium Dens. Comm. Zone (C -2)	High Density Comm. Zone (C -3)	Light Industrial Zone (I -1)	Medium Industrial Zone (I -2)	Heavy Industrial Zone (I -3)	Gen. Institutional Zone (GIZ)	Spec. Institutional Zone (SIZ)	Agricultural Zone (AGZ)	Agro-Industrial Zone (AIZ)	Forest Zone (FZ)	Parks & Other Rec. Zone (PRZ)	Water Zone (WZ)	Tourist Zone (TZ)	
1	Compliance with all relevant national laws and policies	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2	Compliance with all relevant ordinance and resolutions of the city's SP	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3	Compliance with the relevant policies of the zoning ordinance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4	The primary purpose of the zone	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5	That the proposal is not prohibited under the zone	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6	Compliance with any special requirement for such a use of within the zoning ordinance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
7	That the proposal does not inhibit the orderly planning of the area generally	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
8	That the proposal enhances the amenity of the area, but at the very least does not detrimentally affect the amenity of the area	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
9	The proximity of the development to any public land and the likely impacts	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10	Factors likely to contribute to land degradation, salinity or reduction of water quality	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
11	Whether the proposal will generate undesirable off-site impacts from uncontrolled or untreated storm water flows	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
12	The extent and nature of vegetation on the site and likelihood of its destruction	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
13	Whether on-site vegetation can be protected, planted, or allowed to regenerate	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
14	The degree of flood, erosion or fire hazard associated with the location of the land or the proposed use or development, or any proposed management measures to minimize such hazards	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
15	The effect that existing uses on nearby or adjacent land may have on the proposed use	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16	The availability and provision of utility service such as:	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	• Storm water drainage	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	• Electricity/power	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	• Gas	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	• Reticulated water	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	• Reticulated sewer	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	• Telecommunication	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
• Other approved sewer systems	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
17	• Any other relevant matter:	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	The effects of any traffic to be generated by the use or development	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
18	The use (or interim use) of the land not required for the proposed use or development	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



40	The need for particular requirements for the repair or restoration of the environment	•			•				•			•			•	•	•	•	•	•
41	The need or otherwise for any dwelling(s) in association with the proposed use or development								•	•	•	•	•	•	•	•	•	•	•	•
42	The need for any impact(s) of any roads, access ways, paths, on the agricultural environment, and the justification for their need in support for the proposal															•	•	•	•	•
43	The need for and visual impact (or otherwise) of any proposed advertising, signage, either free standing or attached to the proposed development						•	•	•	•	•	•	•			•	•	•	•	•
44	In floodplains, the compatibility of the proposal having regard to known flood risk	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
45	Any local flood plain plans or flood risk reports	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
46	Any comments or requirements from the relevant flood plain management authorities	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

## Development Controls/Assessment Planning in Forest Ecosystem

	These decision guidelines are advisory only. Their application will produce better assessment and outcomes. However, the extent to which they are applied should be decided on a case to case basis	Protection zone	Buffer/Limited production zone	Full production zone
<b>Assessment/Decision Guidelines for Development Applications</b>				
1	Compliance with all relevant national laws and policies	•	•	•
2	Compliance with all relevant ordinances and resolutions of the LGU SB/SP;	•	•	•
3	Compliance with therelevant policies of the zoning ordinance	•	•	•
4	Consistency with the primary purpose of the zone	•	•	•
5	That the proposal is not prohibited under the zone	•	•	•
6	Complies with any special requirements for such a use within the zoning ordinance	•	•	•
7	That the proposal does not inhibit the orderly planning of the area generally	•	•	•
8	That the proposal enhances the amenity of the area (but at the very least, does not detrimentally affect the amenity of the area)	•	•	•
9	Proximity of the development to any public land and the likely impacts	•	•	•
10	Factors likely to contribute to land degradation, salinity, or reduction of water quality	•	•	•
11	Whether the proposal will generate undesirable offsite impacts from uncontrolled or untreated storm water flows	•	•	•
12	The extent and nature of vegetation on the site and the likelihood of its destruction	•	•	•
13	Whether on-site vegetation can be protected, planted, or allowed to regenerate	•	•	•
14	The degree of flood, erosion, landslide or fire hazard associated with the location of the land or the proposed use or development, or any proposed management measures to minimize such hazards	•	•	•
15	The effect that existing uses on nearby or adjacent land may have on the proposed use	•	•	•
16	For use or development in areas adjoined by different zones; extent of proposed buffers (distances and other approved/functional treatments), or the compatibility (or otherwise) of the proposed use to other existing developments	•	•	•
17	For industrial uses or developments; the effect that the proposal may have on nearby existing or proposed residential areas, or other uses that are sensitive to industrial off-site effects	•	•	•
18	Any natural or cultural values on or near the land such as heritage classified sites, objects, or buildings	•	•	•
19	The capability of the land to accommodate the proposed use or development, addressing site quality attributes including such things as: soil type, soil fertility, soil structure, soil permeability,soil stability, aspect, contour, slope, and drainage pattern;	•	•	•
20	The need to prepare an integrated land management plan	•	•	•
21	The need to prepare an Environmental Effects Statement (EES), or an Environmental Impact Statement (EIS) for any proposal	•	•	•
22	Any likely environmental impacts on the natural physical features and resources of the area, in particular any impact caused on the soil or water quality or by the emissions of noise, dust or odors	•	•	•
23	Any likely impacts upon flora, fauna, and landscape features of the area, particularly endangered native vegetation or fauna	•	•	•
24	The need for particular requirements for the repair or restoration of the environment	•	•	•
25	The need or otherwise for any dwelling(s) in association with the proposed use or development	•	•	•
26	In flood plains, the compatibility of the proposal having regard to known flood risks	•	•	•
27	Any local flood plain plans or flood risk reports	•	•	•
28	Any comments or requirements from therelevant flood plain management authorities	•	•	•
29	Compliance with distance/buffer requirements for project developments adjoining risk such as fault zones, sinkholes, water bodies, etc	•	•	•

## Annex 11-3. Co-Management Guidelines on Forest Areas

To directly participate in the management of forests and forestlands LGUs may enter into co-management agreement with the DENR. The following steps provide guidelines to the LGU or groups of LGU sharing a common watershed, in entering into co-management agreement with the DENR:

1. LGUs should identify specific areas within the forestlands or protected areas which they want to co-manage. For this purpose, a sketch map should be prepared indicating the relative location of the area.
2. LGUs signify to the Municipal/City Development Council (MDC) its proposal to co-manage the identified areas with the DENR and secures its endorsement. It formally submits to DENR a Letter of Intent, with a MDC/CDC endorsement or resolution together with the sketch map. DENR conducts jointly with the LGU an initial assessment of the proposed site and agree on the final area that will be co-managed. A Memorandum of agreement(MOA) is drafted jointly by the DENR and the LGU. The MOA should specify the roles and responsibilities of the DENR and the LGU in the management of the co-management area.
3. MDC/CDC reviews the draft MOA and endorses it to the SB/SP.
4. SB/SP reviews the MOA and through a resolution authorizes the Local Chief Executive (LCE) to sign the co-management MOA with DENR
5. The LGU-LCE and the DENR signs the MOA with a DILG representative as witness.

### References:

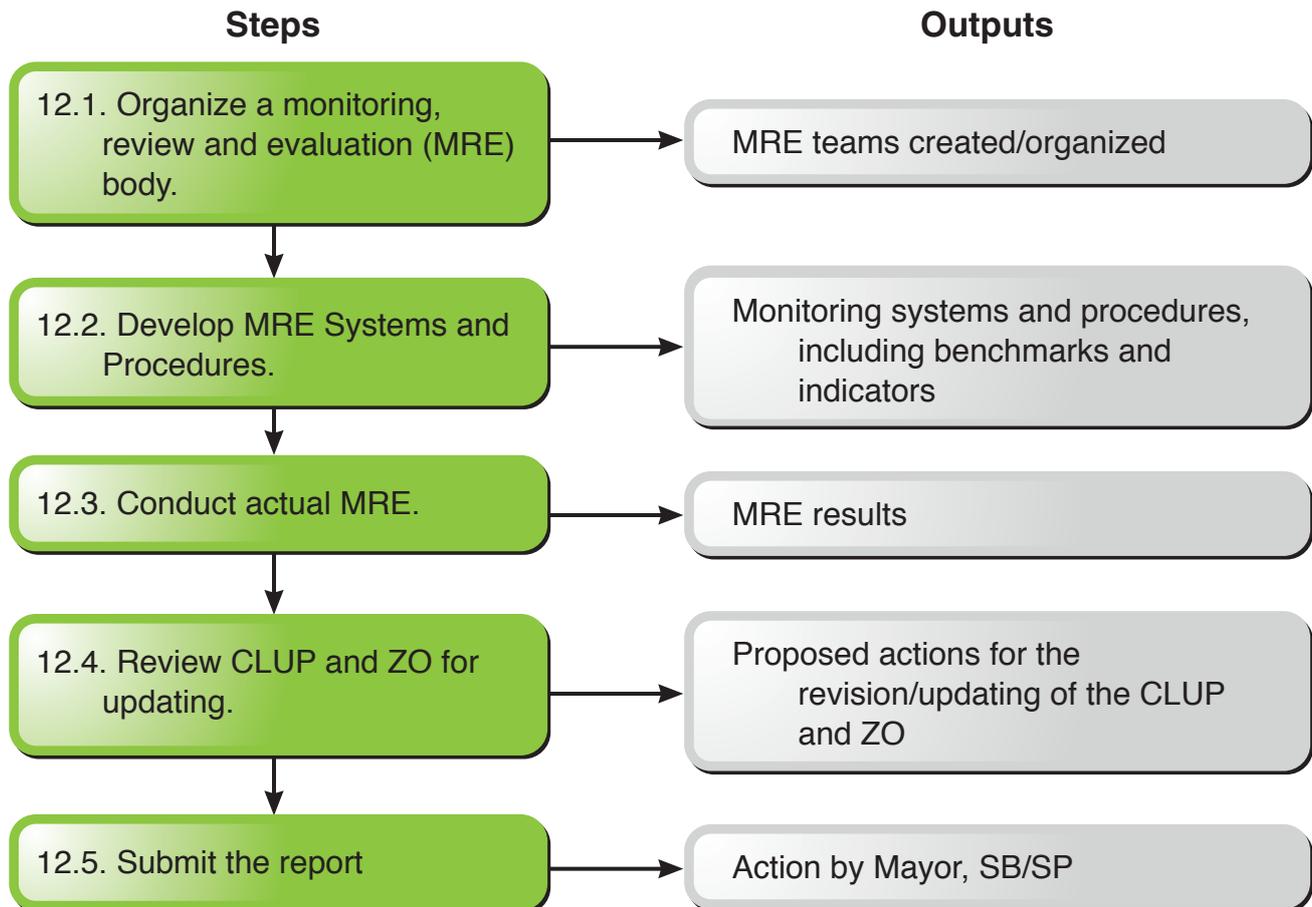
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# Step 12: Monitor and Evaluate

Assess how fully and effectively the plan is being carried out and implemented.



## Introduction

The monitoring, review and evaluation (MRE) of the CLUP and ZO implementation is a major activity that needs to be strengthened. Thus, it is important that an effective RME system be established, in order to track the progress reached by the CLUP. This is recognized in Section 3 of EO 72 and Section 5 of MC 54. An effective MRE system is a guide for the LGU to focus their development efforts and interventions towards the achievement of their vision.



### Objective/s

- Identify and establish realistic and effective monitoring, review and evaluation systems of the CLUP and ZO implementation



### Key Input/s

- Baseline information in the approved CLUP and Zoning Ordinance
- Existing operational and institutional systems in the LGU (e.g. LGPMS, CBMS)
- Parameters indicated in Annex 12-4



### Expected Output/s

- Established monitoring, review and evaluation system
- Assessment on the effectiveness of the CLUP as a tool for achieving the quality of life set forth in the vision



### Key Technical Actors/Responsible Bodies

- Decision-making Authority: Local Chief Executive, Sanggunian Panlungsod/ Bayan
- Lead Technical and Implementing Arm: City/Municipal Planning and Development Office (C/MPDO); Local Zoning/Enforcement Office; Local Zoning Review Committee
- Other Implementing Bodies: Relevant LGU offices and Barangays



## Steps

### 12.1. Organize a monitoring, review and evaluation (MRE) body.

Under the Local Government Code, the Local Development Council (LDC) is responsible for LGU plan preparation and MRE. Within the LDC, an MRE body shall be created, whose membership shall be identified and functions defined. An MRE body shall be organized to undertake the monitoring, review and evaluation of the CLUP and ZO implementation.

Table 12-1 below lists the recommended members of the multi-sectoral MRE body in addition to the Lead Technical and Implementing Arm composed of the City/Municipal Planning and Development Office (C/MPDO), Local Zoning/Enforcement Office and Local Zoning Review Committee:

**Table 12- 1. Proposed Composition of Multi-Sectoral Monitoring Body**

<b>Thematic Area</b>	<b>Additional Members</b>
Ancestral Domains	NCIP – To assess compliance with IPRA law
Forestry	NIA representative – To assess the impact of CLUP implementation on water yield and quality DRRMO Representative – To assess the contribution of the CLUP to disaster risk reduction DENR representatives (2) – <ul style="list-style-type: none"> <li>• Forester – Determine whether the CLUP implementation contributed to improving the rehabilitation and development of production forestlands</li> <li>• Biodiversity Specialist – Assess whether identified protection areas are conserved</li> </ul> DOT
Coastal, Marine and other water bodies	DA (BFAR) NWRB DENR (PAWB) DOTC (PPA, MARINA, Coast Guard) DOT
Heritage Conservation	Designated representative from the National Commission for Culture and the Arts (NCCA) and the appropriate cultural agency DOT National Historical Commission of the Philippines
Climate Change/ Disaster Risk	P/C/M DRRMO MENRO/ PENRO Climate Change Commission; Philippine Institute of Volcanology and Seismology (PHIVOLCS), Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), Mines and Geosciences Bureau (MGB), National Mapping and Resource Information Authority (NAMRIA) DPWH

## 12.2. Develop MRE Systems and Procedures

The development of an MRE systems and procedures shall ensure that changes in land uses and progress in priority programs and projects implementation are tracked. Moreover, an assessment on the CLUP and ZO implementation reflects its impact in achieving improvements in quality of life of the locality.

Below are the steps in the development of the MRE Systems and Procedures

### 12.2.1. Establish indicators, baseline and determine frequency and format of MRE for the following areas:

- Quality of life
- Land use changes
- Priority programs and projects

Baseline information shall be obtained from the approved CLUP, such as from the Vision Reality Gap Analysis; the Core indicators for gender-responsive POPDEV Planning at Local Level. The agreed CLUP key outcome and results indicators will serve as the basis for regular MRE by local implementing bodies (i.e. LDC or C/MDPC). It may also be their reference for issuing progress reports to the general public.

The LGPMS shall be the main reference for measuring the changes in the Quality of Life.

- **Quality of Life Assessment** using the essential elements of the vision adopted by the city/municipality. This can be done through:
  - ♦ The Vision Reality Gap Analysis described in Step 3: Set the Vision
  - ♦ Indicators of well-being consistent with population and development sensitive planning approach may also be used. These indicators of

abilities (“to be”) or capabilities (“to do”) include, among others, health (to be healthy); nutrition (to be well-nourished); education (to be educated or to be knowledgeable and skilled); fertility (to bear and rear desired number of children); and migration (to travel in search of economic and social opportunities). Refer to Annex 12-1 on Core Indicators for Gender-Responsive Population and Development (POPDEV) Planning at the Local Level.

- **Land Use Changes:** consider land use locational clearances and permits issued. These are presented in reports of issuances, decision maps and environmental studies conducted for the purpose. Consultations with stakeholders are also conducted to assess community's reactions on the particular project or land use change.
- **Priority Programs and Projects Implementation**
- **Project Implementation Monitoring System/Scheme (PMS)** is basically a systematic design of monitoring a particular project. It is a systematic, timely, and regular gathering of feedback about the progress of a project in terms of inputs, operations and outputs, and the timely provision of appropriate support or intervention, if need be.
  - ♦ Actual data is compared with the plan to determine whether clearance from funding and support agencies has been sought and whether there are any deviations from the original plan. The cause of deviations, if any, is examined and solutions/persons likely to solve the problem and necessary interpretations are identified. (Refer to Annex 12-2 Designing a Project Monitoring Scheme)



### Decision Mapping

Decision mapping may be done manually or by indicating in the Zoning Map the approximate location of land development projects issued clearances and permits using “mapping pins.” To facilitate interpretation the color of pin shall correspond to the color codes for land use categories specified in Table

7-1. This method will make transparent to stakeholders the real-time monitoring of land use changes.

This may also be done through the use of GIS.

## 12.2.2. Suggested Tool for Quality of Life Assessment: Develop a CLUP Progress Report Card or Citizen's Report Card

A CLUP report card is similar in concept to that which is being used in educational institutions. It will be used to track 'progress' or 'level of changes' leading to the desired results of the CLUP vision. The CLUP report card shall base the progress on the baseline information of the outcome indicators at the start of the CLUP period. In particular, the Report Card shall monitor land use changes through locational clearances, exceptions, variances, approved application for reclassification and/or DAR conversion/exemption approval.

Additionally, the CLUP report card may refer to the consolidated monitoring initiated by the LGUs, national agencies, private sector, NGOs/CSOs or local citizenry in the course of the CLUP period's implementation

This activity shall be facilitated by the C/MPDC in coordination with the TWG. The process essentially involves consulting key stakeholders of the LGU primarily the LDC, SB, and local stakeholder groups.

### a. Data Inventory and Gathering

It starts with developing the rating system that will be applied to track progress of the key CLUP desired outcome/result indicators developed in Step 5.

To measure progress or changes in the CLUP's desired outcomes over a specific period of time (i.e. in this case, 3years to coincide with the LGU's tenure of office), a scalar system representing levels of progress is applied.

A scalar system represents a range of values (e.g., highest to lowest, or most desirable conditions to least desirable) which are usually determined and agreed upon by the local management body and the rest of the stakeholders. The values are expressed through numbers (e.g. 1 to 5 or 1 to 100%). The purpose of these scales is to present the CLUP's state of progress in the simplest quantifiable forms.



### Perception and Satisfaction Surveys

Perception and satisfaction surveys of local stakeholders and constituencies are good complements to the technical and scientific findings of a CLUP Progress Report Card.

The use of public perception surveys is best facilitated through a 3rd party multi-sectoral body to ensure that the results will be non-partisan and constructive. An LGU may also conduct its own survey using other survey systems that are initiated by LGUs.

The use of social media may also be another means to obtain feedback and inputs on the implementation of the CLUP, albeit it may be more focused on specific issues and implementation concerns.

### b. Develop Performance Criteria and Indicators

### c. Set a benchmark for the rating system of the CLUP Progress Report Card

Once a desired scalar system has been identified and agreed upon by the LGU, a benchmarking process is needed to properly track the result of interventions.

For example, if the desired outcome is improved quality of life and one of its indicators is clean air quality, the benchmark level for an acceptable air quality (that will have to be decided or agreed upon by the stakeholders/LGU) can be based on the standard of acceptable air quality (e.g. combination of TSP, PM10, etc.) set by Environmental Management Bureau (EMB). The current status of the level of air quality in the area may also serve as a reference or base level.

This reference level may then serve as the 'neutral', 'stable,' or 'no difference' level and equated to 3 in the 1-5 scalar system. The desired outcome level of improved air quality (based on target levels) may be 5 (highest) while the other levels will be subject to agreed cut-off levels. With this grading system, the applicable results from various intervention activities can then be consolidated or computed to achieve the progress level for that particular desired CLUP result/outcome.

Table 12- 2. Examples of Outcomes and Benchmark Indicators

Desired CLUP Outcome	Outcome indicator (based on target levels)	Benchmark Indicator (1) based on EMB standards	Benchmark Indicator (2)
Improved quality of life	Improved air quality–Level B	Level C (represented by TSP, PM10, etc)	Level C
	Improved water quality (surface water) –Class A	Class B	Class C
Economic growth	Increase monthly income levels/HH = 20% above national (NEDA) or local poverty level	Poverty level (NEDA standards) = PhP 15,000/month/HH	Poverty level (regional/local standards)



See Annex 12-3 for Sample Report Card Performance Indicators.

## 12.3. Conduct Actual MRE

The conduct of the actual MRE should be based on established parameters, provided in Annex 12- 4.

### 12.3.1. For monitoring and review, the C/MPDC shall:

- Coordinate with all relevant local and national agencies, including research/ academic, private sector, NGOs/CSOs groups, to generate and consolidate necessary information for MRE.
- Prepare the CLUP Progress Report Card in cooperation with other relevant local and national agencies and institutions.
- Provide monitoring reports to the SB, LDC and LCE on an annual basis

### 12.3.2. The MRE body shall evaluate the results of the monitoring activities. Evaluation may be done in two ways:

1. During the period of implementation—Periodic evaluation is conducted to provide early feedback to project management on the following concerns: policies affecting the project; attainment of sectoral goals and objectives; adequacy of institutional arrangements; and the appropriateness of project design and the level of resources.

One familiar activity is the conduct of mid-program and project evaluation to determine if the assumptions made regarding the project environment and target group are still valid. The review likewise helps determine whether the project should be modified due to environmental constraints. Moreover, the review can ascertain how natural phenomena, local political events, national and international incidents have affected the project (NCRFW, 1993:31).

2. After the period of implementation (Post Evaluation)—On the other hand, post evaluation involves the systematic and objective assessment of completed development projects. It may be done at the end of the project or sometime thereafter. It analyzes project outcomes and the underlying factors which contribute to the project's success or failure so that it can identify the features that deserve replication in future projects as well as the pitfalls that need to be avoided.



#### Tips in Communicating a CLUP a 'Report Card'

- Keep it short and simple (KISS)—Report only on the essential indicators. Normally these should be between three to five indicators per outcome. For example for reduction of disaster risk: percent of population exposed to high risk; percent of built up area exposed to high risk; structures in river easements
- User-friendly format—User-friendly entails maximizing the use of simple visuals, pictures and maps to represent the changes and progress
- Use relevant messaging—The content and language of the report card should conform to its target audience (e.g., local policy makers, non-technical people, ordinary citizens, academics/ researchers, etc)
- Easy access and use—A report card has no value if it does not reach its audience. Facilitating access and use (particularly on-line) of the report card is one of the means to effectively communicate results.
- Use of complementary and multiple products—The story of the “state of health” of a city/municipality's development cannot be captured in just one 'report' or communications product. Other complementary materials could include case studies and detailed sectoral reports produced to elaborate on key development characteristics and implementation actions.

Source: Adapted from Mercado, Elmer (2012) “Handbook on the Preparing State of the Watershed Reports in the Philippines”, Canadian Urban Institute, Iloilo City, October 2012, Final Draft as of December 2012

## 12.4. Review CLUP and ZO for updating

A CLUP and ZO review shall be conducted every four years or as the need arises. A sample guideline for assessing when CLUP and ZO revision is necessary is presented in Annex 12-4: Guidelines on the Evaluation of CLUP and ZO for Updating/Replanning Purposes.

The continuous monitoring of CLUP outcome and results indicators and the operationalization of the different implementing mechanisms, including local citizen bodies created for monitoring the implementation, would make the review or updating of the CLUP more effective and systematic.

## 12.5. Submit the Report

Submit the report, findings and recommendations to Mayor, SB/SP for consideration and appropriate action.

## Annex 12-1. Core Indicators for POPDEV Planning at the Local Level

Indicator	Definition	Level of Desegregation	Frequency	Latest Available Data	Source of Basic Data
<b>Population Processes</b>					
1) Crude Birth Rate	The number of live births per 1,000 population during a given period	national, regional, provincial, municipal, city, national, regional, provincial	Annual After every census year	1997 1995-2005	Vital Statistics Report, National Statistics Office (NSO) Population Projections, NSO
2) Crude Death Rate	The number of deaths per 1,000 population during a given period	national, regional, provincial, municipal, city national, regional, provincial	Annual After every census year	1997 1995-2005	1) Vital Statistics Report, NSO 2) Population Projections, NSO
3) Total Fertility Rate	The average number of children that would be born alive to a woman during her lifetime if she were to pass through her child-bearing years conforming to the age-specific fertility rates of a given year	national, regional, provincial national, regional, provincial	Annual After every census year	1997 1995-2020	1) Vital Statistics Report, NSO 2) Population Projections, NSO
4) Maternal Mortality Rate	The number of deaths among women 15-49 years old from pregnancy-related causes per 100,000 live births in a given period	national, regional, provincial	Every 5 years	1997 1990-1995	1) Vital Statistics Report, NSO 2) Technical Working Group-Maternal and Child Mortality, NSO
<b>Population Outcomes</b>					
5) Annual Population Growth Rate	The pace at which the population is increasing (or decreasing) during a given period on a yearly basis expressed as a percentage of the basic population	national, regional provincial, city, municipality	Every 10 years	2000	Census of Population and Housing (CPH), NSO
6) Percentage of Population by Five-Year Age Group and by Sex	Percentage distribution of the population classified by 5-year age group and by sex	National, regional provincial, city, municipality	Every 10 years	2000	CPH, NSO

Indicator	Definition	Level of Desegregation	Frequency	Latest Available Data	Source of Basic Data
<b>Development Processes</b>					
7) Percentage Distribution of Local Government Expenditures by Specific Activities	Percentage Distribution of Local Government Expenditures by Specific Activities such as: 1) social improvement; 2) adjudication; 3) protective services; 4) general administration; 5) government finance; 6) equipment; 7) economic development; 8) real property; 9) inter government aids, loans/ advance/ transfers; and 10) others	Regional, provincial, city, municipality	Annual	2001	Bureau of Local Government Finance
8) Labor Force Participation Rate by Sex	Percent of population 15 years old and over who are either employed or unemployed but looking for work in relation to the total population	National, regional provincial, key cities	Quarterly	October-00	Integrated Survey of Households Bulletin, Labor Force Survey, NSO
9) Length of Local Government Roads by surface Type	The length of local government roads (in kilometers) by surface type such as: earth, gravel, asphalt and concrete	National, regional, provincial, city-municipality	Annual	2001	DPWH
10) Elementary and Secondary Cohort Survival Rates	The number of total enrollees in the beginning grade/ year who reached the final grade/year at the end of the required number of years of study expressed as a percentage of enrollees in the beginning grade/ year	National, regional provincial, city - municipality	Annual	SY 2000 - 2001	DECS Statistical Bulletin and/or Basic Education Statistics
11) Doctor-Population Ratio	The number of population per doctor in a population	National, regional, provincial, city – municipality	Annual	1996	Philippine Health Statistics, (PHS), DOH
12) Hospital Bed-Population Ratio	The number of population per hospital bed	National, regional, provincial, city	Annual	1996	PHS, DOH
13) Percent of births attended by Health Personnel	The number of births attended by health personnel expressed as a percentage of the total number of births in a given period	National, regional, provincial, city	Annual	1997	1) Vital Statistics Report 2) PHS, DOH
14) Contraceptive Prevalence Rate	The percentage of women currently using a family planning method among currently married women in the reproductive ages (15-49)	National, regional	Every 5 years	1998	National Demographic and Health Survey, (NDHS), NSO
15) Percentage Distribution of Households by Type of Housing Unit Occupied	The number of households by type of unit occupied which include: 1) single house; 2) duplex; 3) apartment/ accessoria/ condominium; 4) improvised barang-barang; 5) commercial/ industrial/ agricultural/etc.; and 6) other housing units, expressed as a percentage of the total number of households	National, regional, provincial, city, municipality	Annual	2000	CPH, NSO

Indicator	Definition	Level of Desegregation	Frequency	Latest Available Data	Source of Basic Data
16) Percentage Distribution of Households by Main Source of Water Supply	The number of households by main source of water supply which include: 1) tap (inside house); 2) public well; and 3) private deep well, expressed as a percentage of the total number of households	National, provincial, city, municipality	Every 10 years	2000	CPH, NSO
17) Percentage Distribution of Households by Type of Toilet Facilities Being Used	The number of households by type of toilet facilities used which include: 1) water-sealed, sewer/septic tank, used exclusively by the household; 2) water-sealed, sewer/septic tank, shared with other households; 3) water-sealed, other depository, used exclusively by the households; 4) water-sealed, other depository, shared with other households;	National, regional, provincial, city, municipality	Every 10 years	2000	CPH, NSO
18) Percentage Distribution of Households by Type of Garbage Disposal	The number of households by type of garbage disposal which include: 1) pick by garbage truck; 2) burning; 3) composting; and 4) burying, expressed as a percentage of the total number of households	National, provincial, city, municipality	Every 10 years	2000	CPH, NSO
19) Crime Rate by Type	Number of crimes reported per 100,000 population by type	National, regional, provincial, city, municipality	Annual	2001	Philippine National Police
20) Percentage Distribution of DSWD Clienteles Served by Type and by Sex	The number of DSWD clienteles served by type which include: 1) household heads and other needy adults; 2) socially- disadvantaged women; 3) children in difficult situations; 4) victims of calamities and social disorganization; and 5) disabled persons, expressed as a percentage of the total number of clienteles and classified by sex	National, regional, provincial	Annual	2001	Department of Social Welfare and Development
<b>Development Outcomes</b>					
21) Unemployment Rate, Total and by Sex	Total number of unemployed persons expressed as a percent of the total number of persons in the labor force, total or by sex	National, regional, provincial, key cities	Quarterly	October-00	Integrated Survey of Households Bulletin, Labor Force Survey, NSO
22) Average Family Income	Refers to the total family income received in cash or in kind realized by all families in the area divided by the total number of families in the same area	National, regional, provincial, key cities	Every 3 years	2000	Family Income and Expenditure Survey, NSO

Indicator	Definition	Level of Desegregation	Frequency	Latest Available Data	Source of Basic Data
23) Literacy Rate by Sex	The percentage of the population who can read and write a simple message in any language or dialect classified by sex	National, regional, provincial	Every 10 years Every 5 years	2000 1994	1) CPH, NSO 2) Functional Literacy, Education and Mass Media Survey, NSO
24) Percentage of Malnourished 7-10 Years Old Children	The number of 7-10 year old children who are moderately and severely underweight expressed as a percentage of total population of children 7-10 years old	National, regional, provincial, key cities	Every 5 years	1996	Updating of the Nutritional Status of Filipino Children at the Provincial Level, FNRI
25) Percentage of Infants with Low Birth Weight	The number of Infants with birth weight of less than 2.5 kilograms expressed as a percentage of the total number of infants	National, regional, provincial, city	Annual	1997	Vital Statistics Report, NSO
26) Morbidity Rates by Leading Causes	The number of reported illnesses from a specific leading cause expressed as a percentage of the total number of illnesses from all causes	National, regional, provincial, city	Annual	1996	PHS, DOH
27) Elementary and Secondary Completion Rates by Sex	Completion rate refers to the percentage of first year (female/male) entrants in the cycle of education surviving to the end of the cycle. The term is used interchangeably with survival rate and retention rate	National, regional, private and public	Annual	2003	BEIS, DepEd
28) Employment rate by sex, age group and highest grade completed	Ratio (in percent) of the total number of women/men in labor force	National, regional	Quarterly	2004	LFS, NSO
29) Nutritional status of pregnant women/ incidence of Malnutrition	The condition of the body resulting from the intake, absorption and utilization of food and from factors of pathological significance	National, regional	Every 5 years	2003	FNRI
30) Mortality by leading causes, age and sex	Death ratios. Shows the numerical relationship between deaths from a cause and from the total number of deaths from all causes in all ages taken together	National, regional, provincial	Annual	2004	Vital Statistics Report, NSO
31) Morbidity by leading causes, age and sex	Morbidity is any departure, subjective or objective from a stage of physiological well-being	National, regional	Annual	2001	FHSIS, DOH
32) Percent of women candidates and share in local elective positions	The number of women candidates over the total number of candidates	National, regional, provincial, municipality	Every election year	2004	COMELEC
33) Percent of women in managerial, supervisory and technical positions	Number of women in managerial, supervisory and technical positions over the total number of women in managerial, supervisory and technical positions	National, regional, provincial, municipality	Quarterly	2004	CPH, LFS, NSO
34) Percent of male/female headed households by civil status	Number of male/ female headed households by civil status over the total number of households	National, regional	Annual	2003	CPH, NSO, FIES, APIS

Indicator	Definition	Level of Desegregation	Frequency	Latest Available Data	Source of Basic Data
35) Leadership/ membership in labor unions, cooperatives and peasant organizations by sex	Distribution of leadership/ membership in labor unions, cooperatives and peasant organizations in labor unions by sex	National	Annual	2003	BITS-BLES

## Annex 12-2. Designing a Project Monitoring Scheme

Project Implementation Monitoring System/Scheme (PMS) is basically a systematic design of monitoring a particular project. It is a systematic, timely, and regular gathering of feedback about the progress of a project in terms of inputs, operations and outputs, and the timely provision of appropriate support or intervention, if need be.

Actual data is compared with the plan to determine whether clearance from funding and support agencies has been sought and whether there are any deviations from the original plan. The cause of deviations, if any, is examined and solutions/persons likely to solve the problem and necessary interpretations are identified.

The Project Monitoring Scheme (PMS) is basically a systematic design of monitoring a particular project. If properly designed, it serves as a useful tool to systematize the task of monitoring. It is input-based, activity-related and output oriented.

The following paragraph presents a step-by-step guide to designing a project monitoring scheme:

### Steps in Designing and Implementing PMS:

#### Step 1 Develop the Monitoring Objectives

A PMS should specify the purpose for undertaking monitoring. A set of objective statements, which include checking of explicit consideration of population factors/issues and tracking gender- differentiated progress of projects for target beneficiaries, should be formulated vis-à-vis identified project performance targets.

#### Step 2 Develop a Monitoring Plan

The monitoring plan embodies the project outputs, critical activities and project inputs (data on these can be gathered from various project documents), monitoring points, and the plans and schedule for gathering and analyzing of information.

#### Step 3 Gather Information

Actual monitoring starts with the collection of information regarding the conduct of the project. Depending on the kind of information needed, technical person assigned in the monitoring then selects the best monitoring strategies to employ to achieve this end.

#### Step 4 Analyze Information

Analyzing information for monitoring purposes generally involves comparing the actual performance/ accomplishments (dates, activities, outputs) with the intended or planned; and then finding the reasons for and correcting, any discrepancies - whether the deviations are reasonable and beneficial or unjustified and harmful to the project.

## Step 5 Provide Support Intervention

When gathering and analyzing information about a project, one may come across many ideas on how to improve the conduct of the project, or how to correct certain deficiencies. There may be several alternatives for improving the project. One of the tasks in project monitoring is to discuss the alternatives with the implementer and decide what plan of action would be best for the interest of the project.

- There should be a list of options for interventions. Resources needed are determined for each option.
- For urgent cases, one may directly suggest corrective measures
- Legal measures are a last resort and sought only when other options failed
- Monitoring should end with report writing, summarizing the findings and recommendations

## Annex 12-3. Sample Report Card Performance Indicators

Thematic Area	Indicator
Forestry	Area of open access forestlands placed under tenure Area of bare/open forestlands/AD areas developed into agro forestry, and tree plantations Reduction in damages due to flooding Decrease or increase in water yield Other indicators as may be agreed during stakeholders' consultation
Heritage Conservation	Indicators of Townscape Improvements <ul style="list-style-type: none"> <li>• Streetscape Quality</li> <li>• Public Space Management</li> <li>• Private Space and Façade Management</li> <li>• Heritage Interpretation</li> </ul> Indicators of Quality of Life Enhancement <ul style="list-style-type: none"> <li>• Employment and Income</li> <li>• Education and Personal Aspirations</li> <li>• Sense of Community and Social Inclusion</li> <li>• Security, Crime and Order</li> </ul> Indicators of Economic Regeneration <ul style="list-style-type: none"> <li>• Land Use Changes</li> <li>• Retail Usage and Demand</li> <li>• Capital values and Yield</li> <li>• Pedestrian Usage and Traffic Flow</li> </ul> Indicators of Image & Confidence Building <ul style="list-style-type: none"> <li>• Media Coverage and Perceptions</li> <li>• Attitudes of Citizens &amp; Community Leaders</li> <li>• Visitation and Sustainability</li> <li>• Business Vitality and Investment</li> </ul>
Climate Change/Disaster Risk	Land Use <ul style="list-style-type: none"> <li>• Population in areas with high susceptibility to hazards</li> <li>• No. of informal settlers in areas with high susceptibility to hazards</li> <li>• No. of buildings in areas with high susceptibility to hazards</li> <li>• No. of businesses in areas with high susceptibility to hazards</li> <li>• Area of built-up development in areas with high susceptibility to hazards</li> </ul> Transportation <ul style="list-style-type: none"> <li>• No. of damaged links</li> <li>• No. of road links exposed to hazards</li> <li>• No. of key transport facilities (ports, terminals, airports) exposed to hazards</li> <li>• No. of bridges exposed to hazards</li> <li>• No. of vulnerable links with no alternative routes</li> </ul> Environmental Management <ul style="list-style-type: none"> <li>• Forest cover</li> <li>• Vegetation cover</li> <li>• Mangrove cover</li> <li>• Wetland area</li> <li>• Coral area</li> </ul> Zoning <ul style="list-style-type: none"> <li>• No. of permits granted in high risk areas (annual)</li> <li>• No. of non-conforming uses in high risk areas</li> <li>• Investment plan and infrastructure policies</li> <li>• No. of public projects approved in high risk areas</li> <li>• Amount of public expenditure in high risk areas</li> </ul> Other <ul style="list-style-type: none"> <li>• No. of houses with vulnerable construction</li> <li>• Amount of damage from disasters (annual)</li> <li>• Number of casualties from disasters (annual)</li> </ul>

# Annex 12-4. Guidelines on the Evaluation of CLUP/ZO for Updating/Replanning Purposes

(Ref: HLURB Region X)

## I. Objectives:

To provide bases in recommending decisions as to whether an area/locality needs to replan, update and/or amend their CLUP/ZO.

- To identify areas for re-planning/updating.
- To provide systems and procedures on the assessment/evaluation of the implementation of the approved CLUP/ZO.
- To ensure the integration of solutions on issues/problems identified in the course of implementing the CLUP/ZO.

## II. Tools for Evaluation/Assessment

- DZA report on applications for Certificate of Zoning Compliance (CZC), Exception, Variance, CNC (Certificate of Non-Conformance, where applicable)
- Decisions of the Regional Officers (ROs) on Locational Clearance (LC) applications (before the devolution of the LC issuance function to the LGU)
- Decisions of Zoning Administrator/Zoning Officer/Enforcement Officer (Upon the devolution of HLURB function)
- Decisions of the SP/SB on subdivisions, including subdivisions 9 lots and below, farmlot, memorial parks and Socialized Housing Project counterpart.
- Decisions on violations of the ZO

## III. Parameters

- Nature and number of CZCs issued
- Nature and number of Variances, Exceptions, CNCs issued
- Amount of change and rate of increase
- Nature and number of structures without CZCs
- Nature and number of subdivision projects (9 lots and below, farmlot, SHP and memorial parks)

## IV. Project Inventory

- Location of projects with CZCs/LCs
- Location of subdivision projects with DPs
- Projects in the LDIP, whether implemented or not
- Other projects not in the LDIP but implemented
- Revisit VISION, development thrusts not only of the city/municipality but also that of the province, region and nation as a whole, (the in-thing, the buzzword for the season, e.g., Countryside Agricultural Development, Newly Industrialized Country, Sustainable Development, Gender Sensitivity, etc.)
- Interview with Local Government Officials, NGOs, POs, Civil Society
- Actual development in the city/municipality as against the proposals in the development plan
- All revisions/rezoning found to be too harsh for implementation
- All projects implemented as against projects programmed for implementation

## V. Procedural Guidelines

- Check the completeness of the CLUP
- Determine the degree and/or extent by which the CLUP and ZO have been implemented/enforced
- Prepare inventory of projects
- Conduct field investigations
- Conduct interviews with public and private sectors/officials

## VI. Review Questionnaire

1. Do the CLUP and ZO contain substantial elements as indicated in the CLUP/ ZO guidelines?
2. Has the CLUP/ZO been fully implemented / enforced by the locality?
3. Are the proposed programs and projects indicated in the plan being implemented in the identified locations and in the timeframes as scheduled/ programmed?
4. Are those the priority projects of the city?
5. Are the intended clientele benefited by the projects?
6. Are there other projects implemented which are not included in the CLUP?
7. If yes, do these projects support the development need of the city?
8. Is the actual development of the city still within the conceptual framework of the CLUP/ ZO (How much of non-urban areas have been converted to urban uses, % of non- urban to total urban area)
9. Is the overspill due to lack of available space in non-urban areas?
10. Are there deviations between the actual development and the proposed land use/ZO? If yes, identify the specific areas where there are deviations and the development projects (classification and location) taking place.

Deviations from proposed land use/ZO are considered significant when:

- The number of non-conforming applications/projects for specific classification granted within the zone is 50% and above of the total number of applications within the city.
  - The land area covered by identified non-conforming project classification is 50% and above of the area of the given zone.
  - The programs and projects identified in the LDIP are not implemented by at least 20%.
11. Do the goals and objectives, and projections of the plan still support the current development trend? If no, elaborate.
  12. Has the local government met difficulties/setbacks in the implementation of the CLUP/ZO? If yes, specify and discuss.

## VII. Re-Plan

- Current developments in terms of urbanization has overtaken the projections indicated in the CLUP
- CLUP/ZO has been outdated by the LGU's emerging functional role, goals and objectives, and requirements brought about by current developments

## VIII. Re-Zone/Update

- Development is still within the confines of the plan, but certain proposed zones have been developed into other uses.
- Development has reached the limit of the plan within the immediate period, thus, the need to update projections, requirements and land use proposal,

etc.

- If the approved plan has not been enforced, it should be updated to keep abreast with current developments.

## **IX. Status Quo**

- If at least ten (10) out of the twelve (12) questions in the questionnaire for review have been answered “yes”
- If the plan and actual developments are at par.
- If you answered “yes” to review questions 8 and 10, there is a need to re-plan.

# Part 3

## Guide to Writing the CLUP and ZO



# 1.0 Structure and Contents of the Comprehensive Land Use Plan and Zoning Ordinance

This Guide is intended to provide emphasis on the significant elements of the Comprehensive Land Use Plan in order to achieve its full appreciation as well as to ensure efficiency, transparency, and accountability in its implementation.

The presentation or reporting of a Plan should be purposive, focused and directly connected to what the LGU's vision intends to achieve. It facilitates a holistic and integrated presentation of the LGU and its ecosystems as well as its inter-relationship with neighboring LGUs within the ridge to reef or integrated ecosystems/watershed planning framework.

The written report must be supported by maps for easy appreciation and understanding by LGU decision-makers, stakeholders and the general public.

## CLUP Presentation and Packaging

The CLUP document shall be presented/packaged in three (3) volumes:

Volume 1 – The Comprehensive Land Use Plan

Volume 2 – The Zoning Ordinance

Volume 3 – Sectoral Studies

## Volume 1–The Comprehensive Land Use Plan

This shall comprise the formal and substantive elements of the CLUP/ZO and shall contain the following:

Topic	Content Description (Sample thematic map)	Where to Get the Content
<b>PRELIMINARY PAGES</b>		
Messages		Mayor, Vice Mayor
Resolution adopting the CLUP and enacting the ZO		
Foreword	<ul style="list-style-type: none"> <li>Explain purpose, context and limitations of the proposed CLUP</li> <li>Legal and enabling ordinance or guidelines adopted or complied with in the preparation of the proposed CLUP</li> <li>Significant(new) insights and areas adopted or included in the new CLUP compared to previous/existing CLUP (i.e. inclusion of climate change/disaster risk/threats; adoption of integrated eco-systems approach (i.e. ridge-to-reef); Citizen Report Card, and other significant changes not seen from previous/existing CLUP)</li> </ul>	
Acknowledgement		
Table of Contents		
List of Maps		
List of Figures		
List of Tables		
List of Acronyms and Glossary of Terms		
<b>I. BRIEF PROFILE OF CITY/MUNICIPALITY (GENERAL INFORMATION)</b>		
A. Brief History	<ul style="list-style-type: none"> <li>LGU legal and socio-cultural history</li> <li>Inter-LGU and Inter-governmental bodies existing</li> <li>Other significant local institutional and governance platforms and programs adopted/innovations</li> <li>Recent recognition and awards obtained from international/national/regional or private award giving bodies</li> </ul>	

B. Demographic Profile	<ul style="list-style-type: none"> <li>Brief summary of the population: total, composition, distribution and projection</li> </ul>	
C. Geographic location	<ul style="list-style-type: none"> <li>Brief profile of watershed/sub-watershed coverage and locations under which the LGUs is part of from its headwaters down to catchment and outflow areas in the coastal/municipal waters</li> <li>Significant national or regional/sub-national characteristics or value (e.g. biodiversity, cultural-historical, traditional, or functional) of local watershed/sub-watershed ecosystems of the LGU</li> <li>Watershed/sub-watershed map covering the political boundaries of LGUs within the watershed at 1:50,000; barangay political boundaries within the LGU and the watershed/sub-watershed divide covered at 1:20,000)</li> <li>Note: Suggested scale for watershed/sub-watershed level at 1:50,000; within LGU jurisdiction at 1:20,000 or at suitable scale</li> </ul>	<ul style="list-style-type: none"> <li>Step 2 and Step 4</li> </ul>
Territorial jurisdiction and Barangay subdivision	<ul style="list-style-type: none"> <li>Physical and locational characteristics, including land area, boundaries, covered barangays, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Step 4</li> </ul>
A. Physical Features and Environmental Condition	<p>Summary description of the natural biophysical environment (see content list in Vol.3 of the CLUP document “Sectoral and Special Area Studies”)</p> <ul style="list-style-type: none"> <li>All relevant thematic and sectoral maps, including vegetative cover, contour, drainage/flooding, general land use, tenurial conditions, hazards, climate risk/disaster risk projection maps, etc. at suitable scale</li> <li>Projection and expansion thematic maps and coverage areas, etc. at suitable scale</li> </ul>	<ul style="list-style-type: none"> <li>Step 4</li> </ul>
B. Existing Land Use and Land Use Trends	<ul style="list-style-type: none"> <li>Major trends/shifts in land tenure (i.e. CADC/CADT issuance)/conversion arrangements (i.e. establishments of special economic zones/industrial areas)</li> <li>Report of level of CLUP target outcomes reached in the implementation of previous/current CLUP</li> <li>Issues, gaps, challenges and accomplishments achieved in previous/current CLUP implementation</li> </ul>	<ul style="list-style-type: none"> <li>Step 4</li> <li>Results and findings from Situation Analysis as per CLUP Review and progress reports;</li> <li>Findings and results of any other relevant thematic and/or sectoral assessments/evaluation and impact studies conducted by national agencies, donor projects, private sector/academic and research institutions</li> </ul>
C. Infrastructure, Facilities and Utilities	<ul style="list-style-type: none"> <li>Includes major physical infrastructure projects (i.e. major dams/energy facilities, regional/sub-national transport/road network and facilities, etc.)</li> <li>Infrastructure and road network maps at 1:50,000 (provincial-municipal); municipal/city-level local road network at 1:20,000 or suitable scale</li> </ul>	
D. Transportation/Road Network		
E. Social Services facilities/ utilities/ amenities		
F. Agriculture and Agri-Industry Facilities		
G. Power, Water, Communication Network		
H. Waste Management		

I. Economic Structure		
Economic Base		
Primary		
Secondary		
Tertiary		
J. Development Constraints: Priority issues and concerns	<ul style="list-style-type: none"> <li>Issues, gaps, challenges and opportunities seen from the existing baseline levels and projection/estimates of key LGU conditions and how the LGUs intended to address these</li> <li>Land use-related impacts of major climate-related or geophysical disaster events or occurrence during the current CLUP implementation period;</li> </ul>	<ul style="list-style-type: none"> <li>Step 4</li> </ul>
K. Comparative Advantages and Competitive Edge		<ul style="list-style-type: none"> <li>Step 4</li> </ul>
L. Functional Role of the City/Municipality		<ul style="list-style-type: none"> <li>Step 4, 5 and 6</li> </ul>
<b>I. THE COMPREHENSIVE LAND USE PLAN</b>		
A. Vision, Mission, Goals and Objectives	<ul style="list-style-type: none"> <li>Agreed upon CLUP vision, goals, objectives and development thrusts</li> <li>Key new or significant elements of proposed CLUP vision; highlights and difference from current CLUP</li> </ul>	<ul style="list-style-type: none"> <li>Step 3</li> </ul>
B. Development Strategies	<ul style="list-style-type: none"> <li>Potential direct/indirect impacts of proposed national/regional/provincial plans and targets</li> <li>Agreed upon CLUP development outcome and output indicators</li> <li>Proposed development thrust and spatial strategies and options</li> <li>Analysis and evaluation of development thrusts and spatial strategies and options</li> </ul>	<ul style="list-style-type: none"> <li>Step 5 and Step 6</li> </ul>
C. Development Concept and Structure Plan (text and map)	<ul style="list-style-type: none"> <li>Proposed CLUP Outcome and Output Indicators</li> <li>Targeted Land Use Allocation and Proposed Expansion/ Recovery/ Rehabilitation Areas</li> <li>Proposed Concept Map and Structure Plan (with several options)</li> <li>Over-all land use allocation areas and expansion/threat areas (i.e. bubble maps/ schematic maps)</li> </ul>	<ul style="list-style-type: none"> <li>Step 6</li> </ul>
D. The Land Use Plan (Text and Map Format)	<p>Proposed Land Use Plan and Map</p> <ul style="list-style-type: none"> <li>Detailed land use allocation and sectoral maps</li> <li>Sectoral and special areas plans and maps such as ancestral lands, cultural/heritage zones, biodiversity corridors, protected areas/land and seascapes, eco-tourism/tourism estates/zones, special economic zones, SAFDZs, resettlement/socialized housing areas, inter-nodal transport areas/ zones, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Step 7</li> </ul>
E. Land and Water Use Policies	<ul style="list-style-type: none"> <li>Policies that will govern the specific land and water uses in the entire city/municipality.</li> <li>CCA and DRRM policies</li> </ul>	<ul style="list-style-type: none"> <li>Step 7</li> </ul>
F. Major Development Programs	<ul style="list-style-type: none"> <li>Refers to major programs that has also gone through the prioritization process of the cross and intersectoral analysis meant to drive the development of the LGU. From this list, CDP process will put it in the investment program LDIP.</li> <li>Key priority development projects and areas, i.e. spatial locations, expansion areas and targeted communities/constituencies that will support the achievement of the desired development goals and outcomes of the CLUP over its 9-year implementation period.</li> </ul>	

F. Major Development Programs (cont'd)	<ul style="list-style-type: none"> <li>• Local investment and planning incentive areas/zoned maps/areas</li> </ul>	
G. CLUP and ZO Implementation Strategy/Arrangement	<ul style="list-style-type: none"> <li>• Approved Institutional Structure and Systems and Procedures</li> <li>• Investment Programs</li> <li>• Information, Education and Communication (IEC) Plan /Advocacy</li> <li>• Links to other CLUP implementation tools and instruments</li> </ul>	<ul style="list-style-type: none"> <li>• Step 11</li> </ul>
H. Monitoring Review and Evaluation System	<ul style="list-style-type: none"> <li>• Targeted CLUP Outcome and Benchmark Indicators</li> <li>• Creation of Municipal/City Monitoring Team or Oversight Committee in the LDC or SB;</li> <li>• LGU technical monitoring working group</li> <li>• CLUP Monitoring Report Card</li> <li>• Identified areas for co-management, convergence or inter-LGU/inter-governmental partnership arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Step 12</li> <li>• Stakeholder and public perception and performance surveys/FGDs/studies results and findings</li> </ul>

## **Volume 2–The Zoning Ordinance (ZO)**

This volume presents the locally enacted ordinance which embodies, among others, the regulations affecting uses allowed or disallowed in each zone or district, and the conditions and deviations legally allowed from the requirements of the ordinance.

Volume 2 is presented in two parts with the following contents:

### **A The Zoning Ordinance (text)**

- SB/SP Resolution enacting the ZO
- Title and objectives of the Ordinance
- Substantive elements comprising articles on the following:
  - ♦ Definition of Terms
  - ♦ Zone Classifications
- Zone Regulations
- General District Regulation
  - ♦ Innovative Techniques
- Miscellaneous Provisions
- Mitigating Devices
- Administration and Enforcement

### **B. The Zoning Map**

This is the Official Zoning Map enacted by the LGU and duly ratified and authenticated by the approving body (SangguniangPanlalawigan/HLURB) which is an integral part of the Zoning Ordinance. It is the graphic presentation of the zone classifications/designations, location and boundaries of the districts/zones that were duly established in the zoning ordinance.

# Volume 3 – The Sectoral and Special Area Studies

This volume shall comprise the detailed documentation of the sectoral and special area studies conducted that provided the bases for the preparation of the CLUP. The presentation/ documentation shall have the following major sections:

<b>Topic</b>	<b>Content Description</b>
A. Demography	<ul style="list-style-type: none"> <li>• Population, Population Composition, Population Distribution, Population Change, etc.</li> <li>• Estimates and future projections of demography (at least 10-15 years);</li> </ul>
B. Physical resources/environment	<ul style="list-style-type: none"> <li>• Topography               <ul style="list-style-type: none"> <li>○ Topographic relief</li> <li>○ Elevation</li> <li>○ Slope</li> <li>○ Drainage patterns/ surface drainage (bodies of water within the city/ municipality)</li> <li>○ Watershed (indicates watershed divide, rivers and creeks)</li> </ul> </li> <li>• Vegetation/ Vegetative cover</li> <li>• Soil               <ul style="list-style-type: none"> <li>○ Type/ classification</li> <li>○ Soil suitability</li> <li>○ Land capability (if any)</li> </ul> </li> <li>• Hydrogeological Features (and Hazards)               <ul style="list-style-type: none"> <li>○ Geology/ rock formation</li> <li>○ Groundwater resources</li> <li>○ Fault lines, sinkholes etc.</li> </ul> </li> <li>• Climatological conditions, type of climate, prevailing winds, average annual rainfall, mean temperature, tidal current patterns (for coastal areas)</li> <li>• Climate change vulnerability assessment and disaster risk projection in the area (based on PAGASA projection data, MGB geo-hazard risks and land use conditions)</li> <li>• Identification of key risks areas and threats (i.e. high, medium and low) from climate-related and geo-hazard risks projections</li> <li>• Conservation areas and other special interest areas               <ul style="list-style-type: none"> <li>○ Protected Areas (NIPAS and non-NIPAS) both terrestrial and marine</li> <li>○ Ancestral domains</li> <li>○ Prime Agricultural Lands (NPAAAD)</li> <li>○ Primary forests and other forest types</li> <li>○ Fish sanctuaries</li> <li>○ Historical, cultural and natural heritage sites</li> <li>○ Wetlands (lakes, rivers, coral reefs, mangroves, seagrass beds, marshes, etc.)</li> <li>○ Critical watersheds</li> <li>○ Geothermal Sites/Plants</li> <li>○ Mining and Quarrying Areas</li> </ul> </li> </ul>

C. Ecosystem Analysis	
1. Forest Land Use	<ul style="list-style-type: none"> <li>Existing forest land uses, location and area</li> <li>Integrated Ancestral Domain boundary</li> <li>Updated thematic maps of the LGU indicating the available forestry assets/ resources</li> <li>Summary of the forestry assets/ resources of the LGU with corresponding area/ quantity</li> <li>Proposed forest land uses, policies, programs and projects</li> </ul>
2. Coastal Resources	<ul style="list-style-type: none"> <li>Assessment of the current situation of the LGU's coastal and marine areas including the conditions of coastal and marine assets/ resources including biodiversity;</li> <li>Climate change and disaster risks to coastal and marine assets/ resources for adaptation and mitigation purposes;</li> <li>Suitable areas for specific municipal water uses; and</li> <li>Policies and regulations for the protection and management of coastal and marine resources.</li> </ul>
3. Biodiversity	<ul style="list-style-type: none"> <li>Delineated PAs and KBAs</li> <li>Conservation and/or Management Strategies for PAs and KBAs</li> </ul>
D. Social sector	<ul style="list-style-type: none"> <li>Estimates and future projections of key or prioritized socio-economic, settlements, (at least 10-15 years)</li> </ul>
1. Housing	
2. Health	
3. Education	
4. Protective Services	
5. Sports and Recreation	
6. Social Welfare	
E. Economic Sector	<ul style="list-style-type: none"> <li>Estimates and future projections of key or prioritized production (at least 10-15 years)</li> </ul>
1. Industry	
2. Commerce and Trade	
3. Agriculture	
4. Forestry	
5. Tourism	
F. Infrastructure and Utilities Sectors	<ul style="list-style-type: none"> <li>Estimates and future projections of key or prioritized infrastructure and utilities (at least 10-15 years)</li> <li>Such projections and estimates shall also include proposed national/regional or provincial plans and projects and its direct and indirect impact to the LGU's population, land use targets, and development goals such as major infrastructure/transport network (i.e. airport/railway/port/highway-toll road construction), major reforestation/ conservation projects, major dams and energy facilities, among others.</li> </ul>
1. Transportation	
2. Power	
3. Water	
4. Communication	
5. Solid Waste Management	

G. Special Study Areas	
<p>1. Climate Change Adaptation and Disaster Risk Reduction and Management</p>	<ul style="list-style-type: none"> <li>• Climate and disaster risk assessment to include the following: <ul style="list-style-type: none"> <li>○ Hazard profile and hazard maps</li> <li>○ Exposure maps and tables</li> <li>○ Risk maps</li> </ul> </li> <li>• Climate change vulnerability assessment to include the following: <ul style="list-style-type: none"> <li>○ Local climate change scenario</li> <li>○ Climate change impacts (per sector or area)</li> <li>○ Adaptive capacity</li> </ul> </li> <li>• Assessments of priority areas/ sectors identified as highly susceptible</li> <li>• Summary of land use constraints and issues related to climate and disaster risks</li> <li>• Recommended climate change adaptation and disaster risks reduction interventions and policy options</li> </ul>
<p>2. Heritage Conservation</p>	<ul style="list-style-type: none"> <li>• Analysis of Cultural Systems (Natural, Historical, Architectural, Intangible Assets, Festivals and Events. Built Heritage, etc.)</li> <li>• Policy options and appropriate strategies, programs and projects for preservation and revitalization of the cultural character and uniqueness of the city/municipality</li> </ul>
<p>3. Ancestral Domain</p>	<ul style="list-style-type: none"> <li>• Ancestral domain boundaries and traditional land uses and identify their intersections with lands covered by the CLUP.</li> <li>• Assessment of the current situation of the LGU's ancestral domains, specifically, its natural resource base/ assets, including biodiversity; condition of these assets; their current and traditional uses and existing and potential opportunities and threats to sustainable development.</li> <li>• Indigenous knowledge systems and practices (IKSP) in relation to land use and zoning</li> <li>• Assessment of risks and vulnerabilities for climate change adaptation, disaster risk management, and land use conflicts</li> <li>• Assessment of ICC/IP needs, problems, concerns and opportunities as well as assets and resources (IKSP) for sustainable development</li> <li>• Policy options and appropriate strategies, programs and projects for integration in the CLUP</li> </ul>

# **2.0 The CLUP as a Marketing and Investment Tool**

## **2.1. CLUP as an LGU's main marketing and investment tool**

No local document other than an LGU's CLUP and the corresponding CDP can serve as the main platform for resource mobilization, investment and revenue generation. The CLUP is a primary reference document in the preparation of national agency sectoral plans and programs. The LGC mandates national agencies to link and coordinate their national plans and programs with an LGU's local plans. Likewise, no national government transfers can be given to LGUs if their local development plans and programs are not directly linked or implements the objectives of their approved CLUP. In a similar vein, no LGU should allocate and implement local projects in their annual investment plans that are not in the approved CLUP and CDP.

Among international development agencies, the CLUP is one of the main references for identifying complementation in the development objectives and targets of proposed donor-assisted project and programs that would involve LGU participation and implementation. Development thrusts and projections identified in the CLUP serve as the basis for the identification of specific technical assistance and support of development partner projects either to augment local resources or accelerate local development and growth programs.

In the private sector, the CLUP and integrated zoning ordinances are critical markers in identifying investment plans and programs, particularly allowable economic and production activities. Zoning restrictions and controls as well as assessment of land values, provide private sector investors and developers important references on operational cost, capital acquisition, revenue generation and growth potentials. The CLUP also affords private investors a road map of future plans and targets, especially in infrastructure and settlements expansion and development, by which future market projections and estimates can be calculated for businesses to come in and invest.

The inclusion of climate and disaster risk and vulnerabilities in the CLUP provides a clearer idea of the risk factors and elements in the locality. Moreover, climate responsive and adaptation programs offer local investors with protection benefits and avoided costs arising from climate-induced weather and disaster events. This gives prospective businessmen and investors a basis for making locational and operational decisions.

## **2.2 CLUP as local reference and information tool**

The CLUP serves as a vital local reference and information tool for both general public and interest groups. It includes current and projected estimates of key local baseline information and databases. Local information generated from the LGU offices are normally the sources of key indicators and baselines of the LGU. It is a rich source of information for a deeper understanding and knowledge of local conditions and situations.

## 2.3 CLUP as local community and stakeholders' development agenda and advocacy tool

Finally, the CLUP is a product of the vision, desires, needs and hopes of an LGU's constituency, presenting a 'visual' roadmap of their shared future and direction. As such, it serves as a local community and stakeholders' development agenda.

The CLUP provides the rallying point, if not unifying factor, from an LGU's varied interests and demands towards a common plan of action and effort to achieve their common goals. The CLUP is an advocacy tool that can be used to pursue, negotiate and leverage with national and local partners, agencies and instrumentalities.

## 2.4 Disseminating the CLUP

The CLUP Brochure is suggested to be a one-page printed or electronic information material containing Vision/Mission, Goals, Objectives, Land Use Plan Map and Major Development Programs. It also includes contact information of the LCE, C/MPDC and Zoning Officer.

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