



4.08.08 Environmental Management: Environmentally Critical Areas/Project



Step 1: Prepare Background and Identify the Objectives

Environmentally Critical Areas (ECA) are those areas ranging from national parks to areas frequently exposed to hazards or areas that are historically interesting. These areas are identified in Presidential Proclamation 2146. The wide range in the classification might at first seem overwhelming, however, most data to this dataset will already be found in datasets that have probably been prepared already.

Environmentally Critical Projects (ECP) are projects or industries that have critical environmental impacts and therefore need to undergo environmental impact assessments and need to acquire Environmental Compliance Certificates (ECC) prior to implementation. Even though the LGU may not play a significant role in the environmental impact assessment system it is important to monitor these projects in order to plan for the appropriate location of these projects vis-à-vis residential and other land uses.

The CLUP must reflect these areas and projects. Some ECA may need to be surrounded by buffer zones so that the adjacent land will be free from intensive land use and thus protecting the ECAs. In the same way, buffer zones around ECPs can be used to prevent residential or agricultural land use in the vicinities of these projects.

The objective of this IP is to present an inventory as complete as possible regardless of what has already been analyzed in other IPs.

Step 2: Identify the ECA Classes, Their Corresponding Datasets and the ECP Categories





The table below indicates from which CLUP table(s) the data can be reflected, copied or acquired.



ECA Classification (source)

ECA Class	CLUP Table(s)
A – Area declared by law as a national park, watershed, reserve, wildlife preserves or sanctuary	LM05 Nipas
B – area set aside as aesthetic, potential tourist spot	
C – area which constitutes the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna)	LM05 Nipas, LM06 Non-Nipas
D – area of unique historic, archeological, geological or scientific interest	LM09 Cultural Heritage
E – area which is traditionally occupied by cultural community or tribe	LM08 Ancestral domain, LM09 Cultural Heritage
F – area frequently visited and/or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.)	EM03 Flood, EM04 Erosion, EM05 Faultline, EM06 Volcanic Hazard, EM07 Tsunami, EM08 Landslide, EM09 Subsidence
G – area with critical slope	EM02 Slope
H – area classified as prime agricultural land	LM08 SAFDZ
I – recharged area of aquifers	
J – waterbody	From basemap
K – mangrove area	LM05 Nipas, LM06 Non-Nipas LM07 SAFDZ
L – coral reef	

To identify the different **Environmental Critical Projects**, refer to the projects that have been given an ECC. These can be categorized in the following classes:

-  heavy industry;
-  extractive resource;
-  infrastructure project;
-  golf course

Step 3: Create the Database

Attributes and spatial

There is one table to prepare for this presentation (and it is used in this example):

EM14 Environmentally Critical Projects



The custodians of this data are the EMB and LLDA. Simply capture the data into the CLUP table and digitize the locations from a secondary source map, or undertake a GPS survey where these locations are measured and then transferred into the CLUP GIS. The feature types here will be points or polygons.

The steps below will guide the presentation of the ECAs based on selections from other CLUP tables. However, if the EMB can provide the map of ECAs, this should enable the creation of a dataset from this source and use this as a comparison to the features that are selected within step 4.

The procedure is to select features from the layers as mentioned below (here presented by their corresponding CLUP table index and short name) and save all selections into a new layer, named 'ECA'. Another option is to assign the symbol for ECA (red border line) to all the types within a layer that also constitutes ECA.

LM05 NIPAS

Basically, every type of NIPAS should constitute an ECA. This is valid for both type 1 (existing NIPAS) and type 2 (new NIPAS). It should be noted that the ECAs are categorized differently from NIPAS.

LM06 Non-NIPAS

Select all features that are classified as mangrove.

LM08 Ancestral Domain

Select all features.

LM09 Cultural Heritage

Select all features.

For the following layers, please refer to guidelines.

EM03 Flood

Select the flood prone areas

EM04 Erosion

Select the erosion prone areas

LM07 SAFDZ

Select all features that are strategic types or categorized as NPAAAD.

The other SAFDZ types may qualify to be an ECA, and there will be a need to verify the remaining areas by hand.



ECA	
ECP (when polygon)	
ECP (when point object)	●
Step 4: Analyze the Data	
There is no analysis for this IP.	
Step 5: Present the Data	
<p>The result is a map presenting the selected ECA features (red polygons) and ECP layers (here one layer with blue points and one layer with blue polygons). Roads, rivers and barangay boundaries are added to the map. The map constitutes an inventory of ECA and ECP in the municipality:</p>	