

# Balinga

A Proposed Botanical Park for Libunao Protected Landscape for the Conservation of Philippine Endemic Species  
Brgy. Nagcullooban, Sinait, Ilocos Sur, Philippines

by Hazel Grace R. Esmino

LIBUNAO



## Political

Libunao Protected Landscape has an area of **46.7 hectares** and is located in **Brgy. Nagcullooban, Sinait Ilocos Sur.**



## Economic

The **endangered and endemic species** can attract researchers and ecotourism enthusiasts, which can promote **sustainable ecotourism.**



## Social

Brgy. Nagcullooban has a population of **430** and **household of 130** with the **smallest household size of 4.17** or **4 persons per hectare.**



## Technological

Underdeveloped ecotourism due to the **undeveloped site and unpaved roads.**



## Legal

People seem to be unaware of the importance of **PA, PA management, PA policies,** and metes and bounds of the **PA.**



## Environmental

Biological resources in the area are **threatened by illegal activities and unregulated use of commercialized fertilizers and pesticides.**

## Design Concept

**Ngipen ti bawang (n)**  
Clove of Garlic

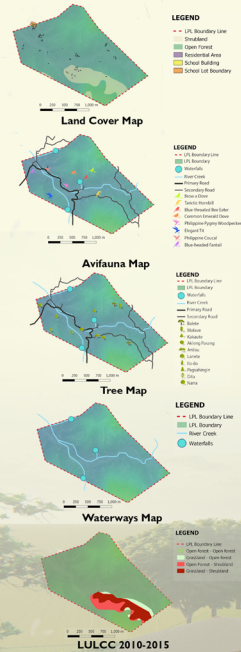
The **unregulated use of commercialized pesticide and fertilizer** create an imbalance in biodiversity, soil characteristics, and water quality of the PA which can **affect the growth of the species.** Based on the studies, **garlic** can be an **organic fertilizer** and possible pest control for different crops. In order to **promote organic fertilizer and pesticides;** and since **Sinait,** the city where the LPL is located, is known as the **Garlic Center of the North,** the concept "**Ngipen ti Bawang**" will be used in constructing the design.

Thus, the design will follow a **curvilinear form** inspired by the shape of a **garlic clove** and the color palette will represent the **spiciness of a garlic.**

## Vision

Promote **organic pesticides and fertilizers** in order to protect and conserve **threatened and endemic species** while showcasing the beauty of these species; and in turn increasing the city's **economic growth.**

## Site Inventory



## Design Philosophy

### Responsible Conservation

"If conservation of natural resources goes wrong, nothing else will go right." - M.S. Swaminathan

The **Conservation Theory** which states that the **inborn survival response** mobilizes the person to take action to **regain the lost resources** and the **Social Responsibility Theory** which states that actions must benefit the **whole of society,** were used in creating different zones and the spaces under them. The first zone, **Amenity Zone,** allows the users to **charge before and after they do their work** in conserving their resources. The second zone, namely **Learning Zone,** allows the users to **have an idea why they need to conserve** and protect the environment. The last zone which is the **Application Zone** allows the users to take action about the current problem.



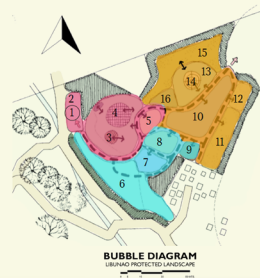
Replenish Energy to Prepare for Conservation of Natural Resources



Awareness and Knowledge on Organic Fertilizers and Pesticides



Take Action on Conserving Philippine Endemic Species



BUBBLE DIAGRAM  
LIBUNAO PROTECTED LANDSCAPE

**Amenity Zone (Pink)**  
1. Welcome Area  
2. Parking  
3. Information Center  
4. Plaza  
5. Cafeteria

**Learning Zone (Blue)**  
6. Arboretum  
7. Advocacy Center  
8. Briefing Area  
9. Research Center

**Application Zone (Orange)**  
10. Workshop Area  
11. Vermiculture Farm  
12. Agricultural Area  
13. Nursery  
14. Greenhouse  
15. Tree Planting Area  
16. Product Shop



FUNCTIONAL DIAGRAM  
LIBUNAO PROTECTED LANDSCAPE

**Amenity Zone**  
1. Welcome Area  
2. Parking  
3. Information Center  
4. Plaza  
5. Cafeteria

**Learning Zone**  
6. Arboretum  
7. Advocacy Center  
8. Briefing Area  
9. Research Center

**Application Zone**  
10. Workshop Area  
11. Vermiculture Farm  
12. Agricultural Area  
13. Nursery  
14. Greenhouse  
15. Tree Planting Area  
16. Product Shop

## PERSPECTIVE WELCOME SIGNAGE

PARKING  
RESTROOM  
WELCOME SIGNAGE  
FOOD STAND  
UMBRELLA SEATING  
PLAZA  
INFORMATION CENTER  
BRIEFING AREA  
ADVOCACY CENTER  
ARBORETUM  
BENCH

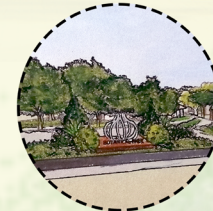


BLOW-UP PLAN  
GREENHOUSE AREA

0 5 15 30 MTS.

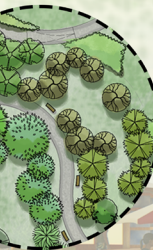


PERSPECTIVE  
GREENHOUSE AREA



## PERSPECTIVE WELCOME SIGNAGE

PARKING  
RESTROOM  
WELCOME SIGNAGE  
FOOD STAND  
UMBRELLA SEATING  
PLAZA  
INFORMATION CENTER  
BRIEFING AREA  
ADVOCACY CENTER  
ARBORETUM  
BENCH



BLOW-UP PLAN  
ARBORETUM

0 5 15 30 MTS.



PERSPECTIVE  
ARBORETUM



SITE DEVELOPMENT PLAN  
LIBUNAO PROTECTED LANDSCAPE

0 5 15 30 50 MTS.

TREE PLANTING AREA  
PLANTER  
GREENHOUSE AREA  
GEODOME  
NURSERY  
MULTIPURPOSE STAGE  
VERMICOMPOST AREA  
PRODUCT SHOP  
WORKSHOP AREA  
CROPS  
AGRICULTURAL AREA  
GARLIC SCULPTURE  
FRETTELS  
RESEARCH CENTER





**PERSPECTIVE**  
GREENHOUSE AREA



**PERSPECTIVE**  
WORKSHOP AREA



**PERSPECTIVE**  
AGRICULTURAL AREA

