

# MANOLO FORTICH AGRI-LAB

## MANOLO FORTICH

Manolo Fortich, an agri-industrial cluster of Metro CDO and a municipality in the fruit basket region of Bukidnon, is one of the top producers of annual crops in Mindanao such as pineapple, corn, and banana. It is also where the biggest pineapple plantation in the world is located. As the *bishop* of the Metro CDO, Manolo Fortich is considered as the specialized production center with interest interwoven in the Metro CDO economy.

## ESTABLISHING THE NEED

However, this seemingly rich industry is not reflected on the social data available on the municipality. The diminishing interest and manpower threatens the stability and future of the agri-industry in the town.



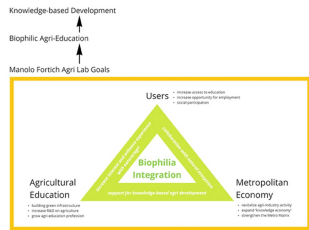
- Majority of the population are able enter high school while only few were able to reach college.
- Majority engages in elementary occupation (41.8%)
- Agriculture related occupation ranks 3rd (13.5%)

Philippine Statistics Authority, 2015 Census of Population, Inquest No. 2 - Demographic and Socioeconomic Characteristics Bulletin, June 2017

Gaps are yet to be filled as the agri-knowledge and training development is limited on the municipality center: 32 Public Elementary Schools, 3 Public High Schools, 1 TESDA center and a State College.

To increase the agri-related knowledge and participation of the community to the municipality's agri-industry, a knowledge-based development is proposed in the municipality that will provide agri-related knowledge and training, thus the proposed **Manolo Fortich Agri-Lab**.

## DESIGN APPROACH

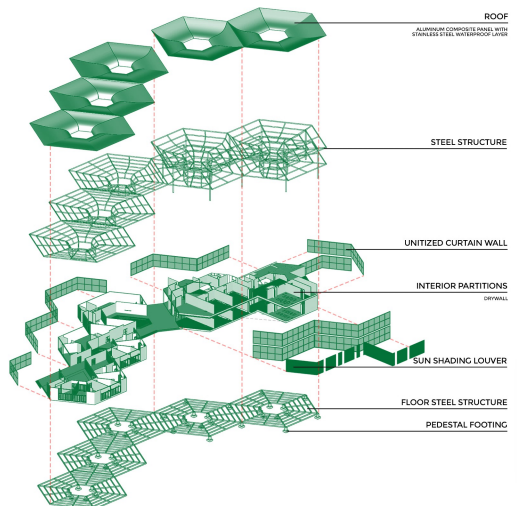


The design approach of Manolo Fortich is **Biophilic Agri-education** where the development aims to fortify the link between the main users and their natural environment while providing opportunities for knowledge and skills expansion. This is broken down into 3 concepts: (1) Nature in the Space, (2) Nature Analogue and (3) Nature of the Space.

## STRUCTURAL DESIGN

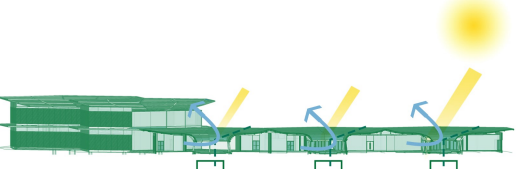


The structural frame is modular and prefabricated. The configuration of the hexagon modules can be rearranged to respond to its site. It also allows flexibility in adapting various functions of spaces.



## BIOPHILIC INTEGRATION

The structure acts as a huge rainwater collector for the site's irrigation. The void hexagon at center is kept as location for rain garden (public and academic spaces) and lightwell (R&D spaces). It also encourages passive ventilation and natural lighting to the interior spaces.



**5,000m<sup>2</sup> x 180mm = 900,000 Liters**  
 Harvestable Rainwater

Approx. Roof Surface Area      Ave. Rainfall (weatherspark.com)

## MACRO SITE ANALYSIS

One of the major considerations for the site is its serviceability to its immediate community, especially that the nearest and only college and techvoc school to the barangay is 5km away. Its key location offers neighboring barangays of Lunocan, Damilag and Alae access to the project's services within ~3.0 km distance.

## CONCEPTS

- 1 Nature in the Space** address the direct and physical connection to the natural environment. Tropical design translations are the most prominent in the design of the interior spaces that allows cross ventilation and natural lighting.
- 2 Natural Analogue** address the parallelism of the design to nature. This is exhibited through the use of natural materials in the design and Complexity and order in the circulation is also designed to provide users with rich sensory experience.
- 3 Nature of the Space** address spatial configuration of the space that deliberately mimics that of nature. Unimpeded views of the farms from the classrooms, laboratories and main lobby provide users with prospect of the space.



The agri-lab will establish an agricultural education in the municipality which will function as a hybrid space where agri-training will be facilitated together with research and development to expand the agriculture-related knowledge and skills of the residents in Manolo Fortich. This will revitalize the agri-industry in the municipality while increasing access to education, opportunity for employment and social participation for the community.

## PLANS AND PERSPECTIVES

