

## 3 TAU DEVELOPMENT, LAND USE AND INFRASTRUCTURE PLAN

### The Planning Process

A Technical Working Group for the development of the Land Use and Infrastructure Development Plan of Tarlac Agricultural University was formed on October 14, 2022 by virtue of Memorandum No. 144, s. 2022. The TAU LUDIP TWG and the university community have been engaged in a series of consultations and workshops to gather their insights and to inform the development of the TAU LUDIP, namely in the following:

- On October 18 -19 2022, a planning workshop was conducted with the participation of various university offices and departments. The participants were divided into sectoral groups to ensure that all concerns are encompassed and covered. Grounded on the insights provided by key stakeholders the vision statement, mission statement, and university core values were reformulated to serve as guide in the development of the Tarlac Agricultural University Land Use Development and Infrastructure Plan. These are presented in **Section 3.**
- From October to November 2022, outputs were requested from the respective sectoral groups to define the goals, objectives, targets, and strategies for the specific concerns of their sectoral groups. The activity was done remotely.
- On November 17-19, 2022, the second planning workshop was conducted to finalize the goals, objectives, targets, and strategies per sector, to identify the climate risk and hazard exposure within the campus, to identify and prioritize the programs, projects and activities to be included in the LUDIP. The resulting outputs are incorporated in **Section 3.5 and Section 3.6**
- On February 8, 2022, together with the TAU LUDIP TWG Members, the initial checking of CHEDRO III was conducted. Their outputs and recommendations were included in the TAU LUDIP.
- On February 9 to March 24, 2023, the TAU LUDIP TWG Members conducted a planning workshop that with the agenda of discussing the feedbacks and areas of concern of CHEDRO III representatives. This part of the planning process focused on the lapses of the Campus LUDIP based on the initial checking of CHEDRO. The TAU LUDIP TWG Members consolidated all the supplemental data needed for the TAU LUDIP and then updated the initial draft to provide the final out: The Tarlac Agricultural University Land Use Development and Infrastructure Plan.

### Vision, Mission and Core Values

#### VISION

The vision statement of TAU depicts the desires of its people for the University in the next ten (10) years and beyond. This serves as the guiding framework for the University, which is translated into its major programs and projects across different sectors.

To develop the vision of TAU, a visioning workshop was conducted on October 18-19, 2022. During the workshop, participants from different societal sector of the university were grouped according to different sectors. Each group brainstormed on what vision to adopt for the university. At the end of the workshop, a formulated vision was presented. The formulated vision statement reads as follows:



**“Tarlac Agricultural University as the premier agricultural university in Asia that produces holistic and globally-competitive individuals nurtured in an ecologically-balanced and sustainable environment with disaster-resilient and smart infrastructure led by transparent and capable leaders supported by adequate, diversified, and well-utilized financial resources.”**

## Vision Elements

The vision statement shows the overall desired state and quality of TAU. It contains two major components: an outward looking component and an inward looking one.

### Outward looking component

The outward looking component of the vision states the desired role that the university can play or the best contribution it can make to the development of a wider community. During the visioning workshop, two points were raised as regards the formulation of the outward looking component: (1) identifying the wider community to which the university intends to make a unique and substantial contribution, and (2) defining the university’s role in that wider community.

The visioning workshop participants agreed that the wider community should be international in scope. Specifically, they identified the region of Asia as the wider community to which TAU should make a unique and substantial contribution. The participants also agreed that their desired role for TAU in the wider community is to become a premier agricultural university.

Thus, the outward looking component of TAU’s vision was formulated into the university becoming the **premier agricultural university in Asia**. As the premier agricultural university in Asia, TAU shall provide excellent and internationally-recognized academic programs, with a focus on agriculture, food science, and allied disciplines. It shall also undertake research and extension services and production activities that support the development of the agricultural sector in Asia.

### Inward looking component

The inward-looking component of the vision presents a picture of the university as a desirable environment for studying, working, and living. This component can be further analyzed into elements which correspond to the different development sectors of the university. The elements of the inward-looking component of the vision were formulated in relation to the following: (1) the values that the university community uphold (social sector), (1) its financial position (economic sector), (3) the condition of its built environment (infrastructure sector), (4) the state of its natural environment (environmental sector), and (5) the quality of its leadership (institutional sector).

#### Values that the university community upholds

TAU believes that harnessing the full potential of individuals means cultivating not just their intellectual capabilities but also their physical, emotional, moral, psychological, and spiritual attributes. Thus, the university envisions that students, faculty, administrative personnel, and all other members of its community will develop as holistic individuals that are capable of succeeding in a modernizing and interconnected world. With these, one of the visions of TAU is to become a university that **produces holistic and globally-competitive individuals**.

#### Financial position

TAU recognizes the need to have sufficient financial resources in order to sustain its operations, support its various endeavors and services, and turn its visions and plans into reality. With this, one of the visions of the university is to have **adequate, diversified, and well-utilized financial resources**.

To fulfill this, the university seeks to use its existing land and other assets to implement projects that



provide positive financial return. In implementing these projects, TAU commits itself in promoting environmental sustainability. These projects will not only bring additional revenue to the university but will also allow TAU to reduce its dependence on national government funding and utilize its funds more efficiently. TAU also envisions that 100 percent of its funds should be used only for its intended public purpose.

#### State of natural environment

TAU strives to **nurture individuals in an ecologically-balanced and sustainable campus**. This involves, among others, integrating and mainstreaming sustainability practices within campus, conserving and promoting renewable energy, and implementing policies and programs that reduce the carbon footprint of the university and protect its natural resources.

#### Condition of the built environment

TAU aims to build **disaster resilient and smart infrastructure** that will protect its stakeholders from various natural hazards. It shall develop its built environment in such a way that the impact of natural disasters such as typhoons, flood, storm surges, liquefaction, landslides, and earthquakes to the campus and its people will be minimal if not zero.

#### Quality of Leadership

TAU recognizes that the fulfillment of its vision and various objectives hinges in large part to having a leadership and governance system that manifests competence, transparency, and accountability. With this, the university desires to be led by **transparent and capable leaders**.

## MISSION

**“Tarlac Agricultural University, as a prestigious agricultural university, is committed to produce highly competent individuals by providing quality education, developing relevant and innovative research, collaborating with local and international communities, and venturing in impactful endeavors aimed at revitalizing the country’s agricultural sector for the service of society”**

## CORE VALUES

### Good governance

A TAUian is characterized by good governance. The way in which the power that they have is used for the wellbeing of the organization and the proper usage of economic and social resources for the development of the university.

### Resilience

A TAUian is characterized by resilience. Individuals that have the capacity to persevere from difficulties and accomplish more than what is expected of them. In hardships and struggles they are able to persevere and become better individuals that carry themselves with dignity.

### Excellence

A TAUian is characterized by excellence. TAU individuals perform competently to their fullest potential, thus rewarding the TAU community with achievements in all fields they undertake. The TAU community pursues a campus environment committed to a culture of excellence in academics and beyond.

### Environmentally Responsive

A TAUian is characterized by being environmentally responsive. TAU values the importance of playing a part towards having an ecologically-balanced and sustainable environment by raising environmental



awareness to individuals, exercising environmental practices, being environmentally committed, and having policies and projects towards making TAU a green university.

### **Noble**

A TAUian is characterized by being noble. They have fine personal qualities or high moral principles and ideals that show benevolence to all parts of society.

### **Trustworthy**

A TAUian is characterized by being Trustworthy. Reliability and honesty of character are principles that tamaraws adhere to and follow a code of conduct that is instilled in all members of the TAU community.

### **Accountability**

A TAUian is characterized by accountability. TAU individuals provide and assurance that they are responsible for honest and ethical conduct towards others.

### **Unity**

A TAUian is characterized by unity. TAU is united and acts as a whole in all endeavors they partake to better the university and carry the prestige they have as a top agricultural university in the Philippines.

## **3.1 Goals and Objectives**

### **SOCIAL SECTOR**

**Table 3-1: Goals and Objectives for Social Sector**

Goals	Objectives
Goal 1: To provide the university with appropriate health support and services	To appoint adequate manpower providing prompt services by 2032
	To provide adequate health equipment and services by 2032
	To avoid mortality of patients in emergency situations by 2032
Goal 2: To provide sufficient residential facilities with a conducive and supportive environment for students and personnel	To supply adequate housing facilities in the university housing district by 2032
	To allocate complete maintenance and security staff for of all residential halls by 2032
	To allocate regular funds for the maintenance and beautification of all residential units by 2032
Goal 3: To secure all facilities and individuals from emergency situations	To provide adequate security force for the campus by 2032
	To have a prepared campus population for various emergency and hazard situations by 2032
Goal 4: To provide a supportive environment to enhance the academic and non-academic skills of students	To provide support programs and initiatives that will expand global presence and international academic outlook of the university by 2032
	To provide adequate facilities and incentives for sports and performance teams by 2033



## ECONOMIC SECTOR

**Table 3-2: Goals and Objectives for Economic Sector**

Goals	Objectives
Goal 1: To have adequate financial resources that could sustain the operations of the University and support its various endeavors and services	To enhance the internally-generated income of the University to at least 40% of total revenue
	To increase the amount of external grants and donations from non-government agencies (e.g. private enterprises, philanthropic foundations)
Goal 2: To strengthen the financial management system of the University and ensure that all funds are utilized efficiently and for its intended public purpose	To maintain a high utilization rate of national government subsidy and external funds starting 2023

## ENVIRONMENTAL SECTOR

**Table 3-3: Goals and Objectives for Environmental Sector**

Goals	Objectives
Goal 1: To ensure the sustainability of the natural resources of the university	To establish an effective management of the natural resources of the university by 2030
Goal 2: To ensure environmental compliance and partnerships of the university	To strengthen the partnerships of the university in terms of environmental sustainability by 2030
	To be known as an environmentally compliant and green university by 2025
Goal 3: To ensure a community that is responsive to waste management	To establish an effective waste management system for the university by 2032
	To create a waste management–focused community outreach program by 2025
Goal 4: To provide access to sufficient soil and water resources for the university	To improve practices on soil and water quality conservation by 2030
	To maximize the utilization of wastewater to become an alternative source of water by 2032
Goal 5: To ensure a carbon-neutral university	To decrease carbon emissions and increase carbon absorption within the university by 2032
Goal 6: To ensure resilient and disaster-ready campus	To design innovative technologies for renewable energy utilization by 2032
	To produce environmentally aware, conscious, and responsible individuals against natural disaster by 2025
	To improve the capacity development of individual TAU for DRRM and CCA by 2025
	To provide adequate DRRM and CCA facilities to support excellent delivery of service by 2030



## INSTITUTIONAL SECTOR

**Table 3-4: Goals and Objectives for Institutional Sector**

Goals	Objectives
Goal 1: To provide excellent service and prosperous operations for the university and the community	Proper and accurate information dissemination to all stakeholders of the university
	Ease of transactions in working operation by 2030
	Foster inclusive and responsive roadmap for stakeholder engagement
Goal 2: To advance linkages with organizations in the country and overseas	To establish new partnerships and sustain existing collaborations to achieve mutually beneficial outcomes
Goal 3: To reinforce the University's national and international standing and impact	To develop a unique identity that will imbibe TAU's reputation
Goal 4: To strengthen good governance to ensure integrity, transparency, efficiency and accountability in management and leadership	To streamline operations based on statutory and regulatory requirements/standards
Goal 5: To produce excellent and competent Human Resources of TAU	Implement a holistic human resource development program focused towards the enhancement of leadership competencies of TAU employees responsive to the current and future needs of the university and its internal and external clients
	To develop graduate attributes that address the needs of industries and PQF standards
Goal 6: Enhance the universities research foundation and promote innovative, relevant, and appropriate research-based technology to provide world-class extension services through enhanced local and international collaborations	To conduct relevant training programs and short non- degree courses in agriculture and other disciplines
	To establish, maintain and sustain on-campus and off- campus demonstration projects showcasing various appropriate technologies generated by the University and its development partners
	To generate, package, and disseminate through tri- media the needed technology/information relevant to the needs of the people and the community
	To establish a strong research foundation through generating research outputs with societal impacts

## INFRASTRUCTURE SECTOR

**Table 3-5: Goals and Objectives for Infrastructure Sector**

Goals	Objectives
Goal 1: To have accessible, usable, and inclusive infrastructure and physical spaces in the campus	To design and upgrade universally-accessible/world class infrastructure by 2032





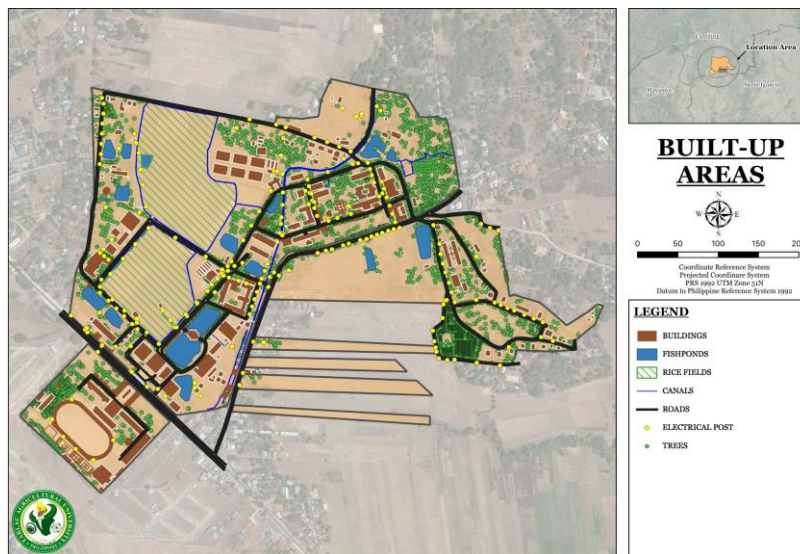
Goal 2: To ensure a reliable and continuous power supply in the university	To install hybrid and renewable energy systems and upgrade existing power generation systems for efficient use of energy by 2032
Goal 3: To ensure reliable back-up communication system in the campus	To purchase and install mobile-based and land-based DMR as a backup communication system by 2025
	To upgrade existing centralized alarm and paging system by 2024
Goal 4: To have a secured repository of university data	To establish a cyber-threat proof back-up data server on-site and Cloud by 2027
Goal 5: To enhance the quality and quantity of potable water supply system by 2027	To enhance the quality and quantity of potable water supply system by 2027
Goal 6: To establish and maintain functional emergency operations and evacuation centers by 2032	To establish and maintain functional emergency operations and evacuation centers by 2032
Goal 7: To develop and utilize enterprise IT Solutions for university operations by 2025	To develop and utilize enterprise IT Solutions for university operations by 2025

### 3.2 Development Constraints

Development Constraints are factors that temporarily or permanently limits or prevents the use of land for future development. These development constraints are as follows:

#### BUILT-UP AREAS

As these areas are existing, they may not be considered for future development. These built-up areas include buildings, roads, canals, rice fields, fishponds, electrical posts, and trees. TAU is a green university that is why the rice fields and trees were considered as existing built-up areas which is not viable for development. **Figure 3-1** shows the built-up areas of TAU while **Figure 3-2** shows the buildable and non-buildable areas of TAU.



**Figure 3-1: Map of Built-up Areas**



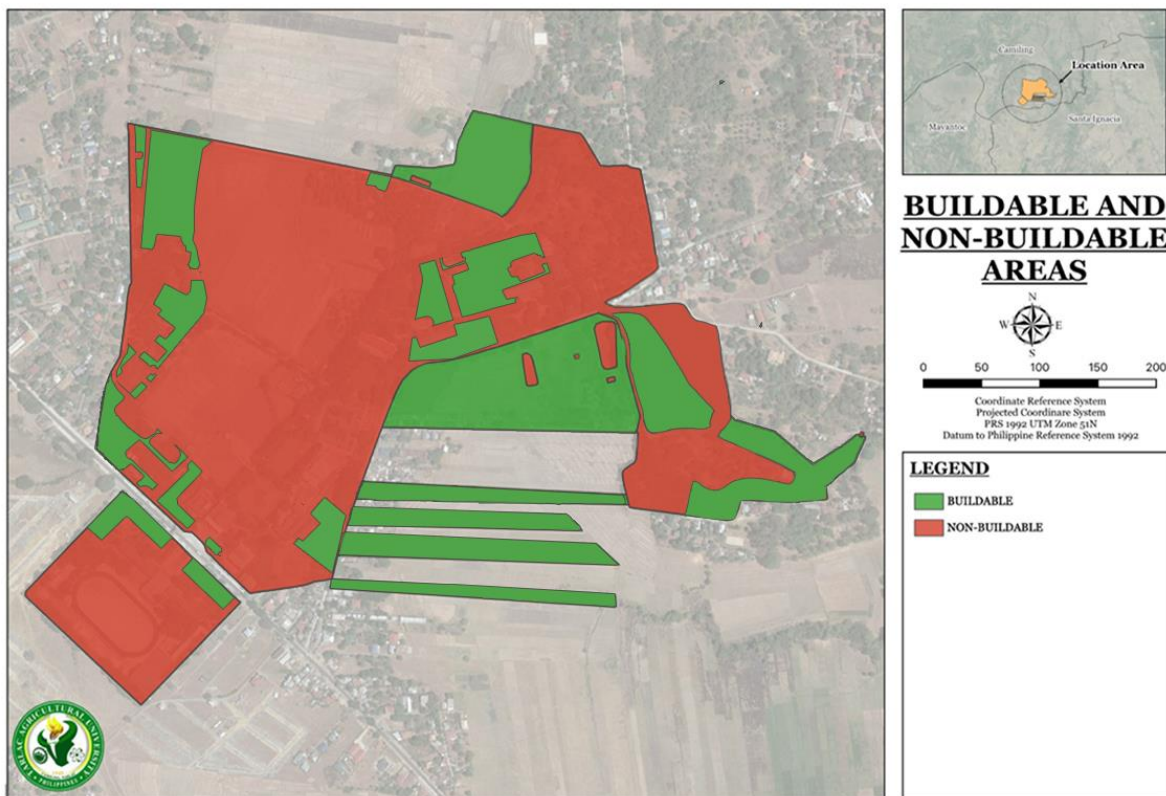


Figure 3-2: Map of Buildable and Non-Buildable Areas

## SUSCEPTIBILITY TO HAZARDS

On the development of TAU, hazard susceptibility must be considered in order to reduce the economic losses and reduce the vulnerability of TAU. TAU should assess natural hazards as they develop to consider ways on how to avoid or mitigate damage. **Figure 2-18** and **Figure 2-19** shows the susceptible areas of TAU from flooding and liquefaction.

Risk Mitigation Measures:

- Information Dissemination;
- Establishment of power back-up system;
- Maintain a database of alternate suppliers;
- Improvement of the warning systems with the use of latest and available technology;
- Strengthen the capability of Local (University) responders.
- Development of an Effective Plan for Response and Recovery; and
- Strengthen the capability of structural designers and construction implementers of future projects.

## LAND TITLING

Twenty-seven (27) of the thirty-five (35) lots of the campus have land titles comprising a total land area of 54.9 ha of the total campus land area. This may affect future development strategies of TAU because it may have legal implications due to the lack of ownership documents.





### 3.3 Campus Physical Development Strategies

#### DEVELOPMENT CONCEPT

Based on the TWG's workshops, the university's recommended development concept is as follows:

**“A premier university with a strong sustainability focus that will serve as a growth hub for Camiling and neighboring municipalities.”**

#### DEVELOPMENT OBJECTIVES

The development objectives of the university are:

##### **3.3.1 Ensure the University's financial sustainability through:**

- 3.3.1.1 Well-developed projects/programs/activities that increase the internally generated income of the university and lessen its reliance on national government subsidies
- 3.3.1.2 Improved expenditure programming and procurement planning that minimize delays in the implementation of projects and ensure the proper utilization of funds
- 3.3.1.3 Proper formulation and implementation of development plans that would utilize the university's land and other assets for commercial activities while promoting environmental sustainability

##### **3.3.2 Enhance the university's accessibility, resiliency, security, and sustainability through:**

- 3.3.2.1 Application of the Accessibility law (BP 344) Standards in all the institute's facilities and buildings
- 3.3.2.2 Defined placement of the emergency facilities
- 3.3.2.3 Defined location of ingress and egress points
- 3.3.2.4 Adaptation of Green Technologies

##### **3.3.3 Ensure environmental protection, conservation of natural resources, and environmental sustainability through:**

- 3.3.3.1 Strict compliance and monitoring of environmental compliance
- 3.3.3.2 Inclusion and prioritization of environmental projects, programs, and activities
- 3.3.3.3 Adding and enhancing existing facilities for environmental sustainability

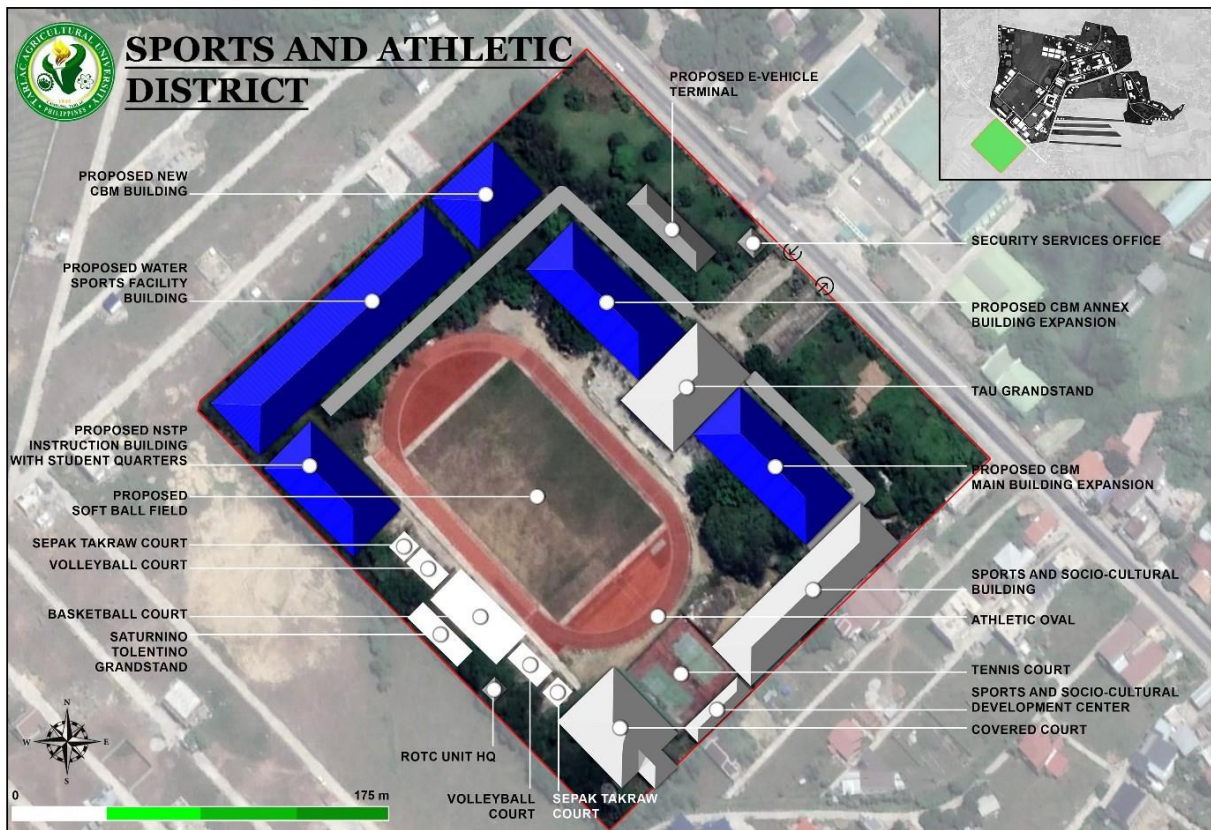
##### **3.3.4 Strengthen the institute's adjacency and interdisciplinary collaboration through:**

- 3.3.4.1 Defined location of academic and research production facilities
- 3.3.4.2 Zoning of Districts
- 3.3.4.3 Application of “Study, work, live and play” Concept



### 3.4 Development Concept and Structure Plan

#### PROPOSED SPORTS AND ATHLETIC DISTRICT



The Sports and Athletic District houses the different sports facilities of the University. The College of Business Management is also found here. The picture shown above shows the proposed development for the district. The buildings, which are in color, symbolize the proposed new developments and improvements that can be made in the future.

Expansion for the CBM buildings and even the construction of a new one is needed to cater to all classroom and laboratory deficits. There's a proposed E-Vehicle Terminal located in the front area of the zone, which will be the main terminal for the electricity-powered vehicles that the university aims to have in the future. The proposed water sports facility is also specified in the plan above, including the proposed NSTP instruction Building with student quarters that can also be used as accommodation for future significant sports events that the university will host.



## PROPOSED COLLEGE SERVICES DISTRICT



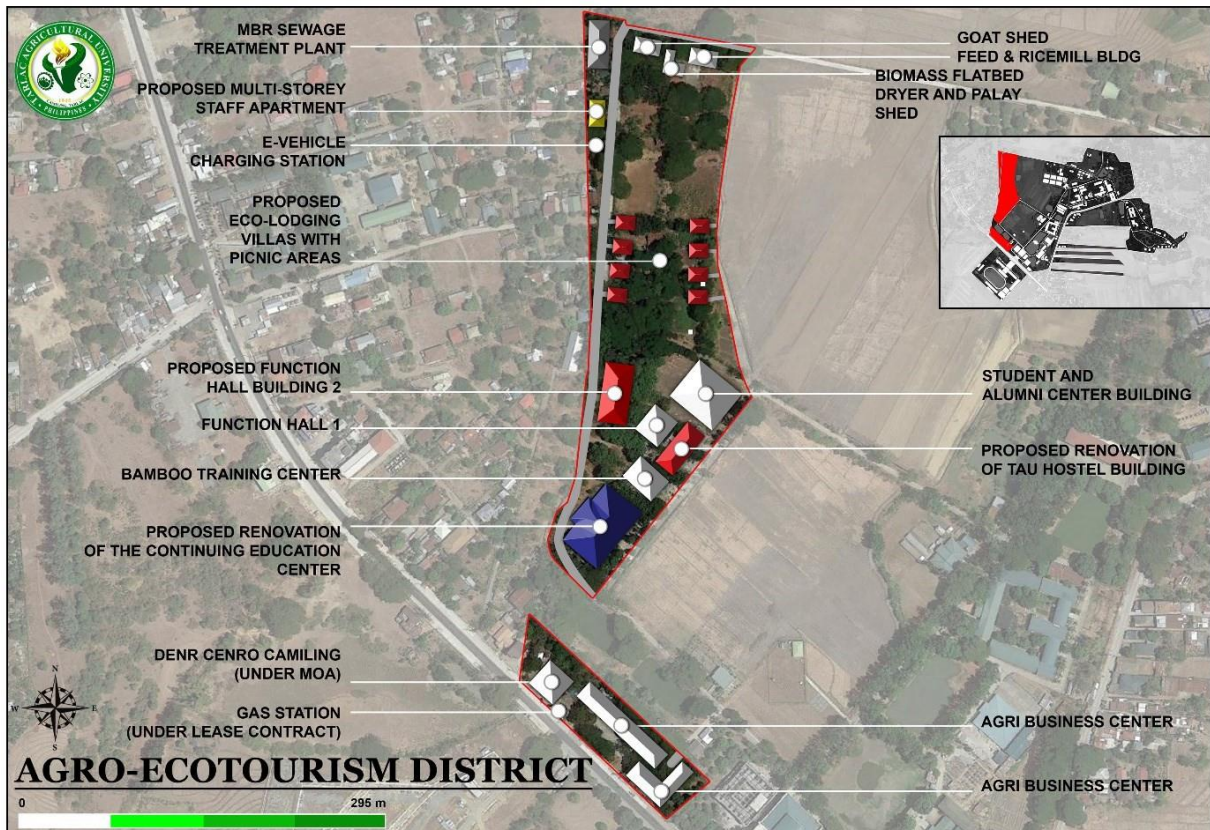
The College Services District has increased its size due to transferring some areas from the Agro-Ecotourism District. These areas will be used for the proposed new infrastructures of the University. Since the university still doesn't have an emergency facility, a proposed disaster evacuation and emergency operations building is needed. The University Health Services building is strategically placed near the administration building to ease access for students who want to be admitted to TAU because health examinations are a requirement in college admissions. It is placed next to the University Health Services building, followed by the university's mental health facility, which is catharsis.

Locating these buildings in one zone is essential since it all falls into the college services category.





## PROPOSED AGRO-ECOTOURISM DISTRICT



The Agro-Ecotourism district houses the primary source of income of the university, besides the revenue collected from college admissions. The main problem in the area is the sprawling residences of the employees. As a result, a proposed multi-story staff apartment was introduced to avoid further construction of residential developments in the area. An e-vehicle charging station is also located in the zone.

The University gains much income from the rental of spaces for events. Another function hall building is proposed to be constructed in the zone to have an additional revenue source. The proposed development for eco-lodging villas with picnic areas is also located here to offer potential customers a different accommodation option—the image below shows the perfect examples of the eco-lodging concepts for the university.





**Figure 3-3: Eco Lodge Design Project in Costa Rica**

Image: <https://www.archi-living.com/32058/eco-lodge-design-project-kasiya-papagayo-in-costa-rica/>



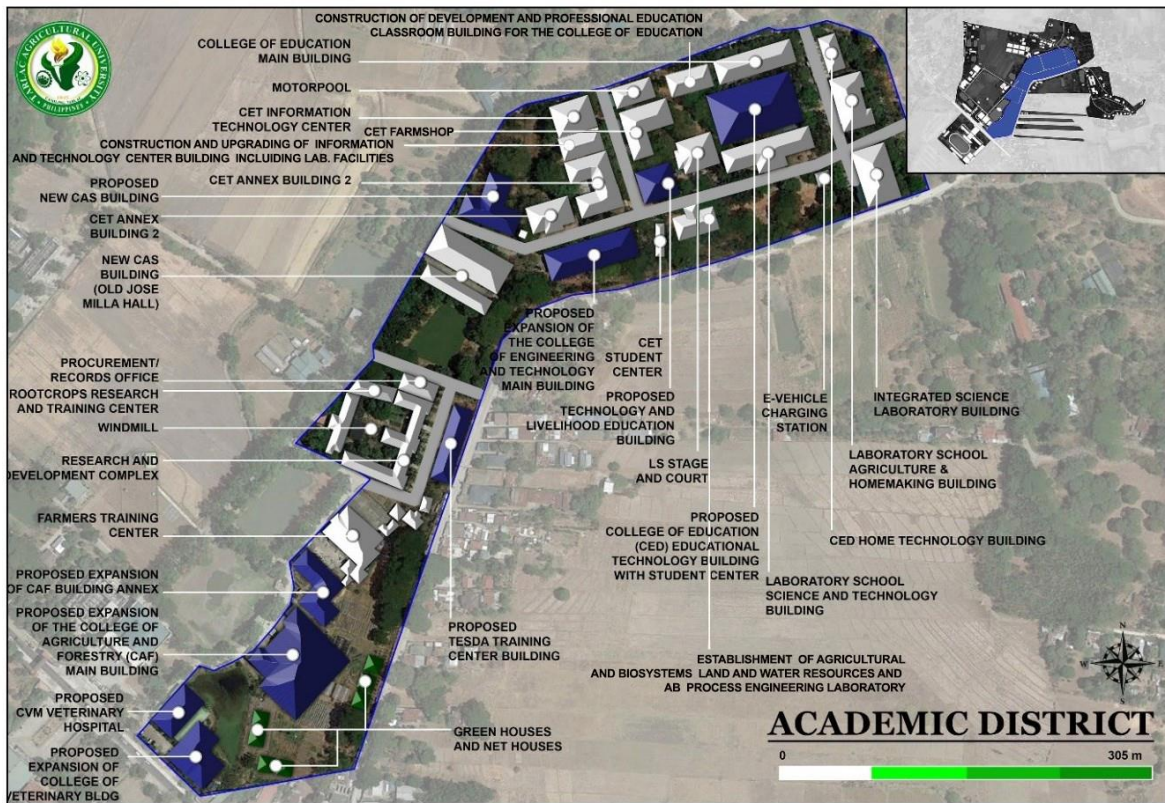
**Figure 3-4: Eco Villa, image from lanzaroteretreats.com**

Image: [https://www.lanzaroteretreats.com/holiday\\_home/eco-luxury-villa/](https://www.lanzaroteretreats.com/holiday_home/eco-luxury-villa/)





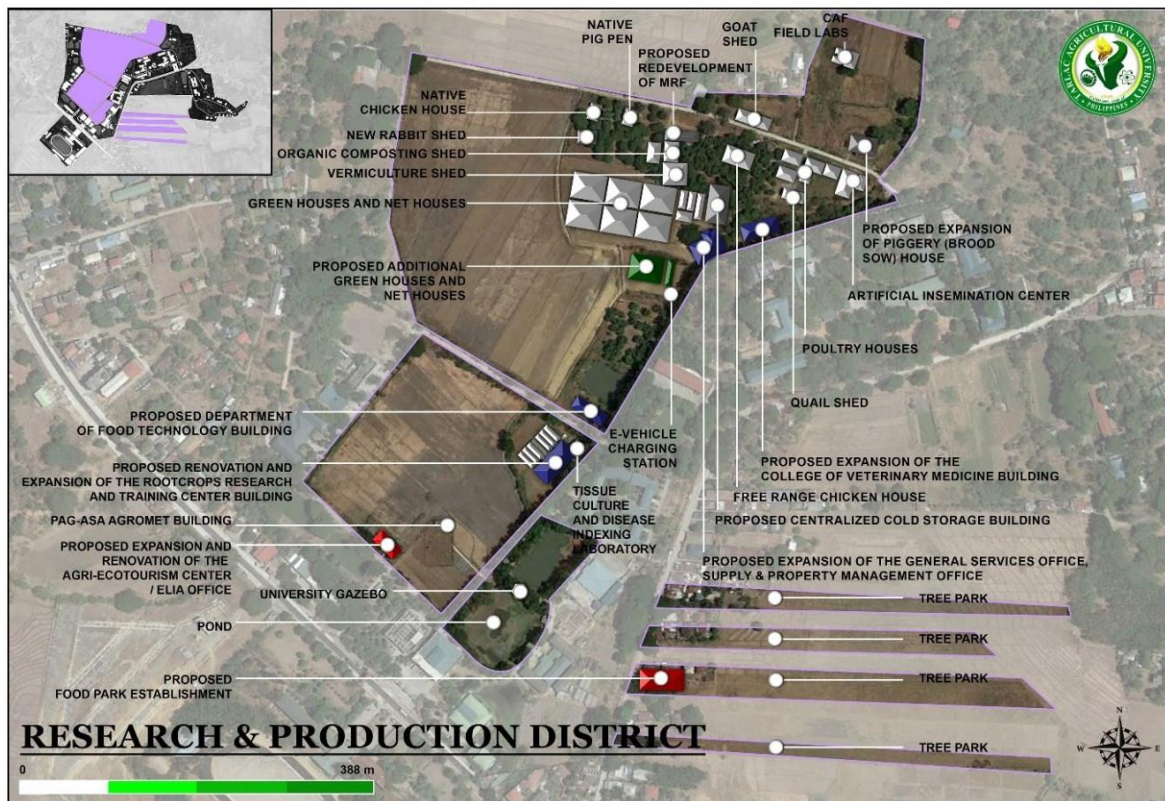
## PROPOSED ACADEMIC DISTRICT



Due to the demand for educational facilities in the university, the proposed academic district will mostly have expansions and renovations in the future. There are only a few new constructions of buildings, such as the new CAS building and the TESDA training center building.



## PROPOSED RESEARCH AND PRODUCTION DISTRICT



Agriculture is the core specialty of the University. Future advancements in research and production must therefore be prioritized. The strips of land in the southeastern part of the university will be converted into a tree park. Listed below are the possible endemic tree species that can be planted in the area, according to DENR:

- |              |                                   |
|--------------|-----------------------------------|
| • Kupang     | <i>Parkia timoriana</i>           |
| • Molave     | <i>Vitex parviflora</i>           |
| • Banaba     | <i>Lagerstroemia speciosa</i>     |
| • Malapapaya | <i>Polyscias nodosa</i>           |
| • Narra      | <i>Pterocarpus indicus</i>        |
| • Toog       | <i>Petersianthus quadrialatus</i> |
| • Agoho      | <i>Casuarina equisetifolia</i>    |
| • Katmon     | <i>Dillena philippinensis</i>     |

It will also be an area designated for research and commercial, for there is also a proposed food park and an additional income-generating facility for the university. It also fits the area's market, mainly low to middle-income.

Additional buildings, such as the Department of Food Technology building and the centralized cold storage building, are located inside the district.





## PROPOSED BAMBOO PARK DISTRICT



The Bamboo Park district is one of the protected areas in the University. To make the development more appealing, the zone will have additional infrastructures to support the activities that can be done here in the future. The existing cattle shed will be moved into the research and production district. The current establishment will be upgraded to a souvenir shop where different bamboo products can be seen.

Constructing an amphitheater is also beneficial for the park's development, for different discussions, lectures, and workshops about bamboo can be done here. Additional cottages for rent can also be constructed in the area to serve families on their picnics or even students on their field trips.

The following images showcase the possible looks of future developments in the area.

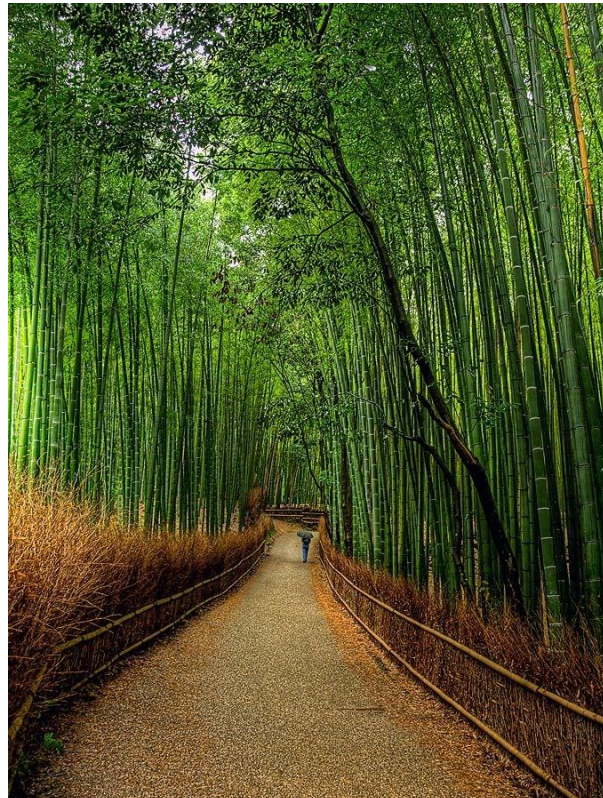


Figure 3-5: Bamboo Forest in Kyoto, by A\_GARAGE





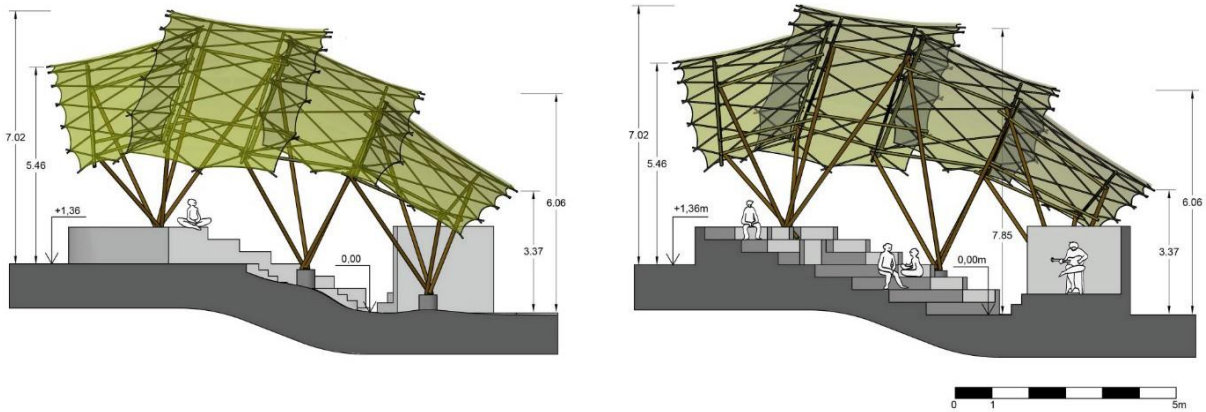
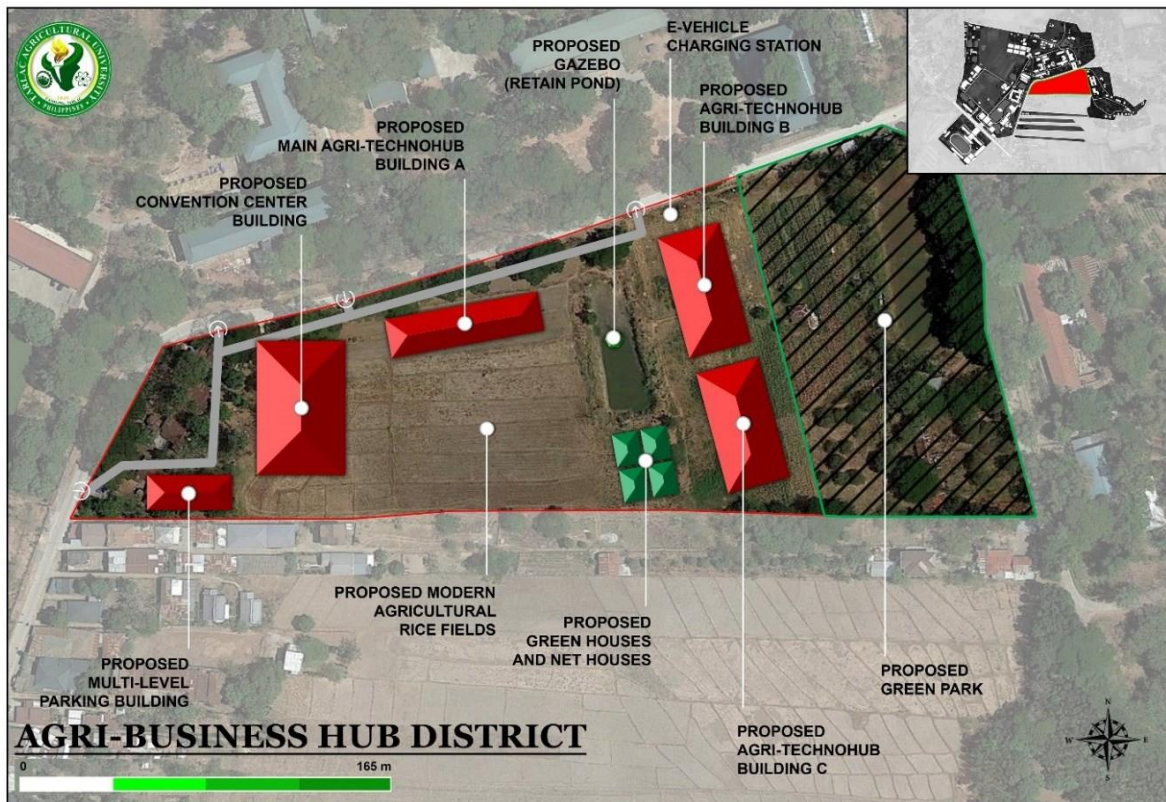


Figure 3-6: Bamboo Amphitheater, by Bambutec

## PROPOSED AGRI-BUSINESS HUB DISTRICT



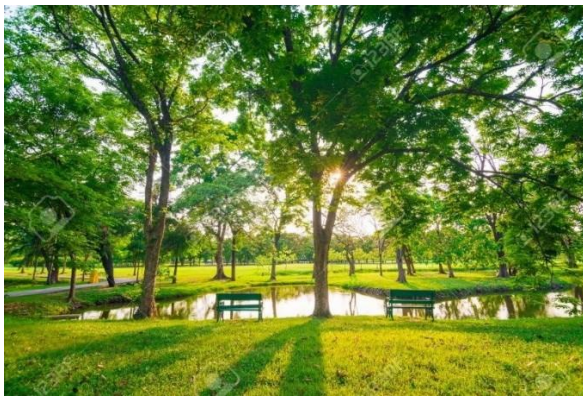
The Agri-business hub district will house the future significant commercial buildings in the university. Here, the multi-level parking building can be found to cater to the convention center building. Commercial buildings are also included in the development and a new approach to agriculture which are the modern rice paddies (see images below).





**Figure 3-7: Modern Rice Paddies in Thailand (Smart Farming), by PraditPH**

A green park also will be developed in the district that will serve as a separation between the College Housing District and the Agri-Business Hub District. Ponds in the area will be retained and can be enhanced. The developments in the green park must not greatly disturb the natural biodiversity in the area.



**Figure 3-8: Modern Rice Paddies in Thailand (Smart Farming), by PraditPH**



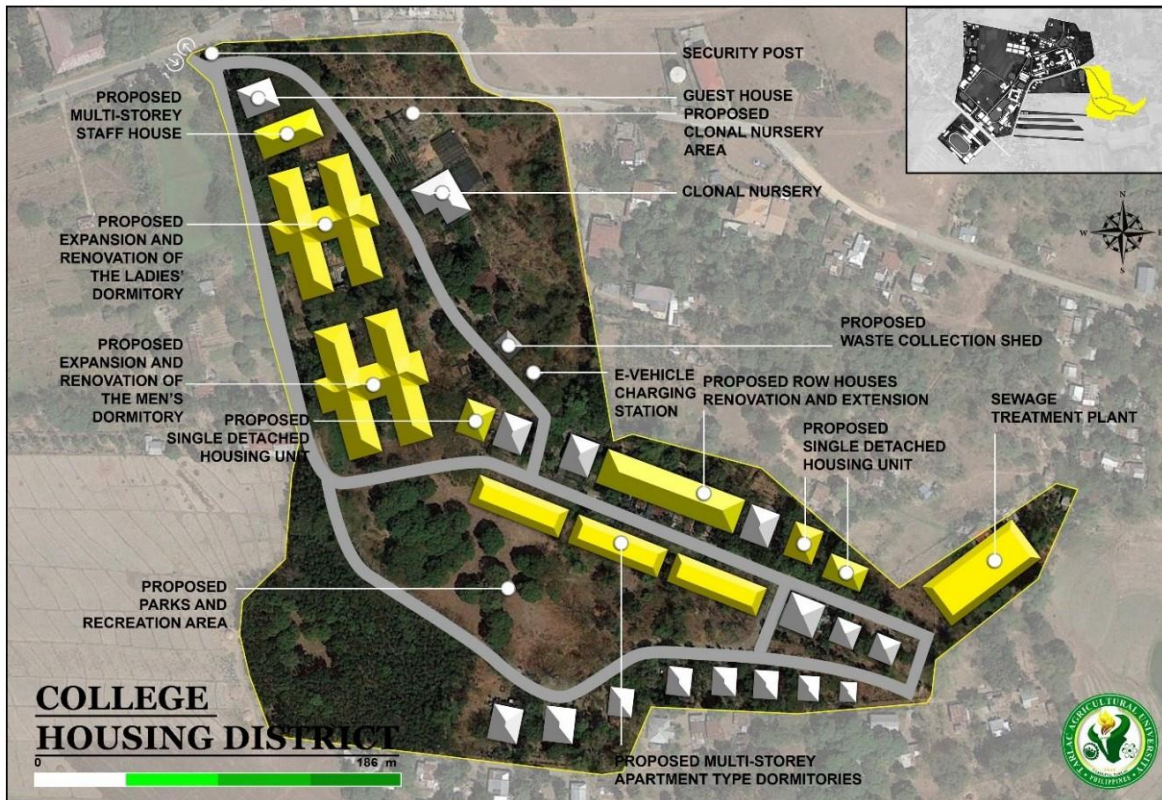
**Figure 3-9: Green Park, by images.unsplash.com**

## PROPOSED COLLEGE HOUSING DISTRICT

This area serves as the main zone for the university's residential infrastructures. To conserve space for the future, multi-level housing is prioritized in most of the proposed developments in the College Housing District. The university's study, work, live, and play concept has inspired the proposal to establish open places for parks and recreation.





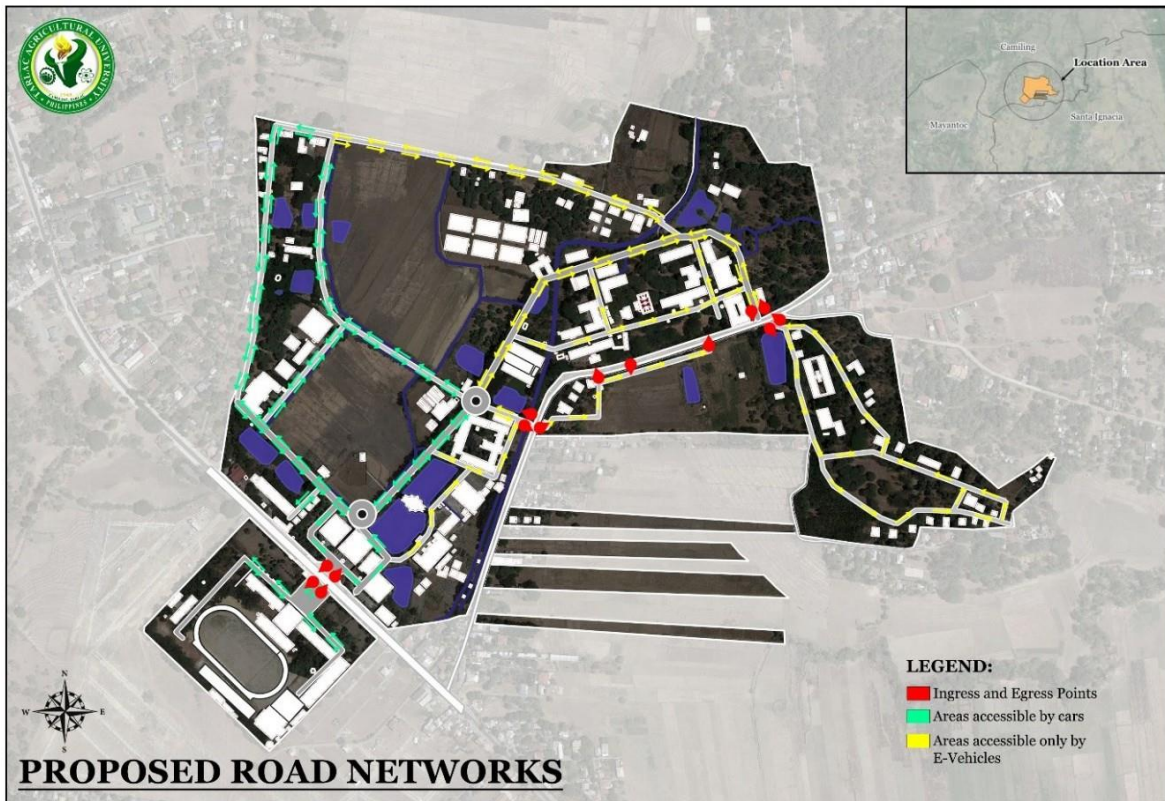


## PROPOSED ROAD NETWORKS

The university aims to improve its accessibility. To achieve this, the construction and redevelopment of roads and access ways inside the SUC are essential. In the image shown above, the ingress and egress points are specified. There are also proposed roundabouts to be constructed on the major road to improve the accessibility of the university. To achieve a decrease in the production of carbon, road networks are divided into two (2) categories, (1) roads accessible by cars and (2) roads accessible only by e-vehicles.

The pedestrian flow follows the road network layout. Unlike the road the network, pedestrian flow doesn't need to follow the one-way flow for vehicles. Pedestrian can walk freely along the 1.50 m. sidewalk. However, pedestrians are not allowed to cross the road anytime they want. Designated pedestrian lanes are provided at intersections and every 12 meters





### PROPOSED RROW DIAGRAM

Figure 3-8 shows an image showcasing the proposed RROW Diagram for the University. The ideal road construction for the institution is a two-lane single carriageway with bike lanes and a 1.50-meter-wide sidewalk, totaling a 10-meter-wide RROW.

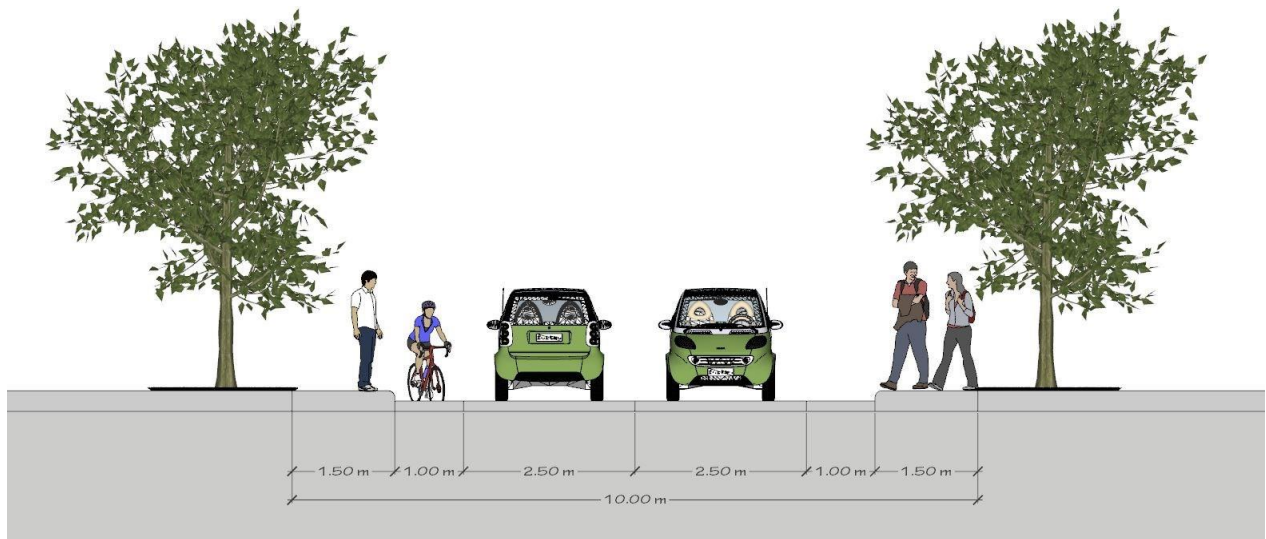
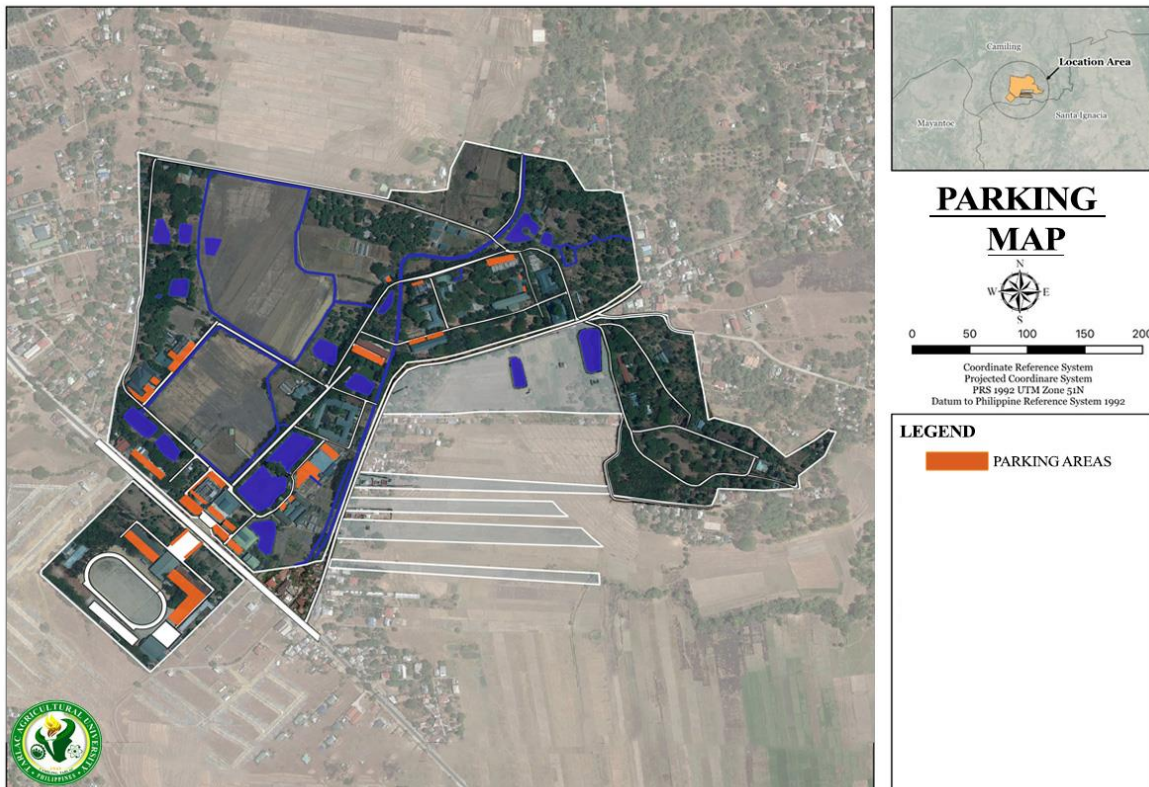


Figure 3-10: Proposed Road Right of Way Diagram





### PROPOSED PARKING

The figure shows the proposed parking areas within the university/ with that, standard parking slots is considered whereas the is one car slot for every 5 classrooms, provision of one off-RROW passenger loading space that accommodates two jeepney or shuttle slots, and one school bus slot for every 200 students. All PWD parking slots is situated near the building entrance.



### 3.5 The Land Use Plan

The University is divided into eight (8) different districts. These zones are the (1) Academic District, (2) College Services District, (3) Agro-Eco Tourism, (4) Sports and Athletic District, (5) Agricultural Technology Park District, (6) Research and Production District, (7) Bamboo Park District, and lastly the (8) College Housing District. Although the institution has designated zones, one of its issues is the proximity and clustering of the buildings—the land use of the zones needed to be clearly defined on the maps. The table below shows the area covered by each district.

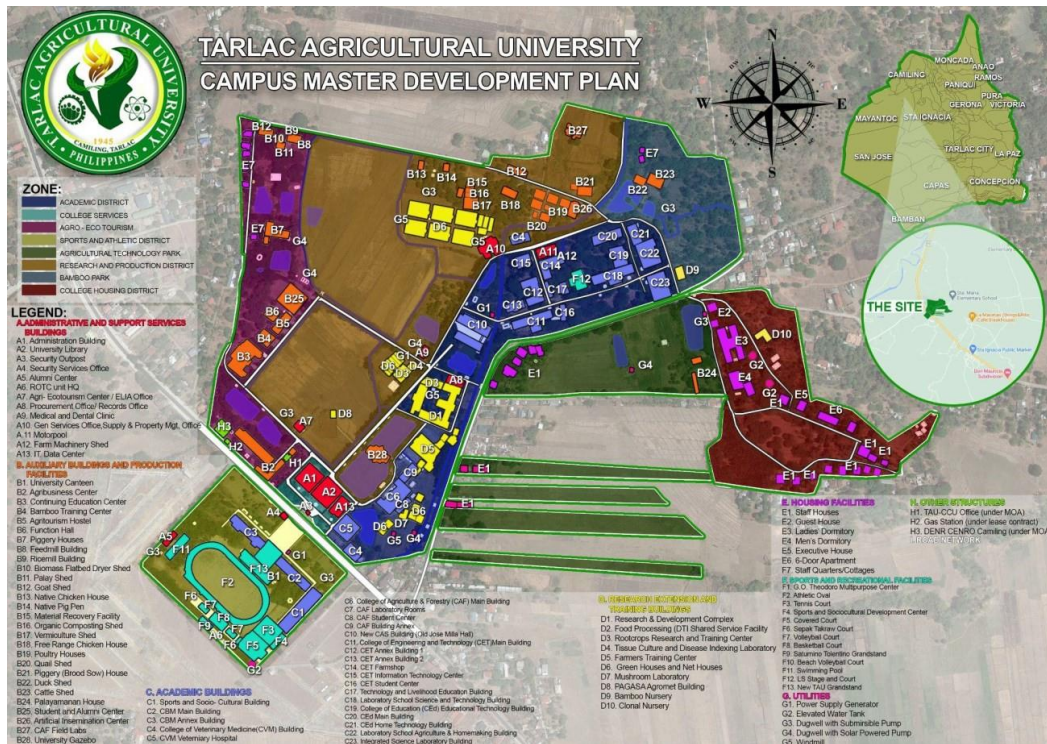


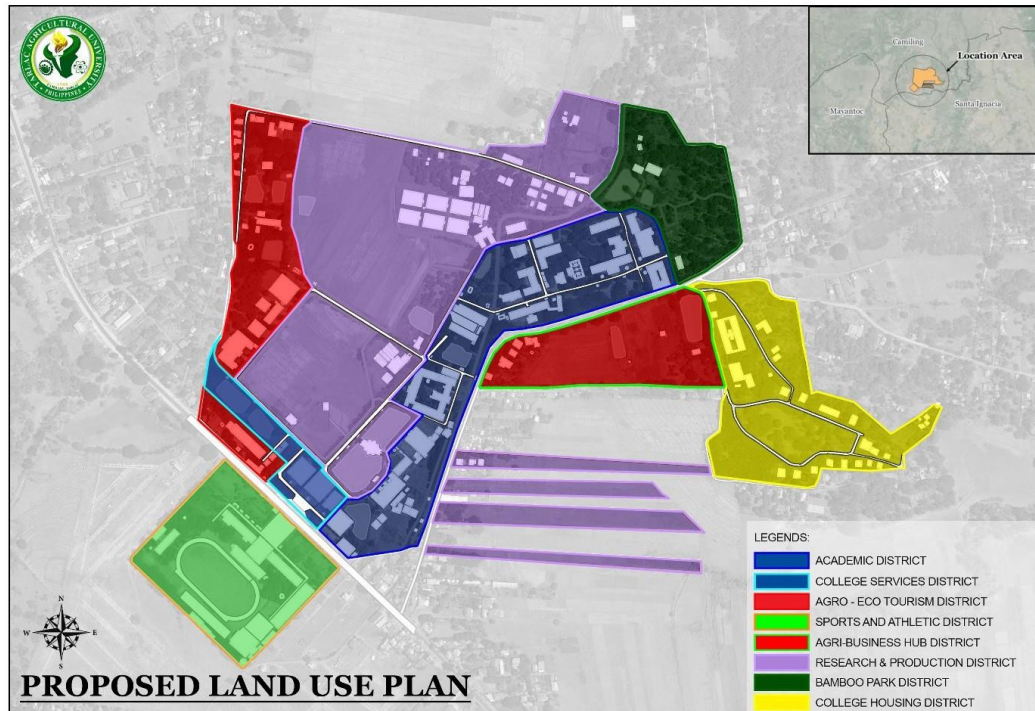
Figure 3-11: TAU Existing Campus Master Development Plan

Table 3-6: Districts and their corresponding area

Zones	Existing Area (in sq m)
Academic District	105,269.95
College Services District	16,204.15
Agro-Ecotourism District	76,982.48
Sports and Athletic District	68,142.00
Agricultural Technology Park District	98,292.25
Research and Production District	209,988.50
Bamboo Park District	44,975.91
College Housing District	76,746.36







**Figure 3-12: TAU Proposed Land Use Plan**

The Tarlac Agricultural University's proposed land use plan is shown in the graphic above. Even though the eight (8) districts remained, certain areas have been moved to another zone. The strips of land in the southeastern part of the university development located in the Agricultural Technology Park District (now Agri-Business Hub District) are transferred to the Research and Production District, which is now converted into an Agri-Industrial Zone. The College Services district has an additional area taken from the Agro-Ecotourism District to cater to the other university services needed, such as the Emergency Center, Catharsis, and the new University Health Services building. The new area sizes are shown in the table below. Values on the written data given and SHP files do not match. Further validation on-site must be done.

**Table 3-7: Proposed Land Use Plan Zones and their corresponding area**

Zone	Existing Area (in sq m)	Proposed Area (in sq m)
Academic District	105,269.95	105,269.95
College Services District	16,204.15	20,751.21
Agro-Ecotourism District	76,982.48	72,435.42
Sports and Athletic District	68,142.00	68,142.00
Agri-Business Hub District (before Agricultural Technology Park District)	98,292.25	51,392.75
Research and Production District	209,988.50	256,888.00
Bamboo Park District	44,975.91	44,975.91
College Housing District	76,746.36	76,746.36

\*\*Values need further validation on-site; some discrepancies are found between the written data and SHP files

### Alignment of TAU LUDIP to the LGU

Camiling, dubbed as the “Old Lady in the Northwestern Province of Tarlac,” is a first-class municipality of the Province of Tarlac with a population of 87,319 based on the 2020 Census. The municipality is composed of sixty-one (61) barangays which are categorized into urban and rural barangays.

According to the Comprehensive Land Use Plan of Camiling, the town is divided into twelve (12) different zones of districts. These zones are the (1) Agricultural Zone (AGZ), (2) Agri-Industrial Zone (AIZ), (3) Cemetery/Interment Zone (CIZ), (4) Ecotourism Zone, (5) General Institutional Zone (GIZ),



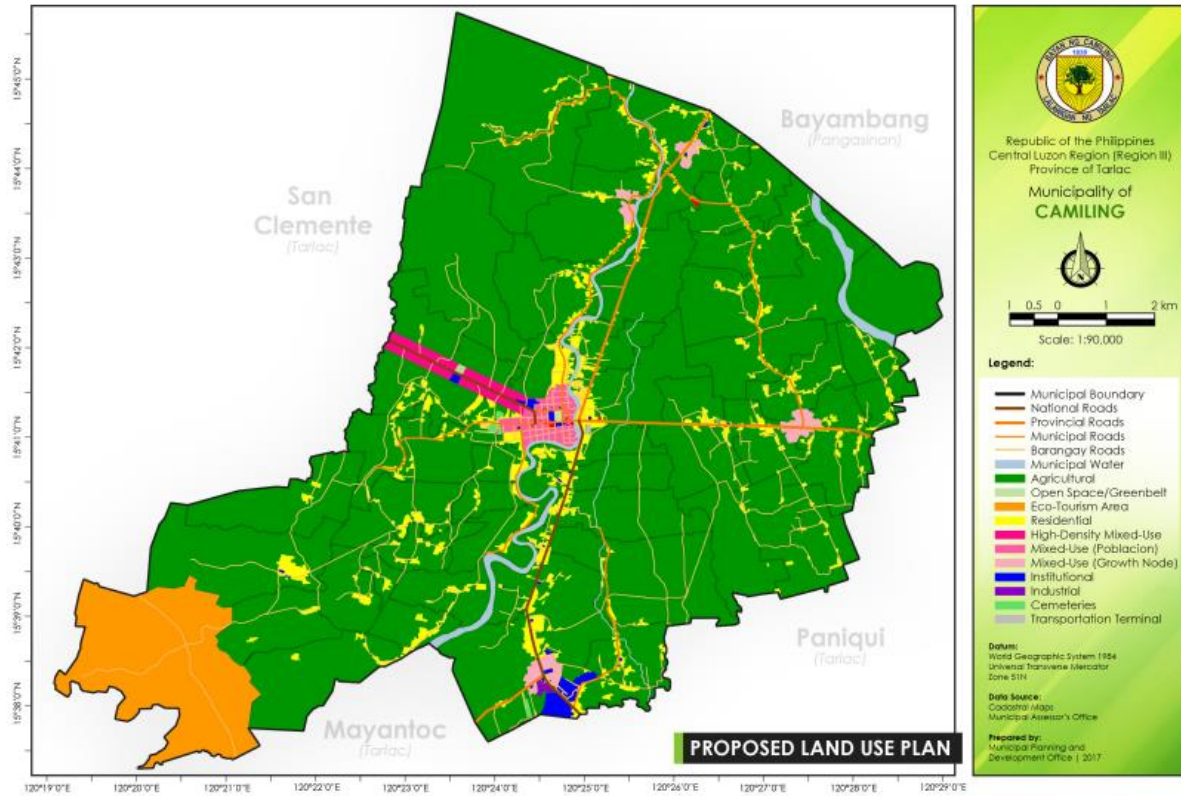


(6) General Residential Zone (GRZ), (7) Greenbelt Zone (GBZ), (8) Heritage Conservation Zone (HCZ), (9) Mixed-Use Zone with Low-Rise Structures and Low-Density Commercial Development (MXD 1), (10) Mixed-Use Zone with Low-Rise Structures and Low-to Medium-Density Commercial Development (MXD 2), (11) Mixed-Use Zone with Low-Rise Structures and Medium-to High-Density Commercial Development (MXD 3), and the Municipal Water Zone (MWZ).

Tarlac Agricultural University is situated within the boundary of two rural barangays in Camiling, namely Barangay Malacampa and Barangay Santa Maria. Malacampa covers most of TAU's land area. In terms of its zoning category, TAU is classified as General Institutional Zone (GIZ) since it is an educational institution according to the Comprehensive Land Use Plan of Camiling. However, the two barangays where the university lies are categorized into different zones. They are both classified under Agricultural Zone (AGZ), Greenbelt Zone (GBZ), and Mixed-Use Zone with Low-Rise Structures and Low-Density Commercial Development (MXD 1). Moreover, Barangay Malacampa is classified as Agri-industrial Zone (AIZ), while Barangay Santa Maria is categorized as General Residential Zone (GRZ). The university can also be categorized as Agricultural Zone (AGZ) since the majority of the land area of the campus is suitable for agriculture and pasture use. The university has different agricultural activities, such as planting crops and vegetables, growing fruit trees and other trees, animal husbandry, aquaculture, harvesting farm products, and other farm activities and practices performed in conjunction with such farming operations. Moreover, the university is divided into eight (8) different districts. These districts are the (1) Academic District, (2) College Services District, (3) Agro-Eco Tourism District, (4) Sports and Athletic District, (5) Agribusiness Hub District, (6) Research and Production District, (7) Bamboo Park District, and (8) the College Housing District.

TAU's Land Use Plan districts align with the Land Use Plan and Zoning Ordinance of the Municipality of Camiling based on the eight (8) districts (internal zoning) of the University. The three districts, namely Academic, College Services, and Sports and Athletic, are classified as General Institutional Zone (GIZ) based on LGU Camiling Zoning Ordinance because these districts house the University's different educational and sports facilities that are designated for teaching, learning, and supporting various programs and endeavors and provide academic support to students and faculty that are aligned with the academic mission of TAU. In addition, the Agro-ecotourism District and the Research and Production District are classified as Agri-Industrial Zone because these districts house the primary source of income of the university. It is where agricultural production facilities are located, such as goat, native chicken, and native pig sheds of the university. The Agribusiness Hub of the university is classified as MXD 1 since it will house the future significant commercial buildings in the university that could address agricultural productivity issues and benefit relevant stakeholders such as farmers. The Bamboo Park district is under Greenbelt Zone (GBZ) since this is a protected area in the University comprised of bamboo nurseries. The university recognizes the wide array of uses and benefits of non-timber forest products. Lastly, the College Housing district is categorized as General Residential Zone (GRZ) since this provides accommodation to students, faculty, staff, and visitors and serves as the main zone for the university's residential infrastructures.





**Figure 3-13: Camiling Proposed Land Use Plan**  
 Image: Camiling Comprehensive Land Use Plan (2017-2026)



## INSTITUTIONAL GOALS, OBJECTIVES, TARGETS AND STRATEGIES

### SOCIAL SECTOR

**Goal 1: To provide the university with appropriate health support and services**

**Table 3-8: Objectives, Targets, and Strategies under Goal 1 for the Social Sector**

Objectives	Targets	Strategies
To appoint adequate manpower providing prompt services by 2032	All university health facilities appointed with complete medical staff by 2032	Hiring of additional medical personnel
	All university health facilities with designated health professional throughout the day by 2032	Upgrading of existing clinic to an infirmary
	100% of emergency vehicles with dedicated and designated emergency response team by 2032	Hiring of emergency medical technician for emergency operator vehicle  Hiring of dedicated driver for emergency operator vehicle
To provide adequate health equipment and services by 2032	University health facilities completely compliant with Sanitation Code of the Philippines (1:5000) by 2032	Construction of a satellite clinic nearer the University Housing District
	All health facilities and services with feedback mechanism by 2032	Establishment of a client-feedback mechanism
	100% of students and personnel with access to primary mental health support services by 2032	Construction of a Mental Health and Well-being Center  Integration of Mental Health Screening into Annual Physical Examinations for TAU Employees
To avoid mortality of patients in emergency situations by 2032	No incidences of death within campus due to emergency health situations by 2032	Operationalization of medical emergency response mechanism and team
	All health facilities with established referral system for specialized health services by 2032	Establishment of a referral system for specific and specialized health service requirements

**Goal 2: To provide sufficient residential facilities with a conducive and supportive environment for students and personnel**

**Table 3-9: Objectives, Targets, and Strategies under Goal 2 for the Social Sector**

Objectives	Targets	Strategies
To supply adequate housing facilities in the university housing district by 2033	100% of existing student dormitories fully-occupied by 2032	Renovation and upgrading of existing men's and women's dormitories
	Increase number of student dormitory units by 50% by 2032	Construction of additional dormitory buildings
	Increase number of personnel housing units by 50% by 2032	Construction of additional personnel housing units
	All student dormitories with access to common open and recreational spaces by 2032	Integration of health and wellbeing considerations in the design and construction of new residential structures, including proper ventilation and spacing  Development of parks adjacent to the dormitories
	All student dormitories with access to essential commercial establishments by 2032	Development of a building with commercial establishments
To allocate complete maintenance and	All residence halls and facilities with 24/7 security by 2032	



security staff for of all residential halls by 2032	All dormitories with a houseparent by 2032	Designation of houseparent for each dormitory building
To allocate regular funds for the maintenance and beautification of all residential units by 2032	All open and recreational spaces well-maintained by 2032	Inclusion of dormitory maintenance and beautification in budget line items
	All support facilities in residential halls well-maintained by 2032	

**Goal 3: To secure all facilities and individuals from emergency situations**

**Table 3-10: Objectives, Targets, and Strategies under Goal 3 for the Social Sector**

Objectives	Targets	Strategies
To provide adequate security force for the campus by 2032	All campus zones with appointed security 24/7 by 2032	Hiring of additional security force
	100% at par to recommended security force-to-population ratio for academic institutions by 2032	
To have a prepared campus population for various emergency and hazard situations by 2032	100% of personnel underwent basic life support and CPR training	Conduct training assessment of all departments and offices Expand BLS and CPR training program
	All designated personnel provided with a DRRM training program	Designation of DRRM focal persons per unit  Preparation of Training and Simulation Exercises Plan  Conduct of table-top exercises and simulation trainings for natural and man-made hazard scenarios in contingency plan

**Goal 4: To provide a supportive environment to enhance the academic and non-academic skills of students**

**Table 3-11: Objectives, Targets, and Strategies under Goal 4 for the Social Sector**

Objectives	Targets	Strategies
To provide support programs and initiatives that will expand global presence and international academic outlook of the university by 2032	Rank in THE World University Rankings by 2032	Preparation of strategic plan for increased internationalization, research and citation
	Rank in QS University Rankings by 2032	
	Reach 4 stars under internationalization in QS University Rankings	Expansion of financial assistance for international mobility and placement programs  Increase in participation of students, faculty, and other employees in international mobility and placement
	100% increase in alumni with international-level work experience	Establishment of alumni chapters globally  Expanded alumni outreach initiatives
	100% increase in publications for agriculture-related disciplines by 2028	Expand training for guidelines for Scopus and Asian Citation Index publication



	50% increase in publications for non-agriculture disciplines by 2028	Expand published works for community outreach and technology transfer initiatives of the university
	100% increase in publications among students	Assessment of existing faculty-student engagements for research and extension activities  Implement appropriate program to promote faculty-student engagement for research and extension activities
To provide adequate facilities and incentives for sports and performance teams by 2033	Sports teams placing in national-level sporting competitions doubled by 2032	Training allowance increase for athletes  Provision of regular training allowance throughout competition training and preparations
	Sports teams participating in international sporting competitions doubled by 2032	Design of incentive program for participation and recognition in international sports competitions
	National-level performance competition awards and recognitions doubled by 2032	Provision of regular training allowance throughout competition training and preparations
	Teams joining international-level performance competitions doubled by 2032	Hiring of trainers to support in international competitions

## ECONOMIC SECTOR

**Goal 1: To have adequate financial resources that could sustain the operations of the University and support its various endeavors and services**

**Table 3-12: Objectives, Targets, and Strategies under Goal 1 for the Economic Sector**

Objectives	Targets	Strategies
To enhance the internally-generated income of the University to at least 40% of total revenue	Increase number of students to 100% of the enrollment capacity of the University by 2032	-Improve University guidelines on scholarship grants  - Improve the enrollment system to ease the process for students and parents  - Implement regular capacity building programs for faculty and staff to improve the University's reputation and increase enrollment
	Increase annual collection rate of tuition and other students' fees is at least 90% by 2028	Improve the mode of payment for tuition and other student fees,, in accordance with government rules (e.g. create committee that will study and propose a modern payment facility)





	Year-on-year growth rate of income from auxiliary facilities or services (e.g., hostels, multi-purpose facilities) is at least 10% by 2032	<ul style="list-style-type: none"> <li>-Continuously improve the quality and capacity of facilities and other auxiliary services provided</li> <li>-Develop marketing and branding initiatives to attract more clients of the auxiliary facilities or services</li> </ul>
	University has produced at least 5 commercialized agricultural products that are making a positive net financial contribution to the University by 2032	<ul style="list-style-type: none"> <li>- Increase incentives of faculty, students, and researchers to develop agricultural products and patents</li> <li>- Increase support to entire process of production to commercialization</li> </ul>
	University has produced at least 5 patents that could generate royalties and licensing income by 2032	
	University has produced at least 3 agro-edutourism projects by 2032	
To increase the amount of external grants and donations from non-government agencies (e.g. private enterprises, philanthropic foundations)	Establish a University Endowment fund that could contribute at least 10% of the University's annual income by 2032	<ul style="list-style-type: none"> <li>- Create a committee that will develop a plan for the establishment of a university endowment fund</li> </ul>
	Starting 2028, at least 3 new projects each year have successfully obtained funding from external non-government agencies (local and international institutions)	Develop strategic plans on the solicitation of grants and donations

**Goal 2: To strengthen the financial management system of the University and ensure that all funds are utilized efficiently and for its intended public purpose**

**Table 3-13: Objectives, Targets, and Strategies under Goal 2 for the Economic Sector**

Objectives	Targets	Strategies
To maintain a high utilization rate of national government subsidy and external funds starting 2023	At least 80% budget utilization rate starting 2023	<ul style="list-style-type: none"> <li>- Strictly enforce the Ease of Doing Business Law</li> <li>- Simplify the documentation and disbursement process of the University</li> <li>- Install e-tracking system for documents</li> </ul>
	100% of the funds of externally funded projects was utilized efficiently and for its intended purpose	<ul style="list-style-type: none"> <li>- Strictly enforce the Ease of Doing Business Law</li> <li>- Simplify the documentation and disbursement process of the University</li> <li>- Install e-tracking system for documents</li> <li>- Strengthen the system for monitoring and updating the status of externally-funded projects</li> </ul>



	100% of the total number of externally funded projects was completed within the agreed timeframe	<ul style="list-style-type: none"> <li>- Strictly enforce contractual obligations as regards timeframe of externally funded projects</li> <li>- Strengthen the system for monitoring and updating the status of externally-funded projects</li> </ul>
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## ENVIRONMENTAL SECTOR

### Goal 1: To ensure the sustainability of the natural resources of the university

**Table 3-14: Objectives, Targets, and Strategies under Goal 1 for the Environmental Sector**

Objectives	Targets	Strategies
To establish an effective management of the natural resources of the university by 2030	100% of the natural resources are monitored and stored in a centralized database by 2030  50% reduction in the utilization of synthetic fertilizers and other synthetic farm inputs by 2030	Regular inventory and mapping of the University's natural resources  Development of University resource management plan  Conservation and multiplication of endemically endangered species of trees  Increased production of organic fertilizers to be used in crop production  Strengthen the utilization of natural products/ ETHNO veterinary medicine  Reduce the utilization of chemical-based products for crop and animal production

### Goal 2: To ensure environmental compliance and partnerships of the university

**Table 3-15: Objectives, Targets, and Strategies under Goal 2 for the Environmental Sector**

Objectives	Targets	Strategies
To strengthen the partnerships of the university in terms of environmental sustainability by 2030  To be known as an environmentally compliant and green university by 2025	50% increase in local and international partners for environmental sustainability by 2030  100% compliance to DAO 2003-03 by 2025	Increased partnerships with local and international agencies for the intensification of environmental sustainability  Application of Environmental Compliance Certificate

### Goal 3: To ensure a community that is responsive to waste management

**Table 3-16: Objectives, Targets, and Strategies under Goal 3 for the Environmental Sector**

Objectives	Targets	Strategies
To establish an effective waste management system for the university by 2032	100% reduction of non-biodegradable waste generation by 2032	Strict implementation of the Waste management action plan of the university
	100% zero waste university by 2032	Strict enforcement of RA 9006



	50% - 80% utilization of biodegradable waste by 2032	Integration of waste management programs in all the core mandates of the university (instruction, research, extension, and production) Conduct further R&D on biodegradation
To create a waste management-focused community outreach program by 2025	100% reduction of non-biodegradable waste generation by 2032	Heightened awareness of waste management to students, employees, and other TAU stakeholders

**Goal 4: To provide access to sufficient soil and water resources for the university**  
**Table 3-17: Objectives, Targets, and Strategies under Goal 4 for the Environmental Sector**

Objectives	Targets	Strategies
To improve practices on soil and water quality conservation by 2030	100% integration of soil and water quality conservation practices by 2030	Intensified monitoring and maintenance of soil and water quality
		Increased integration practices for soil and water quality conservation by the TAU community
		Inclusion of soil health and water conservation in the R&D agenda of the university
To maximize the utilization of wastewater to become an alternative source of water by 2032	At least 1 centralized water treatment plant constructed by 2030	Provision of a centralized wastewater treatment plant  Creation of a team to monitor and operate the wastewater treatment plant
	100% of wastewater is treated and utilized as recycled water sources by 2032	

**Goal 5: To ensure a carbon-neutral university**

**Table 3-18: Objectives, Targets, and Strategies under Goal 5 for the Environmental Sector**

Objectives	Targets	Strategies
To decrease carbon emissions and increase carbon absorption within the university by 2032	100% a non-smoking campus by 2025	Strict enforcement of signages of non-smoking signs
		Implementation of penalties for violators
	At least 50% of the university had plant or forest cover by 2032.	Strict monitoring of carbon emission vs. carbon sequestration
		Inclusion of air quality in the R&D agenda of the university
		Intensification of the “clean and green” program of the university



**Goal 6: To ensure resilient and disaster-ready campus**

**Table 3-19: Objectives, Targets, and Strategies under Goal 6 for the Environmental Sector**

Objectives	Targets	Strategies
To design innovative technologies for renewable energy utilization by 2032	70% of the university uses renewable energy by 2032	Increased utilization of renewable energy resources  Increase partnerships for the provision of innovative technologies for renewable energy
To produce environmentally aware, conscious, and responsible individuals against natural hazards by 2025	100 % awareness and implementation of SDGs in lessons and activities within the university by 2025	Inclusion of the importance of SDGs
To improve the capacity development of individual TAU for DRRM and CCA by 2025	100% Climate Action Awareness of TAU community by 2025	Provisions of continued training for individuals on natural disasters
	100% highly trained and responsive TAU individuals for DRRM and CCA by 2025	
	100% reduction of vulnerability of TAU against natural disasters by 2025	Disaster-resilient infrastructures
To provide adequate DRRM and CCA facilities to support excellent delivery of service by 2030	100% improvement and sufficiency for facilities for DRRM and CCA operations by 2030	Intensification of personnel training for DRRM

**INSTITUTIONAL SECTOR**

**Goal 1: To provide excellent service and prosperous operations for the university and the community**

**Table 3-20: Objectives, Targets, and Strategies under Goal 1 for the Institutional Sector**

Objectives	Targets	Strategies
Proper and accurate information dissemination to all stakeholders of the university	Weekly updates on relative information the university would like to inform the stakeholders	An efficient and distinct information team to be created for the public relations and information sharing of the university
	Up to date university information and processes online for projects and programs by 2025	Online access to progress of TAU through enhancement of social media and other online platforms to spread awareness of the different activities being done in the university
		Strengthen the university's presence online through social media awareness
Ease of transactions in working operation by 2030	Streamline of university processes in instruction, research, extension, administration by 2030	Creation of a faster automated system online for enrollments that is linked to online banking for ease of payments.



Foster inclusive and responsive roadmap for stakeholder engagement	75% TAU graduates are contributing to the various industries in the Philippines and abroad by 2032	responsive curricular programs aligned along industry requirements (students) that include enhancement of skills for global competitiveness; Innovative Technology generation through proactive research initiatives; delivery of appropriate extension services to community partners in the local and national levels
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**Goal 2: To advance linkages with organizations in the country and overseas**

**Table 3-21: Objectives, Targets, and Strategies under Goal 2 for the Institutional Sector**

Objectives	Targets	Strategies
To establish new partnerships and sustain existing collaborations to achieve mutually beneficial outcomes	At least 10% increase in the number of partnerships forged	Overseas partnership development program

**Goal 3: To reinforce the University's national and international standing and impact**

**Table 3-22: Objectives, Targets, and Strategies under Goal 3 for the Institutional Sector**

Objectives	Targets	Strategies
To develop a unique identity that will imbibe TAU's reputation	at least 3 international rankings per year	continuous improvement of university programs, initiatives, and technologies

**Goal 4: To strengthen good governance to ensure integrity, transparency, efficiency and accountability in management and leadership**

**Table 3-23: Objectives, Targets, and Strategies under Goal 4 for the Institutional Sector**

Objectives	Targets	Strategies
To streamline operations based on statutory and regulatory requirements/standards	records are readily available and accessible (Fol) and zero backlog of transactions	ensure legal compliance, digitization and automation of processes to minimize risk exposure

**Goal 5: To produce excellent and competent Human Resources of TAU**

**Table 3-24: Objectives, Targets, and Strategies under Goal 5 for the Institutional Sector**

Objectives	Targets	Strategies
Implement a holistic human resource development program focused towards the enhancement of leadership competencies of TAU employees responsive to the current and future needs of the university and its internal and external clients	Increase in the educational attainment of employees of the university through continued pursuit of advanced education by year 2032	Scholarships and subsidies for advanced education offered to the existing employees of TAU that would like to pursue further studies
	Knowledgeable and competent non-teaching staff in the university that supports the efficient and effective operations of the university by 2032	Seminars and workshops for non-teaching staff for the improvement of TAU employees
To develop graduate attributes that address the needs of industries and	At least 50% of the graduates will pass licensure examination; 80% employment rate among graduates	Designing and integration of industry-required competencies in the curricula, conducting of free board review (audit course), and





PQF standards		internationalization of programs.
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**Goal 6: Enhance the universities research foundation and promote innovative, relevant, and appropriate research-based technology to provide world-class extension services through enhanced local and international collaborations**

**Table 3-25: Objectives, Targets, and Strategies under Goal 6 for the Institutional Sector**

Objectives	Targets	Strategies
To conduct relevant training programs and short non-degree courses in agriculture and other disciplines	At least 95% of the proposed trainings are conducted	Conduct of need-based trainings
To establish, maintain and sustain on-campus and off-campus demonstration projects showcasing various appropriate technologies generated by the University and its development partners	At least 90% of the generated technologies are showcased through establishment, maintenance and sustenance of demonstration projects	Establishment of techno-demo sites/farms
To generate, package, and disseminate through tri-media the needed technology/information relevant to the needs of the people and the community	At least 95% of the needed technologies are generated, packaged and disseminated through tri-media	Production of IEC materials through tri-media
To establish a strong research foundation through generating research outputs with societal impacts	At least 70% of the faculty researchers have published research in SCOPUS-indexed journals	Capacitate researchers on generation of researches worthy of publication in SCOPUS-indexed journals

**INFRASTRUCTURE SECTOR**

**Goal 1: To have accessible, usable, and inclusive infrastructure and physical spaces in the campus**

**Table 3-26: Objectives, Targets, and Strategies under Goal 1 for the Infrastructure Sector**

Objectives	Targets	Strategies
To design and upgrade universally-accessible/world class infrastructure by 2032	80% of all infrastructure are accessible, usable, inclusive, and compliant to all mandated laws by 2032  To reduce 50% of carbon emissions in the campus by 2032.	Ensure that all designs for infrastructure/physical spaces are compliant to Batas Pambansa Blg. 344 and universal design standards  Integrate Tropical Design/Smart Building/Green Building Principles to ensure disaster-resilient infrastructure  Rehabilitation and retrofitting of old buildings  Future design and construction of buildings



		<p>and infrastructure must be compliant to all mandated laws.</p> <p>Construction of perimeter roads and covered walkway network</p> <p>Improvement of existing road network (+inclusion of bike lanes)</p> <p>Gender-neutral comfort rooms; gender-responsive design</p> <p>Implement the use of solar-powered and e-powered vehicles inside the campus including establishment of charging stations and maintenance/servicing area</p> <p>Establishment of multi-level parking area for petrol vehicles at a strategic location (located near the university town center)</p> <p>Encourage active means of transportation (walking and cycling)</p>
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**Goal 2: To ensure a reliable and continuous power supply in the university**

**Table 3-27: Objectives, Targets, and Strategies under Goal 2 for the Infrastructure Sector**

Objectives	Targets	Strategies
To install hybrid and renewable energy systems and upgrade existing power generation systems for efficient use of energy by 2032	100% of all major/core physical plant and facilities have back-up power supply 2029	<p>Integrate alternative and advanced Renewable Energy (Solar &amp; Wind) systems per building as a back-up power supply</p> <p>Procure additional back-up power generator sets for lifeline/core facilities</p> <p>Replace/Upgrade existing power generator sets</p> <p>Relocation of aerial electrical cables to underground</p>

**Goal 3: To ensure reliable back-up communication system in the campus**

**Table 3-28: Objectives, Targets, and Strategies under Goal 3 for the Infrastructure Sector**

Objectives	Targets	Strategies
To purchase and install mobile-based and land-based DMR as a backup communication system by 2025	All buildings have assigned trained personnel in DMR operation by 2025	<p>Procure Digital Mobile Radio (DMR) including pertinent accessories for each building</p> <p>Relocation of all aerial ICT cables to underground</p>
To upgrade existing centralized alarm and paging system by 2024	All areas in the university are reached by the centralized alarm and paging system by 2025	Upgrade centralized alarm and paging system
	Activation of at least one redundant network by 2023	<p>Increase speed and stability of internet connectivity by subscribing to higher bandwidth</p> <p>Subscribe to additional ISP as a redundant network</p>



		<p>*At least 2 radio operators are licensed and accredited by NTC by 2024</p> <p>*Train personnel in the operation of DMR</p> <p>*Process registration of DMR in NTC</p>
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**Goal 4: To have a secured repository of university data**

**Table 3-29: Objectives, Targets, and Strategies under Goal 4 for the Infrastructure Sector**

Objectives	Targets	Strategies
To establish a cyber-threat proof back-up data server on-site and Cloud by 2027	To have a secured back-up data center by 2027 (1 on-site and 1 cloud)	<p>Establish mirror on-premise data center</p> <p>Subscribe to Cloud Solutions as back-up storage (physical and digital)</p> <p>Subscribe to firewall and Denial of Service attack protection</p> <p>Upgrade internet connectivity strength</p> <p>*Capacitate all personnel assigned in data center with necessary skills and knowledge to efficiently manage and operate the back-up data center, cyber security, and data privacy</p>

**Goal 5: To improve the accessibility of potable water in the university**

**Table 3-30: Objectives, Targets, and Strategies under Goal 5 for the Infrastructure Sector**

Objectives	Targets	Strategies
To enhance the quality and quantity of potable water supply system by 2027	75% availability of potable water in all buildings by 2027	<p>To provide rainwater-harvesting tanks in all buildings</p> <p>To put up additional deep wells with elevated water tanks and revive existing underground water sources</p> <p>To utilize solar and wind-driven pumps</p> <p>To establish water filtration and treatment systems</p>

**Goal 6: To have functional emergency operations and evacuation centers**

**Table 3-31: Objectives, Targets, and Strategies under Goal 6 for the Infrastructure Sector**

Objectives	Targets	Strategies
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To establish and maintain functional emergency operations and evacuation centers by 2032	Fully operational Emergency Operations Center by 2025  Fully operational evacuation centers which can accommodate 75% of campus population by 2032	Construction of Emergency Operations Center with complete equipment, furniture, and facilities  Construction of comfortable, accessible, and secure Evacuation Centers with complete amenities such as power, water, and communication supply and appropriate facilities (collapsible/privacy tents with beddings, food preparation and supply, etc.)  Provide capability training for all emergency responders in disaster management and occupational safety and health
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## ALLOCATION OF LAND FOR ACADEMIC REQUIREMENTS

The table shows the forecasted allocation of land for TAU's academic requirements. A more detailed presentation for campus demand for infrastructure and services can be accessed on Table 2-19. Additional Laboratories, especially for CAF students can be accommodated in Titi Calao.

**Table 3-32: Projected Area Demand for Classrooms and Laboratories**

	Classrooms		Laboratories	
	Total No. of Classroom Deficit	Total Additional Floor Area Needed (SQ.M)	Total No. of Laboratory Deficit	Total Additional Floor Area Needed (SQ.M)
<b>2023</b>	62	3,906	123	9,225
<b>2032</b>	343	21,609	404	30,300

## PLANNING AND DESIGN CONSIDERATIONS

In line with its vision to build disaster-resilient and smart infrastructure, TAU shall maximize the availability of solar power by integrating solar photovoltaic (PV) panels to generate electricity for the buildings. In addition, TAU **shall** take advantage of natural cooling, wherein the facility shall have an adequate size of openings to control the building's heat gain and heat dissipation. This approach can lessen the use of air-conditioning and minimize the consumption of electricity or no consumption at all. Furthermore, a permeable paving surface shall be considered to reduce surface runoff and filter pollutants from storm water. Finally, aside from these considerations, classroom-cum-laboratory concept shall be deemed to address the demand for classrooms and laboratories.

Building designs shall comply with existing laws such as PD 1096 or the National Building Code of the Philippines. The building shall follow the minimum setbacks and be appropriately oriented. Other than that, the building height shall conform with the law, local ordinance, or whichever is more stringent.

To comply with RA 9514 or the Fire Code of the Philippines, buildings shall be integrated with FDAS or Fire Detection and Alarm System, as well as provision of two (2) means of egress.

All buildings shall be accessible to everyone regardless of one's physical condition. All buildings must be designed following BP 344 or the Accessibility Law. The provision of ramps and PWD comfort rooms shall be considered. Walkways shall be provided with slip-resistant material and conform to the





minimum width of 1200mm. And for every 12 meters, a rest stop or turning space shall be provided. Also, dropped curbs, curb cut-outs, signage, and warning blocks will also be provided along the walkways. Also, PWD parking shall be provided for every building and located at the nearest point of entry to the building.



**Figure 3-14: Fitzgerald Parking Garage Solar Canopy Building**

Image: [Fitzgerald Parking Garage Solar Canopy Building - Kirby Building Systems](#)



**Figure 3-15: Kinetic Solar Shading System**

Image: [LEED Certified Green Office Building Complex Rehabilitation | GLASSCON GmbH – Architectural Building Skins, Façade Solutions, Curtain Walls, Glazing, Solar Shading, Brise Soleil](#)

## LAND USE BUDGET

The table shows the land area covered for every district and the allowable area for construction. The



area for land supply is derived from the maximum allowable percentage of site occupancy then subtracted the existing gross floor area of the existing buildings while the land demand is based from the projected demand of land area for every district (refer to Table 3-32)

**Table 3-33: Land Use Budget**

District	Land Area (SQ.M.)	GFA of Existing Structures (SQ.M.)	Land Supply (SQ.M.)	Land Demand (SQ.M.)	Open Space Requirement (SQ.M.)
Academic	105,269.95	17,625.71	35,009.27	51,909.00	52,634.98
College Services	20,751.21	3,494.00	6,881.61	5,960.00	10,375.61
Agro-Ecotourism	72,435.42	6,695.00	29,522.71	-	57,948.34
Sports and Athletic	68,142.00	9,041.00	25,030.00	-	34,071.00
Agri-Business Hub	51,392.75	-	25,696.38	-	4,111,420.00
Research and Production	256,888.00	9,332.98	42,044.62	-	205,510.40
Bamboo Park	44,975.00	270.00	8,725.00		35,980.00
College Housing	76,746.36	4,223.50	37,987.00	16,122.00	34,535.86

Allowable Maximum Building Footprint is not applicable for the buildings since some structures and facilities are situated between 2-3 lots. Nevertheless, Allowable Maximum Percentage of Site Occupancy or PSO is determined by identifying the districts (internal zones) of TAU based on the Camiling CLUP. Based on the Camiling CLUP Volume 2, TAU falls under the GIZ, or General Institutional Zone. With that, GI Zone from Camiling CLUP is classified also as GI in the National Building Code of the Philippines, also known as PD 1096. However, based on the Land Use Plan of TAU, some districts (internal zone) fall under different zone.

Therefore, the districts (internal zones) of TAU are based on Camiling CLUP, then used the nomenclature of zones of the National Building Code for the PSO.

The table below shows the proposed land area per district, allowable maximum PSO, summation of the total gross floor area of the existing buildings per district, and the remaining area for construction.

**Table 3-34: Percentage of Site Occupancy**

District	Zone (based on PD 1096)	Percentage of Site Occupancy	TOSL	Proposed Area (SQ.M.)	Allowable Maximum PSO (SQ.M.)	GFA (Existing Structures)	Remaining Land Area for Construction (SQ.M.)
Academic	GI	50%	50%	105,269.95	52,634.98	17,625.71	35,009.27
College Services	GI	50%	50%	20,751.21	10,375.61	3,494.00	6,881.61
Agro-Ecotourism	PRE	20%	80%	72,435.42	14,487.08	6,695.00	7,792.08
Sports and Athletic	GI	50%	50%	68,142.00	34,071.00	9,041.00	25,030.00
Agri-Business Hub	GI	50%	50%	51,392.75	25,696.38	-	25,696.38



<b>Research and Production</b>	PRE	20%	80%	256,888.00	51,377.60	9,332.98	42,044.62
<b>Bamboo Park</b>	PRE	20%	80%	44,975.91	8,995.18	270.00	8,725.18
<b>College Housing</b>	R2	55%	45%	76,746.36	42,210.50	4,233.50	37,977.00

## POLICIES

### Land Use Policy

Set of rules and guidelines, such as land-use policy, is essential on how to properly manage and administer a land for numerous development objectives and future plans. It will serve as guide to improve livelihood, to promote environmental protection, public health and safety, among others.

1. Policy on Built-up Areas
  - a. No structure shall be built without extensive research.
  - b. No building shall be constructed without the recommendation of Planning and Development Office and approval of the Office of the President.
2. Policy on Building Design
  - a. All building shall be constructed without compromising the area surrounding it.
  - b. Green performance of the building shall be considered. All buildings shall be designed with respect to the 5 key parameters for a green building, such as Sustainable Site Development, Water Efficiency, Energy Efficiency, Indoor Environment Quality, and Material Selection.
3. Policy on Open Spaces
  - a. Provision of green open spaces, such as parks, for relaxation of the students, employees, stakeholders, and other members of the community.
  - b. Open spaces, such as forest preservation, shall be maintained.
  - c. Open spaces for evacuation and temporary shelter shall be situated on hazard-free and constraints-free location within the university.
  - d. Protect, preserve, and conserve all green open spaces.
  - e. Prohibit construction of unnecessary structures within the space.
4. Policy on Solid Waste Management
  - a. Management
    - i. Observance of the 5Rs (refuse, reduce, reuse, repurpose, and recycle) of waste management.
    - ii. All solid wastes shall be properly segregated for disposal.
  - b. Area
    - i. All areas for solid waste disposal shall be situated away from the administrative and academic buildings.
    - ii. All areas for solid waste disposal shall be situated away from the water sources.

### Water Use Policy

As water is linked to climate change, water use policy shall be applied.

1. Monitor and measure water consumption and identify significant and abnormal water use including leaks
2. To sustain water demand within the buildings, and also and to reduce water consumption, solar powered dug well and wind powered water pump shall be integrated to every building





3. Rainwater harvesting tank with filtration system shall be integrated in every building to reduce water consumption.
4. Filtered water shall be used for toilet flushing.
5. All greywater shall be filtered, through Sewage Treatment Plant, for reuse.
6. Water usage must be periodically reported to the Office of the President/ ADCO for information and monitoring.

### **Energy Use Policy**

Tarlac Agricultural University regulates its energy consumption by issuing memorandum stating that air conditioning units must be turned on only from 9:00 am to 4:00 pm. All computers and other electronic appliances must be turned off when not in use. The use of energy-efficient lights and fixtures is also encouraged. All activities during weekend or outside office hours must be coordinated and approved by the Office of the President. Energy usage must be periodically reported to the Office of the President/ ADCO for information and monitoring.

### **Sectoral Framework Plan**

The Framework Plans for the following Sectors can be accessed on **Annex A**.

#### **Social Development**

#### **Economic Development and Investment Plan**

#### **Infrastructure, Utilities, and Road Network Development**

#### **Environmental Management**

#### **Institutional Development**



## 3.6 Investment Program

The Tarlac Agricultural University Investment Program specifies the key development projects and investment program to be implemented by the University within the next 10 years. These programs and projects were determined as necessary in addressing the development challenges of the University, and were formulated with the end goal of attaining the desired visions of TAU.

The process of developing the campus development plan and investment program involves three streams of activities: 1) producing a ranked list of programs and projects with their individual and cumulative cost estimates, 2) determining available future funds for investment; and 3) matching the fund requirements with projected funds available and deciding the financing options.

The Tarlac Agricultural University Investment Program specifies the key development projects and investment program to be implemented by the University within the next 10 years. These programs and projects were determined as necessary in addressing the development challenges of the University, and were formulated with the end goal of attaining the desired visions of TAU.

The process of developing the campus development plan and investment program involves three streams of activities: 1) producing a ranked list of programs and projects with their individual and cumulative cost estimates, 2) determining available future funds for investment; and 3) matching the fund requirements with projected funds available and deciding the financing options.

### Ranked List of Projects

The first step in developing TAU's plan and investment program involves producing a ranked list of programs and projects, with an estimated cost and target year of implementation. It consisted of the following steps:

1. Collection and compilation of project ideas
2. Initial screening of projects
3. Conflict-Compatibility-Complementary Screening
4. Project Ranking
5. Refinements and Project Cost Determination

### COLLECTION AND COMPILATION OF PROJECTS

Project ideas were collected and compiled from various sources in order to produce a random list of projects. For TAU, the primary source of project ideas was the priority programs and projects submitted by the University to the National Economic and Development Authority (i.e., those that were uploaded and to be uploaded to NEDA's Public Investment Program Online System). Additional projects that were identified during the GOTS workshop conducted in October 2022 were also a source of project ideas. Overall, there were 188 projects included in the random list of projects.

### INITIAL SCREENING OF PROJECTS

The projects included in the random list underwent an initial screening process. Repetitive or redundant projects were consolidated together and treated as one project. Meanwhile, projects that were considered as impractical and those that are more appropriately implemented by other government agencies or organizations were sifted out. Likewise, non-projects and services were removed. Following the completion of this process, an initial list of projects was produced. The initial screening process yielded 99 projects.

### CONFLICT-COMPATIBILITY-COMPLEMENTARY SCREENING

Another screening process was undertaken for the initial list of projects identified. Together with the ranking of projects, this particular activity involved a workshop which was held in November 2022 with



participation from representatives of the University's faculty, students, and administrative personnel. The participants were divided into two groups. Each group went through all projects included in the initial list and identified those that are complementary, compatible, or conflicting with other projects. Conflicting projects were removed from the list. Complementary projects were combined with other projects. Finally, compatible projects were retained. Following the completion of this process, a preliminary list of projects consisting of 44 projects was produced.





## PROJECT RANKING

In order to determine the priority projects of TAU, a project prioritization workshop was conducted in November 2022. The same participants from the previous step ranked each project included in the preliminary list. These participants were divided into four groups: one group for students, one group for faculty, and two groups for administrative personnel (one for top management and one for administrative staff), with each representing a particular societal sector of the University (e.g., the students group represents the student body).

A Goal-Achievement Matrix (GAM) was used to facilitate the process of project prioritization. The GAM contains a listing of TAU's goals, which are weighted according to the perceptions, advocacies, and agendas of the different societal sectors of the University. These goals were used as criteria for rating each project.

In particular, TAU's goals or the criteria used for ranking each project were the components of the University's vision, namely:

1. A premier agricultural university in Asia
2. A university that produces holistic and globally-competitive individuals
3. A campus with ecologically-balanced and sustainable environment
4. A campus with disaster-resilient and smart infrastructure
5. A university led by transparent and capable leaders
6. A university with adequate, diversified, and well-utilized financial resources

Based on the perceived importance of the goals to the interests of the sector that each group represents, a weight for each goal was assigned. Thus, each group has different weights assigned for each goal.

The projects were then rated according to the extent to which the projects contribute to the attainment of the goals. In rating the projects, the following scale was used:

**Table 3-35: Project Rating Scale**

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

To get the total score for a particular project, the rating given for that project was first multiplied by the weight given to each goal. The project's score for each goal was then added to come up with the total score for the project.



The following are the top 5 projects that was produced during the PPA workshop last November 2022.

**Table 3-36: Results of the November 2022 PPA Workshop**

Project	Average Score	Rank
Construction and Development of Mental Health and Wellbeing Center (Catharsis)	2.51	1
Upgrading of TAU Health Facilities	2.40	2
Renovation of the Regional Rootcrops Research and Training Center	2.39	3
Expansion and Upgrading of Existing College of Education Building	2.34	4
Integration of Renewable Energy Systems in Existing Academic, Administrative, and Support Services Buildings in the University (Phase 1)	2.34	4

## REFINEMENTS AND PROJECT COST DETERMINATION

Following the PPA workshop, refinements were made with the list of projects and ranking. Some of the projects were consolidated into programs. Further, non-infrastructure activities (e.g., capacity building activities for faculties) were included as components of the programs. This was done to align the projects to the vision and goals of the University. Following the refinements, 37 projects were retained.

The UP SURP Planning team then provided their own rating of the programs and projects, bringing the total group who ranked the project to 5. This resulted into the adjustment of the project ranking. The costs for each project and program were also determined based on (i) the estimated project cost provided in the list of priority projects submitted by TAU to NEDA and (ii) the cost per square meter of the projects. The table below shows the most updated ranking of the 37 programs, including the components for each program and their corresponding costs. For the costs, one column shows the cost of the program component and the other two reflects the individual and cumulative cost of the program. The total cost for the 37 programs is Php 1,534,380,000.

### Determining Available Future Funds for Investments

The number of projects that TAU can finance is a function of its recurring revenue and operating expenditure level, the outstanding debt, and potential sources of financing. Thus, in determining the available future funds for investments in projects, the recurring revenue and operating expenditure level in future years was projected. In determining TAU's available future funds for investment, the following steps were followed:

- 3.6.1 Collection of financial data
- 3.6.2 Determination of historical financial trends
- 3.6.3 Projection of future recurring revenue and operating expenses
- 3.6.4 Determination of fiscal surplus

## COLLECTION OF FINANCIAL DATA

Data on revenue, operating expenditure, and debt for the in the past were collected from the 2011 to 2021 audited financial statement of TAU. Specifically, the statement of financial performance was analyzed and historical data on the following financial variables were collected

1. Service and Business Income
2. Assistance and Subsidy
3. Personnel Services Expenses



4. Maintenance and Other Operating Expenses

**DETERMINATION OF HISTORICAL FINANCIAL TRENDS**

After collecting financial data, the 10-year (2013-2021) average annual growth rate of the revenue and expenditure items were computed. The average annual growth rate is the average increase in the value of the financial variable over a period of time. It is computed using the following formula:

**Equation 4-1: Historical Financial Trends Formula**

$$AAGR = \frac{GR_A + GR_B + \dots + GR_N}{N}$$

where  $GR_A$  = growth rate in period A  
 $GR_B$  = growth rate in period B  
 $GR_N$  = growth rate in period N  
 N = number of periods

The table below shows the average annual growth rate of the four financial variables. Except for Assistance and Subsidy, the 10-year average annual growth rate was used to project future revenue and expenses as provided in the next step.

**Table 3-37: Average Annual Growth Rate of Financial Variables**

Financial Variable	Average Annual Growth Rate (10Y)
Service and Business Income	7.75%
Assistance and Subsidy	13.38%
Personnel Services Expense	7.59%
Maintenance and Other Operating Expenses	8.00%





## PROJECTION OF FUTURE RECURRING REVENUE AND OPERATING EXPENSES

Recurring revenue and operating expenses refer to the portion of TAU's revenue and operating expenses that is expected to continue in the future. To predict the future values of TAU's service and business income, personnel services expenses, and maintenance and other operating expenses, its 10-year average annual growth rates was used.

Meanwhile, for assistance and subsidy, the 10-year average annual growth rate of 13.38% was not used because of the high growth rate calculated. An annual growth rate of 13.38% for national government subsidy to TAU appears to be unrealistic. Further, past growth rate in subsidy may not be a good indication of the future growth rate of national government subsidy. Instead, a modest growth rate of 7.75% was used to predict the future value of assistance and subsidy. This growth rate was based on the forecasted government spending growth rate of the Department of Budget and Management.

Another recurring expense that needs to be projected is TAU's obligated debt service. This pertains to the annual amount of debt payments for existing and other anticipated financial liabilities of TAU. Generally, historical growth rates are not a good indicator for projecting future obligated debt service because the debt level could fluctuate throughout the years. Thus, it was assumed that TAU's obligated debt service per year is equivalent to 10% of its projected annual total revenue. Projected annual total revenue is equivalent to the sum of the projected service and business income and projected assistance and subsidy.

The tables in the next two pages show the projected recurring revenue, operating expenses, and obligated debt service of TAU.

## DETERMINATION OF FISCAL SURPLUS

Upon establishing the future recurring revenue inflows and expenditure outflows of TAU, the annual fiscal surplus was determined by taking the difference between total revenue and total expenses. TAU's available future funds for investment were then computed by taking the sum of the annual fiscal surplus for the next ten years. Based on the estimate, the available future funds for investment of TAU are **Php 1,354,973,786**.

**Table 3-38: Projected Financials of Tarlac Agricultural University (2028-2032)**

	0	1	2	3	4	5	10
	2022	2023	2024	2025	2026	2027	2032
Service and Business Income (a)	36,944,136	39,805,760	42,889,042	46,211,148	49,790,579	53,647,266	77,902,190.90
Assistance and Subsidy (b)	435,762,861	467,137,787	500,771,708	536,827,271	575,478,834	616,913,310	873,369,592.22
Total Revenue (c = a + b)	472,706,997	506,943,547	543,660,749	583,038,419	625,269,413	670,560,576	951,271,783,.13
Personnel Services Expense (d)	246,288,892	264,992,742	285,117,014	306,769,578	330,066,497	355,132,647	512,078,301.01



	0	1	2	3	4	5	10
	2022	2023	2024	2025	2026	2027	2032
Maintenance and Other Operating Expenses (e)	71,235,928	76,932,961	83,085,609	89,730,311	96,906,417	104,656,425	153,756,225.67
Obligated Debt Service (f)	56,724,840	60,833,226	65,239,290	69,964,610	75,032,330	80,467,269	114,152,613,.98
Total Expenses (g = d + e + f)	374,249,659	402,758,929	433,441,913	466,464,499	502,005,243	540,256,342	779,987,140.65
<b>Fiscal Surplus (h = c - g)</b>	<b>98,457,338</b>	<b>104,184,619</b>	<b>110,218,836</b>	<b>116,573,920</b>	<b>123,264,170</b>	<b>130,304,234</b>	<b>171,284,642.48</b>

### Matching the fund requirements with projected available funds

The final step in the development of the investment program involves matching the fund requirements of the programs and projects with the available future funds for investment of TAU. This involves (1) determining the number of projects that can be funded and (2) determining the financing option of the university.

**Table 3-39: List of Programs, Projects and Activities**

No	Program Title	Cost ('000)
1	Development of the Regional Root crop Research and Training Center	44,300.00
2	Development of the Department of Food Technology	70,100.00
3	Expansion and Upgrading of the College of Agriculture and Forestry	157,300.00
4	Development of Mental Health and Wellbeing Program	25,000.00
5	Expansion and Upgrading of the University Housing District	399,200.00
6	Expansion and Upgrading of the College of Education	128,400.00
7	Upgrading of TAU Health Facilities	28,500.00
8	Repair and Rehabilitation of Road Networks, Pedestrians, Walkways and Perimeter Fences Program	190,000.00
9	Integration of Renewable Energy Systems in Existing Academic, Administrative and Support Services Buildings in the University (Phase 1)	70,000.00



10	<b>Expansion and Upgrading of the College of Engineering and Technology</b>	60,000.00
11	<b>Expansion and Upgrading of the College of Arts and Sciences</b>	119,200.00
12	<b>Drainage Development Program</b>	30,000.00
13	<b>Development of the Information Technology Center</b>	32,500.00
14	<b>Development of Integrated ICT System</b>	80,000.00
15	<b>Improvement of TAU Bamboo Park (Phase 2)</b>	6,200.00
16	<b>Establishment of Monitoring System for Air, Soil, and Water Quality</b>	16,000.00
17	<b>Improvement of TAU Hostel Facility</b>	61,300.00
18	<b>Development of the College of Veterinary Medicine</b>	91,000.00
19	<b>Expansion of Smart Greenhouse Facilities</b>	17,000.00
20	<b>Development of the College of Business and Management</b>	159,000.00
21	<b>Development of TAU's National Service Training Program (NSTP)</b>	24,500.00
22	<b>Development of Bamboo Forest Park</b>	25,000.00
23	<b>Retrofitting of the University Library, Archive and Museum</b>	75,000.00
24	<b>Development and Upgrading of Sports and Sociocultural Facilities and Athlete and Guild Development Programs</b>	33,000.00
25	<b>Construction of International Academic and Research Cooperation Center Convention Center)</b>	100,000.00
26	<b>Improvement of Shed for Small Ruminants</b>	28,000.00
27	<b>Integration of rainwater harvesting and filtration systems on buildings</b>	20,000.00
28	<b>Construction of TESDA Training Center</b>	22,500.00
29	<b>Waste Management Program</b>	20,000.00
30	<b>Construction of Disaster Evacuation and Emergency Operations Center</b>	22,500.00
31	<b>Rehabilitation and construction of new deep well systems with water tank for potable water</b>	25,000. 00





32	<b>Construction of Centralized Cold Storage Building</b>	36,800.00
33	<b>Transfer of aerial electrical cables and ICT cables to underground cabling system (Phase 1)</b>	75,000.00
34	<b>Repair/ Rehabilitation of Existing Staff Houses and Apartment</b>	31,000.00
35	<b>Expansion of University Storage and Supply Warehouse</b>	24,500.00
36	<b>Upgrading of existing power generator sets on lifeline and core facilities (Phase 1)</b>	22,500.00
37	<b>Establishment of multi-level parking area for vehicles at a strategic plan</b>	40,000.00
38	<b>Repair and Rehabilitation of Old Academic Buildings</b>	100,000.00
	<b>TOTAL</b>	<b>2,510,300.00</b>

\*A detailed presentation for this table can be accessed in **Annex B**.

\*\* The projects for 2024 are already done (see **Annex B**). These projects are designed based on the requirements of the user. In addition, these buildings are compliant to the governing laws. Nevertheless, for 2025-2032 proposed projects still need further research and meeting with the end-user since the design is based on the requirements and outputs of the end-user, yet, the planning and design considerations and conceptual design shall be integrated in the buildings and strict implementation of the existing laws (e.g., PD 1096, BP 344, and RA 9514).

## DETERMINATION OF PROJECTS THAT CAN BE FUNDED

Based on the available future funds for investment and the ranked list of projects and programs, only **12 out of the 38 projects** can be funded within the 10-year period. The total cost of funding these 28 programs/projects is **Php 1,354,380,000**. The table below shows the list of programs/projects that can be funded by TAU's available future funds.

**Table 3-40: List of Programs That Can Be Funded**

No	Program Title	Cost ('000)
1	<b>Development of the Regional Root crop Research and Training Center</b>	44,300.00
2	<b>Development of the Department of Food Technology</b>	70,100.00
3	<b>Expansion and Upgrading of the College of Agriculture and Forestry</b>	157,300.00
4	<b>Development of Mental Health and Wellbeing Program</b>	25,000.00
5	<b>Expansion and Upgrading of the University Housing District</b>	399,200.00
6	<b>Expansion and Upgrading of the College of Education</b>	128,400.00
7	<b>Upgrading of TAU Health Facilities</b>	28,500.00
8	<b>Repair and Rehabilitation of Road Networks, Pedestrians, Walkways and Perimeter Fences Program</b>	190,000.00
9	<b>Integration of Renewable Energy Systems in Existing Academic, Administrative and Support Services Buildings in the University (Phase 1)</b>	70,000.00
10	<b>Expansion and Upgrading of the College of Engineering and Technology</b>	60,000.00
11	<b>Expansion and Upgrading of the College of Arts and Sciences</b>	119,200.00
12	<b>Drainage Development Program</b>	30,000.00



	<b>TOTAL</b>	<b>1,322,000.00</b>
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Meanwhile the total cost for the remaining 26 programs/projects is Php 1,183,300,000. The table below shows these remaining 9 programs/projects, including their estimated costs.

**Table 3-41: List of Programs That Cannot Be Funded**

No	Program Title	Cost ('000)
1	Development of the Information Technology Center	32,500.00
2	Development of Integrated ICT System	80,000.00
3	Improvement of TAU Bamboo Park (Phase 2)	6,200.00
4	Establishment of Monitoring System for Air, Soil, and Water Quality	16,000.00
5	Improvement of TAU Hostel Facility	61,300.00
6	Development of the College of Veterinary Medicine	91,000.00
7	Expansion of Smart Greenhouse Facilities	17,000.00
8	Development of the College of Business and Management	159,000.00
9	Development of TAU's National Service Training Program (NSTP)	24,500.00
10	Development of Bamboo Forest Park	25,000.00
11	Retrofitting of the University Library, Archive and Museum	75,000.00
12	Development and Upgrading of Sports and Sociocultural Facilities and Athlete and Guild Development Programs	33,000.00
13	Construction of International Academic and Research Cooperation Center Convention Center)	100,000.00
14	Improvement of Shed for Small Ruminants	28,000.00
15	Integration of rainwater harvesting and filtration systems on buildings	20,000.00
16	Construction of TESDA Training Center	22,500.00
17	Waste Management Program	20,000.00
18	Construction of Disaster Evacuation and Emergency Operations Center	22,500.00
19	Rehabilitation and construction of new deep well systems with water tank for potable water	25,000.00
20	Construction of Centralized Cold Storage Building	36,800.00



21	<b>Transfer of aerial electrical cables and ICT cables to underground cabling system (Phase 1)</b>	75,000.00
22	<b>Repair/ Rehabilitation of Existing Staff Houses and Apartment</b>	31,000.00
23	<b>Expansion of University Storage and Supply Warehouse</b>	24,500.00
24	<b>Upgrading of existing power generator sets on lifeline and core facilities (Phase 1)</b>	22,500.00
25	<b>Establishment of multi-level parking area for vehicles at a strategic plan</b>	40,000.00
26	<b>Repair and Rehabilitation of Old Academic Buildings</b>	100,000.00
	<b>TOTAL</b>	<b>1,188,300.00</b>

### DETERMINATION OF FINANCING OPTIONS FOR THE UNIVERSITY

TAU has three financing options for the programs and projects that cannot be funded by its available future funds for investment. These are:

#### Conservative Approach

Under the conservative approach, only programs and projects that can be funded from regular sources will be implemented. TAU has to trim down the list of programs and projects into 28.

#### Development Approach

Under the development approach, the short list of projects (i.e., 37) is taken as final and irreducible. TAU will tap all sources possible to raise the needed funds to implement the remaining programs/projects.

#### Pragmatic Approach

This approach entails being conservative during the initial years and eventually becoming developmental as the status of TAU's finances improves and more fund sources become available.

