

# CENTRAL LUZON STATE UNIVERSITY ENHANCED LAND USE DEVELOPMENT AND INFRASTRUCTURE PLAN 2021-2031



## VOLUME 1: Campus Land Use Plan

## **FOREWORD**

To improve and optimally utilize the resources of the State Universities and Colleges (SUCs) in the country, President Rodrigo Duterte enacted the Republic Act No. 11396, known as the “SUCs Land Use Development and Infrastructure Plan 3 (LUDIP)” in 2019. Specifically, it intends to provide for a rational, holistic, efficient, and just allocation, utilization, development, and management of the country’s land and water resources that are consistent with the principles of equity, social justice, environmental integrity, and sustainable development for the common good.

As such, there was a directive for SUCs to submit their LUDIP to the Commission on Higher Education two years after the approval of the law. In adherence to this, after a thorough assessment and documentation of resources, the Central Luzon State University proudly presents its comprehensive and science-based LUDIP prepared by the technical working group led by Dr. Gella Patria L. Abella, EnP, head of the CLSU Institute for Climate Change and Environmental Management.

The CLSU LUDIP is in line with the realization of the University’s vision under its Strategic Plan 2016-2040 where it is envisioned to be a sustainable community where learning, teaching, and research are integrated into a living laboratory, where communication and physical infrastructures provide connectivity among its constituents and the outside world, and where a common vision is shared with adjacent communities and local government units. Specifically, it covers narrative, visual representations, graphics, and illustrations of campus planning framework; detailed geographical description and survey of the campus site, such as idle lands and extension sites; inventory of all buildings, facilities, and other infrastructure within SUC area; and detailed geographical description of land used for commercial, agriculture, fishery, parks, and other activities. Also, it highlights the description of the research core, academic core, and residential areas covering both housing for faculty and staff, dormitories for students, as well as detailed geographical description and survey of the site intended for dormitories for students and housing sites for employees. Moreover, the design and estimated cost for construction and maintenance of infrastructure needs as well as financial plan were included in the CLSU LUDIP.

The University recognizes the importance of this document in the pursuance of the developments within the campus whether it is for the establishment, repair, maintenance, or demolition of infrastructure projects. Thus, everyone is enjoined to utilize the CLSU LUDIP in the formulation and development of infrastructure and equipment proposals that are not only forward-looking but also adaptive and resilient to our constantly changing environment.

**EDGAR A. ORDEN**  
University President

## ACKNOWLEDGEMENTS

The CLSU Land Use Development and Infrastructure Plan for 2021 to 2031 would not have been completed without the efforts of the following:

- Dr. Gella Patria L. Abella, EnP, Project Leader, for providing technical guidance and for setting the general direction of the team;
- The Technical Working Group (TWG), for the invaluable contributions to the science-based and participatory plan as fully detailed, to wit:
  - o Campus Land Use Plan Committee: Dr. Gella Patria L. Abella (Chair); Mr. Jaypee S. De Guzman, Dr. Cheryl G. Ramos, Dr. Rhodora I. Dela Rosa, Prof. Maria Adrielle S. Estigoy, Prof. Jay B. Villafria Jr., Mr. Ryan B. Esteban, Engr. Onasis S. Peru, Prof. Fernan T. Fiegalan;
  - o Campus Master Development Plan and Investment Program Committee:
    - Ecosystem Development: Ms. Diane Shiela C. Castillo (Chair), Dr. Gella Patria L. Abella, Dr. Redel L. Gutierrez, Mr. Paul Henric P. Gojo Cruz;
    - Social Development: Dr. Melanie P. Tolentino (Chair), Prof. Jay B. Villafria, Jr., Dr. Rhodora I. Dela Rosa, Dr. Cheryl G. Ramos;
    - Economic Development: Dr. Judith A. Teaño (Chair), Prof. Maria Adrielle S. Estigoy, Ms. Felicidad V. Domingo;
    - Infrastructure Development: Mr. Carlo Raul C. Divina (Chair), Dr. Armando N. Espino Jr., Engr. Renato B. Dela Cruz, Engr. Ronaldo H. De Guzman, Mr. Ryan B. Esteban, Arch. Jeffrey M. Larua, Engr. Onasis S. Peru, Dr. Marvin M. Cinense, Engr. Mcgyver B. Afan, Ms. Diane Shiela C. Castillo;
    - Institutional Development: Mr. Jaypee S. De Guzman;
    - Special Areas Development: Dr. Nomer C. Esmero (Chair), Engr. Eliza E. Camaso, Dr. Judith A. Teano;
  - o Major Development Program and Investment Plan: Mr. Ryan B. Esteban, Mr. Nixon DR. Esguerra; o Site Development Plan Committee: Arch. Jeffrey M. Larua (Chair), Engr. Onasis S. Peru, Engr. Mcgyver B. Afan;
- Project Technical Staff: Mr. Nolly F. Isip, Mr. Che Lean C. Cabico, Mr. Zhandon Paul M. Cario, Engr. Emman E. Ramos, for stepping up to meet the demand of this task through their initiatives, talents and skills;
- Dr. Jerrold M. Tubay, Project Consultant, for intellectually working on the model formulation;
- Prof. Maria Adrielle S. Estigoy and Dr. Mercedita M. Reyes, for efficiently serving as English critics;
- The Administrative Council, for embodying the entire stakeholders;
- Dr. Edgar A. Orden, for the logistic support that mechanized the completion of this pertinent document; and
- The Commission on Higher Education (CHED) and the Department of Human Settlements and Urban Development (DHSUD), for capacitating CLSU in the optimal utilization of its resources.

## TABLE OF CONTENTS

<b>I. PLANNING DESIGN AND CONSIDERATIONS.....</b>	<b>2</b>
A. Introduction.....	2
Legal Bases.....	2
Brief Profile of the University.....	4
CLSU Philosophy, Vision and Mission.....	4
Board of Directors.....	5
Recognitions and Awards Obtained from International/National/Regional or Private Award-Giving Bodies.....	7
Role and Significance of CLSU in the International and Local Settings 17	
University Programs.....	18
CLSU Research and Extension Agenda.....	33
Major Development Constraints and Opportunities.....	34
B. Demographic Profile.....	37
Population.....	37
Current and Projected Student Population.....	38
Projected Faculty and Staff.....	40
Ethnicity of CLSU Campus Residents.....	43
C. Physical Profile.....	45
Geographic Location.....	45
Geographical Description and Survey.....	49
Biophysical Features.....	50
Land Capability and Land Suitability.....	63
<b>II. LAND USE STRATEGY AND SPACE ALLOCATION.....</b>	<b>78</b>
A. Physical Development Strategies.....	78
B. Development Concept and Structure Plan.....	81
C. Existing Land Use.....	84
D. Land Use Demand.....	87
E. Land Use Allocation.....	88
<b>III. LAND USE POLICIES.....</b>	<b>100</b>
A.    Zoning Policies.....	100
B.    CLSU GHG Mitigation Commitment, 2021-2030.....	103

## LIST OF FIGURES

Figure 1. Central Luzon Agricultural School	2
Figure 2. Central Luzon Agricultural College	3
Figure 3. Central Luzon State University	4
Figure 4. College of Agriculture	20
Figure 5. College of Arts and Social Sciences	21
Figure 6. College of Business Administration and Accountancy	22
Figure 7. College of Education	23
Figure 8. College of Engineering	24
Figure 9. College of Fisheries	25
Figure 10. College of Home Science and Industry	26
Figure 11. College of Science	26
Figure 12. College of Veterinary and Medicine	27
Figure 13. CLSU research and extension operational framework	34
Figure 14. Percentage of Gender Per Age Group	44
Figure 15. Population by religious affiliation	45
Figure 16. Geographic Location Map of CLSU	48
Figure 17. Vegetative cover/Land Cover of CLSU	51
Figure 18. Slope of CLSU	52
Figure 19. Vegetative cover/Land Cover of CLSU	53
Figure 20. Location of PAGASA weather station at Central Luzon State University	55
Figure 21. Annual precipitation in Science City of Muñoz	56
Figure 22. Average temperature in Science City of Muñoz	56
Figure 23. Monthly records of local climate in Science City of Muñoz	57
Figure 24. Average daily sun hours per month, Science City of Muñoz, Philippines	57
Figure 25. Typhoon risk areas (a) and cyclone frequency (b) in Science City of Muñoz, Nueva Ecija	58
Figure 26. Relative humidity in Science City of Muñoz	59
Figure 27. Average number of clouds in Science City of Muñoz	59
Figure 28. Average evaporation in Science City of Muñoz	60
Figure 29. 100-yr Flood Hazard Map	61
Figure 30. Impact of the Nearest Fault Line to CLSU	62
Figure 31. Land mapping units of LUTs in the Agricultural Land Use of CLSU	66
Figure 32. Land mapping units of LUTs in the Non-Agricultural Land Use of CLSU	67
Figure 33. Distribution of Soil Series within the Agricultural Lands of CLSU	69
Figure 34. CLSU Strategic Plan 2016-2040	78
Figure 35. Objectives and Road Map of CLSU Strategic Plan 2016- 2040	79
Figure 36. Structure Development Plan of CLSU	83
Figure 37. General Land Use Map of CLSU	86
Figure 38. Proposed General Land Use	96
Figure 39. Proposed General Land Use	99

## LIST OF TABLES

Table 1. CLSU Recognition and Awards for Year 2018 to 2021	8
Table 2. CLSU Program Offerings with Corresponding CoPC Number and Date of Issuance	28
Table 3. CLSU total population during pre-pandemic	37
Table 4. Current and projected number of enrollees per unit	39
Table 5. Current and projected number of faculty for the different positions	41
Table 6. Current and projected number of staff	42
Table 7. Ethnicity of CLSU campus residents	43
Table 8. Age group and sex population, 2021	43
Table 9. Population by religious affiliation, 2021	44
Table 10. Provincial description of Region III	47
Table 11. Vegetative cover of CLSU	50
Table 12. Soil morphological characteristics for classification	64
Table 13. Land capability class of agricultural and non-agricultural soils	65
Table 14. Identified soil types of CLSU	70
Table 15. Land Mapping Units of prime croplands in CLSU	70
Table 16. Land suitability rating in the LMU for rice fields area	72
Table 17. Land suitability rating in the LMU for non-rice area	73
Table 18. Land suitability rating in the LMU for orchard areas	73
Table 19. Suitability assessment for residential land use	74
Table 20. Suitability assessment for institutional (academic) land use	75
Table 21. Suitability assessment for institutional (non-academic) land use	76
Table 22. Suitability assessment for commercial and park	77
Table 23. General land use of CLSU	85
Table 24. Land use demand of CLSU	87
Table 25. Mathematical Optimization Model for land use allocation for CLSU	90
Table 26. Constraints set for land use allocation in the CLSU	91
Table 27. Optimization run results on the land use allocation in CLSU	92
Table 28. Results of the constraints set in the optimization run	93
Table 29. Existing and proposed general land use of CLSU	95
Table 30. Existing and proposed detailed land use of CLSU	97
Table 31. GHG mitigating measure of CLSU	103

## LIST OF APPENDICES

Appendix 1. Methodology	106
Appendix 2. Model Formulation	107
Appendix 3. Project Team Composition	109
Appendix 4. BOR Resolution No. 18-2021	111
Appendix 5. Documentation	113
Appendix 6. Timeline of Activities	115

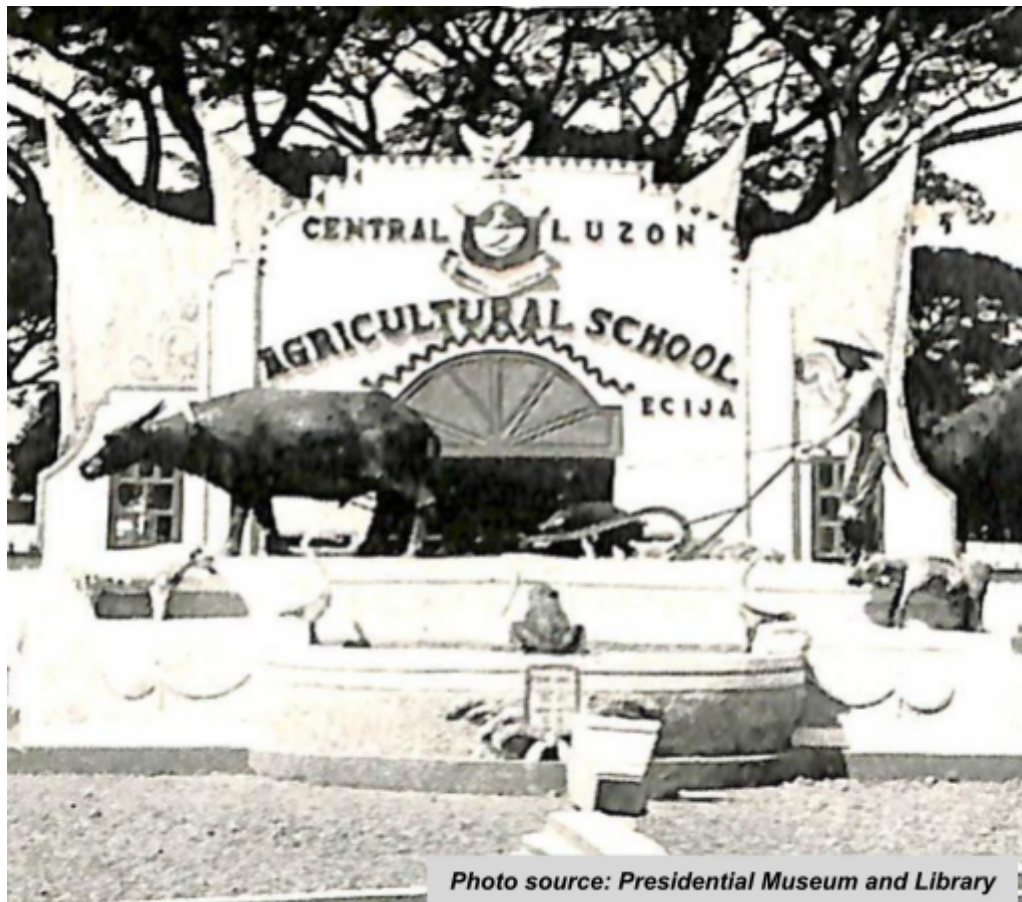


## I. PLANNING DESIGN AND CONSIDERATIONS

### A. Introduction

#### *Legal Bases*

On 12 April 1907, more than 100 years back, Executive Order No. 10 was issued by Governor-General James F. Smith to declare a portion of the public agricultural domain in Muñoz, San Juan de Guimba as the site of a farmer-students' school which was originally envisioned by Mr. T.W. Thompson (the Schools Division Superintendent of Nueva Ecija) and was strongly supported by Governor Isauro G. Gabaldon. This became the basis of the establishment of the Central Luzon Agricultural School (CLAS) (**Figure 1**) mandated to train young boys in practical and scientific knowledge in agriculture, serve as a pilot school dedicated to promote scientific method in farming to connect the product of the school to the farm, and elevate farming to the rank of a science or profession. As an agricultural school, it offered a four-year secondary agricultural course, one-year farm mechanic course, and other related special courses.



**Figure 1.** Central Luzon Agricultural School





domestic water and maintains sewerage lines in residential areas and other University facilities.

### ***CLSU Research and Extension Agenda***

By virtue of Republic Act 4067, the Central Luzon State University is mandated to provide advanced instruction and promote research in the areas of sciences, technology, literature, philosophy and arts. In conclusion, the University envisions becoming a world-class national research university for science and technology in agriculture and allied fields by 2040.

To ensure that its research and development activities are relevant to the needs and aspirations of its stakeholders and attuned to the priority programs of the Philippine government and different intergovernmental organizations, the university's research and extension agenda is revisited every five years.

The CLSU's Research and Extension Agenda for 2021-2025, approved as per BOR Resolution No. 45-2021, sets the direction for our research priorities for the next five years (**Figure 13**). The agenda revolve on four (4) main thrusts C-L-S-U. "**C**ompetitiveness in the Industry 4.0" focuses on the discovery of new knowledge on technology innovation, cyber security, data science and pursues internationalization of research collaboration in higher education institutions. The area on "**L**iving a Better Life" centers on the creation of opportunities for inclusive growth and development, expanding access to quality education, promoting a healthier environment and developing holistic well-being. "**S**ustainable Production and Consumption" involves research and extension programs on sustainable food production systems, introduction of climate resilient strategies and generation of renewable energy. "**U**nity in Diversity" deals with the promotion of a culture of diversity and inclusion in creating a society where equality and harmony exist.



Figure 13. CLSU research and extension operational framework

### ***Major Development Constraints and Opportunities***

Development of CLSU may be faced with challenges set forth by some constraints, however great opportunities are in place to overcome these challenges.

#### ***Constraints***

##### **Policies**

1. Absence of solid national land use policies, in particular, university land use policies that will strengthen implementation of the approved comprehensive land use and master plan that will maximize land utilization and provide a more rational basis for physical development of campus facilities.
2. The Zoning Policy of the University is yet to be crafted.

##### **Budgetary Constraints**

3. Dependence on budgetary appropriations from the national government as determinant for the present design and structure of academic facilities as well as meager allocation of capital outlay funding due to government's limited fiscal space.
4. Renovation and improvement of infrastructures (academic buildings, administrative offices, and roads) need to undergo prioritization due to budget constraints.



5. Restricted Implementation of green technologies in the design of campus facilities due to limitations on project costs

#### Procurement Process

6. Delayed bidding and construction schedules for university projects due to cumbersome rules and design requirements of RA 9184 including fluctuating inflation rates which greatly alters cost of supplies and materials and services that affects the bidding process and project implementation.
7. Bidders tend to post very low prices to win the bidding, compromising the quality of the infrastructure.

#### Physical Settings

8. The presence and proliferation of informal settlers along the PNR railroad impede the potential development in the area.
9. The current road network does not allow the provision of bike lanes. A lot of clearing has to be done for this.

#### *Opportunities*

##### Pool of Experts

1. CLSU is known for its highly specialized human resources who are collaborating to come up with holistic approaches in addressing the needs of the community.
2. The University also welcomes research affiliates from the different R&D institutions in the Science City of Muñoz through collaboration and exchange of experts and expertise.

##### World Ranking and Accreditation

3. The University is recognized as one of the top universities in Asia with an overall rank of 601+ in the 2021 QS World University Rankings. Moreover, among the 11 key indicators and performance metrics tailored for the region, CLSU's academic and employer reputation garnered the highest ranking at 251+. It is one of the 14 universities in Asia to be considered as the best higher institutions (HEIs).

On the other hand, in the continuous pursuit for excellence and quality education, CLSU has been regularly subjected to the Accrediting Agency of Chartered Colleges and Universities of the Philippines (AACUP).



### Centers of Excellence and Development

4. CLSU is a nationally recognized center of excellence in agriculture, agricultural engineering, biology, fisheries, teacher education and veterinary medicine. It is one of the foremost research-oriented universities in the country with rapidly expanding international visibility.

### Achievements of Students and Graduates

5. The university passing rate in the different board exams is always higher than the national passing rate. It has also gained remarkable achievements in cultural and sports events. Its graduates soar high all over the world upholding its tag #TatakCLSU.

### Externally- Funded Research Projects

6. CLSU ranks third among the state universities and colleges in the country to receive the highest externally-funded projects. This encourages establishment of specialized laboratories and enhances specialized research capabilities.
7. The specialized laboratories provide exposure to students to be engaged in experiential learning.

### Academic & Scientific Community

8. Being in the science city promotes more channels of opportunities for CLSU for collaboration with research centers and institutes.
9. The immediate environs serve as an avenue for technology transfer and the potential empowering of communities through the products of research.

### Education Tourism

10. CLSU has a great potential to become an agro-tourism hub in the region. The mature technologies developed from various researches would be packaged for adoption by communities and life-long learners.
11. Established in 1907, CLSU has rich cultural heritage that can be unearthed with its peculiar historical background



## II. LAND USE STRATEGY AND SPACE ALLOCATION

### A. Physical Development Strategies

#### *Strategic Direction Towards the Realization of the Vision*

The Land Use Development and Infrastructure Plan (LUDIP) 2021-2031 will be in line on the realization of the university's vision under its Strategic Plan 2016-2040 as shown in the **Figure34**

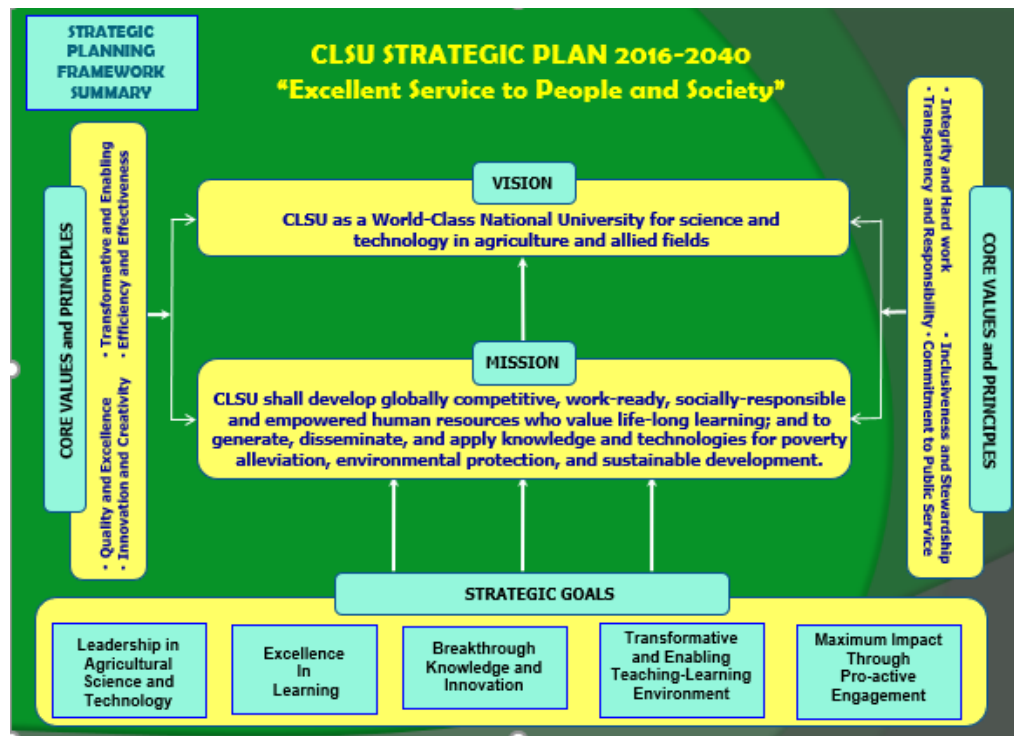


Figure 34. CLSU Strategic Plan 2016-2040

CLSU is envisioned to be a sustainable community where learning, teaching and research are integrated into a living laboratory, where communication and physical infrastructures provide connectivity among its constituents and the outside world and where a common vision is shared with adjacent communities and local government units.

The LUDIP provides programs that outline the state and required maintenance and improvement of existing buildings, infrastructures and utilities. It is supplemented by a major development program over a 10- year period. This program organizes planned and future development by adopting the best and highest use of CLSU land resources and promotes the mobilization of revenue sources to underwrite the costs of development. This radical and innovative approach is needed to achieve the desired position of CLSU to be a world class university for science,



technology, agriculture and related fields. It requires the skillful mobilization of land resources for capital development and less dependence on annual appropriations by the national government. Thus, the campus renewal and development programs will rely on the efficient use of land resources for agro-industrial, agri-tourism, commercial and information technology services development to accomplish the CLSU academic and non-academic mission in the future.

The other major challenge faced by the university is the rationalization of its programs to focus on its core strength in agriculture and allied fields. Resources and efforts must be aligned to this ultimate goal as enshrined in its vision. The university must embark in programs that will ensure sustainability, access to advanced technology, competency and reliability of its workforce, collaboration with local, provincial and national governments, advancement in agriculture and related field research, and reciprocity in scholarly exchanges with local and international institutions in cutting edge researches in agriculture and related fields.

CLSU must be efficient in the allocation and use of its physical assets, prudent in managing its fiscal resources, continuously improve on its competencies and programs and ready to adopt innovative technologies to be resilient to the challenges of climate change. Presented in **Figure 35** are the road map and strategic objectives which are also lifted from the “CLSU Strategic Plan 2016-2040”.



Figure 35. Objectives and Road Map of CLSU Strategic Plan 2016-2040



### ***Land Use Planning Principles***

Below are the derived land use planning principles based on the university strategic plan. Further surveying of the provincial and city context should be considered and focus on the CLSU main campus and use the form of the land to define academic core structure, open spaces, transportation and utilities network along with the goals of the university.

1. Support the scholastic mission of the university through enabling academic growth by providing open, collaborative and adaptable environments for theoretical and experiential learnings, scientific researches, innovative discoveries and transformation extension activities.
2. Enrich the agricultural production of the university to meet the daily needs of CLSU constituents, foster scientific researches and generate income.
3. Promote sustainable and green technologies through proper stewardship of the physical environment of the main campus and broader land base for the optimum benefit of the university, its constituents, neighbours and the larger ecosystem.
4. Enliven campus experience through a diversity of accessible and safe places for social and cultural interaction, recreation, athletics, and enjoyment by faculty, staff and visitors and maintaining its legacy of memorable landscapes and promoting a compact and walkable campus.
5. Empower the social fabric by enhancing the community building aspects of the campus, increase housing options and expand social and cultural infrastructure and promote a healthy and vibrant community lifestyle.
6. Ensure integrative planning and design in the university by integrating disciplines, engaging stakeholders, incorporating gender-sensitive, climate-smart and green infrastructure designs and coordinating academic development.
7. Preserve the legacy of agricultural buildings, production areas and open spaces that reflect the university's historical and cultural heritage.



## **B. Development Concept and Structure Plan**

In order to achieve its vision of becoming a world-class National Research University and simultaneously integrating the Regional Development Plan 2017-2022 of expanding economic opportunities in agriculture and fisheries, Central Luzon State University shall adopt a sustainable and integrative growth framework.

### *Academic Facilities*

Additional space for academic structures and facilities are allocated to the existing areas to meet the current and projected needs.

### *Research Areas*

The university shall be allocating more areas for research to test the agricultural breakthroughs on fields. This is mainly located at the western side of the university and along the Maharlika Highway around the vicinity of PhilSCAT.

### *Agricultural Production Areas*

CLSU shall preserve its crop production on the eastern part of the university or on the right side of national highway or main campus. This supports the location of the College of Agriculture, Agricultural Science and Technology School, and Center of Hydroponics and Aquaponics Technology.

### *Agro-industrial Areas*

Agro-industrial areas are designated within the agricultural areas. These consist of the mushroom, livestock (poultry, piggery, goat, carabao) and fisheries production areas.

### *Residential Areas*

The existing residential areas would be expanded for the housing of faculty and staff and dormitories of students living far from the campus. The Old Market would also be remodeled into a mixed use of residential and commercial, addressing the housing and basic needs of the students.

This would accommodate more CLSU constituents to live inside the campus, which is safer, more economical and more convenient for working and studying. Although the CLSU Village is no longer under the management of the administration, one (1) hectare is allotted for student dormitory, as per Proclamation No. 182 of 2002.





### *Commercial Areas*

The commercialization of the CLSU-developed technologies would be promoted by allocating areas for the Edutourism Hub or commercial area to showcase CLSU products at the Old NIA compound. This would also be an avenue for realizing the internationalization efforts of the university. Well-designed poultry and piggery would be located at the Sawmill area. The Marketing Center would be developed into a full-blown business district, catering both the CLSU and non-CLSU people.

### *Parks*

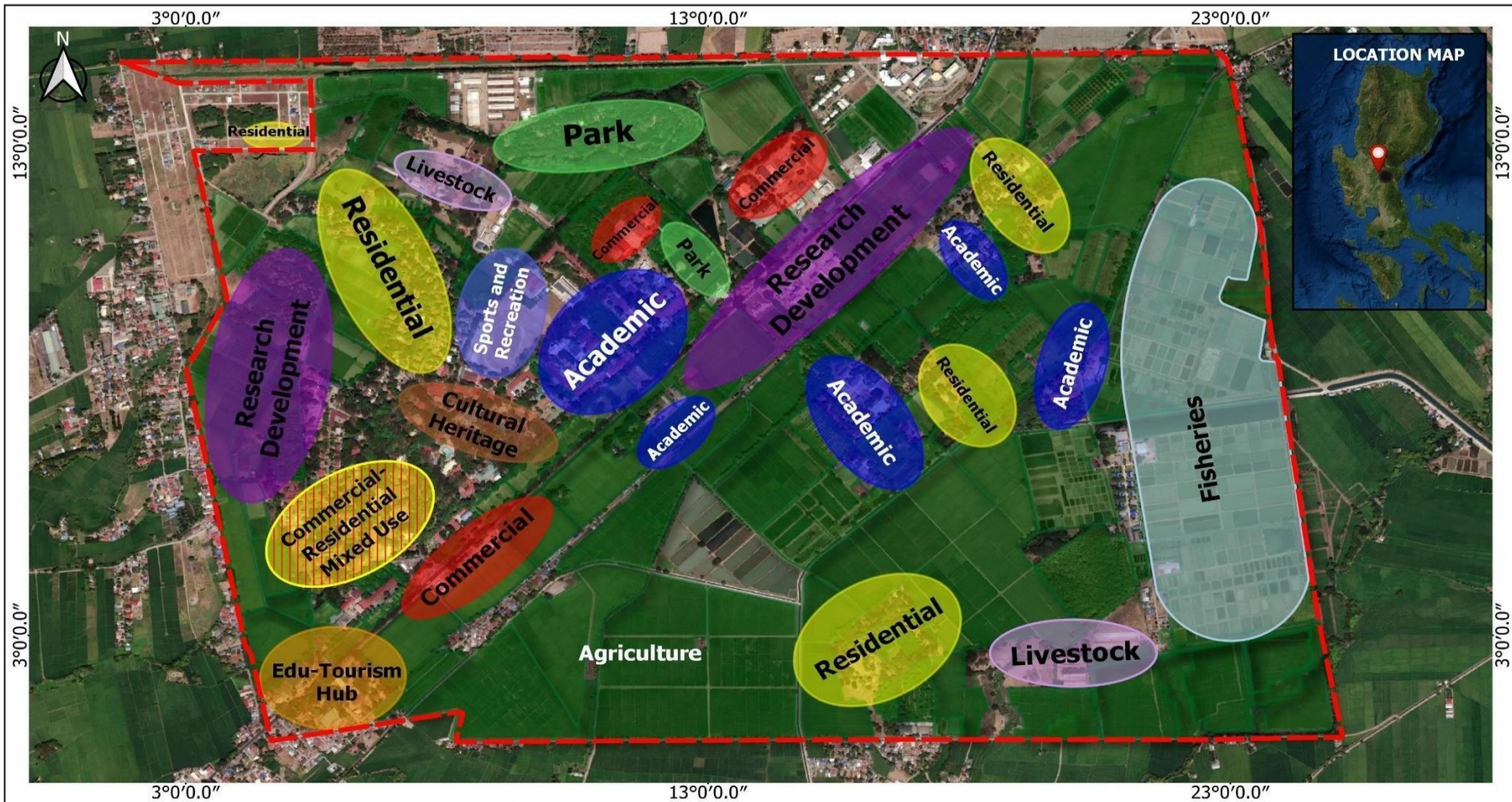
The Lingap Kalikasan Park would be an avenue to enrich the floral and faunal biodiversity of the university, allowing more green space and simultaneously meet the psychosocial needs of CLSU constituents. Eco-tourism, as it is, can generate income from the tourists and life-long learners. Baywatch area is also a good potential for a recreational area, a fusion of man-made and natural beauty.

### *Cultural Heritage Site*

Having been founded in 1907, CLSU is rich in historical and cultural heritage. The area at the Executive Avenue from the Executive House of the first president, including the Post Office, Rizal Park, passing through the Auditorium, Reimer's Hall, Old Library Ruins and going to Dr. Pedro A. Abella Graduation Site, would be developed into a Memory Lane.

### *Sports and Recreation*

CLSU believes that a well-rounded individual is a productive citizen. It is on this premise that the university will be expanding its sports facilities at the current location.



**LAND USE DEVELOPMENT AND INFRASTRUCTURE PLAN, 2021-2031**

**Figure 38. Structure Development Plan of CLSU**

**LEGEND**

- Structure Development
- Academic Devt
- Commercial Devt
- Cultural Heritage Devt
- Park
- Residential Devt
- Research Devt
- Commercial-Residential Devt
- Sports Devt
- Tourism Devt
- Agricultural
- Fisheries
- Livestock

Scale: 1:15,000  
 0 0.25 0.5 km

Source:  
**Base Map and Location Map retrieved from ESRI Satellite**



Cental Luzon State University



Commision on Higher Education

would have a decrease of 11.36% or 70.95 hectares. This area would be allocated for the expansion of residential, institutional and commercial uses. In addition, the existing open area of 64.85 hectares would also be used for the expansion of those built-up uses.

The area of 25.10 hectares intended for research purposes is specifically allocated to ensure that the university will be able to achieve its vision.

Water use (rivers, fish ponds, and other water bodies) covers 109.94 hectares or 17.61% of the total area of the university. The road network in the university covers 27.90 hectares or 4.47% of the total land area. These uses will be retained as is.

### ***Proposed Detailed Land Use***

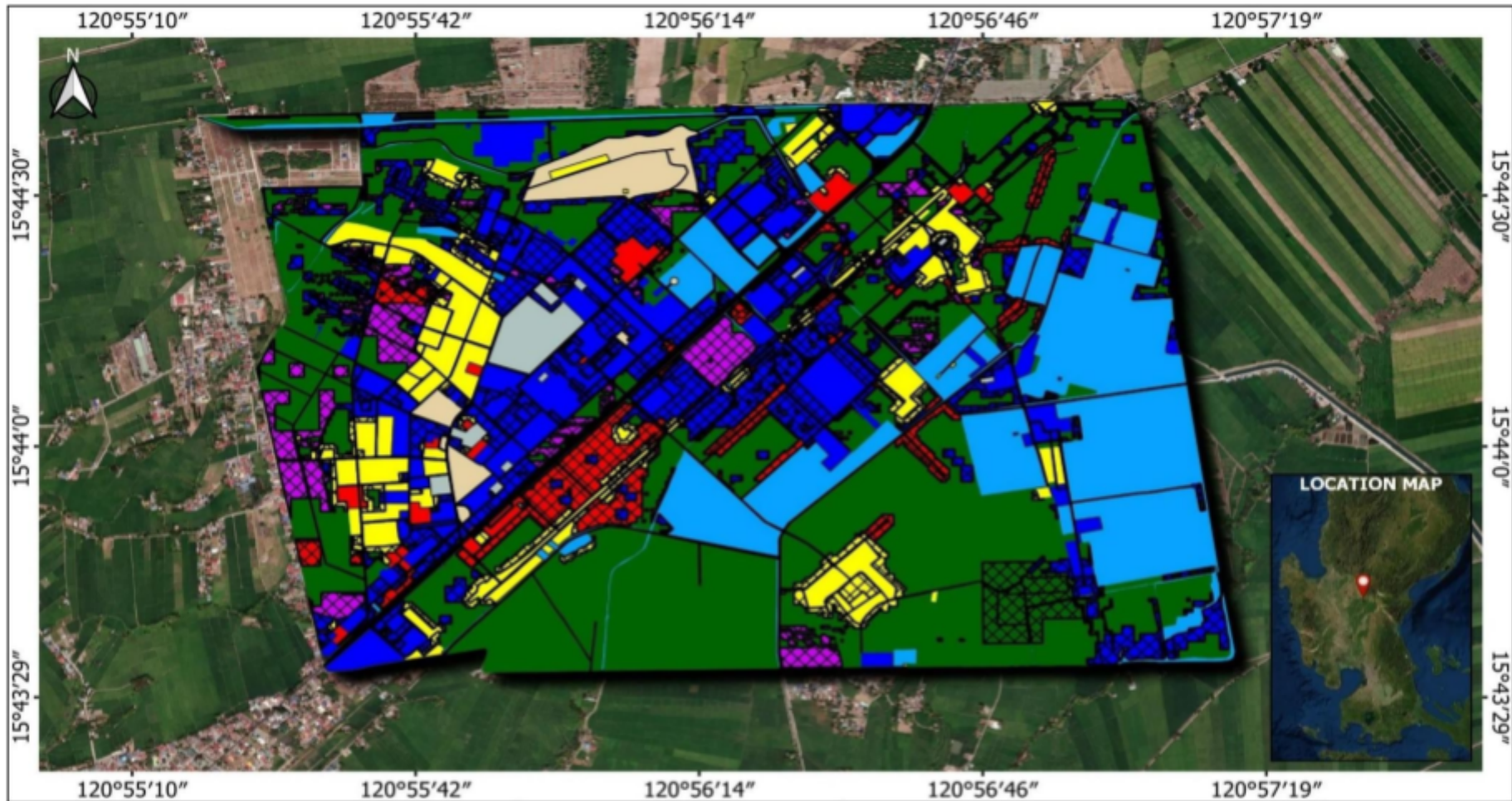
On the proposed detailed land use (**Figure 39**), the additional housing facilities for faculty and staff would be occupying 50 hectares. Whereas, the additional area for student dormitories covers 6.43 hectares. Another 1 hectare at the CLSU Village would be allotted to the student dormitory.

Expansion of existing commercial areas of CLSU would be occupying 23.64 hectares. Aside from that, the proposed New Community Market would cover 0.28 hectare. The NIA compound would be converted into an Education Tourism Hub, accounting to 2.11 hectares addition to the commercial area.

In terms of institutional use, the Center for Tropical Mushroom Research and Development would be relocated beside the Hydroponic Center, covering an area of 0.16 hectare. The proposed Memory Lane would be allocated 6.01 hectares. Area for the material recovery facility would need 0.15 hectare. Other academic and administrative buildings would be allocated with an additional 64.63 hectares to the existing 55.27 hectares.

The area that would be devoted to rice would be 137.26 hectares. Other important crops, such as soybean, tomato, sunflower, corn and cowpea, may occupy 16 hectares each allocated where they are most suitable. Crop rotations may be practiced in all those assigned agricultural areas. Livestock production, on the other hand, would cover 5.72 hectares, located at the Sawmill.

Green space covers an area of 69.74 hectares which include the Lingap Kalikasan Park and the areas in between other land uses (**Figure 40**)



**LAND USE DEVELOPMENT AND INFRASTRUCTURE PLAN, 2021-2031**

**Figure 38. Proposed General Land Use**

Source:  
**Base Map and Location Map retrieved from ESRI Satellite**

**LEGEND**

- Commercial
- Institutional
- Residential
- Parks
- Sports and Recreation
- Water
- Roads
- Agricultural
- Additional Research
- Additional Institutional
- Additional Livestocks
- Additional Commercial
- Additional Residential

Scale:

1:15,000

0 0.2 0.4 km



Central Luzon State University



Commission on Higher Education



### III. LAND USE POLICIES

#### A. Zoning Policies

1. **Zones.** The Central Luzon State University adopts the hereunder classification for zoning purposes:
  - a. Residential
  - b. Commercial
  - c. Institutional
  - d. Agricultural
  - e. Water
  - f. Roads
  - g. Research
  - h. Green Space

These zones, including the specific areas they cover, are pursuant to the classification provided in the detailed land use plan of the University (Figure 39).

2. **Allowable Uses.** The University and its authorized representatives must observe that the activities in each zone, including all infrastructure development activities that will be instituted in the University reservation, must strictly be congruent with the intended land use of such zone as contained in the CLSU LUDIP and as allowed by all relevant government issuances.
  - a. Regulations in Residential Zones
    - Residential zones shall be used for housing/dwelling purposes only;
    - Student dormitories may comprise new extensions to existing buildings or new building blocks or may be constructed to the allowed spaces within the residential zones and shall observe the following development guidelines:
      - Each student dormitory that will be constructed shall be a two or three storey mid-rise building.
      - There shall be a sufficient space for communal facilities, greenery, and landscaping within the development.
  - b. Regulations in Commercial Zones
    - To provide basic amenities to the faculty, staff, and students at the University, commercial establishments can be developed in the identified commercial zones and may include office buildings, grocery and convenience stores,



convention/exhibition centers, tourism centers, market and food centers, banking halls/ATMs, mini marts, fitness center/gyms, private medical clinics, and entertainment and trade missions. All commercial buildings shall provide parking areas for motor vehicles, covered walkways along the periphery of the building facing roads and pedestrian routes.

c. Regulations in Institutional Areas

Educational and non-educational facilities like classrooms, faculty rooms, lecture and laboratory rooms, training center facilities, activity halls, multi-media centers, conference rooms, administrative buildings, sports and recreation facilities, and infirmary are zoned “Institutional” in the LUDIP. New institutional buildings/facilities shall be allowed on sites zoned “Institutional” only and shall observe the following development guidelines:

- The proposed building establishment shall have at least three storeys to save space.
- Additional health facility development shall take into consideration the uses of the adjacent areas/buildings.
- There shall be a provision for convenient and direct access to nearby public transport facilities.
- There shall be a provision for barrier-free access and routes for children, elderly, and persons with disabilities.
- Parking lots for motor vehicles and bicycle parking spaces shall be provided in the plan.
- There shall be a provision for an open space suitably located within the proposed development, such that it is conveniently accessible to the public.
- Vegetations along the roads are to be saved and conserved, if possible.

d. Regulations in Agricultural Areas

Agriculture uses comprising rice areas, non-rice areas (vegetables, plant nurseries, etc.), and orchards are generally zoned “Agriculture” in the LUDIP. Crops and livestock production shall be allowed in the designated areas only.

- Livestock farming is allowed and shall be in agricultural zones provided that:
  - The location shall conform to the CLSU LUDIP.



- The building shall be constructed in an east-west orientation and the structure for marketable animals shall be located near the service road.
  - The site shall be located where the prevailing winds will not carry odors to built-up areas (residential, institutional, and commercial).
    - For small scale farms, the minimum distance from built-up areas shall be 500 meters.
    - For large scale farms, the minimum distance from built-up areas shall be 1000 meters.
- e. Regulations in Green Space
- Green space shall be retained pursuant to the classification provided in the green space of the University (Figure 40).
- f. Regulations in Research Areas
- New developments for agriculture research/ experimental stations shall be allowed in the designated research zone only pursuant to the CLSU LUDIP.
3. **Infrastructure Projects.** Each infrastructure project in the University must first be approved by the CLSU Board of Regents who shall validate its compliance with the CLSU LUDIP, National Building Code, Republic Act No. 9184 (Government Procurement Reform Act) and its Implementing Rules and Regulations, and CHED en Banc Resolution No. 229-2018.
4. **Usufruct/Lease Contract.** Agreements of this sort entered into by the University must fully comply with the detailed land use plan of the University. The University Business Affairs Program (UBAP) must at all times keep an up-to-date schedule of rental fees which are based on the prevailing zonal valuation by the National Economic and Development Authority; Local Government Unit of Science City of Muñoz, Nueva Ecija; and different financial institutions in the area.