



UNIVERSITY OF THE PHILIPPINES LOS BAÑOS
ACCOMPLISHMENT REPORT
ON KEY INITIATIVES
2017-2020



University of the Philippines Los Baños
ACCOMPLISHMENT REPORT ON KEY INITIATIVES

November 2017-July 2020

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INTRODUCTION



“Make no little plans; they have no magic to stir men`s blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency.”

-Daniel Burnham, Architect and Urban Planner



In October 2014, I prepared my end-of-term report Make No Little Plans for UPLB as UPLB’s outgoing vice chancellor for planning and development without knowing that I would later find myself appointed as UPLB’s chancellor twice and lead UPLB in achieving meaningful endeavors as well as pursuing important ambitious plans. Now, I come full circle to give a report on what UPLB has achieved during my second term as chancellor.

Guided by the vision to transform UPLB into a globally competitive research and graduate university contributing to national development, this report highlights the accomplishments that my team and I have achieved: 1) sustaining UPLB’s academic excellence and leadership, 2) utilizing UPLB’s knowledge and technologies towards inclusive growth, and 3) creating an enabling environment for creativity and innovation in UPLB. These three goals

have served UPLB well and have guided us to carry out important ventures that are vital to UPLB's current and future development.

As someone who spent nine years heavily involved in the UPLB campus' physical development prior to becoming chancellor, I knew very well the importance and urgency of creating an enabling environment for UPLB's faculty members, REPS, administrative staff, and students. That is why when I became chancellor, I made it a point to strive to transform UPLB into an environment where members of the UPLB community can truly pursue their professional and personal development.

However, the work of creating such an environment eventually chafed against budget constraints. Our administration therefore put focus on generating funds. We found resources that enabled us to construct and renovate buildings and facilities as well as purchase equipment to support UPLB's various instruction, research, and public service activities. We also sought to build and strengthen international linkages that allowed us to gain access to resources that were otherwise unavailable to UPLB.

As part of our team, our vice chancellors, directors, and deans played key roles in this endeavor. UPLB has found supporters in the public and private sectors and in the UP System administration. With the leadership and guidance of former UP President Alfredo E. Pascual and of current UP President Hon. Danilo L. Concepcion, we steered UPLB to where it is today.

Today, UPLB is a higher education institution that, as a part of One UP, contributes significantly to UP's progressively improving ranking among world universities. It is a valued partner of international universities, R&D institutions, and government agencies, and it is a leader in research and public service in agriculture, forestry, environmental science, engineering, biotechnology, and veterinary science.

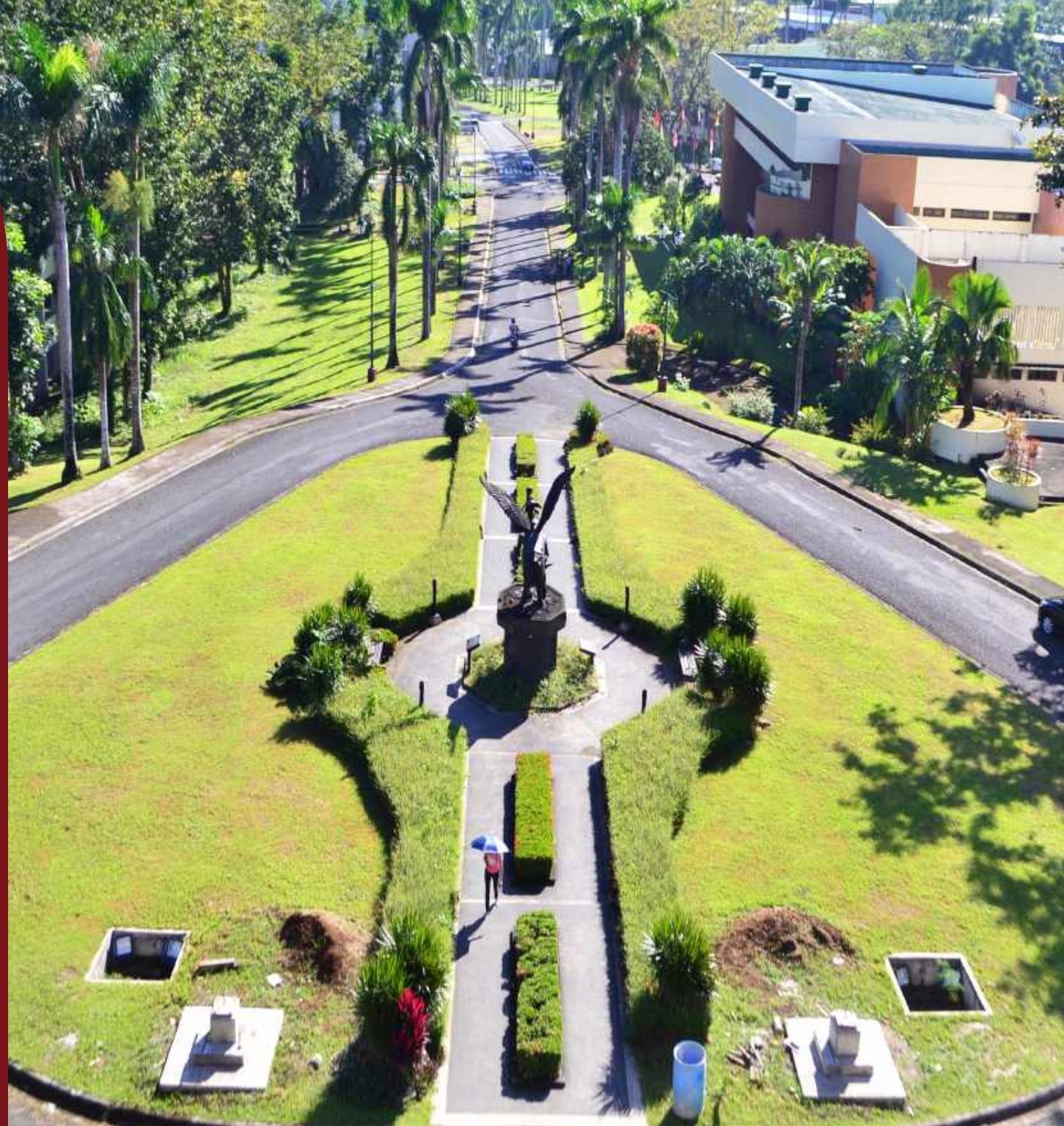
My plans for UPLB are anything but little. This report presents what these plans have enabled UPLB to become and paints a picture of what more it can achieve in the future.



FERNANDO C. SANCHEZ, JR., Ph.D.
Chancellor



SUSTAINING ACADEMIC EXCELLENCE AND RELEVANCE





NEW CURRICULA FOR A NEW ACADEMIC ERA

The opening of Academic Year 2018-2019 marked a new academic era for UPLB.

When it welcomed 2,532 new freshmen in August 2018, the university was prepared to implement the K to 12 Basic Education Program with the revision of its 28 undergraduate curricula.

Getting to this point took years and a lot of hard work.

Beginning in September 2015, the University Council (UC) Curriculum Committee and its counterpart in eight colleges, took care of the meticulous task of revising the curricular programs.

The outputs were subsequently scrutinized by the UC Executive Committee at a workshop on April 12-14, 2018 and then at marathon meetings in UPLB on May 21-22, 2018.

After the UC approved the revised curricula, Chancellor Fernando C. Sanchez, Jr. submitted these

for approval by the UP Board of Regents.

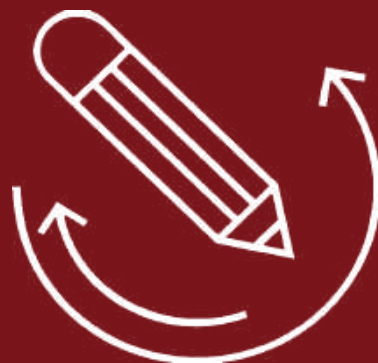
Curricular revisions were generally directed towards increasing the university's capability to produce globally competitive graduates. There was much latitude to do this as some general education subjects had been downloaded to senior high school.

In UPLB, the number of GE courses was cut down from 45 to 27 units.

This enabled the university to institute new courses and add degree requirements toward the ideals of learner-centered education.

"We instituted courses to respond to recent developments in the discipline, so that our graduates will be able to realize the outcomes and competencies that new developments in the disciplines have ushered in," Dr. Lapitan explained. With this, each college strengthened the technical and professional courses in their degree programs.

The fruits of the university's labor is a legacy as far as the people whose hard work went into the process is concerned. One that is well-thought of and well-planned to produce the knowledge leaders of the future. *(Mark Jayson E. Gloria)*



Degree program revisions:

- For engineering courses, choice from among three research options: undergraduate thesis, innovationeering, or engineering industry research (EIR)
- More courses in entrepreneurship and management
- Courses in ethics, law, and moral reasoning were instituted
- Added new tracks in environment, natural resources, food and nutrition, and food quality assurance
- Addition of courses in areas such as data science and knowledge management
- All degree programs require thesis and internship/practicum or field practice





669
OBE-trained
faculty members

ENSURING LEARNER-CENTERED EDUCATION

UPLB had a monumental task to revise its degree programs when the K to 12 Program was implemented in 2012.

From 2015 to 2017, the University Curriculum Committee held Monday meetings to review UPLB's 28 curricular degree programs for K to 12 alignment. These were approved by the University Council after its Executive Committee subjected the curricular revision proposals to rounds of scrutiny.

And because it was strategic to pursue a parallel initiative to adopt outcomes-based education (OBE) in its curricular programs, the Office of the Vice Chancellor for Academic Affairs (OVCAA) took on the challenge of leading the faculty in both undertakings.

Thus, after the curricular revisions were approved, on May 24-July 3, 2018, OVCAA led marathon sessions of the "UPLB Faculty Learning-Workshop on Designing Curriculum through Outcomes-Based Education" for faculty members as part of an overall campaign of the university to aim for global competitiveness as a higher education institution (HEI).

A second cycle held on November 19, 2018 for the newly hired and those who missed the earlier workshop brought the total number of OBE-trained faculty members to 669. For the new faculty, the OBE training was in addition to the Seminar on Teaching (SoT), a prerequisite seminar held before they could begin teaching.

The OBE seminar-workshops aimed to inform and educate all faculty members and administrators on the science and art of curriculum design and teaching-learning in higher education via OBE. Following the seminar-workshops, OVCAA aims to assist the faculty in transforming their syllabus based on the OBE philosophy.

Serving as OBE seminar-workshop resource person was Dr. Greg Tabios Pawilen, a curriculum studies and development expert who teaches at the Department of Human and Family Development Studies at the College of Human Ecology in UPLB. (*Kristine E. Araguas*)



HONING PERCEPTIVE MENTORS



HITSS Topics

- Learner characteristics & needs
- Technology-based learning
- Innovation & creativity in teaching
- Experiential learning
- Mental health (for HITSS 2 only)

“I am now more guarded on what I say to students. I have become more conscious and careful in dealing with them, whether in class or during consultation,” said Dr. Sherry Marasigan, a faculty member at the Agricultural Systems Institute. This transformation came after she heard the talk of Dr. Salvador Benjamin Vista on mental health at the Honing Innovative Teaching-Learning Skills Seminar 2 (HITSS 2).

Dr. Vista is a faculty member at the UP College of Medicine who discussed mental health, which was added to the seminar topics at HITSS 2 on Nov. 5-7, 2018 at the Development Academy of the Philippines in Tagaytay City.

In his lecture, Dr. Vista urged the participants to “see” or look beyond the students’ behavior, talk to the students gently about their poor scholastic performance, and make them feel safe and secure.

“I always ask myself – ‘What could have been done to prevent these young ones from going so deep into depression and addiction’ – because these are the two epidemics that plague our country today,” Dr. Vista said.

Dr. Vista chairs the Asian Hospital and Medical Center’s Department of Psychiatry and is chief psychiatrist at St. Luke’s Medical Center Extension Clinic. He commended the organizers for including a topic on mental health.

HITSS 2, and its forerunner, HITSS 1, also covered students’ learning characteristics and needs, technology-based learning, innovation, creativity in teaching, and experiential learning.

Amid all the strategies and techniques that were presented in HITSS 2, love for teaching and for students surfaced as the strong foundations for

delivering quality education. “Whether you are going to infuse technology or not, that’s okay as long as you love and enjoy what you do,” said speaker Dr. Trixie Marie Sison, dean of the College of Education of Miriam College.

For Dr. Marasigan, HITSS 2 reinforced the value of sending her students, most of them taking BS Agriculture and BA Sociology, to field work in rural communities, an experiential activity that enriches their learning in rural sociology.

Student-centered learning such as this enables students to experience things that otherwise, they only encounter in their readings.

Certainly, HITSS 2 has not only taught her to be creative in using different teaching approaches, it also made her more sensitive and perceptive to the needs of her students. *(Mark Jayson E. Gloria)*



ESTABLISHING INTERNAL QUALITY ASSESSMENT IN THE UNIVERSITY

UPLB has taken a major step to pursue quality assurance by creating the Academic Assessment and Development Unit (AADU) after its approval by the Board of Regents on 03 December 2018.

AADU was first headed by its founding director, Dr. Jezie A. Acorda, before he was appointed dean of the College of Veterinary Medicine. Now, its head is Dr. Nina M. Cadiz who is one of only four ASEAN assessors from the UP System. AADU will systematically look after UPLB's quality assurance, internal assessment, and the accompanying process development, database management, and documentation.

AADU will lead the initiative to come up with a systematic way to monitor and measure the achievements of UPLB based on the strategic objectives, long- and short-term action plans, and key indicators for the vision and goals it identified.

TIER	TRAINING COURSE TITLE	UPLB FACULTY MEMBERS/ASSESSORS
TIER 3	AUN-QA Training Course for Accomplishing Institutional Assessment	Dr. Nina M. Cadiz Dr. Serlie B. Jamias
TIER 2	Assessors Training Workshop for AUN-QA Programme Assessment	Dr. Nina M. Cadiz Dr. Serlie B. Jamias Dr. Portia G. Lapitan Dr. Jose V. Camacho, Jr.
TIER 1	AUN-QA Training Course for Accomplishing Programme Assessment	Dr. Nina M. Cadiz Dr. Serlie B. Jamias Dr. Portia G. Lapitan Dr. Jose V. Camacho, Jr. Dr. Jezie A. Acorda Dr. Myra G. Borines Dr. Tonette P. Laude Dr. Greg T. Paliwen
	Local Training Course for Accomplishing Programme Assessment	11 College/School Coordinators

Dr. Cadiz was the director of the College of Arts and Sciences-Institute of Biological Sciences when its BS Biology program earned certification as an accredited program under the ASEAN University Network-Quality Assurance (AUN-QA).

BS Biology is the first ever program in UPLB to receive AUN-QA certification followed by the BS Agricultural and Biosystems Engineering, BS Agriculture, BS Forestry, and BS Development Communication.

According to Dr. Portia G. Lapitan, vice chancellor for academic affairs, the AADU will respond to the need for UPLB to formulate its global quality

concept, a need which was highlighted in the internal quality assessment of UPLB as a higher education institution conducted by the European Union Support to Higher Education in the ASEAN Region (EU-SHARE) on 05-06 February 2018.

Dr. Lapitan led the team that prepared UPLB for the EU- SHARE assessment.

While UPLB should focus on globally benchmarked ideals, it should also subscribe to internal institutional indicators to ensure that the Filipinos are the beneficiaries of technological and knowledge products developed by UPLB. *(Josephine M. Bo)*



POSTGRADUATE STUDENT OUTCOMES

SETTING THE STANDARDS FOR POSTGRAD STUDENT OUTCOMES

In the postgraduate arena, the university continues to review, improve, and develop postgraduate degree programs.

To guide the faculty in this undertaking, it drew up postgraduate program outcomes for both the masters and doctoral levels. What should one expect of a person who finishes a postgraduate degree at UPLB?

MASTER'S GRADUATES

- are at the forefront in demonstrating knowledge and skills in their field;
- have critical and independent thinking skills in specialized and multidisciplinary research, and in extending or redefining knowledge or practice;
- apply knowledge and skills in complex and unpredictable contexts as well as develop and test innovative solutions; and
- use their expert judgment and significant responsibility for professional knowledge, practice, and management

Graduate faculty members drew up the program outcomes that will guide in the review and development of postgraduate degree programs at the Graduate

DOCTORATE GRADUATES

- are equipped with knowledge and skills at the most advanced levels and at the frontier of their field;
- think independently and originally on specialized and complex multidisciplinary research to promote the creation of new knowledge or practice;
- apply knowledge and skills in highly advanced contexts and in the development and testing of new theories and new solutions to resolve complex and abstract issues; and
- are authoritative and exhibit expert judgment in managing research or an organization, and are equipped with significant responsibility in extending professional knowledge and practice

Program Innovation Workshop on 22-23 March 2019 at the Lighthouse Marina Resort in the Subic Freeport Zone in Subic, Zambales. (*Josephine M. Bo*)



BUILDING INTELLECTUAL CAPITAL BEYOND ITS WALLS

The past years have seen how UPLB intensified the offering of graduate programs in new modalities to respond to both global competitiveness and local relevance.

UP PSAE

In 2016, UPLB set up the UP Professional School for Agriculture and the Environment (UP PSAE) in Panabo City, Davao del Norte, in Mindanao, the “heart of the center of agriculture in the country.”

UP PSAE aims to fill the need for professionals in agriculture, fisheries, and forestry who could help sustain the huge outputs of Mindanao in these sectors.

It will set up its home at Agriya City, a fully functioning community with residential, commercial, institutional, and recreation components, a flagship project of Damosa Land of Anflo Management and Investment Corporation (ANFLOCOR) that is the donor of both the UP PSAE land and buildings.

UP PSAE currently offers postgraduate programs in environmental science.

OFF-CAMPUS PROGRAMS

Before the UP PSAE’s establishment, UPLB had already been offering graduate programs off-campus in partnership with UP Mindanao and UP Cebu.

In the recent years, it offered more off-campus programs in partnership with government agencies. Among these are MS programs in entomology, development communication, natural resources conservation, development management and governance, and business management and entrepreneurship.

Currently in the works is a postgraduate program on finance and taxation to be implemented with the Department of Finance.

COLLABORATIVE PROGRAMS

In 2015, UPLB, UP Visayas, and UP Diliman offered the Professional Masters in Tropical Marine Ecosystems Management (PM-TMEM). PM-TMEM builds the capacity of on-the-job environmental managers in managing marine-protected areas through a multidisciplinary and integrated systems approach.

PM-TMEM taps the multidisciplinary expertise and vast experience of faculty in established programs in UP Diliman’s Marine Science Institute, UP Visayas’ Institute of Fisheries Policy and Development Studies, and UPLB’s School of Environmental Science and Management and College of Forestry and Natural Resources.

UPLB is a partner in offering MS in Food Security and Climate Change (MS FSCC) with the University Consortium for Graduate Education in Agriculture and Natural Resources. Funded by the European Commission’s ERASMUS + Capacity Building for Higher Education, MS FSCC is offered by Kasetsart University, Universiti Putra

Malaysia, Institut Pertanian Bogor, Universitas Gajah Mada, and UPLB.

The MS FSCC takes a holistic approach to studying food security and climate change with the student being exposed to expert knowledge and cultural perspective, supervised by advisers from two universities in Southeast Asia.

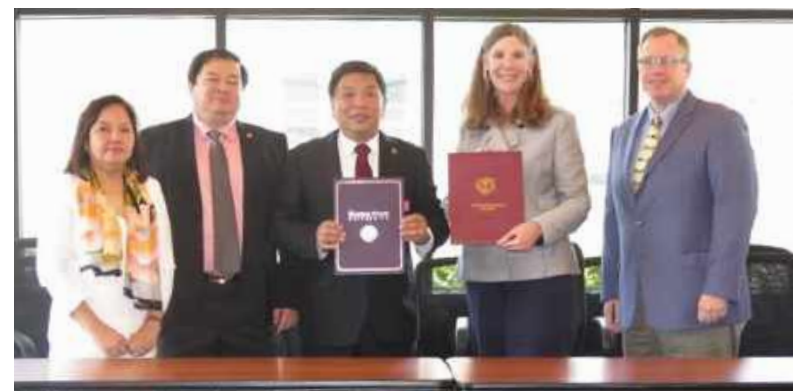
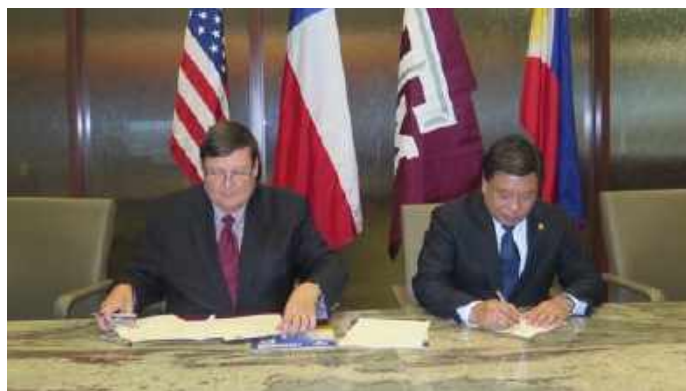
DUAL PhD BY RESEARCH

The Dual PhD by Research is the first of its kind to be approved in the UP System. UPLB is now implementing it with the University of Reading (UK), and later with University of Liverpool (UK), Curtin University (Australia), and UP Mindanao.

Its students receive double degrees from UPLB and from the partner university, which is aimed at providing Filipinos access to niche courses in the latter. This program is made available through the Joint Development of Niche Programs under the partnership of the Commission on Higher Education and the British Council.

NAGOYA UNIVERSITY IN UPLB

UPLB is the only Philippine HEI that hosts a Nagoya University Asian Satellite Campus (NUASC) and one of only eight host-partner countries in the world. Since 2015, NUASC has offered the Transnational Doctoral Programs for Leading Professionals in Asian Countries in the fields of international development and bioagricultural sciences. *(Josephine M. Bo)*







ESTABLISHING GLOBAL PARTNERSHIPS

Establishing partnerships with local and international HEIs enable the conduct of collaborative activities and sharing of resources. As of 2019, UPLB has inked partnerships with 121 universities in 29 countries, as well as with numerous local partners.

The ability to help build knowledge capital in the country rests securely on these linkages. These agreements enabled UPLB to field scholars in various host institutions and accommodate foreign scholars, as well, for long- and short-term study, internship, or visit programs.

UPLB aspired to increase its collaborative undertakings with prestigious universities in Europe through bilateral and multilateral academic and research agreements. For instance, in 2018, academic partnerships and joint researches focusing on issues like food security were established with the French Agricultural, Veterinary and Forestry Institute or Agreenium.

Agreenium with its 15 HEIs and four research institutes signed an agreement to collaborate with UPLB toward student and staff mobility, implementation of joint and dual PhD programs, capacity building activities, and collaborative researches.

Another partnership is with AgroParisTech, which ranks third in Europe and ninth worldwide in the 2017 QS ranking in Agriculture and Forestry. It has 130 partner universities worldwide and UPLB is only its fourth partner university in Asia. AgroParisTech's Doctoral Schools offers a wide range of PhD programs.

UPLB aims to build more of these collaborative partnerships as the way to access resources that are not easily available. (*Josephine M. Bo*)



SEARCA

SEARCA University Consortium

- Universitas Gadjah Mada, Indonesia
- Institut Pertanian Bogor, Indonesia
- Kasetsart University, Thailand
- Universiti Putra Malaysia
- Tokyo University of Agriculture, Japan
- Georg-August University of Göttingen, Germany
- University of British Columbia, Canada

東京農業大学
TOKYO UNIVERSITY OF AGRICULTURE



UPLB RESIDENTS, GLOBAL CITIZENS

“It’s a fact that in this world, we are no longer citizens of a nation but citizens of the world. Therefore, education should really aim for providing students competency and skills that will make them global citizens.”

This was how Dr. Portia G. Lapitan, vice chancellor for academic affairs, articulated the importance of internationalization to the university.

The past five years have seen the university continuously sending highly qualified students and staff to universities abroad for their intellectual and professional growth. All of these are anchored on UPLB’s partnership with 121 universities across 29 countries in five continents.

In-charge of overseeing this growing global network is the Office of International Linkages (OIL) under the

Office of the Chancellor, with the help of colleges and other offices.

Through memoranda of understanding and memoranda of agreement with partner universities, UPLB entered into mutually beneficial endeavors, such as collaborative researches, capacity building, and student and faculty exchanges.

From August 2014 to December 2019, UPLB sent 113 students as “outbound” exchange students to 29 universities in 14 countries around the world. One such student was Dick DP. Del Rosario, BS Human Ecology, who went to the University of Oviedo in Spain from January to July 2018.

“The best thing about being an exchange student is everything that comes with it. I’ve been able to gain

so much confidence in decision-making and social and linguistic abilities,” said Del Rosario, who studied sociology of work and labour relations, fundamentals of marketing, human resource management, and corporate finance.

“As an exchange student, you develop academic and social skills that are important in your career. You meet new people, live in a completely different environment, and deal with cultural and educational differences,” he added.

Dr. Simplicio M. Medina, director of OIL, said that the exchange students’ exposure to different cultures is important. “It gives our students the opportunity to see other parts of the world,” he said. “It allows our students to gain new knowledge and perspectives that can be of help to their overall growth as UP students.”

August 2014-December 2019 Exchange Students

113 outbound students
29 universities in **14** countries

.....

137 inbound students
32 universities in **12** countries



UPLB's exchange students are the university's "ambassadors" for its internationalization program, Dr. Medina added. "An enhanced student exchange program indicates that UPLB has the capacity to send and receive students, and is a reliable partner. It serves as a catalyst for us to become and be considered a globally competitive graduate and research university," he explained.

The two-way student exchange process has also enabled UPLB to receive 137 "inbound" students—foreign learners from 32 universities across 12 countries—who studied at UPLB for at least one semester from November 2014 to December 2019.

Meanwhile, the university continues to explore new frontiers to develop global citizens not only among its students, but also its academic staff. With the Graduate School (GS) at the lead, UPLB has collaborated with topnotch global universities for graduate programs that respond to the needs of the times.

UPLB now offers Dual PhD by Research programs in partnership with the University of Reading (UoR) in the United Kingdom (UK), University of Liverpool, also in UK, Curtin University in Australia, and UP Mindanao.

So far, UPLB has started sending UPLB faculty members and researchers to pursue the said degree at UoR, with funding support from the Transnational Education-Joint Development of Niche Programs (TNE-JDNP) of the Commission on Higher Education (CHED).

Two of these seven scholars are Aldo T. Lim, an assistant professor at the College of Development Communication (DevCom) who is pursuing PhD by Research in DevCom in UPLB and PhD by Research in World Development in UoR, and Guinevere T. Madlangbayan, a university researcher at the College of Public Affairs and Development who is taking up PhD by Research in Agricultural Economics in UPLB

and PhD by Research in International and Rural Development, also in UoR.

Dr. Jose V. Camacho, dean of GS, said that this undertaking with UoR leads to more collaborative activities. "With this partnership, we are also able to enlist the support of the UK-based faculty members to become our visiting professors, and therefore boost the internationalization program of the university," he explained.

With all these opportunities opening up, more students, teachers, and staff from UPLB truly become global citizens. They are scholars and fellows who experience the best there is in foreign countries, so they could return to their native land with new learnings to share to their fellow Filipinos. *(Mark Jayson E. Gloria, with reports from John Glen S. Sarol)*

UPLB 4.0 AND ADVOCATING THE FOOD SYSTEMS APPROACH

As one of the Philippines' leading academic and research institutions in agriculture, UPLB has made food security its priority and has embarked on a mission to promote food and nutrition security through research and education. To carry out this mission, UPLB is taking steps towards realizing UPLB 4.0.

UPLB 4.0 is a vision to develop and harness smart, efficient, climate-responsive, sustainable, and accessible solutions concerning three major research and development areas: food, water, and energy—components that also directly respond to the United Nations' Sustainable Development Goals.

UPLB 4.0 is also a step forward towards actively diversifying and developing UPLB's competence and capacity in doing research in various fields of science, encouraging further interdisciplinary collaboration and participation among UPLB's various academic and research units. It is also an endeavor that aims to better engage the public and concerned stakeholders towards understanding technologies, contextualizing

problems and solutions, as well as developing informed policies.

One of the major components of UPLB 4.0 is the advocacy and implementation of a food systems approach to address the country's food and nutrition security concerns.

Food Systems, as defined by the FAO-UN, "encompasses the entire range of activities, people, and institutions involved in the production, processing, marketing, consumption, and disposal of food." It is composed of four subsystems: food production; food handling, storage, and processing; food trade and marketing, and consumer demand; and food preparation and preferences.

To help address some of the challenges in the country's food system, the university created the UPLB Operational Framework for Food Security. This university-wide operational framework aligns the instruction, research and development, as well as the public service functions of various UPLB units along the value chain. The operational framework also

highlights the complementary relationship between degree-granting academic and research institutes and research centers of the university as well as the recent re-structuring of UPLB's College of Agriculture and Food Science.

To further complement its food systems approach activities, UPLB will also be establishing, in the near future, the Center for Food Law and Policy. This is to encourage and allow lawmakers and professionals, who are well versed in a broad range of legal and policy issues about food supply systems, to be directly involved in the development of food law and policy. It will also serve as a resource center and a public service arm of the university in providing technical assistance to its stakeholders.

This move is a solid endeavor from UPLB to significantly make its mark in crafting relevant and timely food laws and policies for the improvement or enhancement of the country's food systems. *(Loise Anne C. Aquino)*



**PROMOTING
THE USE OF
KNOWLEDGE
AND
TECHNOLOGIES
TO HELP
ATTAIN INCLUSIVE
GROWTH**



CREATING NICHEs IN R&D AREAs

UPLB created virtual interdisciplinary studies centers (IDSC) in the quest to make research, development, and extension (RDE) programs holistic, inclusive, and more responsive and relevant to complex development concerns. The IDSCs provide a venue for UPLB scientists and researchers coming from multi-disciplines to pursue R&D, as well as, establish linkages and networks to facilitate collaborative undertakings with local and international R&D entities in the field.

Their creation began through the leadership of the then chancellors, Dr. Luis Rey I. Velasco and Dr. Rex Victor O. Cruz. Some of them were identified based on growth areas on which collaborative work is needed. Others had existed and established niches in their expertise but were urged to step up and foster inter- and trans-disciplinary research.

In 2017 and in response to emerging challenges, Chancellor Fernando C. Sanchez, Jr. created three of the 13 IDSCs, namely, on water, life cycle assessment, and biosensors for One Health.

HELPING AVERT A WATER CRISIS

The IDSC for Water or Water Center is tasked to conduct holistic inter- and transdisciplinary RDE programs toward secure water resources in the country.

The Water Center has three flagship projects under research and development. These are "Ridge-to-reef disaster risk and climate change impact assessment of floods and droughts in the agricultural sector of Angat Watershed, Philippines," and "Hydro-geological

assessment of Mt. Iraya watershed in Basco, Batanes" funded by the Forest Foundation Philippines. Both are being led by Dr. Patricia Ann J. Sanchez, chair of the Water Center.

The third, "Assessing the resurgent irrigation development program in the Philippines" funded by the Philippine Institute for Development Studies is being led by Professor Emeritus Agnes C. Rola of the College of Public Affairs and Development.

The Water Center held a five-part water forum series in 2018-2019 and the 1st National Scientific Conference on Water on Nov. 7-9, 2019 to identify research gaps toward an integrated approach in water resource management and sustainable water security for all.

REDUCING ENVIRONMENTAL FOOTPRINT

With the threats brought by climate change, the Interdisciplinary Life Cycle Assessment Laboratory (ILCAL) is taking a closer look at the environmental footprint of a product in its lifecycle—from production to disposal, from inputs and outputs—to reveal how its impact on the environment can be reduced.

Knowing the environmental footprint of a commodity can inform government and private institutions about solutions to lessen its harmful impact on the environment and development of environment-friendly products in the market.

Currently, ILCAL is facilitating projects on agricultural water allocation and management, abaca fiber, biodiesel from coconut oil, bioethanol, and swine production.

Once ILCAL's projects are completed, the team plans to engage and help policymakers and the government formulate policies on environmental sustainability.

MOVING WITH THE FUTURE IN DIAGNOSTICS

Past diagnostic equipment and protocols required large amounts of resources and time. Recent innovations, however, have made them faster, cheaper, and easier to undertake and it is because of biosensors.

Biosensors use living organisms to learn more about the condition of another organism. Imagine monitoring the presence of a pathogen in a farm by observing the changes in the environment and the surrounding non-agricultural wildlife. It can be the condition of birds or the reactions of certain microorganisms in the soil. Biosensors are therefore safer for the environment and for other organisms because it uses less hazardous materials.

This is the new future of diagnostics that UPLB aims to carve a niche in through the IDSC on Biosensors for One Health. This IDSC aims to monitor food and meat products, look into environmental degradation due to human activity, consumer and population studies, researches in food production and processing, postharvest handling, animal breeding, product tracking, and policy formulation. It will also develop devices that measure the reactions of biosensors. *(Regina Mae C. Ongkiko)*

Interdisciplinary Studies Centers

1. Food and Nutrition Security
2. Integrated Natural Resource and Environment Management
3. Climate Risk Studies
4. Biofuels Research Studies
5. Nanotech Program
6. Bee Program
7. Natural Products Development Program
8. Organic Agriculture
9. Robotics and Instrumentation
10. Computational Interdisciplinary Research Laboratory
11. Water
12. Life Cycle Assessment
13. Biosensors for One Health





PROMOTING RESEARCH PRODUCTIVITY

MENTORING SCHEME

R&D institutions benefit from a mentoring program that ensures continuity and community of practice in research.

The Research Mentoring Scheme of OVCRE envisions that the wisdom and experience of senior researchers will be passed down to and further enhanced and applied by younger researchers.

One example of the scheme was done in two basic research projects “Screening and identification of rice with drought tolerance for the development of climate change-resilient rice varieties for rainfed lowland agroecosystem (Phase I)” and “Improvement of Philippine traditional rice varieties by mutation breeding.”

Both were implemented by Dr. Danilo Lalican, a study leader who was then about to retire, and project staff members, Anne Mylaluex Magnaye and Katrina Malabanan.

While preparing for his retirement, Dr. Lalican turned over the reins of project management to Magnaye and Malabanan while still working as study leader, acting as a mentor and consultant as he continued to supervise the study’s activities like overseeing laboratory protocols of experiments.

SCIENTIFIC PAPER WRITING WORKSHOP SERIES (SPWWS)

For UPLB to improve the ratio of publication per staff, it supported faculty and staff to work on their publications

under the guidance of editors and experts through an SPWWS funded by DA-BIOTECH.

One of the beneficiaries of these programs is Cheamson Garret K. Boongaling, an assistant professor at the College of Human Ecology who published “Modeling land use change impacts on hydrology and the use of landscape metrics as tools for watershed management: the case of an ungauged catchment in the Philippines” in the Land Use Policy Journal in The Netherlands.

Another one is Lerjun M. Peñaflor, former faculty member of CAFS-IFST who through the SPWWS published “Consumer acceptability, storage, and dimensional stability of the formulated congee as canned and pouched disaster food product” in the International Research Journal of Engineering and Technology.

PUBLICATION GRANT PROGRAM

OVCRE also implemented the Publication Grant Program (PubGrant) with funding from DA-BAR. PubGrant offers writing and editorial services, a journal matching service, and a publication fee assistance. It has since produced 14 successful publications and 19 papers for publication.

UPLB also published a total of 48 articles in special issues of the following Web of Science (WoS)-indexed journals under the PubGrant Program.

Philippine Agricultural Scientist Special Issue on Coconut Genomics, 16 articles

Philippine Journal of Crop Science
Biofuels Special Issue (Dec 2018), 11 articles

Philippine Journal of Crop Science Biofuels Special Issue
(Dec 2019), 10 articles

Sylvatrop Special Issue for IRNR-CFNR, 11 articles

PUBLICATION COMMITMENT

Faculty and REPS of the university continue to contribute to the fund of scientific knowledge through journal articles, books, and other publications. As an offshoot, UPLB researchers and faculty received 196 International Publication Awards in 2017 and 2018. IPA is a mechanism of UP to reward and encourage scientific productivity and creativity. (*Regina Mae C. Ongkiko*)





PUTTING KNOWLEDGE WITHIN EASY REACH

Digital media has never been a more active venue for information dissemination of RDE information and updates.

In addition to the usual modalities in accessing R and E information, OVCRE launched RDE TV on social media platforms, such as Facebook, Twitter, and Youtube. RDE TV is a mini-series that explains UPLB technologies in an easy-to-digest video format with an episode running at an average of two minutes. From July to November 2018, OVCRE released three episodes featuring the National Science and Technology Week, SNAP Hydroponics, and corn grits.



RDE TV

a mini series featuring UPLB technologies

With regard to keeping university R and E data easily accessible and manageable, and secure, OVCRE's Integrated R&E Information Management System (IRIMS) is a very important portal, especially with access becoming even better with its movement to a web-based platform. Currently, OVCRE staff use and access four IRIMS modules through the web.

OVCRE, through its Information Officers Network and the UPLB Gender Center, organized a workshop for UPLB Information Officers. The workshop put importance on the value of information officers in a scientific community.
(*Maria Rowena Beatriz Q. Inzon*)



REPS Conferences

Consultation with the UP System REPS Committee (400 REPS in attendance) graced by Regent Francis C. Laurel, Dr. Patricia B. Arinto, faculty regent and chair of the UP System REPS AdHoc Committee, Sept 2018

REPS Systemwide Conference to discuss REPS' contributions to knowledge generation, public service, participation in university governance, and guidelines and issues on career path. Held in UP Diliman, Oct 2018

CHAMPIONING REPS WELFARE

Being a globally competitive university is not only about programs, facilities, infrastructures, and partnerships. It is also about capacity building, staff welfare, and intellectual capital development. Because of this, the Office of the Vice Chancellor for Research and Extension (OVCRE) focused its efforts on welfare concerns of the research, extension, and professional staff (REPS) who contribute greatly to knowledge creation in UPLB.

Initially, OVCRE created the UPLB Ad Hoc Committee to Review the Policies and Guidelines on the Appointment and Workload of REPS. The committee brought to light many issues and concerns that could be addressed through reforms on tenure, promotion, workload, development fund, and others.

Thus, UPLB implemented the Interim Guidelines for REPS Tenure in July 2016. This complimented the suspension of the enforcement of the up-or-out policy for REPS that was approved in November 2014.

To address issues in the long term, OVCRE created working committees on REPS welfare, specifically on: (1) appointment, hiring, tenure, promotions, and workload; (2) development fund guidelines, sabbatical, and wellness leave; and (3) Magna Carta for scientists and S&T personnel, college REPS representatives, REPS representative to the Management Committee, and research-faculty items.

UPLB also supported the REPS in their participation in the UP Society of Research, Extension and Professional Staff (UP REPSS) and the holding of the annual REPSS scientific conference.

On 03 December 2018, the UP Board of Regents finally approved the creation of the REPS Personnel and Fellowship Committee (RPFC), REPS Welfare Council (RWC), and REPS Development Fund.

The all-REPS-member RPFC now reviews, evaluates, and endorses the appointment, tenure, promotion, fellowships, study leaves, and special details of REPS. These were used to be done by the Academic Personnel and Fellowship Committee composed mostly of faculty members.

RWC, on the other hand, held a workshop in 2019 to consolidate the inputs from REPS committees in order to come up with inspiring and clear policies for REPS welfare.

The REPS Development Fund will soon provide financial support to paper presentations, attendance in seminars, and postgraduate studies of REPS. *(Maria Rowena Beatriz Q. Inzon)*



PROVIDING A SPACE FOR NURTURING CURIOSITY AND CREATIVITY

Spaces that are enabling and that foster collaboration, research productivity, and expand the reach of research outputs are a must for a research university.

The UPLB Technology Hub and One-Stop Shop is one such space. The TechnoHub is envisioned to be a space where young and seasoned researchers from different disciplines can interact to develop new research concepts, innovations, and inventions.

Additionally, the hub functions as a one-stop shop where UPLB products and technologies will be made available to the public.

Construction of Phase I of the Techno Hub (building) was recently completed while Phase 2 entails development of the Hub's interior.

Funding for the Hub was provided by the Department of Agriculture-Bureau of Agricultural

Research (DA-BAR), and spearheaded by the UPLB Office of the Vice Chancellor for Research and Extension (OVCRE) through the UPLB Foundation, Inc. (UPLBFI). *(Ana Margarita S. Palma)*

HELPING PEOPLE TO REGAIN THEIR FOOTING

Fulfilling our role in delivering extension services is a commitment that we always uphold even outside the university to help communities build and rebuild their livelihood during disasters, whether these are natural or man-made.

When Mayon Volcano erupted and displaced communities in January 2018, a team of experts and staff from the College of Agriculture and Food Science (CAFS), College of Veterinary Medicine, OVCRE, and Pahinungod went to Legazpi City to distribute relief goods, conduct needs assessment, and plan a rehabilitation program for the affected communities' crops and livestock in cooperation with LGUs, UP alumni, and NGOs.

UPLB also responded to a request from the AGHAM- Advocates of Science and Technology to help mitigate pest infestation on abaca, coconut, and rice in Samar. A quick response team (QRT) composed of the National Crop Protection Center (NCPC), CAFS, and OVCRE staff visited Las Navas and Catarman in Northern Samar on 25-29 May 2018 and conducted damage assessment, focus group discussions, key informant interviews, and an open forum for affected

farmers. They also collected pest samples for further studies.

Pest infestations on rice and armyworm infestations on onions were also encountered in Negros Occidental and Pangasinan, respectively. As a response to the governor's request, a QRT composed of NCPC and OVCRE helped the farmers in Himamaylan, Sipalay, and Hinoba-an municipalities. To educate the farmers, the team discussed plant diseases and pest control techniques.

OVCRE also participated in a consultation workshop regarding the DSWD program "Kapit-Bisig Laban sa Kahirapan (Kalahi)-Comprehensive and Integrated Delivery of Social Services (CIDSS) National Community Driven Development Program (NCDDP) or the KC-NCDDP." The workshop aimed to gather perspectives and recommendations for the program's continuation. *(Ana Margarita S. Palma)*





**CREATING AN
ENABLING
ENVIRONMENT
FOR CREATIVITY
AND INNOVATION**





STRENGTHENING ADMIN STAFF COMPLEMENT

Administrative staff tenure security got a boost with the provision of plantilla items to contracted employees, the promotion of some, and the hiring of new personnel.

As of December 31, 2017, the Human Resource Development Office (HRDO) processed the appointments of 215 personnel, 106 of which were former Individual Contract of Service (ICS) employees who competed for plantilla items, 69 were current administrative personnel who were promoted to new positions, and 40 were original appointees.

In 2019, we gave plantilla items to 64 former ICS employees, promoted 48 administrative staff, and welcomed 107 new appointments (*Kristine E. Araguas*)

2017

Former ICS given plantilla items	106
Admin employees promoted	69
New original appointments	40
TOTAL	215

2018

Former ICS given plantilla items	249
Admin employees promoted	87
Original appointments	84
TOTAL	420

2019

Former ICS given plantilla items	64
Admin employees promoted	48
Original appointments	107
TOTAL	219



BUILDING COOPERATION ON RESPECT AND TRUST

Labor unions, established when an employer-employee relationship exists, act as intermediaries between its members and management. Labor unions give workers the power to negotiate for more favorable working conditions and other benefits through collective bargaining.

In UP, faculty and REPS are represented by All UP Academic Employees Union (AUPAEU) and the administrative personnel are represented by All UP

Workers Union (AUPWU). The two unions have been in close coordination with each other, sharing common principles and advocating the same causes for the UP constituency.

The unions help strengthen unity in the work place and provide workers with a powerful and collective voice to communicate to the management the benefits and professional growth that they deserve.

According to Mr. Antonio Salcedo, president of AUPWU-UPLB, the union maintains a good relationship with the UP and UPLB administration based on respect and trust.

The UPLB administration, for its part, has done its best to advance the union's agenda to the best of its capabilities, as Chancellor Sanchez assured it during the 30th anniversary celebration of the AUPWU-UPLB. *(Juan Paolo A. Aquino)*



ENSURING SUSTAINABLE INCOME SOURCES

The Business Affairs Office (BAO) administers lands, buildings, and business spaces which enable it to raise funds from short-and long-term leases to concessionaires and allied agencies. The funds are used to pay year-end bonuses and other university expenses.

From January to May 2019, BAO was able to generate Php 2.688 million from short-term leases.

UPLB raised Php 5.148 million from long-term leases of university land in January to May 2019 by agency-lessees such as ASEAN Centre for Biodiversity, Boy Scouts of the Philippines, Ecosystems Research and Development Bureau, Forest Products Research and Development Institute, International Rice Research Institute, Laguna

Water District Resources Corporation, Local Government Academy, Philippine Carabao Center, and Philippine High School for the Arts.

UPLB formed joint management committees with these agencies to foster harmonious relations and to provide a venue for negotiations with them.

OBDULIA F. SISON HALL (OFSH)

BAO is working to accredit the OFSH as an economy hotel with the Department of Tourism (DOT). Hence, a major renovation, being planned and implemented by a committee created by the Office of the Chancellor, is in the pipeline. The office

has also begun professionalizing its staff as part of the accreditation requirements.

SATURDAY BAZAAR

As part of its advocacy to enhance the entrepreneurial spirit of the UPLB staff and promote local products, BAO has been holding the 'Saturday Bazaar' every week at the SU Parking Lot. Starting from eight concessionaires in 2016, it now has about 35 entrepreneurs who are UPLB students, employees, and alumni.

BAO has also set up mini-bazaars during major university events, such as the commencement exercises and Loyalty Day and Alumni Homecoming. *(Miguel Victor T. Durian)*



FINE-TUNING A PROCUREMENT PROCESS FOR TRANSPARENCY

UPLB is guided by Republic Act 9184, or the Government Procurement Reform Act, in procuring services, equipment, and materials with the end in view of ensuring transparency and accountability, upholding public trust, and extending equal opportunity to all eligible private partners.

To improve the system of procurement, the UPLB Bids and Awards Committee (BAC) through the BAC Secretariat implemented new protocols that simplify the process.

“We first unified the policies,” said Liza Custodio, chair of BAC Secretariat. “In the past, each BAC (Research, Goods, Infrastructure) had its own internal process aside from RA 9184, so we addressed what hindered the procurement process.”

Custodio said that one of the major challenges in procurement was the automatic default mode of public bidding that can last for months. This caused a bottleneck and a backlog in the bidding process.

To address this, BAC compels units to come up with a project procurement management plan (PPMP) each August, which the former examines to determine the mode of procurement. BAC then comes up with the annual procurement plan (APP) for the entire university and schedules consolidated bidding of the common items.

“The protocol has significantly reduced the time, especially when it comes to alternative modes of procurement,” said Custodio.

BAC also streamlined other aspects of procurement such as by digitizing and systematizing their filing system.

BAC also holds learning sessions for key players in procurement such as members of the technical working groups (TWG), end-users, and UPLB administrators to orient them and iron out issues on the procurement process and RA 9184.

In the process, BAC is able to attain higher competitive bidding of goods and services in the spirit of RA 9184. *(Jessa Jael S. Arana)*

SHIFTING TO AUTOMATED PAYMENTS AND DISBURSEMENTS

We have increasingly shifted to paperless transactions through automated payments and disbursements by using Link.Biz, an electronic payment facility through the Internet. This has resolved issues of long lines especially in the payment of student fees such as tuition, dorm and housing rental, as well as transient room occupancy.

In like manner, disbursement vouchers have also been paid through bank transfers made through the issuance of authority to debit the account (ADA). We send the suppliers advisories through text messages to inform them that their disbursement vouchers are ready for issuance of the official receipts and subsequently processed for payments. Follow-ups by suppliers are thus minimized. Currently, about 85% of disbursement vouchers are paid through ADA in this system that is unique to UPLB and already being benchmarked by other state universities.

Another feature will be added to this system soon as we will also be issuing text messages to suppliers, this time to inform them that the payment is already going to be credited to their bank accounts.

UPLB employees, too, benefit from a simple information system through text messaging advising them that their salaries and benefits are going to be credited to their bank account. *(Josephine M. Bo)*





Architect's perspective of the University Library and Knowledge Center (Leftmost). Inside this soon-to-rise building are library facilities, executive offices, conference room, and a library theater.



NEW BUILDINGS, ROADS, & BRIDGES CHANGE UPLB LANDSCAPE

UPLB saw a surge in the construction of new buildings, roads, and bridges in the campus in the recent past; and will see more buildings going up in the coming months.

A PhP 67-million bridge across Molawin Creek from Victoria Ela Ave. (formerly Silangan St.) replaced the hanging foot bridge that typhoon Milenyo destroyed in 2006.

The 60-meter, 2-lane bridge, which has both pedestrian and bicycle lanes, brings motorists to the "new" Pili Drive. "New" because what used to be a one-lane road now has two roads running parallel to it: a 2-lane vehicular road and a bicycle lane.

Access for motorists going to Masaya and Bitin areas in

Bay is enhanced by the new road from the IPB Road to FT San Luis, a shorter alternative to the Barangay Paciano Rizal-UPRHS-Jubileeville route.

Meanwhile, driving convenience from Pili Drive to Maahas area will be enhanced soon with the improvement of the road from Pili Drive going to the Lumang Sabungan Road.

This part of the university will become a key commuter hub with the deployment by the Philippine National Railways of a UPLB-Tutuban and UPLB-Alabang train route and when the UPLB 60-ha agro-industrial and 10-ha IT parks rise from the ground.

These new infrastructures are part of an aggressive move UPLB is taking to provide an enabling environment to

its constituents. This, according to Chancellor Sanchez "is borne out of a big dream, an ambitious one to regain UPLB's former glory."

"No enabling environment would be complete without a solid infrastructure program that will support all of UPLB's academic and research activities," Chancellor Sanchez emphasized.

The "former glory" he referred to is the UPLB of the 1970s when it was "leaps and bounds ahead of its time."

COMPLETED INFRA PROJECTS

UPLB has completed 32 infrastructure projects amounting to PhP 539 million, some of which were begun during the



administration of former Chancellors Rex Victor O. Cruz and Luis Rey I. Velasco.

Some of these projects are the following:

- Rural Economic Development and Renewable Energy Center (Phases 2 & 3), CEM
- Molecular Biology and Biotechnology Building Wing, CAS-IBS
- Malacology Building Extension, CAS-IBS
- UPLB Animation Studio, CAS-DHUM
- Makiling Film Lab, CAS-DHUM
- Phase 1 of the Computational Interdisciplinary Research Laboratories (CINTERLABS), CAS
- Three-storey Mathematics Building (Phase 1), CAS-IMSP
- Phase 1 of the Philippine Center for Tropical Forest Science (PHILTROP), CFNR
- Technology Hub and One-Stop Shop beside the Baker Hall
- Families of Children with Exceptionalities Resource Center (FaCEs), CHE-DHFDS
- Animal Probiotics Laboratory Annex Building: A Pilot Testing Plant for Protein Enriched Copra Meal Ingredient for Swine and Poultry (Phase 1), BIOTECH
- CFNR Mechanized Nursery

On-going infra projects

UPLB is administering 14 on-going projects, worth PhP 704 million. Some of its big-ticket items are:

- Graduate School (GS) International Student and Cultural Center Building
- GS Dormitory
- Landscape Horticulture Knowledge Center Building and the Orchids Laboratory, CAFS-ICrops
- UPLB Controlled Environment Research Facility
- Tissue Culture Facility for Sustained Production of Disease-Free Planting Materials of Garlic, CAFS-IPB
- Animal Probiotics Laboratory Annex Building: A Pilot Testing Plant for Enriched Copra Meal Ingredient for Swine and Poultry (Phase 2), BIOTECH
- New shed for the Agricultural Machinery Testing and Evaluation Center (AMTEC), CEAT.
- Three canopy towers at the Makiling Center for Mountain Ecosystems, CFNR
- Seven canopy towers at the Mt. Makiling Forest Reserve, CFNR
- Two-storey Senior High School Building Academic Wing (Phase 1), CAS-UPRHS
- Crop Protection Wing of the Agronomy, Soils, and Horticulture Building, CAFS-IWEP.

- Rehabilitation of UPLB's road network with asphalt overlaying
- Installation of more CCTVs for safety and security

The university will soon begin constructing 13 new infrastructure projects amounting to PhP 256 million. Some of these are the:

- Nanoscience and Technology Facility at the Physical Sciences Building, CAS
- Agricultural Bioprocess Division Building, CEAT
- University Health Service Building Extension (Phase 1)
- Center for Agri-Fisheries and Biosystems Mechanization, (Phase 2) CEAT
- PHILTROP (Phase 2), CFNR
- Mathematics Building, (Phase 2) CAS .
- Green Latrine Project
- Construction of overhead 13.8KV power distribution line (Phase 4) from IPB in Los Baños to the UPRHS campus.

We have prepared the draft architectural and engineering designs (DAED) for 13 buildings, some of which are the following:

- UPLB Library and Knowledge Center to house library facilities, executive offices, the Interactive Learning



(From L-R) A fisheye view of the recently inaugurated bridge connecting Ela. St. to Pili Drive; and architect's perspective of the Office of the University Registrar/Communal Classroom Building; and an architect's perspective of the Graduate School Dormitory.

- Center, and the Information Technology Center
- Office of the University Registrar and communal classrooms.
 - School of Environmental Science and Management Building
 - Economics and Management Studies Center, CEM
 - Agricultural and Economic Development Studies Center, CEM
 - Food Processing Research and Development Center, CAFS-IFST
 - Dairy Production Building of the Dairy Training and Research Institute, CAFS
 - Philippine Genome Center for Agriculture
 - National Plant Genetic Resources Laboratory (NPGRL) Building in CAFS-IPB
 - Microbial Bank, BIOTECH
 - Sports Complex Facility
 - Sewage Treatment Plant
 - Renovated Operating Rooms at UHS

Renovation projects

Aside from new edifices, facilities, and roads, the administration has also embarked on major renovation projects in the campus to rehabilitate and improve existing structures.

Twenty-nine of these renovation projects have been completed, worth PhP 136 million; five, valued at more than PhP 55 million, are on-going; 10 (PhP 108 million) are currently in the bidding stage; and one is in the pipeline.

Among them are:

- Central Experiment Station
- NPGRL Building (Phase 1)
- Plant Health Clinic and repainting of facilities of the National Crop Protection Center, CAFS
- Department of Agricultural and Applied Economics building, CEM
- CFNR Canteen

- Improvement of the former NCPC Laboratory Building into the Director's Office of the Institute of Agricultural and Biosystems Engineering (IABE), CEAT
- Improvement of the former NCPC Old Building into the Land and Water Resources Division and Agrometeorology and Farm Structures Division, CEAT-IABE
- Guest House of the International House
- Central Store Room of the Supply and Property Management Office
- DL Umali Hall rehabilitation and replacement of seats
- Legal Office, AG Samonte Hall
- Cashier's Office, AG Samonte Hall
- Human Resources Development Office, AG Samonte Hall
- NPGRL Quarantine Greenhouse, CAFS-IPB
- Food Science Pilot Plant, CAFS-IFST
- Fruit Crops Nursery Office and Laboratory, CAFS-ICrops
- AMTEC in CEAT
- Various research laboratories and training facilities at the CVM
- Operations Room, AG Samonte Hall



- 344 small classrooms (more than PhP 43 million)
- 179 comfort rooms (more than PhP 44 million)

Other completed infra projects

- 2 LED wall display monitors at the UPLB gate
- Acrylic markers of buildings & offices
- Rehabilitated IPB Road with two bridges
- Mt. Makiling Eco-tourism Road (>5 km MCME-Agila Base)

Utilities improvement

- Rehabilitation & upgrading of 13.8KV overhead distribution lines (Phase 2)
- Testing & commissioning, new pad-mounted transformers at IBS, PhySci, Agronomy, Humanities bldgs.
- Installation and commissioning of electromagnetic flow meter, air release valve, kWhr meters, and non-fusible load break switch in NEMA 3R enclosure
- Fiber optic network FOC laying/upgrading from 2.25 to 2.7 Gbps (Phase 1). (Mark Jayson E. Gloria)

NEW INFRASTRUCTURES (buildings, roads, bridges, other facilities)

Status	Number	Amount (PhP)
Completed	32	539 million
On-going	14	704 million
Bidding stage	13	256 million
In the pipeline (with design)	13	To be determined

RENOVATION PROJECTS (buildings and other facilities)

Status	Number	Amount (PhP)
Completed	29	136 million
On-going	5	55 million
Bidding stage	10	108 million
In the pipeline (with design)	1	To be determined

COMPLETED SMALL CLASSROOMS AND COMFORT ROOMS RENOVATION PROJECTS

Type	Number	Amount (PhP)
Small classrooms	344	43 million
Comfort rooms	179	44 million



AGRIFUTURA: THE UPLB AGRO-INDUSTRIAL AND INFORMATION TECHNOLOGY PARKS

Through AgriFUTURA, UPLB aims to establish robust academe-industry partnerships wherein researchers and scientists will play a central role in delivering innovative products and services and in providing their expertise to industry.

AgriFUTURA will help bring UPLB technologies to the countryside, provide a training platform for students, and help augment the labor market in this part of CALABARZON.

It will also help promote sustainability as a framework for research and technology generation with academe-industry partnership providing a feedback loop for the development of appropriate technologies and sustainable food production systems.

Furthermore, AgriFutura is a financial sustainability initiative that would certainly benefit the university.

AgriFUTURA was first established as the Science and Technology Park in the 1990s to jumpstart the commercialization of UPLB-generated technologies. It was initially supported by the Department of Science and Technology to build the first three incubator buildings.

In 2006 to 2014, UPLB worked to designate the S&T park into special economic zones (SEZ) to be known as UPLB Agro-Industrial Park (60.8496 ha) and UPLB Information Technology Park (9.15 ha) under the Special Economic Zone Act of 1995.

This was approved by the UP Board of Regents at its 1305th meeting on 29 January 2015. The signing by then President Benigno Aquino III of Presidential Proclamations No. 1164 and No. 1165 in 2015 paved the way for the declaration of the special economic zones in the university.

The Philippine Economic Zone Authority and UPLB subsequently signed in 2016 a registration agreement on the two special economic zones.

To get AgriFUTURA moving efficiently in the right direction, the university sought the help of the Philippine Public-Private Partnership Center (PPP Center).



Thus, on 30 May 2019, the PPP Center announced that its Project Development and Monitoring Facility (PDMF) Committee had approved the provision of support for UPLB's SEZs to cover the following: 1. Project Feasibility Study and Project Structuring; 2. Preparation of Bid Documents and Assistance during the PPP Bidding Process; and 3. Assistance and Advisory until Financial Close.

The PDMF Committee is the approving body for project support applications to the PDMF, a revolving fund managed by the PPP Center and used to develop bankable PPP projects and ensure effective monitoring of project implementation. *(Josephine M. Bo)*



DESIGNS THAT WORK AND LAST



It is no secret that careful and meticulous planning is a pre-requisite to building any infrastructure. In UPLB, planning infrastructure projects goes beyond coming up with a concept, a facade perspective, and a ballpark figure.

It is a rigorous and detailed preparatory process aimed to successfully secure funding more quickly and avoid delays in project completion.

Prototyped in 2014 and now being used in full, the Detailed Architectural and Engineering Design and Estimate (DAEDE) is a tried and tested, if not a new method in securing resources for big ticket projects.

It simply involves the crafting of a comprehensive design and cost estimate for a future infrastructure to be “shovel-ready.” Meaning, the plan takes into consideration all costs needed for completion.

Thus, upon the DAEDE’s approval and sufficient funding allocated to the infrastructure project, it can already be implemented.

“A DAEDE is an investment,” explained Arch. William Rañola, chief of the Planning and Design Section of the University Planning and Maintenance Office. “It makes the process slightly more expensive, but there is a big trade-off in speed of approvals and construction,” said Arch. Rañola, who also sits as a member in the committees formed to review the proposed infrastructure’s Terms of Reference (TOR) and DAEDE.

In the past when DAEDes were prepared after funds had been sourced, issues often cropped up, firstly, with funding because partners were not keen on investing in conceptual projects that have an unclear purpose and budget.

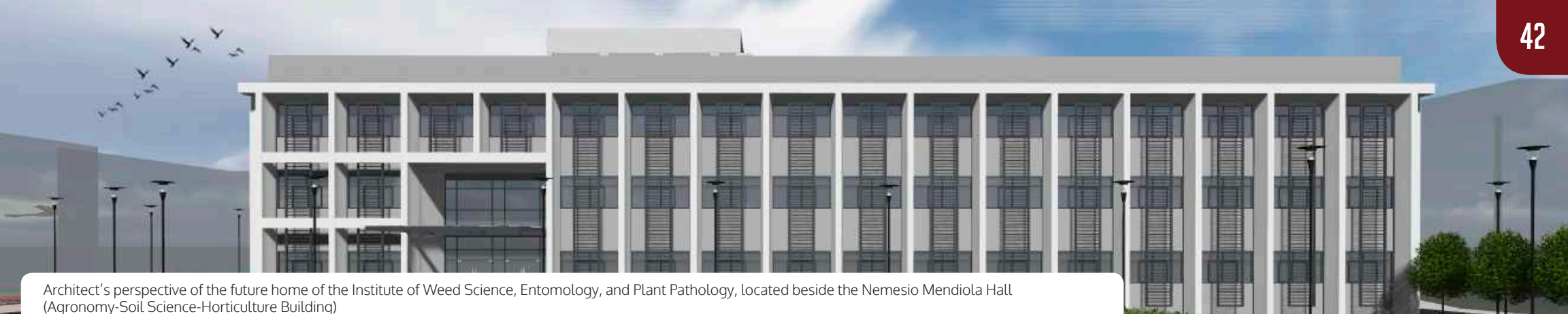
Moreover, such projects have the propensity to be stalled and to run out of funding due to unforeseen costs.

By having DAEDE, there should be less unforeseen costs, none that could not be covered by the contingency cost.

“With the DAEDE prepared beforehand, it becomes easier to convince funding agencies to finance the university’s infrastructure projects,” Chancellor Sanchez said, in one of his updates to the UPLB Executive Committee.

The DAEDE process begins with end-users, which can be a college or an office in the university, submitting an official request for a new building or infrastructure. This request is processed and an ad-hoc committee is formed to prepare the TOR for the building or structure’s space requirements and other needs.

The proposed infrastructure project must conform to the UPLB Master Development Plan. Upon



Architect's perspective of the future home of the Institute of Weed Science, Entomology, and Plant Pathology, located beside the Nemesio Mendiola Hall (Agronomy-Soil Science-Horticulture Building)



Architect's perspective of the Dairy Production Building of the Dairy Training and Research Institute



Architect's perspective of the new National Plant Genetic Resources Laboratory Building of the Institute of Plant Breeding



Architect's perspective of the UPLB Nanoscience and Technology Facility

approval, the TOR forms the basis of what will become the building's DAEDE.

Once the ad-hoc committee finishes the TOR, contractors and design firms are invited to bid for the DAEDE. Upon winning the bid, a contractor is then given a strict timeline of six months within which they must finish the DAEDE and then present it for a stringent screening approval process.

After revisions are done and approval is granted, the DAEDE becomes a complete and comprehensive plan ready for presentation to prospective funding agencies.

The DAEDE is an assurance to these funding agencies that due diligence in planning the proposed infrastructure had been done. *(Albert Geoffred B. Peralta)*



Architect's perspective of the Agricultural and Economic Development Studies Center of the College of Economics and Management



Architect's perspective of the Economics and Management Studies Center of the College of Economics and Management



ONLINE LINK IN A BLINK

The importance of internet connectivity in a research and graduate university cannot be overemphasized. This is necessary to keep up with the pace of information and to accommodate collaborations with the international community.

Since 2016, UPLB has been working on providing and improving internet connectivity to its constituents through partnerships with internet service providers and through the upgrading of campus infrastructures.

A major internet overhaul has progressively taken place with the implementation of a Five-Phase IT Infrastructure Project to improve the internet network equipment and future-proof the connections by upgrading fiber optic cables from multi-mode to a more efficient single-mode-type fiber. This upgrade will enable transmission of large data at greater distances.

More wifi access points have also been deployed in many of UPLB's public spaces in 2017 as part of

its second implementation phase, which aims to establish internet connection in the lower campus.

Today, students and university constituents can connect to 251 UPLB wifi hotspots by registering for a UPLB e-mail address at the Information Technology Center (ITC). According to Emergrace Puhawan, operations head at ITC, the UPLB internet currently accommodates 11,000 users daily on an average, counting those who may have multiple devices connected.

Driezal Alterado, BS Food Technology, is one of the students who has benefited from the improved wifi connection, particularly in looking for references for her Special Problem. Aside from research, students use UPLB's internet for social media and video streaming.

Puhawan said that they also plan to help enhance internet connectivity in the university's research facilities that deal with large quantities of data.

Aside from improving hardware and infrastructure, UPLB also continues to look for the best internet service offers in the market. In 2018, UPLB switched from a provider's offer of 150 megabytes (MB) to 300 MB, to another one's offer of 300 MB burstable to 600 MB. "Right now we have a total bandwidth of 2.3 gigabytes per second for the whole campus," said Puhawan.

However, despite the larger bandwidth available, Puhawan admits that some areas still have trouble connecting to the campus internet, with some only getting internet speeds of 100mbps. "It's not yet fully utilized because our network still has physical limitations. We have old lines that we need to upgrade and it's one of the things we're aiming to do bit by bit next year," she said. She also revealed that ITC has already lined up more fiber optics upgrades for "dead zones" in continuation of Phase Two.

With these plans underway, a wider and connected community awaits in the university's future as it catches up with the rest of the world. *(Jessa Jael S. Arana)*



PROVIDING COMFORT FOR “ME” TIMES

The university is where students and personnel spend much of their waking hours. It should therefore provide for its constituents’ needs, most especially clean and comfortable toilets for those “me” times.

Upgrading toilets may occupy a low spot in managing state-funded buildings, but not in UPLB where renovation of toilets has been ongoing since 2013.

This is because UPLB wants to make these communal spaces in the campus clean and comfortable to use.

Engr. Ralph M. Romero, project coordinator, said that many of UPLB’s public toilets have very old and outdated waste lines and fixtures,

making the renovation project a challenging one.

“The buildings themselves are old so we were very careful during the renovation, otherwise the whole buildings’ integrity might be affected,” Engr. Romero said. While modernizing the facilities was high on their priority list, the team also considered the historical value of structures and took care to make minimal changes in them.

The renovation focused mostly on replacing tiles, ceilings, phenolic boards for the stalls, and all the fixtures and doors. Besides the basic amenities, the new comfort rooms were

also equipped with hand dryers, sensor-equipped urinals, tissue holders, full-length body mirrors, and bidets.

Students welcome this as “a breath of fresh air” and hope that it will be sustained and the cleanliness maintained.

As of 2019, OVCPD has completed and turned-over 179 toilets including two that are specially made for persons with disabilities .

With these renovations, UPLB hopes to meet its constituents’ needs. Yes, even for clean and comfortable toilets. *(Jessa Jael S. Arana)*



CREATING SMALL LEARNING SPACES

Distractions in learning sometimes come from classrooms that are in varying states of deterioration.

The Office of the Vice Chancellor for Planning and Development (OVCPD), well aware of the problem, made classroom renovation one of its priorities in the past years.

Since 2014, OVCPD has led the renovation of classrooms in various campus buildings. As of 2019, OVCPD has renovated 344 small classrooms. According to Engr. Gregorio Pascual, assistant vice chancellor for planning and development, the classroom renovation

is benchmarked on facilities of universities abroad which UPLB aims to be at par with.

New tiles and floorings were installed, walls repainted, ceilings and windows replaced, and electrical systems upgraded. New equipment were also installed such as LED screens and projectors. Some classrooms doors were replaced.

Despite difficulties such as meeting construction deadlines and the inevitable class disturbances, renovating university classrooms is turning out to be worth the effort.

Since the renovations were made, many classrooms in UPLB have transformed from being dark and humid rooms to being well-lit and ventilated learning spaces. Rickety old arm chairs have been replaced with more durable ones and learning is now digitally enabled with the newly installed monitors and projectors.

By improving its facilities, the university hopes to provide a conducive learning environment for its students. (*Jessa Jael S. Arana*)



UPGRADING CAMPUS SECURITY AND SAFETY

Securing a porous campus such as UPLB is a challenging responsibility under the Office of the Vice Chancellor for Community Affairs (OVCCA) and the University Police Force (UPF).

The UPF oversees security in the 5,000-ha campus 24/7 with its more than 400 buildings and 20,000 constituents. The UPF is the university's first-responders in emergencies.

The UPF is complemented by three groups: the roving Community Support Brigade (CSB), one security agency with fixed posts in building premises; and another in open areas and far-flung UPLB territories.

Technology such as CCTVs, biometric system, and two-way radios are indispensable in carrying out their work.

PROFESSIONAL SECURITY PERSONNEL

UPLB implemented programs to professionalize its security personnel by having them undergo training courses on gender sensitivity and anti-sexual harassment, anti-illegal drugs, disaster preparedness and emergency response, first aid, cave rescue, handheld radio operations, and traffic enforcement and management. They also hold monthly tactical formation, physical fitness drills, and target shooting practice.

Seven UPF members were deputized by the LTO to apprehend traffic violators. Nine from the UPF and CSB trained under the Metro Manila Development Authority (MMDA) to effectively manage, direct, and control traffic in the university. The UPF requires its personnel to undergo unannounced drug and neuropsychological tests, which all of them passed in 2018.

The unit has beefed up its manpower by hiring a deputy chief (Security Officer III) and additional security officers and guards who are mostly criminology graduates. Moreover, the chief of the UPF, being a retired colonel of the Philippine National Police, leads in the professionalization program of the UPF.

MODERN FACILITIES

The UPF modernized its facilities to complement the professionalization of its personnel.

In March 2019, UPLB acquired the “Firefighting Maroons” Firetruck, for immediate response during emergencies and disasters in the campus. UPF personnel were also trained in firetruck operations. Disaster management, now being implemented by various units of the OVCCA, is going to be incorporated through a dedicated unit in the UPF.

With this, the UPF headquarters will be transformed into the UPLB Security and Disaster Management Center that will house a firetruck, an ambulance, and disaster preparedness equipment.

TOWN-AND-GOWN PARTNERSHIP

To ensure that its constituents are safe and secure in the areas surrounding the campus, it constructed perimeter fencing, as well as, signed a Memorandum of Understanding with the Municipality of Los Baños, Philippine National Police of Los Baños, and the two critical barangays around UPLB – Batong Malake and Putho-Tuntungin – for their personnel to help patrol the areas surrounding the campus. In 2017, the Bureau of Fire Protection (BFP) was included in the MOU as a partner in almost all of the university’s fire and earthquake drills.

UPLB has allowed the use of a 35-square meter land area at the Mt. Makiling Forest Reserve by the Provincial Government of Laguna to operate a radio repeater system that will be used to monitor the whole province for crime prevention, and for disaster preparedness. UPLB had asked for access and use of their facilities for information and monitoring, as well as, for early response during emergencies. *(Miguel Victor T. Durian)*





PROVIDING HEALTH AND WELLNESS SERVICES

THE 'LITTLE PGH' OF LOS BAÑOS

The University Health Service (UHS) caters to the health care needs, primarily of UPLB students, employees, and their dependents; and secondarily, of the Los Baños community and its neighboring communities.

The 30-bed capacity hospital was declared a secondary level general hospital in 1995 by the Department of Health. It is the only government hospital in Los Baños with facilities such as an operating room, delivery room, outpatient department, X-ray room, and diagnostics laboratory.

No wonder that the UHS has become the hospital of choice of the community. On top of this is its low rates, and because many of its medical officers, consultants, and ancillary staff are alumni of the UP Philippine General Hospital and other UP units. For these reasons, the hospital is often considered as the "Little PGH" of Los Baños.

Proof of the honor and excellence of its staff are the accolades that UHS received from the Government of Laguna in recent years. These include Best Performing Hospital of Laguna in 2015, Best Performer in Program Implementation in 2017 for its Newborn Screening Program, and "Mother-Baby Friendly Hospital" in 2018.

MENTAL RESILIENCE AND REPRODUCTIVE HEALTH

UHS recognizes the evolving needs of the new generation of UPLB students. Hence, it gave top priority to programs on mental resilience and reproductive health.

In 2016, UHS put up a Student Welfare Clinic, in response to the rising number of students seeking mental health services.

UHS endeavored to unite mental health initiatives all over UPLB into a concrete and holistic mental resilience program.

On 24 October 2018, UHS spearheaded a mental health summit where it presented UPLB's Mental Health Program to officials and personnel of key units.

The highlight of the summit was a mental health algorithm, which aims to guide UPLB administrators in handling students afflicted with mental health concerns. The algorithm encompasses students' entire stay at the university—starting from their Pre-Enrolment Physical Exam (PPE) until they graduate. UHS has already started implementing the algorithm in the PPE of the Batch 2018 freshmen.

For its reproductive health program, UHS collaborated with the Municipal Health Office of Los Baños, NGOs, and college student councils in sponsoring forums on HIV/AIDS education and prevention, some of which featured free and confidential HIV testing.

HELPING HANDS

The UHS successfully established partnerships and collaborations with various parties and UP alumni.

At the top of this is its partnership with the UP Medical Alumni Society in America (UPMASA), spearheaded by UP President Danilo L. Concepcion, which committed in 2019 to improve the UHS operating room. PAGCOR also approved funding for a 40-room hospital, which, together with an on-going PhP 40 million infrastructure project, will expand the hospital up to 70-bed capacity.

UHS is expanding its services through a partnership with the Research Institute for Tropical Medicine for its personnel to be trained in handling snake bites, and to keep antivenom for its constituents and the community. *(Miguel Victor T. Durian)*



MAKING SAFETY A COMMITMENT AND A CULTURE

ENVIRONMENTAL COMPLIANCE

UPLB is one of the first state universities and colleges that was able to secure an Environmental Compliance Certificate (ECC) that ensures the establishment of an environmental impact statement system to see to it that developments being made in the university are not adverse to the environment.

UPLB was granted the ECC by the DENR on 25 April 2016, after almost three years of environmental impact assessment conducted in the campus and on the buildings constructed and renovated since 1982.

Its Programmatic Environmental Performance Report and Management Plan (PEPRMP) outlines the different environmental measures

it is taking to protect and mitigate adverse impacts of its activities and development projects on community health, welfare, and the environment.

UPLB is poised to create an Environmental Unit tasked to ensure its compliance with environmental laws. In preparation for this, OVCCA is forming UPLB's environmental compliance committee composed of experts in waste management, air, water, and energy systems, environmental compliance, and biodiversity management.

SAFETY AT WORK

Making safety at work a culture in the university begins with UPLB's Occupational Health and Safety Standards Committee (OHSSC), one of

the longest running and most active committees in campus.

OHSSC held three major university-wide training courses for safety officers of colleges and offices.

One of these is the five-day Basic Occupational Safety and Health (BOSH) training held on 3-7 July 2019 led by a Department of Labor and Employment-accredited safety training and consultancy firm.

BOSH is in accordance with Rule 1030 of the Labor Code of the Philippines on the training and accreditation of personnel/safety officers on occupational health and safety.

It tackled occupational safety and health standards, programs, and hazards, safety inspection, fire safety and emergency preparedness, job hazard analysis,

safety in materials handling, and environmental monitoring, among others.

On 21 February 2019, OHSSC, in partnership with the UPLB Climate and Disaster Risk Studies Center, Los Baños Bureau of Fire Protection, and the Municipal Disaster Risk Reduction and Management Office, organized UPLB's first campus-wide earthquake drill, in support of the Nationwide Simultaneous Earthquake Drill of the National Disaster Risk Reduction and Management Council.

OHSSC is preparing UPLB for big magnitude earthquakes that could occur if the West Valley Fault moves by actively participating in the annual Metro Manila Shake Drill.

It also sent participants to the Earthquake and Landslide Search and Rescue Orientation Course (ELSAROC) on 20-21 March 2018, facilitated by the Pharmaceutical and Healthcare Association of the Philippines Cares Foundation, Inc. and the Metro Manila Development Authority.

The training covered the basic principles of earthquake preparedness, such as hazard and disaster management, search and rescue techniques, and ways of extricating and caring for victims trapped in collapsed structures.

UPLB staff also trained in first aid under the Philippine Red Cross on 29 August to 1 September 2017 including practical training in performing standard first aid and cardiopulmonary resuscitation (CPR), and in using an automated external defibrillator (AED). *(Miguel Victor T. Durian)*





CREATING HOMES AWAY FROM HOME

The UPLB Housing Office (UHO) manages the university's 10 student dormitories, and over 200 staff and pioneer housing units. UHO has endeavored to make living in dormitories comfortable for the students and to see to it that lessees are able to maintain the staff housing units well.

STUDENT HOUSING

UPLB dormitories provide free WiFi internet connection that enables students to do their school work from the comfort and safety of their living quarters.

In 2015, the Women's Residence Hall and the New Dorm were renovated and equipped with 10 computer units from the Interactive Learning Center and routers from UHO for the students to use.

In August of 2015, UHO replaced 2,334 mattresses, as well as, old chairs with new ones in all UPLB dormitories.

In order to promote sports as a way for students to relax and remain healthy, UHO provided facilities for basketball, volleyball, table tennis, and board games in all the dormitories.

With the Alliance of Dormitory Associations (ADA), "PasADAhAn," an annual interdormitory sports festival and pageant that aimed to foster camaraderie among dormitory residents, was held.

For enhanced security, biometric machines were installed in the dormitories to monitor students' check in and check out, security personnel as night duty guards were deployed, and CCTV cameras were installed in strategic areas.

With the alumni foundation of the Upsilon Sigma Phi and Beta Sigma fraternities, fogging

operations were conducted in dormitories to prevent the outbreak of mosquito-borne diseases.

UHO also spearheaded the setting up of organic edible gardens in dormitories to encourage gardening as a way to de-stress and for residents to have a steady supply of vegetables right at their own backyards.

STAFF HOUSING

Consistent with the current staff housing policy, 27 vacant housing units were repaired before putting them up for occupancy. UHO also acted on job requests for the repair and replacement of defective facilities in occupied staff housing units.

The University also finally got the approval of the Board of Regents to use a fund reserved to acquire and construct housing units to repair existing housing units. UHO also conducted inspection of housing

units during milestones in the contracts of the beneficiaries to ensure that these are maintained well.

UHO is also now reviewing the 2008 UPLB housing policies and will use evidence-based data from a survey and key informant interviews in order to revise staff housing policies.

Lastly, UHO implemented “Ayos Saturday,” a mobile repair service for staff housing beneficiaries, to make available repair services when the lessees are in their homes.

PRIVATE HOUSING

The then UP College of Agriculture (UPCA) provided the long-term lease of some of its land at Php 1/ sq m per year to prospective faculty members from Metro Manila to attract them to teach in Los Baños. They built their own homes on these lands, hence the presence of “legacy housing units” in the campus that are owned by pioneer faculty members, most of whom have already passed away.

With the growing demand for more staff housing units, the university started the process of acquiring legacy housing units. UPLB successfully reacquired a number of them. About 20 of these units will be developed for new housing units to accommodate more beneficiaries. *(Miguel Victor T. Durian)*





TAKING CONTROL OF ITS POWER SUPPLY

UPLB's power supply cost was once pegged at a minimum level of consumption.

Thus, the university paid a fixed cost even when it did not consume the minimum, i.e., during the cooler months, but paid for actual consumption otherwise.

But with UPLB's direct membership in the Wholesale Electricity Spot Market (WESM) on 25 May 2017, the first higher education institution to ever become one, it gained more control over its power supply source.

It was a team composed of faculty members at the UPLB Department of Electrical Engineering (DEE), and experts from UP Diliman's Electrical

and Electronics Engineering Institute (EEEI) that saw the potentials of becoming a direct WESM member.

HOW WESM DIRECT MEMBERSHIP WORKS

UPLB now gets its power supply from two sources: from its retail power supplier and WESM, while prior to WESM membership, all power supply came from the former.

With the DEE group supervising, Engr. Julius Cesar Cunanan (and Engr. John Davis Mangubat before him) closely monitors the hourly movement of electricity prices in the WESM. This is very fluid and can be influenced by a lot of factors like supply, demand, weather,

generation charges, global markets, and inflation, among others.

"I observe the trend on what time there would be a spike on the price," Engr. Cunanan said. "If I see that the price per hour on WESM is lesser than our supplier's generation rate, usually at Php 4.30 to Php 4.90, I nominate less from the supplier and get more from WESM."

UPLB projects and nominates a bilateral contract quantity (BCQ) or its hourly power supply requirement for the following day and submits this to the supplier.

The retail power supplier is committed to provide the contractual transaction and UPLB pays for the quantity it has nominated, whether or not it has used it all up.



The WESM team

Dr. Marish Madlangbayan, vice chancellor for planning and development
 UPLB-DEE faculty members: Engr. Jenny Rose Repollo, Engr. Athena Lavega, and Engr. Kim Jay Rosano
 UPD-EEEI faculty members: Engr. Rowaldo D. Del Mundo and Engr. Ivan Nilo Benedict Cruz.

If there is an excess, UPLB sells this to WESM; and if the nominated quantity falls short of what is needed, UPLB buys from WESM.

SAVINGS AND EFFICIENCY

To ensure that its transactions are beneficial to UPLB, Engr. Cunanan keeps close tabs on the hourly price, the hourly demand of UPLB, and crunches the numbers to determine the level of supply that is most advantageous to the university.

For almost two years of being a WESM member, the university has saved Php 12.8 million in electricity cost as of December 2018.

This was derived using the generation rate, or the amount of electricity per kWh that UPLB would have paid to get all of its power supply from a single source had the university not become a WESM member.

Engr. Cunanan said that UPLB has so far been able to secure a generation cost of less than Php 5 per kWh in the recent months, which is lower compared to the generation rate of its current retail power supplier.

Indeed, WESM direct membership has empowered the administration to take control over its power supply to the benefit of the university. *(Mark Jayson E. Gloria)*





AN AGILE RESPONSE TO THE COVID-19 PANDEMIC





ELEVATION OF THE OFFICE OF STUDENT AFFAIRS TO THE OFFICE OF THE VICE CHANCELLOR FOR STUDENT AFFAIRS

As of the Second Semester of AY 2019-2020, UPLB has a total of 11,176 students. This number is expected to increase in the coming years as UPLB continues to expand its postgraduate and undergraduate programs as well as its internationalization activities.

To better address the needs of UPLB's growing student population, the university proposed the elevation of the Office of Student Affairs (OSA) to the Office of the Vice Chancellor for Student Affairs (OVCSA) and requested the UP Board of Regents (BOR) to waive the requirement of having a student population of at least 15,000 for an OVCSA to be established.

The BOR approved UPLB's proposal to have its own OVCSA at its 1349th meeting on 28 November 2019,

and approved the waiver at its 1350th meeting on 03 February 2020.

The elevation of OSA to OVCSA could not have come at a better time. When the COVID-19 crisis ensued and community quarantine was declared in Luzon, OVCSA put UPLB in a better position to take care of over 2,000 students who were stranded in dormitory and residential facilities inside and outside the campus.

The OVCSA was able to dynamically implement programs for ensuring the welfare of stranded students. With the help of the OVCCA, the OVCA, and the OVCPD, the

OVCSA provided food for students on the back of a donation drive that generated more than PhP 4 million.

Moreover, the OVCSA spearheaded a program to bring home more than 1,000 students to their families in various locations all over the country. It also provided psychosocial support for more than 500 students as well as UPLB personnel amidst the quarantine through online venues and webinars.

The OVCSA is now putting in place systems that will ensure more efficient delivery of student welfare programs including the use of technology. *(Juan Paolo A. Aquino and Josephine M. Bo)*

COMING TOGETHER TO CARE FOR ECQ-AFFECTED STUDENTS

During the enhanced community quarantine (ECQ) and modified ECQ of Luzon from March to May 2020, the UPLB community came together, through the leadership of the UPLB COVID-19 Response Team and the OVCSA, to provide for the basic needs of stranded UPLB students. Dr. Roberto G. Visco, assistant to the vice chancellor for community affairs and chair of the UPLB COVID-19 Response Team, worked closely with the Los Baños local government unit (LGU) and the local Inter-Agency Task Force on Emerging and Infectious Diseases to ensure that students and members of the UPLB community were well looked after and that everyone followed quarantine protocols.

LINGAP: ADOPT-A-DORMER DONATION PROGRAM

As soon as the ECQ was declared, the OVCSA created Lingap: Adopt-A-Dormer Donation Program. Meant to help provide for 800 students in on-campus dormitories, the donation drive was promoted through radio and TV programs, online media, and newspapers.

Help came from alumni and alumni organizations, industry partners, faculty and staff, media personalities, government offices, university officials, and business

establishments. Monetary donations reached over PHP 4.0 million. Non-monetary donations included meat, fish, vegetables, fruits, cooked food, and personal hygiene products. Zoilo D. Belano, Jr., chief of the University Housing Office (UHO), was assigned to oversee the program for UPLB students staying in campus dormitories. To make life under the ECQ more bearable for the stranded students, the Information Technology Center (ITC) unblocked gaming sites and video streaming services on the campus internet network.

OPLAN KAWINGAN

As students residing outside the campus also needed support, the OVCSA created Oplan Kawingan and had it led by Dr. Ronilo JD Flores, director of the Office of Student Housing of the OVCSA. Kawingan's task was challenging because the target population was spread out across multiple barangays.

From March 18 to May 16, meals were prepared at Chelsea Homestyle Meals, a restaurant whose owners are UPLB alumni. Oplan Kawingan mobilized various teams. The IT and listing team kept and regularly updated a master list of student beneficiaries. The Finance Team managed the budget. The Dispatch Team oversaw the distribution of meals and food

packs, while the Transporters Team, composed of volunteer faculty, staff, alumni, community members, and members of the Serve the People Brigade (STPB), delivered the food to students in various barangays.

When the quarantine rules made it difficult to deploy food transporters, UPLB stopped providing cooked meals and instead distributed nutritionally recommended food packs (NFPs) based on meal plans designed by Dr. Leila S. Africa, director of the Institute of Human Nutrition and Food. The contents of the NFPs were procured by the Office of the Chancellor under the supervision of Dr. Sue Liza C. Saguiguit, assistant to the chancellor and director of the Office of Alumni Relations.

OPLAN HATID

Meanwhile, Oplan Hatid was implemented to reunite stranded students with their families.

Oplan Hatid was spearheaded by Assistant Vice Chancellor for Student Affairs Rocky Marcelino, who is also the director of the Office of Student Activities.

Volunteer faculty members communicated with students who availed of the program. AVC Marcelino closely coordinated with LGUs to

ensure the efficient and safe transport of students to their hometowns.

OVCSA made sure that each batch of students transported were fit to travel and had complied with the requirement of receiving LGUs. Upon medical checkup, students were issued a health certificate from the Municipal Health Office through the University Health Service.

Oplan Hatid successfully reunited over 1,000 students with their families in Luzon, Visayas, Mindanao, and selected countries. The program was made possible in collaboration with the Armed Forces of the Philippines, 2nd Battalion; the UP Rural High School Alumni Group; and Brgy. Batong Malake, Los Baños.

OPLAN KUMUSTAHAN

The COVID-19 pandemic is also a psychosocial crisis, with major and abrupt changes in people's daily routine affecting mental and psychosocial well-being. To attend to stranded students' psychosocial needs, the OVCSA's Office of Counseling and Guidance (OCG) provided online consultations through "OCG Cares' Kumustahan."

"OCG Cares' Kumustahan" aimed to help students in quarantine cope with the feelings of boredom, isolation, frustration, loss of freedom, physical inactivity, and other psychological concerns. Through this program, students had access to a Guidance Services Specialist (GSS), who conducted initial assessments and facilitated referrals to a guidance counselor if necessary. The service is available to UPLB students from Mondays to Saturdays through Facebook. Counseling could also be conducted through chat, SMS, and over-the-phone sessions. During the quarantine, the OCG also shared mental health care tips, COVID-19 information, and updates on OVCSA's programs through social media platforms.

(Josephine M. Bo, Mark Jayson E. Gloria, and Albert Geoffred B. Peralta)





REPURPOSING A LABORATORY TO HELP FIGHT COVID-19

One of the key tasks of the Task Force LB Kontra COVID-19 that is led by Dr. Rex B. Demafelis, vice chancellor for research and extension, was to establish a COVID-19 subnational testing laboratory to increase the country's capacity in using real-time reverse transcription polymerase chain reaction (rRT-PCR), the gold standard in COVID-19 testing.

Knowing that UPLB's existing laboratories already have some of the necessary equipment and facilities,

Chancellor Fernando C Sanchez, Jr. saw it fitting to repurpose a laboratory at the Agricultural and Life Sciences Complex into a World Health Organization-prescribed Biosafety Level-2 laboratory.

From April to May 2020, the task force oversaw the retrofitting of existing biotechnology facilities, the hiring of laboratory analysts, and the training of personnel in molecular diagnostic testing.

After training, all laboratory analysts for the COVID-19 testing facility passed the Proficiency Test for SARS-CoV-2 Detection by Real-Time PCR.

On 29 June 2020, the UPLB-COVID-19 Molecular Diagnostic Laboratory (UPLB-CMDL) obtained certification and license to operate as an independent laboratory for COVID-19 testing. *(Josephine M. Bo)*



EXPANDING RESEARCH TO HELP COPE WITH THE COVID-19 PANDEMIC

UPLB, through its expertise in biotechnology and engineering, positioned itself at the forefront of efforts to help manage the COVID-19 pandemic, contributing to increasing testing capacity and providing engineering solutions to support health workers.

On 03 April 2020, the university created the Task Force Laban ng Bayan Kontra COVID-19 or LB Kontra COVID-19 under the leadership of Dr. Rex B. Demafelis, vice chancellor for research and extension. The task force was formed to provide express assistance to the Philippine government in managing the COVID-19 crisis.

To help alleviate shortage in medical supplies, equipment, and facilities needed in the diagnosis and treatment of COVID-19, the task

force repurposed some engineering research and innovation laboratories in the campus. In collaboration with health care experts, the engineering team focused on clinical technology and facility development, producing equipment that were distributed to frontline workers and hospitals.

Mechanical ventilators, ventilator accessories, face shields, ear savers, and other personal protective equipment (PPE) were also fabricated and assembled by designated teams under the task force. They also designed and fabricated swabbing booths that will help protect patients, medical technologists, and doctors during testing.

A committee of the university-wide task force fabricated intubation boxes and designed a semi-

mechanized non-contact decontamination chamber that can disinfect up to 10 PPE sets at a time. They also devised standard protocols for PPE treatment. Apart from PPEs, relevant materials such as improved respirators, nasal swabs, snorkel masks, robotic arms, laboratory equipment, and hospital beds are also being taken care of various committees.

Currently, the Task Force LB Kontra COVID-19 is conducting research to develop a COVID-19 testing kit, increase the production of enzymes for local test kits, refine patient tracing and tracking methods, and produce mathematical models for data-based policy creation and decision-making. *(Josephine M. Bo and Albert Geoffrey B. Peralta, with reports from Kristine E. Araguas)*

PREPARING FOR THE NEW NORMAL

The global disruption brought about by the COVID-19 pandemic has forced everyone to rethink how to interact with others.

This situation, however, now acts as a catalyst that hastens the university's adoption of various educational technologies that will allow it to meet the challenges of the Fourth Industrial Revolution, a key focus of the UPLB Strategic Planning in January 2019.

Education 4.0, the educational approach that aligns itself with the demands and opportunities of the Fourth Industrial Revolution, will see the university nurturing creativity and innovation, preparing individuals for life-long learning, and instilling values of nationalism and service to the nation through digital and smart technologies.

To realize these goals amidst the pandemic, there is a need to shift towards a flexible learning environment with systems of instruction and assessment that combine online learning, face-to-face interactions, and modular approach.

Because of restrictions imposed to stem the spread of COVID-19, UPLB will facilitate a three-phase strategic approach towards flexible learning.

Phase I - Shift to remote flexible learning, preparing university personnel and students for the modified curriculum

- redesigning courses
- adapting learning management systems

- designing learning environments

Phase II - Adaptive flexible learning, start of implementation of Education 4.0 practices

- development of technology to support Education 4.0
- creation of learning management systems
- supporting adaptive learning environments

Phase III - Full flexible learning stage, full implementation of flexible curricula and instruction

- strengthening inclusive flexible learning environment and academic and administrative support systems
- sustaining innovation and Education 4.0 practices

To assist faculty members and students, the Office of the Vice Chancellor for Academic Affairs (OVCAA) developed the UPLB Primer for Flexible Learning and the Student Guidebook on Flexible Learning, which both detail the process of shifting and describe flexible learning for Education 4.0 and beyond.

In the last five years, substantial investments in improving the technological infrastructure have been made in UPLB. These include modernizing library and knowledge management systems, improving fiber optic network and Wi-Fi

connectivity, and developing state-of-the art multi-media production facilities, which have boosted UPLB's capacity to produce information, education, and communication materials. Moreover, in research and extension, the university has developed better database management systems to enhance access to knowledge products and technologies.

Virtual research laboratories in each academic teaching unit were set in place to support undergraduate and graduate research and to promote the culture of mentoring between advisers and students.

To swiftly and efficiently transition to a flexible educational environment, the UPLB Publications Office was tapped in the production of course packs, learning resources, and other materials to support learning strategies. The Interactive Learning Center was tasked to conduct learning programs that support the efficient use of learning management systems. The University Library set up mechanisms to provide comprehensive online and offline access to references for faculty members and students.

UPLB's satellite units are also being eyed to serve not only as remote learning stations but also as venues for improving the capacities of other state universities and colleges in their vicinity.

For remote education strategies to work, registration services need to be fully onboard. Thus, the Office of the University Registrar (OUR) launched its own website so it can better serve students and alumni. A mobile app is being developed, too, to provide better access to OUR services.

The efforts and innovations to adapt to the new normal and to build resilience among UPLB constituents continues during and after this pandemic. *(Josephine M. Bo, with info from UPLB Primer & Student Guide on Flexible Learning)*



