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# Capacity Development in Agriculture through Internationalization at UPLB

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## Introduction

The internationalization of higher education institutions is a natural and inevitable consequence of the continued globalization of economies. It is defined as the specific policies and programs that the government and other institutions undertake to deal with the demands of globalization (Altbach *et al.*, 2009). The rationales for internationalization are categorized into political, economic, social and cultural, and academic (De Wit, 2002). The most dominant of which are economic and academic. Businesses, knowledge, communication and services transcend national boundaries, thus strategic alliances and human resource development became very important.

The two aspects of internationalizing higher education are internationalization at home and the internationalization abroad (Knight, 2008). The former include curriculum oriented activities that would develop international awareness and intercultural skills in the students. The latter pertains to institutional projection and includes programs like student and faculty academic mobility programs, joint degree programs and research collaboration.

One of the main driving forces for the need for internationalization in the universities in the region is the ASEAN Economic Cooperation 2015/Integration 2020. The main aim of the ASEAN Economic Community (AEC) is the transformation of 10 member countries of ASEAN into a single market and production base for the free flow of goods, services, investment, capital and skilled labor (Azanza, undated). Because of the coming into force of the AEC, ASEAN universities are

being challenged to produce graduates who can compete in the global market and undertake researches that can contribute to the growth and development, not only in their countries, but also of the ASEAN member nations. UP recognizes that with ASEAN integration, the advantage of its graduates will be challenged by graduates of other ASEAN universities. Hence, the University of the Philippines has taken on the challenge, and is now driven to develop curricular programs and produce graduates with core competencies consistent with the ASEAN 2015 qualification framework requirements.

## The University of the Philippines System

The University of the Philippines (UP) is a public university system that was established in 1908 to provide advanced instruction in literature, philosophy, the sciences and arts. The UP system is composed of seven (7) constituent units located in 15 campuses found in different parts of the country, 8 satellite campuses and 4 basic education campuses.

In the occasion of its centennial year, it was recognized by the Philippine Senate as the “nation’s premier university.” UP was bestowed as a National University and was granted institutional autonomy by the Philippine government. Under its Charter of 2008 (Republic Act 9500), UP is mandated to perform its unique and distinctive leadership in higher education and development. UP ranks first among universities in the Philippines, and 70 in Asia, based on the 2016 Quacquarelli Symonds (QS) University Rankings In the QS World University Rankings involving more than 800 universities worldwide,

According to UP President Alfredo E. Pascual, there are three key points towards internationalization at the UP system level (<http://www.up.edu.ph/internationalizing-the-national-university-the-up-president->):

- 1) ***Shift from a comprehensive line-up of programs to niche programs.*** At present, the ranking of some programs in UP are as follows: 101<sup>st</sup> in English language and Literature; 151<sup>st</sup> in Agriculture and Forestry, and Modern Languages; 234<sup>th</sup> in Social Sciences and Management; 272<sup>nd</sup> in Arts and Humanities; and 301<sup>st</sup> in Medicine (<http://www.up.edu.ph/qs-ranks-up-no-1-in-phl-no-70-in-asia>). The University takes pride in having produced alumni who made great contributions in the Philippines and have also made their mark in other parts of the world. However, before UP can develop well-defined niches in the higher education market based on areas of strength around which it can develop internationally-or regionally-competitive programs, it requires a cadre of appropriately highly trained faculty members and adequate facilities, among others.
- 2) ***Transition from disciplinal enclaves to multidisciplinary, interdisciplinary and transdisciplinary approaches.*** Among the constituent units of the UP System, UPLB is the first among the constituent units of the UP system to embrace the interdisciplinary and transdisciplinary approaches in research as part of its thrust to make its research, development and extension programs more holistic, more inclusive, and more responsive to the needs of the society. There were 18 interdisciplinary studies centers that were tasked to adopt and practice interdisciplinary conduct of intensive basic and applied; develop a five-year RDE interdisciplinary RDE agenda in support of the attainment of the Philippine development goals; develop, package and propose programs for internal and external funding; and pursue local, national, regional and global linkages with respect to strengthening and expanding interdisciplinary studies. (<http://www.uplb.edu.ph/research/interdisciplinary-studies-centers>)
- 3) ***Development and increase the number of competitive programs for student mobility.*** At UPLB, the streamlining of graduate programs is in pro-

gress and is guided by the mandate of maintaining domestically oriented programs that are of strategic importance to the Philippines. All the undergraduate and graduate programs of UPLB are currently undergoing curricular review and revision to make them more relevant and competitive under the ASEAN integration. New courses have been proposed and approved for institution. Moreover, the undergraduate curricula are being aligned with the K-12 basic education system. Courses were formatted to comply with the outcomes-based education (OBE) format. The AUN accreditation of bachelor's degree programs in biology, development communication, agricultural engineering and bioprocessing has been completed. The accreditation of the BS Agriculture as well the BS Forestry program is in progress.

To increase student mobility, UP is an active participant in the ASEAN International Mobility for Students (AIMS) program of the Southeast Asian Ministers of Education Organization (SEAMEO) as well as in the student exchange program of the ASEAN University Network (AUN).

### University of the Philippines Los Baños

The University of the Philippines Los Baños (UPLB), one of the constituent units of the UP System, was established as the UP College of Agriculture in 1909. It now offers degree programs in agriculture, forestry, biological and environmental sciences, engineering, mathematics, veterinary medicine, computer science, social science, communication and the humanities; 28 undergraduate, 70 Masters and 30 PhD programs. Currently, the student population is more than 12,000 which is composed of Filipinos and foreign nationals.

The University of the Philippines Los Baños (UPLB) has taken strategic moves to intensify internationalization and academic quality assurance in the institution. As former UPLB Chancellor Rex Victor Cruz said in one of his speeches, "UPLB has been a leader in global education long before the international academic community became increasingly linked and mobile as it is today. In Asia and the Pacific, it has earned the respect of its neighbors for its significant contribution to human resource development in agriculture, forestry and allied sciences. Today, we build on the gains of our predecessors as we continue to

strengthen our capacity for internationalization by providing a high quality educational experience for the best students over the world, and developing our global profile and reach as a leader in providing world class education.”

UPLB’s goals for internationalization are to produce graduates with core competencies for the global market; to increase the visibility of UPLB in Asia and the rest of the world; and to retain the leadership in the academe and nation building. The University would strive to cater to the needs of the country and the global community.

### College of Agriculture

Agriculture together with forestry, are the two banner programs of UPLB. The College of Agriculture (CA) is a recipient of the 1977 Ramon Magsaysay Award for Understanding (the Asia counterpart of the Nobel Peace Prize) for its quality teaching and research, and fostering the sharing of knowledge in modernizing Southeast Asian agriculture. The Philippine Commission on Higher Education (CHED) had recognized CA as the Center of Excellence in Agricultural Education since 2011.

CA considers itself as a premier institution of higher learning in agriculture and food sciences promoting the development of a robust agriculture and industry that meets the challenges of food security and safety, poverty alleviation, climate change impact mitigation and environmental sustainability. It is committed to the development and implementation of relevant programs in education, research, extension, policy-making/advocacy and nation building.

CA offers four (4) undergraduate, four (4) Master of Agriculture, ten (10) Master of Science and eight (8) PhD programs. Five (5) constituent clusters and seven (7) research institutions/centers carry out the academic and research programs. The College has an extension program that disseminates evidence-based information, educational programs, and technology transfer services to numerous beneficiaries in order to inculcate the importance of food and environment security, community empowerment and entrepreneurship.

#### Activities at UPLB towards Internationalization

1. **Implementation of the K-12 Program.** One of the most significant measures taken by the Department of Education towards international-

ization is the implementation of the K-12 program in the educational system of the Philippines. Before its implementation, students are required only four (4) years of secondary education prior to a baccalaureate degree (total of 10 years pre-university). It was deemed that the system is disadvantageous to the graduates in the global manpower market and even in graduate school applications in foreign universities. The K-12 program entails a year in Kindergarten, 6 years of primary and 6 years of secondary education.

2. **Change in Academic Calendar.** For easier implementation of exchange programs with partner academic institutions, the UP Board of Regents approved the shift in academic calendar in 2014. The University schedule is now August to December for first semester, January to May for second semester, and July for midyear classes. The shift in academic calendar is better synchronized with those of partner universities in ASEAN and the rest of the world. Take note that Malaysian and Thai universities have also gone through the exercise of shifting their calendar earlier.
3. **Recruitment of New Faculty Members with Advanced Degrees.** The proportion of PhD degree holders in the pool of academic staff was decreased with the retirement of old faculty members and researchers. Several strategies were taken to address the issue. Programs like improved access to in-house financial support and grants from local and international institutions were implemented to encourage young faculty members and researchers to pursue advance studies in foreign universities. Active recruitment of brilliant MS and PhD degree holders as

**Table 1.** Recruitment of faculty members with advance degrees

Year	Degree		Total
	MS	PhD	
2011	16	8	24
2012	42	12	54
2013	28	9	37
2014	1	3	4

Source: UPLB Accomplishment Report 2011-2014

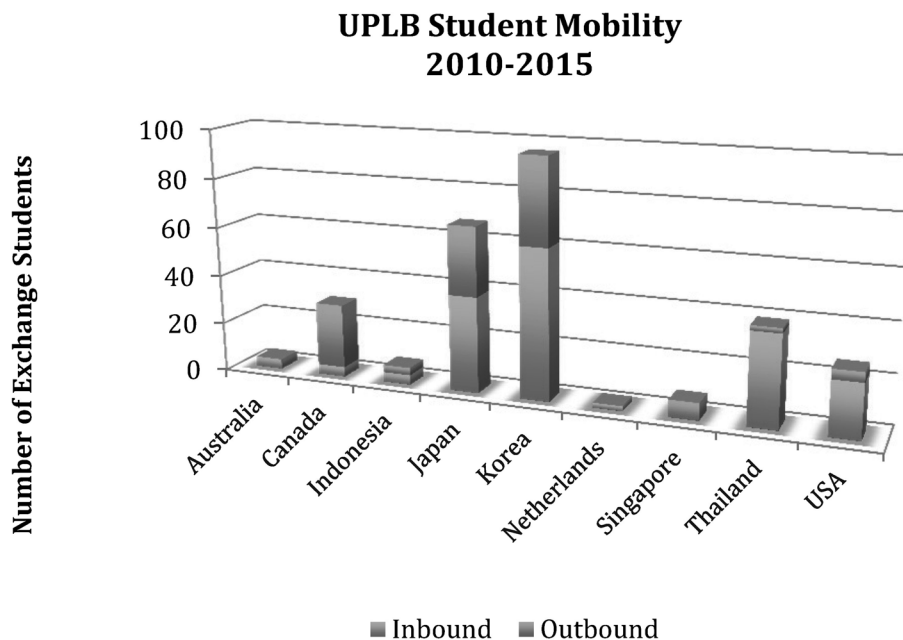


Fig. 1. Number of participants in exchange programs of UPLB with various countries

lateral entrants at UPLB is also being undertaken (Table 1). Well-known researchers from local and international organizations are also recruited as adjunct professors.

4. **Empowerment of Colleges for Internationalization.** Funds were provided to support programs or activities that would increase the global competitiveness of UPLB. The funds were used in various ways: organize international conferences, book writing, publication in indexed peer-reviewed journals, and review of degree programs. In 2015, there were 15 conferences that were co-organized by UPLB with foreign institutions. The themes were on climate change, sustainable forest management, soil conservation and management, and topics on eco-nutrition.
5. **Collaborative Program Modalities with International Institutions.** The collaborative offering of joint and dual graduate degree programs with foreign partner universities including the members of Southeast East Asian Regional Center for Agriculture (SEARCA) university consortium is underway. UPLB has been aggressive in instituting joint program memorandum of agreement (MOA) with top-ranking universities in the Asian region. The MOA for

the establishment of the joint program in bio-agriculture and international development of UPLB and Nagoya University has been signed in 2015. The program is currently being offered in the satellite campus of Nagoya University at UPLB. In addition, UPLB offered the first credit transfer postgraduate course on food and nutrition security and sustainable development in Southeast Asia. The program was funded by SEARCA and the University Consortium in agriculture, forestry and natural resources in the ASEAN region.

6. **Strengthening and Expansion of Linkages with Foreign Institutions.** UPLB has existing linkages with 106 universities spread in 26 countries. International academic agreements involve student and faculty member exchange, visits of faculty or researcher, conduct of collaborative research and creative projects, conduct of lectures, trainings and symposia, and exchange of academic information and materials.
7. **Student exchange.** Most student exchange activities were with Japan and Korean universities (Fig. 1). At UPLB, it is mostly undergraduate students who participate in exchange programs. The number of exchange students may not be sizeable but an increasing trend was observed in

**Table 2.** Number of exchange students at UPLB from 2010 to 2015

	Academic Year				
	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015
Inbound	25	28	26	44	50
Outbound	17	7	28	21	32

the last three academic years (Table 2). It was noted that there are more inbound than outbound students. The limiting factor for UPLB students is the high cost of living in other countries and the limited funds available. Some would use personal funds but most depend on the funding by partner universities.

8. **Faculty Exchange.** Faculty members and researchers are posted in foreign universities and research institutions as visiting professors, visiting scientists or as research fellow. In the same way, UPLB is constantly hosting professors and researchers from other countries. The accomplishments and take-home learnings that they make become useful in their teaching and research functions in UPLB. In addition, the activity opens opportunities for collaborative research work among institutions.
9. **International Research Collaborations.** There are 50 active researches that were conducted and some are still being conducted by UPLB in partnership with international institutions for the last four years. Most of the research projects are in the biological sciences, chemistry, development communication, agricultural engineering, and forestry.
10. **Nurturing of Students as UPLB Ambassadors.** The internationalization of higher education entails integrating an international dimension into the teaching, research, and service functions of an institution (Ho *et al.*, 2015). This is exactly what UPLB did and is still doing to meet the expectations and goals of international students. Updating of Academic programs and courses, strengthening the pool of faculty members, modernizing research facilities and equipment, are the major activities undertaken by UPLB. It is the aim of University to give the international students good memories that they can share with their countrymen. The students

are nurtured for them to become ambassadors of UPLB thereby increasing the promotion of the University to prospective students from other countries. The Graduate School and the Office of Student Affairs organize activities for all international students to enhance cross-cultural interaction and mutual recognition. Filipino graduate students also serve as UPLB ambassadors when they attend universities abroad to cross register for some courses or conduct research.

Students who are interested to conduct their MS or PhD thesis in foreign universities are allowed to apply for the sandwich program of the graduate school. In this program, the students take courses at UPLB but conduct the thesis/dissertation research in a foreign partner university under the guidance of a faculty member of the said university. Scholarship grants for selected students in the program are available from the University of the Philippines system or from the Science Education Institute (SEI) of the Department of Science and Technology (DOST).

11. **Modernization of Infrastructure and Facilities.** To create an enabling environment that will support the academic, research, and extension programs, UPLB has started to modernize its facilities. Infrastructure projects include renovations and constructions of buildings and facilities. Purchase of new laboratory equipment is made possible by funds from the University, research grants, donations from partner institutions and the private sector. The hosting of the Nagoya Satellite Campus in UPLB brought in funds for the purchase of modern laboratory equipment. To attract more international students, funds were allocated for the construction of the new Graduate School International Student and Cultural Center.

## Benefits from Internationalization Activities

Understanding and cooperation among universities are rewarding to both the students and staff, and to the home institution. Students and staff often cited enhanced knowledge and skills, greater self-image, deeper understanding of other cultures, enhanced ability to see things in a wider perspective, increased chance of getting admission and scholarships for graduate studies and enhanced job opportunities as some of the benefits that they got.

For UPLB, enhancement of the quality of graduates, research output and extension services are the primary benefits of internationalization. All the efforts of the institution for internationalization help improve academic quality thereby, producing better quality graduates. For instance, the sandwich program of the graduate school produces graduates with international exposure, knowledge and skills. The recruitment of international students helps create a multicultural environment for learning that broadens the perspective of students, and foster international understanding.

Upgrading of research facilities is one of the tangible benefits of internationalization. Grants from funding agencies, partner universities and the private sector make this possible. With modern equipment, reliable quality research outputs are produced. Quality research outputs increased publications in international journals.

Research collaborations with foreign universities were established out of the faculty and researchers exchange/internship programs. The learnings out of the program are used for teaching and research functions. Knowledge and skills that are brought into the country are used for upscale researches and development of technologies or products that benefit the food and agriculture sector of the country. UPLB has produced research results that have found application in food production. It has also produced numerous technologies that have been adapted by the country. The output from internationalization activities helped enhance the reputation of UPLB.

## Challenges to Internationalization

Higher education institutions (HEIs) should be in the forefront of internationalization. The challenges are: 1) increase mobility of faculty and students; 2) improve academic programs to international quality; 3) intensify collaborative and high quality research and

curricular activities; 4) develop more academic partnerships in education and research amongst universities from different countries. Quality assurance is most pertinent in the discourse on internationalization of higher education to meet higher employer standards and accreditation of curricular offerings.

At the practical level, UPLB had to grapple with some issues and problems. Among these are:

1. **Availability of funds.** Most students and faculty in exchange and internship programs usually prefer to study in more advanced HEIs abroad that are more likely located in the developed countries where the cost of living, tuition and other expenses are very high. Hence, the participation in these international programs will be dependent on the availability of funds; i.e. only students from high-income families. On the other hand, students from low- to middle-income families, no matter how good and qualified they are, and institutions that have inadequate financial resources will not enjoy these programs. For programs with funding from partner universities, only very limited and highly competitive slots are available. Of the over a hundred academic partners of UPLB, only a few are actively pursuing student mobility programs. UPLB was able to partly address the disparity in the tuition fees among universities. UPLB is a founding member of the Southeast Asian University Consortium for Graduate Studies in Agriculture and Natural Resources<sup>1</sup> (UC). By sharing academic expertise and resources, the consortium is supporting and strengthening its members' initiatives toward the internationalization of graduate education through various student and faculty mobility programs, collaborative research, and joint and dual degree offerings. One of the main problems in implementing joint and dual degree offerings is the big disparity in tuition fees charged by the different member universities. In 2014, the consortium members agreed in principle that students who

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<sup>1</sup> *The University Consortium was founded in 1989 with UPLB, Universitas Gadjah Mada (UGM), Institut Pertanian Bogor (IPB), Kasetsart University, and Universiti Putra Malaysia (UPM) as founding members. Associate members are Tokyo University of Agriculture (Tokyo-Nodai), Georg-August University of Göttingen (GAUG) and University of British Columbia (UBC).*

will participate in this program will be charged local fees of his/her home university.

2. ***Inward looking undergraduate course offerings.*** Almost all of the undergraduate degree programs being offered at UPLB have many liberal arts courses that are not appropriate to the needs of the international community, particularly those at the ASEAN region.
3. ***Language problem.*** The medium of instruction at UPLB is English. This is not yet the case in many ASEAN universities and many parts of Asia. This is problematic, most especially in academic exchange programs and internships. At UPLB, there is the Language Instruction Toward Excellence (LITE) Program. It was initially designed for international graduate students whose TOEFL and IELTS scores do not meet the required standard of the university. The program involves 150 hours of intensive English tutorial on the following: pronunciation improvement, oral presentation skills, reading and vocabulary, grammar and academic writing.
4. ***Cumbersome and lengthy processing time of travel papers and visas.*** Many times, outbound exchange students were not able to arrive in time for the start of classes because of delay in processing of documents. Hence, alongside promotion of student and faculty mobility, there should also be a study of immigration policies, particularly those that govern the entry of students, scholars, and other educational practitioners, and remove all the disincentives for both inbound and outbound students and faculties.
5. ***Resistance to internationalization of education at UPLB.*** During the initial discussions on the internationalization of UP, there are groups within the university (both students and faculties) questioning the focus of the university to institute changes to prepare students to become global citizens. The apprehension that the opening up the university to international students could be at the expense of the local students and specific needs of the country. Further, since admission at UPLB is very selective, where only 10–15% of applicants are admitted, there were fears that Filipino students may be displaced. Further, other issues raised against internationalization of education were commercialization and commodification of education, and brain

drain. The concept of “commercialization of education” is very sensitive and is not well received at UP.

## Conclusion

Competition in higher education due to internationalization is a daunting challenge. Even the University of the Philippines, which is considered an ‘elite’ among universities in the country has a lot of catching up to do. Governments of more endowed countries like Australia, Canada, Singapore, Japan, Korea, and others have special drives, strategies and funding mechanisms towards promoting higher education. Even Southeast Asian countries like Malaysia and Singapore, are now established “education hubs” for international students. Unfortunately, the Philippines does not have a well-laid strategy and fiscal resources for promoting Philippine higher education abroad. This trend, coupled with the increasing ease of cross-border higher education mobility does not bode well for the competition that UP will have to face.

Notwithstanding, internationalization of education is inevitable. The University of the Philippines Los Baños has taken strategic approaches to attain its goals for internationalization that include: producing globally competitive graduates, increasing the visibility of UPLB in Asia and the world, and contributing to the development of Philippine Agriculture and in making it competitive in the world market. The initiatives of the University towards internationalization are gradually showing desired results, but much has yet to be done. There is no other way to go for UPLB but forward. The University is determined to move forward to maximize the gains of internationalization.

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