Human Ecology Education for Development and Sustainability: The College of Human Ecology at the University of the Philippines Los Baños

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ABSTRACT

In different parts of the world, the development and teaching of Human Ecology have taken on different and distinct disciplinal roots and development trajectories. Most published papers on the historical development of Human Ecology focus on western higher education institutions, particularly those based in the United States, Europe, and Australia. This paper aims to contribute to the discussion of Human Ecology development in higher education institutions, focusing on the experience of developing countries such as the Philippines in establishing and promoting an interdisciplinary Human Ecology in the academe. In this paper, the authors set out to (1) examine the history of Human Ecology in Asia, in general, and University of the Philippines Los Baños (UPLB), in particular; (2) discuss the challenges faced by the College of Human Ecology (CHE) in the development of Human Ecology in the university; and (3) identify the prospects and future directions of Human Ecology in UPLB as collaborations are continually strengthened across the International Society of Human Ecology’s network. Discussion is based on a review of related literature, personal interviews, and discussions with key Human Ecology colleagues in several workshops spanning 2007 to 2017. Key insights include the following: (1) most Human Ecology programs in Asia are local, applied, and action-oriented and were established through the evolution of Home Economics, growing global environmentalism, and institutional changes in response to these changes; (2) challenges faced by Human Ecology in UPLB include pedagogical issues for interdisciplinarity, navigating academic turfs, and securing professional recognition; and (3) current prospects of CHE include impact areas in policy and development, including its contribution to Human Ecology knowledge production and dissemination. Future directions include developing its theory- and method-building through Human Ecology graduate programs, exploring innovative transdisciplinary teaching-learning approaches, and strengthening its policy advocacy role in the region.

Keywords: human ecology, interdisciplinary, history, Philippines, Asia

INTRODUCTION

In different parts of the world, the development and teaching of Human Ecology – its concepts and approaches – have taken on different and distinct disciplinal roots and development trajectories (Dyball and Carpenter, 2006). Consequently, there is diversity in its definition, focus, and application. In the 1950s and 1960s, disciplinal and applied fields from the Social Sciences, Health, and Urban Planning developed Human Ecology as a perspective to capture the complexity of socio-environmental issues (Lawrence, 2019). It was in the 1970s when different
international higher education institutions (HEIs) offered it as an academic program that Human Ecology started to take shape (Borden, 2017).

The path human ecologists have taken to provide Human Ecology a disciplinal position in higher education was not an easy one. Human Ecology’s generalist nature runs counter to the disciplinal specialization honored in higher education and the workforce, and such divergence has remained to be a challenge throughout Human Ecology’s history (Dyball, Borden, and Serbser, 2009; Boyden, 1981). Furthermore, the different disciplinal take-off points and anchors it took from Home Economics, Health, Biology, and Social Sciences inevitably led to confusion as to what Human Ecology’s focus is (Gaziano, 1996). Although Human Ecology is commonly defined as the study of the interaction of humans and their environment, the lens and focus vary across academic fields (Lawrence, 2010). Despite its complex history, Human Ecology thinkers continue to develop integrated frameworks and approaches to better understand the multifaceted dynamics between humans and their environment (Dyball and Newell, 2015; Eusebio, 1983). Also, network-building by human ecologists from different parts of the world, made possible through regionally based professional organizations such as the US-based Society for Human Ecology (SHE), paved the way for academic exchanges and discussions that have helped clarify common definitions, shared approaches, and blended frameworks (Dyball, Borden, and Serbser, 2009).

Several papers have documented the development of Human Ecology in Western higher educational institutions, specifically those from the USA, Australia, and Europe (see e.g., Borden, 2017; Boyden, 2002; Dyball, 2010; Dyball, Borden, and Serbser, 2009; Glaeser, 1998; Lawrence, 2010). These papers highlight the motivations, theoretical and conceptual frameworks and methods, and challenges in promoting Human Ecology as an ‘interdiscipline’ (Glaeser, 1998) in Western academia. However, the contributions to Human Ecology of developing countries, most notably those in Asia, are rarely mentioned in these papers. Earlier publications have documented Human Ecology perspectives from various institutions based in different parts of the world (see e.g., Borden, 1986; Borden, 1989; Boyden, 2016; Dyball, 2017; Suzuki, Borden, and Hens, 1991). These include the paper by Dr. Francisco Fellizar Jr., former dean of the College of Human Ecology (CHE), on the ‘Activity and education of human ecologists in the Philippines’ in the 1991 book compilation of Human Ecology initiatives in the world (Shosuke, Borden, and Hens, 1991). It is vital to see the developments and contributions of Human Ecology almost 30 years after the book’s publication, especially during what Boyden (2017) dubbed as the Fourth Ecological Phase or what is now popularly known as the “Anthropocene”, which is characterized by tremendous changes in human-nature interrelationship (Crutzen and Stoermer, 2000). This paper attempts to fill this gap by focusing on the development and teaching of Human Ecology at the University of the Philippines Los Baños (UPLB), which is located in one of the most dynamic global regions – the Southeast Asia (Association of Southeast Asian Nations [ASEAN], 2015). If Human Ecology positions itself as a unique discipline with a strong normative aspect, it is critical to reveal how Human Ecology institutions have evolved and responded in developing countries such as the Philippines. UPLB was also one of the first degree-granting institutions to offer Human Ecology as an undergraduate degree program in Asia (Eusebio, 1983).

This paper aims to contribute to the discussion of Human Ecology development in higher education institutions, focusing on the experience of developing countries, particularly the Philippines, in establishing and promoting an interdisciplinary Human Ecology in the academy. The authors set out to (1) examine the history of Human Ecology in Asia, in general, and UPLB, in particular; (2) discuss the challenges faced by the College of Human Ecology in the development of Human Ecology in the university; and (3) identify the prospects and future directions
of Human Ecology in UPLB as collaborations are continually strengthened across the International Society of Human Ecology’s network. This article is based on a review of related literature, particularly historical development papers on Human Ecology in different universities (as indicated above) and in UPLB1, personal interviews and discussions with key Human Ecology colleagues in several workshops where the authors served as facilitators and moderators from 2007 to 2017 (International Conference for Human Ecology)2, and participant observation of the authors, whose professional experience in the college ranges from 16 to 42 years.

Human Ecology in Asia and UPLB

Establishment and Early Years of Human Ecology in Asia and UPLB

A web search of Human Ecology institutions in Asia and interviews with Human Ecology colleagues showed that 22 institutions offer Human Ecology courses and degree programs, research programs, and professional organizations (Annex A). Most (17 out of 22 institutions) of them are included in the list of Human Ecology institutions and programs of the US-based Society for Human Ecology (see https://societyforhumanecology.org/human-ecology-programs-and-institutions/). More than half (54.55%, 12) of these institutions started as agricultural colleges and universities established by the central government, following the model originally established by North American Land Grant universities in the early 1900s (Dyball, 2012). Exceptions include six private universities and four professional organizations. Most Human Ecology degree offerings and units listed in Annex A were established in the 1960s and 1970s.

Scrutinizing the Human Ecology programs of the identified institutions in Asia, most programs fall under the local, applied, and action-oriented mode of Human Ecology compared to Western Human Ecology, which focuses more on a philosophical and methodological inquiry into the universal human condition, according to Dyball (2017). These two modes, he furthered, should not be seen as antagonistic but rather as complementary.

It becomes evident that there are three key drivers for the development of Human Ecology in the region – the evolution of Home Economics, growing environmentalism, and institutional changes to respond to these changes. First, most (72%, 13 out 18 HEIs) institutions offer courses and degree programs with focus on local family and community well-being under Home Economics (e.g., Family and Child Studies, Textile and Clothing). Home Economics is one of the applied disciplinal roots of Human Ecology. Also, Ellen Swallow Richards, who coined the term ‘Human Ecology’ in 1892 and has become one of its early proponents, was active in the Home Economics movement (McGregor, 2020). She was also a feminist who trained and advocated for women’s engagement in the application of scientific methods in

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solving social-ecological issues (Richardson, 2002). Swanson (2013, p. 3) discussed the view of Richards vis-à-vis the growing role of women in the community and the interrelationship of the individual and family to the environment as follows:

‘Richards was a central character in the relationship between women’s expanding participation in social reforms and the new environmental consciousness that arose during the time of rapid urbanization of the built environment. She promoted the idea that the world was the home for humanity and should be kept up like any housewife should keep her home...She believed that the condition of bodies affects individuals, homes affect families, cities affect communities, and the condition of the world affects every organism’

Home Economics evolved from being concerned with women managing the household to engaging more in the wider community and environment. For instance, the forerunner of the College of Human Ecology in UPLB, the Department of Home Technology under the College of Agriculture, was established to ‘train women as men’s partners in agriculture and rural development’ (Bernardo, 2007). In the 1960s, changes in the agricultural landscape brought negative impacts on women’s roles as partners in agriculture. The ‘Green Revolution’ promoted more modernized and commercial farm production over family-based and domestic food production, resulting in problems among women as “daily managers of the living environment” (Sobha, 2007, p. 107). This affected the discipline of Home Technology, which focuses on managing the ‘near environment,’ causing it to cease being a priority of the modernizing agriculture sector. Also, as discussed above, the growing recognition of women’s roles in social reform, as well as the employment of Home Economics to understand the interrelationship among the individual, the home, the community, and the world, expanded the application of this integrative lens to the larger community.

Second, the growing environmentalism has led higher education institutions to offer courses that would address pressing environmental issues. One of the hallmark events that marked the growing concern over environmental conservation issues is the UN Conference on the Human Environment or the Stockholm Conference in 1972. Similar to other Human Ecology institutions in the world (Dyball, Borden, and Serbser, 2009; Borden, 2017), the establishment and re-organization in 1974 of units from the Department of Home Technology into the Institute of Human Ecology (IHE) in UPLB served as a response to the growing conservation belief that challenged modern economic and extractive human modes to work toward better care for the human environment (Eusebio, 1983). The growing environmentalism and establishment of different Human Ecology programs in the world ushered the development of a more interdisciplinary Human Ecology (Borden, 2017). This integrated concern from the family, the community, and the environment is visualized in the earlier nested framework of the College of Human Ecology (Figure 1) (Eusebio, 1983).

![Figure 1. Broad components of Human Ecology (Eusebio, 1983, p. 5)](image-url)
Lastly, Human Ecology has now become the catch-all term that international institutions use when combining various areas of studies related to home economics, agriculture, health, and environmental studies into larger, more generalized institutional units. The Institute of Human Ecology in UPLB, for instance, aimed “to further integrate and unify all disciplines and to enable the University to play or serve a functional role and exert a more solid impact in national development” (Eusebio, 1983, p. 5). Upon its founding, the Institute of Human Ecology became the new home of the Department of Home Technology after its transfer from the College of Agriculture (Bernardo, 2007). Academics from various disciplines, such as Home Technology, Forestry, Agriculture, Anthropology, Community Development, Extension Education, Agricultural Economics, and Nutrition, were also invited to collaborate and strengthen the new institute (Eusebio, 1983). The College of Human Ecology was conceived as an integrative and multi-disciplinary college during its inception. Lawrence (2010, p. 125) defines multi-disciplinarity as academics and researchers applying their specialization in a given project without necessarily coming up with a common framework.

Similarly, the merger of the Department of Human Development Studies (formerly Home Technology) and Department of Social Sciences resulted in the establishment of the Faculty of Human Ecology in the Universiti Putra Malaysia on April 15, 1992 (Rahim, 2017). Nevertheless, some universities in Asia never lost the core subjects and themes of Home Economics, including Clothing and Textile, Food and Nutrition, and Family Resource Management (Annex A).

**Research and Extension Initiatives in the Early Years of CHE**

The integrative nature of Human Ecology is also reflected in the research and extension initiatives of the college. CHE-UPLB employed action-research that integrated research, extension or public service, and teaching in its projects and initiatives (Sajise, 1984). In the same way that community extension is one of the strong points of most agricultural universities as they educate farmers about innovations and improved farming methods, CHE also worked closely with its neighboring communities. This is done through various extension projects, including technical assistance from students and volunteer engagement of faculty and researchers. Examples of selected interdisciplinary research and extension projects implemented in CHE’s early years are listed in Table 1.

**Table 1. Some early CHE projects (1970s-1980s)**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Inclusive Years</th>
<th>Intervention</th>
<th>Funder</th>
</tr>
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<tbody>
<tr>
<td>Barangay Integrated Approach for Nutrition Improvement of the Rural Poor (BIDANI)</td>
<td>1978 to present</td>
<td>Nutrition development action-research program to respond to the growing malnutrition problem of the Philippines</td>
<td>Initial funding from the Netherlands government</td>
</tr>
<tr>
<td>Community and Family Life Education Laboratory (COM-FA-LAB)</td>
<td>1984-1987</td>
<td>Package of technologies in the areas of child development education, family relationships, skills, development, for livelihood, and family life management</td>
<td>Internal funds</td>
</tr>
<tr>
<td>UPLB upland hydroecology program</td>
<td>1976-1980</td>
<td>Research on upland ecosystem dynamics for land use classification/ allocation of upland areas; establishment of a training center for applied research on upland ecosystems, and; organization of a national applied research network</td>
<td>Ford Foundation</td>
</tr>
</tbody>
</table>

1 Fellizar, 1991 2 Sajise, 1984
CHE differs from other colleges in applying a whole-of-curriculum approach, connecting instruction, research, and extension learnings (Minett-Smith and Davis, 2020) by integrating faculty and students from different specializations to work together on these action programs. Through college courses on local development planning, e.g., Community Services and Programs, Community Study in Human Welfare, Human Settlements Planning, and Human Nutrition, students supervised by the faculty from different departments work on local projects and initiatives, such as assistance in barangay (village) development planning, community profiling, land use planning, and nutrition assessment of target sectors.

**Challenges Faced by Human Ecology in HEIs**

Working with experts from different disciplinal backgrounds for interdisciplinary approaches in teaching and learning, as in the case of Human Ecology, poses several challenges. These challenges were summed by Stojanovic et al. (2016, p. 15) as follows:

"differing and sometimes philosophically conflicting methodological approaches; addressing the contrasting terminologies used by a broad range of academic and professional disciplines; taking account of uncertainties within existing fields of knowledge; positioning of research within the social and political context; and cultural challenges in the process of interdisciplinary scientific knowledge production, such as the disciplinary turf wars, current academic ‘rewards’ systems that inhibit interdisciplinary work, and potential for openness and trust; and finally, and not least, the cognitive challenge of capturing breadth without sacrificing depth of knowledge."

This is mirrored in the struggles of Human Ecology in establishing an interdisciplinary course and research program in HEIs. As Borden (2008, p. 95) argued:

"Each discipline has a home territory, architecturally walled off as its domain. Some of the fiercest barriers divide adjacent fields. It is little wonder that interdisciplinary pursuits have struggled to secure a place in modern universities. These are the obstacles the founders of the Society for Human Ecology confronted. They remain. It is unlikely they will ever disappear."

In this section, the different challenges that arose as Human Ecology was being developed in CHE-UPLB are discussed under three themes – pedagogical issues for interdisciplinarity, navigating academic turfs, and securing professional recognition.

**Pedagogical Issues for Interdisciplinarity**

Even during its early years, the common teaching practice in CHE-UPLB was team teaching, a strategy wherein experts in particular topics cover the discussions in the course. There are different types of team teaching – the co-teaching approach (two or more faculty present throughout the session), the tag rotation approach (one faculty covers particular topics), and a hybrid approach (a combination of co-teaching and tag rotation) (Dugan and Letterman, 2008). This pedagogical approach has its advantages, particularly for cross-disciplinary and interdisciplinary courses like Human Ecology (Ottinger, 2004). While team teaching could provide "greater insight," it could also result in "content overlap, conflicting messages, team failure, and lack of teaching-learning ownership" (Mon-ney and Coughlan, 2016, p. 802). In CHE-UPLB, this teaching-learning approach helped different faculty experts to focus on the ecological and systems approach that incorporates both biophysical and socio-cultural dimensions in analyzing community issues (Eusebio, 1983). The team-teaching approach is still being practiced today in some courses in Human Ecology.

Aside from multidisciplinarity, the college’s interdisciplinary pedagogical curriculum was de-
signed in such a way that CHE students are encouraged to take core or foundation courses from different departments and majors, as the college aims to develop graduates who are generalists rather than specialists (Dyball, 2012). Although this is treated by other disciplinary specialists as a weakness, this is where the essence of the need for and the reason for doing Human Ecology lies – to go beyond specialization and fragmentation (Boyden, Millar, Newcombe, and O’Neill, 1981, p. 23). In 2008 and during the most recent BS Human Ecology curriculum revision in 2018, core courses that each Bachelor of Science in Human Ecology (BSHE) student are required to take were evenly distributed among all units.

Moreover, from 1974 until 1990, interdisciplinarity was observed in the design of student practicum/field practice (Fellizar, 1991). This adheres to Lawrence’s (2010, p. 125) definition of interdisciplinary, which is the “concerted action and integration of thinkers and researchers from different disciplines to achieve a shared goal or a common subject of study.” To illustrate, a team of graduating Human Ecology students with different specializations or majors is assigned to a partner community to work with local government units in planning and implementing local development projects. The team develops a common practicum goal and objectives to guide its approaches and activities. Examples of activities include the conduct of community profile study, which includes socioeconomic, environmental, health and nutrition, and training needs survey of the community; community development planning incorporating all sectors; and action projects based on the community plans and survey. Each practicum member brings in his/her specialization to the achievement of the team’s goal. Students are aptly supervised by a team of faculty from different operational areas of the college.

However, practicum or field practice team configurations and assignment were modified in the 1990s. Each department started to implement its practicum coordination and fielding. Thus, each practicum group is composed of graduating Human Ecology students coming from the same major (i.e., Human Settlements Planning, Social Technology, Family Development) and BS Nutrition students. Each team is now fielded in communities and partner organizations focusing on work under their specialization. For example, Human Settlements graduating majors are assigned in communities where they prepare Comprehensive Land Use Plans together with local stakeholders. Social Technology majors, meanwhile, organize trainings and assist in local development planning and profiling. Family Development majors mobilize projects on early childhood education, seminars for adolescents, and projects for the elderly sector in their partner community. Consequently, some of the practicum students were employed by the organization or partner company that sponsored their fieldwork. Nevertheless, this negatively affected the interdisciplinary essence of the supervised field experience or practicum.

Navigating Academic Turfs

Academic institutions continually evolve and transform in response to changing times and organizational priorities. For CHE-UPLB, two key events in its history challenged Human Ecology’s existence in the university. First, one of its successful interdisciplinary programs, the UPLB Upland Hydroecology Program, evolved into what was called the Program on Environmental Science and Management. This program offered a Masters in Environmental Science and Management in 1987 (School of Environmental Science and Management [SESAM-UPLB], 2019) and later became a separate school offering several post-graduate degrees. Second, in the early 1990s, former UP President Emil Q. Javier envisioned to retain only the core academic colleges, such as Forestry, Agriculture, and Economics, and merge other disciplines, including Human Ecology, under the College of Public Affairs (CPAf), with the view that Public Affairs would capture all applied sciences. CHE constituents, from the faculty members, researchers, and students, strongly opposed
this plan in the belief that this would dilute the emphasis on human-environment dynamics and limit the flourishing interdisciplinary Human Ecology program in the Philippines. In response to the opposition, the plans to merge did not push through and CHE retained its status as a college that mostly offers undergraduate courses, while CPAf focused on graduate studies.

Despite their positive implications, the authors argue that both events have also indirectly resulted in the delay of offering post-graduate degrees in Human Ecology. To date, CHE only offers Master of Science in Family Resource Management, Masters in Applied Nutrition, and Masters in Professional Studies in Food Nutrition. In addition, most of CHE’s faculty members and a few of its graduates serve as teaching affiliates in SESAM’s and CPAf’s graduate courses. Nevertheless, initiatives are currently in place to develop a PhD program for Human Ecology to enhance the college’s theory-building and research capacity.

We argue that academic turfing and specialism not only emanate from outside the college but are also issues navigated within the college. The earlier nested framework of Human Ecology in UPLB were framed in levels – the individual, family, community, and ecosystem levels (Figure 1). This framework, although useful, led indirectly to the compartmentalization of the domain of the different CHE units, including comparisons on the scope of each unit. The Institute of Human Nutrition and Food (IHNF) was perceived to be focused on the individual, the Department of Human Family Development Studies (DHFDS) on the family, the Department of Social Development Services (DSDS) on the community, and the Department of Community Environmental Resource Planning (DCERP) on the ecosystem. The performance-based resource allocation of the university also pushed the different units to focus on recruiting more major students under their departments. Thus, to maximize the recognizability of major programs, proposals to offer these majors as undergraduate degrees were put forward. A series of workshops and consultations was conducted from 2006 to 2008 to review the BS Human Ecology curriculum and the college’s framework. The debate on “What is Human Ecology and its niche?” resurfaced. Instead of proceeding with the idea of turning CHE’s majors into degree programs, however, the college instead updated its framework in 2008 (Figure 2) as a reflection of a better understanding and appreciation of the interrelationship of the different units under the Human Ecology framework (CHE, 2008a).

Figure 2. College of Human Ecology Framework (CHE, 2008a)

The updated CHE Framework depicts the overall goal of Human Ecology – to sustain human ecological security – as it reflects the discipline being problem-focused and solution-oriented. As depicted in the outer solid line of the framework, the achievement of its goal requires the following main subcomponents: environmental integrity, food and nutrition security, empowered social organizations and institutions, and developed human potentials. Because graduates of Human Ecology are trained to be ethically concerned change agents (Dyball, Borden, and Serbser, 2009), they should engage with the interlinked developmental and ecological challenges of society. Hence, the provision of ecological services flowing from the environment to the human system and the stewardship of the human system over the environment—as depicted by the arrows—ought to be considered as a dynamic system interacting at a range of

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scales. The permeability and dynamic nature of the human ecological system are represented by the broken line of the inner circle.

This updated framework helped guide the revitalization of the BS Human Ecology curriculum in 2008. As discussed earlier, a specific set of core and foundational courses offered by the different departments are taken by BS Human Ecology students, regardless of their choice of major. This is to reflect the equal contribution of each unit to the holistic development of students and also to further reinforce students’ appreciation for Human Ecology as an interdisciplinary field of study. Research is also strengthened in the new curriculum – thesis and research options are offered to undergraduate students to build the local theorization of Human Ecology. Students who opt for practicum are now fielded with development organizations or agencies with which they study, plan, or implement on-the-ground projects. These organizations commonly employ the graduates of the college after their practicum. As such, graduates from the program find employment in several fields and career pathways (Sandalo, 2012).

Securing Professional Recognition

Still, within the purview of disciplinal focus in higher education, areas of concentration corresponding to the major areas of specialization were developed under the BS Human Ecology degree program, managed by the different CHE units (Table 2). These specializations are aligned with the college’s roots in Home Ecology, the university’s strong extension and community organizing role, and the burgeoning field of Human Settlements Planning in the 1970s and 1980s. For instance, the Ministry of Human Settlements was one of the most influential government offices during these decades. In addition, in 1981, the Philippines served as a host of the fourth session of the United Nations Commission on Human Settlements attended by more than 600 delegates from 58 countries (Ylagan, 2019). Thus, as a specialization, Human Settlements Planning became one of the most popular majors under the Human Ecology degree program (Fellizar, 1991). Fellizar (1991) argued that majoring in a specialization helped students and partner agencies find a fit for Human Ecology in research and the workplace,

Table 2. Departments and Major Degree Programs at the College of Human Ecology, University of the Philippines Los Baños

<table>
<thead>
<tr>
<th>Department/Institute</th>
<th>Major/Degree Offering</th>
<th>Focus</th>
</tr>
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<tbody>
<tr>
<td>Department of Human Family and Development Studies (DHFDS)</td>
<td>BS Human Ecology major in Family Development</td>
<td>development of human beings and the family as a basic institution for human welfare</td>
</tr>
<tr>
<td>Department of Community and Environmental Resources Planning (DCERP)</td>
<td>BS Human Ecology major in Human Settlements Planning</td>
<td>promotion of sustainable development of human settlements to avoid adverse effects on the environment and obtain maximum social, economic, and environmental benefits for all</td>
</tr>
<tr>
<td>Department of Social Development Services (DSDS)</td>
<td>BS Human Ecology major in Social Technology</td>
<td>development and management of social organizations and institutions to promote economic productivity, social development, and economic well-being</td>
</tr>
<tr>
<td>Institute of Human Nutrition and Food (IHNF)</td>
<td>BS Nutrition</td>
<td>highlights the promotion of human health and wellbeing through proper nutrition and enhancement of social-economic conditions</td>
</tr>
</tbody>
</table>

Source: CHE (2008b)
Two major graduate tracer studies have already been conducted – the 1990 survey of 279 UPLB BSHE graduates from 1970-1990 (Fellizar, 1991) and most recently the 2012 survey of 206 BSHE graduates from 2000 to 2011 (Sandalo, 2012). Both studies highlighted the difficulty of graduates to find an exact fit in the job market professional description. Nevertheless, compared to earlier studies, current graduates get employed faster (Sandalo, 2012). We could only speculate that this could be attributed to the growing development work market, as well as the increased recognition of college alumni in their organizations and fields, which raises the awareness of employers on what Human Ecologists could do through its alumni, coupled with student practicum and the college’s research and extension activities.

On the other hand, there is still a need to promote Human Ecologists as development professionals given that very few job titles – if any at all – use that label. To help address this, the Human Ecology Institute (HUMEIN) was established by CHE alumni and faculty members in 2005. It commits to working together to promote Human Ecology as a perspective and as a profession (HUMEIN-Phils, 2005). CHE and HUMEIN partnered to organize the yearly Human Ecology Conference, as well as professional development training and advocacy work, and also produced the early editions of CHE’s Journal of Human Ecology.

Current Prospects and Future Directions

In this section, the current impact areas of the college in terms of policy and development and knowledge production and dissemination through its instruction program are discussed. The plans and future directions of Human Ecology in UPLB are also highlighted.

Policy and Development Impact and Relevance

Over the years, CHE’s success in piloting development planning approaches and local nutrition improvement initiatives (Table 2) is evident in the institutionalization of these programs in local development governance. For one, the social technology that maximized the role of indigenous health workers, which was pilot tested under the Nutrition-Improvement Program, was instrumental in the creation of the Barangay Nutrition Scholar (BNS) line item under the local government bureaucracy (Presidential Decree 1569, 1978). Furthermore, CHE’s Community Development Laboratory (CDL), created in the 1960s under the Department of Home Technology and pursued by CHE, was one of the pioneer centers for early childcare and development in the Philippines. Through this and with the support of Presidential Decree 1567 (1978), the policy mandating the creation of a daycare center in every barangay, the college gained a leadership position in training barangay daycare workers, particularly in Southern Luzon, where the university is situated. Also, referencing the Local Government Code of 1991 (Republic Act 7160), the college further expanded its technical assistance and practicum areas to local development planning through its courses on Community Services and Programs, Community Study in Human Welfare, and Land Use Planning. CHE’s initiatives and social actions helped increase the awareness and appreciation of development organizations and community partners, including the university, as regards what Human Ecology could do and achieve. Nevertheless, the authors recognize that there is a need to formally measure the relevance and performance of HEIs and programs such as Human Ecology. One example is through the use of a balanced scorecard framework and approach (see Al-Hosaini and Sofian, 2015).

CHE knowledge production and dissemination

As learning organizations under the knowledge industry, universities are increasingly pressured to publish and disseminate research and findings (Jarvis, 2013). Because of this, UPLB has developed a growing institutional support platform to pursue international research dis-
semination and international collaborations. This platform involves networking and collaborations through presentations in local and international conferences and publications in peer-reviewed journals (Figure 3) (Visco, Yee, and Torio, 2014). For instance, more faculty members, alumni, and students have presented papers in the yearly International Society for Human Ecology (SHE) conferences since the 2013 SHE Conference in the Australian National University in Canberra, Australia. In 2017, CHE-UPLB hosted the 2017 SHE Conference in Laguna, Philippines. Aside from the individual CHE faculty members’ and researchers’ leadership roles in local and regional organizations, CHE as an institution also became a member of the Asia Pacific Rim Universities (APRU) Sustainability Cities and Landscape Hub Steering Committee in 2019. The creation of an in-house peer-reviewed journal (JOHE) also opened a platform for faculty, researchers, and students to publish their research outputs. Furthermore, college-wide collaborative research projects, where faculty and researchers from different CHE units are directly involved from conceptualization to project implementation, are continually being pursued (see Amparo, Mendoza, Paolis, and Tanzo, 2019 on the college’s integrative project promoting Women Economic Empowerment and Leadership for Indigenous Women and Girl-Children).

In terms of pedagogical approaches, amid the growing networks and partnerships, some innovative teaching-learning techniques were pilot tested. One of these is the co-blended learning approach on Sustainable Food Systems pilot tested in 2017 with ANU (Blessington, 2018). This was again implemented between the Fenner School of Environment and Society-Australian National University (FSES-ANU) and CHE in 2019 through the sustainability courses of both institutions. Some of the positive gains include greater appreciation of the diversity of food systems and culture and increased value placed by students on the interdisciplinarity of Human Ecology. The presence of a local facilitator who could monitor the exchanges and immediately address clarifications, including the shorter time difference between Australia and the Philippines, was identified as critical to the success of the initial pilot run (Blessington, 2018). However, internet connectivity and direct fit in terms of class schedules and course requirements, remain to be critical challenges in this form of learning.

Figure 3. CHE publication trends from 2002 to 2013 (Visco et al., 2014)
Future directions of Human Ecology in UPLB

Based on the discussions above, the key challenge in the sustainability and relevance of Human Ecology to the university and society lies in addressing the abovementioned issues on pedagogical approaches for interdisciplinarity, navigating academic turfs, and securing professional recognition. The growing international partnerships and networks, increasing focus on knowledge dissemination and publication, and greater traction and awareness on the value of transdisciplinarity (integrating concepts and knowledge of academics as well as other actors in civic society) (Lawrence, 2010, p.125) in the academia and development sector provide support to the development trajectory of Human Ecology in UPLB, Asia, and the world.

Given the rich case studies and applied projects of CHE, on top of research and extension publication and advocacy, the college could focus on developing its Graduate Program in Human Ecology, which could further promote theory-and method-building in Human Ecology, particularly in the context of Southeast Asia. This could be offered by Southeast Asian universities with a Human Ecology Program. Building a consortium to offer this course could also be explored. This was extensively discussed during the 2017 International Society for Human Ecology session on “Pathways to the Promotion of Human Ecology in Southeast Asia” held at the Southeast Asian Regional Center for Graduate Study and Research (SEARCA) Headquarters, Philippines in November 2017. This idea is being looked into initially through SEARCA’s University Consortium and within the partnership agreement with FSES-ANU.

Next, a sustained internal revitalization of the Human Ecology curriculum, as well as exploration of innovative transdisciplinary teaching-learning approaches to ensure its relevance and impact, should be regularly observed. With the fast-changing regional context, some of the emerging instruction and research themes are on Sustainability, Climate Change and Disaster Risk Reduction (DRR), Human Development, and Landscape Planning. In 2018, new core courses on Sustainability Science and DRR were instituted. Seminars and policy fora on the latest developments and issues with practitioners and professionals from the field are regularly organized. With the impact of the global COVID-19 pandemic, the strengths of flexible learning, including co-blended learning pilot tested in 2017 and implemented again in 2019, to continue to promote interdisciplinarity and transdisciplinarity could be further explored.

Finally, Human Ecology institutions in the Philippines and Asia need to continually strengthen its policy advocacy role for a just and sustainable human-ecological system in the Philippines and Asia. Key human ecology researchers and academics should continue their work with international, regional, and local development organizations to put across the interdisciplin ary and integrative perspective in development programs. Key regional issues in Asia include increasing trade integration, declining natural resources, telecoupling of food systems, trans-boundary movement of wastes, climate change and disasters, income inequity, and growing urbanization (ASEAN, 2015). Human Ecology professional organizations such as HUMEIN and the CHE Alumni Association and the college’s regional networks (e.g., Asia Pacific Rim Universities Sustainable Cities and Landscapes or APRU SCL and SHE) could serve as vehicles for policy development or socioeconomic changes as Human Ecology alumni work in different sectors – from government, civil society, and private or corporate institutions (Sandalo, 2012). This could also contribute to further enhance professional recognition.

CONCLUSION

This paper presented how the local and applied mode of Human Ecology (Dyball, 2017) is evident in Asia as academic institutions respond to the needs and priorities of developing econ-
In tracing the historical development of Human Ecology in the Philippines, it shows how Human Ecology as an interdisciplinary perspective navigates its normative role in development and sustainability through its teaching, research, and extension programs. Several social technologies pilot tested within this tri-function role of the university have been mainstreamed in the Philippines’ development approaches, including the designation of Barangay Nutrition Scholars and the conduct of local integrative development planning. Policy opportunities and organizational changes could also be windows of opportunity for Human Ecology to further its claim for relevance and value. Key challenges such as the pedagogical issues for interdisciplinarity, navigating academic turfs, and securing professional recognition, including sustaining and expanding its relevance in the Philippines and the Asian region, are continuously navigated and addressed. As one of the first degree-granting institutions for Human Ecology in Asia and with its wealth of social technologies, CHE-UPLB is in a position that could stir Human Ecology teaching, research, and policy advocacy in Asia into improved regional relevance and impact.

ACKNOWLEDGMENTS

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REFERENCES


## Annex A. Human Ecology Programs in Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>University</th>
<th>Year Established</th>
<th>Degree Offering</th>
<th>Departments</th>
<th>References</th>
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<tbody>
<tr>
<td>Japan</td>
<td>2. University of Tokyo (The University of Tokyo), Department of Human Ecology</td>
<td>1965</td>
<td>BS/MS/PhD Health Sciences</td>
<td>Department of Human Ecology, School of International Health/Graduate School of Medicine</td>
<td>Personal communications, Dr. Chiho Watanabe <a href="http://www.humeco.m.u-tokyo.ac.jp/en/">http://www.humeco.m.u-tokyo.ac.jp/en/</a></td>
</tr>
<tr>
<td></td>
<td>5. Okayama University</td>
<td></td>
<td></td>
<td>Department of Human Ecology under the Graduate School of Environmental and Life Science</td>
<td><a href="mailto:info@societyforhumanecology.org">info@societyforhumanecology.org</a>.</td>
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* Indicates new programs established after 2000.
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<tr>
<td></td>
<td>8. University of Rajasthan</td>
<td></td>
<td>Indira Gandhi Centre for Human Ecology, Environmental and Population Studies</td>
<td></td>
<td><a href="https://www.uniraj.ac.in/inde">https://www.uniraj.ac.in/inde</a></td>
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<td></td>
<td>9. Chonbuk National University, College of Human Ecology (Chonbuk National University)</td>
<td></td>
<td>Department of Child Studies Department of Clothing Textiles Department of Food and Nutrition Department of Residential Environment</td>
<td></td>
<td><a href="https://he.jbnu.ac.kr/eng/b001.html">https://he.jbnu.ac.kr/eng/b001.html</a></td>
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<td>BS Human Ecology</td>
<td>Child and Family Studies Housing and Interior Design Clothing and Textiles Food and Nutrition</td>
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<td></td>
<td>13. Sookmyung Women’s University*</td>
<td>No data on the website</td>
<td></td>
<td>Department of Family and Resource Management Department of Child Welfare and Studies Department of Clothing and Textiles Department of Food and Nutrition</td>
<td><a href="http://e.sookmyung.ac.kr/sooKmyunggen/1442/subview.do">http://e.sookmyung.ac.kr/sooKmyunggen/1442/subview.do</a></td>
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<tr>
<td>Malaysia</td>
<td>15. Universiti Putra Malaysia, Faculty of Human Ecology (Faculty of Human Ecology)</td>
<td>1975 merger of Human Development Studies (formerly Home Technology) and Social Science Department</td>
<td>BS Human Development BS Human Development and Management BS Human Development and Information Technology Bachelor of Consumer Studies Bachelor of Music MS/PhD Community Development MS/PhD Consumer Science MS/PhD Family Ecology MS/PhD Family Economics and Management MS/PhD Gender and Development MS/PhD Housing MS/PhD Human Development MS/PhD Music</td>
<td>Human Development and Family Studies Resource Management and Consumer Studies Social and Development Science Government and Civilization Studies and Music</td>
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<tr>
<td>Philippines</td>
<td>University of the Philippines Los Baños, College of Human Ecology</td>
<td>1974 (Institute) 1983 (College)</td>
<td>MS/PhD Philosophy and Civilization Studies MS/PhD Politics and Government MS/PhD Psychology of Child Development MS/PhD Social Psychology MS/PhD Developmental Psychology</td>
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<td></td>
<td>17. <strong>Universidad de Sta. Isabel</strong></td>
<td>1996</td>
<td>BS Human Ecology and Environmental Studies</td>
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<td></td>
<td>18. <strong>Nueva Viscaya State University</strong></td>
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<td>19. <strong>Western Visayas State University</strong></td>
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<td></td>
<td>20. <strong>University of Southern Mindanao</strong></td>
<td>No data</td>
<td>BS Food Technology, BS Hotel and Restaurant Management, Nutrition and Dietetics, Tourism Management</td>
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<td></td>
<td>21. <strong>Human Ecology of the Philippines Institute (HUMEIN Phil)</strong></td>
<td>2003</td>
<td>A professional organization of Human Ecologists and allied sciences</td>
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</tr>
<tr>
<td>Indonesia</td>
<td>22. Faculty of Human Ecology IPB University, Bogor</td>
<td>2005</td>
<td>MS/PhD Nutrition/Family and Consumer Sciences/Community Development</td>
<td>Department of Community Nutrition Department of Family and Consumer Sciences Department of Communication Science and Community Development</td>
<td><a href="http://fema.ipb.ac.id/index.php/profil/">http://fema.ipb.ac.id/index.php/profil/</a></td>
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*private higher education institutions
**Not included in the SHE Human Ecology Institutions and Programs but is based on personal communications and research of Prof. Ricardo M. Sandalo, UPLB Faculty and President HUMEIN Philippines