CAPACITY BUILDING OF UNIVERSITY FACULTY MEMBERS TO PROMOTE THE SUSTAINABLE SELF IN CAMBODIAN HIGHER EDUCATION

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Abstract

The capacity of university faculty members for the Education for Sustainable Development is essential to enhance the teaching quality in higher education. This paper aims to discuss the needed capacity and the capacity building of faculty members to cultivate the sustainable self in Cambodian higher education. The study employed (1) the document study of faculty capacity in Cambodia; (2) the survey with 83 university leaders and 176 faculty members from 24 higher education institutions and (3) the interviews with 15 university leaders, and four key experts. The findings suggested that Cambodian higher education needed more faculty members with higher qualifi cation and sustainability literacy. The PhD academics shared only 7.36 percent. Most faculty members were absent from capacity building activities. Eighty-three percent of both university leaders and faculty members revealed the need of sustainability-related knowledge although some higher education institutions organized academic meetings related to the environment and development issues. Higher education institutions in Cambodia need to increase more capacity building activities concerning sustainability and ecopedagogy.

Keywords: Capacity Building, Faculty Members, Sustainable Self, Cambodian Higher Education

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INTRODUCTION

During the Khmer Rouge regime of 1975-1979, Cambodia was controlled by Pol Pot. The existing academic institutions were closed and people lived without schooling. About 1.42 percent of 21,000 secondary school teachers (Ayres, 1999), and approximately 25 percent of university faculty members (Pit & Ford, 2004) survived after the collapse of the Pol Pot regime. Since 1979, the education system in Cambodia has been restored gradually. Growing from the year zero, the education system at all levels faced challenges of having insuffi cient human, academic, and fi nancial resources to improve the quality education.

Since 1993, Cambodia has been a democracy. Still, the country faces several issues of forestry restoration, quality of land use and water, poverty reduction, health care, and education for life and job skills for her people. Thus, the Royal Government of Cambodia (RGC) in all the fi ve legislative terms has developed the national policies for growing the country towards a sustainable development. It moved from the "Triangular Strategy" (1997-2003) focusing on political stability, economic integration, and poverty reduction to the "Rectangular Strategy for Growth, Employment, Equity, and Efficiency" (2004-2018). In 2009, the National Sustainable Development Strategy for Cambodia was launched to outline directions and to encourage relevant stakeholders to be involved in promoting people's well-being and quality of environment towards a sustainable lifestyle (RGC, UNDP, & ADB, 2009). Higher education could be embedded in shaping the quality education, aligning the RGC's strategies with respect to sustainable development. Without the contribution of higher education, there would be a huge challenge in mobilizing sustainable development concepts against grounded practices.

Over the three decades after the year zero, there is still a question on the quality of higher education (Chealy, 2009) although Cambodia keeps its economic growth rate at an average of seven percent. The improvement of higher education quality could influence the learning quality at other educational levels. Graduates from higher education would work as teachers at schools and as resource persons in both the public and private sectors. Higher education institutions (HEIs) help prepare and shape human resources for the needs and future of the country (Gough & Scott, 2007; Mauch, 2000). HEIs need to promote their educational services to produce qualified graduates who make positive impacts to society. The human resources that both the Cambodian society and the world want are the so-called sustainability-oriented people (RGC et al, 2009).

Higher education institutions are of the potential stakeholders for raising people's awareness of sustainability issues. Two decades after the of United Nations Conference on Sustainable Development (UNSD), the 2012 UNSD (Rio+20), under the theme of "the Future We Want", has strongly emphasized the role of higher education in promoting sustainability teaching and research (UNSD, 2012). Education for Sustainable Development (ESD) in higher education relates to

promoting a learning quality that enables students to have knowledge and skills to create a sustainable society.

Figure 1 Faculty Capacity Building for the Sustainable Self
Source: Authors' Analysis Based on Murray (2011)

An educational approach of the ESD relates to the "Sustainable Self," comprising "awareness, motivation, empowerment, knowledge, skillful means, and practices," by which individuals have to develop their sustainable lifestyle (Murray, 2011) (as shown in Figure 1). The sustainable self is an approach to learning for improving the learners' capacity to change their attitude and behavior towards a responsible and sustainable manner. Learners begin with the awareness of sustainability concepts. Then, they could use motivation and empowerment approaches to change their beliefs and attitudes in a more positive way. They continue to gain a deep understanding of sustainable development principles and to acquire skillful means with the key competence in sustainability. Finally, they become ready to take personal actions to behave in responsible manners towards the surrounding environment. When HEIs have more faculty members who have expertise in the sustainable self, they have more resource persons to help produce sustainability-oriented graduates through teaching.

The capacity of faculty members is one of the main factors influencing the students' learning quality (Heng, 2014; Rany, Souriyavongsa, Md Zain, & Jamil, 2013). Capacity itself comes out in forms of technical knowledge, core value and skills of a person (Loubser, 1994; Morgan, 1998). The capacity of faculty members refers to the academic qualification including the upgrading of knowledge and skills that faculty members have to perform their roles in teaching and research. According to Morgan (1998), capacity building refers to "the approaches, strategies, and methodologies … to help organizations and/or systems to improve their performance." At an individual level, capacity building is an approach to developing individual participants over their "existing knowledge and skills" to achieve a particular objective (Jayatilaka, 2003). Capacity building for the sustainble self means the approach to increasing the faculty members' awareness of sustainability and for ESD to widen their knowledge and skills used for integrating the sustainable self concept into their teaching and research.

Faculty members in Cambodian higher education appeared to have a limited capacity. According to Chen, Sok, and Sok (2007), six percent of the faculty members had a PhD, and 90 percent of the faculty members were absent from technical discussion meetings for improving their

capacity. As the sustainable self concept appears to be relatively new for Cambodian higher education, faculty members may need to gain a comprehensive understanding of the concept and to study further on how to apply the concept to their disciplines. Therefore, this study aims to identify what capacity of faculty members in Cambodian higher education need to develop and how Cambodian HEIs can build the capacity of faculty members to promote the sustainable self.

RESEARCH METHODS

This study employed the document study, the survey, and the interview to gather pertinent data regarding the academic qualifi cation of faculty members, the capacity building activities and themes to increase their knowledge and skills for teaching the sustainable self. The questions of the whole sustainable self concept were not asked to the faculty members directly. Alternatively, the data regarding the faculty members' awareness level of sustainability issues, which was the primary stage of the sustainable self, were emphasized.

Firstly, the document study focused on the faculty members' capacity regarding sustainability concepts based on the Cambodian Education Congress Reports 2012-2015 from the Ministry of Education, Youth, and Sport (MoEYS), and the HEIs' handbooks, reports and newsletters from 13 HEIs, in addition to the review of 93 of HEIs' official websites. All the obtained data from those sources were analyzed with the content analysis and descriptive statistics.

Secondly, the survey study used the questionnaire with 83 university leaders and 176 faculty members in 24 Cambodian HEIs nationwide from July to September 2015. The questionnaire focused on (1) the capacity of faculty members, and (2) the capacity building activities and themes regarding sustainability-related topics based on the National Sustainable Development Strategy for Cambodia. In the questionnaire, the top 15 sustainability-related topics covered "climate change, waste and pollution, recycling, energy saving, biodiversity and natural resources, culture of peace, gender equality, human rights, poverty reduction, social responsibility, economic growth, sustainable business development, production and profits, career development, and modern technology." Then three experts from research methodology, higher education, and environment and sustainability reviewed the questionnaire to ensure content validity and construct validity.

The cluster sampling by the location of HEIs in the country was used (as shown in Appendix 1). First, in Phnom Penh the capital city, 14 of 88 universities were randomly selected. In the provinces, the study randomly chose half the number of HEIs in each of seven provinces. Second, from three to seven university leaders and faculty members from various disciplines were selected, depending on the number of colleges. After the data collection, data from the questionnaire including the rating scales and Likert scales were analyzed with descriptive statistics to seek frequencies and percentages.

Finally, there was an interview with four vice-presidents, six deans, one vice-

dean, and three directors from different universities. The interviews focused on challenges and needs of faculty capacity building to promote sustainability (as displayed in Appendix 2). Additionally, four key experts were invited to share their opinions on how to build sustainability capacity of faculty members in the Cambodian context.

Data Analysis Results

This analysis result section will present the major research findings regarding the academic qualifications of university faculty members and faculty capacity building activities and themes in Cambodian higher education.

Academic Qualification of University Faculty Members

Most faculty members appeared to have a Master's degree, while a few had a PhD. Meanwhile, some HEIs engaged their faculty members in capacity building for both a higher degree and non-degree education. Based on the Education Congress Reports 2012-2015, the number of the faculty members who hold Master's degrees and PhDs slightly rose while that of the Bachelor's degree gently declined. Figure 2 below indicates that the largest proportion of faculty members had the highest academic qualification at the Master's degree level. In 2014, there were 11,362 faculty members, and it increased by a mean of 2.53 percent annually within the last four years. On an average, the number of faculty members with Bachelor's degree dropped by 1.16 percent, that of faculty members with Master's degrees increased by 4.87 percent, and that of PhD faculty members increased by 1.28 percent. The number of Master faculty members was on top at 7,117 faculty members, and that of PhD faculty members shared only 7.36 percent in 2014. Cambodian higher education appeared to lack PhD faculty members.

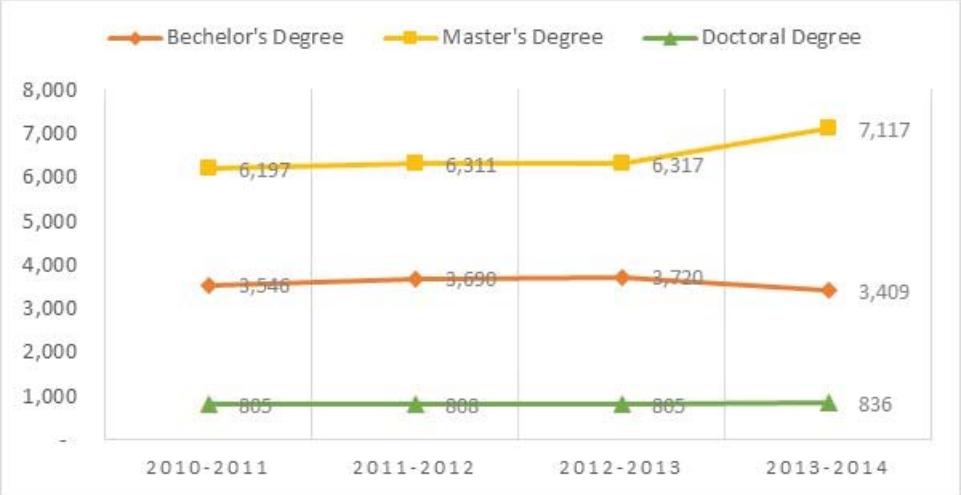

Figure 2 Academic Qualification of Faculty Members in Cambodian Higher Education
Source: Adapted from MoEYS (2013, p. 40; 2014, p. 42; 2015, p. 32)

Figure 3 shows that the majority of Cambodian university students were in the undergraduate program. Between 2011 and 2014, the number of university students increased by a mean of 3.88 percent annually from 223,221 to 249,092 students. In the academic year 2013-2014, 86.02 percent of them were attending the Bachelor's degree program, and it was followed by the Master's degree at 7.23 percent, which was slightly higher than that of Associate degree at 6.28 percent. Most recently, the Bachelor's degree students decreased by 0.83 percent while the Master's degree students increased by 8.13 percent and Doctoral students rose by 9.05 percent.

Based on Figure 2 and Figure 3 above, the student-faculty ratio was at 21:1 in the academic year 2010-2011, and it went up to 22:1 in 2013-2014 after dropping from 24:1 in 2012-2013. However, the academic year 2013-2014, the ratio for teaching in the Master's degree and PhD programs was at 23:1, the ratio for the Bachelor's degree program was at 30:1, and the ratio for the Associate degree program at 4:1. This figure revealed that Cambodian higher education needed PhD faculty members to ensure the quality of post-graduate programs.

Based on the official website of 93 HEIs, specializations related to economic and business disciplines were the most popular and opened at 60.22 percent of HEIs. Between 40 and 50 percent of HEIs focused their academic programs on various disciplines such as education, the English language, science, engineering, technology, and social science. At the bottom, 6.45 percent of HEIs opened environment disciplines. The academic programs at the

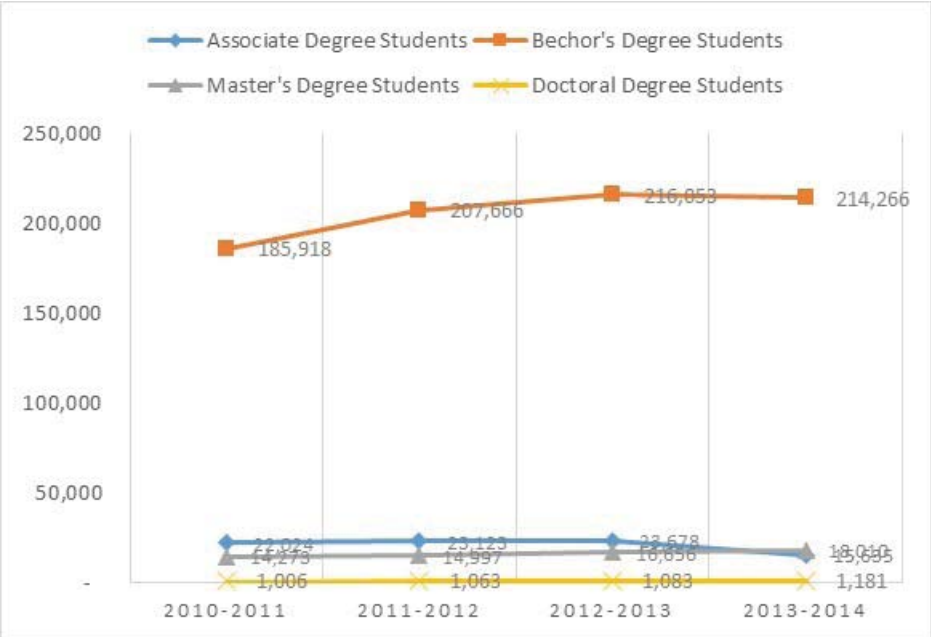

Figure 3 Number of Students in Cambodian Higher Education
Source: Adapted from MoEYS' Education Congress 2015, p.32-34

majority of HEIs appeared to largely relate to the economic development aspect, with little attention to the environmental aspect.

The survey from 24 HEIs revealed that all HEIs had Master faculty members, whereas 79 percent of them had PhD faculty members. Only 12.60 percent had PhD faculty members above 10 percent of their total faculty members. In line with their opening academic programs, HEIs have faculty members with the needed expertise. All HEIs appeared to have faculty members with expertise in business and economic-related disciplines. It was followed by social science at 66.70 percent, engineering and technology at 45.80 percent, environment at 16.64 percent, health science at 8.32 percent, and sustainable development at 4.16 percent. There was a shortage of faculty members with capacity in the environment and sustainable development disciplines.

Table 1, based on the survey, demonstrates that over 80 percent of university leaders and faculty members agreed that their HEIs needed key personnel to hold a doctoral degree and to build their capacity regarding sustainability-related knowledge. University leaders expressed that they needed sustainability-related knowledge more than doctoral degrees. Meanwhile, faculty members appeared to need doctoral degrees more than sustainability-related knowledge. The majority of HEIs appeared to need university leaders and faculty members with the capacity for promoting sustainability in higher education.

The interviews with 15 university leaders from different HEIs revealed the demand of faculty members with a PhD. The minimum qualification of faculty members was Master's degree, plus

Table 1 Perceptions of University Leaders and Faculty Members on Academic Qualification

To promote education for sustainability, it is necessary for my university …	**University Leaders (%)**		**Faculty Members (%)**	
	Disagree	**Agree**	**Disagree**	**Agree**
that university leaders further their higher education to a doctoral degree.	13.25	83.13	5.11	90.91
that faculty members further their higher education to a doctoral degree.	7.23	90.36	3.98	92.61
to increase university leaders' sustainability-related knowledge.	0.00	95.18	2.84	82.95
to increase faculty members' sustainability-related knowledge.	0.00	98.80	1.70	86.93

Source: The survey of 83 university leaders and 176 faculty members in 24 universities (September 2015)

teaching experience. Most HEIs revealed a shortage of PhD faculty members and showed their limited financial capacity to hire qualified PhD academics (UL05; UL07; UL10). A university leader revealed:

> "[…]. The vision of our university is to develop human resources with social responsibility. The graduates from our university are expected to work and live in the society responsibly. To achieve this, the university leaders, faculty members, and non-academic staff have to be qualified in roles and responsibilities. Educational background, experiences, and personality ... […]." (UL02)

The interviews indicated that the HEIs paid proper attention to the academic qualification of faculty members. All of them express an intention to have PhD faculty members at each of their colleges or faculties. Still, they had some challenges to attract PhD academics. Because of the limited financial resources, some private HEIs recruited faculty members by part-time condition instead of employing full-time ones (UL01; UL02; UL05; UL07; UL10; UL14). The number of part-time academics was greater than that of the full-time ones.

A university leader revealed that his university focused on the academic qualification of faculty members in business-related disciplines because the majority of students enrolled in the business field, which shared larger job markets than the environment discipline. The university leader said:

> "[….].We have many students in business-related disciplines, so we prepare our faculty members in these disciplines too. If they take degrees in environment fields, the question is what they can do and where they work after graduation. […]." (UL15)

In short, Cambodian higher education appeared to have faculty members with a slight improvement of their academic qualification and limited knowledge and skills for promoting sustainability. The majority of faculty members had Master's degrees, which were followed by Bachelor's Degrees. Meanwhile, there were a few PhD faculty members. Due to their limited resources, HEIs employed PhD academics on the part-time basis. There were only few faculty members with the knowledge and skills relating to the environment and sustainability. The majority of faculty members revealed the need of developing their sustainability-related knowledge.

Faculty Capacity Building Activities and Themes

As reported in the Education Congress 2012-2015, the MoEYS supported a hundred academic and non-academic staff from various HEIs nationwide to attend training courses and conferences, of which most focused on research methodologies, quality assurance for higher education, and procurement and financial management in higher education, as shown in Table 2. At the national level, the capacity building activities appeared to focus less on sustainability-related topics.

Table 2 Themes of Training and Academic Meeting for Cambodian Higher Education 2012-2014

Themes	2012 (persons)	2013 (persons)	2014 (persons)
Research Methodologies for Scientific and Technological and Social Science Subjects	227	-	-
Workshop on Research Proposal Writing	135	-	-
Development of Curriculum to Address Market Demand	128	-	-
Training on Development of Credit Transfer System at Higher Education Level in Cambodia and Japan	82	-	-
Training on Learning and Teaching Experiences at Higher Education for Education Officials from HEIs	127	-	-
Training on Human Resource Development to Respond the Demand for Skilled Labor	70	-	-
Training on Strengthening Leadership and Management Capacity of HEI Management	95	-	-
Training on Result-based Planning and Monitoring for Higher Education	143	-	-
Training on Implementation of Regulation related to Doctoral Degree Education	-	109	-
2nd International Conference on Mathematics and the Use of Technology for Mathematics Education	-	250	-
3rd International Conference on Mathematics and the Use of Technology for Mathematics Education	-	-	250
Research Forum and Presentation on Priority Areas for Research	-	-	105
1st Education Research Forum	-	-	492
Training on Research Action Planning	-	-	105

Source: Cambodia Education Congress Reports 2013-2014

On the other hand, at an institutional level, some HEIs provided their faculty members and staff with training courses concerning energy consumption, climate change, environment, and community development based on their official websites. The Royal University of Agriculture (RUA) organized on-campus training and workshop series on "Efficiency of Using Agricultural Equipment," "Relationship between

Mines Destroyed and the Development," and "Climate Change Issues." The Royal University of Phnom Penh (RUPP) conducted three national conferences on "Social Enterprise of Cambodia" between 2011 and 2013. It intended to increase opportunities for its faculty members and other researchers to debate "business and social development issues." RUPP's Faculty of Development reported that it organized training courses related to "community management," "climate change resilience," and "environmental management" to support their faculty members. The University of Cambodia (UC) revealed that its faculty members and staff participated in the short training on "Art of Living with Yoga, Breath, Service, and Meditation." This training was claimed to help the faculty members and staff reduce the level of stress and to improve their performance with responsibility and accountability.

The survey, as shown in Figure 4, indicated that less than 50 percent of 176 faculty members were involved in training and academic meetings related to sustainability themes annually within the last five years. Faculty members who often and always attended those events were ranged from 6.82 to 21.59 percent and from 1.11 to 6.82 percent, respectively. The top themes of the training and academic meetings involved by most faculty members included climate changes, poverty reduction, gender equality, human rights, social responsibility, and modern technology.

Based on the interviews, the faculty

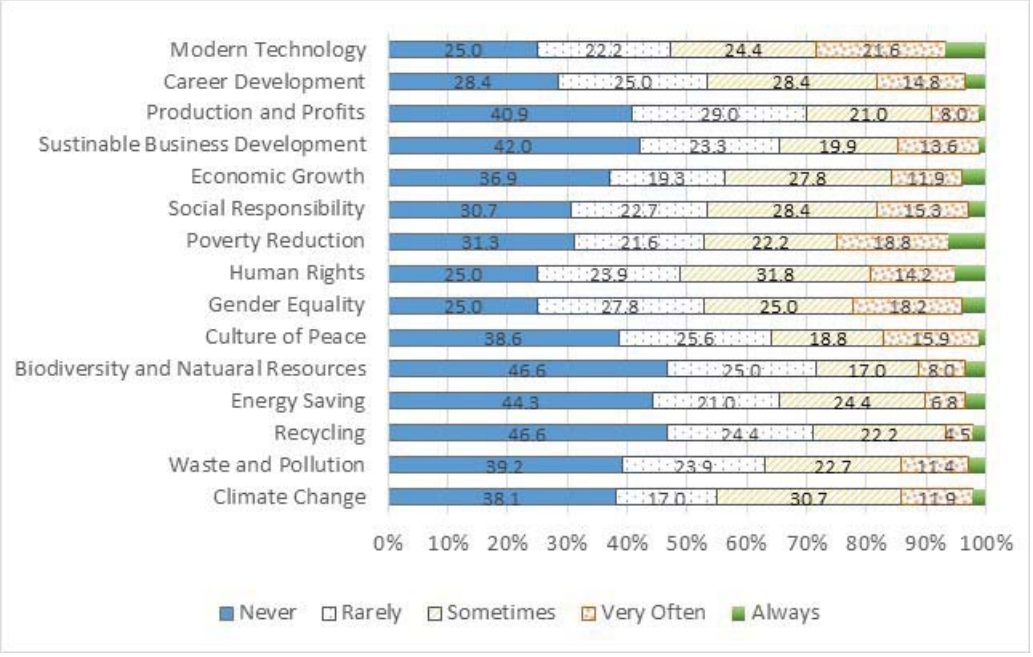

Figure 1 Percentage of Faculty Members' Participation in Training and Academic Meetings Related to Sustainability Topics
Source: Survey, September 2015

capacity building mainly related to the engagement of faculty members in training activities, conferences, and workshops. Those activities helped improve the faculty members' knowledge of their expertise and sustainability-related disciplines. A university leader said his university had invited experts to share knowledge and experiences regarding "environment, conflict and peace, culture, and leadership" with their faculty members; however, the challenge was that only few faculty members attended the seminars (UL02). Another university leader expressed that his university had conducted seminars regarding economic development and environmental issues almost every year, and the weekend time for organizing and scheduling academic meetings could be suitable for their faculty members (UL05).

University leaders recognized that faculty members needed the knowledge of other relevant disciplines in addition to their expertise. Some university leaders revealed:

> "[…]. As faculty members in our university, they should understand *what people in our society need* so that they can prepare the students to meet a target of serving the society. [...]. …. We [really] want our faculty members, staff, and students to be very knowledgeable about *current social issues*. […]. " (UL14, 23rd September 2015)
>
> "[…]. Faculty members have to develop and to update their knowledge in response to trends of social changes. Knowledge of *technology* and *social development* is a plus to their expertise. […]." (UL15, 23rd September 2015)

Few university leaders revealed that the culture of new knowledge sharing within a team was deployed for faculty development. Faculty members were grouped in teamwork and the team members shared their knowledge and experiences they had gained from academic meetings or training activities (UL01; UL10).

To improve their faculty members' academic qualification, some HEIs encouraged their faculty members to pursue a Master's degree and a PhD by waiving school fees from 30 percent up to 100 percent (UL01; UL02) and providing a partial scholarship to study abroad (UL06; UL14).

The interviews with the key experts indicated that the MoEYS and involved ministries had a significant roles in promoting awareness of Sustainable Development Goals (SDGs) and Education for Sustainable Development (ESD) among university people. The MoEYS should begin with national conferences, which involved leaders and faculty members (KE01; KE02; KE04). At the institutional level, HEIs could integrate SDGs and ESD concepts into their vision. Importantly, university leaders and faculty members needed to have a high level of sustainable development literacy (KE01; KE02; KE04). One of the important themes should relate to the "self-efficiency" concept (KE02). Every individual should believe in the philosophy of "building a sustainable society by taking some and leaving the rest to others" (KE03). This concept meant the promotion of value education by teaching

people to learn how to live together. HEIs needed to have a policy and strategic plan for personnel development and quality education (KE01; KE02; KE03; KE04). To address a challenge on personnel motivation, the MoEYS and HEIs should be concerned with an improvement of financial support for faculty capacity building (KE01; KE02; KE04).

In brief, the capacity building of faculty members to increase their awareness of sustainability and ESD appeared to be limited. At the national level, the MoEYS had not paid strong attention to promoting the awareness of ESD among HEIs. However, a few HEIs engaged their faculty members in capacity building activities with some topics regarding the environmental and social development pillars of sustainability. The MoEYS appeared to be a key driver of promoting the participation of more HEIs.

Research Results

The key results of the study could be briefly presented in two folds. First, the capacity of faculty members who are ready for promoting sustainability at universities appeared to be limited. The majority of faculty members had the highest educational qualification at the Master's degree. At the same time, universities were facing some inadequacy of PhD faculty members who would be expected to make significant changes in both the teaching and research cultures. On top of that, the sustainability literacy of most faculty members was at a critical level. Only a few faculty members appeared to indicate sustainability-related knowledge. Cambodian universities need more faculty members who could gain deep understanding of sustainability concepts and could be able to integrate the sustainability concepts into their teaching and research.

Second, universities revealed a deficiency in upgrading their faculty members through capacity building activities due to the pocket-sized budget. Only few faculty members received chances to involve capacity building activities specifying multi-disciplinary topics of sustainability. Only occasionally did universities organize seminars and training courses at the institutional level for their faculty members. Rather, they were awaiting cooperation by other foreign universities as well as donors to grant seminar and training opportunities to their faculty members.

DISCUSSION

This section covers the discussions related to (1) the demand of faculty members with the capacity for Education for Sustainable Development, and (2) faculty engagement in capacity building for Education for Sustainable Development. On top of that, developing faculty members' capacity for ESD could be one of the influential factors to help them find approaches to promoting the sustainable self concept in their disciplines.

Demand of Faculty Members with Capacity for Education for Sustainable Development

Cambodian higher education appears to need the capacity of faculty members

regarding higher academic qualification and sustainability-related knowledge. First, the study suggests that Cambodian HEIs have an overload of Bachelor's degree faculty members and an insufficiency of PhD faculty members. As the number of students enrolling in post-graduate programs increased and the HEIs lack in PhD faculty members, there could be an obstacle to promoting the teaching and research quality towards ESD. Some previous studies found that a higher qualification of faculty members had a significant impact on student learning achievement in Cambodian higher education (Chen et al., 2007; Heng, 2014). Faculty members with low qualification at an undergraduate degree, especially if they work on a part-time contract, negatively influence the students' learning (Benjamin, 2003). Among ASEAN countries, HEIs in Singapore, Thailand, and Malaysia have a majority of PhD faculty members. A large proportion of PhD academics may result in having resource persons who can develop new knowledge related to sustainability as well as the sustainable self and find appropriate ways to mobilize sustainability concepts throughout the campuses. Once university people have a high level of sustainability awareness, HEIs can begin their step of promoting the sustainable self in higher education.

Second, only few faculty members appear to have sustainability-related knowledge in addition to their expertise in various disciplines. The expertise of most faculty members relates to business, economics, education and language, as well as science and technology disciplines. Meanwhile, the number of faculty members with expertise in environment, health science, and agriculture disciplines was minimal. Nevertheless, this would not be an issue if faculty members from various disciplines had an ability to integrate sustainability concepts into their disciplines. For instance, instead of teaching business concepts, they could enhance debates on sustainable business, corporate social responsibility (CSR) and creating shared values (CSV). Green growth and inclusive growth concepts should be presented in economic and social development disciplines. Science and technology disciplines should come along with cleaner production concepts. A forward step is needed to enhance the faculty members' need for the capacity to apply an ESD approach in order to increase the number of sustainable self-oriented graduates in various disciplines.

To mobilize the sustainable self concept, faculty members need to have capacity regarding "socialization experience for aspiring faculty" (Austin, 2002), new teaching approaches through pedagogy (Johnson et al., 2009), and ecopedagogy (Gadotti, 2010). Faculty members need to learn how to develop and apply new instruction approaches that help produce sustainability-oriented graduates. In addition to developing the students' knowledge and skills in a particular discipline, faculty members should train students with soft skills to enhance sustainability competences. For example, the interpersonal competences, supported by basic competences, are very fundamental to relate to the other four competences—systems thinking, strategic, normative, and anticipatory—for

a sustainability research and a problem-solving framework (Wiek, Withycombe, & Redman, 2011). More specifically, they need action competence for sustainability with respect to positive belief, core value, and communication skills (Almers, 2013). Faculty members should have opportunities to widen their knowledge regarding sustainability concepts and sustainability teaching approaches, which can be applied in their disciplines, in addition to the chances of gaining a higher academic degree.

Engagement in Capacity Building for Education for Sustainable Development

There are three key matters regarding faculty capacity building for promoting sustainability through education. First, the faculty capacity building in higher degree education in Cambodian HEIs can be insufficient for developing their knowledge regarding sustainability. The policy on education scholarship through tuition fee waiving reveals an attention of HEIs to the encouragement of faculty capacity building. With regard to the financial limitation, supporting their faculty members to gain a higher degree at affordable costs at one of the domestic HEIs would be a choice. However, there may be a question of quality at most local HEIs that engage students less in scientific research. From public perspectives, degree holders from foreign universities seem to be more appreciated. Likewise, for the sake of higher education quality, HEIs need young Cambodian academics from abroad (Ford, 2013).

The faculty development for a post-graduate degree in foreign universities can be essential if it is done in disciplines that are not available in Cambodia. Especially, Cambodian HEIs need faculty members in the expertise of interdisciplinary and sustainability-related disciplines. This may help HEIs have resource persons for improving their academic programs, teaching, and research towards ESD. They could integrate sustainability concepts into their existing academic programs. For example, the business administration program can be value-added with green business and social responsibility concepts. The topics of "ethics, corporate social responsibility, and sustainability" are successfully integrated into the business administrative program (Christensen, Peirce, Hartman, Hoffman, & Carrier, 2007; Hesselbarth & Schaltegger, 2014). HEIs can engage their students from various disciplines in the sustainable self when they have sustainability-oriented faculty members.

Second, there apparently is a shortage of capacity building activities regarding sustainability as well as ESD directly at the national and institutional levels. This could prevent faculty members from the involvement in training activities and academic meetings regarding sustainability-related topics. Then, the faculty members' awareness of sustainability could be at a critical level. Thus, it could be a challenge in promoting the sustainable self concept in their teaching. There should be more faculty members involved in the capacity building activities, which cover various topics of sustainability. Alike a concern in many countries, the themes on climate changes, poverty reduction, gender equality, human

rights, social responsibility, and modern technology appear to be the most interesting issues for Cambodian faculty members. Meanwhile, other themes regarding the environment and social development should be promoted.

The little attention of the MoEYS on strengthening the higher education personnel's capacity in sustainability may result in a fruitless attempt to stimulate the participation of all HEIs. The MoEYS serves as a central body to supervise HEIs and has the power to streamline the performance of HEIs (Rany et al., 2013; Un & Sok, 2014). In the Cambodian context, ensuring a more effective mechanism of faculty capacity building to promote sustainability needs an initiative and involvement of the MoEYS as a top-down approach. The Ministry could motivate HEIs to develop and implement an educational policy on faculty capacity building for ESD.

Third, HEIs need clear faculty capacity building programs that could support faculty members to expand their sustainability knowledge and to gain skills for sustainability. Without the assistance from foreign universities or donors, the engagement of faculty members in international academic meetings scarcely occurs with Cambodian HEIs. HEIs need the initiative to begin a small-scale capacity building activity for both full-time and part-time faculty members. Every faculty member is encouraged to have an "individual development plan (IDP)" with a well-arranged program (Burnstad, 2002) based on their needs and interests (Hardré, 2012) to promote ESD. Then, HEIs should keep the faculty members involved in "continuous training and routines" (Sammalisto, Sundström, & Holm, 2015), in training programs and in building a network called a Community of Practice (Cortelazzo, 2015). There, faculty members could learn from each other by coming together to share their new knowledge. Follow-up activities through monitoring and evaluation (McLean, Cilliers, & Van Wyk, 2008) should come after the capacity building activities. This mechanism could help HEIs identify what and how faculty members should learn to strengthen their ability.

Besides understanding faculty work and responsibility, academics need to learn to develop the sustainable self approach. They should learn to improve their awareness of sustainability, to motivate themselves to have a sustainable behavior, to empower themselves to have more positive belief, to develop knowledge and skills based on sustainable development principles, and to start their activities in everyday life and the academic career. Once they reach the practice stage of the sustainable self, it is sure that they are qualified and ready to build the capacity of students.

CONCLUSION

The university faculty capacity building can be promoted once Cambodian HEIs have a clear vision and action policy to start their initiative and financial resource investment. The needed capacity of faculty members includes high academic qualification at the doctoral degree in particular disciplines and pedagogical knowledge and skills to educate students with the sustainable self. The slow progress of the academic qualification of faculty

members with PhDs and the small faculty engagement in capacity building activities appear to be barriers for Cambodia's higher education to have qualified faculty members promoting the sustainable self. HEIs need more faculty members who have a high level of sustainability, literacy, motivation, and initiative. The more qualified faculty members they have, the more students could learn to become sustainable self-oriented graduates.

Faculty capacity building at both the national and the institutional levels should be more relevant to themes of the ESD and the ecopedagogy. It helps stimulate the faculty members' interest and increase their awareness. Faculty members should learn how to teach their students in various disciplines with the integration of the sustainable self. In addition to developing students to specialize in a particular discipline, faculty members need to cultivate the value education, the interpersonal competence, and the system thinking competence. A further study should relate to challenges and the promotion of faculty involvement in capacity building activities.

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List of Appendices

Appendix 1 List of Universities Included in the Survey Study

N_o	*Name of Universities*	*Province*	*Regions*
1	Royal University of Phnom Penh (RUPP)	Phnom Penh Capital City	Central
2	National University of Management (NUM)		
3	Build Bright University (BBU)		
4	Panasastra University of Cambodia (PUC)		
5	University of Cambodia (UC)		
6	Western University (WU)		
7	Asia-Europe University (AEU)		
8	University of Puthisastra (UP)		
9	BELTI International University (BIU)		
10	Intered Institute (IEI)		
11	Preah Kossomak Polytechnic Institute (PPI)		
12	National Technical Training Institute (NTTI)		
13	National Polytechnic Institute of Cambodia (NPIC)		
14	Royal University of Agriculture (RUA)		
15	Chea Sim University of Kamchaymear (CSUK)	Prey Veng	Southern
16	Svay Rieng University (SRU)	Svay Rieng	
17	University of Battambang (UBB)	Battambang	Northwest
18	University of Management and Economics (UME)		
19	Angkor University (AU)		
20	University of South-East Asia (USEA)	Siem Reap	Northern
21	Meanchey University (MCU)	Banteay Meanchey	
22	University of Angkor Khemara (AKU)	Kampot	Southwest
23	Regional Decho Sen Polytechnic Institute of Kampot (RSPIK)		
24	Khmer University of Technology and Management (KUTM)	Sihanouk	

Appendix 2 Key Informants for the Interviews

Code	*Appointment of University Leaders*	*Code*	*Appointment of University Leaders)*
UL01	Vice-President	UL09	Director, Academic Program Office
UL02	Director, Academic Program Office	UL10	Dean, Faculty of Agriculture
UL03	Vice-President	UL11	Dean, Faculty of Management
UL04	Dean, Faculty of Education	UL12	Director, Research Office
UL05	Dean, Faculty Social Science	UL13	Vice-Dean, Faculty of Agriculture
UL06	Director, Quality Assurance Unit	UL14	Dean, Faculty of Community Development
UL07	Vice-President	UL15	Dean, Faculty of Tourism
UL08	Vice-President		