



CHULA Beyond Leading Changes: a Capacity Building Program for Campus Sustainability at Chulalongkorn University

Vorapat Inkarojrit^{1*}, Supaporn Chanchamroen², Narin Hirunsuthikul³, Boonchai Stitmannaitum⁴, Korb Limsuwan⁵

¹Faculty of Architecture, Chulalongkorn University, Assistant President for Special Affairs, 254 Phayathai Road, Pathumwan, Bangkok 10330 Thailand

²Chulalongkorn University, Vice President for Human Resource and Organization Development, 254 Phayathai Road, Pathumwan, Bangkok 10330 Thailand

³Chulalongkorn University, Vice President for Strategic Monitoring and Assessment, Planning, Budgeting and Well-being, 254 Phayathai Road, Pathumwan, Bangkok 10330 Thailand

⁴Chulalongkorn University, Chief Transformations Officer, 254 Phayathai Road, Pathumwan, Bangkok 10330 Thailand

⁵Chulalongkorn University, Head of Energy and Environment Unit, Office of Physical Resources Management, 254 Phayathai Road, Pathumwan, Bangkok 10330 Thailand

*corresponding author: Vorapat.i@chula.ac.th

Article Info

Received:

23 May 2023

Accepted:

13 November 2023

Published:

15 November 2023

DOI:

10.14710/jsp.2023.20836

Presented in the 9th International Workshop on UI GreenMetric World University Rankings (IWGM 2023)

Abstract. Capacity building for campus sustainability has been recognized as a process of strengthening the university stakeholders' skills to minimize the negative impacts of current crises and emerging challenges. While many universities emphasize capacity building through research and education activities, most, if not all, neglect activities for non-academic staff. Without the necessary capacity, the universities might not be able to realize their development plans. To address this issue, Chulalongkorn University developed a capacity building program called "Beyond Leading Changes" in 2021 which consists of three modules. The first aims to provide SDGs knowledge and raise awareness on the local and global challenges. The second focuses on the design thinking process in which participants were asked to empathize, define, and ideate potential solutions to sustainability problems. The last module utilizes the project-based learning approach in which the skills were developed through engaging projects set around real-world problems. 70 supporting staff from various units completed the program which resulted in many interesting pilot projects that cover a wide range of issues. Nevertheless, the challenge remains to make the program more accessible and inclusive.

Keyword:

Capacity building, Sustainable Development Goals, Sustainable university, Human resources, Education, Project-based learning

1. Introduction

Since the 1960s, environmental issues associated with developmental activities have become a major concern for global citizens. Nowadays, sustainability remains one of the most critical issues for this generation and the next. As an influential voice in society, university plays a crucial role to contribute to sustainable development through its core activities including education, research, community engagement and operations [1]. Many universities no longer treat sustainability as an add-on, but fully implement sustainability in their core activities.

In Thailand, the establishment of the Sustainable University Network of Thailand (SUNThailand) in 2013 had raised awareness of many higher education institutes to support sustainable development in campus as well as provided a cohesive platform for fostering sustainability partnerships. International Ranking systems such as the UIGreenMetric and the Times Higher Education (THE) Impact Ranking had boosted the interest of campus sustainability practices as well as a systematic approach to implement sustainability. Growing interests on sustainability issues had also led to many programs and initiatives based on education and research activities. Nevertheless, through a preliminary survey, most, if not all, activities were geared toward students and faculty, neglecting non-academic staff. As human capital development is necessary for building a sustainable growth environment [2] and reducing negative impacts on the ecosystem [3], the concept of sustainable human resource management (SHRM) which combine the idea of sustainability with the soft approach to human resource has been introduced to foster a culture of cooperation and develop employee involvement [4] with the goals to encourage employee to work more productive, to act with passion, and to generate creative ideas to achieve sustainable development goals.

This paper presents the development of capacity building program for promotion of campus sustainability at Chulalongkorn University, Bangkok Thailand. The program was established in August 2021 during the COVID-19 outbreak. The program aims to raise sustainability awareness of the non-academic staff through three modules of online and face-to-face activities with the goal of creating sustainable university change agents.

2. The Project Development

The capacity building program has been recognized as a process of strengthening the stakeholders' skills. For students and academic staff, necessary skills have been embedded within the coursework and extra-curricular activities. Each of the Sustainable Development Goals (SDGs) was emphasized based on the area of expertise in related academic programs. For non-academic staff, the crucial skill set consists of data collection and analysis, policy framework, governance, promotion of action as well as SDGs inclusion. As sustainability is the concept that has recently been introduced to higher education in Thailand, unlike universities from the western part of the world where many universities offer in-house training as a part of the human resource development program, there is no specific program that emphasize sustainability for non-academic staff. Realizing the importance of capacity building, Chulalongkorn University Sustainability Taskforce (CUST) and the Office of Human Resource Management (HRM) teamed up to develop the program. This section describes the development of capacity building for campus sustainability at Chulalongkorn University.

2.1. Chulalongkorn University

Chulalongkorn University (Chula) was the first institution for higher learning in

Thailand. Founded in 1917, the university located in the central district of Bangkok, the capital of Thailand. The campus covers approximately two million square meters tract of land in which about 50% is dedicated to academic activities. Currently, there is nearly forty thousand students enrolled in more than 400 academic programs and the university employed about eight thousand staff, in which 40% are non-academic. Chulalongkorn University has secured the highest position among Thai universities on the QS (Quacquarelli Symonds) Rankings for the 14th consecutive year. For Sustainability Ranking, in 2019, based on the UI GreenMetric World University Ranking, Chulalongkorn University ranks 3rd in Thailand. In 2022, according to the Times Higher Education University Impact Ranking, Chulalongkorn University ranked No.1 in Thailand for the 3rd consecutive year and the top 16 in the world (out of 1,524 institutions from 110 countries). And lastly, according to the QS Sustainability 2023, Chulalongkorn University has been ranked as the top university in Thailand, No.5 in ASEAN, and No.13 in Asia. These accomplishments reflect the university full commitment to sustainability as the university's vision is to take the lead in creating knowledge and innovations that will build and support a sustainable society.

2.2. Review of Existing Sustainability Training Programs

During the program development, CUST and HRM reviewed available programs from universities in the United States and the United Kingdom. One common finding was that major universities, through the office of sustainability, offer some kind of programs that offer basic knowledge on the SDGs, demonstrate university sustainability goals, as well as knowledge on specific topics like Carbon Footprint, zero waste, and social inclusion. Recent review shows updates programs in similar fashion. For example, created by the Office of Sustainability, the UC Berkeley Sustainability Staff Training composes of ten comprehensive modules which are intended to be a resource on important topics in environmental, social and economic sustainability. The modules include carbon neutrality, zero waste, resiliency and environmental justice, sustainable eating, ecosystems and biodiversity, built environment, transportation, sustainable spending, water, and engagement. Staff enroll through the UC Learning Center and certificate is granted after completion of ten modules and short assessment at the staff own pace [5].

As a part of the larger suite of Cornell Department of Human Resources Management Academy, Cornell University offers two training programs for staff called Sustainability & Climate Change 101 which introduce climate change and behavior change. Sustainability & Climate Change 201 provided a deeper level of insight into climate change, carbon footprint and sustainability ranking, as well as framework and tools for measuring and planning for sustainability transformation [6].

The University of Vermont's Office of Sustainability offers the Campus Sustainability Series through its Professional Development & Training unit. The series is open to all employees and a certificate is granted after completion of five sessions' attendance [7].

Alternatively, sustainability is offered as a mandatory training course for new staff. For example, University College London requires their new staff to take the 30-minute Change Possible: Sustainable UCL course [8]. The University of Leeds offers two training courses on Sustainability in Practice and the University Environmental Management System (EMS) [9].

The University of Edinburgh provides three online and face-to-face training courses for both staff and students that cover issues such as the climate crisis, the biodiversity crisis, social inequality, carbon literacy, and modern slavery [10].

Lastly, the University of Cambridge offers self-taught and face-to-face environmental sustainability training courses with the aims to inform staff of the university's environmental

commitments and to give staff the knowledge for sustainability contribution [11].

2.3. Chula Beyond Leading Change

The capacity building for campus sustainability program at Chulalongkorn University was launched in August 2021. As education for sustainable development demands a profound change in paradigms, the underlying principle for the program was developed based on reflective practices and the acquisition of skills and tools that will allow the participants to develop their own sustainability philosophy. Therefore, the project-based learning was chosen as the learning approach. Project-based learning started with a real-world problem, research the issue, investigate different perspectives, explore solutions from a variety of angles and provide a comprehensive plan to solve the problem. Furthermore, collaboration with community members and sharing the final product with general audience were encouraged. The final program consists of three modules. The first aims to provide general SDGs knowledge and raise awareness on the local and global challenges. Examples of current campus initiatives were displayed. The second focuses on the design thinking process in which participants were asked to empathize, define, ideate potential solutions to sustainability problems. The last module utilizes the project-based learning approach in which the skills were developed through engaging projects set around real-world problems.

Due to COVID-19 outbreak, the first and second modules were offered as online courses and consulting sessions. The third module was conducted as face-to-face activities where participants were divided into group of 6-8 people. Each group was asked to think about a real-world problem on campus, pair it with one of the 17 SDGs and to come up with a pilot project that help solve the problem with the budget of 30,000 Thai Baht (~900 USD). Table 1 displays the list of 9 pilot projects.

Table 1
Table 1. List of 9 pilot projects and associated UNSDGs

Group	Project name	UNSDGs
1	Work from home: Office Syndrome	3: Good health and well-being
2	Lesspaper	12: Responsible consumption and production
3	Mental well-being	3: Good health and well-being
4	Waste to Energy: Reduce Reuse Recycle	12: Responsible consumption and production
5	Chula Senior Care	11: Sustainable cities and communities
6	Chula Foodie: Good food = Good health	3: Good health and well-being
7	Food waste and packaging	12: Responsible consumption and production
8	Smart Zerowaste	12: Responsible consumption and production
9	Pedestrian Safety	11: Sustainable cities and communities

3. Results and Discussion

Seventy supporting staff from various units across campus completed the program. To disseminate knowledge gained during the process, each group presented their work at the University Sustainability Festival followed by the certificate ceremony on 2 September

2022. The presentation session clearly indicates the success of the project in which each group was able to summarize the project using the 5-minute pitch presentation style.

Evaluation after the completion of project revealed that from module 1 the sustainability awareness level was raised from 4.45/10 to 7.50/10. For module 2, the level of understanding on the topic of design thinking process was raised from 3.44/10 to 8.38/10. The overall satisfaction with the program was reported at 4.42/5. The main obstacle for the program was found to be the online mode of education in which the interaction between the facilitator and participants was not fostered.

Although the project period was short (~3 months) and only a limited numbers of SDGs were explored, participants were given opportunity to gain experience and practice their skills on researching problems in relation to SDGs, data collection and analysis, and propose solutions with real-world limitations. In addition, participants were equipped with competencies require in the future including social competencies, methodological competencies, personal competencies, and domain competencies. It is expected that the interplay of the key competencies will not only enable the supporting staff to solve sustainability problem in their daily operational practices but also raise the productivity and create a healthier and happier working environment.

4. Conclusion

Sustainability is a demanding concept, claiming changes at all levels. Using university as living laboratory, the Chula Beyond Leading Change had filled a gap for often neglected stakeholder, non-academic staff of Thai universities. In conclusion, the outcomes of the program clearly show the need to rethink strategies for promotion of sustainable development on campus. Considering sustainable development, the university should develop competences of its stakeholder based on both formal and informal means and have them officially recognizes. Critical thinking, data analytic, and interpersonal skills are proven to be important for future generation and for solving sustainability problems and should be further promoted.

Currently, Chulalongkorn University is hosting a revised version of the Chula Beyond Leading Change program. As COVID-19 pandemic slowly dissipate, this allow opportunity for onsite activities to be conducted. New activities such as the sustainability fieldtrip, group coaching and inspirational talk are added to further enhance participants awareness and inspiration for pilot project completion. Nevertheless, the challenge remains to make the program more accessible and inclusive. For the number of participants who completed the program increase, it will be interesting to see the long-term effect of the program on their work as well as their role on being campus sustainability change agents.

References

- [1] Cörvers, R., Wiek, A., de Kraker, J., Lang, D.J., Martens, P. Problem-based and project-based learning for sustainable development in Heinrichs, H., Martens, P., Michelsen, G., Wiek, A. (Eds.). 2016. Sustainability Science: An Introduction. Dordrecht: Springer Science+Business Media.
- [2] UNCTAD. 2020. The Least Developed Countries Report 2020: Productive Capacities for the New Decade. Geneva: The United Nations. Available online at <https://unctad.org/publication/least-developed-countries-report-2020#tab-2>

- [3] Payap, A.H., Kautish, P., Sharma, R., Siddiqui, A., Mehta, A., Siddiqui, M. 2023. Does human capital complement sustainable development goals? Evidence from leading carbon emitter countries. *Utilities Policy*. 81, 101509.
- [4] Piwovar-Sulej, K. 2021. Human resources development as an element of sustainable HRM – with the focus on production engineers. *Journal of Cleaner Production*. 278, 124008.
- [5] The University of California Berkeley, UC Berkeley Sustainability: A Sustainability Training & Certification for Staff (2023). Available online at <https://sites.google.com/berkeley.edu/ucberkeleysustainabilitytraini/home>, accessed on 29 April 2023
- [6] Cornell University, Staff Sustainability Opportunities & Resources (2023). Available online at <https://sustainablecampus.cornell.edu/take-action/employee-resources/staff-sustainability-training>, accessed on 29 April 2023
- [7] The University of Vermont, *Campus Sustainability Series for Staff* (2023). Available online at <https://www.uvm.edu/news/sustainabilityoffice/campus-sustainability-series-staff>, accessed on 29 April 2023
- [8] The University College London, Staff Sustainability Opportunities (2023). Available online at <https://www.ucl.ac.uk/sustainable/staff-sustainability-opportunities>, accessed on 29 April 2023
- [9] The University of Leeds, Staff Sustainability Induction Resources (2023). Available online at <https://sustainability.leeds.ac.uk/staff-sustainability-induction-resources/>, accessed on 29 April 2023
- [10] The University of Edinburgh, Personal and Professional Development (2023). Available online at <https://www.ed.ac.uk/sustainability/programmes-and-projects/sustainability-innovation-leadership/sustainable-leadership/professional-development>, accessed on 29 April 2023
- [11] The University of Cambridge, Sustainability Training (2023). Available online at <https://www.training.cam.ac.uk/envenergy/>, accessed on 29 April 2023



©2024. The Author(s). This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution-Share Alike 4.0 (CC BY-SA) International License (<http://creativecommons.org/licenses/by-sa/4.0/>)