

Thai Universities Performance in Global Sustainability Rankings for Educational Institutions

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ABSTRACT

In 1972, the term 'sustainability in higher education' was first introduced in the Stockholm Declaration, which highlighted the interdependence between humanity and the environment in achieving environmental sustainability. There are three major global university sustainability rankings: UI GreenMetric World University Ranking, Times Higher Education (THE) Impact Ranking, and QS World University Ranking: Sustainability. The UI GreenMetric World University Ranking evaluates universities based on six categories: setting and infrastructure, energy and climate change, waste, water, transportation, and education. The THE Impact Ranking assesses how university activities contribute to the United Nations Sustainable Development Goals. Meanwhile, the QS World University Ranking: Sustainability measures a university's effectiveness in addressing environmental, social, and governance (ESG) issues. In 2023, 55 Thai universities participated in the UI GreenMetric World University Ranking, 65 in the THE Impact Ranking, and 7 in the QS World University Ranking: Sustainability. Thai universities perform relatively well in the UI GreenMetric World University Ranking and THE Impact Ranking. However, there are notable gaps that need addressing in the QS World University Ranking: Sustainability.

Keyword: University/ Sustainability/ UI GreenMetric/ THE Impact Ranking/ QS World University Ranking: Sustainability

1. INTRODUCTION

Universities are essential in fostering a sustainable future by educating future leaders and integrating sustainability into their practices [1], [2]. This involves addressing environmental and social concerns, and adjusting policies and operations to mitigate negative impacts on the environment and achieve the 17 sustainable development goals of the United Nations [3], [4]. There is a high demand for research on universities as actors within sustainable development processes [5]. While there has been an increase in interest and implementation of sustainability in universities, challenges remain, such as better integration of environmental management into curricula and research [6]. Several models and guidelines have been developed to facilitate the integration of sustainability into higher education institutions, providing systematic action plans and transition management approaches [7], [8]. Additionally, the university community must rethink environmental policies and practices to contribute to sustainable development at various levels, with potential economic, environmental, and social consequences [9]. Official statements increasingly recognize the role of universities in sustainable development, leading to the creation of a culture of sustainability embedded in university management [10].

The measurement and assessment of sustainability in universities are crucial for evaluating their efforts and progress towards sustainability [11]. This process involves the use of important indicators such as decreased consumption, centrality of sustainability education, and cross-functional or cross-institutional integration [12]. Recently, three global methodologies have emerged to measure and evaluate the sustainability progress of universities: the UI GreenMetric World University Ranking, the Times Higher Education (THE) Impact Ranking, and the QS World University Ranking: Sustainability.

Sustainability has become a key concern for Thai universities, with many making notable advancements in areas like environmental management, social responsibility, and the 17 Sustainable Development Goals (SDGs). Additionally, the Sustainable University Network of Thailand (SUN

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Thailand) has been officially established since 2016 to further support these efforts. The networking serves as a collaborative platform for universities in Thailand to share knowledge, strategies, and best practices related to sustainability [13].

This paper aims to evaluate the performance of Thai universities in global sustainability rankings. The core concepts of three global sustainability rankings including the UI GreenMetric World University Ranking, the THE Impact Ranking, and the QS World University Ranking: Sustainability were presented. The analysis of Thai universities performance in three global sustainability rankings was discussed.

2. GLOBAL SUSTAINABILITY RANKING

The UI GreenMetric World University Ranking is the first global sustainability ranking system that assesses universities' efforts in environmental sustainability, aiming to promote green campuses and sustainable development [14], [15]. It was introduced by the University of Indonesia in 2010 and evaluates universities based on indicators related to education, research, and the environment [14]. Participating universities can use the ranking as a framework to examine their performance and contribute to global sustainable development [16], [17]. The ranking system covers six areas, including setting & infrastructure, energy & climate change, waste, water, transportation, and education, and universities are ranked based on their total scores in these areas [18].

THE Impact Ranking was launched in 2019 by the Time Higher Education. These rankings evaluate institutions on various criteria such as their research, stewardship, outreach, and teaching practices related to the United Nations' Sustainable Development Goals (SDGs). A total of 251 indicators, spanning all 17 SDGs, were used to determine rankings. The calculation involved scoring primarily based on SDG 17, with the top three results from the remaining 16 SDGs also considered [19].

The QS World University Rankings: Sustainability is a global sustainability ranking of universities that assesses their performance across a range of environmental, social, and governance (ESG) challenges. It is designed to provide students with a unique lens on which institutions are demonstrating a commitment to a more sustainable existence. Total score is calculated based on three pillars, which are social impact (45%), environmental impact (45%), and governance (10%) [20].

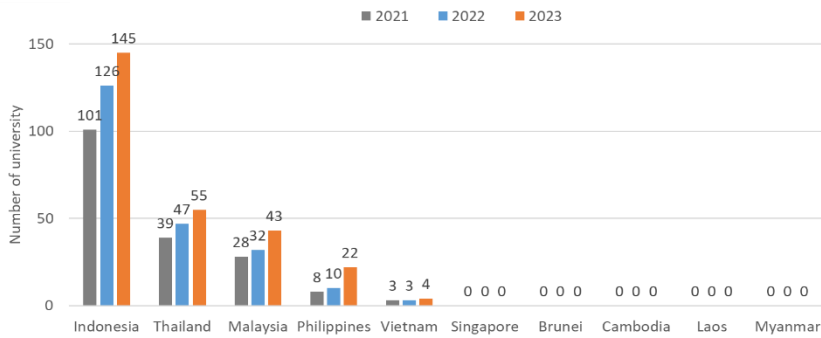
3. THAI UNIVERSITIES IN GLOBAL SUSTAINABILITY RANKING

Sustainability in Thai universities has become a prominent focus as institutions seek to address environmental challenges and contribute to sustainable development. They are increasingly recognizing the importance of sustainability and are taking steps to integrate it into their education, research, and operational activities. This section demonstrates Thai universities performance in the global sustainability ranking, which are the UI GreenMetric World University Ranking, THE Impact Ranking, and QS World University Ranking: Sustainability, respectively. The ranking results from three global ranking in year 2023 were gathered to analyse the Thai universities performance.

The contributions of ASEAN universities and Thai universities in the UI GreenMetric World University Ranking during the year 2021-2023 were illustrated in the Figure 1 and 2. The number of Thai universities participating in the UI GreenMetric World University Ranking has increased from 39, 47 and 55 in year 2021, 2022 and 2023, respectively. Figure 3 demonstrates the Thai universities ranking in top 500 ranked of the UI GreenMetric World University Ranking in year 2023. It can be seen that 61.8% of Thai universities was ranked in the top 500 of UI GreenMetric World University Ranking.



UI GreenMetric Rankings: ASEAN University Participation

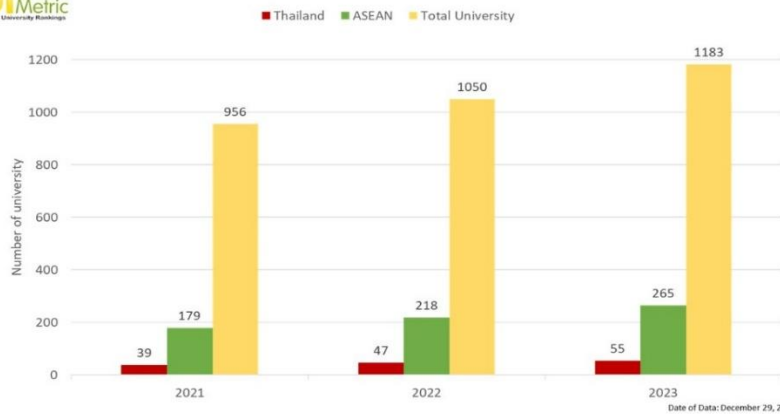


Date of Data: December 29, 2023

Figure 1. The contribution of ASEAN universities in the UI GreenMetric World University Ranking.



UI GreenMetric Rankings: University Participation

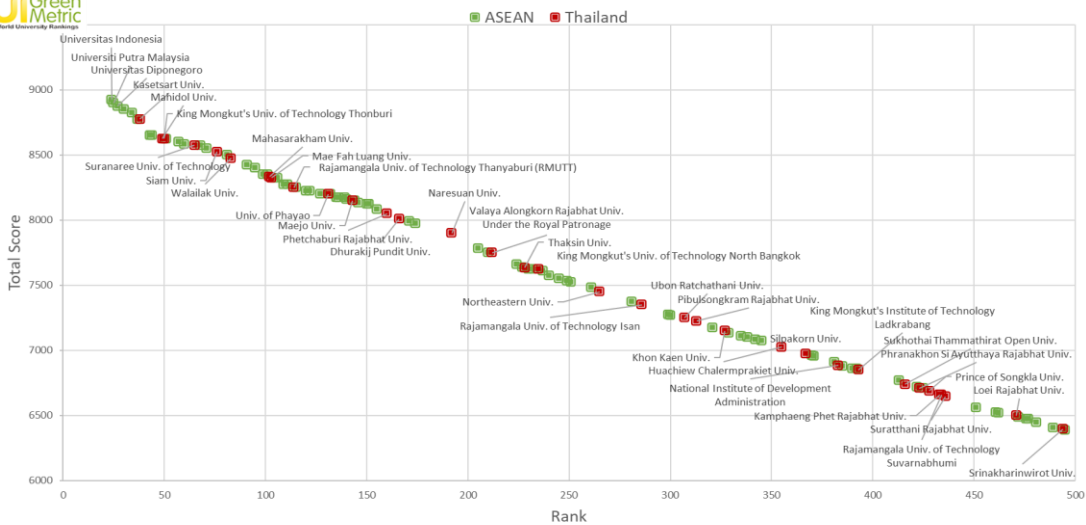


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Figure 2. The contribution of Thai universities in the UI GreenMetric World University Ranking.



UI GreenMetric Rankings 2023 (Top 500 in ASEAN)



Note: Data shown University name and Rank

Date of Data: December 29, 2023

Figure 3. Thai universities performance in the top 500 of UI GreenMetric World University Ranking.

Figure 4 presents the contribution of Thai universities in the THE Impact Ranking from year 2019 to 2023. The number of Thai universities participating in the ranking has increased annually due to implementation of SDG policy from the Ministry of Higher Education, Science, Research and Innovation of Thailand [20]. The Thai universities performance in THE Impact Ranking 2023 are illustrated in Figure 5. Only 29% of Thai universities were ranked among the top 600 in the THE Impact Ranking year 2023. More than 50% of Thai universities were ranked in range of 1,000-1,000+.

The QS World University Rankings: Sustainability is the latest global ranking focused on sustainability in educational institutions. Contributions from ASEAN universities remain limited (Figure 6). In 2023, only 7 Thai universities participated, increasing to 13 in 2024. Figure 7 illustrates Thai universities performance in the top 500 QS World University Rankings: Sustainability year 2024. Seven Thai universities have secured a position within the top 500 of the QS World University Rankings: Sustainability. The number and performance of Thai universities in this ranking were limited due to a lack of familiarity with the ESG concept, which has not been widely implemented in university policies in Thailand.

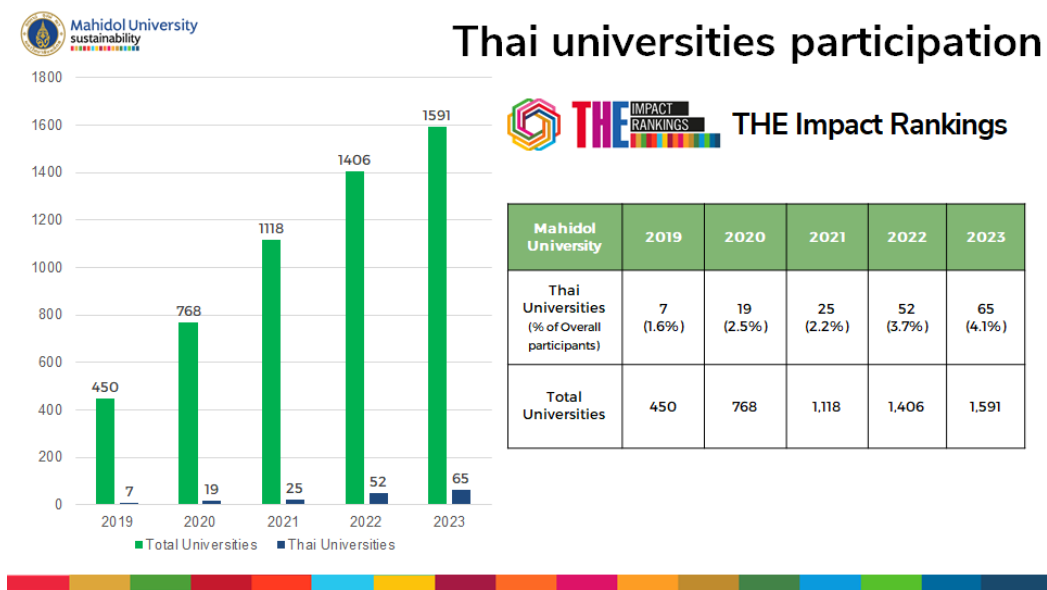


Figure 4. The contribution of Thai universities in the THE Impact Ranking.

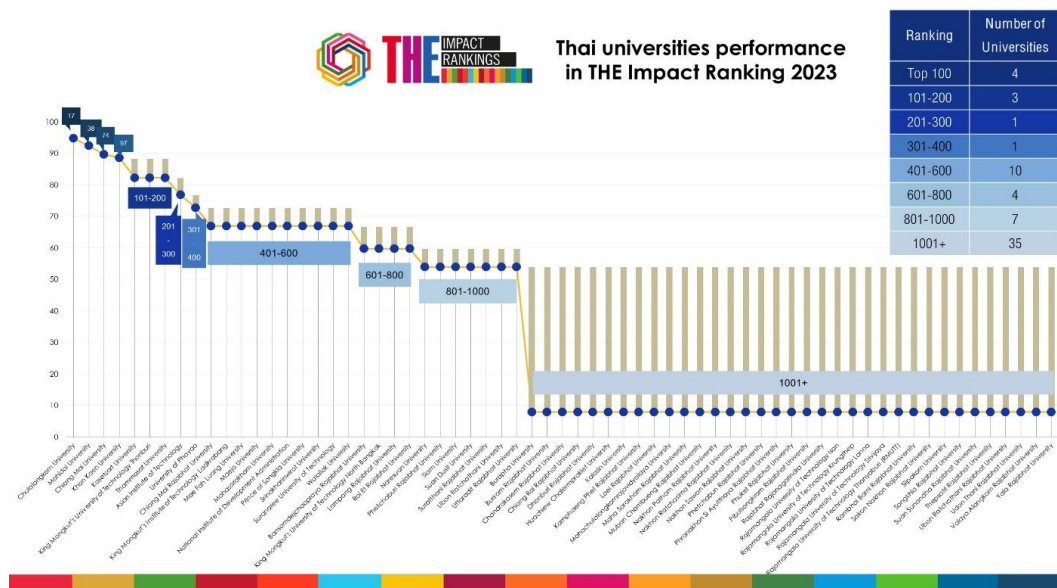


Figure 5. Thai universities performance in THE Impact Ranking 2023.



QS Sustainability Rankings: ASEAN University Participation

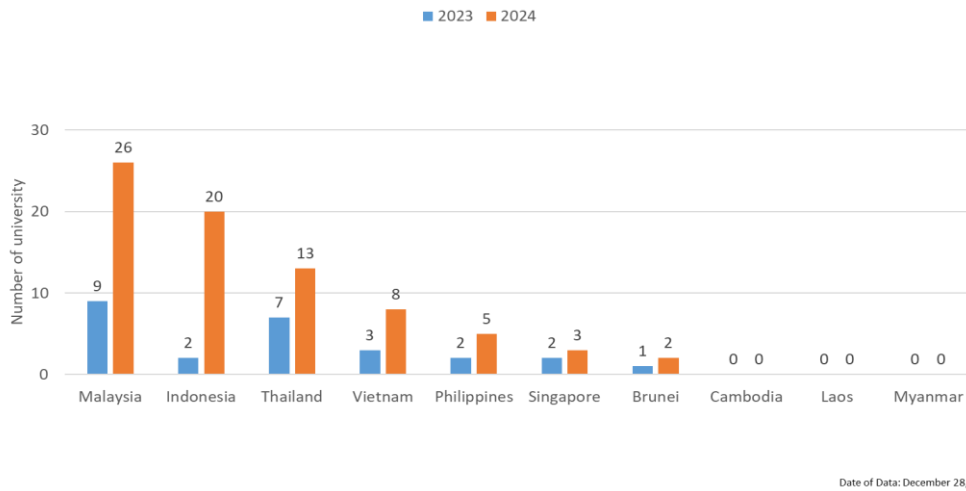


Figure 6. The contribution of ASEAN universities in the QS World University Rankings: Sustainability.



QS Sustainability Rankings 2024 (Top 500 in ASEAN)

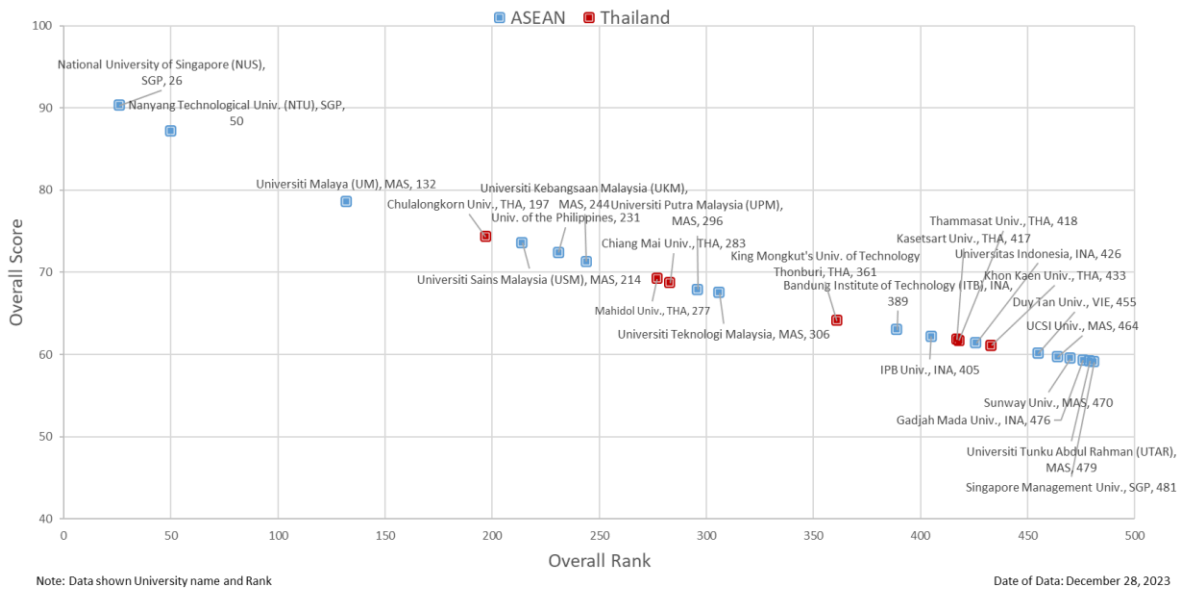


Figure 7. Thai universities performance in the top 500 of the QS World University Rankings: Sustainability.

4. CONCLUSIONS

A global sustainability ranking for educational institutions evaluates universities based on their commitment to sustainability practices and principles. The rankings typically assess factors such as activities contribution to SDGs, environmental impact, social impact, governance, research output, teaching and learning, and campus operations. Thai universities perform relatively well in the UI GreenMetric World University Ranking and THE Impact Ranking. However, there are notable gaps that need addressing in the QS World University Ranking: Sustainability. The growing participation of Thai universities in the global sustainability ranking for educational institutions reflects a commendable commitment to sustainability and ESG principles.

To improve their performance in global sustainability rankings, Thai universities should actively promote sustainable practices across all levels of the institution. Faculties, administrators, staff, and

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students all have a critical role in accelerating progress toward sustainability. This can be achieved by making university operations more environmentally friendly through implementing policies that reduce energy consumption, promote the use of renewable energy, and decrease greenhouse gas emissions. In addition, fostering partnerships with communities and international organizations to create positive social impacts is essential.

The Faculty of Environment and Resource Studies, for example, can contribute its expertise to support Mahidol University's sustainability performance by integrating environmental issues and sustainability into research, curricula, and professional services and training. Promoting sustainable organizational development is another area where the faculty can implement. These strategies align with indicators used to evaluate a university's sustainability efforts and help enhance its overall performance in global rankings.

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