Journal of Sustainability Perspectives

journal homepage: https://ejournal2.undip.ac.id/index.php/jsp/

Opportunities Following the Path to Sustainability at Universidad San Francisco de Quito

Camila Espinoza[*1], Juan Proano-Aviles*[1]

[1] Universidad San Francisco de Quito, Ecuador
Corresponding author: cespinoza@usfq.edu.ec

Article Info

Received:
06 June 2024
Accepted:
17 October 2024
Published:
28 October 2024

DOI:
10.14710/jsp.2024.25051

Presented in the 10th International Workshop on UI GreenMetric World University Rankings (IWGM 2024)

Abstract. Since 2013, Universidad San Francisco de Quito (USFQ) has utilized various global and national sustainability assessment tools, including STARS by AASHE, UI Green Metrics, Q.S. Sustainability, and THE Impact Ranking. These tools have been pivotal in diagnosing institutional strengths and weaknesses, identifying opportunities for improvement, and integrating strategic actions into our policies and institutional plans. This paper explores the comparative effectiveness of these diverse sustainability evaluation tools and analyzes their impact on decision-making processes at USFQ. It explores how these assessments have informed our sustainability policies and strategies over the years, leading to significant improvements within our institution. Additionally, the paper presents successful case studies from USFQ where these tools have directly influenced the implementation of various projects. The insights provided will demonstrate how rigorous assessments can pave the way for meaningful institutional enhancements, offering a valuable resource for academic institutions worldwide to foster a culture of sustainability and make informed decisions that drive institutional change towards greater sustainability.

Keyword:

Actionable Insights, Decision-Making, Institutional Change, Sustainability Assessment Tools, University Sustainability.

1. Introduction

Sustainability in higher education is paramount as universities shape future leaders, innovators, and policymakers who will drive sustainable development. By aligning their strategies with the United Nations' Sustainable Development Goals (SDGs), universities address global challenges like poverty, inequality, climate change, and environmental degradation (Chankseliani & McCowan, 2021).

Higher education institutions play a crucial role in integrating sustainability into their curricula, research, campus operations, and community outreach, thus reducing environmental footprints and promoting sustainable practices. Universities contribute to societal improvement with innovative ideas and can embed sustainability into daily activities, making a holistic and systemic approach essential (Cardin, 2017). Also, as the world rapidly changes, we must adapt and discuss future sustainability in the built environment (Shaw, 2012). Furthermore, the focus on climate change has intensified interest in sustainable development, highlighting the significant environmental impacts of daily activities. Yet, society is also part of the solution. Higher education can teach future generations the importance of sustainability.

Globally, many higher education institutions are leading the way in incorporating sustainability into their academic programs and campus operations (Angelaki et al., 2024; Machado & Davim, 2023). In Ecuador, universities are also making significant strides in this direction despite facing unique challenges (Pacheco et al., 2020). By leveraging sustainability assessment tools and aligning their efforts with global sustainability goals, these institutions demonstrate a growing commitment to contributing to sustainable development. Through these efforts, universities are critical in driving the transition towards a more sustainable future locally and globally. Researchers like Shaw (2012) emphasize the link between the green agenda and construction education. Embedding sustainability in curricula and university goals prepares graduates to address environmental issues and secure future resources.

Adopting a sustainable development path has significantly influenced universities' missions, visions, research, and education as they increasingly tackle social, technological, and environmental issues (Tumbas et al., 2015). Sustainability in higher education demands a comprehensive approach, integrating communities, academics, curricula, and campus operations into the solutions for achieving sustainable goals. The academy shapes students' perspectives on sustainability, guiding how they will address these challenges throughout their lives. Key concepts for 'sustainable universities' include transformative education to tackle complex sustainability issues, interdisciplinary research, societal problem-solving through education and research, network development for resource sharing, and leadership to foster proactive societal responses (Tumbas et al., 2015). These elements underscore the essential role of universities in advancing sustainability and societal progress.

The concept of sustainable universities has led to the adoption of many assessment models worldwide, allowing comparison with institutions, supporting their operations, and searching for best practices (Tumbas et al., 2015). Additionally, the results obtained through a profound analysis based on the qualifications and feedback of the measuring tools will serve as a firm basis for creating innovative solutions and new policies that involve the education system at different levels. Since the first ranking appeared in 2003, higher education institutions have turned their strategies and internal processes to achieve a good place in global rankings and are ready to improve their operations (Cardin, 2017).

The Universidad San Francisco de Quito (USFQ), established in 1988, is a non-profit private institution in Quito, Ecuador, with a vibrant community comprising ≈9,000 students and ≈10,000 members. USFQ is recognized for its dedication to academic excellence and innovation. The university extends its operations beyond Quito to include notable locations

such as the Galapagos Islands, Guayaquil, Tandayapa, and Tiputini, enhancing educational and research outreach across diverse ecological and urban environments (USFQ, 2024).

USFQ's commitment to sustainability is exemplified through its dedicated Office of Sustainability. This office is pivotal in fostering community engagement to improve the university's sustainability performance. It actively collaborates with various university departments to identify and tackle sustainability opportunities, implementing projects that range from energy efficiency initiatives to waste management improvements (Valencia et al., 2018). The Office of Sustainability also emphasizes experiential learning by involving students and faculty in "living lab" projects, where the campus serves as a real-world laboratory for developing and testing sustainable practices. This hands-on approach enhances the educational experience and contributes to tangible improvements in the university's environmental footprint (USFQ, 2024).

Global university rankings are gaining more importance and represent a challenge for universities to implement sustainable development efforts and their environmental policy (Muñoz-Suárez et al., 2020a). USFQ has utilized various sustainability assessment tools such as AASHE STARS, UI Green Metrics, Q.S. Sustainability, and THE Impact Ranking since 2013 to evaluate its sustainability performance.

UI Green Metric World University Ranking evaluates universities based on a consistent set of criteria that ensure fair comparisons across 779 universities in 83 countries, focusing on environmental, economic, and social aspects through six indicators: Setting and Infrastructure, Energy and Climate Change, Waste, Water, Transportation, and Education and Research (University of Indonesia, 2024). STARS by AASHE is a transparent, self-reporting tool recognizing sustainability efforts in academics, campus engagement, operations, planning, administration, and leadership (Association for the Advancement of Sustainability in Higher Education, 2022). Q.S. World University Ranking assesses universities based on reputation, class sizes, research impact, and international diversity, with the recent Q.S. Sustainability ranking focusing on Environmental, Social, and Governance (ESG) aspects (QS Quacquarelli Symonds, 2024). The THE Impact Rankings measure universities' contributions to the United Nations' Sustainable Development Goals (SDGs), assessing their performance across research, stewardship, outreach, and teaching (Time Higher Education, n.d.).

This paper will explore the benefits of using sustainability rankings and self-evaluation tools to propose policy changes and enhance campus sustainability efforts. By comparing different rankings and assessment tools, we aim to provide a comprehensive analysis from the perspective of our university, focusing on specific criteria relevant to our sustainability goals. We will examine how these assessments have informed and shaped Universidad San Francisco de Quito's (USFQ) sustainability policies and strategies, ultimately contributing to significant institutional improvements and fostering a culture of sustainability within our campus community.

2. Theoretical Approach/Methodology/Scenario

Participating in international rankings allows USFQ to benchmark its performance against other universities and maintain metrics across various aspects of the university operations. It also allows us to evaluate performance and plan our activities and strategy continuously.

Table 1. List of Rankings.

Rankings	Description	Criteria	Universities Participating
UI Green Metrics World University Ranking	It uses its criteria instead of relying on reports specific to each country, ensures consistent evaluation, and allows for fair comparisons between universities. Universities provide data through questionnaires and publicly available information (University of Indonesia, 2024).	Setting and Infrastructure Energy and Climate Change Waste Water Transportation Education and Research	1183
The Sustainability Tracking, Assessment & Rating System (Stars by AASHE)	It is a transparent self-reporting tool that recognizes universities and colleges for their sustainability efforts. It rewards established leaders in sustainability and institutions just starting (Association for the Advancement of Sustainability in Higher Education, 2022).	Academics Campus Engagement Operations Planning & Administration Innovation and Leadership	342
Q.S. Sustainability	These rankings measure how much universities care about sustainability, how their graduates tackle environmental problems, and how their research aligns with the U.N.'s goals for a better future. It also judges a university's overall impact, considering the social and environmental effects of its teaching, research, and operations (QS Quacquarelli Symonds, 2024).	Social Impact Environmental Impact Governance	1397
THE Impact Rankings	The Times Higher Education Impact Rankings assess universities based on their contribution and performance of the United Nations' Sustainable Development	Teaching Research Citations International Outlook	1906

Rankings	Description	Criteria	Universities Participating
	Goals (SDGs) (Time Higher Education, n.d.).	Industry Income	

Therefore, we must analyze each ranking to understand its configuration and how it can help us achieve our sustainability goals and continue improving our performance and operations across the campus, community, and curriculum. Following the guidelines from university leadership and other stakeholders and after reviewing the relevant literature, we have participated in various rankings since 2013. These include Stars by AASHE, Q.S. World, Q.S. Sustainability, THE Impact Rankings, and UI Green Metric in different years. For a brief description of each, please refer to Table 1.

Acquiring the data for the reports needed to participate in the rankings and self-evaluation tools begins by identifying key sources and collaborators within the university. The Sustainability Office processes the data to meet the required metrics, evidence, and explanations for each ranking/tool. After submitting the application, the results and feedback are received within an established period. The reviewer feedback highlights opportunities and challenges, which are then integrated into our academic planning and university policies. Another way to identify opportunities is by elaborating on the reports mentioned above. Implementing these updated policies guides community members in proposing projects within our operations and curricula.

Since every ranking has its own criteria and description, it is essential to identify the key points of each methodology because sustainable indicators serve various purposes that influence decision-making in academic planning. Identifying the paths and strategies needed to achieve defined targets to reach sustainable development goals and effectively assess progress is crucial. Developing these strategies involves creating structural complexity, effectively communicating information within the campus, and analyzing sustainable development operations. Additionally, fostering social learning within the academic environment, demonstrating accountability, benchmarking, and identifying stakeholders are essential components. Gathering knowledge and data from collaborators on campus further refines these strategies and ensures successful implementation (Tumbas et al., 2015).

2.1. Continuous Improvement and Policy Making

The process in Figure 1 incorporating opportunities identified in university rankings into institutional policies and projects follows a cycle that closely mirrors the principles of the Deming Cycle, also known as PDCA (Plan-Do-Check-Act) (Aboodi, 2019). The steps start with diagnosis and data collection, which align with the "Plan" phase of PDCA, where problems are identified, and objectives are set, followed by reporting information and receiving feedback, corresponding to the "Do" phase, where plans are implemented on a small scale. The subsequent stages of opportunity identification and the planning and generation of policies represent an iterative approach to refining and detailing action plans based on the initial results and feedback, akin to revisiting the "Plan" phase before proceeding.

The cycle continues with the implementation of changes and community adoption, resonating with the "Check" and "Act" phases of the Deming Cycle. In the "Check" phase, the outcomes of the implemented changes are monitored and evaluated, akin to the feedback reception and analysis step in the depicted process. Finally, the "Act" phase

involves institutionalizing successful changes and making necessary adjustments, like planning, policy generation, and community adoption of changes in the university's process. Both cycles emphasize continuous improvement through iterative feedback loops, ensuring that policies and projects remain responsive to evolving insights and stakeholder needs. This systematic approach fosters a culture of sustainability and innovation, driving ongoing enhancements in university performance and impact.

Figure 1. Sustainable Decision-Making Flowchart

Equally crucial to the reports for rankings are the Carbon Footprint measurement reports conducted periodically across the university, encompassing both the main campus and its research extensions in Galapagos, Tiputini, and Tandayapa. By analyzing the scope of emissions, these reports help us identify the most pressing sustainability issues related to decarbonization and prioritize projects. The results serve as the foundation for decision-making, policymaking, and project proposals developed collaboratively with our interdisciplinary sustainability committee and strategic authorities, ultimately driving progress on these initiatives.

Furthermore, in the initial phase of developing our purchasing and sustainability policies, we conducted a series of workshops with an expert in environmental rights and policies. During these workshops, we created a framework that incorporated criteria and identified opportunities from the STARS Self-Evaluation tool (Academics, Engagement, Operations, and Planning & Administration.) We analyzed each item within these criteria and aligned them with the SDGs. We determined strategies and specific actions to achieve

each goal within the proposed target years. Throughout these workshops, we realized that all sustainability efforts should be systematized to map areas of impact. Furthermore, we aim to develop a clear path for transferring knowledge to the community and creating outreach projects to maximize our impact.

2.2. Evaluating the Importance of Rankings Based on our Vision and Needs

As mentioned, rankings and tools to evaluate university sustainability performance are essential. Universities can participate in as many rankings as they wish; however, resources are limited. Therefore, it is crucial for universities to strategically select the rankings that best support their goals toward more sustainable performance. Each ranking can offer unique insights and opportunities. However, universities must understand which are most helpful in identifying opportunities and best practices aligning with their specific sustainability objectives and resource availability. This strategic selection ensures that efforts and resources are effectively utilized to support the path to more sustainable operations.

To decide which sustainability rankings or tools to keep feeding and the frequency of submissions, we have defined specific criteria that guide our decision-making process. These criteria are based on multiple objectives collected from key stakeholders within the university, particularly leadership from the President and Vice President. Additionally, the criteria have been determined by the extensive experience of the Sustainability Office in various stages of implementation.

The eleven criteria used for analyzing each ranking were delimited and prioritized by observing how it has influenced our decisions and actions on our path to sustainability and current and/or emerging university strategies, goals, and needs. Each criterion was carefully qualified regarding the importance and usefulness of our campus agenda. The criteria used for this decision-making process include, listed in decreasing order of importance to USFQ:

2.2.1. International Visibility:

- Importance: Participation in rankings with a strong global reach to showcase the university's accomplishments to a broader audience. Look for rankings with media coverage or participation from other universities.
- Comparison with worldwide universities.
- Identify stakeholders and contacts of other universities to exchange experiences and challenges for our sustainable road.

2.2.2. Operations:

- Importance: This directly impacts budget and resource allocation. Knowing how the ranking evaluates energy use, waste and water management, and sustainable practices can help identify areas for improvement.
- Helps build our Sustainable Policy, leading to targets and objectives around waste, water, and energy operations.
- Identify project paths and areas needing more investment.

2.2.3. Curriculum and Academia Coverage:

- Importance: Understanding how the ranking assesses sustainability integration into the curriculum and research aligns with academic goals and faculty development.
- Acknowledge the integration of sustainability at the campus, curriculum, and community levels.
- Identify if our campaigns reach a significant part of the university population.

2.2.4. Governance:

- Importance: Transparency in decision-making and commitment from leadership towards sustainability are crucial for long-term implementation.
- Involve university authorities and directors in decision-making towards sustainable projects and investments.
- Develop sustainable policies, purchasing policies, and climate action plans.

2.2.5. SDGs and their Impact:

- Importance: Alignment with the U.N. Sustainable Development Goals (SDGs) demonstrates the university's contribution to global challenges.
- Communicate projects that are aligned with SDGs.
- Visualize which SDGs have significant projects and investments.

2.2.6. Local and Regional Community of Participants:

- Importance: Engaging with local higher education institutions is valuable for learning from each other, helping each other overcome common challenges, and promoting sustainability in the country/region.
- Allows comparison with other universities and identifies potential collaborations or new project implementations.

2.2.7. ESG Criteria:

- Importance: Environmental, Social, and Governance (ESG) criteria are increasingly important for attracting investors and donors.
- Identify stakeholders and create collaborations between academia and industry.
- Promote ESG concepts and criteria among the community so that its impact extends beyond the university environment when graduates enter the professional world.

2.2.8. Community Inclusion:

- Importance: Engaging the university community in sustainability efforts and enhancing project collaboration towards solutions for the campus challenges.
- Create a sustainable committee for decision-making regarding sustainable projects inside the campus.
- Multidisciplinary participation of professors, students, and administrative staff.

2.2.9. Free of charge participation:

- Importance: While cost is a factor, consider the potential benefits of participating even if there is a fee. Analyze the ranking's reputation and reach to determine the return on investment.

2.2.10. Full Report Publicly Available:

- Importance: Transparency and traceability are valuable, but publicly available reports might not be available from all rankings.
- Analyze the report's usefulness in identifying areas for improvement.

2.2.11. Traceability in Reports Submitted:

- Importance: Transparency and data verification are crucial for credible rankings reputation.
- Developing a reliable internal system for tracking your sustainability progress and goal accomplishment is highly relevant.

These criteria respond to multiple objectives, reflecting the inputs from a wide range

of stakeholders within the university. This inclusive approach ensures that the selected rankings are aligned with leadership priorities and resonate with the broader university community.

Table 2. Sustainability Rankings and Tools Qualitative Overview

USFQ Criteria	**Rankings**			
	IU Green Metrics	**AASH E Stars**	**Q.S. Sustainability**	**THE Impact Ranking**
International visibility	✓	✓	✓	✓
Operations	✓	✓	✓	✓
Curriculum and academia coverage	✓	✓	✓	✓
Governance	✓	✓	✓	✓
SDGs and their impact	✓	✓		✓
Local and regional community of participants	✓		✓	✓
ESG criteria	✓	✓	✓	✓
Community inclusion		✓	✓	✓
Free of charge participation	✓		✓	✓
Full Report Publicly Available		✓		
Traceability in reports submitted	✓	✓	✓	✓

We used the Weighted Criteria Ordinal Correction Method to understand the relative importance of each criterion and sustainability ranking/tools options (Riba Romeva, 2002). This approach allowed us to sort the criteria qualitatively and then assign relative weights to each. Subsequently, we evaluated different rankings/tools options against each criterion. The final scores for each ranking/tool were determined by summing the weighted scores, reflecting the relative importance of each criterion. This method ensures a balanced and objective assessment of which rankings/tools to prioritize and the frequency of submissions. See more details on methodology below, steps a through d, and elsewhere (Riba Romeva, 2002).

a) Identification of Criteria: We first identified 11 core criteria for evaluating sustainability rankings and assessment tools. See previous section.

b) Criteria Weighting: Each criterion was assigned a weight reflecting its relative importance to USFQ to understand each criterion's relative importance without requiring specific numerical weights. The weighting process involved input from key stakeholders, including university leadership, the Office of Sustainability, and external sustainability experts. We compared each criterion against the others in a pairwise manner. For each pair of criteria, we assigned the following values based on their relative importance:

- 1 point: If the criterion in the row is more important (>) than the criterion in the column.
- 0.5 points: If the criterion in the row is equivalent (=) to the criterion in the column.
- 0 points: If the criterion in the row is less important (<) than the criterion in the column.

Once all the criteria had been compared, we summed the assigned values for each criterion. To ensure that no criterion had a zero value, we added 0.5 to each summation to provide a base level of significance for each criterion, preventing any of them from being disregarded entirely. The individual summation was divided into the total addition of all the criteria scores, obtaining the weight for each criterion.

c) Ranking/tool relative importance score: Similarly to the comparison amongst criteria, the ranking options follow the comparison step among each other, obtaining a score per ranking for each criterion.

d) Lastly, calculating a final value for each criterion was done by multiplying the relative importance score with the weight for that criterion. The total evaluation for each ranking/tool was derived by summing the products of the weights assigned to each criterion and their respective scores. The ranking/tool with the highest score outperforms the rest of the options.

3. Results/Discussions/Implementation

3.1. Policies Resulting from Rankings/Tools Feedback

Based on the feedback received from reports, we have designed various documents to support our sustainability efforts and communicate our actions within our operations. These documents include the Sustainability and Purchasing Policies to continuously improve our performance and gradually incorporate sustainability criteria into institutional decision-making and strategic planning. We have also developed a Climate Action Plan to unite our operational, academic, and research areas to coordinate campus-wide climate initiatives. Implementing these policies, however, has proven challenging. There is an inherent delay between crafting sustainability documentation and its practical application.

The USFQ Sustainability Policy document illustrates the comprehensive approach taken by the university to embed sustainability into its operations, strategic planning, and community engagement. This document exemplifies how sustainability rankings and tools have informed and shaped the university's policies and decision-making processes. The Purchasing Policy was developed to ensure that goods and services acquired from external sources align with the university's environmental goals. This policy will be discussed in detail in the following paragraphs. By analyzing the requirements of each report and adhering to our guidelines, we can continue to develop policies and documents that contribute to sustainable decision-making throughout the university staff and community.

The initial steps towards developing sustainable policies involved a series of workshops with an expert in environmental rights and policies. These workshops were instrumental in creating a framework that incorporated criteria and identified opportunities from the STARS self-evaluation tool, focusing on Academics, Engagement, Operations, Planning, and

Administration. Each criterion was analyzed and aligned with the United Nations Sustainable Development Goals (SDGs), enabling USFQ to craft targeted strategies and actions to achieve these goals within specified timelines.

The sustainability policy outlines several key objectives directly linked to the SDGs. For instance, the policy includes goals such as reducing electricity consumption by 5% by 2025 compared to the 2019 baseline and increasing the use of renewable energy sources by 15% by 2025. These objectives reflect the insights gained from sustainability rankings and emphasize the importance of systematizing efforts to map areas of impact comprehensively. This document also used metrics like the carbon footprint to define science-based goals. This analysis will help us identify the next steps toward sustainable development.

The policy also highlights strategic actions aimed at promoting sustainability across various domains:

- Energy Management: Implementing an energy management system to enhance efficiency, continuous monitoring, and evaluation, aiming to reduce electricity consumption by 5% by 2025.
- Climate Action: Achieving carbon neutrality for Scope 1 and 2 emissions by 2030 and for Scope 3 emissions by 2035, adhering to ISO-14064 and the GHG Protocol.
- Waste Management: Prioritizing waste hierarchy to significantly reduce landfill waste by 2025, 2030, and 2050.
- Sustainable Procurement: Incorporating sustainable practices into procurement processes and evaluating suppliers based on their sustainability performance.
- Education and Engagement: Implementing programs and courses to enhance sustainability knowledge within the USFQ community.

The policy development process, informed by sustainability rankings, enabled USFQ to identify specific opportunities and challenges. Additionally, the feedback from rankings provided a basis for continuous improvement, highlighting areas where further investment and strategic actions are needed.

As well as the previous resulting policy, USFQ's Sustainable Purchasing Policy aims to integrate sustainability into the university's procurement processes, promoting the development and use of environmentally and socially preferable products and services. The policy underscores USFQ's commitment to achieving its sustainability goals, including the Zero Waste Campus initiative, by encouraging responsible purchasing decisions that consider environmental impacts. The document provides guidelines for making informed procurement choices, aligning with the university's sustainability and decarbonization objectives.

The policy outlines several key principles to guide sustainable purchasing across the university, such as standards and certifications, to prioritize purchasing goods and services that meet specified sustainability standards and certifications. Decarbonization, to support the university's goal of decarbonizing its operations. Zero Waste, to reduce overall consumption and switch to products with minimal lifecycle impacts. Social and Environmental Criteria considering social and environmental features and pricing when evaluating procurement decisions. Continuous revision is needed to improve sustainable purchasing practices.

The document provides detailed sustainable purchasing guidelines by category, including general purchases, chemical-intensive products, office products, furniture, I.T.

equipment, and transportation. Each category includes specific recommendations, such as selecting products with reduced packaging, preferring energy-efficient electronics, and using certified green cleaning products. The policy also outlines a target compliance schedule, specifying the years by which specific sustainability criteria should be met. For example, by 2023, the university aims to incorporate social and environmental features in procurement decisions and promote using products with reduced packaging. The policy emphasizes the importance of training and awareness among campus employees to ensure the successful implementation and achievement of the defined sustainability goals.

Another result of the policymaking exercise is the USFQ's Climate Action Plan, a comprehensive strategy to unify the university's operational, academic, and research areas and coordinate campus-wide climate initiatives. The plan is divided into key areas: Energy and Carbon Emissions, Operations, Procurement, Nature and Ecosystems, Community and Partnerships, Implementation, and Reporting. Each section details the current efforts and future commitments to advance USFQ's sustainability strategy. The plan emphasizes quantifying greenhouse gas (GHG) emissions across four categories: direct emissions from energy use, indirect emissions from transportation, and product use and services.

The resulting policies and the process to generate them show that the policymaking process fed by ranking feedback is helpful. It is also important to note that regularly providing data for reports helps in annual organizational planning and monitoring of the university's performance across various areas. However, gathering similar metrics for multiple rankings throughout the year poses a challenge, requiring repetitive data requests from different university departments and stakeholders. Streamlining the data-gathering process to minimize repetitive requests and optimize the sustainability office's efforts is crucial to avoid collaboration fatigue with other departments.

As is mentioned earlier in this paper, it is important to have a road map on how to identify collaborators inside the campus and also define the complex structure for gathering information and mapping crucial data that will be very useful not only for the ranking process but also for measuring efforts and performance as a sustainable office. A standard approach to sustainability assessment can be described as a sequential process. The selection and definitions of sustainable indicators and targets set a path through the policy actions and assessment (Garnåsjordet et al., 2012). While looking for stakeholders and important collaborators, it is necessary to identify and establish a Sustainability Committee. This Committee will be formed by a multidisciplinary team with different backgrounds and positions inside the structure of the institution, and they will become essential contributors to defining strategies for campus operations, building capacity, and developing and implementing cross-cutting projects. It has been a challenge to achieve and form this Committee, but it has ultimately led to meaningful institutional enhancements.

3.2. Results and Insights from Ranking Comparisons under our View and Needs

Using the selection method for rankings proposed by Riba, we compared the various sustainability rankings against 11 specific criteria. These criteria included international visibility, operational impact, integration with the curriculum, governance, alignment with SDGs, local and regional engagement, ESG criteria, cost of participation, and the availability of full reports. Through this comprehensive analysis, STARS and UI Green Metrics emerged as the leading options for continued participation. These rankings provided the most valuable insights and aligned closely with our institutional goals and resources.

It is important to mention that, as an institution, we recognize the relevance of the visibility that the ranking can provide to us and how it positions the university in the region

and the country. However, it is necessary to develop boundaries and determine limits so we do not follow on just accomplishing the ranking goals, instead using them to continuously follow up on our performance, measure our accomplishments and failures, and learn how we can improve without neglecting our principal objectives among sustainable development and growth as a university which wants to impact its students and leave them actual knowledge on how they can implement sustainable objectives into their workspaces.

From the comparison, STARS and UI Green Metrics stood out due to their comprehensive evaluation frameworks, encompassing various sustainability aspects, including academics, engagement, operations, and planning. They offer detailed feedback that helps identify areas for improvement and set strategic priorities. Their methodologies align well with our sustainability objectives, making them highly relevant for guiding our policy and decision-making processes.

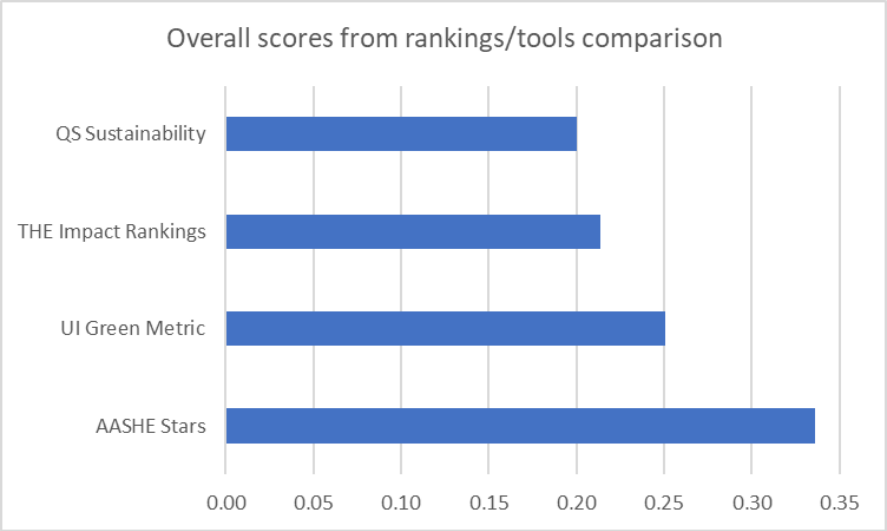

Figure 2. Comparison of Overall Scores from Sustainability Rankings and Tools

Not far behind, Q.S. and THE Impact Rankings also showed significant potential for supporting our sustainability efforts. While slightly different in focus, these rankings offer valuable benchmarking opportunities and highlight best practices in higher education sustainability. Q.S. Sustainability Rankings emphasize the environmental, social, and governance (ESG) criteria, which are increasingly important for attracting investors and enhancing our social responsibility profile. THE Impact Rankings focus on the university's contribution to the U.N. SDGs, providing a global perspective on how our institution addresses these critical goals.

The radar chart (Figure 3) comprehensively compares various sustainability rankings and tools from the perspective of USFQ. Each ranking is evaluated against 11 criteria, including international visibility, operations, curriculum and academia coverage, governance, and alignment with the SDGs. This visual representation helps in understanding the strengths and weaknesses of each ranking, guiding strategic decision-making for sustainable performance improvement.

The chart shows that AASHE Stars (orange line) performs exceptionally well across almost all criteria, especially in operations, curriculum and academia coverage, governance,

and international visibility, indicating that AASHE Stars provides a robust framework for assessing sustainability in higher education institutions, offering comprehensive insights into various operational and academic aspects. Its strong performance in international visibility also suggests that participating in this ranking can enhance the university's global reputation.

UI Green Metric (black line) shows a strong performance in operations and governance. However, it falls short in areas such as report traceability and community inclusion, suggesting that while UI Green Metric effectively evaluates operational sustainability, it may provide less detail or support for community engagement and transparency than other rankings. UI Green Metric remains a valuable tool for universities focused on operational efficiency and governance, but additional resources might be needed to address its shortcomings in other areas.

Q.S. Sustainability (yellow line) and THE Impact Rankings (blue line) present a mixed performance. Q.S. Sustainability excels in ESG criteria and international visibility, making it a strong contender for universities looking to enhance their social responsibility profiles and global presence. However, it needs to be more comprehensive in governance and full report availability. On the other hand, THE Impact Rankings show strengths in SDGs and their impact, which is crucial for institutions aiming to align closely with the United Nations' sustainability goals. Despite this, its lower performance in areas like operations and traceability suggests that it might not provide as holistic an assessment as AASHE Stars or UI Green Metric.

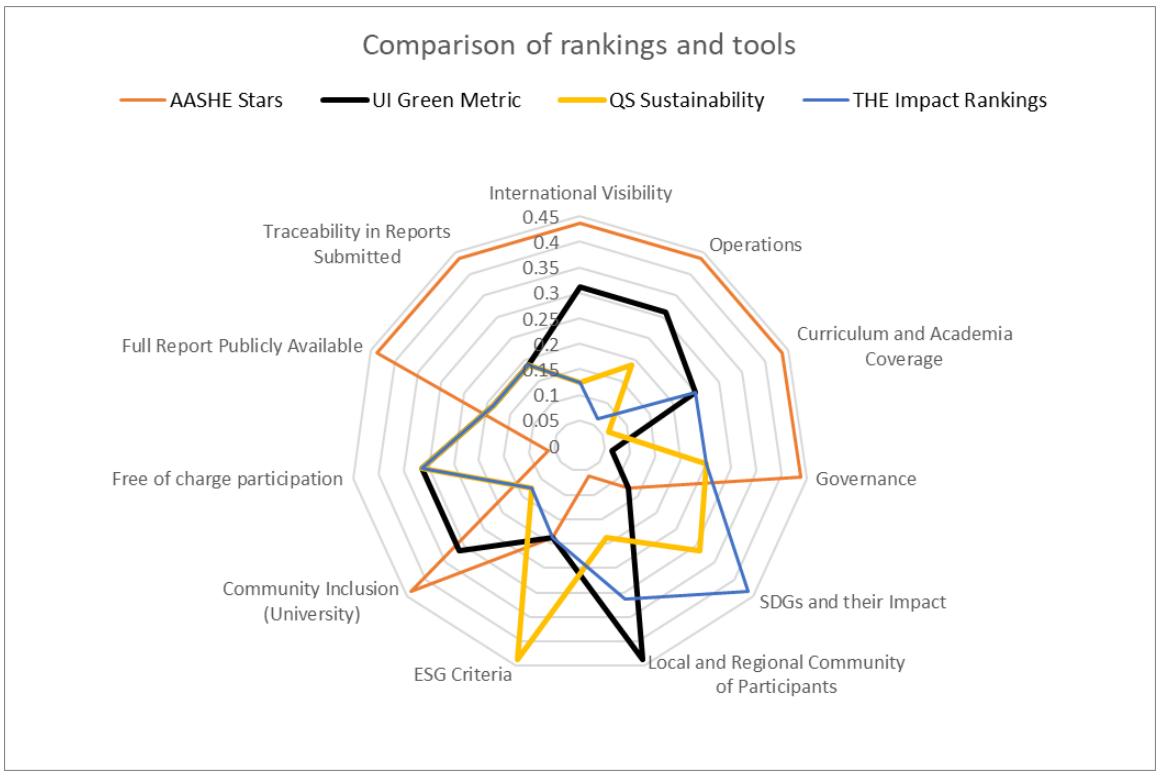

Figure 3. Performance Comparison: Ranking and Tool Scores for Sustainability

The results of this analysis underline the importance of not relying solely on rankings to dictate our sustainability strategy but instead using them as tools for continuous improvement. By integrating the insights provided by STARS and UI Green Metrics and

drawing from the strengths of Q.S. and THE Impact Rankings, USFQ can craft a more nuanced sustainability strategy that balances operational efficiency with broader social and environmental goals. This balanced approach ensures that our sustainability efforts align with internal priorities and global best practices, enabling us to make informed decisions, optimize resource allocation, and effectively communicate our achievements.

The method has enabled us to strategically understand rankings that enhance our sustainability performance and align with our broader institutional mission. Focusing on STARS and UI Green Metrics ensures a robust and continuous improvement process, while insights from Q.S. and THE Impact Rankings strengthen our initiatives in ESG and broader impacts. This approach leads us to make informed decisions, optimize resource allocation, and communicate our sustainability achievements globally.

4. Conclusions/Summary/Future Perspectives

Higher education institutions (HEIs) are increasingly recognizing the importance of sustainable development due to their ethical duty, the potential to influence society and the environment, and the need to align with environmental management performance concepts (Muñoz-Suárez et al., 2020b; Velasco et al., 2018). However, integrating sustainable development into curricula, policies, and activities remains a significant challenge. One key obstacle is structuring these efforts in line with established environmental management practices (Muñoz-Suárez et al., 2020).

At USFQ, several initiatives and pilot programs have been launched to enhance sustainable operations on campus. These tools have been crucial in implementing actions and policies that articulate our current efforts and future commitments to advancing our sustainability strategy. While there is still much progress to be made, we are confident that we will achieve our sustainability goals with the ongoing support of our Committee and university authorities.

Moreover, participating in various rankings has proven invaluable. These rankings have provided a solid foundation for developing clear objectives and specific actions needed to execute our sustainability plan. By analyzing the structure and criteria of each ranking, we can understand their main objectives and align them with our own. This approach helps us achieve good ratings and receive valuable feedback on our operations, ultimately aiding our progress toward a sustainable campus.

While sustainability rankings such as STARS and UI Green Metrics provide valuable benchmarks for performance and visibility, overemphasizing ranking performance can create potential risks and trade-offs. A narrow focus on improving scores may lead to resource allocation toward areas that enhance ranking outcomes but do not necessarily align with the university's long-term sustainability goals. For instance, concentrating on metrics heavily weighted in rankings, such as operational efficiency, could divert attention from equally important but less quantifiable goals, like fostering deep community engagement or embedding sustainability principles within the student experience. Additionally, there is a risk of pursuing short-term improvements that cater to ranking criteria rather than fostering systemic, long-term sustainability practices that integrate education, research, and community impact. Therefore, while rankings are valuable tools for external validation and benchmarking, they should be used judiciously, ensuring that USFQ's broader sustainability mission remains the primary driver of its strategic decisions beyond achieving higher sustainability assessment scores.

While all rankings offer unique insights and benefits, AASHE Stars and UI Green Metric are the most comprehensive tools for supporting USFQ's sustainability objectives. Q.S. Sustainability and THE Impact Rankings also provide valuable perspectives, particularly in enhancing global visibility and aligning with SDGs and ESG Criteria. Strategically selecting these rankings based on the criteria most relevant to the university's goals ensures that resources are effectively utilized to advance sustainable practices and policies. While these tools provide valuable benchmarks for each institution, they should be viewed as tools rather than complete solutions. Institutions must consider their limitations when incorporating them into broader sustainability strategies.

Furthermore, universities play a fundamental role in shaping future practices and policymakers concerning sustainable goals (Shaw, 2012). The presence and evolution of the Sustainability Office at USFQ has garnered increasing interest within the community, including students and staff. Numerous office projects are focused on environmental conservation and teaching sustainable practices. However, there is still a long way to go to integrate a sustainable culture fully within the university. Rankings as measuring tools help us map the success of our initiatives, inspiring new generations to follow these goals and become future leaders in sustainable development.

From the process outlined in this paper, we used insights from rankings and self-assessment tools to develop comprehensive sustainability policies. While some ideas in these policies are straightforward, effectively communicating guidelines to the community remains challenging, particularly for purchasing, operations, maintenance, and infrastructure development departments. Engaging the community is especially difficult due to the constantly renewing student population and the diverse interests of professors and staff. Despite their interest in sustainability, applying best practices in day-to-day activities to minimize environmental impact, enhance societal benefits, and do so economically can be challenging. Everyday actions such as turning off lights when leaving a room or properly separating waste continue to be areas needing improvement. Fortunately, the university's numerous research projects connected to SDGs, community outreach initiatives, and other exemplary efforts promote sustainability. With continued effort and strategic focus, USFQ is well-positioned to advance its sustainability goals and serve as a model for other institutions.

5. Acknowledgment

We extend our gratitude to Alexandra Velasco, María José Ayala, and Verónica Arias for their valuable contributions to the reporting and policymaking processes. Their expertise and dedication have significantly enriched our efforts to promote sustainability within our institution. Additionally, we thank Daniela Núñez for her contributions to editing and generating graphics for this paper.

We acknowledge the use of Grammarly and ChatGPT for assistance with editing and proofreading this manuscript.

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