



University of Sfax

# Sustainable Horizons: A Comprehensive Case Study on Greening Initiatives at the University of Sfax

By

Ali Baklouti

Professor of Mathematics &  
Vice-President of Sfax University



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## University of Sfax

**A thriving Career of 38 years**



## The University in Numbers



# The University in Numbers

**01** Doctoral center

**05** Doctoral schools

**81** Research Laboratories

**25** Research Units

**11** Common Service Units for Research (USCR)

Common services grouping for research

**01**

Center for Innovation, Entrepreneurship and Transfer C-INNOVENT (BUTT, 4C and PEES)

**01**

Research Centers

**03**

Technological pole

**01**



The University of Sfax is at the top of Tunisian universities according to the "AD Scientific Index Ltd. World 2024"



University of Sfax awarded the prestigious "[QS-Sustainability 2024](#)" label for the first time.



Times Higher Education by Subject 2024



The 2023 Shanghai Ranking for Physical Education Sciences



The University of Sfax ranked first in "Research" according to the Spanish "Scimago Rankings 2024"

# *1- Introduction*

A greening initiative at the University of Sfax involves implementing sustainable practices to reduce environmental impact, promote eco-friendly behaviours, and contribute to a more sustainable future.

Here's an outline of what such our program might include:



1

**Energy Efficiency:** (Conduct energy audits to identify areas for improvement. Implement energy-efficient technologies and practices (LED lighting, smart HVAC systems, etc.). Encourage the use of renewable energy sources on campus...)

2

**Waste Reduction:** (Implement a comprehensive recycling program for paper, plastic, glass, and other materials. Promote composting initiatives for organic waste. Reduce single-use plastics and encourage the use of reusable materials...)

3

**Sustainable Transportation:** (Promote alternative transportation options (biking, walking, carpooling). Provide bike racks, pedestrian-friendly pathways, and electric vehicle charging stations. Invest in a campus shuttle system or public transportation partnerships...)

4

**Green Building Practices:** (Construct new buildings or renovate existing ones using environmentally friendly materials. Incorporate energy-efficient designs and practices in construction. Aim for green building certifications (LEED, BREEAM, etc.)...)

5

**Water Conservation:** (Install water-efficient fixtures and appliances. Implement landscaping practices that reduce water consumption. Educate the campus community about water conservation...)

6

**Sustainable Procurement:** (Source products and services from environmentally responsible suppliers. Give preference to products with eco-friendly certifications. Encourage local and sustainable sourcing when possible...)

7

**Curriculum Integration:** (Integrate sustainability into the academic curriculum across disciplines. Offer courses or programs focused on environmental studies and sustainability. Encourage research and projects that address environmental challenges...)

8

**Green Events and Outreach:** (Host eco-friendly events and promote sustainable practices during campus activities. Conduct awareness campaigns to engage students, faculty, and staff in sustainability initiatives. Establish a sustainability club or student organization...)

9

**Monitoring and Reporting:** (Establish metrics to track progress in sustainability goals. Regularly report on the environmental impact of the institution. Involve the campus community in the monitoring and reporting process...)

10

**Collaboration and Partnerships:** (Collaborate with local environmental organizations and initiatives. Engage with industry partners to enhance sustainability efforts. Share best practices with other educational institutions...)

By implementing a comprehensive Campus Sustainability Program, higher education institutions at the University of Sfax can play a crucial role in fostering environmental responsibility among students and contribute to a more sustainable and eco-friendly future.

# *2- Methodology*



Methodology	Details
1- Research Design	<p><b><u>Objective:</u></b> Assess the effectiveness of the Campus Sustainability Program in promoting eco-friendly practices and reducing the environmental impact.</p> <p><b><u>Study Type:</u></b> Mixed-Methods Approach (qualitative and quantitative data).</p> <p><b><u>Time Frame:</u></b> Conducted over a period of 2 academic years.</p>
2- Qualitative Research Methods	<p><b><u>Interviews:</u></b></p> <ul style="list-style-type: none"> <li>- Conduct semi-structured interviews with key stakeholders, including university administrators, faculty, staff and students.</li> <li>- Explore perceptions, attitudes, and experiences related to sustainability initiatives.</li> </ul> <p><b><u>Focus Groups:</u></b></p> <ul style="list-style-type: none"> <li>- Organize focus group discussions with representatives from different campus groups (e.g., students, faculty, and staff).</li> <li>- Collect qualitative insights on the effectiveness of specific sustainability initiatives.</li> </ul>
3- Research Methods	<p><b><u>Surveys:</u></b></p> <ul style="list-style-type: none"> <li>- Administer surveys to a representative sample of the campus community.</li> <li>- Include questions on awareness, participation, and perceived impact of sustainability programs.</li> </ul> <p>Data Collection on Environmental Metrics:</p> <ul style="list-style-type: none"> <li>- Gather data on energy consumption, waste generation, water usage, and other relevant environmental metrics.</li> <li>- Compare data before and after the implementation of sustainability measures.</li> </ul>
4- Data Collection	<p><b><u>Document Review:</u></b></p> <ul style="list-style-type: none"> <li>- Review official documents, policies, and reports related to the campus sustainability Program.</li> <li>- Extract information on goals, strategies, and implementation of sustainability practices.</li> <li>- Note any challenges, successes, or areas for improvement.</li> </ul>

Methodology	Details
5- Analysis Approaches	<p><b><u>Qualitative Data Analysis:</u></b></p> <ul style="list-style-type: none"> <li>- Employ thematic analysis for interview and focus group data.</li> <li>- Identify recurring themes and patterns related to attitudes, perceptions, and experiences.</li> </ul> <p><b><u>Quantitative Data Analysis:</u></b></p> <ul style="list-style-type: none"> <li>- Use statistical analysis software to analyze survey data.</li> <li>- Conduct descriptive statistics, inferential statistics, and correlation analyses as appropriate.</li> </ul> <p><b><u>Comparison of Environmental Metrics:</u></b></p> <ul style="list-style-type: none"> <li>- Compare pre- and post-implementation data to assess changes in energy consumption, waste reduction, and other environmental metrics</li> </ul>
6- Triangulation	<p><b><u>Integrate Findings:</u></b></p> <ul style="list-style-type: none"> <li>- Combine qualitative and quantitative findings to provide a comprehensive understanding of the impact of the Campus Sustainability Program.</li> <li>- Look for convergence or divergence in results across different data sources.</li> </ul>
7- Limitations and Ethical Considerations	<p><b><u>Identify Limitations:</u></b></p> <ul style="list-style-type: none"> <li>- Acknowledge any limitations in the research design, such as potential biases or constraints in data collection.</li> </ul> <p><b><u>Ethical Considerations:</u></b></p> <ul style="list-style-type: none"> <li>- Ensure informed consent from participants.</li> <li>- Protect the anonymity and confidentiality of participants.</li> </ul>
8- Recommendations and Conclusions	<p><b><u>Provide Recommendations:</u></b></p> <ul style="list-style-type: none"> <li>- Based on the findings, offer recommendations for improving or expanding sustainability initiatives.</li> </ul> <p><b><u>Draw Conclusions:</u></b></p> <ul style="list-style-type: none"> <li>- Summarize key findings and their implications for the effectiveness of the campus sustainability Program.</li> </ul>

# *3-Expected Results:*



Results by methodology items	Details
R1- Research Design	<ul style="list-style-type: none"> <li>- Implementation of energy-efficient technologies and practices led to a significant reduction in overall campus energy consumption.</li> <li>- - Intraproduction of smart HVAC systems and LED lighting contributed to a measurable decrease in electricity usage.</li> </ul>
R2-Waste Reduction and Recycling Success	<ul style="list-style-type: none"> <li>- Establishment of a comprehensive recycling program resulted in a substantial increase in the recycling rate on campus.</li> <li>- Implementation of waste reduction strategies, such as minimizing single-use plastics, led to a visible decrease in overall waste generation.</li> </ul>
R3- Sustainable Transportation Uptake	<ul style="list-style-type: none"> <li>- Promotion of alternative transportation methods (biking, walking, carpooling) resulted in increased adoption of sustainable commuting practices among students, faculty, and staff.</li> <li>- Installation of bike racks and improvement of pedestrian infrastructure facilitated a more environmentally friendly campus transportation culture.</li> </ul>
R4- Green Building Certifications and Renovations	<ul style="list-style-type: none"> <li>- Construction of new building and renovations adhered to green building practices, leading to the achievement of recognized certifications (e.g., LEED, BREEAM).</li> <li>- Implementation of energy-efficient design and materials in building projects contributed to long-term environmental sustainability.</li> </ul>
R5- Water Conservation Measures	<ul style="list-style-type: none"> <li>- Installation of water-efficient fixtures and appliances across campus facilities led to a measurable reduction in water consumption.</li> <li>- Adoption of landscaping practices that prioritize water conservation further contributed to sustainable water management.</li> </ul>



Methodology	Details
R6- Sustainable Procurement Success	<ul style="list-style-type: none"> <li>- Implementation of sustainable procurement policies resulted in the sourcing of products and services from environmentally responsible suppliers.</li> <li>- Preference for eco-friendly certified products and local sourcing contributed to the overall sustainability of the campus.</li> </ul>
R7- Curriculum Integration and Academic Engagement	<ul style="list-style-type: none"> <li>- Integration of sustainability principles into the academic curriculum increased awareness and knowledge among student and faculty.</li> <li>- Introduction of courses and programs focused on environmental studies and sustainability provided students with opportunities to engage in research and projects addressing environmental challenges.</li> </ul>
R8- Green Events and Campus Outreach	<ul style="list-style-type: none"> <li>- Hosting eco-friendly events and promoting sustainable practices during campus activities increased awareness and participation.</li> <li>- The establishment of a sustainability club or student organization facilitated ongoing engagement and enthusiasm among the student body.</li> </ul>
R9- Monitoring and Reporting Transparency	<ul style="list-style-type: none"> <li>- Implementation of metrics to track progress in sustainability goals provided transparency and accountability.</li> <li>- Regular reporting on the environmental impact of the institution demonstrated a commitment to continuous improvement and sustainability.</li> </ul>
R10- Collaboration and Partnerships	<ul style="list-style-type: none"> <li>- Collaboration with local environmental organizations and industry partners enhanced the effectiveness of sustainability efforts.</li> <li>- The sharing of best practices with other educational institutions contributed to a broader impact beyond the campus.</li> </ul>

**These achievements collectively demonstrate the success of the greening initiative at the University of Sfax, showcasing tangible improvements in energy efficiency, waste reduction, sustainable transportation, building practices, water conservation, procurement, academic engagement, campus events, monitoring, and collaboration for a more environmentally conscious and sustainable campus community.**



**Green**  
Initiative

*4- Significance of the study,  
possible impact and  
generalization potential*

### Significance of the Study:

- *Environmental Stewardship*
- *Educational Impact:*
- *Institutional Responsibility*
- *Resource Efficiency and Cost Savings:*

### Potential Impact of the Initiative

- *Environmental Impact:*
- *Behavioral Change:*
- *Educational Influence:*
- *Replicability and Scalability*

### Generalization Potential:

- *Across Higher Education Institutions*
- *To Different Stakeholders*
- *Local and Global Contexts*

**In conclusion, the study on the greening initiative at the University of Sfax is not only significant for the specific institution under investigation but also holds broader implications for the field of sustainability in education. Its impact can extend beyond the campus, influencing practices in other institutions and inspiring positive change in the broader community.**



# *5-Conclusion*

- ❖ **The case study on the greening initiative at the University of Sfax has provided valuable insights into the transformative potential of sustainable practices within academic institutions. The lessons learned from this study underscore the profound impact of environmentally conscious initiatives on both the campus community and the broader society. The achievements in energy efficiency, waste reduction, sustainable transportation, and academic engagement collectively highlight the positive outcomes of the initiative.**
- ❖ **One key takeaway is the pivotal role of higher education institutions as catalysts for change, not only in shaping the minds of future leaders but also in demonstrating effective strategies for environmental stewardship. The integration of sustainability into the curriculum has proven to be a powerful tool for fostering a culture of environmental responsibility among students, faculty, and staff.**

# *Thanks for your attention*



[universite.sfax@usf.tn](mailto:universite.sfax@usf.tn)



[www.univ-sfax.tn](http://www.univ-sfax.tn)



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