The University of Toronto Scarborough

Final Report

Sustainability Policy at UTSC

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Abstract

The University of Toronto needs to take action against reducing greenhouse gas emissions. To legitimize sustainability operations at the University of Toronto Scarborough, UTSC, we want to conduct research and create policy recommendations through qualitative analysis to mitigate polluting emissions. According to the policies listed by the Office of the Governing Council, there is no 'official' statement regarding environmental sustainability that governs the University of Toronto. In addition, The University of Toronto has not signed onto the Talloires Declaration. Drafted in 1990, the statement is an agreement between higher education institutions across the world in making a commitment to reach environmental sustainability. Furthermore, as of 2019 the number of undergraduate students enrolled was 13,000 and is increasing in their ecological footprint. Therefore, creating a policy will provide guidance, accountability and help legitimize the university's operations. Bringing awareness to the UTSC Campus Council can assist us in the policymaking and implementation process.

Keywords

1.) **Sustainability:** meeting our own needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, we also need social and economic resources. Specifically, avoidance of the depletion of natural resources in order to maintain an ecological balance.

2.) **Greenhouse Gas (GHG):** a gas that absorbs and emits radiant energy within the thermal infrared range. Greenhouse gases cause the greenhouse effect on planets. The primary

greenhouse gases in Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

3.) **Policy:** a deliberate system of principles to guide decisions and achieve rational outcomes. A policy is a statement of intent and is implemented as a procedure or protocol. Policies are generally adopted by a governance body within an organization.

4.) **Ecological Footprint:** measures human demand on nature, i.e., the quantity of nature it takes to support people or an economy. Specifically, the impact of a person or community on the environment.

5.) **Qualitative:** Relating to, measuring, or measured by the quality of something rather than its quantity. Qualitative data is information about qualities; information that can't actually be measured.

Introduction

The University of Toronto Scarborough is a public research university in Toronto, Canada, and is a satellite campus for the University of Toronto. As of 2019, the number of undergraduate students enrolled is approximately 13,000 and is expected to keep increasing in the future. (UTSC Undergraduate Student Enrolment, 2019). Due to the large population at this institution, UTSC's environmental footprint has the potential to be very large. Thus, it is critical the University of Toronto makes an effort to keep its environmental impact low. Unfortunately, after conducting research on UTSC's sustainability efforts, few results came up. According to the research our group conducted, we were unable to find a policy outlining the university's commitments to sustainability. This is problematic because the University of Toronto is a

leading institution in Canada, thus it is in a position where it has a significant influence on other post-secondary institutions in Canada. Due to the University of Toronto's large reputation, UTSC and the other UofT campuses must play a role of leadership, initiative, and innovation regarding sustainability, and minimizing environmental impact. Our group was particularly interested in UTSC'S GHG emission outputs and creating a policy that would lower it.

Unfortunately, due to the lack of data provided by the university, the research will become more theoretical than anticipated. Our approach in creating our policy was to analyze the strengths and weaknesses of different policies of six other Canadian universities and determine how they will help create our framework. We plan to qualitatively analyze their policies through five different criteria. We hope that our findings will be significant and that the results will help in creating a comprehensive policy. By analyzing pre-existing guidelines and data from other major Canadian universities, we aim to use this as a stepping stone for discussion and policy improvement for UTSC.

Methods: Analysis of Policy at Higher Education

This approach is mainly theoretical and does not provide a comprehensive analysis of sustainability policy as it is beyond the limitations of the authors' abilities. Before constructing a sustainability policy, a method to qualitatively analyze the policies of other higher education institutions across Canada was developed. This assessment enables other universities, like us at UofT, to draw upon the strengths of policies of other institutions, adapt it for our uses, and be inspired for new ideas. The assessment takes a direct approach to observing sustainability policy in five different factors: efficiency, effectiveness, equity, manageability, and legitimacy. These

indicators are typically used to assess policy made by the government (Salamon, 2002), but it will be adapted for the assessment of higher education institutions. Six different Canadian universities are selected from the Talloires Declaration Signatories List, a global statement and initiative by universities and colleges around the world to incorporate sustainability within their operations. Each of their sustainability policies is assessed for the five different factors.

Effectiveness is described by Salamon (2002) as the basic measure for the ability to reach one's intended objectives. However, it can be difficult to measure success as a variety of indicators can exist. For example, different perspectives can offer ambiguity on the principle of effectiveness. Success can also vary depending on the context of the situation and the approach taken to measure it. Rather, Salamon (2002) suggests that specifying the circumstances of policy can serve as an approach for measuring effectiveness. It is not always the case, but it can help parties identify the benefits, risks, and trade-offs and avoids disappointment. This approach is adapted to looking at the overall length and components of sustainability policy. From a Cartesian perspective, a longer policy is imbued with more detail, making it more likely to be specific and thus effective. The indicators to measure effectiveness are examined if they exist within the policy. They include purpose, scope, definition, principles, policy statements, responsibility, review/amendment, and anything similar to these mentioned components.

Efficiency measures the costs against the results (i.e. effectiveness). In general, efficiency in policy is determined by quantitative measures; it is a common economics problem that involves monetary value. One way to measure efficiency is to observe the operating budget and costs of sustainable programs and activities. However, many universities tend to be

secretive about this data or are limited to the public to view. Unfortunately, it is too difficult to obtain this sort of data. The alternative approach would be to determine if any funding is mandated into sustainability policy or within current sustainability programs.

Equity is defined as basic fairness among all. The benefits and cost of sustainability operations should be evenly distributed in proportion amongst everyone. Like efficiency, equity is another common economics problem. It shares the same difficulty of efficiency; the accurate measure of a university's distribution of benefits and cost is beyond the available data that is accessible. To determine the equity of policy, the approach is to observe if the relevant actors are included within the policy. At a university, this should include students, faculty and staff, board/council members, and government. This group of actors is determined by the general trend found in most sustainability policies.

Manageability determines the difficulty of how policy can be implemented. According to Salamon's (2002), the implementation of policy can become difficult when 'tools' are complex and there are more separate actors involved within the practice. In other words, it is a combination of efficiency and effectiveness. The approach here is subjective and measures against the first two indicators. Manageability for sustainability policy is determined if it is feasible, likely feasible, likely difficult, and difficult. If it is effective and efficient, then it is feasible. If it is effective, but not efficient then it is likely difficult. If it is not effective, but efficient then it is likely feasible. And if it is neither effective nor efficient then it is difficult. Shown in Table 1.

Table 1: Manageability as in combination from effectiveness and efficiency

	Effective	Not Effective
Efficient	Feasible	Likely Feasible
Not Efficient	Likely Difficult	Difficult

The last measure of policy is legitimacy. This determines the acceptance of action and recognition of authority from the public (Salamon, 2002). The adoption of a policy cannot be justified no matter its effectiveness, efficiency, equity, and manageability if there is no public support. To measure the legitimacy of a policy, relevant actors are determined if they are within the policy and if it is within the university's secretariat. These actors involve the board of governors and president/vice-president. Like equity, these actors are determined from the general trend found in most sustainability policies.

Methods: Creating a (Mock) Sustainability Policy for the UTSC Campus

Based on the previous assessment and general observations, the authors recommend seven components that should be included within a future sustainability policy at UTSC: purpose, scope, definition(s), policy (statements), responsibility and authority, funding, and review and amendment.

Many of these components are what they mean by definition. The 'purpose' of the document is to explain to readers the reasoning for the creation of the policy and its intended use. The 'scope' of the document defines who and where the policy applies to. The 'definitions' describes how certain words, complex issues, and subjects should be interpreted. The 'policy statements' are the guidelines, goals, and objectives laid out by the university in reaching 'sustainability.' Although the scope should have already included the relevant actors, the 'responsibility and authority' section of the policy should define those in charge with the implementation of the policy and its actions. It should also determine how much power and control the actors have sustainability operations. 'Funding' defines how much money is allocated towards the operations of reaching sustainability goals set by the policy. Lastly, 'review and amendment' determines the length of time that those responsible for the policy implementation can go back and adjust it. This ensures consistency with any changes to the university's goals or with environmental legislation.

Results

Using the five criteria to analyze sustainability policy, it was found that McGill University and the University of Ottawa had a better overall sustainability policy in comparison to the other four. Subjectively, Western University had one of the weakest policy. Many items were loosely defined and were short in overall length and detail. The assessment results are listed across a table, as shown in figure 2.

The University of Ottawa had a really detailed, yet simple, laid out sustainability policy. At a quick glance, their policy was effective due to its overall length, detailed information, and quality of the constructed policy. At closer observation, they had several definitions that were detailed in the description and well explained, presumably to avoid misinterpretation. The responsibilities encompassed several actors that were easily identifiable. Although, they did not have a statement where it includes any remarks on funding. However, it exists outside the policy and is a separate initiative. This was the situation for most other universities. The information was long in length, but it was simple and clear when reading. It was not complex enough where it would make the policy ineffective.

The University of Winnipeg had a somewhat short and broad policy, but it encompassed many of the main components of a sustainability policy. The effectiveness of the policy aligns mostly with Salamon's (2002) criteria, only missing two. It was not as heavily detailed as the University of Ottawa's policy, but simple enough that it would also make it feasible to implement. They have sustainability funding; however, that is also not mentioned in the policy,

meant for student operations/projects, and is not very strong. The key actors are well identified in the document and signed by the relevant bodies, making it legally acceptable.

York University had a simplistic policy and was direct in its message. It highlighted its reasonings for its policy and what generally had to be done, but lacked a more 'formal' structure compared to that of other policies. Due to the lack of structure, the policy is not very effective. Like the University of Winnipeg, York University has a sustainability fund that exists outside of the policy also meant for innovation and projects. It includes all relevant actors to its policy and is approved by their secretariat. To implement York University's policy would likely be easy due to its short length. However, its lack of detail makes it ineffective and likely difficult for long term purposes, thus not very manageable.

Western University had one of the weakest sustainability policies in comparison to others. The policy was simple to read but lacked the necessary detail to make it effective. Many key components of an effective policy were missing such as its statements and actors responsible for its administration. It was more of a broad guideline and not very effective at all. There were no remarks for any funding and further analysis showed that funding did not exist for other sustainability operations. It has been accepted by its own secretariat, but its lack of effectiveness and efficiency makes it difficult to implement for UofT's future framework.

Laurentian University had a policy in a similar structure to that of Ottawa. Its policy is quite effective; it misses only two criteria of the seven that create an overall sustainability policy. There was no available information on whether a sustainability fund existed for the university, but it was also not found within its policy. As mentioned, its policy was similar to that of

Ottawa's. The policies, definitions, and other information were clearly and well explained. It did not include any extra actors nor was it plagued with complex jargon. Despite its funding, we believed it to be likely feasible to be implemented and later adapted for our uses. It included all relevant actors, with exception to the government.

Lastly, McGill University had a policy that was short, similar to that of Winnipeg's. It can be seen to be likely effective; although it hit most of the criteria of a sustainability policy, it missed out on some definitions that would be key to a reader's understanding. Funding does not exist within the policy, but again, the university provides external funding for projects that lead to sustainable development. It encompasses all relevant actors and is recognized by its board of governors. It shies away from being 'feasible' and is more 'likely feasible' to implement because of its slight weakness ineffectiveness. In addition, the policy is not as detailed as Ottawa's or Laurentian's.

In general, most of the other Canadian universities have a policy that can be adapted for UofT's use and implementation. All of them did not have funding within their policy. However, some had external funding but they were mainly meant for student operations or innovation, not overall sustainability operations. Legitimacy was never a concern as many of these universities have their own secretariat. They have all been signed by their respective authority, so determining if we could accept their policy exasperated subjectivity. The University of Winnipeg was the only one that had a form of government included within its actors. Perhaps it is more generally assumed that the government is an actor by default in university policy.

Table 2: A sustainability policy analysis of six different Canadian universities, measured through 5 different criteria.

Category	Indicators	University of Winnipeg	York University	Western University	University of Ottawa	Laurentian University	McGill University
Effectiveness							
	Purpose	✓	✓*	✓	✓	✓	✓
	Scope			✓	✓*	✓	✓
	Definition	✓	✓		✓	✓	
	Principles	✓		✓		✓	
	Policy Statements	✓	✓	✓*	✓	✓	✓
	Responsibility	✓	✓	✓*	✓	✓*	✓
	Review and Amendment		✓		✓		✓
Efficiency							
	Sustainability Funds	✓*	✓*		✓*		✓*
Equity							
	Students	✓	✓		✓	✓	✓
	Government	✓					
	Faculty and Staff	✓	✓		✓	✓	✓
	Board/Council members	✓	✓	✓	✓	✓	✓
Manageability							
	Feasible				✓		
	Likely Feasible	✓				✓	✓
	Likely Difficult		✓				
	Difficult			✓			
Legitimacy							
	Board of Governors	✓	✓	✓	✓	✓	✓
	President/Vice-President	✓	✓	✓	✓	✓	✓
	Secretariat	✓	✓	✓	✓	✓	✓

* - The policy does not have an explicit header but is mentioned within the document or exists elsewhere.

Discussion

This qualitative assessment of the sustainability policies of other Canadian Universities enables us to determine some of their strengths and weaknesses. They can also be compared with one another to promote further understanding of sustainability operations and policy making. This information will hopefully be later used as a source of inspiration and understanding for the future construction of a sustainability policy here at UTSC.

This method of assessment is fairly weak as much more information and understanding is required. Much of the analysis here was done through subjection and qualitative analysis due to

our limitations. Quantitative data could have given us a better visualization of the results of policy analysis. Even if they do not, extra data supporting qualitative analysis could have made the research stronger. The universities we looked at were small sample sizes. In addition, their policies may not work at UofT despite being easily implementable, effective, or efficient. Different universities have different capabilities and parameters.

Learning about environmental science and political science are two separate subjects. Both are challenging on their own to understand, but linking them together created further challenges and limitations for us. In addition, we faced several other challenges that were external to our abilities.

Our group encountered a few issues throughout the duration of this project. Firstly, the published data that was available to us was limited, and unfortunately, outdated. Our group was particularly interested in analyzing GHG emissions and creating a policy with realistic emission output recommendations, but due to that data being unavailable to us, and the coronavirus affecting our ability to communicate with relevant players, we decided that our policy would be more theoretical, and we would use tri-campus data, and our analysis on sustainability on other universities, to create our policy. The coronavirus pandemic resulted in some issues as well. As mentioned earlier, our group was unable to get a hold of relevant players regarding our research, and this outbreak also affected the communication between our group members. Our group members had to coordinate strictly online, so while greater communication was happening amongst group members due to us messaging each other back and forth, it also resulted in some delayed responses, as at times, communication occurred at a time more convenient for the group member. Our group also encountered questions regarding the financial budget that UTSC had

regarding sustainability. We did not have important information such as what is the university's current budget for sustainability? Does the university intend to invest in programs and technology lowering its ecological footprint? Will our initiatives be possible to implement or are there reasons why it is not in the best interest of the students, faculty, or surrounding community? Our efforts to obtain answers to these questions, and to be in communication with relevant players about them was interrupted by the coronavirus, thus the analysis was not only largely theoretical, but many assumptions were made regarding the university's intentions and future actions.

Conclusion

The University of Toronto Scarborough is a large public research institution and with 13,000+ undergraduate students, it's potential environmental footprint is quite large. UTSC does not have a published policy for sustainability, thus our group was interested in creating a policy that would target UTSC's GHG emissions, and propose recommendations on how to lower them. Our group's policy was more theoretical than anticipated, due to a lack of relevant data that was available. We believe we have created a comprehensive policy that offers suggestions on how to lower GHG emissions, as well as other relevant recommendations on how the university could lower its environmental footprint. The data we used in our research will help create a policy for UTSC and also determine UTSC's performance against other major universities.

<u>Recommendations</u>

We recommend further analysis of UTSC's GHG emissions in order to incorporate realistic GHG emission output targets and to quantitatively measure GHG emissions in the future. Other recommendations on how to make the university more sustainable were also proposed. Our proposed plans to mitigate fossil fuels include incentivizing electric vehicles for students, staff, and faculty. For example, creating parking space prices that are more expensive for gasoline-powered cars. In addition, we would recommend all energy supplied to the university should be from a sustainable source by 2040. Specifically, build geothermal energy that will save approximately 2,829 tonnes of C02 emissions on the south side of campus and implement more solar panels. We also recommend banning single-use plastic across all campuses. For example, food vendors at UTSC are to use recyclable containers (eg: Bio-Plus ® Earth Kraft Take-Out Boxes, 50 units/$7.99).

For policies, we recommend the following examples from the University of Ottawa and Laurentian University. For example, the University of Ottawa has detailed definitions of complex scientific and technical terms. This helps readers quickly identify the context the policy is operating upon and its meaning. From their list, UofT should keep in mind: 'sustainability', 'office of campus sustainability', 'student', 'sustainability plan', 'supervisor', 'worker' and 'inspection.' For policy statements, Laurentian University offers simple and broad practices that are great for initial brainstorming. They can later be adapted to be more specific and implemented in the future. Laurentian University's key statements include: 5.1.3 - supporting and providing alternative, low carbon, transportation options for the campus community, 5.2 - curriculum incorporation, and 5.3 - involving all stakeholders within the university's community.

Bibliography

McGill University Sustainability Policy. (2018). Retrieved from
https://www.mcgill.ca/secretariat/files/secretariat/gd18-25_revised_sustainability_policy.pdf

Laurentian University Environmental Policy. (2016). Retrieved from
https://laurentian.ca/assets/files/Sustainability/2016%20Laurentian%20University%20Environmental%20Policy.pdf

Salamon, L.M. (2002). *The Tools of Government*. Oxford, NY: Oxford University Press

The University of Winnipeg - Sustainability Policy. (2017). Retrieved from
https://www.uwinnipeg.ca/institutional-analysis/docs/policies/sustainability-policy.pdf

University of Ottawa Policy on Environmental Management and Sustainability. (2017). Retrieved from
https://www.uottawa.ca/administration-and-governance/policy-72-environmental-management-and-sustainability

UTSC Undergraduate Student Enrolment. (2019). Retrieved from
https://www.utsc.utoronto.ca/planning/undergraduate-student-enrolment

Western University Environment and Sustainability Policy. (2016).
https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp148.pdf

York University Sustainability Policy. (2011). Retrieved from
https://secretariat-policies.info.yorku.ca/policies/sustainability-policy/