

**UNB Climate Change Action Plan
and Campus Sustainability Plan
Report 2022 – 2023**

Traditional Land Acknowledgement

We respectfully acknowledge that UNB stands on the unsundered and unceded traditional Wolastoqey (WOOL-US-TOOK-WAY) land.

The lands of Wabanaki (WAH-BAH-NAH-KEE) people are recognized in a series of Peace and Friendship Treaties to establish an ongoing relationship of peace, friendship and mutual respect between equal nations.

The river that connects our two campuses is known as Wolastoq (WOOL-LUSS-TOOK), along which live Wolastoqiyik (WOOL-US-TOO-GWEEG) – the people of the beautiful and bountiful river. Wolastoq (WOOL-LUSS-TOOK) is also called the Saint John River.



Executive Summary

Working toward a carbon neutral future, UNB aspires to be a financially and environmentally sustainable university and a leader in sustainability and environmental stewardship across universities in Canada. To achieve these aspirations, the UNB Climate Change Action Plan (CCAP) and Campus Sustainability Plan (CSP) for 2020 – 2025 were created. These plans align with UNB's strategic plan (UNB Toward 2030), the United Nations Sustainable Development Goals (UN SDGs), and the Association for the Advancement of Sustainability in Higher Education (AASHE)'s Sustainability Tracking, Assessment and Rating System (STARS) program.

During the 2022 – 2023 fiscal year (May 1, 2022, to April 30, 2023), UNB has faced both successes and challenges in working towards meeting the goals and strategies outlined in the CCAP and CSP. In accordance with the STARS program, these goals and strategies have been divided into four categories: Academics, Engagement, Operations, and Planning and Administration. In total, there are 25 strategies that are classified as "Completed and Ongoing" (9/26 from the CCAP and 16/44 from the CSP). The remaining strategies have been classified as either "In Development" or "Not Started." Some of the many successes that have been achieved include the creation of four free, open-access Sustainability Learning Modules, increased engagement through sustainability events, the installation of solar arrays, and a waste audit on our Saint John campus.

To compare our sustainability progress to that of other institutions, UNB currently reports to three rating frameworks: STARS, Quacquarelli Symonds (QS) World University Rankings, and The Times Higher Education (THE) Impact Rankings. In 2020, UNB Fredericton received a STARS Silver rating and in 2021, UNB Saint John also received a STARS Silver rating, which assesses the sustainability of higher education institutions based on an a variety of credits. The October 2022 QS Sustainability Rankings, designed to measure an institution's ability to tackle the world's greatest environmental, social, and governance challenges, assigned UNB an overall rank of 451-500 out of 700 universities. Assessing universities against the UN SDGs, THE Impact Rankings assigned UNB an overall rank of 301-400 out of 1,406 universities globally.

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Introduction

As stated in UNB's 2020 – 2030 strategic plan (UNB Toward 2030), UNB aspires to be a financially and environmentally sustainable university that is working toward a carbon neutral future. A key action outlined in UNB Toward 2030 is to lead sustainability and environmental stewardship across universities in Canada. To achieve this action, UNB created a Climate Change Action Plan (CCAP) and a Campus Sustainability Plan (CSP) for 2020 – 2025.

Climate Change Action Plan and Campus Sustainability Plan Report

This report provides a high-level overview of the current progress on the various goals and strategies set in UNB's CCAP and CSP. The CCAP, CSP, and this report are aligned with UNB Toward 2030, the United Nations Sustainable Development Goals (UN SDGs), and the Association for the Advancement of Sustainability in Higher Education (AASHE)'s Sustainability Tracking, Assessment and Rating System (STARS) program. This is UNB's first annual sustainability report, and it shares the progress of the goals and strategies from May 1, 2022, until April 30, 2023 (UNB's 2022 – 2023 fiscal year).

Key performance metrics and data points will be presented to inform the UNB community of the work that we have completed and the work that still needs to be done. Transparency is a key component of accountability and continual improvement, helping us uncover new insights and make better decisions. In addition, this report aims to highlight some of the successes and challenges faced each year as we progress towards a more sustainable and carbon neutral UNB.

This report was written by the UNB Sustainability team, with contributions from various teams across our campuses, and members of our President's Advisory Committee on Sustainability (PACS).

UNB Sustainability

UNB Sustainability is a team focused on making UNB a leader in sustainability and environmental stewardship across Canadian universities. The work of UNB Sustainability happens on both the Fredericton and Saint John campuses, and includes creating programs and initiatives, increasing awareness and education about environmental, social, and economic sustainability, as well as tracking and reporting on UNB's climate action and sustainability goals and strategies.

UNB has hit many milestones in terms of climate action and sustainability progress and continues to work towards creating a modern, integrated, and sustainable UNB as part of UNB Toward 2030.

Timeline of Sustainability Milestones at UNB

Below is a timeline of sustainability milestones at UNB from 2011 to 2022.

2011: UNB became a member of the Atlantic Universities and Colleges Sustainability Network (AUCSN).

2011: The Hans W. Klohn Commons Library on the UNB Saint John campus obtained a Leadership in Energy and Environmental Design (LEED) Gold certification.

2013: The Sustainability Advisory Committee (SAC) was established to provide advice and guidance on the development of UNB's sustainability initiatives.

2014: UNB Sustainability was established, with the first Sustainability Coordinator (now Manager of Sustainability) being hired.

2016: UNB Sustainability hired the first Climate Change Officer (now Climate Action Coordinator) to begin developing UNB's first CCAP.

2017: UNB became a member of the Association of the Advancement of Sustainability in Higher Education (AASHE).

2017: The UNB Fredericton campus obtained its first STARS rating (Silver).

2018: The Kinesiology Building on the UNB Fredericton campus obtained a LEED Gold certification.

2020: The UNB Fredericton campus obtained its second STARS rating (Silver).

2020: UNB's first CCAP was released.

2020: UNB's CSP with goals for the Fredericton campus was released.

2021: The UNB Saint John campus obtained its first STARS rating (Silver).

2021: UNB Sustainability hired the first Sustainability Education & Engagement Officer (now Sustainability Engagement Coordinator).

2021: UNB Sustainability added goals for the Saint John campus to the CSP.

2022: The President's Advisory Committee on Sustainability (PACS) was established to replace the SAC and support the priorities and objectives of UNB Toward 2030, the CCAP and CSP.

Introduction to UNB's Climate Change Action Plan and Campus Sustainability Plan

Climate Change Action Plan 2020-2025

UNB's Climate Change Action Plan was created through public consultation and engagement, and it outlines UNB's path forward to 2025. The plan intends to guide UNB to becoming a more efficient, resilient, and sustainable university and to reduce greenhouse gas (GHG) emissions to become a carbon-neutral institution by 2050.

The CCAP consists of five areas of focus:

1. Energy and Infrastructure
2. Transportation

3. Education and Programs
4. Waste Management
5. Sustainable Grounds

Progress for each of the areas of focus and their respective goals and strategies are outlined in subsequent sections of this report.

Emissions baselines and targets for both the UNB Fredericton and UNB Saint John campuses are as follows:

UNB Fredericton:

- 2025: 65% Reduction from 2007-2010 baseline GHG emissions.
- 2035: 70% Reduction from 2007-2010 baseline GHG emissions.
- 2050: 100% Reduction from 2007-2010 baseline GHG emissions.

UNB Saint John

- 2025: 50% Reduction from 2008-2010 baseline GHG emissions.
- 2035: 70% Reduction from 2008-2010 baseline GHG emissions.
- 2050: 100% Reduction from 2008-2010 baseline GHG emissions.

Campus Sustainability Plan 2020-2025

UNB's Campus Sustainability Plan was developed to align with the STARS program, the UN SDGs, and to address gaps in UNB's sustainability programs.

The CSP consists of four areas of focus:

1. Academics
2. Engagement
3. Operations
4. Planning and Administration

Progress for each of the areas of focus and their respective goals and strategies are outlined in subsequent sections of this report.

Progress on Our Climate Change Action Plan and Campus Sustainability Plan

Progress towards the goals and strategies included in our CCAP and CSP during the 2022 – 2023 fiscal year is measured using the following indicators:

- **Completed & Ongoing (C&O):** The strategy is finished and requires continuous or recurrent attention or monitoring.
- **In Development (ID):** Initial work or research was initiated for the strategy, but it has not yet been implemented.
- **Not Started (NS):** Minimal to no work has been done for the strategy.

To share our progress on the goals and strategies from both the CCAP and CSP in one annual report, we have placed them into tables and divided them into the following categories:

- Academics
- Engagement
- Operations
- Planning and Administration

These four categories were chosen because they are used in the STARS program, and they will be used in UNB's next climate action and sustainability plan.

Figure 1 shows the progress on the strategies from the CCAP and Figure 2 shows the progress on the strategies from the CSP during the 2022 – 2023 fiscal year.

Figure 1. UNB's Climate Change Action Plan containing 26 total strategies, with 9 (35%) Completed and Ongoing, 9 (34%) In Development, and 8 (31%) Not Started in 2022 – 2023.

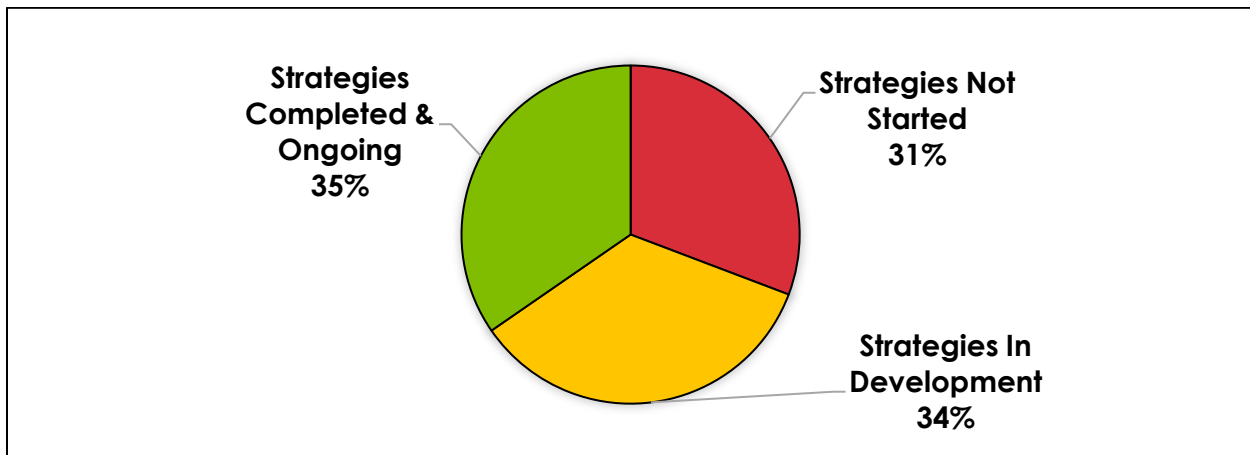
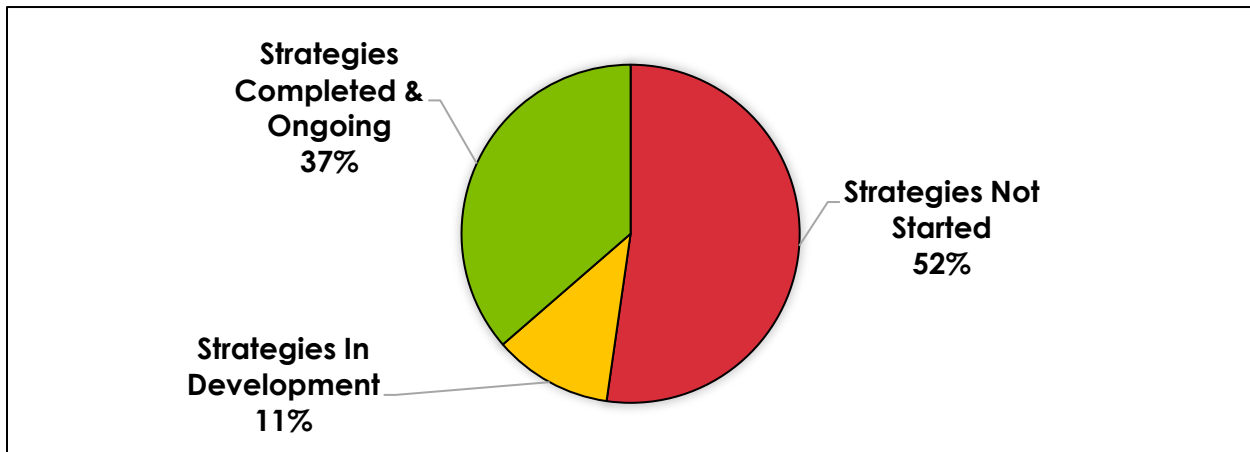


Figure 2. UNB's Campus Sustainability Plan containing 44 total strategies, with 16 (37%) Completed and Ongoing, 5 (11%) In Development, and 23 (52%) Not Started in 2022 – 2023.



Progress on UNB's Carbon Emissions Reduction Targets

UNB is working toward a carbon neutral future. Figures 3 and 4 show UNB's emissions compared to our 2025 emissions reduction targets.

Figure 3. UNB Fredericton Scope 1 and 2 emissions data, with respect to the 2025 (65% reduction from baseline) target.

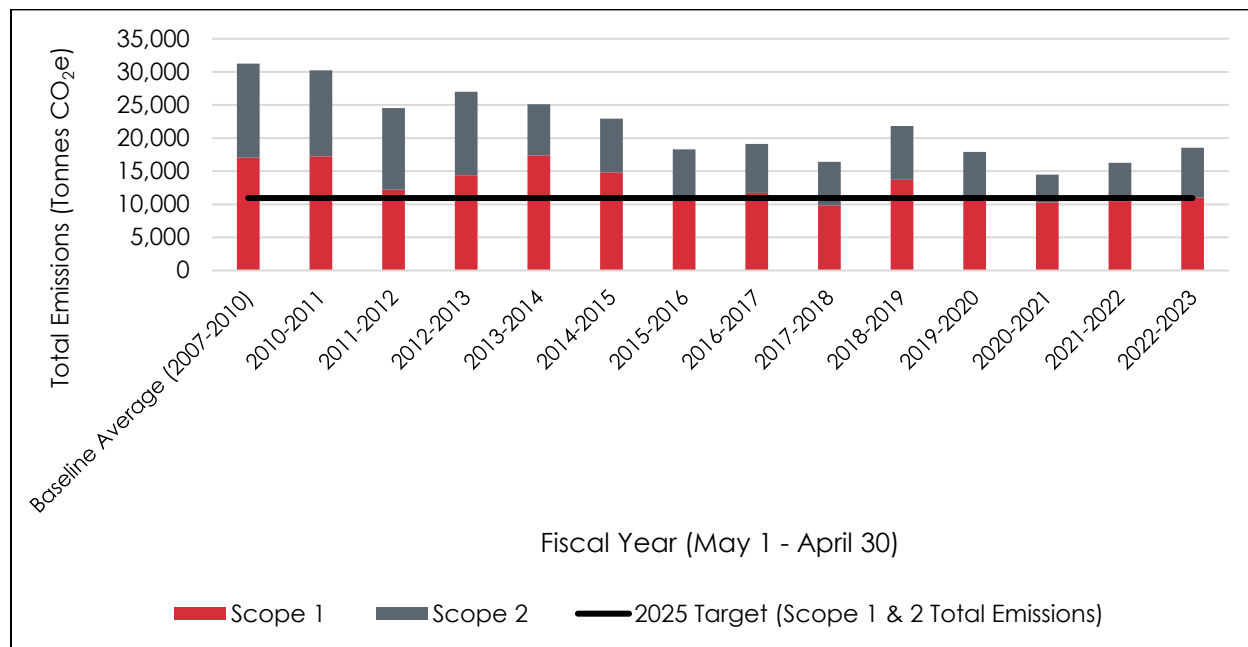
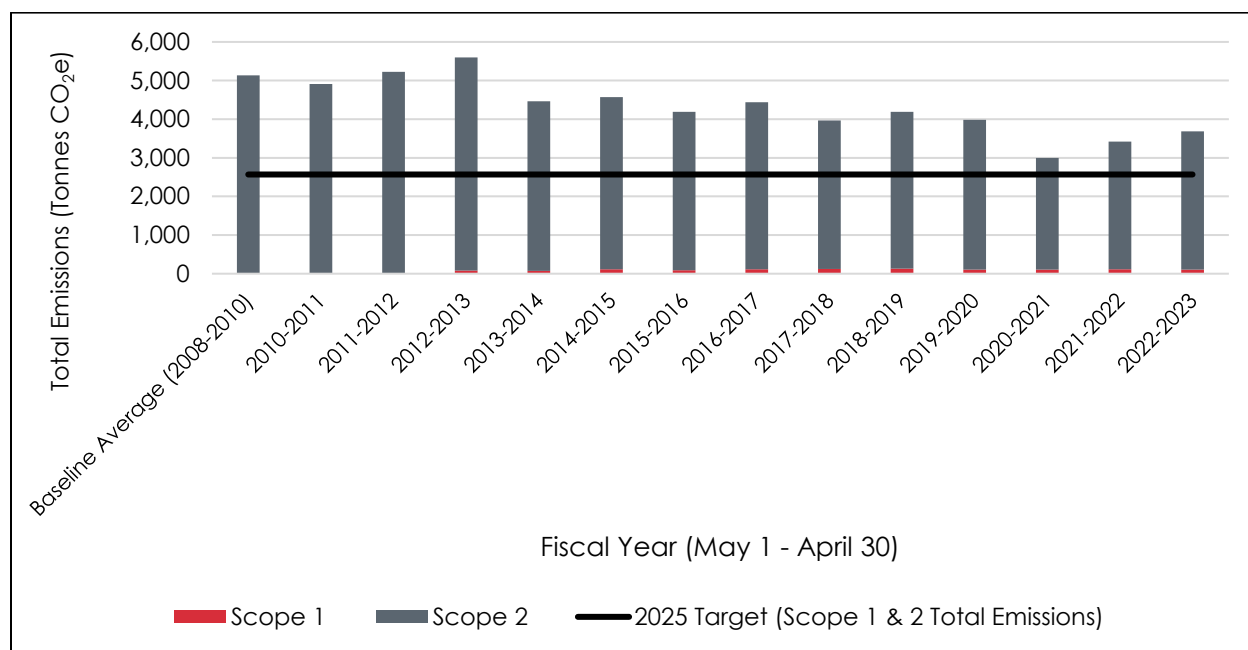


Figure 4. UNB Saint John Scope 1 and 2 emissions data, with respect to the 2025 (50% reduction from baseline) target.



Academics

This section shares our progress on the goals and strategies from the CCAP and CSP that are in the Academics category, as well as highlights some of the projects and initiatives that address our goals.

Table 1. CSP Academics Goals and Strategies

Goal	Strategy	Campus	Progress
Increase opportunities for students to use UNB as a living laboratory	Identify programs, courses, and operations that could offer Campus as Living Lab (CaLL) opportunities.	FR	NS
	Develop an online inventory of CaLL projects that have been completed and are currently available to students.	FR & SJ	NS
	Expand the SOCS4501 CaLL pilot to offer more project opportunities.	SJ	NS
	Develop a formalized CaLL program in collaboration with the Office of Experiential Education.	SJ	NS
Increase support for research on sustainability	Determine the feasibility of incentivizing and supporting sustainable research by students and faculty.	FR	NS
	Highlight and promote those conducting sustainability research.	FR	ID
Improve availability of sustainability focused courses	Identify sustainability learning outcomes, and work with units to incorporate the outcomes into the curriculum.	FR	NS
	Maintain a sustainability course list, outlining courses available in all faculties.	FR	C&O
	Create a sustainability course list inventory.	SJ	ID
	Produce an educational package for faculty on the relevance, importance, and methods of incorporating sustainability into their courses.	FR	NS
	Explore the feasibility of developing a 'minor' in sustainability or interdisciplinary courses to gain a 'sustainability certificate' option.	SJ	NS
Assess and improve students' knowledge of sustainability	Develop and conduct a student sustainability literacy assessment.	FR	C&O
	Formalize the distribution of the Sustainability Literacy Assessment.	SJ	C&O

	Develop a Sustainability 101 Module to educate the campus community on basic sustainability concepts.	SJ	C&O
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*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Sustainability Literacy Assessment

The Sustainability Literacy Assessment was designed by UNB Sustainability to help measure sustainability literacy. The assessment asks demographic questions followed by a series of questions about various topics in sustainability, as well as questions about the participants' perceptions of their sustainability knowledge. The assessment was launched with the first set of Sustainability Learning Modules at the end of March 2023. Since the assessment is an online Microsoft Form, it is accessible to both of our campus communities.

The following are some of the results from March and April 2023:

- Average Score: 6.8/11
- Average Self-Perceived Knowledge of Sustainability Before Taking the Assessment: 3.4/5
- Average Self-Perceived Knowledge of Sustainability After Taking the Assessment: 3.0/5

At the beginning of the assessment, respondents were asked to rank their self-perceived knowledge of sustainability from 1 to 5 (1 being a low knowledge of sustainability and 5 being a high knowledge of sustainability). Respondents were then asked a series of questions about various topics in sustainability. Afterwards, they were asked to rank their self-perceived knowledge of sustainability again, which resulted in a decrease when compared to their self-perceived knowledge at the beginning of the assessment. This highlights the need for increased sustainability education to improve the level of self-perceived and actual knowledge of sustainability, which would be reflected in the closer alignment of these two questions (ideally at a self-perceived "high knowledge of sustainability").

Sustainability Learning Modules

UNB Sustainability received funding from the Government of New Brunswick's Environmental Trust Fund and, in partnership with the Office of Experiential Education, created four Sustainability Learning Modules. The modules were launched in March 2023. They are free, self-directed, online learning modules, accessible to anyone interested in learning about fundamental sustainability concepts. Below are the learning objectives of each module.

Sustainability 101

- Understand what sustainability is and the differences between environmental, economic, and social sustainability.
- Understand the difference between adaptation and mitigation.
- Recognize the United Nations Sustainable Development Goals.

- Identify potential mitigating actions and the key obstacles limiting personal actions.
- Identify some of UNB's efforts towards sustainability.

Climate Change 101

- Define key terms such as climate change, greenhouse effect, and more.
- Understand the mechanism for the greenhouse effect.
- Understand the link between the United Nations Sustainable Development Goals and climate change.
- Describe the role of the Intergovernmental Panel on Climate Change.
- Understand key obstacles limiting your personal actions.

Resource & Waste Management

- Understand what natural resources are and the differences between renewable and non-renewable resources.
- Recognize the relationship between natural resources and proper waste management.
- Understand and define the resource lifecycle and the waste management hierarchy.
- Identify some of Canada, New Brunswick, and UNB's efforts toward resource and waste management.

Sustainability & Social Justice

- Define key terms such as social justice, social equity, and more.
- Understand the role of social equity and social justice in sustainability issues.
- Identify organizations involved in sustainability and social justice.
- Identify ways to get involved in supporting social justice issues relating to sustainability.

Table 2. CCAP Education and Programs Goals and Strategies

Goal	Strategy	Campus	Progress
Create educational opportunities around climate change	Integrate climate change into the curriculum.	FR & SJ	NS
	Develop a climate change hub.	FR & SJ	NS
	Explore opportunities for co-curricular partnership.	FR & SJ	NS

*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Engagement

This section shares our progress on the goals and strategies from the CSP that are in the Engagement category, as well as highlights some of the projects and initiatives that address our goals.

Table 3. CSP Engagement Goals and Strategies

Goal	Strategy	Campus	Progress
Encourage sustainable behaviors	Create a Staff Sustainability Network.	FR	NS
	Continue to work with students and groups to promote sustainable actions through programming.	FR	C&O
	Incorporate sustainability information into employee orientation packages.	FR	NS
Increase sustainable engagement opportunities for students	Expand the Green Representatives Program / Green UNB Program.	FR	NS
	Create a university-based program to allow the campus community to reuse and distribute unwanted items.	FR	C&O
	Maintain the Student Sustainability Fund to finance student sustainability projects.	FR	C&O
	Implement a formalized Green Ambassadors Program that trains students to serve in peer-to-peer sustainability outreach.	SJ	NS
Pursue sustainability collaborations	Engage in sustainability mentorship opportunities with other institutions.	FR	C&O
	Partner with the College of Extended Learning to create courses focused on, and incorporating, sustainability themes.	FR	NS
	Promote community service through the co-curricular program and improve methods of tracking service.	FR	NS
Sustainability training and professional development	Determine the feasibility of hosting a sustainability-themed workshop, modules, or an education package annually to staff.	SJ	C&O

*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Sustainable Development Goals Week

Sustainable Development Goals Week Canada (SDG Week) is a national collaboration led by The Sustainability Hub at UBC, SDSN Canada, and Colleges and Institutes Canada. UNB was proud to be one of the many institutions across Canada that developed programming for this campaign that ran from March 13 to 17, 2023. The following events were hosted by UNB Sustainability during SDG week:

- An SDG Interactive Workshop
- A Climate Café
- A Faculty Roundtable Discussion on SDGs in Academics

Green Champions

UNB Sustainability's Green Champions program showcases individuals who contribute to sustainability initiatives at UNB and beyond. In 2022 – 2023, we highlighted the following 11 Green Champions on our social media accounts: Matt Bishop, Danielle Smith, Ang Perdue, Brad Nason, Emily Smith and Bertha Debly, Gillian Davis, Kate Frego, Rose He, Noah Pleshet, and UNB's Menstrual Health Society.

Thank you to our Green Champions for contributing to making UNB more sustainable. If you know someone who should be a Green Champion, let us know as we are always accepting nominations.

Atlantic Universities and Colleges Sustainability Network

One way that UNB Sustainability engages in sustainability mentorship opportunities with other institutions is through the Atlantic Universities and Colleges Sustainability Network (AUCSN). The network meets twice annually to discuss various topics surrounding sustainability and energy on higher education campuses in Atlantic Canada. In 2022, UNB hosted the network's first meeting of the year in May and attended the second meeting of the year at Cape Breton University in October.

Sustainability Month

October is Sustainability Month at UNB. During our 2022 Sustainability Month, our team worked with many other groups to put on 26 events. Through these events, we were able to engage with over 1,000 students. The following are some of the highlights from Sustainability Month 2022:

Paint, Plant, Positivity (Fredericton and Saint John Campuses)

- Attendance: 150 (Fredericton) and 60 (Saint John)
- UNB Sustainability worked with the Bio Society, UNB Art Centre, UNB Environmental Society, and the UNB Student Union to create an event for students to relax and unwind with art therapy, as well as learn about growing their own plants.

Cruze on an E-Scooter (Fredericton and Saint John Campuses)

- Attendance: 90 (Fredericton) and 75 (Saint John)
- UNB Sustainability partnered with Cruze Scooters to give UNB students, staff, and faculty a chance to try electric scooters and explore sustainable spots on campus.

Campus Clothing Swap (Fredericton and Saint John Campuses)

- Attendance: 136 (Fredericton) and 131 (Saint John)
- The Campus Clothing Swap is a popular event where we collect used clothing donations leading to the event, then set up a temporary free clothing store in which students can pick out items to add to their wardrobe. This event helps us promote and provide an avenue for students to reuse items rather than throw them in the garbage.

Operations

This section shares our progress on the goals and strategies from the CCAP and CSP that are in the Operations category, as well as highlights some of the projects and initiatives that address our goals.

Table 4. CSP Operations Goals and Strategies

Goal	Strategy	Campus	Progress
Create a more sustainable food system	Pursue a program that will allow UNB to commit 20% of its food dollars to be spent on food that is local or third party certified.	FR	C&O
	Increase opportunities, awareness, and education around sustainable food events.	FR	ID
	Continue to support opportunities to access, grow, and produce local food on campus.	FR & SJ	C&O
	Work to increase the number of foods that are sustainable, ethically produced, and plant based in the next food service contract.	SJ	C&O
	Engage with the community around campus food and dining and ensure their voice is heard in contract negotiations.	SJ	NS
Prioritize sustainable purchasing	Engage with Financial Services to integrate sustainability into the Procurement Policy.	FR	NS
	Create a reference list and guide for sustainable purchasing.	FR	NS
Reduce water usage	Formalize and increase water reduction efforts.	FR & SJ	ID
	Create initiatives and events to encourage water related behavior change.	FR & SJ	NS

*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Campus Community Gardens

Both our campuses have community gardens. Community gardens provide a space for growing local and healthy food, as well as offer multiple mental and physical health benefits.

Water Consumption

Water reduction efforts are implemented through UNB's Energy Management Program. Water consumption decreased at both campuses compared to the previous fiscal year

due to the resolution of several leaks. For more information about UNB's water consumption, please review the annual [Energy Management Program Reports](#).

Table 5. CCAP Energy and Infrastructure Goals and Strategies

Goal	Strategy	Campus	Progress
Improve campus energy systems	Increase biomass as a fuel source in the Central Heating Plant.	FR	ID
	Invest in renewable energy.	FR & SJ	C&O
	Invest in a co-generation system, which uses a steam turbine to generate electricity.	FR	NS
	Refrigerant phase out.	FR & SJ	ID
Reduce the consumption of energy on campus	LED retrofits.	FR & SJ	C&O
	Building control upgrades.	FR & SJ	C&O
	Reduce energy consumption through occupant education.	FR & SJ	ID
Improve campus infrastructure standards	Establish an institutional green building policy.	FR & SJ	ID
	Establish preventative maintenance standards that incorporate sustainability.	FR & SJ	NS

*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Energy Management Program

UNB Fredericton implemented the Energy Management Program (EMP) in 1996 to invest in energy projects that will have a return on investment through utility cost savings. In 2017, an EMP for UNBSJ campus was approved. The Board of Governors continues to invest in the EMP for energy projects to mitigate the financial impact of rising utilities costs, reduce UNB's environmental footprint, and demonstrate continued leadership in energy efficiency and fiscal responsibility. The EMP has been crucial for working toward our CCAP Energy and Infrastructure goals.

The Energy Management Committee publishes annual [Energy Management Program Reports](#) which share the performance of the EMP. The following are some of the key annual developments for the EMP during the 2022 – 2023 fiscal year.

Solar Arrays

In 2022 – 2023, UNB installed its first two solar arrays on the UNB Fredericton campus.

- I.U.C. Science Library (Rooftop): Although not funded through EMP, this solar PV installation is 60 kW with a projected annual energy savings of 30,059 kWh.
- Capital Planning & Operations Building (Rooftop): This solar PV installation is 17 kW with a projected annual energy savings of 22,363 kWh.

Geothermal Energy

In 2021, UNBSJ opened the Barry and Flora Beckett Residence. This is the first UNB building to utilize geexchange technology. The 40,000 square foot residence building

utilizes a deep-water well system for offsetting steam usage for heating and cooling. This highly energy-efficient building gives students control over the temperature of their room, including the options to heat or air-condition.

UNB Saint John Low Carbon Action Plan

In May 2022, the Renewable Energy Strategy (renamed Low Carbon Action Plan) for the Saint John campus was published. It aims to assess specific technologies and actions to reduce the campus' greenhouse gas emissions. Key findings from this report include:

- UNBSJ must mitigate approximately 6,084 metric tonnes of greenhouse gas (GHG) emissions to reach carbon neutrality by 2050.
- The majority (~97.5%) of UNBSJ's current emission inventory comes from purchased steam and electricity (Scope 2) emissions.
- Under a business-as-usual scenario, GHG emissions are expected to rise until 2035 and remain constant to 2050.
- Geoxchange energy is the most significant technology in terms of GHG reduction potential.
- UNBSJ has an abundance of viable solar PV locations due to land availability, and a large-scale application would be most effective in terms of GHG reduction.

Residence Energy Challenge

UNB's annual Residence Energy Challenge is a friendly competition for residence buildings to see who can reduce energy consumption the most in a two-week period. The 2022 – 2023 challenge took place from February 2 to 17, 2023. The winning residence was Neill House with a reduction of 3.3% from their baseline. Alongside the competition, UNB Sustainability hosted a trivia night and a Lights Out Coffee House.

Table 6. CCAP Transportation Goals and Strategies

Goal	Strategy	Campus	Progress
Increase the number of active transportation users on campus	Implement a transportation survey that studies travel methods and behaviours.	FR & SJ	C&O
	Develop a transportation plan.	FR & SJ	NS
	Promote active transportation through increased programming and education.	FR	C&O
Reduce emissions produced by the campus community	Conduct a fleet assessment.	FR & SJ	ID
	Develop an anti-idling policy.	FR & SJ	ID
	Develop a new sustainable travel policy.	FR & SJ	ID
	Explore opportunities to reduce daily campus travel.	SJ	NS
	Upgrade and expand video conferencing technology.	FR & SJ	C&O

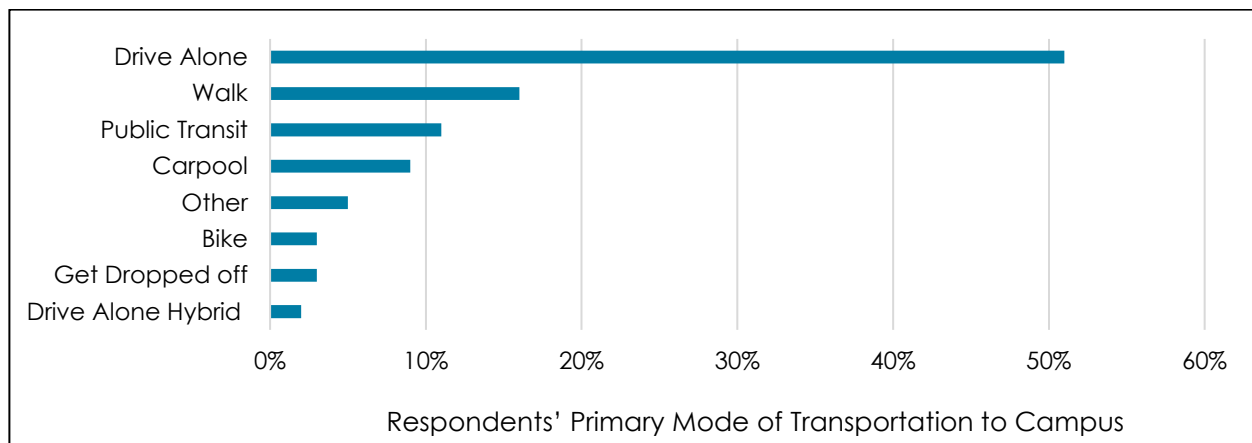
*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Modal Split Survey

In October 2022, UNB Sustainability conducted a survey regarding transportation and parking on both UNB campuses. To reduce emissions from transportation, it is important to first understand the existing transportation patterns and behaviors of students, staff, and faculty at UNB. Here are some highlights from the survey results:

- There were 1,636 survey responses, representing 13.5% of students, staff, and faculty.
- Over 50% of respondents' primary mode of commuting to campus was driving alone in a gas or diesel vehicle.

Figure 5. Modal Split Survey Results (2022 – 2023)



Academic Bike Challenge

In Summer 2022, UNB Sustainability hosted the second annual Academic Bike Challenge. This is a challenge for universities across the world to encourage students, staff, and faculty to cycle more in their daily lives. UNB had 50 participants and cycled a total of 5,575 km in the month of July.

Table 7. CCAP Waste Management Goals and Strategies

Goal	Strategy	Campus	Progress
Explore alternative opportunities to reduce waste produced on campus, the types of waste currently produced, and opportunities to recycle and reduce the sources of waste	Explore opportunities for small unit composting.	FR & SJ	C&O
	Explore opportunities to recycle plastics and continue to recycle cardboard and paper.	FR & SJ	ID
	Develop a waste source inventory that highlights the types of waste currently produced.	FR & SJ	ID
	Develop materials that support waste management education.	FR & SJ	C&O

*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Composting Feasibility Study

A Composting Feasibility Study was completed in December 2022. This student research project compared the following strategies for composting organic waste:

- Electric kitchen composter: Small Scale
- Off-campus composting facility: Small or Large Scale
- Vermicomposting: Small Scale
- Black Soldier fly composting: Small or Large Scale
- In-Vessel (Big Hanna or city pod): Large Scale
- In-vessel (Earth flow): Large Scale

A comparison between the above methods was done based on capital cost, operational costs, capacity, waste processing responsibilities, coordination, and outreach. This comparison found that the small-scale electric composter was the preferred option.

Waste Bin Switchover

The Waste Bin Switchover project involves the Maintenance & Operations team replacing the old, inconsistent waste bins across our campuses with new, consistent three-sort bins. Since the initiation of the Waste Bin Switchover project in 2015, approximately 50% of the applicable buildings on the Fredericton campus have been switched to the new, consistent three-sort bins, and 100% of the Saint John campus bins have been switched over. Unfortunately, there was no funding in 2022 – 2023 to complete more buildings.

UNB Saint John Waste Audit

In October 2022, Waste Solutions Canada conducted a waste audit at UNB Saint John. The audit was conducted on October 6, 2022, and followed the Recycling Council of Ontario's (RCO) Standard Waste Audit Methodology (SWAM).

Table 8. UNB Saint John Summary of Waste Audit Findings (2022)

	Sample Value	Annual Value
Total Waste Generated	241.50 kg	89,633.88
Total Waste Sent to Landfill	241.50 kg	50,715.00
Total Waste Diverted from Landfill	N/A	38,918.88
Overall Diversion Rate	43.42%	
Overall Capture Rate	70.75%	

Using the information gathered through the site observations and the waste audit, Waste Solutions made the following recommendations to UNB Saint John:

1. Implement a mixed recycling program.
2. Reduce paper towel usage.
3. Continuous monitoring.

Table 9. CCAP Sustainable Grounds Goals and Strategies

Goal	Strategy	Campus	Progress
Develop a campus master plan	Integrate tree planting protocol into the campus master plan.	FR & SJ	NS
	Establish a feasibility study for carbon sinks at UNB.	FR & SJ	C&O

*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

Forest Carbon Management Report

As part of the FOR 4020 Management Practicum course, a student group completed a Forest Carbon Management Report for UNB which provided recommendations for carbon sinks.

Planning and Administration

This section shares our progress on the goals and strategies from the CSP that are in the Planning and Administration category, as well as highlights some of the projects and initiatives that address our goals.

Table 10. CSP Planning and Administration Goals and Strategies

Goal	Strategy	Campus	Progress
Include sustainability in university planning	Create an institutional sustainability policy.	FR & SJ	NS
	Incorporate sustainability into other university policies.	FR & SJ	NS
	Include sustainability in university decisions.	FR & SJ	C&O
	Provide the Student Union representatives with sustainability training.	FR & SJ	NS
Incorporate sustainability and transparency into UNB investments	Provide an annual report on UNB investments to the public.	FR & SJ	C&O
	Develop a publicly available sustainable investment policy.	FR & SJ	ID
	Incorporate Environmental, Social, and Governance (ESG) principles in the policy for hiring investment managers.	FR & SJ	C&O
	Require all investment managers to report on their ESG investment practices.	FR & SJ	C&O
Engage students and local community in institutional decision making	Provide student representatives who sit on UNB's highest governing body with sustainability training.	FR & SJ	NS

	Develop a policy to identify and engage external stakeholders in institutional decisions that affect the community.	FR & SJ	NS
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*C&O = Completed & Ongoing, ID = In Development, NS = Not Started

The President's Advisory Committee on Sustainability

The President's Advisory Committee on Sustainability (PACS) was established in fall 2022 and they meet four times per year. The PACS is responsible for supporting the priorities and objectives of UNB Toward 2030, the CSP, and the CCAP by ensuring the university keeps environmental stewardship, climate adaptation, and reduction of our carbon footprint at the forefront of decision-making. The PACS aims to create increased awareness and understanding of on-campus sustainability challenges and opportunities for students, faculty, and staff.

Sustainability Ranking and Rating Frameworks

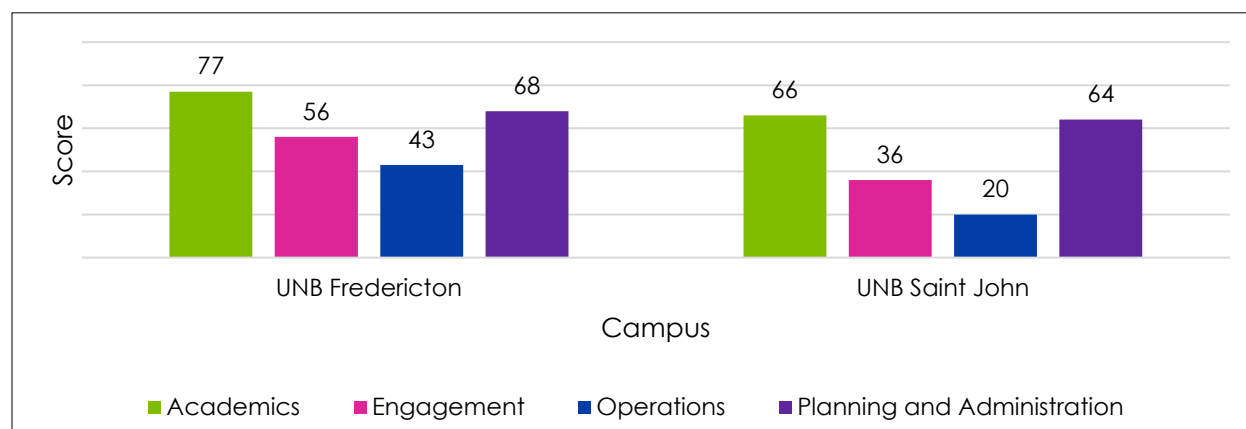
UNB currently reports to three ranking and rating frameworks. It is important to be able to compare our sustainability progress to that of other institutions, and these frameworks help UNB to continually strive to do better and draw inspiration from other institutions across the world.

STARS

The Sustainability Tracking, Assessment and Rating System (STARS) program is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. The UNB Fredericton campus first reported to STARS in 2017 and received a Silver rating. In 2020, UNB Fredericton received its second Silver rating, and in 2021 UNB Saint John received its first Silver rating.

STARS assesses the sustainability of higher education institutions based on an array of credits that fall within four main categories: Academics, Engagement, Operations, and Planning and Administration.

Figure 6. UNB's Sustainability Tracking, Assessment and Rating System (STARS) program results per category in 2020 (Fredericton) and 2021 (Saint John).



Quacquarelli Symonds World University Rankings: Sustainability 2023

The Quacquarelli Symonds (QS) World University Rankings provides authoritative and independent evaluations of institutions, helping to drive institutional performance and guide students in their decision making.

The sustainability ranking was designed to measure an institution's ability to tackle the world's greatest environmental, social, and governance challenges. The QS Sustainability Rankings, published in October 2022 ranked 700 universities, and Table 11 shares UNB's ranking.

Table 11. UNB's QS World University Rankings: Sustainability (2023)

Overall Rank	Environmental Impact Rank	Social Impact Rank
451-500	353	501+

Times Higher Education Impact Rankings 2022

The Times Higher Education (THE) Impact Rankings is a performance ranking that assesses universities against the UN SDGs. It provides a comprehensive and balanced comparison of institutions across four broad areas: research, stewardship, outreach, and teaching.

The 2022 Impact Rankings was the fourth edition and included 1,406 universities globally, and Table 12 shares UNB's ranking.

Table 12. UNB's Times Higher Education Impact Ranking (2022)

Overall Rank	UNB's Highest Ranked SDGs
301-400	9. Industry Innovation and Infrastructure 10. Reduced Inequalities 14. Life Below Water 17. Partnerships for the Goals