

Climate Emergency at UBC

Report on Progress 2021-22



Land Acknowledgment

The Sustainability Hub office is located at the UBC Point Grey campus situated within the traditional, ancestral, and unceded territory of the x^wməθk^wəy^əm (Musqueam). As part of the larger UBC community, we are guests and settlers on the traditional, ancestral, and unceded territories of the x^wməθk^wəy^əm (Musqueam), Skwxwú7mesh (Squamish), Sel̓ílwitulh (Tseil-Waututh) and Syilx (Okanagan) Nations. In our pursuit of sustainability, climate action and climate justice, we understand that protecting human rights is indelibly woven into the fabric of environmental protection and sustainability. As guests and settlers on Indigenous lands, we share an important responsibility for learning with and about our host Nations and strengthening these relationships.

One of the most prominent climate teachings we've learned from our hosts is that the ancestors of these lands fortified this area to "raise our warriors to protect Mother Earth..."¹ In our pursuit of climate justice, we remain committed to our collective responsibility to honour these teachings and adhere to the guiding principles and protocols shared with us from x^wməθk^wəy^əm (Musqueam) elders and leaders. We respect and practice our shared responsibilities to engage in meaningful dialogue with our hosts and continue to build relationships grounded in mutual respect, trust, and reciprocity.

1 Morgan Guerin, 2021 CETF Report.

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Introduction



Credit: Sustainability Hub

This is the first progress review on the climate emergency at UBC since the Board of Governors and Senates unanimously endorsed in principle the Climate Emergency Task Force (CETF) report in early 2021. The Sustainability Hub is responsible for convening and coordinating people across UBC to make progress on the report's recommendations. Transparency and accountability are key to addressing its nine strategic priorities.

We applaud the university's leadership, and acknowledge UBC President Santa J. Ono, the UBC Board of Governors, the UBC Senates, and the entire student body for championing this work. We're proud of the record so far, including two new ambitious Climate Action Plans 2030 for both campuses to dramatically

reduce operational and embodied emissions; progress on divestment of fossil fuels from UBC's portfolios and the new Responsible Investment Strategic Plan; the climate justice initiatives we and so many others have led; and the wide array of new courses, grants, partnerships, projects, public events, living labs, student and faculty programs, artistic, scientific, industrial innovations, and other unique initiatives happening throughout UBC.

In this progress report, we celebrate the creativity and diversity of climate emergency related actions at UBC to inspire further action. More is yet to be done to bring key initiatives to life from the CETF report, especially increasing climate change teaching and research, the university's primary activities. More needs to be done to address the disproportionate impacts of climate change on Indigenous and racialized people, and on vulnerable groups such as the elderly and those living with a disability, in poverty, or in ill-health. Nature itself is also at grave risk from human-caused climate change. Collective action will support the systems level change needed for a just and sustainable future.

The progress listed here is a snapshot of UBC's emerging response to the climate emergency. The Sustainability Hub team compiled this report with help from many. Special thanks to Campus + Community Planning, the Centre for Community Engaged Learning, the UBC Climate Hub, UBC Finance, the Pacific Institute for Climate Solutions, and UBC Wellbeing.

It's impossible to be comprehensive about climate related activity across two campuses with over 70,000 students and close to 19,000 faculty and staff, and we welcome your input to make future reports more complete. If you don't see your story here, we invite you to share your research, classes, programs and projects, and your perspective on what you'd like to see happen at UBC to truly tackle the climate emergency.

LINDA NOWLAN
Senior Director, Sustainability Hub

Background

“Together, the strategic priorities highlight UBC’s mutually reinforcing roles as a leader, enabler, and partner in addressing the climate crisis. Collectively, the priorities outline a vision for UBC’s existing leadership in reducing local emissions to be paired with efforts to drive collective impact in local, regional, and international climate action. Efforts to advance a just and sustainable society must be embodied in how UBC acts at an institutional level, supports, and empowers its communities, and engages with its partners.” - 2021 CETF Report

UBC’S CLIMATE EMERGENCY TASK FORCE REPORT

In 2019, spurred by student advocacy, [UBC declared a Climate Emergency](#). This declaration recognized UBC’s fundamental responsibility to foster a culture of engagement and advocacy on climate action.

Following the declaration, a Climate Emergency Task Force (CETF) made up of students, faculty, and staff from both the Vancouver and Okanagan campuses undertook an extensive community consultation process and produced a public report. The CETF was co-chaired by Michelle Marcus, a UBC undergraduate student and activist with Climate Justice UBC, and Professor Walter Mérida, Associate Dean of Research and Industrial Partnerships in the Faculty of Applied Science, and a Senior Advisor on Climate Change to UBC President Santa J. Ono. The final [CETF report](#) was published in January 2021, featuring climate justice and Indigenous engagement as key themes. Nearly 4,000 UBC community members helped shape the report, whose recommendations span community,

academic (teaching, learning, and research), and operational dimensions of the University. One month after the CETF report was published, it was endorsed unanimously in principle by UBC President Santa J. Ono, the UBC Board of Governors, and the UBC Senates.

THE CETF’S NINE STRATEGIC PRIORITIES

The CETF report identifies nine strategic priorities and 28 recommendations for effective climate action by UBC. According to the report, any climate-themed activity stemming from its recommendations must serve at least one of the following three commitments: (1) addressing the impacts of climate change; (2) addressing past and ongoing contributions to climate change and shifting to practices and policies at UBC and beyond that minimize or eliminate human-related climate change (keeping warming within 1.5°C); and (3) embedding a lens of climate justice.

CETF REPORT STRATEGIC PRIORITIES



Operationalize UBC's commitments to climate justice: Support climate leadership and initiatives led by Indigenous, Black, and People of Colour

1. Support fair compensation and representation for UBC's IBPOC community leading climate initiatives
2. Support off-campus IBPOC-led climate initiatives
3. Engage further with Black and POC Communities
4. Examine and transform institutional practices and policies that reproduce inequalities for IBPOC communities at UBC



Demonstrate institutional leadership on climate justice

1. Establish climate justice standards for the university's activities
2. Demonstrate and advocate for justice-based climate action
3. Enact commitments to divestment and sustainable investment



Establish mechanisms and processes that ensure Indigenous perspectives, communities, and worldviews shape the development and implementation of climate related initiatives and policies

1. Leverage UBC's Indigenous Strategic Plan and Inclusion Action Plan as a basis for long-term engagement with Indigenous communities
2. Provide resources that support staff to work on Indigenous engagement around UBC plans, policies and initiatives
3. Create a standing Indigenous community advisory committee on the climate emergency
4. Welcome and develop greater institutional capacity for engaging with the full range and complexity of Indigenous perspectives



Expand, strengthen and coordinate climate research at UBC

1. Establish a body for climate research
2. Start a climate emergency fellows program
3. Conduct climate-focused faculty hiring
4. Recognize and reward community engaged scholarship

CETF REPORT STRATEGIC PRIORITIES



Foster a culture of engagement & advocacy on climate action

1. Encourage civic engagement
2. Increase capacity and resources for engagement



Support community wellbeing in the face of the climate crisis

1. Build capacity for mental health, resilience and community care strategies
2. Update emergency preparedness and response plans
3. Collaborate to expand public discourse around climate change and public health impacts



Expand climate education opportunities and resources for the UBC community and broader public

1. Advance climate education opportunities across disciplines
2. Support climate education pedagogy and curriculum development
3. Expand climate education and professional development for UBC community members and UBC partners



Develop new and strengthen existing partnerships to tackle the climate emergency

1. Coordinate a climate knowledge to action central contact
2. Scale up Living Lab research collaborations with diverse partners beyond campus
3. Community Councils - expand and deepen external engagements
4. Develop a strategic partnership framework



Accelerate emissions reductions at UBCV and UBCO in response to the Climate Emergency: Climate Action Plan 2030

1. Support the forthcoming recommendations and new interim emission targets emerging from the Climate Action Plan 2030 process, which establish specific emissions targets responding to UBC's alignment with 1.5°C

Background

The Intergovernmental Panel on Climate Change (IPCC) defines [climate justice](#) as: “Justice that links development and human rights to achieve a human-centred approach to addressing climate change, safeguarding the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts equitably and fairly.”



Credit: [Jon Tyson](#)

CLIMATE JUSTICE GLOBALLY AND LOCALLY

Examples of climate injustice are found everywhere. Globally, the [richest 1%](#) of people produce more than double the carbon emissions of the world's poorest half. Close to one quarter of cumulative fossil fuel CO₂ emissions over the past 250 years [came](#) from the United States, compared to just 2.8% from the continent of Africa.

Compared to other wealthy nations, [Canada](#) is among the highest per-capita carbon emitters. The changing climate will exacerbate the health and socio-economic inequities already experienced by [First Nations, Inuit, and Métis peoples](#), including respiratory, cardiovascular, water and foodborne, chronic and infectious diseases, as well as financial hardship and food insecurity.

Children and youth in poorer countries will experience disproportionate health impacts. Between 2030 and 2050, according to the [World Health Organization](#), climate change is expected to cause approximately 250,000 additional deaths per year, from malnutrition, malaria, diarrhea, and heat stress.

In British Columbia the [disproportionate impacts of climate change](#) are widespread. UBC researchers are at the forefront of analyzing the health and justice impacts of climate, illustrated in part by this report's stories about the School of Population and Public Health's Professor Michael Brauer and his research team's mapping of [four regional climate hazards](#) and the work of Associate Professor of Geography Naomi Klein's [Centre for Climate Justice](#).

FEATURE



Credit: [Murray Foubister](#)

Climate Change in the Real World: BC's Heat Dome

People across BC directly experienced climate change and climate injustice in the deadly heat dome, devastating wildfires, and destructive floods that struck in 2021. At the end of June 2021, the village of Lytton set a Canadian temperature record of 49.6°C, before burning to the ground. [Peer reviewed science](#) found that this heat dome was “virtually impossible without human-caused climate change.” Tragically, the 2021 heat dome was associated with [740 excess deaths](#) in British Columbia. Elderly people, Indigenous Peoples, people with disabilities, immigrants, precariously housed, and low-income people were

disproportionately impacted, according to the Death Review Panel on [Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in BC in Summer 2021](#) commissioned by the BC Coroner.

UBC researchers documented extreme ecosystem impacts in BC from the 2021 heat dome. More than a [billion sea creatures perished](#) due to the heat. In addition to the mass-mortalities of marine life, UBC researchers [documented](#) how the heat dome reduced crop and fruit yields, exacerbated river flooding from rapid snow and glacier melt, and contributed to a rapid increase in 13 wildfires, which contributed to devastating landslides in the fall of 2021.

Background



Credit: Julia Kidder

“The approach to UBC’s Climate Emergency Response must be both distributed and coordinated. It must be distributed, so that the principles of the climate emergency declaration are embedded within UBC’s wide-ranging activities and priorities. It must also be coordinated to ensure the climate emergency remains a top institutional priority and those responsible for implementation are supported.”

- 2021 CETF Report

THE SUSTAINABILITY HUB AND THE CETF REPORT: SHARED AND DISTRIBUTED IMPLEMENTATION

The [Sustainability Hub](#) has a mission to inspire the UBC community to act on the planet’s most urgent challenges through UBC’s academic and operational sustainability leadership

Confronting the climate emergency is a shared responsibility and requires coordinated action and commitment to affect systems level change. Everyone has a role to play in addressing climate change from the Board of Governors to the President to the Vice-Presidents to Deans, faculties, staff and students. The latest [UBC organizational chart](#) shows who is involved.

Working together with, and inspired by, the diverse array of climate leadership from all corners of the university, the Sustainability Hub is the office at UBC primarily responsible for convening and coordinating the implementation of the CETF report’s recommendations.

Initial Impacts of CETF Report

“UBC acknowledges the urgency of the climate crisis and we must directly face the coming challenges. At this pivotal moment, the decisions and actions we take today will reverberate beyond our own borders and lifetimes,” - Santa J. Ono, President and Vice-Chancellor, UBC



Credit: Julia Kidder

YEAR ONE OF CETF REPORT IMPLEMENTATION AT UBC: INITIAL IMPACTS

The work of the CETF report has already made a significant impact by accelerating UBC Vancouver’s Climate Action Plan 2030, developing UBC Okanagan’s first Climate Action Plan, and divestment from fossil fuels, spawning further investment into new and expanded learning and research activities, and educating the community on the disproportionate impacts of climate change on systemically marginalized groups.

This report on progress in the first year of implementation covers the period from February 2021 to March 2022. Action directly linked to the implementation of the CETF report’s nine strategic priorities is included, as well as more organic and grassroots initiatives across the university in response to the climate emergency.

- Addressing the climate emergency is now a University commitment: The CETF report was unanimously endorsed in principle by UBC President Santa J. Ono, the UBC Board of Governors, and the UBC Senates.
- Targeted climate funding: The CETF report triggered increased allocations of resources across the University, supporting new UBC Climate Hub and Sustainability Hub staff positions. Student advocacy resulted in the creation of a one-time \$1.5 million Climate Emergency Fund from incremental student tuition revenues, which has been earmarked for seven initiatives that foster climate action engagement and advocacy, support community wellbeing, and expand climate education opportunities.
- Increased accountability: UBC is accountable under BC’s Climate Change Accountability Act to achieve carbon neutrality, and file an annual public report on its actions. UBC’s 2021 report states: “ By establishing the UBC Climate Emergency Task Force and endorsing the new climate action plans, the UBC Board of Governors has confirmed that climate action continues to be a top strategic priority for the University.” The CETF report tracks and documents the broad actions being taken by the UBC community beyond campus operational improvements to address the climate emergency, increasing the transparency and accountability of overall progress.

CALLING IN ACTION

Want to be involved directly? Want to help hold the university and its institutions accountable to climate emergency policies? Want to make climate change teaching a priority in your department? Want to build urgency around the creation of a university Climate Institute as recommended by the CETF Report? Or want to ensure that all UBC graduates leave the university with climate justice literacy?

Here are some key pathways for students, faculty, and staff to advocate for change.

LEARN

- Attend or watch past recordings of events such as the [Climate Justice Series](#) and [Climate Solutions Showcase](#). Look for upcoming events, and suggest topics and speakers.
- **Students:** focus on climate in your studies and co-curricular activities. Look at the [Climate Course listing](#). Consider the [Climate Certificate](#) or the UBC Climate Hub's [Climate Justice Research Collaborative](#).

ACT

- [Advocate](#) to your professors, deans, faculties, and senior administrators for more climate education, training, and community engagement courses, activities, and opportunities.
- Help implement [UBCV Climate Action Plan 2030 \(CAP 2030\)](#) and [UBCO CAP 2030](#) by learning its details, communicating its targets, and participating in engagement campaigns to reduce emissions.
- Call on the UBC Board of Governors to keep the climate emergency at the forefront of UBC by letting your elected student and faculty Governors know this is a top priority for you.
- **Students:** Let your student elected representatives at the UBC Alma Mater Society know this is a priority.

CONNECT

- **Faculties:** Consider forming a Climate Action Committee and join the Interdepartmental Climate Action Team (ICAT).
- **Staff:** Participate in your faculty or unit's Climate Action Committee. Organize events to raise awareness.
- **Students:** Join a [student group](#) on climate, participate in programs like [SEEDS](#) and [Catalyst](#), or apply to be a [Sustainability Scholar](#) as a graduate student or to the [Public Scholars Initiative](#) as a doctoral student.

ACCESS FUNDING AND RESOURCES

- **Faculty:** Consider how to add climate to your courses and curricula and apply for a [Climate Education Grant](#) to help you do this. Invite a paid guest lecturer from the [Climate Teaching Connector](#) to your class. Encourage your department to organize climate-related events and share them with the Sustainability Hub who can amplify them through our networks. See page 44 for ideas.
- Use examples from other places at UBC and from Climate Justice Toolkits to start a climate action plan for your department.

Looking for more ways to connect and act?
Reach out to [the Climate Emergency Team](#)
at climate.emergency@ubc.ca.

Strategic Priority I

Operationalize UBC's Commitments to Climate Justice: Support Climate Leadership and Initiatives Led by Indigenous, Black, and People of Colour

Compounding the crisis of a deteriorating planet are the troubling and persistent inequities in society. The people most impacted by climate change in BC (for example, those who died during the 2021 heat dome) did the least to cause many of the problems – in general, their emissions and ecological footprints are a fraction of the average British Columbian. Acting on these inequities is at the heart of this priority, met in part by UBC's many initiatives on anti-racism, equity, inclusion, and diversity.

When UBC made its Climate Emergency Declaration in 2019, it made a bold commitment to advance, “just and inclusive climate solutions that work towards dismantling historic and existing barriers faced by marginalized communities.” Building on priorities laid out in other UBC strategic plans, the CETF report states that UBC is committed “to honour and amplify the labour and leadership of Indigenous, Black, and People of Colour (IBPOC) community members through adequate compensation and integration of their ongoing feedback throughout UBC's climate emergency response.” The CETF report recommends that UBC focus on increasing representation of its IBPOC community, and support off-campus IBPOC-led climate initiatives.

ANTI-RACISM ACTION

- Addressing the social inequities laid bare by the climate emergency demands a new approach. To avoid perpetuating deeply harmful practices, it's necessary to, “remain vigilant and take concrete steps towards including the voices of those who are most vulnerable to climate change impacts,” as [Carbon Brief](#) writes.

UBC is combating racism, which is a key dimension of climate justice strategies. In 2021, President Santa J. Ono's [initiative on anti-racism](#) included the appointment of a Senior Advisor to the President on Anti-Racism and Inclusive Excellence and the establishment of an Anti-Racism and Inclusive Excellence Task Force. Other initiatives include the appointment of two Executive Co-Leads to, “... provide a critical bridge between the UBC Executive and the members of the UBC community who self-identify as Indigenous, Black, and People of Colour (IBPOC),” the creation of an [Anti-Racism Initiatives Fund](#), administrative support for IBPOC students to develop anti-racist initiatives, and a webinar series on systemic racism.

I. IBPOC-Led Climate Justice



Credit: [☞ Rachel Topham Photography](#)

INCREASING IBPOC HIRING AT UBC

- Work continues implementing the [☞ Indigenous Strategic Plan \(ISP\)](#) and its action to increase Indigenous hiring. Increased IBPOC faculty hiring is also a priority of the [☞ Anti-Racism and Inclusive Excellence Task Force](#). A number of new IBPOC faculty were hired in 2021/22.

Employment equity reports show that in 2019 new hires included 312 professors, with 4.3% Indigenous people and 24.7% racialized people; in 2020 new hires included 242 professors with 4.8 % Indigenous people and 36.5% racialized people; and in 2021 new hires included a renamed group of 578 University Teachers (now including post-docs) with 5.2% Indigenous people and 32.0% Racialized people.

SHOWCASING IBPOC CLIMATE INITIATIVES ON- AND OFF-CAMPUS

- The UBC Climate Hub's Climate Solutions Showcase focused on the themes of 'climate, race, and intersectionality' and the disproportionate affects of the climate crisis on Black and Indigenous communities through multiple events hosted in the time frame of this report with IBPOC guests from UBC and beyond. Details of the events are in the UBC Climate Hub's 3rd [☞ Annual Report](#). For example, 'Climate Justice: Reparations and Migration' featured noted scholar Dr. Maxine Burkett from the University of Hawai'i.

- The UBC Indigenous Strategic Plan (ISP) guides meaningful reconciliation with Indigenous communities and the implementation of Indigenous Peoples' rights across both campuses. The inaugural [☞ Indigenous Strategic Initiatives Fund](#) is the first of its kind at UBC – an Indigenous-led fund for Indigenous-focused projects. Several proposed projects connect Indigenous rights to the climate emergency.

- The Sustainability Hub's two Climate Emergency Senior Co-Managers have developed new and strengthened existing relationships with IBPOC community members and collaborated on ideas to transform inequitable institutional practices and policies and embed IBPOC perspectives into UBC's Climate Emergency response and future climate plans, policies, and initiatives.

- Recognizing the lack of diverse perspectives in climate conversations, Sitashma Thapa and UBC student Simone Rawal launched [☞ Anthropause](#), a podcast amplifying voices from the Global South. Born and raised in Nepal, they decided on a podcast as a platform for important voices that often remain unheard. South Asia has deeply rooted systemic inequalities, as well as rich and diverse cultures, values, and religions. Anthropause guests shared stories throughout 2021/22 about South Asia's holistic approaches to climate problems, including why it is important to include children's voices in climate change discussions, and a conversation with a United Nations Development programme expert about Bhutan, 'The Carbon-Negative Kingdom.'

- The Sustainability Ambassadors program's IBPOC Engagement Consultation project held community listening sessions and issued a survey to IBPOC community members at UBC on engagement issues, and is collaborating with the Community Engagement Network, the Office of Equity and Inclusion, and UBC Wellbeing to transform institutional practices and policies that reproduce inequalities for IBPOC communities at UBC.

Strategic Priority II

Demonstrate Institutional Leadership on Climate Justice

Demonstrating institutional leadership on climate justice means embedding climate justice throughout UBC's activities and addressing the inequities associated with the causes, impacts, and solutions to climate change.

The CETF report's recommendations on this priority include enacting commitments to divestment and sustainable investment and demonstrating and advocating for justice-based climate action. Short-term actions include embedding climate justice values into investment screening, investing in just community projects, and publicly reporting on progress.

DIVESTMENT AND RESPONSIBLE INVESTMENT

- UBC signed the [UN Principles of Responsible Investing](#) and [Investing to Address Climate Change: A Charter for Canadian Universities](#). This commits UBC to incorporate environmental, social, and governance issues into investment decisions, and to encourage other universities to do the same.
- UBC's Board of Governors endorsed UBC Investment Management Trust's (UBC Investment Management) comprehensive [Responsible Investing Strategic Plan](#). The Responsible Investing Strategy sets priorities to reduce climate change related risk in UBC's portfolios while continuing to uphold fiduciary duties. Key pillars of the Strategy are (i) Divestment; (ii) Active

Ownership; (iii) Disclosure; (iv) Measurement; and (v) Leadership and Advocacy.

- UBC Investment Management published its inaugural [Responsible Investing Report](#) in May 2022 that outlines the Responsible Investing Strategy in detail and achievements made in executing the Strategy through December 2021.
- A new 45% Carbon Emissions Reduction target is now in place. As part of the Responsible Investment Strategy, UBC Investment Management set a goal to reduce the portfolio's carbon emissions by 45% by 2030. This ambitious goal put UBC at the forefront of Canadian universities, and spurred similar commitments by other universities. Through December 31, 2021, the UBC endowment's public equity carbon footprint - a measure of UBC's share of the carbon emissions owned through its equity investments - has decreased by 47% versus a baseline established in 2019. UBC Investment Management is actively working on expanding its portfolio of carbon measurement and reporting beyond public equities as robust data becomes available and common measurement methodologies are established in the investment industry.
- Over \$400 million transitioned: Since the beginning of 2020, UBC Investment Management has helped

II. Demonstrate Institutional Leadership



Credit: David Tindall

UBC grew its exposure to fossil fuel free and low carbon investment strategies to over \$400 million — representing approximately 40% of its public equity holdings. These investments include strategies that seek to invest in opportunities to help transition to a more sustainable global economy, as well as investments that are benchmarked against a Paris-aligned low carbon index that embeds an annual carbon reduction glidepath needed to achieve a 1.5 degree target by 2050.

- **Endowment Climate Risk Study:** In 2021 UBC Investment Management, in partnership with Ortec Finance, conducted a climate risk analysis on the UBC Endowment Fund that incorporated “climate aware” investment return assumptions and climate pathway scenario analysis to understand risks to future portfolio returns and make more informed decisions on the strategic asset mix. Ortec Finance is

a Netherlands-based firm with extensive expertise in climate risk modelling, developed in conjunction with Cambridge Econometrics, Duke University, and the Potsdam Institute for Climate Studies. UBC Investment Management is one of the first institutions in Canada to incorporate in-depth climate risk analysis into the strategic asset allocation decision-making process.

STUDENT-LED CLIMATE EMERGENCY PROGRAMS

- UBC continues to fund the [UBC Climate Hub](#), a unique student-led initiative with both student and non-student staff that empowers students to take systemic action on climate justice through a variety of innovative student-developed and led programs.
- The UBC Climate Hub provided advice on integrating a climate justice lens into the UBC Climate Action Plan 2030 and the UBC Campus and Community Planning District Energy System transition pathway analysis.

II. Demonstrate Institutional Leadership

“When UBC passed the current emergency declaration, that really got my attention. I think a lot of us are sort of waiting to figure out what that means, in real terms. I see the Centre as a place where we really figure that out.” - Naomi Klein, *the National Observer*, June 2021

NEW ACADEMIC CENTRE FOR CLIMATE JUSTICE

World-renowned climate activists and journalists Naomi Klein and Avi Lewis joined as faculty at UBC's Department of Geography in the new [Centre for Climate Justice \(CCJ\)](#) in the fall of 2021, co-leading this work with an interim executive committee to bring together activists, policy makers, elders, scholars and frontline communities. Klein is a best-selling author known across the globe for her work in climate justice and critiques of globalized capitalism. She has written eight critically-acclaimed books, including *The Shock Doctrine*, *On Fire*, *No is Not Enough*, and *This Changes Everything*. She was appointed as the inaugural Faculty of Arts Chair in Climate Justice in September. Canadian documentary filmmaker Lewis joined the university as a part-time faculty member and will teach courses focusing on social and political change, communication, and documentary filmmaking.

The UBC CCJ was approved by the Faculty of Arts on November 25, 2021 with support from Academic Excellence Funds, and the departments of Anthropology, Critical Indigenous Studies, Geography, History, the School of Public Policy and Global Affairs, Sociology, English Languages and Literatures, and the Institute for Gender, Race, Sexuality and Social Justice. The Centre for Climate Justice is an interdisciplinary initiative that aims to advance transformative social, political, and economic changes necessary to address the climate crisis and other environmental injustices while advancing equity and addressing ongoing oppressions. The Centre will directly support the

strategic priorities in the UBC Climate Emergency Task Force report, as well as the UBC 20-year Sustainability Strategy, Shaping UBC's Next Century (UBC's strategic plan), UBC Indigenous Strategic Plan, and the UBC Inclusion Action Plan, by supporting collaborative, interdisciplinary, and community-engaged research across diverse knowledge systems and geographies to meet the demands for climate justice within and beyond UBC.

- The CCJ's mission directly serves the goals laid out in UBC's Declaration on the Climate Emergency to “effect change beyond our institutional boundaries,” and to enact, “climate solutions that reflect our commitment to UNDRIP and the human rights of Indigenous Peoples.”
- The CCJ secured a Cluster Research Grant to support Climate Justice Partnerships to facilitate collaboration between frontline communities experiencing climate impacts and the UBC research community. As a research arm of the CCJ, this transdisciplinary collaborative conducts community-driven research focused on unequal impacts of warming and develops innovative policy responses to advance equitable and just climate action.
- Faculty with the CCJ secured three Community-University Engagement Support grants for emerging partnerships with First Nations and other research partners.

For more information contact: Sara Nelson, Research Manager, sara.nelson@ubc.ca

II. Demonstrate Institutional Leadership



Credit: UBC Okanagan Communications and Marketing

NEW UBC OKANAGAN DEGREE PROGRAM

UBC Okanagan has launched its new [Bachelor of Sustainability \(BSust\)](#), a first of its kind in Canada. The new degree is interdisciplinary to the core because no single academic discipline can address issues like climate change and biodiversity loss in their entirety. Students will choose from one of four concentrations: environmental analytics, environmental conservation and management, environmental humanities, or green chemistry. All students in the program are required to take an Indigenous Studies course that introduces them to concepts of Indigenous knowledge, which will contribute to advancing reconciliation with Indigenous Peoples.

INTERNATIONAL LEADERSHIP IN UNIVERSITY NETWORKS

UBC's President Santa J. Ono led the [University Climate Change Coalition \(UC3\)](#), a group of 22 large research universities across Canada, US, and Mexico collaborating to accelerate climate action at campus, regional, and international scales from 2020 to 2022. Under his leadership, a Climate Fellows program was created with one cohort focused on climate justice.

FEATURE



“But solving climate change isn’t easy. It requires challenging the status quo and completely transforming how we get our energy and sustain our economies. But what is the purpose of the university if not to forge new ways of doing things?” – Michelle Marcus, *The Talon*, November 2019

Student protestors at the 2019 UC3 Conference at UBC. Credit:

Student Activism and the Push for Divestment

The story of how UBC finally agreed to divest its nearly \$2 billion endowment from fossil fuels is an example of the momentous change that students on campus — in this case the student group Climate Justice UBC — can drive through perseverance, planning, and activism.

“We wanted to show students and other community members that we could leverage our collective power to create systemic change, change much bigger than what an individual can do alone,” said Michelle Marcus, an organizer with Climate Justice UBC who led the successful campaign for UBC to declare a climate emergency and commit to fully divesting from

fossil fuels, and went on to co-chair the UBC Climate Emergency Task Force. Michelle also noted: “The purpose of divestment is not to directly bankrupt the fossil fuel industry financially; it’s to politically bankrupt it by taking away social license.”

UBC’s endowment is the second largest of any Canadian university at nearly \$2 billion and as of 2016, the Sustainability and Education Policy Network estimated UBC to have the most endowment funds invested in fossil fuels – over \$120 million. In 2020, UBC announced plans to divest the endowment of fossil fuel investments entirely by 2030 and to reduce the emissions of its portfolio by 45% in ten years. Student groups are now calling on the university to speed up that timeline and complete their fossil fuel divestment by 2025.

FEATURE

\$1.5M awarded from Climate Emergency Fund Magnifies UBC's Climate Emergency Response

A major boost to UBC's climate emergency response has come from the [☑Climate Emergency Fund \(CEF\)](#). Elected UBC student leaders in the Alma Mater Society and Graduate Student Society with advocacy from the UBC Climate Hub, created the fund, mobilizing \$1.5 million in incremental funding from tuition for grants for student-chosen priorities from the CETF report. The CEF grants are for two years and expire in fall 2023.

Funds were awarded to seven groups, all of which significantly enhanced UBC's climate emergency response.

\$362,100 for the student led [☑UBC Climate Hub](#) provided core funding for two full-time staff and multiple part-time student staff positions, and increased its ability to provide climate-related community building, advocacy, and justice services.

\$323,500 for the [☑Interdisciplinary Collaborative Research PhD](#) supported the development of a new pilot collaborative PhD cohort on the climate emergency, the first of its kind at UBC.

\$281,143 for the [☑Sustainability Hub](#) went to accelerating and amplifying its core programs for students and faculty – Sustainability Ambassadors, Scholars, and Fellows – to concentrate more on climate action. New initiatives from this funding enabled student assistance to prepare an online [☑Mindful Consumption Guide](#) to help the UBC community be conscious about their consumer choices to reduce waste, pollution, GHG emissions, and unfair labour practices. This funding also supported one of UBC's UC3 Fellows, doctoral student Jenalee Kluttz, who developed a [☑Climate Justice Toolkit](#) intended for a broad range of institutions and organizations seeking to embed equity and justice approaches to their climate emergency responses.

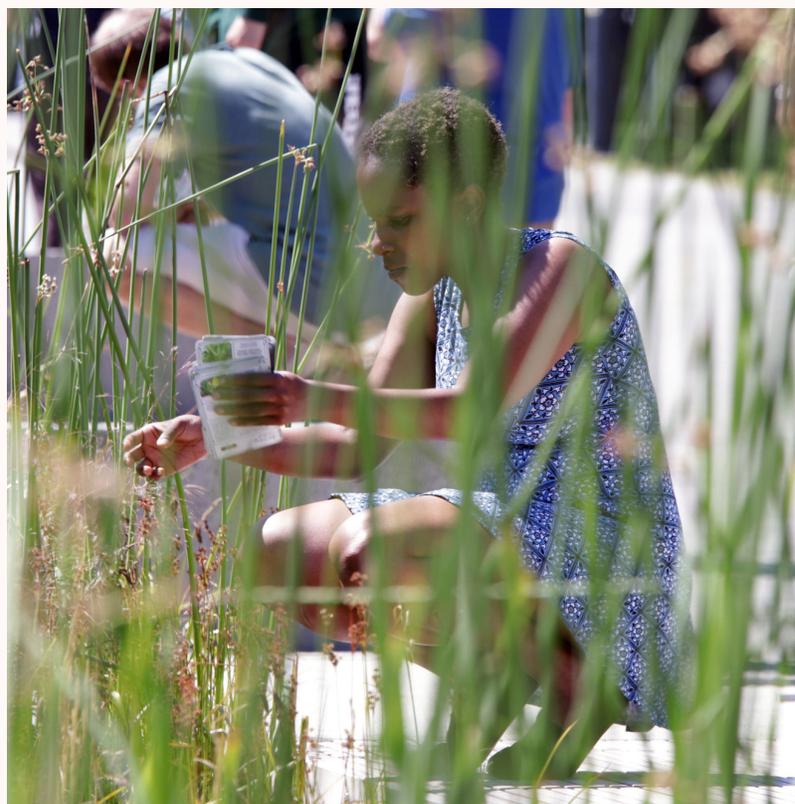
\$201,762 for the [☑Centre for Community Engaged Learning](#) allowed for the expansion of its Social Impact

Lab with a new focus on [☑Activating Student Change Agents on the Climate Emergency](#).

\$162,435 for [☑Campus and Community Planning](#) went to [☑SEEDS](#) student-led Interdisciplinary applied research, engagement, and knowledge mobilization.

\$143,500 for the [☑Public Scholars Initiative \(PSI\)](#) spurred the creation of a Climate Emergency Scholars Group. This group of UBC doctoral students' research extends beyond the academy and beyond traditional disciplinary approaches, to have a tangible impact for the public good through collaborative, action-oriented, and/or creative forms of scholarship in their dissertation work.

\$24,460 went to the student group [☑Climate Justice UBC](#) for funding to support coordination of their activities on divestment of fossil fuels, community reinvestment, and student engagement.



Credit: Sustainability Hub

Strategic Priority III

Establish Mechanisms and Processes that Ensure Indigenous Perspectives, Communities, and Worldviews Shape the Development and Implementation of Climate-related Initiatives and Policies

“The negative impacts of climate change disproportionately affect Indigenous Peoples, amplifying the need for Indigenous perspectives, communities, and worldviews to inform the development and delivery of institutional climate emergency plans, strategies, and activities. In addition, Indigenous peoples’, “legal position in settler societies and institutionalized colonialism limit their ability to adapt to and cope with climate change. This amplifies the need for Indigenous perspectives, communities, and worldviews within broader institutional climate emergency plans, strategies, and activities.”

- 2021 CETF Report

The scale of action needed to address the climate emergency requires new ways of thinking and doing that bridges Indigenous ways of knowing with science. This priority ties closely to UBC’s Indigenous Strategic Plan (ISP), and its rights-based approach to acting on the Truth and Reconciliation Commission’s Calls to Action, the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), and the National Inquiry into Missing and Murdered Indigenous Women and Girl’s report. When the ISP was adopted in 2020, UBC became the first university in North America to commit to implementing UNDRIP.

Students, faculty, and staff throughout UBC are exploring opportunities to apply UBC’s ISP and embed Indigenous perspectives into climate-related policies and initiatives.

III. Ensure Indigenous Perspectives Shape Climate Policy



ACTION 8: Provide free and publicly accessible educational tools, events and resources that promote the local and global implementation of Indigenous peoples' human rights. Sustainability Hub response: Climate Justice Series invited perspectives from a cross-section of UBC's Indigenous students and scholars, community leaders, and members of our Host and Partner Nations.

ACTION 10: Create dedicated strategic programming to catalyze research that is co-developed with and led by Indigenous communities locally and globally. Sustainability Hub response: Climate Emergency team exploring intersections between Indigenous Rights and Climate Justice, with a long-term goal of creating a standing Indigenous advisory climate committee, as CETF report recommends.

ACTION 22: Identify and make visible the generational connections of Indigenous peoples to culturally significant places across UBC campuses. Sustainability Hub response: Exploring a *xʷməθkʷəy̓əm* (Musqueam) Artist Residency at the Centre for Interactive Research on Sustainability, to create visual art to address climate change and the human relationship to the "more than human" world.

ACTION 23: Implement an Indigenous procurement strategy which prioritizes the provision of goods and services from Indigenous businesses and vendors. Sustainability Hub response: Developed a unit-wide Diverse Procurement policy.

The progress reported on this page relates to the Sustainability Hub's work to implement both the ISP and the CETF, and is just one example of these intersections.

Many others across UBC work along the intersections of Indigenous rights and the climate emergency. We invite you to share your experience of a broader UBC perspective by contacting climate.emergency@ubc.ca.

ACTION 12: Support research opportunities for students to become global leaders in the advancement of Indigenous knowledge systems. Sustainability Hub response: Expansion of Sustainability Scholars applied research internships program to embed Indigenous perspectives into climate policies in multiple projects.

ACTION 13: Co-develop research protocols and community-specific ethical research guidelines with interested community partners. Sustainability Hub response: Working with the Indigenous Research Strategic Initiative and others to respond throughout our work.

FEATURE



A photo of a Tsilhqot'in drum. The Tsilhqot'in National Government and UBC signed a memorandum of understanding in December 2021. Credit: [Laureen Carruthers](#)

Tsilhqot'in National Government and UBC sign [memorandum of understanding](#)

The Tsilhqot'in National Government (TNG) in central British Columbia is comprised of six First Nation communities: Xeni Gwet'in (Nemiah Valley), Tl'etinqox (Anaham), Tl'esqox (Toosey), Yunešit'in (Stone), ʔEsdilagh (Alexandria), and Tšideldel (Redstone). The Tsilhqot'in Nation was the first Nation in Canada to secure a court declaration of Aboriginal Title to a portion of their homelands after prolonged litigation.

The TNG and UBC signed a memorandum of understanding (MOU) at UBC's Vancouver campus in December, demonstrating their commitments to lighting new paths towards reconciliation and recognition of Indigenous self-determination with support from the Indigenous Research Support Initiative. The MOU is not related to the CETF report, but is an indication of UBC's support for Indigenous rights and the broad range of research priorities identified by the Nation.

A key feature of the MOU is to ensure that research is undertaken with cultural safety, an approach that recognizes and addresses systemic power imbalances and fosters a culture free of racism and discrimination,

thus creating a safe arena for Indigenous partners. In addition, the MOU establishes a foundation for future research collaborations that incorporate Tsilhqot'in knowledge, community needs and sustainable environmental practices and opportunities within Tsilhqot'in Nən (lands).

UBC has been working with TNG for several years on multiple research collaborations including on Indian day hospitals, unmarked graves and residential schools, and fisheries. Climate emergency collaborations, the focus of this report, includes development of a housing design prototype with UBC faculty and students to be built on the Tsilhqot'in plateau, responding to the increasing threat of climate change-induced wildfires faced by the community, Indigenous-led impact assessment, wildlife monitoring in the face of climate change, innovations in Indigenous housing governance practices, and project ownership models for renewable electricity generation in remote, Indigenous communities. This past summer, three UBC graduate students worked as Sustainability Scholars on applied research internships with TNG focussed on habitat management; wildlife management for bears & ungulates; and soil amendment.

Strategic Priority IV

Expand, Strengthen, and Centre Climate Research at UBC

UBC is globally recognized as a hub of climate research and action. Its climate researchers and scholars collaborate with government, industry, academic, and community partners to deepen understanding of the climate emergency.

The university is further developing the capacity of faculty members, students and postdoctoral fellows to engage with climate change research and scholarship. One of the specific CETF Recommendations, put forward by several CETF Working Groups, was to establish a body to expand, strengthen and coordinate comprehensive, cross-campus and interdisciplinary climate research that would provide new opportunities for community engaged scholarship, prioritizing IBPOC individuals. The CETF report also recommended this body should have an attached Climate Emergency Fellows program for PhD students and postdoctoral researchers.

A two-day [Climate Research faculty symposium](#) led by the Office of the Vice President, Research and Innovation in the fall of 2021 was a first step to better connect UBC climate researchers and initiate a conversation about next steps.

FACULTY CLIMATE EMERGENCY RESEARCH INITIATIVES

Numerous research programs at UBC relate to the climate emergency and myriad faculty members are involved in climate research. Cataloguing all relevant research is beyond the scope of this report. The following is a sampling of these initiatives:

- Applied Science researchers have launched a new \$23 million [renewable energy hub](#) to transform an entire city block at UBC into a smart energy district, including the province's first-ever hydrogen refueling station for light and heavy-duty vehicles, which will utilize clean-renewable electricity from an adjacent solar parkade. The energy hub will become a city-scale "living laboratory" that explores critical links between energy, transportation, and urban design.

The Sustainability Hub invites you to share your climate research initiatives and achievements: email climate.emergency@ubc.ca.

IV. Expand Climate Research



Credit: Amandine Drew

- Energy and technology are key climate research topics at UBC Okanagan. The [Laboratory for Solar Energy and Fuels](#) is developing innovative solar energy conversion tools and processes that incorporate photovoltaics, solar fuels, and thin film semiconductors to achieve emissions reductions. The [Green Construction Research and Training Centre](#) provides multi-disciplinary research and training for students and researchers focused on green construction. UBC Okanagan's Sustainable Transport Safety Lab, Hydrogen in Motion Inc., and Southern Railway of BC are developing the [first in-service hydrail locomotive](#) in North America – using a zero-emission fuel cell/battery hybrid to replace a traditional diesel internal combustion engine.

- Many faculties have research groups focused on climate emergency issues, as the examples below illustrate.

Faculty of Applied Science's [MÉridaLabs](#) on energy systems and [BIM TOPiCS Lab](#) on building information modelling

Institute for Resources, Environment and Sustainability's (IRES) multiple research groups include a focus on climate change

Psychology's [Behavioural Sustainability Lab](#)

The [Centre for Environmental Assessment Research \(CEAR\)](#)'s [Adaptation Working Group](#)

Geography's [research groups](#) include the Climate and Coastal Ecosystem Lab, Climate and Cryosphere Lab, and the Schwartz Geospatial Ecology Lab

School of Architecture and Landscape Architecture (SALA) [ElementsLab](#), an applied urban design and environment research group

Forestry's [Urban Nature Lab](#) and [Collaborative for Advanced Landscape Planning](#)

[Okanagan Institute for Biodiversity, Resilience and Ecosystem Services \(BRAES\)](#)

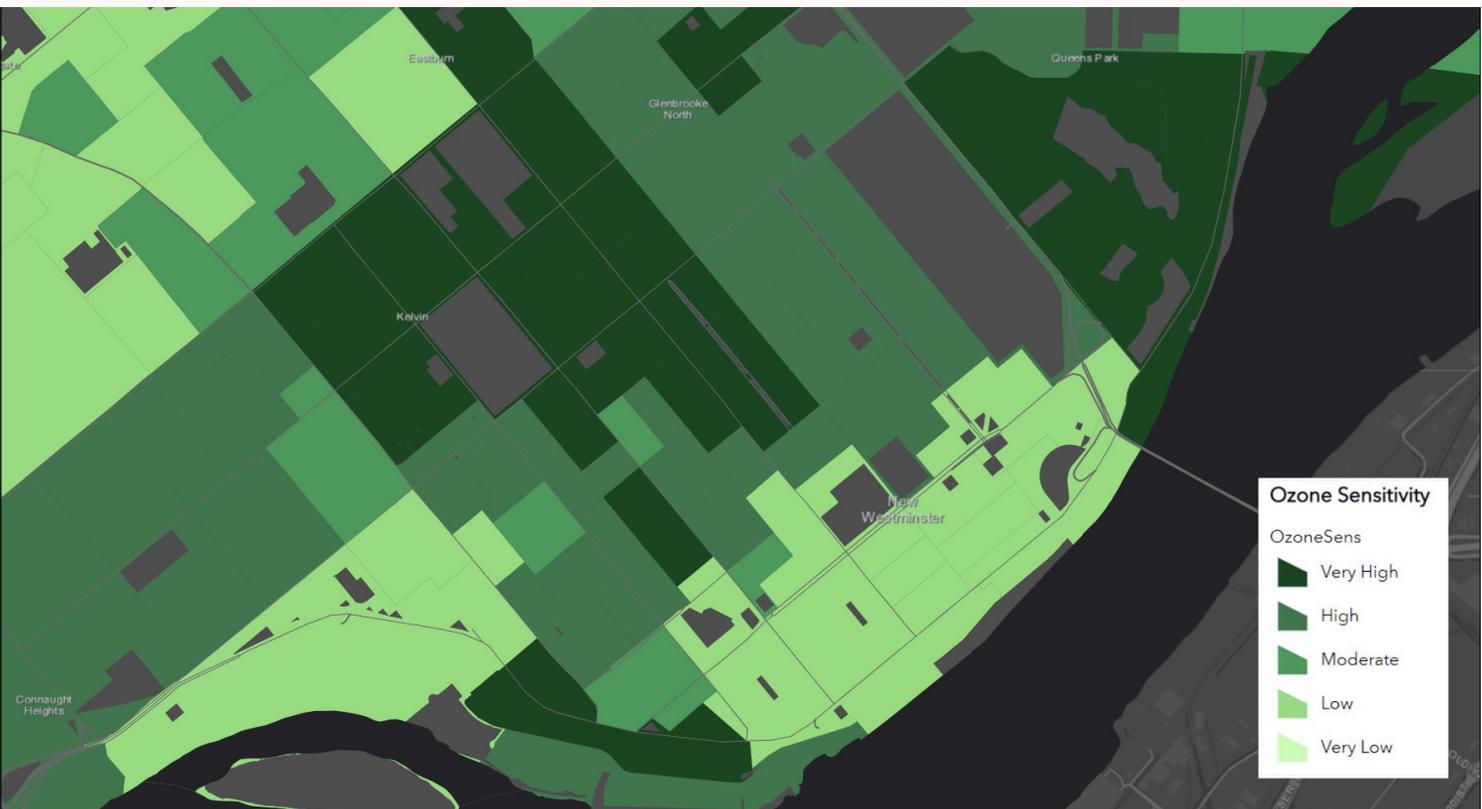
Sauder School of Business's [Centre for Social Innovation and Impact](#)

School of Community and Regional Planning SCARP's [Indigenous Planning Practicum](#) and [Housing Research Collaborative](#)

The [Urban Data Lab](#) aims to develop an integrated data platform to facilitate the use of UBC campus building and infrastructure data for research purposes with faculty from Sauder, SALA, and SCARP.

Institute of Fisheries and Oceans' groups include the [Changing Ocean Research Unit](#), [Hakai Coastal Initiative](#), and [Climate and Coastal Ecosystem Lab](#)

FEATURE



Credit: Vancouver Coastal Health

Illustrating Regional Health Disparities from Climate Hazards in Metro Vancouver

UBC's School of Population and Public Health led by Professor Michael Brauer produced a vulnerability assessment of four climate-related health hazards with the Vancouver Coastal Health (VCH) and Fraser Health (FH) regions and multiple partners. VCH and FH commissioned the series of [story maps](#) that spatially represent community vulnerability to four important climate hazards: higher summer temperatures, wildfire smoke events, ground level ozone pollution, and coastal and river flooding, which can lead to several negative physical and mental outcomes, including injury, illness, and death, as well as mental health impacts like stress, anxiety, and trauma.

A major goal of this work was to show that climate hazards do not affect all people equally and that

efforts to support and protect health outcomes need to consider the social determinants of health. This broad range of personal, social, economic, and environmental factors determine individual and population health and include things like income and social status, access to health status, housing, and other factors.

These vulnerability maps are a key tool that can be employed to: raise awareness of the climate hazards that communities are facing and advance conversations about climate change and health; mobilize multi-sectoral efforts to improve community health outcomes; help pinpoint some of the physiological and social determinants of health that play key roles in climate vulnerability; and help identify the neighbourhoods or communities that may need more resources or support to help cope with current and future climate-related stresses and shocks.

IV. Expand Climate Research



Credit: UBC Farm

STUDENT CLIMATE EMERGENCY RESEARCH INITIATIVES

Numerous student research initiatives from UBC's student body of 66,000 individuals relate to the climate emergency. Here are some examples from 2021/22.

- Brainstorming how to include student researchers and use a wider range of techniques to talk about research, the Sustainability Hub and the UBC Climate Hub organized the first-ever [☑ Student Climate Research Slamposium](#) as a companion event to the faculty Climate Change Research Symposium, described on p.29, in partnership with Campus + Community

Planning and the Centre for Community Engaged Learning. With student presenters sharing podcasts, haiku, colourful visual art, and many more creative expressions, the Slamposium generated exhilaration, a welcome antidote to the climate anxiety that haunts so many students today. More than 80 attendees joined to hear nine UBC students from undergraduate and graduate programs give engaging 5-minute presentations.

- Students in the [☑ Climate Justice Research Collaborative \(CJRC\)](#), a program developed and run by the UBC Climate Hub, collaborate on for-

IV. Expand Climate Research

credit interdisciplinary climate research projects with community partners under the supervision of faculty and the mentorship of graduate students. In 2021, the CJRC hosted a cohort of 18 students on seven interdisciplinary, community-engaged research projects, mentored by five graduate students.

- Run by staff in Campus + Community Planning, the ☑SEEDS program pairs students with an operational staff “client” who has a project that needs research, and a faculty member willing to supervise the student on the research project for credit in a course. SEEDS instigated a two-year pilot project to inform UBC’s Climate Action Plan 2030 through Community-Based Action Research. The pilot project will focus on two key interconnected research clusters: 1) ecological and human health and wellbeing, and 2) sustainable, just, and secure food systems.

PACIFIC INSTITUTE FOR CLIMATE SOLUTIONS RESEARCH AT UBC

The ☑Pacific Institute for Climate Solutions (PICS) convenes solution seekers and research partners to co-design, co-develop, and co-deliver impactful climate solutions in British Columbia. The UBC PICS Manager works out of the Sustainability Hub office and is integrally involved in collaborating on climate work at the Hub, publicizing PICS, and supporting PICS-funded projects at UBC. Since 2021 there have been nine UBC PICS projects, including three Theme Partnership projects (each funded at \$1,000,000 over four years); five Opportunity Projects Program projects (each funded at \$180,000 over three years); one Fast Track Initiative (\$25,500 over one year); and one Covid/Climate project (\$25,000 over six months).

Examples of PICS projects are described below.

- UBC led research to inform adaptation and mitigation strategies for a multifamily building tool was developed for BC Housing, called the ☑Integrated Building Adaptation and Mitigation Assessment (IBAMA) Framework.

- UBC’s ☑Living with Water research team, a project of the UBC Coastal Adaptation Lab, is developing inter-jurisdictional governance frameworks for adaptation to sea level rise and flooding, integrating community values and Indigenous knowledge and perspectives in coastal flood risk assessment, and developing decision-support tools for alternate flood adaptation solutions (e.g. multifunctional dikes and nature-based solutions).

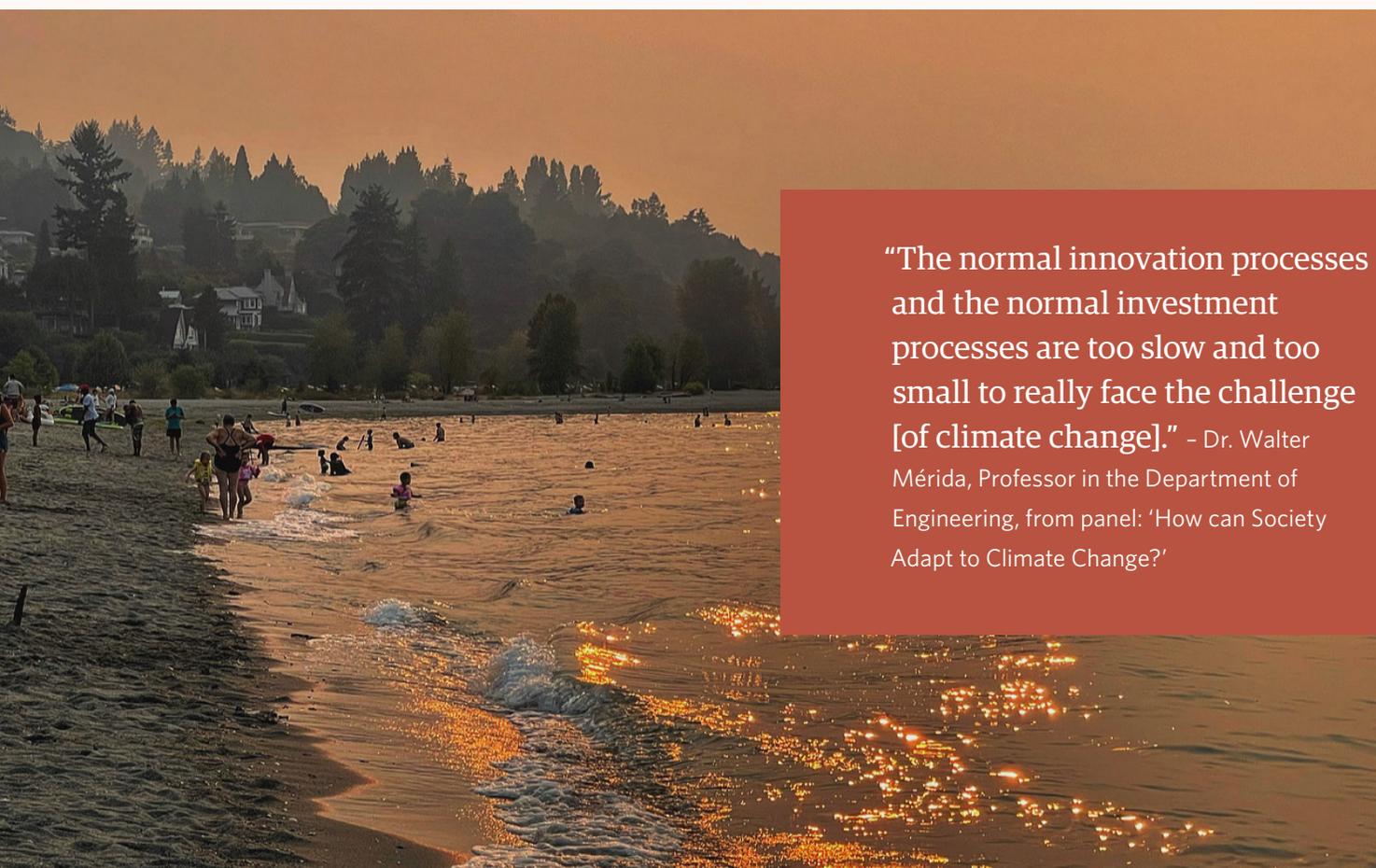
- The ☑Tellurium Boosted Li-S Batteries for Zero Emission Vehicles project aims to develop a solid-state, lithium tellurium-sulfur (Li-TeSx) battery with doubled energy capacity and higher safety than the conventional lithium-ion batteries powering electric vehicles today.

COLLABORATIVE CLIMATE EMERGENCY RESEARCH INITIATIVES

- Inspired by the Worldwide Teach-In for Climate/Justice, the ☑UBC Okanagan Climate/Justice Teach-In was developed as a chance for all community members – faculty, staff, students, and alumni – to learn how UBC Okanagan faculty members are tackling this challenge, and to discuss how to successfully implement the newly launched UBC Okanagan Climate Action Plan 2030, especially in the areas of campus food, waste, and transportation. This event was the first activity of the newly formed UBC Okanagan Climate Action Plan 2030 – Engagement working group.

- The ☑Building a Carbon Capture and Conversion Ecosystem project was awarded funding from the inaugural Campus as a Living Lab (CLL) competition. It will connect a collaborative cluster of Carbon Capture and Conversion (CCC) researchers with local governments in the region such as Metro Vancouver and Small-Medium Enterprises to develop CCC technology and enhance knowledge exchange. Through this work, the project will build capacity in the CCC industry to address emission reductions on the campus scale.

FEATURE



“The normal innovation processes and the normal investment processes are too slow and too small to really face the challenge [of climate change].” – Dr. Walter Mérida, Professor in the Department of Engineering, from panel: ‘How can Society Adapt to Climate Change?’

Credit: Julia Kidder

“If we, as scientists, are seeking solutions about how communities can adapt to climate change, are we actually involving the community in the process of finding solutions?” – Dr. Danielle Ignace, Indigenous Natural Sciences Professor, UBC Department of Forest and Conservation Sciences, member of the Coeur d’Alene tribe on her father’s side and the Menominee tribe on her mother’s side, from panel: ‘How can Society Adapt to Climate Change?’

Two-Day Faculty Research Symposium

A Task Group from UBC’s Office of Vice-President Research & Innovation organized a two-day online [Climate Change Research Symposium](#) that brought together climate researchers from multiple faculties in October 2021. The goal was to enhance the impact UBC researchers can have on climate change through collaborative research and innovation. The symposium’s panel discussions and keynote speakers featured the voices of over 40 UBC researchers on topics ranging from ‘Breaking the Energy/Climate Change Logjam’ to ‘How Can Society Achieve a Fair and Responsible Transition?’

Strategic Priority V

Foster a Culture of Engagement and Advocacy on Climate Action

“Success or failure is not an act of nature. It’s in our hands. The path of progress is not always a straight line. Sometimes there are detours. Sometimes there are ditches.” – António Guterres, United Nations Secretary-General, 2021 UN Climate Change Conference of the Parties (COP26)



Antonio Guterres, Secretary-General of the United Nations, speaks at the Opening Ceremony for COP26 at the SEC Glasgow. Credit: [Karwai Tang/UK Government](#)

This strategic priority focuses on creating a culture that empowers climate justice action by students, staff and faculty, and encourages advocacy efforts to accelerate a just climate emergency response on UBC’s campuses and beyond.

To succeed in fostering this culture, UBC’s community members need tools, resources, and support. The university must further engage systemically marginalized communities, uphold space for difficult conversations, invest in rebuilding relationships, and create spaces for feedback of all kinds.

MUNICIPAL, PROVINCIAL, NATIONAL, AND INTERNATIONAL ADVOCACY AND ENGAGEMENT

- [UBC Engagement at COP26](#): UBC sent a delegation of seven to the 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow in November 2021. As official observers, UBC delegates deepened their understanding of how global climate negotiations work, shared UBC’s work on the climate emergency, and shared their experiences with the wider UBC community. In connection with this event, the Sustainability Hub produced [‘COP26: A UBC Guide for Citizens and Delegates.’](#)
- Submission to the BC Climate Preparedness and Adaptation Strategy: UBC, led by the Sustainability Hub, prepared an institutional response to the Province

V. Foster Culture of Engagement and Advocacy

of BC's consultation process on the province's capacity to prepare, adapt, anticipate, and respond to climate change. It highlighted UBC's research programs and expertise and recommended greater collaboration on issues such as devastating heat domes and wildfires.

- Involvement in Vancouver's Climate Emergency Action Plan: UBC faculty and staff participated in a City of Vancouver academic briefing to provide feedback on climate emergency strategies under consideration by City Council. Many faculty and staff are part of the City's Amplifier Network, focusing on ways to participate in and amplify opportunities that are part of the Vancouver [Climate Emergency Action Plan](#).

FACULTY IMPACTS BEYOND THE CLASSROOM

- Members of faculty are advisors to Canadian governments on climate change. For example, Professor Simon Donner is a member of Canada's Net-Zero Advisory Body, which advises the Ministry of the Environment and Climate Change, and Professor Kathryn Harrison was appointed by the BC Minister of Environment and Climate Change Strategy to the province's 20 member Climate Solutions Council.
- Members of faculty hold United Nations posts related to the climate emergency. The UN Human Rights Council appointed UBC Political Science Professor Sheryl Lightfoot as a member of the UN expert Mechanism on the Rights of Indigenous Peoples, which advises member states on the United Nations Declaration on the Rights of the Indigenous Peoples. The UN Human Rights Council extended the appointment of UBC Professor David Boyd as the Special Rapporteur on Human Rights and the Environment for a second three-year term.
- Faculty have contributed to numerous IPCC reports.

STUDENT ENGAGEMENT

- In the spirit of community-building, the Sustainability Hub, the UBC Climate Hub, and AMS hosted UBC's first [Climate Emergency Week](#) featuring conversations, actions, and celebrations. These events coincided with AMS Sustainability Week, February's Move UBC campaign, and Black History Month.
- A [Student Academic Climate Advocacy Toolkit](#) and other resources and workshops have been developed by the UBC Climate Hub to support every undergraduate student to understand and engage with climate change and climate justice, no matter their degree program.

CAMPUS ENGAGEMENT

- Campus + Community Planning has new and expanded communications, engagement, and outreach programs. In both Climate Action Plans 2030 (CAP 2030 and UBCO CAP 2030), UBC has set a target that "by 2030, three quarters (75%) of UBC faculty, staff, and students will be aware of UBC's climate action goals and participating in UBC's evolving and expanding culture of sustainability." UBC's climate-related engagement and outreach programs have demonstrated successes in reducing energy and emissions from UBC operations through energy conservation initiatives and campaigns delivered by programs including Green Labs, Sustainability Coordinators, and UBC residence hall engagement. Get involved at [UBCV](#) and [UBCO](#).
- Students at UBC, SFU, and the University of Victoria launched the [People's Endowment Campaign](#) on active community reinvestment in late 2021. AMS endorsed the campaign and asked the UBC Board of Governors to take its Five Calls to Action into consideration.
- The Sustainability Ambassadors organized events including: [Visual Storytelling for Climate Justice](#), which was a workshop to foster climate justice action, and [Sustainability and Society: A Resource for Collective Liberation](#), which highlighted stories of

V. Foster Culture of Engagement and Advocacy



Yasmina Seifeddine presenting at 2021 Climate Emergency Town Hall 'From Declaration to Transformation.' Credit: Sustainability Hub

social change and action to build community amongst marginalized groups and empower young people to act in their communities.

- The Sustainability Ambassadors, AMS Sustainability, SDG Alliance, and Global Lounge organized [SDG Week](#) in March in 2021 and 2022, featuring a week-long series of events including a Hack-Earth-On and Career Connections panel, among other events, with several hundred participants.
- A snap Climate Emergency Town Hall, [From Declaration to Transformation](#), presented by Climate Justice UBC and the UBC Climate Hub included speakers Anjali Appadurai, Avi Lewis, Naomi Klein, Kanahus Manuel, Kai Nagata, Yasmina Seifeddine and Chief Ninawa Huni Kui, was held in 2021 following the devastating floods in BC. Panelists considered the following: With BC on the frontlines of climate breakdown and fossil fuel extraction, how do we keep safe? What justice-based plans will shift us into emergency footing?

FACULTY ADVOCACY

- Several faculties at UBC have formed Climate Action Committees or Teams, including: [UBC Library](#), [Earth, Oceans and Atmospheric Sciences](#), [Geography](#), and [Asian Studies](#). The Sustainability Hub assists these Committees and supports them with sharing their experiences, disseminating materials, and advises faculties exploring committee formation.
- The Inter-departmental Climate Committee (IDCC) is an informal group that began meeting in 2021 with a desire to connect with other units and departments and share best practices, inspire each other, and leverage collective passions and capacities to prioritize the climate emergency in our departments and across the University. These bi-monthly meetings are open to all and provide an opportunity for participants to share progress on and find support for climate work.

FEATURE

“Now, the problem is that the realm of the supernatural beings, the earth and the oceans, is threatened by climate change today... and I’m encouraged and am happy that there are so many people here today who can step in and find ways together to find a solution to climate change.”

– Terri-Lynn Williams-Davidson, Artist, Counsel to the Haida Nation, Masters student, Peter A. Allard school of law, citizen of the Haida Nation, from panel: ‘Just Is ≠ Justice’



Credit: David Tindall

Climate Justice Series viewed by thousands across the UBC community

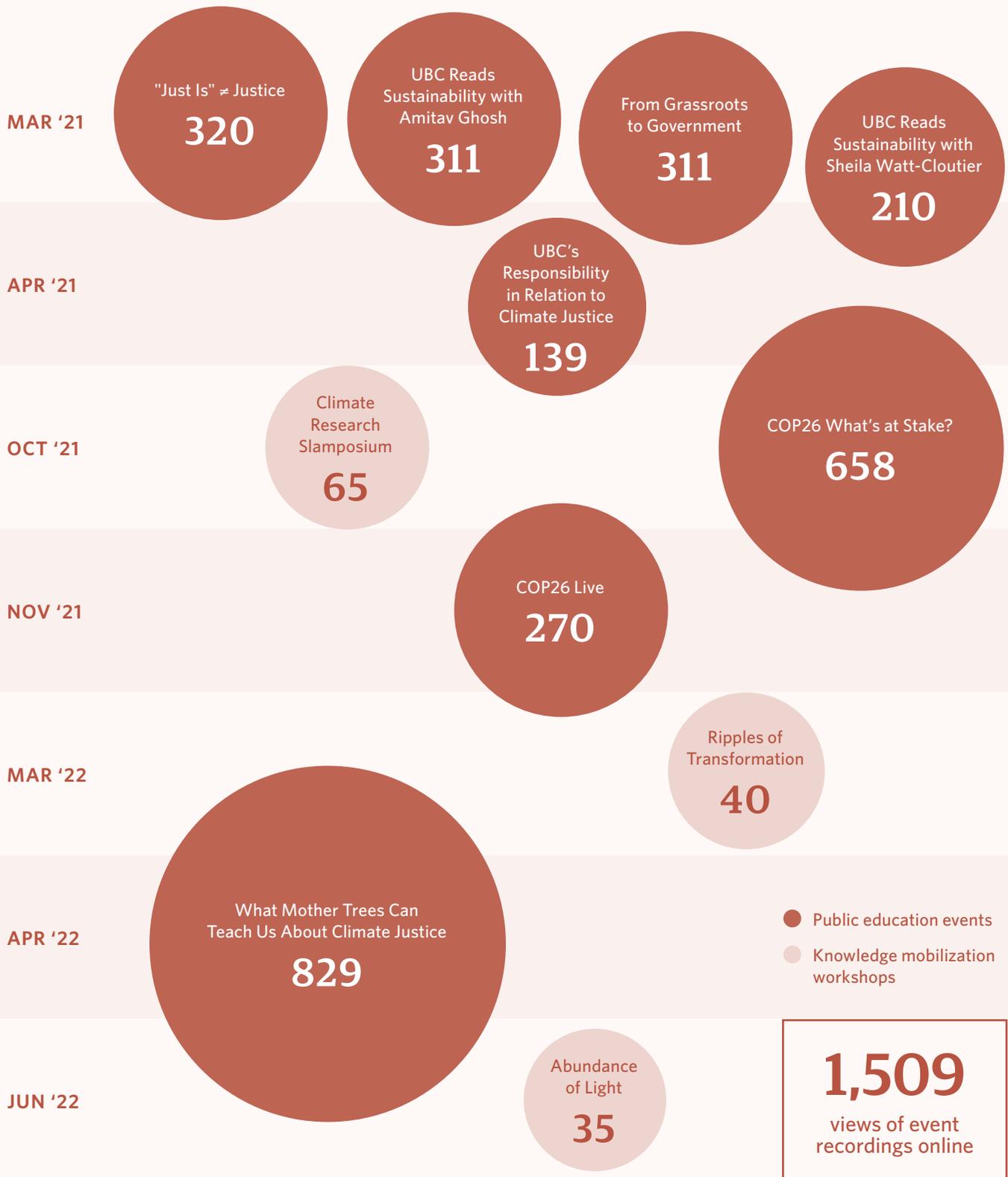
The Sustainability Hub launched the Climate Justice Series, which reached thousands of students, faculty, staff, and community members. Ten webinars have been run with plans for more. Speakers to date have included students, professors, alumni, elected politicians, writers, and activists.

The inaugural event [‘Just Is’ ≠ Justice](#) featured UBC Political Science Professor Kathryn Harrison, UBC PhD law student Temitope Onifade, UBC graduate law student and counsel to the Haida Nation Terri-Lynn Williams-Davidson, and UBC alumna and environmental lawyer Eugene Kung.

Topics have ranged from [‘What is UBC’s responsibility to climate justice?’](#) to [‘COP26 Live, From Grassroots to Government’](#), featured MLA Bowinn Ma, former Vancouver city councilor Andrea Reimer, and current Vancouver City Councillor Christine Boyle. Notable authors who have participated in the series through UBC Reads Sustainability include [Amitav Ghosh on *The Great Derangement: Climate Change and the Unthinkable*](#) and [Sheila Watt-Cloutier on *The Right to be Cold*](#).

[‘COP26 What’s at Stake’](#) attracted a particularly wide audience. Held in partnership with the Sierra Club of BC and West Coast Environmental Law, the webinar welcomed a diverse mix of climate leaders including MP Elizabeth May, climate activist Anjali Appadurai, Assistant Professor in UBC’s Department of Earth, Ocean and Atmospheric Sciences Rachel White, and environmental lawyer and climate law expert Andrew Gage.

CLIMATE JUSTICE EVENT ATTENDEES



FEATURE



Credit: UBC Farm

SEEDS + more sustainable food systems

SEEDS has led work on the UBC Climate Action Plan 2030 Food System targets and actions, including an ambitious food GHG emissions target and bold actions that span climate mitigation and adaptation. This year, staff at SEEDS also created UBC's first preliminary pre-consumer food waste baseline and preliminary emissions assessment on food waste to inform a UBC Food Waste Prevention and Reduction Strategy and opportunities to reduce UBC's pre-consumer waste emissions. The group developed UBC's first [Climate-Friendly Food Label](#). SEEDS also developed UBC's first methodology and framework to assess greenhouse gas emissions for menu ingredients and unveiled a new [Support Climate-Friendly Foods](#) webpage that includes a series of tips to promote climate action in the food system. Finally, they developed a preliminary GHG baseline associated with UBC's food related transportation emissions, including the first data on emissions associated with external food meal services to campus residents that will inform opportunities to reduce these emissions and expand the baseline to other food transportation.

FEATURE



Credit: The Morris and Helen Belkin Art Gallery

“Looking to the natural world, one of the first signs of life after a wildfire is a shock of magenta blossoms among the char. Making the most of disturbance, Fireweed seeds take root in scarred lands, giving rise to vegetation that provides much needed sustenance and habitat for flora and fauna. It is the beginning of ecological recovery. Balm for the burn.” – Holly Schmidt

Fireweed Fields

Part of the Morris and Helen Belkin Art Gallery’s Outdoor Art Program, [Fireweed Fields](#) is a response to the climate emergency by Outdoor Artist in Residence Holly Schmidt. By transforming ‘low biodiversity’ UBC lawn and field sites into Fireweed fields, the project encourages increased biodiversity through gradual succession as a metaphor for the resurgence of life after a crisis.

This installation acknowledges the global climate crisis: by ripping through the fabric of maintained lawns and tidy ideals, it plants initial seeds for change and catalyzes dialogue. Over the project’s multi-year life span, these fields will grow into diverse and established meadows and will foster a diversity of plant, animal, and insect life on campus that cannot be matched by monocultures of grass.

Through an annual summer intensive with diverse UBC faculty and artists, the project invites dialogue and experimentation across art and science. Participants slow down with walks, talks and meals, and reflect on their relationship with plants and other non-human beings.

This dramatic transformation is accompanied by *Forecast*, a series of poetic texts that use the grammar of weather reporting to speak to the sensorial experience of weather on human and non-human bodies at the UBC Vancouver campus, prompting thought about the impact of climate change. The texts appear on the windows of the Belkin and CIRS. The Sustainability Hub is a partner in *Fireweed Fields* and *Forecast* and has co-organized events such as forest walks and artist dialogues as part of the project’s extensive public programming.

Strategic Priority VI

Support Community Wellbeing in the Face of the Climate Crisis

Climate change has both direct and indirect implications on mental health and wellbeing. Climate change impacts increase and magnify community risk of depression, anxiety, PTSD, fear, eco-grief, stress, irritability, anger, and the expression of emotional distress as physical pain, like stomach or headaches. Increasingly, climate change is generating complex forms of personal and community trauma. The topic of how to navigate climate anxiety remains a high priority for students.

A holistic approach to wellbeing must be community-based, intersectional and systemic, with a focus on improving wellbeing through community building and collective action. UBC has emergency plans in both Vancouver and the Okanagan to respond to climate-related events and hazards. As the frequency and severity of climate-related events increase, systematically integrating community resilience and wellbeing to advance risk reduction and emergency preparedness is a priority.

UBC is developing mental health, resilience, and eco-anxiety supports, skills, and services for community members through a lens of climate and racial justice, and promoting greater public discourse around climate change and public health impacts.

- As part of the [Climate Creatives Workshop Series](#), the UBC Climate Hub held six two-hour workshops

to encourage students and community organizers to dream just and resilient futures beyond fossil fuels, mass extinction, policing, segregation, and exclusion. Mediums included filmmaking, creative fiction, poetry, and comic-making.

- The UBC Climate Hub hosted [Nature Prescriptions](#), a series of hosted group walks through campus green spaces, gardens, and parks with a specific focus on learning about nature – including trees, plants, and creature relations – and the mental health and wellbeing impacts of climate.

- The UBC Climate Hub ran a climate mental health and resilience workshop during [Thrive](#) month in partnership with UBC Wellbeing in November 2021. UBC Wellbeing’s holistic approach encompasses mental, physical, and community health and recognizes that climate change is one of the biggest health risks the UBC community faces.

- Stakeholders on the UBC Wellbeing Mental Health and Resilience Committee are in the process of developing mental health literacy training, program learning outcomes, and competencies for students, staff and faculty, and creating a shared hub for training resources. This project will embed climate-related mental health and wellbeing resources visible to all UBC campus community members.

VI. Support Community Wellbeing



Sustainability Scholar Judy Wu. Credit: Sustainability Hub

- A UBC Canvas module on [Health Care and Climate Change](#), prepared by UBC medical student Valerie Lai (UBC MD 2020), introduces the health care system's contributions to climate change and initiatives that address the issue.
- Sustainability Scholar Judy Wu, a Master's student in public health worked on a project on climate anxiety, [featured in a film](#) prepared by the Sustainability Hub. At an event organized by the Fraser Basin Council, SHIFT Collaborative, and the BC Climate and Health Network, Judy was among a group of panelists discussing the anxiety of living in communities impacted by slow and steady climate changes, the trauma of climate related disasters such as wildfires, flooding and heatwaves, and the existential crisis many feel about the future of the planet.

FEATURE

“Hopefully, this resource might offer a touchpoint for those looking to explore, navigate and support themselves or others as we all navigate the many impacts of climate change.” - Climate Wellbeing Resource Kit, curated by Meghan Wise, UBC Climate Hub Coordinator



Credit: UBC Recreation

UBC Climate Hub’s Climate Wellbeing Engagement Network and Climate Anxiety Work

Run by the UBC Climate Hub, the Climate Wellbeing Engagement Network connects the UBC community to resources and opportunities that support students, staff, and faculty with navigating the mental health and wellbeing impacts of climate change. Their Community Chats program further empowers participants to make connections outside of their immediate job or discipline, build networks, share stories from their lives, and see themselves as part of an interconnected climate action community.

The [Climate Wellbeing Resource Kit](#) is one of the many mental health and wellbeing resources made available through the Hub. Other online resources feature topics such as climate anxiety and navigating the mental health and wellbeing impacts of forest fires, flooding, heatwaves and air pollution, developed as part of UBC Climate Hub’s Climate Wellbeing Series.

Moving for our minds, bodies and the planet

Recognizing the intersectional nature of movement and its connection to sustainability, this year’s [Move UBC](#) campaign led by UBC Wellbeing incorporated messaging around “moving for the planet” to promote movement and active transportation as a means to reduce emissions while improving our health. Move UBC is an annual, university-wide campaign to increase physical activity and reduce sedentary behaviour among students, faculty, staff, and community in ways that feel comfortable, empowering, and motivating.

With Move UBC coinciding with Climate Emergency Week, stakeholders from the UBC Wellbeing Physical Activity Committee, Sustainability Hub, and the UBC Climate Hub partnered on various events including hosting [Research Roundtable: Physical Activity and Climate Action](#). This event highlighted the intersections between physical activity, climate action and social justice, encouraging UBC communities to explore ways of moving that positively impact our minds, bodies, and the planet.

Strategic Priority VII

Expand Climate Education Opportunities and Resources for the UBC Community and Broader Public

“We can continue pushing our earth out of balance, with greenhouse gases accelerating each year, or we can regain balance by acknowledging that if we harm one species, one forest, one lake, this ripples through the entire complex web. Mistreatment of one species is mistreatment of all.

The rest of the planet has been waiting patiently for us to figure that out. Making this transformation requires that humans reconnect with nature - the forests, the prairie, the oceans - instead of treating everything and everyone as objects for exploitation.” - Suzanne Simard, professor, UBC Department of Forest and Conservation Sciences from her 2021 book *Finding the Mother Tree: Discovering the Wisdom of the Forest*

Educators at UBC are committed to prepare their students to address intersecting global challenges such as the climate crisis, Indigenous rights and recognition, systemic racism, wealth inequality, and the global COVID-19 pandemic.

UBC is acting on the CETF report to increase access to climate education within all disciplines, develop climate education pedagogy and curriculum, and expand climate-related professional development opportunities. UBC is committed to improve climate and ecological literacy in its own community and throughout the region.

GRANTS FOR FACULTY

- **Climate Education Grants** provide up to \$5,000 to UBC Vancouver faculty members to strengthen climate change content and teaching approaches into existing undergraduate and graduate courses. Sixteen grants were awarded in 2021 and early 2022. Recipients include:

A second-year math course that serves 100 students was revised to include meaningful climate modelling examples throughout the course;

The upgrading of climate literacy components in four large first-year Earth, Ocean, and Atmospheric Sciences courses which collectively serve over 2,500 students per year at UBC Vancouver;

VII. Expand Climate Education

A full revamp of a module on 'Modern Climate' in an Earth Ocean Sciences class with 150 students;

New readings and discussions in 'Literatures of Environmental Protest,' an English class with 75 students;

The redesign of the Library and Information Studies' course 'Information Policy,' to reorient its learning objectives, case studies, and instructional material to UBC's commitments to climate justice; and

The enhancement of the course 'Communities and Social Development: Debates, Approaches and Fields of Practice' so that students in the school of Social Work and other disciplines can complete community-based projects focused on climate justice.

- [Sustainability Education Grants](#) support curriculum development that incorporates experiential, applied, and/or interdisciplinary sustainability education principles. For example, the [Community Climate Hacks](#) project aims to develop an interdisciplinary field course on community engagement for Urban Forestry and Wood Science students to help residents design and install small neighbourhood climate action projects.

CLIMATE EMERGENCY ACCOUNTABILITY AND RESOURCES

- The [Sustainability Dashboards](#) are a new open data platform that amplifies achievements, increases transparency, and supports research, learning, operations, and industry partnerships. The Sustainability Hub has compiled new operational and curricular datasets to report on performance against key institutional sustainability goals, in partnership with the Urban Data Lab, Campus + Community Planning, Energy & Water Services, and the UBC Okanagan Sustainability Office. The platform illustrates progress on goals for GHG emissions, transportation, curriculum, housing, childcare, and more. Users can explore datasets and visualizations to understand sustainability trends and download the latest open data for further analysis. Under the "curricular" category, users can

learn how many sustainability-related courses are offered at UBC in the current calendar year at both the Vancouver and Okanagan campuses as well as metrics on sustainability-related degree programs.

- The [Climate Emergency](#) website is a source of news, events, resources, and stories and is continually updated and expanded with content from multiple stakeholders. It hosts the full 178-page CETF Report.

- For 2022/23 reporting, the Climate Emergency team is developing a framework to monitor, evaluate, and learn from the implementation of CETF recommendations.

CLIMATE EMERGENCY COURSES, CURRICULUM DEVELOPMENT, AND SCHOLARS GROUPS

- Numerous UBC courses provide education on the climate emergency and some of these are collected in the Climate Course listing, described below on p. 43.

- The [Climate Studies and Action Certificate](#) will be launched in the fall of 2022. Developed over the past two years by faculty in the Departments of Geography and Earth, Ocean and Atmospheric Sciences, this unique program can be added to any UBC undergraduate degree. This certificate is designed to give students an interdisciplinary understanding of the climate crisis and equip them to engage in effective climate responses. Early classes cover climate science, the crises that led to declaring an emergency, and strategies to address it. Upper-level classes take a deeper look at climate justice, the social, economic, political, and cultural processes that underlie climate change, and include an elective class for students to deepen their knowledge in a specific area. Community-engaged learning, with a climate action focus, is embedded throughout the program, culminating in a capstone project. Students will learn how to assess the efficacy and equity of various climate solutions, experiment with strategies to identify leverage points for change, and engage in public dialogue about climate change.

VII. Expand Climate Education



Credit: Julia Kidder

- Other UBC courses address root causes of the climate emergency. For example, [Facing Human Wrongs: Navigating Paradoxes and Complexities of Social and Global Change](#), an online interdisciplinary course created collaboratively between faculty in Education and Land and Food Systems, addresses four interrelated denials that enable the reproduction of an enduring colonial system: denial of colonial violence that underwrites the system; denial of ecological unsustainability; denial of interdependence; and denial of the magnitude of the many “wicked problems” that we face.
- UBC faculty are working in partnership on a PICS supported project aimed at advancing climate education in British Columbia’s (BC) K-12 curriculum and creating professional development resources on climate change for teachers in BC.

FEATURE



Credit: [Sarah Race Photography](#)

“The Climate Teaching Connector is a great resource linking learners, faculty, and researchers with multidisciplinary perspectives and resources needed to inspire, promote, and sustain climate awareness and action.” – Dr. Leonora C. Angeles, Associate Professor, SCARP and Institute for Gender, Race, Sexuality and Social Justice

Climate Teaching Connector: Bringing UBC graduate students' climate expertise into undergraduate classes

The [Climate Teaching Connector](#) – a collaboration between the Sustainability Hub and the UBC Climate Hub – integrates climate-related content into undergraduate classes by compensating graduate student climate experts as guest lecturers.

During the 2020/21 pilot, 22 guest lectures from a cohort of 15 graduate students and postdoctoral fellows reached more than 1,350 students across seven faculties and 18 departments at UBC Vancouver and UBC Okanagan. The program integrated climate change-related content into over 25 undergraduate courses and reached over 2,000 students during the

two-year period. Experts delivered sessions on the following themes: Climate Justice, Climate and People, Climate Law, Planning and Policy, Climate Adaptation and Resilience,

Online Sustainability and Climate Course Listings provide metrics for climate-action

The Sustainability Hub has created an online [climate change course listing](#) highlighting 62 courses at the UBC Vancouver campus. Students can browse courses by restrictions, categories, or year of study.

With your help, the Sustainability Hub can grow this resource. If you teach a course that addresses climate change and would like your course added, contact alejandra.urcelay@ubc.ca.

DEPARTMENTS LEADING ON CLIMATE

Many departments this year held public climate education events in addition to their usual roster of activities. Below is a sample of these events.

- The L#CAT (Library #Climate Action Team) sponsored [Climate Research Made Real: Practical Applications of Research for Better Futures](#), with four panelists from diverse disciplinary backgrounds.
- The Department of Earth, Ocean and Atmospheric Sciences (EOAS) held a six week [Climate Crisis Colloquia](#) exploring the intersections between earth science and a society-spanning response to the climate crisis, co-hosted by the EOAS Colloquium and its Climate Emergency Committee.
- The Faculty of Education's [Dean's Distinguished lecture](#) hosted scholars and activists Naomi Klein and Avi Lewis to speak about climate justice and educational responsibility.
- At the Allard School of Law, the Centre for Law and the Environment held a series of events on [Legal Recognition for Non-Human Relations](#) and the [Canada Climate Law Initiative](#) held numerous webinars on legal obligations related to climate risk.
- At the School of Public Policy and Global Affairs, the annual [Richard B. Splane Lecture in Social Policy](#) featured Seth Klein, discussing his book *The Good War – Mobilizing Canada for the Climate Emergency*, which shows why tackling inequality and economic insecurity is vital for climate action.
- Following the deadly heat dome, the Institute for the Oceans and Fisheries brought together leading experts in climatology, oceanography, aquatic ecology, and fisheries to share their knowledge about heatwaves and their impacts on biodiversity and dependent human communities in a webinar titled [Record-Breaking Heatwaves, Aquatic Biodiversity, and Human Communities: BC and Beyond](#).
- As part of the fall 2021 Provost's Lecture Series on Academic Freedom, Robert Proctor, Professor of History, Stanford University [lectured on Academic](#)

Freedom as a Double-Edged Sword: How Big Tobacco and Big Oil Corrupt Research on Campus.

FACULTY

We hope you feel inspired by these actions and encourage your department to organize events like these. You can share them with the Sustainability Hub who can amplify them through our networks. We also recognize that this is an incomplete list and invite you to share any events we might have missed by contacting us at climate.emergency@ubc.ca.



Researcher at UBC, Amelia Hesketh, tested how exposure to direct sunlight affects survival of sea life in the intertidal zone before the heat dome hit. Credit: Ainslie Cruickshank/*The Narwhal*

Strategic Priority VIII

Develop New and Strengthen Existing Partnerships to Tackle the Climate Emergency

UBC's external partnerships are a critical component of its capacity to accelerate the global shift towards a 1.5°C-aligned future. UBC can launch new initiatives and innovations and scale up those that already demonstrate success.

UBC also recognizes the strength and value of reciprocity and creates space to integrate knowledge and best practices from external partners into its own institutional policies. Most importantly, UBC's external engagements recognize the importance of active, ethical partnerships with IBPOC and communities that have been marginalized.

Recommendations to support this strategic priority area focus on facilitating knowledge translation, building community partnerships, scaling up Living Lab research with off-campus partners, deepening engagement with external groups, and developing a more robust strategic partnership framework.

As a public university and a global sustainability thought leader, UBC fosters collaborations to accelerate climate justice impacts.

UNIVERSITY CLIMATE CHANGE NETWORKS

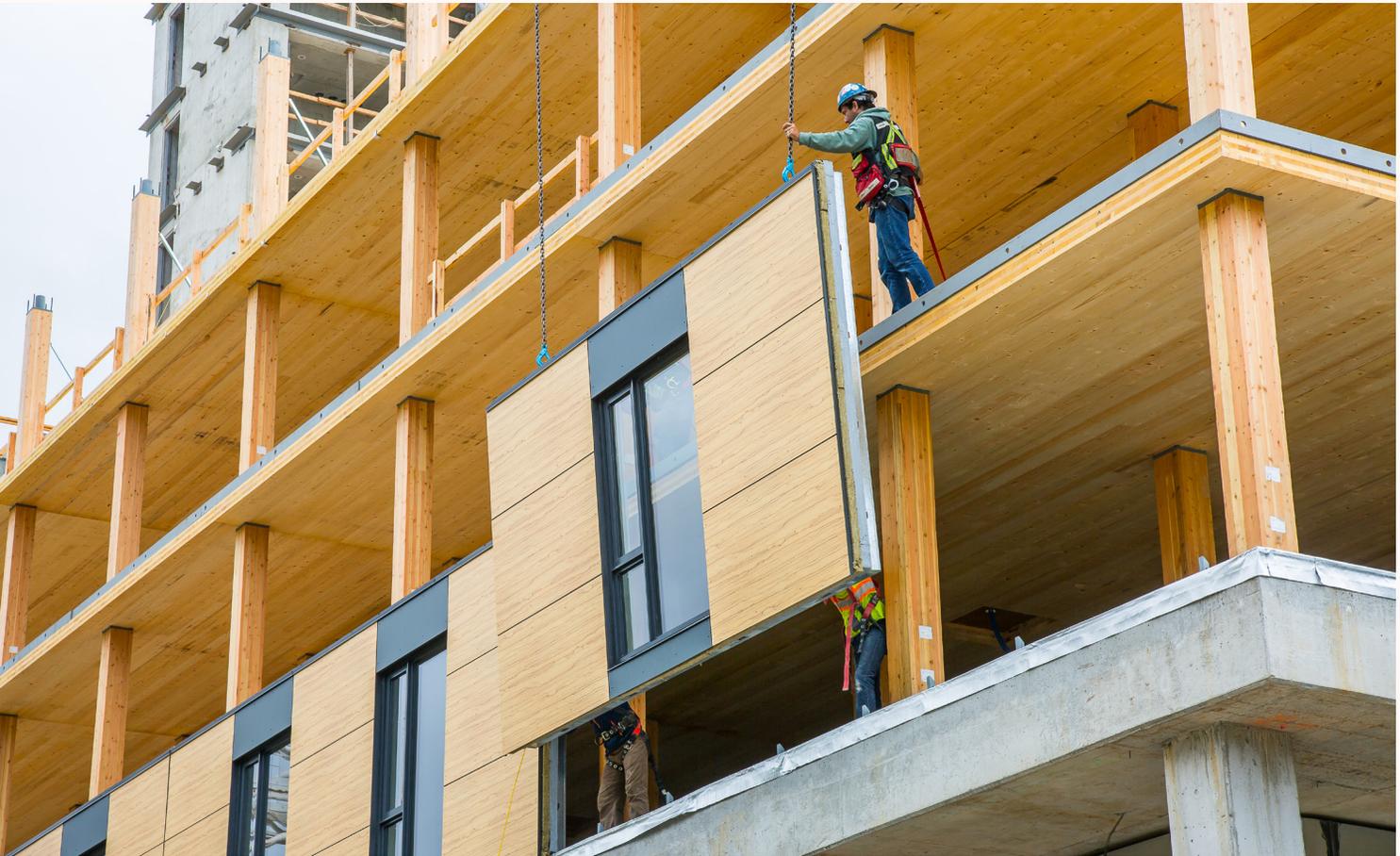
- UBC has played an important role in elevating climate change across global university networks, including through the [University Climate Change Coalition](#)

(UC3), the [University Alliance for Sustainability \(UAS\)](#), the [International Sustainable Campus Network \(ISCN\)](#) and the [U7+ Alliance](#), that help ensure higher learning institutions across the globe are effective agents of change.

- UBC is committed to sharing its experiences with the climate emergency with other universities. One example is this year's webinar held with Association for the Advancement of Sustainability in Higher Education (AASHE), [Declaring a Climate Emergency: UBC's Climate Emergency Task Force Process and Path to Implementation](#). As an outcome of this event, the Library #Climate Action Team has coordinated a community of practice on air travel emissions reductions with several other UBC units and other BC universities.

- UBC is a member of a collective task group of Canadian universities led by the McConnell Foundation. This group has been creating 'A Canadian Universities Call to Action on the Climate Emergency' to embed climate in the core of university educational and research mandates and to mobilize collective, coordinated efforts to accelerate climate action across all of society. The Call to Action has been endorsed in principle by 26 Canadian universities, and is now being considered by Universities Canada.

VIII. More Climate Partnerships



Credit: UBC Brand and Marketing

- UBC is working with the four partner PICS universities on coordinated government policy requests and is sharing best practices and programs to accelerate their collective impact.

LIVING LABS

In addition to Vienna House, profiled below on p.48, other Living Lab collaborations on the climate emergency happened this year.

- An active partnership project in the Sustainability Hub's Urban Innovation Research group relates to the climate emergency. The [Embodied Carbon Pilot](#) funded by BC Forestry Innovation Investment (FII) is developing embodied carbon benchmarks (and future

performance targets) for different building typologies. The team has presented the pilot's experiences and learnings to municipal and provincial policy-makers, and lifecycle assessment practitioners and organizations.

- The UBC Living Lab model was shared through the [PICS Campus as a Living Lab Climate Solutions Showcase](#). UBC and PICS, through the Universities Collaborate on Climate initiative, will continue to explore how to support and scale up Living Lab projects (including those involving the social sciences and humanities) and provide resources for engagement and partnerships to assist in responding to climate change on campus and beyond.

VIII. More Climate Partnerships

COMMUNITY PARTNERSHIPS

- Held in spring 2021 and co-developed by UBC with its partners the Vancouver Economic Commission, Pembina Institute, and Metro Vancouver, the Build Back Better in the Climate Emergency Roundtable focused on the skills and training students need to enter a workforce transformed by climate change. The McConnell Foundation sponsored and facilitated the webinar.
- [Sustainable Fashion Week](#) was held by the Sustainability Hub for students, staff, faculty, and the public to learn more about “fast fashion,” and to explore alternatives including sustainable buying, clothing repair and reuse, and textile recycling. Representatives from local NGOs Threading Change, Frameworq, and Working Gear discussed the links between clothing, textiles, and climate change.
- A new partnership under development focuses on Vancouver’s Downtown Eastside (DTES). ‘Making Climate Research Accessible to Inform Climate Justice Policy’ aims to make climate research accessible, promote reciprocal learning on climate change’s unequal and unjust impacts, and increase the capacity of one vulnerable and ill-equipped community to participate in developing climate policies that can improve residents’ lives, with learnings applicable to similar communities in Canada. A centerpiece of the project is expanding UBC’s Learning Exchange’s searchable [Research Access Portal \(RAP\)](#) to include climate research. Residents of the DTES and local NGOs will be involved through activities such as identifying applied research projects and mentoring UBC student Sustainability Scholars to augment the RAP, defining priority climate issues and policy processes they want to learn more about, and co-creating activities for meaningful knowledge translation and exchange.
- The UBC Botanical Garden will use a generous \$1.4 million gift from an anonymous donor in support of the Garden’s [Sustainable Communities Field School](#) to enhance its local and global conservation efforts, and develop learning modules that incorporate climate justice, Indigenous knowledge, and decolonization.
- The latest [Community-University Engagement Support \(CUES\)](#) partnership awards show emphasis on climate action and climate justice. Two examples, both affiliated with the Centre for Climate Justice, are:
 - [Housing Justice in a Climate Emergency: Building a Research and Advocacy Partnership for Intersecting Tenant Vulnerabilities to Extreme Weather](#), led by Dr. Mohammed Rafi Arefin, Department of Geography with community partner Andrew Sakamoto, Tenant Resource and Advisory Centre, and [Indigenizing Climate Justice in British Columbia](#) led by Naomi Klein, Department of Geography, with community partner Josh Kioke, Union of BC Indian Chiefs.
 - The [Fraser Estuary Research Collaborative](#), a newly created cohort of Sustainability Scholars, pairs students with a partner organization to work on an applied research project focused on the most significant threats to the estuary and prioritizing Indigenous interests in protection, restoration, and governance goals. In the first year, three Indigenous organizations – the Lower Fraser Fisheries Alliance, the Emergency Program Secretariat, and the Salish Sea Indigenous Guardians Network – are hosting a research project. The Scholars have access to training in Indigenous law and governance as part of their applied research internships.

FEATURE



Credit: Public Architecture

“This project represents a path-breaking approach that seeks to simultaneously address housing affordability in Vancouver, while offering an innovative, zero-emission building standard. Our role at the Sustainability Hub is to capture and document the knowledge that will emanate from this project and support the dissemination of this knowledge to relevant stakeholders in the region. We are incredibly excited to be part of this collaboration.” – Binoy Mascarenhas, interim Director, Urban Innovation Research team, Sustainability Hub

East Vancouver's Vienna House - innovating solutions to affordability, climate change, and social equity through housing

✉ Vienna House is an innovative, affordable rental housing pilot project in East Vancouver that shows how cities can advance solutions to affordability, climate change, and social equity through housing, led by BC Housing, the City of Vancouver, and the More Than a Roof Housing Society. Staff at the Sustainability Hub, in partnership with faculty and graduate students in the UBC BiM Topic Lab, Department of Civil Engineering, are documenting and analyzing the project's planning, design, and construction phases to understand how best to develop affordable, low-carbon, and climate resilient housing.

FEATURE

Sustainability Scholars Program Extends Reach and Impact with NGOs

The [Sustainability Scholars](#) program is a flagship paid internship program that matches UBC graduate students with on- and off-campus sustainability partners. In response to the UBC's Declaration of a Climate Emergency, the University invested an additional \$240,000 into the program which resulted in new NGO led climate projects, including:

- An improved delivery plan for low-income home energy retrofits (Ecotrust);
- Addressing climate grief (Fraser Basin Council);
- Leveraging data to target policies and investment to maximize low-carbon investments for small and medium sized businesses (Climate Smart);
- Impact of architectural design on the solar PV generation potential of a house to achieve its net-zero energy target (BC Housing);
- A comparative analysis of nature-based climate solutions for local governments (Climate Caucus);
- Quantifying the climate mitigation benefits of nature-based flood control solutions (Watershed Watch).

The summer 2021 Sustainability Scholars program included 63 projects - the largest summer cohort to date. About 41 out of 63 projects explored problems related to climate change, particularly looking at ways to reduce GHG emissions from buildings, transportation, and carbon sequestration. For example, a project with the Integral Group, funded by BC Hydro, helped identify the policies and technologies available to support retrofitting building stock to near-zero emissions in a way that safeguards affordability.

Centre for Community Engaged Learning's Social Impact Lab

The Centre for Community Engaged Learning hosted a series of events under the banner [A Social Impact Lab: Activating Student Change Agents on the Climate Emergency](#). The series, part of the Centre's overall Social Impact Lab (SIL) programming, provides a means for students to challenge pre-existing systems with community-led solutions, by identifying root causes of social and environmental issues. To kick off the series, the Climate Action Mobilizer student team held a series of [Neighbourhood Climate Chats](#) that brought together UBC students, neighbourhood residents, municipal representatives, community organizations, and climate champions to discuss what climate action looks like in local communities. The first round of discussions focused on envisioning climate action through the ideation of climate action projects to address the climate crisis at a community level. The second round of discussions focused on how to build toward collective action. Climate domain themes included: Low Carbon Transportation, Sustainable Energy in Homes and Buildings, Placemaking and Stewardship, Greenspaces and Urban Forests, and Sustainable Lifestyles.

FEATURE

“I have a much more in-depth knowledge about climate change and the impacts of it. I wrote the extreme weathers script and it blew my mind how much worse the climate is getting,” - Laduli, participant, Geering Up STEM Leadership program

UBC Students Mentor High School Students in Climate Leadership: [Geering Up Climate Leadership](#)

Students in UBC’s inventive engineering outreach program [Geering Up](#) run summer camps, clubs, events and workshops for K-12 youth to inspire more students to pursue engineering, science, technology, and mathematics (STEM) careers, especially among groups underrepresented in STEM. During the height of COVID, in 2021, Geering Up continued to deliver programming to 13,300 youth, with 50% girls participating across all programs, and 1200 Indigenous youth participants.

In the summer of 2021, Geering Up piloted a [high school leadership program](#) centered on climate change challenges. These teen leaders produced Instagram posts, YouTube videos, and podcasts highlighting how an engineering career could enable them to enact change. Check out their videos on [What is climate change?](#), [Consequences of climate change](#), [Are electric vehicles really better for the environment?](#), and [Extreme Weather](#).

In 2022, Geering Up also ran a Sustainability Engineering camp for high school students. In this camp, participants learned about designing climate-proof buildings, did a tour of UBC’s most sustainable architecture and made ecospheres.

[UBC Climate Hub Youth Climate Ambassadors Project \(YCAP\)](#)

Created in response to the demand for climate change narratives that focus on hope and action rather than doom and gloom, YCAP offers free climate justice workshops supported by the UBC Climate Hub in partnership with Be The Change Earth Alliance.

YCAP connects trained university student facilitators with high school classes and community groups, creating opportunities for peer-to-peer storytelling centred around climate justice, systems change, and community resistance.

UBC Student Clubs Focus on Climate

Numerous UBC student clubs are deeply involved in climate change with external partners. Here are three examples from among many:

- [Sustaingineering](#) consists of over 60 active members working on multiple projects from designing a monitoring system for solar panels to assisting with building a Tiny Home to developing education programs. The team has active collaborations with several NGOs, companies and schools in Canada, Mexico, Nepal, and Nicaragua as well as a strong summer exchange program with its sister branch in Tec de Monterrey, Mexico.
 - The [UBC Environmental Policy Association \(EPA\)](#) analyzes economic and political responses to climate change, and runs events to engage students in environmental policy. Past events include [Careers in Sustainability Night](#).
 - [Climate Justice UBC](#) is a group of UBC students, faculty, staff, and alumni committed to advocating for meaningful political climate action. The group is a key player in the campaign for fossil-fuel divestment and community reinvestment at UBC.
- [Visit a list of more than 70 student groups active on climate change and sustainability.](#)

Accelerate Emissions Reductions at UBC Vancouver and UBC Okanagan in Response to the Climate Emergency: Climate Action Plan 2030

In 2021, Times Higher Education University Impact Rankings once again scored UBC among the top universities globally for climate action. The climate emergency represents one of most pressing issues of our time and UBC will continue to leverage its institutional and intellectual capacities to demonstrate climate leadership through continued action to address climate mitigation and adaptation.

Responding to the urgency of the climate and biodiversity crisis, UBC released the [UBC Vancouver Climate Action Plan 2030](#) and the [UBC Okanagan Climate Action Plan 2030](#) in 2021. These plans put the University on an accelerated path to net zero emissions for buildings and energy supply, as well as targeting significant emissions reductions for extended impact areas – aligning, and in some cases surpassing, the 2030 emissions reductions required to achieve the UNFCCC’s Paris Agreement goal of keeping global temperatures within 1.5°C.

EMISSIONS REDUCTIONS

- In 2021, UBC Vancouver achieved a combined 25% reduction in total offset-able greenhouse gas (GHG) emissions vs. 2007 – despite an overall 25% growth in floor space and 41% increase in student enrolment during the same period.

- Overall, UBC Vancouver has achieved a 46% GHG emissions reduction per full-time equivalent student since 2007. In 2021 UBCO reduced operational GHG emissions by 31% vs. a 2013 baseline.

- UBC has also offset 100% of Scope 1 and 2 GHG emissions since 2010 as part of BC’s Carbon Neutral Government Program. More information on UBC’s decarbonization success can be found in the annual [Climate Change Accountability Report \(CCAR\)](#).

LOW-CARBON INFRASTRUCTURE INVESTMENTS

- The Vancouver campus recently invested in an expansion of the [Bioenergy Research and Demonstration Facility \(BRDF\)](#). Once the BRDF is fully functional, it is forecasted that campus operational GHG (Scope 1 and 2) reductions will achieve an estimated 60% reduction from the 2007 baseline.

- In 2021, UBC Okanagan’s newest residence, [Nechako Residence and Commons Block](#), was completed. Targeting LEED® Gold certification, this new facility is connected to the campus’ low-carbon district energy system to reduce the building’s reliance on fossil fuels for energy supply. Skeena Residence is also Canada’s [first Passive House Certified Student Dormitory](#) and BC’s Net Zero Energy Ready Challenge Award winner. Nechko and Skeena have significantly increased the sustainability of on-campus housing.

IX. Accelerate Emissions Reductions



Credit: Paul H. Joseph / UBC Brand & Marketing

FURTHER COMMITMENTS TO REDUCE GHG EMISSIONS

UBC's two ambitious 2030 Climate Action Plans (CAP 2030) are aiming for an operational GHG (Scope 1 and 2) reduction of 85% at the Vancouver Campus and a 65% reduction at the Okanagan Campus by 2030. Both plans also include a 45% reduction in emissions from extended impact sources (Scope 3 - including commuting, food, business air travel, embodied carbon, waste and materials, and paper) to align with the intent of UBC's Declaration of a Climate Emergency.

Multiple initiatives are now underway across the institution to help achieve CAP 2030 targets for both campuses (which vary slightly between campuses) as reported on the [CAP 2030 website](#), [UBCO's CAP website](#), and in UBC's [Annual Sustainability Report](#):

- Commuting: 45% reduction in GHG emissions
- Food systems: 50% reduction GHG emissions
- Waste and materials: 50% reduction in GHG emissions, progressing toward a zero-waste and circular economy community
- Business air travel: 50% reduction in GHG emissions
- Embodied carbon: 50% reduction in embodied carbon GHG emissions associated with new construction
- Engagement and outreach: 75% of UBC faculty, staff, and students will be aware of UBC's climate action goals and participating in UBC's evolving and expanding culture of sustainability
- Financial mechanisms: piloting of UBC's internal carbon price at \$250/tCO₂e to favour low carbon decision making

Conclusion

Climate exacerbated extreme weather events are increasing in frequency. The need to prepare for irreversible climate impacts and mobilize to limit global warming is more urgent than ever.

Universities have a unique role and responsibility to respond to the climate emergency through education, research, relationship-building, and to identify and advocate for solutions that propel transformative change. Spurred on by years of student, faculty, and staff activism and advocacy, together with administrative leadership, UBC can continue to model how a university best responds to the climate emergency, while learning from the leadership shown by other universities, organizations, and Indigenous Nations, especially its Host and Partner Nations.

Glossary

AMS UBC Alma Mater Society

APSC Applied Science

ASR Annual Sustainability Report

CAP 2030 Climate Action Plan 2030

CEF Climate Emergency Fund

CETF Climate Emergency Task Force

GSS Graduate Student Society

IBPOC Indigenous, Black and People of Colour

IEWG Indigenous Engagement Working Group

ICAT Interdepartmental Climate Action Team

IRES UBC Institute for Resources, Environment and Sustainability

PICS Pacific Institute for Climate Solutions

UBC ISP UBC's 2020 Indigenous Strategic Plan

UBC IMANT UBC Investment Management Trust

UBCO UBC Okanagan

UBCV UBC Vancouver

UNDRIP United Nations Declaration on the Rights of Indigenous Peoples

UNFCCC United Nations Framework Convention on Climate Change

References & Further Reading

🔗 **ANNUAL SUSTAINABILITY REPORT**

🔗 **CETF REPORT**

🔗 **ISP IMPLEMENTATION TOOLKIT AND ISP SELF-ASSESSMENT TOOL**

🔗 **OKANAGAN CAP 2030**

🔗 **OKANAGAN CLIMATE CHANGE ACCOUNTABILITY REPORT (CCAR)**

🔗 **STUDENT ACADEMIC CLIMATE ADVOCACY TOOLKIT**

🔗 **UBC CLIMATE HUB ANNUAL REPORT**

🔗 **VANCOUVER CAP 2030**

🔗 **VANCOUVER CLIMATE CHANGE ACCOUNTABILITY REPORT (CCAR)**

🔗 **WELLBEING ANNUAL REPORT**

🔗 **WELLBEING STRATEGIC FRAMEWORK**

COVER IMAGE

I'm with her (the earth)

Credit:  Chris Yakimov

