

## RESEARCH TO ACTION: ADVANCING URBAN SUSTAINABILITY

### Agenda September 24 (in-person)

**12:00 pm**

Welcome & Opening Remarks

**12:10 pm**

Guest Speaker: George P. R. Benson

**12:50 pm**

Panel Sessions Open

**1:00 pm**

Concurrent Panel Sessions:

Climate-Responsive Water & Built Environment  
Practices  
(BC Hydro Theatre)

Environmental Data & Strategy Implementation  
(Policy A)

Urban Ecology & Green Infrastructure  
(Policy B)

**1:50 pm**

Break/Transition

**2:00 pm**

Concurrent Panel Sessions:

Social Sustainability & Inclusive Development  
(BC Hydro Theatre)

Economic & Emissions Decoupling  
(Policy A)

**3:00 pm: Conference Ends**

### Agenda September 25 (online)

**1:00 pm**

Welcome & Opening Remarks

**1:10 pm**

Guest Speaker: Stefan Pauer

**1:50 pm**

Panel Sessions Open

**2:00 pm**

Concurrent Panel Sessions:

Green Infrastructure & Mobility-Oriented  
Urban Planning  
(Room 1)

Sustainable Infrastructure &  
Building Systems  
(Room 2)

**2:55 pm**

Break/Transition

**3:00 pm**

Concurrent Panel Sessions:

Smarter Systems for Resilient Communities  
(Room 1)

Tracking Emissions & Protecting Water:  
Pathways to Sustainability  
(Room 2)

**4:00 pm: Conference Ends**

Panel Sessions: Detail View September 24 (in-person)			
	Climate-Responsive Water & Built Environment Practices (BC Hydro Theatre) Moderator: Neftali Hernandez, UBC	Environmental Data & Strategy Implementation (Policy A) Moderator: Ralph Wells, UBC Campus + Community Planning	Urban Ecology & Green Infrastructure (Policy B) Moderator: Heidi Horlacher, City of Vancouver
1:00 – 1:50 pm	<ul style="list-style-type: none"> <li>Water management practices at golf courses in a changing climate   <b>Angelica Liu</b></li> <li>Best practices in irrigation and water conservation for food gardens at healthcare sites   <b>Molly Zhang</b></li> <li>Environmental impacts of and innovations in design and construction of long-term care facilities   <b>Victoria Shary Ramirez-Montero</b></li> </ul>	<ul style="list-style-type: none"> <li>Assessment of the progress on Burnaby's Environmental Sustainability Strategy implementation   <b>Andrew Yan</b></li> <li>Research to locate and compare spatial datasets for mapping primary forests across Canada   <b>Raju Ahmed</b></li> </ul>	<ul style="list-style-type: none"> <li>Sustainable, resilient, accessible greenway and trail design   <b>Kaitlyn Pike</b></li> <li>Analyzing Local Roads to identify candidates for urban ecological corridors   <b>Sophia Ngai</b></li> </ul>
	Social Sustainability & Inclusive Development (BC Hydro Theatre) Moderator: Claire Ewing, City of Richmond	Economic & Emissions Decoupling (Policy A) Moderator: Ryan Voon, City of Coquitlam	
2:00 – 2:50 pm	<ul style="list-style-type: none"> <li>Embed and Spread: Mobilizing knowledge of environmental sustainability initiatives in health-care   <b>Yunfei Li</b></li> <li>Challenges and opportunities to providing quality childcare for children with disabilities   <b>Arunima Saha</b></li> <li>Developing a baseline on local and social employment and procurement in development projects   <b>Khadija Anjum</b></li> <li>Research to reduce indoor heat-health impacts in vulnerable populations using a health delivery lens   <b>Salina Lama</b></li> </ul>	<ul style="list-style-type: none"> <li>Emissions vs Growth: Decoupling economic growth from regional GHG emissions   <b>Girish Sharma</b></li> <li>Monitoring and tracking framework to evaluate progress on community energy and emission plan implementation   <b>Yichun Pan</b></li> </ul>	
Panel Sessions: Detail View September 25 (online)			
	Green Infrastructure & Mobility-Oriented Urban Planning Room 1 Moderator: Ruotian Tan, City of Vancouver	Sustainable Infrastructure & Building Systems Room 2 Moderator: Connor McGookin, UBC	
2:00 – 2:55 pm	<ul style="list-style-type: none"> <li>Best Practices for Implementing Green Rainwater Infrastructure in Parks: Funding, Land Acquisition, Maintenance Models from other Jurisdictions   <b>Juliet Kiester</b></li> <li>A systematic framework for quantifying and evaluating Transit-oriented Area Performance   <b>Shuoqi Ren</b></li> <li>Challenges and opportunities of integrating green infrastructure and active transportation in the City of Vancouver   <b>Nick Mead-Fox</b></li> </ul>	<ul style="list-style-type: none"> <li>Exploring Modularization for Sustainable Transit Facilities: Design, Prefabrication, and End-of-Life Management Strategies   <b>Vivian Du</b></li> <li>Heat Pump Performance in Part 9 Residential Homes Across Climate Zones   <b>Claire Pan</b></li> <li>Analysis of low carbon designs in healthcare facilities   <b>Ghulam Hussain</b></li> </ul>	
	Smarter Systems for Resilient Communities Room 1 Moderator: Aigerim Akiltayeva	Tracking Emissions & Protecting Water: Pathways to Sustainability Room 2 Moderator: Shiva Zargar, Build Neutral Inc.	
3:00 - 3:55 pm	<ul style="list-style-type: none"> <li>Best practices to enable advanced electricity metering infrastructure in New West   <b>Sheila Suredja</b></li> <li>Understanding the disaster and climate risk assessment market in BC   <b>Peter Carwana</b></li> </ul>	<ul style="list-style-type: none"> <li>Non-Energy Sources of Greenhouse Gas Emissions in Water Systems Operation   <b>Sutripto Khasnabis</b></li> <li>Novel Approaches for Estimating Personal Transportation Patterns and Emissions   <b>Nipun Kumarage</b></li> <li>Best practice research on drinking water disinfection protocols   <b>Caleb Sinn</b></li> </ul>	

## Panel Presenters

**Andrew Yan** is a master's student in Community and Regional Planning at UBC. His work focuses on environmental planning, infrastructure, and climate resilience. He has experience in water systems, environmental monitoring, and housing policy, with a strong interest in equitable urban development.

**Angelica Liu** is a Master of Landscape Architecture candidate in her final year at the University of British Columbia. Her work focuses on creating resilient and ecologically mindful spaces. She is passionate about designing landscapes that foster community well-being and environmental connectivity.

**Arunima Saha** is currently pursuing a PhD in Urban Planning at UBC SCARP, with a focus on care planning in vulnerable urban settings. Her research aims to integrate caregivers' perspectives into urban planning to create care-oriented, healthy cities. Arunima has supported child-friendly development in India by promoting playful learning in vulnerable communities. She holds a bachelor's degree in Architecture and a master's degree in Urban Design.

**Caleb Sinn** recently completed his Master of Science in Resources, Environment and Sustainability. His research focused on the use of ecosystem science to support stewardship and management of freshwater ecosystems. He has a background in aquatic ecology and environmental chemistry, and enjoys getting his feet wet in the field and diving deep into the numbers.

**Claire Pan** is completing her Master of Engineering Leadership in Clean Energy Engineering at UBC. She has extensive experience in energy systems and project coordination. As a Sustainability Scholar, she evaluated heat pump performance across BC climate zones to support building decarbonization and provincial energy code compliance.

**Ghulam Hussain** is a PhD candidate in Civil Engineering at UBC Okanagan, working in the Life Cycle Management laboratory on projects focused on sustainability in the water sector. Before joining UBC, he served as a faculty member at UET Lahore, where he worked on various research and consulting projects related to sustainable water supply, sanitation, and sustainable infrastructure. His long-term goal is to continue learning and contributing toward a more sustainable world.

**Girish Sharma** is an economics professional with an MA in Economics from UBC and over 3 years of experience in research, modelling, and consulting. He has advised The World Bank, Strategies2Scale, and governments on international trade, inclusive-sustainable growth, and economic impact. His graduate thesis explored the productivity gains of manufacturing firms from global value chain participation.

**Juliet Kiester** is a second-year PhD student in the Angert Lab in UBC Botany. Juliet's research centers on ecological restoration and land stewardship amid climate change, with a focus on riparian restoration in the Salish Sea region. Her thesis chapters include innovative ecosystem-healing experiments across British Columbia and Washington State.

**Kaitlyn Pike** is a PhD candidate exploring equitable urban forest governance in theory and practice. Prior to joining UBC, Kaitlyn received her master's degree in Chicago, where she worked with local and regional forestry groups in the municipal and non-profit sectors. Her current research evaluates how equity is understood and addressed in urban environmental governance, with specific interest in how decisions are made and who is included.

**Khadija Anjum** is a Liu Scholar and a PhD candidate at UBC's School of Community and Regional Planning and a recipient of the Vanier Canada Graduate Scholarship. Her interdisciplinary research relies on quantitative and qualitative approaches to gain planning and policy insights for food security amid high food prices and other sustainability challenges. Her research to date has focused primarily on Pakistan, and other lower-middle income Global South countries, particularly those in South Asia.

**Molly Zhang** is a PhD student at the Institute for Resources, Environment, and Sustainability at UBC. Molly holds a BSc in Forestry from UBC and an MSc in Environmental Science from Germany. Her PhD research focuses on the potential of native edible plants. She is also a registered biology technologist in BC.

**Nick Mead-Fox** is a Senior Engineer with the Green Infrastructure (GI) Implementation Branch at the City of Vancouver where led the effort to develop technical standards for Green Infrastructure implementation on City Streets. He is also the founder and co-chair of the BCWWA Green Infrastructure Community of Practice, which aims to share GI best practices with professionals around the province and accelerate Green Infrastructure implementation through standardization, modelling, and advocacy.

**Nipun Kumarage** has a multidisciplinary background in sustainability, with a foundation in civil engineering. He earned his BSc from the University of Moratuwa, followed by a master's degree, where he focused on sustainable concrete design using industrial waste. He is currently with the Life Cycle Management Laboratory at the University of British Columbia, working on decarbonizing light-duty vehicles and focusses on the policy design & optimization

**Peter Carwana** is a Master's student in Community and Regional Planning at UBC. His current research focuses on the implementation of local government risk assessments across BC, as well as the relationship between climate policy at the provincial and municipal scale. He has a strong interest in forging resilient and happy communities across BC.

**Raju Ahmed** recently completed his Master of Science in Geography. He specialized in geospatial technologies, hydrology, and geomorphology to better anticipate flood risk. With 16+ scientific publications, international research presentations, and extensive research experience applying drones, GIS, RS, and machine learning, he advances innovation in environmental sustainability and disaster risk reduction.

**Salina Lama** is a Master's student in Public Policy and Global Affairs, with experience in research, program management, and community engagement in Nepal. My work focuses on the intersection of climate change and the health of marginalized and Indigenous populations. I am passionate about using evidence to inform policies that promote equity and resilience.

**Shary Ramirez-Montero** is a Master of Engineering Leadership student at UBC, specializing in High-Performance Buildings. An architect and researcher with professional experience in Mexico, Spain, Germany, and Canada she focuses on sustainable, human-centered design and the integration of architecture and education. Her current research focuses on the environmental impact of healthcare and long-term care facilities, exploring strategies for resilient, low-carbon construction. Shary is passionate about creating adaptable spaces that foster learning, well-being, and community resilience.

**Sheila Erika Suredja** is a Master's student in Public Policy and Global Affairs at UBC, with experience in housing policy research, community-based advocacy, and collaborative engagement with Indigenous and non-profit organizations. Her work focuses on housing security, urban resilience, and equitable policy responses to climate and social challenges. She is passionate about advancing sustainability and social equity by bridging research, policy, and practice.

**Shuoqi Ren** is a PhD student at the Institute for Resources, Environment and Sustainability at UBC. Her research integrates exposure modelling and environmental health impact assessment to evaluate transit-oriented planning scenarios, aiming to support equitable, sustainable, and healthy urban development through evidence-based decision-making.

**Sophia Ngai** is a Master of Landscape Architecture student at UBC's School of Architecture and Landscape Architecture (SALA). With a background in urban planning, she has contributed to policy research and design work in both institutional and public-sector settings, including for the Province of Ontario and the City of Toronto. Her work is driven by a passion for community-building in designed spaces, with a particular focus on social justice and climate.

**Sutripto Khasnabis** is a PhD candidate in Chemistry at UBC Okanagan. His research focuses on understanding and developing carbon-based materials for green hydrogen production. Combining technical expertise with a passion for sustainability, he aims to build a career that connects scientific knowledge with climate action

**Vivian Du** is a master's of architecture student at UBC passionate about sustainable and adaptable design. Her current research explores modular transit systems and resilient public infrastructure. She enjoys connecting design with community needs and is excited to contribute creative, practical strategies toward a more sustainable built environment.

**Yichun Pan** has a bachelor's degree in international economics and is completing a master's degree in Food and Resource Economics at UBC. She specializes in applied econometrics, policy evaluation, and data analysis, and has a strong passion for using data-driven strategies to tackle sustainability challenges and build resilient, sustainable economic systems.

**Yunfei Li** is a PhD candidate at the Institute for Resources, Environment and Sustainability (IRES) under the supervision of Dr. Simon Donner. Her research primarily focuses on climate change engagement, aiming to better understand how individuals and communities perceive and react to climate change and explore innovative strategies to foster meaningful action.

## Moderators & Speakers

**Aigerim Akiltayeva** is an energy engineer with expertise in clean energy, hydrogen research, and sustainability. She holds a Masters of Engineering Leadership in Clean Energy Engineering from UBC and was a UBC Sustainability Scholar in 2023, working with the Vancouver Economic Commission on financial analysis for commercial fleet electrification. She has also worked on hydrogen projects, energy retrofits, and carbon reduction initiatives with organizations such as FortisBC, EY, and the Asian Development Bank. Passionate about building resilient and sustainable communities, Aigerim mentors emerging professionals and actively engages in knowledge-sharing and outreach.

**Angelique Pilon** is serving as the Acting Senior Director at the Sustainability Hub. With a background in architecture and 14 years of experience at UBC, she brings a design approach and broad institutional knowledge to the creation and innovation of sustainability and climate action at the university. In her previous role, she was actively involved in a number of strategic projects including the research and knowledge mobilization program for the Brock Commons Tallwood House, which led to the changes in mass timber building policy, and the development of the annual Campus as a Living Lab Fund Competition at both the Vancouver and Okanagan campuses. Angelique holds a Master of Architecture from UBC and a Bachelor of Science in Architecture from the University of Michigan. She is a certified Project Management Professional and a LEED Accredited Professional with a specialization in Building Design and Construction.

**Claire Ewing** is a Senior Climate Action Specialist with the City of Richmond, where she leads policies and programs under the City's 2050 Community Energy and Emissions Plan, focusing on reducing emissions from existing buildings. With experience at Metro Vancouver, UBC, and the Alma Mater Society of UBC, she brings expertise in policy, data, and engagement. Claire is committed to ensuring decarbonization delivers healthier, safer, and more equitable communities.

**Dr Connor McGookin** is a Postdoctoral Research Fellow with the UBC Systems Beings Lab. Connor's central research interest is developing creative ways to involve people in community and municipal energy planning. His current work involves preparing maps of renewable energy resources across BC as well as a detailed building stock model for the residential sector.

**George P.R. Benson** is a globally recognised leader on economic development, cities, and climate action. He has worked across the public, private, and non-profit sectors and currently leads the Zero Emissions Innovation Centre (ZEIC)'s economic development team. George's team supports businesses, especially small ones, in finding profitable ways to join or expand the zero-carbon economy. Outside of ZEIC, George has previously been involved with the Canadian and American urban planning associations, work with the World Economic Forum, and as a ministerial advisor on BC's Climate Solutions Council.

**Heidi Horlacher** is a Senior Environmental Geoscientist at the City of Vancouver, focused on the implementation and care of the City's Green Infrastructure assets. She currently serves on the Board of Directors for the Green Infrastructure Leadership Exchange and was the appointed Local Government representative for the Society of Contaminated Sites Approved Professionals of British Columbia. Heidi brings over 20 years of professional experience, dedicated to enhancing environmental outcomes to create more equitable, livable and joyful communities.

**Karen Taylor** manages the Sustainability Scholars Program, a paid internship program for UBC graduate students to work on applied sustainability-related research projects for organizations throughout the lower mainland and BC. A UBC graduate with a BA in English and an MA in Children's Literature focussing on ecocriticism in Canadian young adult fiction, Karen has an extensive and varied background in program management, project management, marketing, academic writing, and editing. She is deeply committed to supporting students in ways that advance their growth as thoughtful leaders who will drive change—especially in advancing sustainability and climate action.

**Neftali Hernandez** is a Zapotec PhD candidate at UBC. His work focuses on sustainable development in rural communities through natural resource management, with a strong emphasis on Indigenous governance. He is currently contributing to the implementation of UBC's Indigenous Strategic Plan and working on EDI initiatives. Neftalí maintains strong connections to Indigenous communities through his family, civic responsibilities, and collaborative research. He was a Sustainability Scholar and is now preparing his PhD defense on resistance to conservation programs through Indigenous governance

**Dr. Shiva Zargar** is a life cycle assessment (LCA) scientist with over a decade of experience advancing data-driven climate solutions. As Founder & Director of Science and LCA at Build Neutral, she leads work in LCA, environmental product declarations (EPDs), and carbon accounting. Her roles as EPD verifier, critical reviewer, and PCR committee member bridge government, industry, and academia. A Vanier Scholar and national award recipient, she is recognized for promoting transparent, standards-based sustainability practices.

As the Community Climate and Energy Manager for the University of British Columbia, **Ralph Wells** is responsible for reducing GHG emissions and energy consumption, and addressing climate resiliency in the residential neighbourhoods on the UBC Vancouver campus. Ralph has gained a wide range of sustainability experience over a broad career spanning nearly 3 decades, has completed a UBC Master of Clean Energy Engineering and holds a Master of Resource and Environmental Management from Simon Fraser University. A combination of research and work experience have provided Ralph with a strong background in climate action, energy management and sustainability practice.

**Ruotian Tan** is an urban designer with the City of Vancouver's Rapid Transit Office, specializing in transit-oriented development, public realm integration, and multi-modal transport planning. With professional experience in both the private and public sectors, he has contributed to major rapid transit projects and policy development initiatives. For the past three years, Ruotian has served as a mentor for the UBC Sustainability Scholars program, supporting research on accessibility, mobility, and GI integration in Transit Oriented Areas.

**Ryan Voon** is the Climate and Energy Manager at the City of Coquitlam, leading and supporting a variety of initiatives to reduce corporate energy use and emissions across the organization. Ryan is a Sustainability Scholar alumnus and has over a decade of experience in electrical engineering, project management, and climate policy work across industrial, municipal, and non-profit sectors.

**Stefan Pauer** provides strategic leadership to Clean Energy Canada by advancing their work on clean technology and policy issues through rigorous research, data, and economic analysis. Before joining Clean Energy Canada, Stefan carried out interdisciplinary research on climate policies in California and Europe at UBC. He also worked as a Policy Officer at the European Commission, where he helped develop and implement the European Union's carbon market. Stefan holds a PhD in law from UBC and a master's in international law from the University of Bern. He is the recipient of numerous research grants, scholarships, and awards from organizations that include the Pacific Institute for Climate Solutions, Economics and Environmental Policy Research Network, Centre for International Governance Innovation, and the University of British Columbia.

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**You can find copies of all current and past UBC Sustainability Scholars projects online:**

<http://sustain.ubc.ca/scholarslibrary>