Exploring City-University partnership models to inform climate policy in Vancouver's Downtown Eastside.

Prepared by: Tim Linsell, UBC Sustainability Scholar, 2023-2024 Prepared for: Linda Nowlan, UBC Sustainability Hub March 2024



Disclaimer

This report was produced as part of the UBC Sustainability Scholars Program, a partnership between the University of British Columbia and various local governments and organizations in support of providing graduate students with opportunities to do applied research on projects that advance sustainability and climate action across the region.

This project was conducted under the mentorship of UBC Sustainability Hub and Learning Exchange staff. The opinions and recommendations in this report and any errors are those of the author and do not necessarily reflect the views of the Sustainability Hub, Learning Exchange, or the University of British Columbia.

Land Acknowledgement

The work which resulted in this report took place on the traditional, ancestral, and unceded lands of the x^wməθk^wəỷəm (Musqueam), S<u>k</u>w<u>x</u>wú7mesh (Squamish), Stó:lō (Sto:lo), and səlilwəta?+ (Tsleil-Waututh) peoples. For nearly two years, I have been an uninvited guest on these lands, waters, and most notably the Point Grey Campus of the University of British Columbia which resides upon the traditional, ancestral, and unceded lands of the x^wməθk^wəỷəm (Musqueam), S<u>k</u>w<u>x</u>wú7mesh (Squamish), and səlilwəta?+ (Tsleil-Waututh) peoples.

The focus of this work seeks to address ways in which partnerships can help mitigate and begin to repair the harm done by broken relationships with our planet and one another. It is important to remember that this has not always been the case and that Indigenous peoples have co-existed sustainably as part of nature since time immemorial.

As we seek a path through these multiple and intersecting crises, not only must the universal rights of Indigenous peoples as laid out in the United Nations Declaration on the Rights of Indigenous Peoples be upheld as a minimum standard of conduct¹, but we must also seek to learn from past wrongs and meaningfully integrate diverse ways of knowing in just and sustainable climate action.

Positionality Statement

I am an uninvited guest on this territory of British ancestry. I have lived in Vancouver for the last two years and have never been a resident of the Downtown Eastside. Over the last year of working on the development of the CLEAR project alongside so many committed and engaged partners, I have sought to learn about and from this community. In this work I strive to continue to become a better ally to those who have been and continue to be marginalized and now face an inequitable share of the impacts of the climate crisis.

Acknowledgements

I am grateful for the hospitality shown to me by partners across the community in which this work is situated. Specifically, I would like to thank Matt Hume, and Katherine Cheng at the UBC Learning Exchange, for their consideration and enthusiasm. I would also like to thank Linda Nowlan for her ongoing support and guidance in this project, and her compassionate and engaged leadership more broadly. Finally, I would like to thank Lauren Shea for her continued patience and encouragement.

Contents

Executive Summary	4
Key Terms	5
1. Introduction	7
1.1 Climate Emergency	7
1.2 Climate Justice	8
1.3 City – University Partnerships	9
1.4 Vancouver context	10
1.5 Downtown Eastside	
1.6 University of British Columbia	13
1.7 CLimate Equity Action and Resilience (CLEAR) Initiative	15
2. Best Practices in Urban Climate Justice Partnerships	17
2.1 Trusting Relationships	17
2.2 Shared Vision	19
2.3 Infrastructure	24
2.4 Measurement, Monitoring and Evaluation	24
3. Common Barriers and Strategies to Overcome Them	27
3.1 Disincentivizing Community-Engaged Work in Higher Education	27
3.2 Funding	30
3.3 Aligning Interests	33
4. Models of Partnership	36
4.1 Boundary Organizations	36
4.2 Collective Impact	37
4.3 Community-Based Participatory Research (CBPR)	42
5. Recommendations	45
6. Conclusion	49
7. Bibliography	50

Executive Summary

As the climate crisis deepens, its impacts are felt increasingly in cities. A growing proportion of the global population now lives in cities² – population centers which also serve as hubs for economic output and greenhouse gas emissions. The need for cities to adapt and actively contribute to climate action is increasingly apparent across national, regional, and international

initiatives such as the C40³. One way that climate action can be accelerated and made more impactful is by fostering collaboration through City-University Partnerships (CUPs).

This report synthesizes and analyzes models and best practices for CUPs on climate justice, drawing upon case studies across Canada and the United States, and surrounding literature. It aims to inform the development of the CLimate Equity Action and Resilience (CLEAR) project, a relatively new CUP in Vancouver, Canada. It also identifies common

stumbling blocks to partnerships and offers practical strategies to overcome them. The recommendations and best practices included seek ways that community priorities can be equitably and meaningfully advanced through CUPs.

Key recommendations include the establishment of a **backbone organization**, a mechanism for **monitoring and evaluation**, and more direct means of gathering and **incorporating feedback**. It also points toward the need for establishing closer ties with staff in **local government**, determining **key messages**, and emphasizing the **novelty of the project** in fundraising activities.





Three spheres of partnership,

In appraising models and strategies around partnerships, this approach seeks to draw in three "spheres" of partnership – community, university, and the city. Equally, it adopts the approach that equity must be incorporated in all aspects of partnership if the outcomes of the partnership are to be equitable. As such, considerations for centering equity are considered throughout.

Key Terms

Anchor Institution – Anchor institutions are place-based organizations that seek to actively contribute to the community in which they are situated⁴. They are also often tied to that community by history, relationships, or mission⁵.

City-University Partnerships (CUPs) - In this report CUPs are held to be partnerships that engage university, community groups, and city government collectively. CUPs have a variety of models, durations, and compositions. Many partnerships under this banner exist exclusively between municipal governments and universities. Equally, partnerships between community groups, civil society organizations and universities, with little role for government are also common. The present example aims to center community while drawing on all three aspects.

Equity – Equity refers to a position of parity in policy processes and outcomes for people who have or continue to experience marginalization⁶.

Equity-seeking – Equity-seeking groups experience barriers to opportunities, resources, and equal participation in society and effortfully seek socially just, reparative outcomes⁶.

Marginalized - Marginalized individuals or groups have been pushed, actively or passively, toward the socio-economic and political periphery, and away from positions of authority or power^{6,7}. The identities and backgrounds of those subject to marginalization vary widely.

Policy window – Drawing upon the language of Kingdon's Multiple Streams Framework, a policy window is an event caused by a new challenge or a political perturbation that allows for particular policies or solutions to be advocated for by actors in or around government⁸.

Resilience – Resilience relates to the capacity of a community or system to withstand, adapt, or rebound from challenges such as those created by the climate crisis. Key consideration should be given to who is resilient, what they are resilient to, and who gauges the extent of resilience⁹.

Transdisciplinary Research – Transdisciplinary research combines multiple disciplines, forms of knowledge, and stakeholders in the development of research. This has historically been regarded as an approach to remove barriers between practical and theoretical research¹⁰, or to transcend barriers between disciplines altogether in an integrated approach to knowledge¹¹.

Vulnerability - Vulnerability is a factor of a population's exposure to climate impacts, its capacity to adapt, and its sensitivity to these disturbances¹². Notably, vulnerability is commonly a result of marginalization and discrimination directed towards a population, rather than an inherent deficit of the group in question. The IPCC has noted that those people already *"socially, economically, politically, institutionally or otherwise marginalized are especially vulnerable to climate change"*¹³.

1. Introduction

1.1 Climate Emergency

The climate is here, it is deepening, and it will continue to do so^{14,15}. 2023 was the hottest year ever recorded¹⁶. It gave rise to extreme heat events across the northern hemisphere, widespread flooding, and a record-breaking boreal wildfire season¹⁷. Moved by the recurrence of unprecedented weather events UN Secretary-General António Guterres typified this moment as one of "global boiling"¹⁸. In 2021 extreme heat alone was responsible for the loss of 619 lives

across British Columbia in the heat dome event¹⁹. By midcentury heat alone could be responsible for as much as \$3.9 billion worth of damage in Canada every year²⁰.



Experiences of the climate crisis

Image credit: rawpixel.com

vary widely with socio-economic and geographic factors significantly contributing to variance. However, climate impacts often act to exacerbate existing inequities, disparities, and challenges.

For example, while urban heat can be dangerous for all who are exposed to it, it is disproportionately deadly for the urban poor²¹. Policies might incentivize energy-efficient building retrofits but incur substantial up-front costs, excluding those unable to make the initial investment²¹. Alternatively, urban greening efforts to mitigate urban heat may overlook marginalized inner-city communities that already have little access to tree canopy cover during extreme heat events^{22,23}. Such adaptation measures can serve to broaden the socio-economic divide of felt impacts if they fail to account for the experience and priorities of those most vulnerable.

1.2 Climate Justice

The climate crisis is inseparable from social justice. As it becomes increasingly clear that existing paradigms of mitigation and adaptation have fallen short in fulfilling the UN Framework Convention on Climate Change's (UNFCCC) foundational purpose to *"prevent dangerous anthropogenic interference with the climate system"*²⁴, there has been increased attention directed toward not just the need for more ambitious action, but more inclusive action. Not only have efforts to date been insufficient, but they have often left behind or excluded those most vulnerable.

Climate justice strives to operationalize this idea in policy by centering the disparity and inequity of experiences of climate change²⁵. It emphasizes that social justice must exist at the core of any meaningful response to climate change. After the inclusion of language relating to equity and common but differentiated responsibility within Art. 3 of the UNFCCC^{24,26}, climate justice was first raised explicitly at COP-6 in 2000, where a global network of organizations acknowledged that *"climate change is a rights issue"*²⁷. This builds upon the history of the environmental justice movement in recognizing that both the impacts and responses to climate change sustain and exacerbate existing disparities on a climatic scale²⁶. In so doing it asks how systems that perpetuate injustice and drive or exacerbate climate change can be sustainably transformed.



Image credit: Chris Yakimov, flickr, 2019

Climate justice can be applied internationally, regionally, locally, and intergenerationally²⁸. Countries such as low-lying, Small Island Developing States are among those least responsible for climate change but are also among the most vulnerable. Equally, young people and future generations will live with the consequences of the emissions of earlier generations. However, the unit of analysis in this report is an urban municipality. Policies at the local level have a dramatic impact on socioeconomic and political inequalities and may perpetuate or assist in ameliorating disparities^{28,29}. Where multilateral climate governance frameworks have been a common source of ire and frustration due to their halting progress, cities, such as the C40 group of global cities committed to ambitious climate action, have sought to portray themselves as dynamic catalysts of climate action³⁰.

If cities like Vancouver are to be successful in this role in a way that ameliorates rather than exacerbates disparity, then climate justice must be integral to such policy.

1.3 City – University Partnerships

As influential and trusted place-based anchor institutions universities can draw greater attention to issues faced by communities and assist in elevating the voices of otherwise marginalized communities^{31–34}. Historically the university has been regarded as holding three 'missions': teaching, research, and making an economic and social contribution to their communities and territories^{35,36}. However, there is scope to perceive a nascent purpose that extends beyond the developmental outcomes of the third mission. This purpose is founded upon universities' roles as civic institutions which can collaborate with government, the private sector, and civil society in advancing sustainability transformations³⁷. Typically, universities rely upon disseminating research, or students and faculty as proxies for furthering climate policy³⁸. CUPs offer a means of playing a more engaged role on a local scale.

The scale, messiness, and systemic nature of these issues demand a collective response. A key aspect of climate governance in recent years has been a dramatic increase in the fragmentation of frameworks and a broadening of networks between actors³⁹. One example of this is CUPs. As the salience and urgency of addressing climate impacts has grown so too has the number of partnerships focused on advancing responses to local and regional challenges resulting from the climate crisis. These partnerships offer an avenue through which the research expertise and convening power of universities can be coupled and aligned with contextually informed community experiences and priorities while advancing the climate policy goals of local government.

Partnerships also offer space for community groups to exercise greater influence in policy development and outcomes, while addressing inequitable relationships with municipalities and universities. This is a point of particular importance for communities that have been historically marginalized through extractive research practices or inaccessible public engagement

processes. CUPs not only offer the potential for greater connection between community and policy and research agendas but also a means by which diverse forms of knowledge situated in place can assume a greater role in climate justice policy.

CUPs also offer a means of arriving at better policy outcomes. While no single party or stakeholder brings with them a complete image of the challenges faced by a city, collaboration can raise the collective level of understanding by drawing together an array of experiences, knowledges, and capacities^{38,40}. Partnerships can be inflection points for the erosion of institutional and organizational barriers³³. By promoting collaboration around a theme such as climate justice, municipal governments and local organizations can build greater capacity for addressing issues collectively by adopting a holistic, inter-organizational approach to the challenges faced.

Finally, amidst a complex network of relationships, universities can also act as neutral and trusted convenors of diverse actors in these partnerships³⁸, increasing the legitimacy of the process and its outcomes in so doing⁴¹.

1.4 Vancouver Context

The City of Vancouver has a history of aspiring towards municipal climate leadership. Building

Downtown Vancouver, Photo credit: Wikimedia commons, 2009

upon the work of Mayor Robinson's Greenest City Action Team, in 2010 the City launched its Greenest City Action Plan outlining an ambitious framework through which it hoped to become the greenest city in the world by 2020⁴². Then, in 2019 council opted to declare a climate emergency following

the publication of the IPCC Special Report on Global Warming of 1.5°C⁴³, providing council with a mandate to approve an emboldened and strengthened Climate Emergency Action Plan (CEAP)⁴⁴. The plan aims to reduce carbon emissions by 50% below 2007 levels and to achieve net-zero emissions by 2050⁴⁴.

Upon declaring a climate emergency, City council placed a keen emphasis on the integration of equity within the CEAP⁴⁵. Therein, the Climate and Equity Working Group (CEWG) offered key inputs and the plan was also subject to three independent reviews on equity within actions and engagement materials drafted^{45,46}. Later, in continuation of this theme of equitable climate action, following the 2020 approval of the CEAP, the CEWG was directed to develop a Climate Justice Charter for Vancouver to: *"act as a guide for staff to center reconciliation, justice, and equity in all climate work"*⁴⁷. However, following a change in City council membership and political priorities the charter was rejected in February 2023⁴⁸.

Despite the emphasis placed on equity in climate action in Vancouver, the city is home to dramatic disparities in the felt impacts of climate change. The summer 2021 heat dome was a tragic testament to this. The 2022 Report to the Chief Coroner of British Columbia found that 91% of those who lost their lives were on a chronic disease registry, 67% were aged 70 or older, and there was an over-representation of individuals living in materially or socially deprived areas of the city¹⁹. Further study has also served to delineate the spatial disparities in vulnerability to climate impacts such as extreme heat, and wildfire smoke⁴⁹. This work demonstrates that not only is vulnerability driven by exposure to these events but also sensitivity and the capacity to adapt, thus overlapping with existing disparities⁴⁹.



1.5 Downtown Eastside

Adapted from: City of Vancouver, Downtown Eastside Plan, 2014, pp.4

One such area is Vancouver's Downtown Eastside (DTES). Before colonization, the area now called the DTES had been a home to x^wməθk^wəỳəm (Musqueam), Skwxwú7mesh (Squamish), Stó:lō (Sto:lo), and səlilwəta?+ (Tsleil-Waututh) peoples for at least 3000 years, a space in which people would hunt, gather, and trade^{50–52}. It would later become an economic and social hub within Vancouver, and is today one of the city's oldest neighborhoods, boasting a rich history which lives on in the area's strong sense of community, its rich cultural heritage, and vibrant

embrace of the arts⁵³. Today it has a population of 21,062⁵⁴ and consists of seven adjoining but distinct sub-areas, consisting of Chinatown, Gastown, Industrial Area, Oppenheimer District, Strathcona, Thornton Park, and Victory Square⁵⁵.

Following decades of marginalization and gentrification, the area also faces an array of complex challenges⁵³. Along with the pressures introduced by the climate crisis such as extreme weather events, the area also faces an opioid crisis and toxic drug supply with a consequent mortality rate 10 times greater than the provincial average⁵⁶. It should be noted that this crisis is not confined to or specific to the DTES, rather it is a manifestation of broader issues surrounding toxic drug supply. However, the intersecting effects of other forms of marginalization such as limited employment opportunities and low median income^a, poverty, house insecurity, and intergenerational trauma, exacerbate it in this community⁵⁷.

Residents have extensive lived experience and expertise in responding to these challenges. An array of community-based organizations has grown in response to these issues, and continue to seek innovative, respectful, and contextually appropriate answers to these issues. However, due to the cumulative and intersecting pressures that exist, little space is afforded to also engage with the climate crisis, despite its scope to intensify and exacerbate these pressures.



Relative surface temperature on a summer day. DTES circled, adapted from: City of Vancouver Urban Forest Strategy, 2018

^a Median total income in V6R postal code in 2020: \$36,400. Across Vancouver this total was \$42,000.⁵⁴

The DTES has also been a focus of - often problematic - research from an array of academics and institutions, not least of which is the University of British Columbia (UBC). Though such research can be greatly impactful with far-reaching positive impacts for participants, many cases exist where community members have felt disrespected by such research⁵⁸. When the community has been denied a role in decision-making on what is to be researched, how it is to be conducted, and how results will be communicated, residents have been exploited as research subjects rather than partners and denied the resulting benefits⁵⁸. Fortunately, this is beginning to change as institutions of higher education such as UBC begin to take a more conscientious approach to the nature, manner, and purpose of their presence in the community. A point that is becoming increasingly relevant in the climate crisis.

1.6 University of British Columbia

UBC is a world-renowned center for teaching and research and is ranked among the most successful universities in the world for social and economic contributions towards the achievement of the Sustainable Development Goals (SDGs)⁵⁹. In 1990 it signed the Talloires Declaration – a 10-point action plan aimed at centering sustainability within higher education, and in 1998 became the first Canadian university to open a sustainability office³⁴. Following considerable student pressure, in 2019 President Santa Ono declared a climate emergency,



Image credit: Abdallah, Flickr

recognizing the strong support for climate justice among the UBC community and stating that: *"UBC as a public institution is a recognized leader in taking action to combat climate change and has a mandate to effect change beyond our institutional boundaries"*⁶⁰. In so doing, this declaration helped to set an institutional agenda for ambitious climate action in the university's activities and the application of a climate justice lens in those policies developed and *implemented*⁶¹.

This declaration built upon the existing UBC Climate Action Plan and led to the creation of a Sustainability and Climate Action Committee (SCA) within the Board of Governors (BoG), and a Climate Emergency Task Force (CETF)⁶⁰. The CETF was tasked with engaging with the UBC community to design a list of priorities and recommendations for enacting the Declaration which was finalized in January 2021,⁶² and progress toward the report's nine strategic priorities and 28 recommendations is reported upon annually⁶³. The SCA was later dissolved by the BoG governance committee in March 2023 with the intention that sustainability not become siloed within a single body, despite this running counter to trends elsewhere as universities work to institutionalize climate action and sustainability within their core mandates ^{64,65}.

The university has partnered extensively with the City of Vancouver on sustainability,

undertaking at least 18 sustainability-related collaborative research projects between 2010-2020³⁴. In 2010 a Memorandum of Understanding (MoU) was signed between the two, stating that: *"the common goals of sustainability and energy conservation will be reached more effectively through collaboration and support"*³⁴.

UBC has been physically present within the DTES in the form of the UBC Learning Exchange – a place-based hub grounded in the values of reciprocal exchange of knowledge for capacity building - since 1999⁶⁶. While the inception of the Learning Exchange was problematic, due to the absence of prior consultation with the community ahead of it being unilaterally yet vaguely announced by UBC⁶⁷. Fortunately, the resistance and skepticism that followed made it clear that the university had made a misstep and sparked a period of consultation which would inform the development of the Learning Exchange⁶⁷. From this experience, the Learning Exchange learned early on to be mindful of its position and role within the community. Given the growth in attention directed toward justice and equity by the City and UBC and far greater appraisal of relationality with the community, there is fertile ground from which a CUP on climate justice might emerge.

1.7 CLimate Equity Action and Resilience (CLEAR) Initiative



Heat 're-leaf' tree - engagement event on extreme heat. Photo credit: the author, Oppenheimer Park, 2023

The CLEAR initiative is a recent and innovative initiative aimed at uplifting DTES community voices in climate policy. The Sustainability Hub, a staff unit at UBC responsible for convening and coordinating work on UBC's climate emergency response, reached out to the Learning Exchange to collaborate on a partnership to address climate justice in the DTES. Together they recruited community partners and sought funding for the project. A grant was secured from

the McConnell Foundation, "a private Canadian foundation that contributes to diverse and innovative approaches to address community resilience, reconciliation, and climate change.⁶⁸" The project started in 2023 with funding for a three-year life span⁶⁹. As of writing two other Sustainability Scholars' projects have also been funded as part of the initiative⁷⁰.

Though the community bears a disproportionate share of the impacts of climate change, the scope for engagement with municipal climate policy outcomes is limited. A substantial element of this is a result of the multiple pressures already faced by the community, precluding engagement with challenges that are less immediately pressing. Equally, despite the scale and breadth of climate impacts on this community, many research agendas and processes are neither co-developed nor conducted in partnership with community members. While guidelines for meaningful engagement and co-creation of research in the DTES have been developed, and are an invaluable resource in partnerships, meaningfully integrating such principles faces institutional inertia⁵⁸. Consequently, this limits the extent to which research can assist in building community capacity on local priorities, or in conveying community priorities and pressures to policy and policymakers.

CLEAR seeks to ameliorate this by making climate research accessible and useful, and empowering residents to occupy a greater space in climate action and policy. The initiative aims to strengthen relationships between the City, university, and the DTES community on climate action and climate equity, while co-defining research gaps and needs, appropriately communicating existing climate research applicable to the DTES, and directly training peer advocates. As of writing this partnership is between the UBC Learning Exchange, UBC Sustainability Hub, EMBERS – Eastside Works – a low-barrier income generation hub focused on creating employment opportunities, Union Gospel Mission – a charity aimed at overcoming homelessness, hunger, and addiction, Working Gear – an NGO that assists unemployed individuals re-entering the workforce through the provision of appropriate clothing and equipment, and Recycling Alternative – a waste management business seeking to create jobs and help facilitate a circular economy.



CLimate Equity Action and Resilience (formerly CLimate Equity Activation and Resilience) partnership diagram, 2023

2. Best Practices in Urban Climate Justice Partnerships

There is extensive literature on how CUPs have been implemented and lessons learned in the process. This section will turn toward these best practices with specific reference to centering community participation in partnerships.

2.1 Trusting Relationships

KEY POINTS

- Partnerships are based on the strength of the relationships between those involved
- Intentional efforts should be directed toward transparency regarding expectations and the time and resources that each partner can commit to the partnership
- This requires time and open communication

The success and viability of partnerships depend on the relationships therein. *"While these are partnerships between organizations, at their core, they are relationships between people."* ⁷¹ Given output-oriented grant allocations, partnerships often form around discrete projects or goals⁷¹. Though such partnerships can be useful in addressing readily identifiable challenges, they are unlikely to result in the long-term systemic shifts associated with climate justice outcomes. The development of trusting relationships between the members of partner organizations offers the partnership a greater chance of continued collaboration from one project to the next. In turn, this allows the shared development of experience and competencies crucial to addressing systemic and entrenched issues.

This does not only pertain to the relationships between the key actors or those with the most authority but rather to all of those involved in the partnership. As such it is useful to consider that when a new partner organization enters a partnership the number of relationships expand exponentially rather than linearly, as new connections must be formed between all members⁷².

This raises the need for redundancy within the partnership⁷³. Though a partnership requires committed leadership⁷⁴, it must be able to survive staff turnover as the membership of partner organizations changes. By committing time to the building of relationships a partnership need not depend on the presence of key members whose presence predicates the participation of others.

Building such trusting relationships demands a substantial time commitment^{32,34,38,75}. And yet despite the load that this places on partners, and the delay that this presents to the substantive work of the partnership, the ongoing success of the partnership depends heavily on this time and the relationships it produces.

While this process and outcome are largely intangible, there are suggestions for processes and behaviors that can facilitate the development of relationships.

Foremost is the need for partners to be intentionally transparent³¹. This can be applied across many dimensions but some of the most notable include: the need to be transparent about partners' expectations and priorities, the self-defined assets that they bring with them, their commitment to the partnership, their experience and competence as they pertain to the partnership, and their capacity to engage with the partnership given constraints on time and resources^{26,32,38,73}. Prioritizing these conversations early helps the functioning of the partnership in the long term, particularly amidst challenges and uncertainty. Equally, this is a crucial element in helping partner organizations inform whether they choose to participate based upon realistic expectations of what the partnership sets out to achieve and whether existing partners intend to invite new partners into the partnership.

Considerations around transparency are also important when considering how information and internal documents are produced. Processes and results should be well documented, free-flowing, and delivered in a manner that is accessible to all partners⁷³, with particular attention paid to avoiding the use of jargon³¹.

There should also be an honest assessment of institutional and relational power dynamics which may affect the partnership⁷⁶. Critical reflection is key to addressing the asymmetric dispersal of power within a partnership which can otherwise serve to perpetuate existing hierarchies – particularly as they relate to various knowledges and ways of knowing⁴⁰. Pertaining to the outcomes of the partnership, participants should also seek to be clear about the extent to which prevailing power dynamics can be addressed within the remit of the partnership³⁸. Overpromising the extent to which the position of equity-seeking communities can be improved through the centering of community in this work can also lead to the erosion of trust between partners.

New partners can be attracted by finding spaces and media through which to talk about the partnership and its goals³⁸. However, it should be stressed that consideration needs to be directed towards how the partnership is communicated and that it is portrayed in a way that honestly and openly reflects what it hopes to achieve and the challenges therein. Equally, existing partners should be mindful of the added relational complexity that is introduced with each new body or organization⁷².

Finally, the relational context of the partnership must be acknowledged. Partnership does not occur in a vacuum and lessons from past interactions or relationships need to be explored and acknowledged at this early stage. Trust cannot be built without attending to past wrongs or tensions that may exist between partners^{31,71,73}. Surfacing these issues is key to ensuring that partnership does not continue to perpetuate existing inequities and that it can work towards addressing them in its operations.

2.2 Shared Vision

KEY POINTS

- Partners need to reach agreement on what the partnership wants to achieve and how it intends to do so
- Seek to understand and strategically situate the partnership within the political landscape, and look for opportunities to build on complementary work already being done
- Equity must be centered in all partnership processes not just outcomes

For partnerships that seek to address issues as entrenched, multi-dimensional, and contextual as climate justice agreeing upon a shared vision of process and direction is key. Equally, it will require a thorough appraisal of prior understandings of how engagement between actors takes place. As such, this will be an effortful and long-term process for all those involved and should offer some return on this investment of time and energy if all partners are to remain committed throughout. While the distribution and nature of benefit may vary, CUPs are ecosystems that should serve all⁷⁷. This must be considered when modelling the practice of partnership and the goals it seeks to achieve.

CASE STUDY

Partners 4 Action, University of Waterloo

KEY POINTS

- Key areas of shared interest across partners help sustain partnerships and attract partners
- Community-oriented research agenda requires community engagement throughout

The aim of Partners 4 Action is to increase flood resiliency across Canada⁷⁸. The initiative seeks to bring equity-informed and community-led approaches to disaster risk reduction to cultivate inclusive resilience and is an applied research initiative housed within the Faculty of Environment at the University of Waterloo⁷⁹. Over the last ten years, Partners 4 Action has engaged in a series of applied research projects in which they partner with civil society and government organizations to promote inclusive and evidence-based awareness and preparedness programs. One such research project was titled 'Pathways to Building Awareness and Preparedness Among at-Risk Populations in

Canada' was an 'Inclusive Resilience' partnership funded by the Canadian Red Cross between Partners 4 Action, Public Safety Canada, FireSmart



Partners 4 Action principles, from Partners 4 Action -Annual Report 2022

Canada, the BC Earthquake Alliance, Native Womens Association of Canada, along with community partners in Richmond BC, Thompson MB, Renfrew ON, Ottawa ON, and Newfoundland^{80,81}. The project resulted in research outputs on how disaster preparedness advice can be tailored to meet the needs of those who tend to be most at risk in the aftermath of disasters⁸². Another 'Inclusive Resilience' project sought to social vulnerability index to flood risk in Canada and applied it in partnership with Richmond BC, Thompson MB, Renfrew ON, and Ottawa ON⁸³.

An orienting principle is that there should be no net increase in work done by any member of the partnership^{38,72}. Participants are invariably faced with a pre-existing workload that is already substantial and further demands on their time may be either unreasonable or unsustainable. The goal should entail searching for ways in which partners can leverage pre-existing work, capacities, interests, and priorities in a way that collaboratively pursues the aims of the partnership.

Situating the partnership relative to existing work and the broader policy landscape is critical to maximizing policy windows of opportunity and reach of the partnership^{28,38,73}. If similar efforts or processes are already in place at the local, provincial, or federal level, consider if the partnership can build upon this process³⁸. This can be a particularly pertinent avenue through which to engage the municipality in the partnership. Considering how the goals of the partnership may fit within the city's agenda can offer an avenue for greater integration between city, university, and community. Consequently, how the partnership communicates its work and priorities can be at least partially informed by the agenda and work of municipal government in attracting city interest in the work of the partnership³⁸.

The context and backstory of parallel work should be kept in mind herein³⁸. This is relevant both in informing the work of the partnership and how it is communicated, particularly if there is an aspiration to attract municipal cooperation or participation. If there is the possibility for or a history of political polarization around these issues this is an important opportunity to avoid or mitigate political quagmire or backlash.

Where this vision aims to center equity it cannot be meaningfully realized where it is siloed or superimposed on top of existing processes^{26,38,76}. For universities, placing a keen emphasis on outreach, engagement, and co-creation can offer a means by which it can move away from historically extractive research practices where the interests of academics are prioritized at the expense of community²⁶. This alternative entails the democratization of university's research agenda based on community priorities³⁸. Attention should be paid here to the degree to which all partners can contribute to the partnership as tokenistic inclusion of equity-seeking partners serves simply to re-create underlying inequity⁴⁰.

CASE STUDY

Urban Resilient Futures – Burnaby

KEY POINTS

- Equitable outcomes require equitable partnership processes
- Awareness and use of policy background and policy windows of opportunity to foster impact
- Leverage existing relationships

Urban Resilient Futures – Burnaby, is a partnership between the City of Burnaby, Vancity, and the Morris J. Wosk Centre for Dialogue at Simon Fraser University (SFU), and is funded by an anonymous donor⁸⁴. The partnership focuses on sustained engagement throughout and builds upon a background of participatory democracy initiatives in the City of Burnaby such as the Mayor's Task Force on Community Housing, and the 'Your Voice, Your Home' initiative⁸⁴. SFU is well positioned to participate given the presence of its main campus in the City of Burnaby, and Vancity equally has several community branches in the city⁸⁴. Between 2021 and 2024 the partnership aims to supplement the city's Official Community Plan development and engagement process by developing a vision and set of actions for accelerating climate action by engaging community members^{84,85}. Its projected outcomes include: a shared vision for community planning, unlocking community capacity for climate action through funding local climate action projects, a demonstration of how cities can promote a just transition by highlighting the voices of equity-seeking communities and developing participatory systems of governance⁸⁴.

A shared vision can be incorporated into the process of partnership by ensuring the co-

creation of partnership priorities and research agendas at all stages of operation. While this entails a shift in the way that universities have historically entered into these spaces²⁶, practices such as community-based participatory research offer a framework for how academics can grow into this space⁸⁶.

Attention should be paid to how communications and engagement can contribute therein. As such, they should not only employ accessible language and formats but should also seek to understand and connect at a level that is contextually relevant to the lived experiences and values of community audiences³⁸. This should also come from intermediaries that are trusted and accepted by the target audience. The municipality can also help highlight areas of particular concern which have arisen through their engagement activities³⁸. Whilst the extent to which this is the case will vary depending on the context, this offers another reason to seek opportunities to integrate city government within the partnership.

CASE STUDY

Front and Centered, Seattle WA

KEY POINTS

- Community-based coalitions can play a key role in shaping climate justice policy
- Community organizations form organizational hubs and university partners are brought in to bolster research output capacity
- Permanent core body key to guiding, building, and sustaining partnership

Front and Centered (formerly Communities of Color for Climate Justice) is a Seattle based organization, founded and led by communities of color, Indigenous peoples, and low-income communities, whose work sits at the intersection of equity, climate, and environmental justice⁸⁷. The partnerships' membership consists of a coalition of over 50 community-based organizations from across the state⁸⁸. It is led and managed by community members and partners with the University of Washington on research projects such as the Washington Environmental Health Disparities Map⁸⁹ and policy reporting into inequitable burden sharing of climate impacts⁹⁰. Employing principles of equitable governance via a community council, community and place-based solutions, and regenerative and renewable economies the partnership works toward achieving a socially and ecologically sustainable and healthy future⁸⁷.

Through a range of activities including research and reporting, capacity building,

grant writing, and advocacy, the partnership has had considerable success in recent years. Among these successes has been the production of research into state-level capand-trade regulations that would lead to legislation requiring a minimum of 35% of revenues from emissions auctions be put to the benefit of *"vulnerable populations and overburdened communities"*⁹¹. This revenue equates to between \$700-800 million USD to be directed toward frontline communities during 2023-2025⁹¹.

The partnership is organized into the community council which is responsible for policy, programs, and capacity building and is drawn from the membership of the broader coalition⁹². In addition, a coordination team serves as a permanent staff for organizational activities, a board of directors which operates alongside the community council with a specific focus on legal and fiscal integrity, and an advisory council that provides strategic insight into program activities⁸⁷.

Co-creating a memorandum of understanding (MOU) can function as a useful scaffolding for developing and holding to a shared vision³⁸. Once it has been created the MOU must not fall into obscurity^{31,76}. It should be recognized by all and practiced in the daily conduct of the

partnership – for example, the co-production of sequential strategic plans can offer a means of articulating and actioning the direction and ethos of an MOU on a more interspersed basis³⁸.

Embodying the results of engagement in the direction of the partnership and feedback on current activities requires flexibility³⁸. Community priorities are not static but are rooted in the issues faced in the present context. As these evolve and shift, the partnership should be able to do the same if it seeks to meaningfully continue to center community. In turn, this may require greater dynamism regarding the grounds upon which funding is granted and applied for, than would otherwise be the case.

CASE STUDY

The Community Watershed Stewardship Program (CWSP), Portland, OR

KEY POINTS

- Attention paid to how community could be more meaningfully engaged in an iterative learning process
- Projects and priorities that intersect with environmental issues may not be framed or interpreted as environmental issues
- Applied student internships are a useful avenue for university engagement

The CWSP grew out of US federal regulation passed in 1995 mandating that the Portland Bureau of Environmental Services prevent stormwater pollution⁹³. It is an ongoing, long-term partnership between community, organizations, the Portland Bureau of Environmental Services, and Portland State University that offers grants of up to USD 12,000 to community groups engaged in improving the health of Portland's watersheds⁹⁴. By funding these annual projects, the program encourages and cultivates partnerships and collaborations between community, government agencies, schools, and universities.

Each year the partnership is staffed by two graduate students undertaking graduate degrees in urban and regional planning who then operate under the supervision of staff from the Bureau of Environmental Services⁹³. Graduate students engage in community outreach ahead of the granting cycle, offer support and connection to technical assistance for the grant writing process, and then assist in the implementation of projects following granting decisions⁹³.

Over its history, the partnership has undergone significant change, most notably regarding developing more equitable decision-making procedures. In its early years, staff increasingly took note of the fact that grants often excluded communities that were underrecognized in the university and government – reflecting the fact that equity-seeking populations often tended not to frame project proposals in alignment with environmental quality⁹³. As a result, student participants carried out a GIS analysis to map neighborhoods which had been marginalized in past grant cycles, and then specifically engaged with those areas identified in grant application workshops⁹³. Later, the criteria used by the selection committee were also updated to explicitly include equity in grant decision-making, with particular emphasis placed on projects in which historically marginalized communities occupy leadership roles and projects respond to priorities identified by community⁹³.

2.3 Infrastructure

KEY POINTS

Permanent backbone staff and organization provide structural support

Partnerships should retain a permanent staff that is capable of maintaining and developing relationships and applying for and managing funding^{34,72,74,77}. In turn, this requires further funding that is not necessarily tied directly to the outputs of the partnership but is invaluable in the cultivation of healthy and long-term relationships.

Committed leadership and a backbone organization are vital in providing supporting infrastructure^{33,34,74,76,95}. Leaders are aware of the work entailed in this role, transparent about their ability to fulfil the position, and have the requisite competence to do so. Redundancy within the leadership can help allow for turnover through time⁷⁶, and pursuing opportunities for student leadership also offers a promising avenue for the cultivation of competent and experienced staff committed to community-engaged work in the municipality^{26,38,95}.

2.4 Measurement, Monitoring, and Evaluation

KEY POINTS

- Identify and agree upon a way to measure progress made
- This should take into account intangible but crucial aspects that will continue to be realized over time

Partnerships should seek to measure the progress and effectiveness of collaboration^{33,40}. While this can be difficult due to the intangibility of outcomes such as empowerment and agency, finding indicators for measurement that are relevant to the partnership is key.

Measures of success must be agreed upon by all partners^{33,40,96,97}. Alongside being part of the broader emphasis of co-creation within the partnership, consensus here is crucial if there is to be agreement on progress made. Disagreement on the extent to which the partnership is meeting the needs of each partner can create tension and rifts within the partnership and limit its long-term viability. However, it should also be understood that transformative change is likely to occur over long periods and so there also needs to be a common understanding as to how the rate of change will impact what can be measured⁴⁰.

The FAIICES evaluation is one method that has been developed for CUPs on sustainability and resilience developed by Caughman et., al³³. Rather than measuring the outcomes of the partnership, this approach seeks to shed light on the process and nature of the partnership itself. To do this it measures perceptions of the work that the partnership seeks to address, along with perceptions of the collaborative functioning of the partnership and the dynamics therein. This is carried out through a facilitated survey or series of interviews.

To do this it first asks participants to rate their views of the functioning of the partnership. First, by surveying views of the partnership and its collective capacity:

Foundation – how do participants rate interest, competence, and capacity regarding the project within their organization, and within partnering organizations?

Actions – how do participants judge the ability of partners to engage with one another and the project itself collaboratively through its planning and implementation?

Impact – what do participants think has been achieved by the partnership so far, and what do they see as opportunities for work moving forward?

The second component of this evaluation seeks to lend insight into how the partnership is functioning and the existence of inter-personal and inter-organizational dynamics therein:

Interpersonal context – to what extent do partners perceive a mutual understanding of partners' needs within the partnership, share a mutual interest and motivation to commit to the partnership, and how do they perceive the history of collaboration between the partners?

Empowering Supports – how formalized or established do partners understand the partnership to be? This could be perceived through established mechanisms within the partnership, commitment of resources by partners etc.

This process allows for and encourages engaged discussion on the progress of the partnership and requires few tangible measures of output. It can also be repeated iteratively within the partnership during annual evaluations or in the context of key events.

Another approach, that interweaves innovation and evaluation, is developmental evaluation (DE)⁹⁸. This approach measures both intended and unintended results in a constant process of evaluation by asking what approaches best suit the specific context at any point in time, and what is being learned as new approaches are implemented⁹⁸. This entails establishing a system for iteratively gathering, sharing, and collectively seeking to understand feedback from the partnership to support learning and development as projects unfold^{99,100}.

A key point for consideration is that DE was conceptualized to be adaptive to the context in which it is applied and that the specific model used adapts as needed. Therefore, there is considerable scope for modifying the approach to suit the needs of the partnership. However, there are also several key aspects associated with DE as conceived by Dozois et al., 2014¹⁰⁰:

Orienting – maintaining a sense of the partnership's overall direction, principles or values, strategies, and theories of change amongst the complexity that the partnership operates within. Theories of change need not be static to be oriented toward. Rather in accompaniment with direction and values, they should be adapted as the partnership continues to learn by testing strategies.

Watching – in gauging the trajectory and progress of the partnership key areas for attention include: moments where the initiative shifts or develops notably, relational dynamics between partners, the degree and nature of structure, and possible threats and opportunities as they arise.

Sensemaking – drawing insights from the data received demands that specific attention be given to synthesizing, analyzing, and communicating feedback throughout the partnership.

Intervening – performed well, this process will identify areas for growth or change within the initiative. These changes may be instituted by asking questions to expose assumptions or points of difference, introducing new information or best practices, or re-centering attention toward key priorities or principles.

3. Common Barriers and Strategies to Overcome Them

Throughout the cases and models surveyed, there are several recurring barriers to

partnership. Though these appear to occur frequently there are also many innovative strategies that partnerships have used to tackle them. This section will consider some of the most frequent barriers encountered and offer suggestions on strategies to overcome them.

3.1 Disincentivizing Community-Engaged Work in Higher Education

KEY POINTS

- Community-engaged research is rarely rewarded by universities
- Universities often tend toward global rather than local impact
- Researchers are not necessarily trained in community-engaged research methods

The risk borne by researchers who want to do community-engaged work is one of the most frequent issues raised^{26,31,38,76,86}. Most commonly this refers to how tenure and promotion decisions are made within universities and the emphasis that this places on published academic research output. Whilst this does not necessarily preclude community engagement and involvement, it can make alignment of academic and community priorities more challenging if academic research articles are not the output that community partners are interested in. Therefore, if researchers are to engage in this type of work it must usually come in addition to other work that meets the research and tenure priorities of the university. This then either places greater constraints on their time or risks slowing or stalling career progression. In the present case, the significance of this is all the greater as there is evidence to believe that this effect is magnified when it intersects with climate concerns¹⁰¹.

This dynamic also means that academics are rarely trained in community-engaged research practices³⁸ given the lack of emphasis on these outputs. This lack of training places another barrier to meaningful engagement given a relative lack of competence therein³⁸. It can also be seen in histories typified by 'parachute research'. These extractive research practices privilege the interests of academics and often overlook those of community interlocutors in research. In turn, this has resulted in community-based responses such as *Research 101*⁵⁸ from within the DTES community, however there is much work left to be done in addressing this tension.

Universities' existence within a global context also impacts research and recruitment priorities⁸⁶. The globalization of higher education both in the reach of outputs, and scope for recruitment has introduced an element of global competition that places global issues and research priorities in a privileged position in comparison to more local issues⁸⁶. This aspect of competition and global rankings has also led recruitment to be increasingly elitist, making institutions inaccessible to lower-income, and equity-seeking youth from local communities⁸⁶. The distance between the priorities of the university and the community in which it is situated is thus broadened.

Strategies

KEY POINTS

- Seek out coalitions of faculty and staff already interested in furthering communityengaged work
- Applied research internships are an opportunity to train local climate justice leaders, gain additional partnership staffing, and supplement curriculum
- Engaging students in place-based, practical pedagogy has a proven track record of sustained support from the City of Vancouver and UBC

It is often possible to find individuals within institutions that are increasingly aware of these dynamics and are working to change them¹⁰². Higher education is currently undergoing a broad reappraisal of its position within society and how it rewards societally impactful research^{35,37,103–106}. Fortunately, this is often oriented toward increasing engagement within its local context. However, it is important to consider the systemic inertia that such systems carry and the time that these shifts take to implement¹⁰². Whilst the ecosystem of the university is wide, forming coalitions with others who are similarly interested in shifting these priorities can be a powerful tool. While partnerships for climate justice tend to seek to address government policies, university policies can be easier to shift and are a useful place to start in increasing the impact of community-engaged partnerships³⁸.

CASE STUDY

University of California (UC), Berkeley

KEY POINTS

- Some universities are beginning to recognize community-engaged research in awards and tenure evaluation
- Faculty and staff interested in shifting the public mission of the university built a coalition to update university evaluation policy over a four-year process

The University of California offers an example of a university system that has demonstrated promising progress towards meaningfully recognizing community-engaged research¹⁰³. Most notable within this is UC Berkeley which in 2021 approved new policy guidelines enshrining

community-engaged research and nonpeer-reviewed academic outputs (such as testimony, reports, and white papers) as scholarship rather than service in faculty evaluation^{103,107}. The university now also offers awards and grants¹⁰⁸ specifically in recognition of the community impact of research¹⁰³ further consolidating this stated shift in priority.

This process began with a coalition of faculty members, with some support at the vice-provosts office, organizing and collaborating to advocate for change within the university system, leveraging an influential and centralized faculty committee^{103,109}. Over four years this coalition developed and expanded relationships with both staff and faculty university leaders and advocated for the refinement of UC Berkeley's definition and

understanding of its public mission¹⁰⁹ latterly leading to the amendment of faculty evaluation policy. This has led to subsequent progress in research guidelines and policies at UCLA, UC Davis, and UC Santa Cruz in part via a recent UC Community Engagement Network¹⁰³. It should be noted that while this is a useful example, other institutions have been increasingly setting a precedent for such a revision including Duke, University of Minnesota – Twin Cities, and University of North Carolina at Greensboro¹⁰³.

Applied research internships can also be used to shift this norm. Across models of partnership, this is one of the most common strategies employed by partnerships in pursuing the goals of each sphere of partnership^{32,73,76}. Though there is some evidence to believe that city partners tend to prefer collaboration with faculty³⁴, the uptake and application of these internships are so ubiquitous that it is reasonable to conclude that broadly they have served the interests of those concerned to a degree sufficient enough to be repeated. These internships offer a way for students to apply and act on what they are studying, offering them a sense of agency and empowerment¹¹⁰. Students also often come from the communities in which they are working. This lived experience equips them with a dimension of competence that is rarely otherwise drawn upon or rewarded within higher education and makes curricula more applicable and relevant to those issues that they witness day-to-day^{102,110}. Furthermore, this helps to service the educational imperative of universities, while training future community climate justice leaders within a context that is relevant to them³⁸.

Sustainability Scholars Program, UBC

KEY POINTS

CASE STUDY

- Applied student internships a sustainable and popular extension of partnership
- Students trained to be local sustainability leaders can continue to engage in this space following graduation

Formerly known as the Greenest City Scholars program, this initiative was first convened in 2010 between UBC and the City of Vancouver in implementing the Greenest City Action Plan¹¹¹. Since that time over 675 scholars and projects, across 11 faculties have contributed to applied sustainability research in the region¹¹¹. More recent project collaborations with the City of Vancouver have included work on the Climate Emergency Action Plan, the Climate Change Adaptation Strategy, and the Healthy City Strategy¹¹². In this initiative, scholars can apply their studies to real-world projects whilst building relationships, are paid for their work, and gain leadership experience in sustainability initiatives locally, with consequent research reports made available on the publicly accessible online portal. Partnering organizations now span a range of municipal governments in the region, BC Hydro, TransLink, and Fraser Health, with many former scholars now working within partner organizations¹¹¹. Throughout its existence, the program has done much to train cohorts of students in engaged research methods and to incentivize local research.

3.2 Funding

KEY POINTS

- Funding is a particular issue over longer periods and when not tied to specific project cycles
- Funding opportunities can pressure the partnership into certain directions
- Decision-making authority over funds can be held inequitably within the partnership

Funding is consistently raised as an issue in sustaining partnerships^{1–5,12,13}. This can be particularly challenging for partnerships on climate justice given the intangibility of outputs and outcomes. While funders may be initially enthusiastic⁷⁷, there is often a tendency toward the development of tangible metrics or progress or success. Where the overarching goal of the partnership is oriented towards equitable engagement or systems transformation, finding readily measurable and communicable metrics is difficult. This increases the challenges posed by attracting and retaining sufficient funding.

Funding is also required in the initial relationship-building phase of the partnership⁷². This is a period in which outputs may be limited, and outcomes (i.e. relationship building) are difficult to measure. Once again, this raises the issue of sufficient and timely financial backing.

Finances may also be tied to project cycles. This can be particularly true where funds are linked to research outputs. While this need not preclude partnership, if the partnership is to endure beyond and through the project cycle it is necessary to find sources of finance that can endure beyond project cycles.

The pursuit of funds can lead to partnerships shifting direction to avoid politically polarizing policy areas⁷⁶. This is particularly the case where community-based non-profit organizations seek funding opportunities. While dynamism in the methods and proposed outcomes of partnership need not be negative, given the transformational nature of climate justice this can often be an area subject to such polarity.

Allocation of funds within a partnership can also mirror overarching inequitable relationships. Particularly where funding is offered based upon research outcomes it is often disbursed to principal investigators who are then placed in a privileged position within the partnership through allocating authority over funds³¹. This can serve to perpetuate systems of inequity and reduce community decision-making agency in the direction and priorities of the partnership.

Strategies

KEY POINTS

- Pursue opportunities in each of the institutional and organizational spheres that partners operate within
- There is evidence of an increasing turn towards impact-oriented funding priorities
- When aligned with the municipal climate agenda philanthropic organizations can play a key role in directing and shaping climate action and collaboration

Partners should seek to collaborate on funding opportunities³¹ to support the collective goal of the partnership, and embedding partners within various proposals. Each sphere of partnership will have a different set of sources that it turns toward when seeking funding opportunities¹¹⁴. This dynamism needs to be leveraged in applying to a broad diversity of funders and avenues for grants.

There is also evidence that some funders are shifting their practices to recognize this work. Some large funders are increasingly turning to reward community-engaged work and are reflecting this in the metrics that they rely upon in monitoring the success and progress of partnership¹¹⁵. These opportunities should be sought out as a matter of priority within partnerships.

CASE STUDY

Transforming Evidence Funders Network (TEFN)

KEY POINTS

- International funder network aiming to shift the creation and impact of policy to foster implementable policy solutions to wicked problems
- Increasing interest in the funding landscape to reappraise research and evidence

The TEFN brings together a global network of funders that aim to bring about change in how evidence is created, mobilized, and implemented in policy¹¹⁵. The network offers a space in which funders can take part in workshops, training sessions, and biannual conferences to develop and share practices for expanding the evidence ecosystem and bringing about institutional change in the use of evidence in seemingly intractable social issues^{115–117}. A key finding to emerge from this work is that funders are often broadly supportive of seeking out alternative approaches to addressing complex societal issues¹¹⁶. Equally, within these alternatives, there is a tendency toward increasingly relational approaches to research and dissemination, where the utility of the research for its end users is centered at all stages of the research process¹¹⁸.

Committing backbone organization staff to funding applications early on demands more funding but can alleviate the time constraints already faced by other partners. This equally allows for the development of competence in this area and focuses efforts on a crucial component of the long-term well-being of the partnership.

CASE STUDY

<u>Research to Action Collaboratory (RAC), University of</u> Washington

KEY POINTS

- Innovative platform for building and accelerating community partnerships
- Flexible funding allows for less tangible outcomes and outputs

The RAC at Urban@UW is an innovative platform that seeks to fast-track transdisciplinary collaborative, communitycentered partnerships and research about urban challenges¹¹⁹. By building connections and collaborations across silos in academia, policy, and practice the RAC fosters an environment in which solutions and strategies to complex problems can be developed. Specifically, it provides funding opportunities that need not be linked to tangible deliverables¹¹⁴, delivers capacitybuilding workshops and coaching for collective impact, while also providing organizational support for ongoing partnership and maintenance of relationships¹¹⁹. Where funding is tied to the need to produce measurable impacts, transformative initiatives can be fundamentally limited in their ambition and scope. By offering funding to partnerships that require greater flexibility in the metrics used for monitoring and evaluation, the RAC increases the scope for partnerships aimed at addressing transformative - yet difficult to measure - change.

CASE STUDY

The Montreal Climate Partnership

KEY POINTS

- Leveraging multiple philanthropic backers in line with city climate goals created citywide partnership drawing from a broad range of actors
- Initial, well-funded project contributed to the development of longer-term, wider partnership

The Montreal Climate Partnership grew out of the collaborative work of the David Suzuki Foundation, C40 Cities Climate Leadership Group, the Trottier family foundation, and the City of Montreal in developing the City of Montreal's Climate Plan in 2018¹²⁰. The partnership is built on the collective resources and experience of private philanthropy, with each of these foundations having agreed to contribute between \$250,000 - \$400,000 to help the city reach the goals laid out in the plan in this initial two-year period¹²⁰. Collectively the partnership aims to mobilize community, philanthropic, institutional, and economic actors to accelerate climate action in keeping with the goal of the Paris Agreement to limit global warming to 1.5°C and achieve net zero by 2050¹²¹. Since its inception, it has grown to include over 100 partner organizations and is funded collectively by the Foundation of Greater Montreal, the Trottier Family Foundation, the McConnell Foundation, and the City of

Montreal¹²². The steering committee sets strategic priorities and is drawn from a diverse range of backgrounds and act as ambassadors between the partnership and their extended networks, with the work of the partnership managed by a core staff team¹²².

One of the most notable outcomes of the partnership is the Montreal Climate Summit which draws in key actors from across the Montreal community to share best practices, measure collective progress, and discuss challenges in climate action across the city¹²³. The annual summit began in 2022 and it has since convened over 900 attendees around the City's climate goals³². In particular, the inclusion of frontline communities in climate action, the need to move toward sustainable transportation in a way that addresses existing inequalities, and inequitable access to urban tree canopy have been highlighted during these events^{123–125}.

3.3 Aligning Interests

KEY POINTS

- Identifying areas of common interest is challenging
- Timelines between community, university, and municipal partners are often misaligned

Identifying individuals with overlapping interests is also a frequent issue³⁴. Particularly for academics and municipal staff department silos can often obscure opportunities for overlap between departments and individuals⁷². Relationships and partnerships are frequently built on top of existing relationships, or instances where one individual incidentally comes across the work of another, rather than because of sought-out complementarity³⁴. Though the presence of such well-connected relationship brokers within a partnership can be an asset^{126,127}, it also places undue strain on those individuals and can preclude the inclusion of other partners who would be interested but are otherwise unaware if there is no pre-existing connection.

Research often operates on a different timeline to policy or community priorities^{38,86}.

Academic research articles may not only be misaligned with the outputs sought by other partners but also tend to take much longer than city or community partner timelines allow⁷². Again, this can lead to partnerships that serve the interests of one partner but neglect those of another. Not only can this preclude mutually beneficial outcomes in the short term but can also turn partners away from the partnership going forward.

Strategies

KEY POINTS

- Establish a process for convening actors, identifying areas of common interest, and growing the coalition of support
- Clear and consistent public imagery and messaging make it easier to bring in parties with common interests
- Build relationships with individuals across institutions with similar interests and values

Establishing a process for aligning problems and individuals with relevant experience has been suggested on several occasions^{34,110}. A permanent backbone organization can be particularly effective as a connector and convenor. By establishing a process whereby City staff and community members can raise current issues which align with the values of the partnership, staff in the backbone organization can facilitate connection with individuals experienced in the field.

Cultivating individual relationships around common interests can help open policy windows¹²⁸. While it is difficult to establish relationships and partnerships across entire institutions, if potential allies can be identified it is possible to develop relationships and coalitions with individuals therein. This point is particularly pertinent within large bureaucracies such as those in cities or provincial governments where policy priorities are liable to shift between electoral terms. Having established relationships with governmental staff helps to highlight what opportunities for policy advocacy, engagement, or development exist – particularly if the priorities of the partnership are dissimilar to those of elected officials. **Partnerships can be more effective in aligning issues with expertise if they have a consistent and noticeable public image**³⁸. If partners can build awareness of the presence of the partnership, the work it is doing, and its openness to partners in public fora there is a far greater likelihood that other interested parties will self-identify. In turn, this may help with aligning policy problems with individuals with relevant experience as the pool of prospective partners grows wider.

CASE STUDY

CityStudio, Vancouver

KEY POINTS

- Applied student internships bring academic value to students and universities, and lend creativity and human resources to policy challenges
- The organization convenes city staff and university faculty to connect policy problems with relevant expertise
- Student impact supported by applied transdisciplinary curriculum

The CityStudio model offers useful insight into the potential reach and diversity of applied research internships between universities and cities. Founded in Vancouver in 2011, CityStudio was both a reaction to the City of Vancouver's intention to become the world's greenest city by 2020 and a way to engage students meaningfully in applied and academically recognized work on sustainability¹²⁹.

Since that time, the organization has convened over 2,000 collaborative projects between students and the City of Vancouver¹³⁰. It works by convening City staff who submit policy challenges that they are faced with and then connecting these staff with university faculty who may be interested in partnering via applied student research projects^{102,110}. Not only does this offer City staff the opportunity to share their workload with student teams, but it also offers students a way to engage with and work on issues that they are situated within. Often coming from the communities in which they work, students bring with them lived experience relating to the projects they are working on. They are then supported through the provision of a curriculum of activities and exercises designed to equip them for the project. Not only does this offer a chance to develop place-based, contextual expertise, but it also ingrains this embedded knowledge in their projects. Finally, it provides students with a way to apply their schooling in a way that is immediately apparent and relevant to their day-to-day lives, offering an empowering and engaged academic environment¹¹⁰.
4. Models of Partnership

This report draws upon several models chosen based on their applicability to this context. The criteria for their inclusion were that they seek to center community throughout, that they should have the capacity to span community, university, and city, have been proven to be successful in similar contexts, and have shown applicability to inner-city climate justice contexts.

These models need not be mutually exclusive. They can and often are adjusted, modified, and integrated in novel ways to meet the needs of a given circumstance or context. However, by studying the frameworks that these partnerships adhere to and the purpose each undertakes it is possible to gain a clearer understanding of the partnerships studied and their approach to the issues that they face.

4.1 Boundary Organizations

Boundary organizations make connections across and sit at the intersection of social or institutional divisions¹³¹. Given their potential scope they are a particularly common form of partnership, though their identity and composition vary considerably depending on context. Loosely defined, they are organizations that sit at the boundary between knowledge, practice, and policy^{113,132,133}. They aim to be a long-term, organizational link between two or more fields such as policy and academia¹³¹.

These organizations have three core criteria¹¹³. As mentioned, they must involve actors from multiple spheres such as academics, policymakers, or professionals. They will also produce 'boundary objects'¹¹³. This could be a shared vocabulary, research, or conceptual model, which facilitates communication and understanding between partners, but allows for its precise meaning to be understood in nuanced ways by each party and creates a helpful intermediary tool between theory and practice^{132,134}. Finally, they have some political relationship with each aspect of the boundary – for instance, the organization might be employed by municipal government in a project in which the boundary organization can allocate funding and research priorities in collaboration with the university¹¹³.

A potential asset – though not a necessity – can be the inclusion of a 'boundary spanner' or an individual able to move across and between these boundaries, bringing individuals together under the goal of the organization¹²⁶.

They are founded on the idea that addressing complex social issues requires the integration of knowledge otherwise separated by fields or social boundaries¹³¹. Scholarship surrounding such issues has grown increasingly clear that such lasting infrastructure is central to the work of addressing them¹³⁵.

Knowledge brokering organizations are a recent iteration of boundary organization¹¹³. They are specifically established to facilitate the mobilization of knowledge or evidence between various audiences, with an emphasis on informing policy¹³⁶. They seek to bring attention to knowledge or evidence that policymakers might otherwise miss. As such they can focus either on informing policy, or agenda setting by providing a more nuanced understanding, or alternative perspective on a particular issue. While some act in response to demand for evidence, and others seek to supply evidence to influence policy agenda, a particular point of difference to other organizations is that they seek to provide evidence for policy rather than ideas for policy development alone¹³⁷.

One key predictor of the success of partnerships across boundaries is their entry point into the issue that they seek to address¹³⁸. Given the diversity of actors involved and the intricacy of the challenges that these partnerships work to address, considerations of where the work should begin are complex and can often generate conflict or paralysis.

Boundary-spanning partnerships should seek entry points that are¹³⁸:

Meaningful – a tangible problem that need not necessarily solve the entirety of the challenge faced but offers an opportunity for partners to begin to work together and develop the partnership. Ideally, it should be visible, and a point of particular interest for a substantial portion of the partnership¹³⁸.

Actionable – though the overall goal of the partnership requires a concerted effort in the long term, the starting point should be concrete enough for work to begin¹³⁸. Once again, the emphasis here is that it should be possible to begin work and practice collaboration.

Acceptable – while it need not be the highest priority of each partner, the work should be an acceptable place to start according to the needs and interests of all involved¹³⁸. Considerations of equity in agenda-setting and decision-making at this stage are particularly important.

Provisional – the starting point does not represent the work of the partnership in its entirety. However, it should offer the possibility of learning and help indicate the future development of the partnership's work¹³⁸.

4.2 Collective Impact

Collective impact is based on the idea that isolated initiatives are insufficient when faced with large social problems¹³⁹**.** The initial conception of the idea stated that traditional approaches to such problems entailed an isolated actor working alone. This approach adopts the position that such problems are rooted deeply in society and are beyond the sphere of influence of a single NGO, university, government, or community¹³⁹. Given this, diverse actors must be convened and coordinated around a long-term organizational core to address these issues in a way that encompasses the diverse societal and institutional interactions that lead to them. **Preconditions to this work** are the presence of an influential champion or champions with sufficient connections and reach to draw together and retain the engagement of diverse leaders; funds to get the partnership underway over the first few years; and an urgency for change sufficient to convince participants of the need for a change of approach⁹⁷.

Collective impact initiatives share five core themes: 97,139,140

Common agenda – there must be a shared and agreed-upon understanding of the problem that the partnership seeks to address and the way that it intends to do so¹³⁹. Though partners need not necessarily agree on all elements of the problem, there must be consensus on the central issue that the partnership seeks to address.

One way to approach this is by collaboratively outlining a theory of change that defines who the partnership will impact, what impact it wants to have, when it will do this, how much impact it will have, and what activities it will undertake in the process.¹⁴¹

Shared measurement – consistent indicators should be used and shared regularly in measuring the results of the partnership¹³⁹. Measurements should extend to all partners to ensure ongoing accountability and transparency across the initiative.

This can be challenging given the complex interplay of actors, the need to agree upon a common system of measurement despite differences in accepted practice outside of the partnership, and the intangibility of project outcomes. One framework that has been proposed for addressing this issue broadly categorizes results as either strategic learning (how and to what extent the partnership learns about how it coexists, and the processes it employs), systems change (changes in systemic drivers and behaviors), and overall mission outcomes for the target population¹⁴².

Mutually reinforcing activities – partners should seek to support the initiative by lending their capacities and competencies in a way that best contributes to the partnership¹³⁹. Each partner should not seek to act or contribute uniformly, but rather according to the intersection of their strengths and the needs of the partnership. An asset map can be a useful tool for the identification and alignment of such strengths.

Continuous communication – not only is communication vital to building consensus on goals and processes, but it is also vital to the cultivation of trust within the partnership. Open communication allows for the development of a commonly understood vocabulary around the issue and is vital for creating an environment in which the interests of all parties are heard¹³⁹.

Common barriers to this include absent partners³⁴ or partners sending junior colleagues to meetings in their stead¹³⁹. As previously stated, so much of the success of the partnership depends on the cultivation of trusting relationships, which in turn draw heavily on communication. Regular, engaged participation is therefore vital.

Backbone support organizations – this is possibly the defining feature of this style of partnership and has also been described as a form of boundary organization itself¹³⁵. These organizations sit at the center of the partnership and consist of a staff that is dedicated to facilitating dialogue between partners, giving overall direction, applying for funding, communicating on behalf of the partnership, and conducting monitoring and analysis^{97,139}. While the structure of this organization and how it is funded vary between partnerships, its function remains relatively stable.



In addition, strategies for equity in collective impact have been developed to

Five core themes of collective impact, From: United Way of Erie County

supplement this underlying model (adapted here from Kania et al., 2022)¹⁴⁰. These entail:

Grounding the work in data and context - to develop a shared understanding of language, narrative, and data. Each of these can serve to perpetuate underlying historical and structural inequities and aggressions. Much data can conceal contextual nuance, obscuring the diverse life experiences of those documented therein. Disaggregated, mixed-method approaches to data collection are necessary, and should be collected in partnership with those that the data represents.

Focus on systems change, in addition to programs and services – rather than seeking to address policies and programs alone, partnerships should also identify and address underlying drivers at the relational and narrative level. These concern the likes of power dynamics between organizations and communities, and how we understand and frame the issues at hand.

Though these deeper levels of change are harder to track, and strategies for implementation are less obvious, progress has been possible elsewhere^{143,144}. Reappraising data can be one way of going about this. By considering how and what data is collected to attain a better understanding of why trends exist it is possible to spread a richer understanding of experience and context.

Shift power within the collaborative – decisions on policies, allocations of resources, and prioritization of certain forms of knowledge often remain in the hands of a narrow set of individuals outside the affected community. Partnerships should aim to cultivate inclusivity in the leadership of the initiative regarding who holds decision-making authority therein. Equally, attention should be given to the influence that factors such as the space in which meetings are held, and relational dynamics have on power relations within the group.

Listen to and act with community – partnerships have long emphasized working in community. However, this categorization pays little to whether the partnership is pulled into the community, or whether it pushes its way in¹⁰². Partnerships should aim to shift their emphasis toward working with and supporting the pre-existing work of community, as it seeks to meaningfully align itself with contextual and place-based priorities and issues.

Build equity leadership and accountability – this entails the decentralization of leadership throughout the partnership and holding to the overall goals and values of the initiative. For example, one way to build this into the partnership is for the backbone organization to at least in part be staffed by community members from the population that the initiative seeks to work with.

CASE STUDY

East Scarborough Storefront, Toronto

KEY POINTS

- Application of collective impact and backbone organization in inner-city context over 20 years
- Highlights 10 key aspects to implementation of this approach elsewhere

The East Scarborough Storefront is an example of a community backbone organization the impacts of which have reverberated throughout the Kingston Galloway/Orton Park community over the past two decades¹⁴⁵. The organization was created in the late 1990s in response to deficit-oriented approaches to community development and renewal in an area that experienced pervasive low income and few economic opportunities¹⁴⁵. The organization consists of people that live and work in the neighborhood, leaders from social service organizations, academics, designers, corporate partners, and local policy makers⁹⁸. Employing the principles of collective impact, and asset-based community development within their Connected Community Approach¹⁴⁶ the Storefront facilitates interaction and collaboration between local change-makers, residents, and policy and sector⁹⁸. The overall goal of this approach is aimed at developing and bolstering the social fabric



Modelling Collective Impact. From: East Scarborough Storefront, *East Scarborough Storefront's Theory of Change: How we create change*, pp.12, 2017 of equity-seeking communities rather than a single tangible target¹⁴⁷.

The University of Toronto Scarborough (UTSC) began to enter into informal partnership with the Storefront, and other community organizations in the Kingston Galloway/Orton Park community in 2004¹⁴⁸. Progressively the partnership between UTSC and the Storefront developed into a series of collaborative projects that were jointly developed and allowed for mutual colearning, and in 2011 they received funding to enter into a formal three-year pilot partnership¹⁴⁸. The partnership was managed by a steering committee composed of university faculty and staff and Storefront staff who would together decide on programming and activities¹⁴⁸. The initiatives undertaken during this period were aimed at fostering innovation and transformation and included: community development curricula delivered to students by community-based practitioners, community environmental education and awareness programs, story-telling workshops for residents, a community connections leadership forum, and an inclusive local economic network¹⁴⁸.

A key feature of the Connected Community Approach is that it does not seek to replace or supersede any existing programs or initiatives in the community, instead applying 10 key aspects of the Connected Communities Approach (adapted here from Poland et al., 2021)¹⁴⁷:

Build on strengths – nurture and build from community assets in the understanding that residents have agency and are not simply a vulnerable population waiting to be helped. Create a connected community from the inside out – this role can be played by a community backbone organization. Its aim should be to foster and strengthen connections between actors and initiatives in the community.

Facilitate collaborative processes – the backbone organization seeks to find ways that individual actions and projects from diverse actors can build upon and complement one another.

Learn together – continuous feedback and knowledge mobilization are employed throughout.

Embrace the messiness – the community is framed as an ecosystem that must learn, adapt, and grow over time in response to changes in environment and stimulus.

Prioritize equity and power sharing – active participation and authority in decision-making should be enjoyed by community members if the status quo of systemic inequity is to be overcome.

Let values lead – seeking to find common purpose and values among diverse actors can be one effective means of fostering collaborative creativity and adaptability in the face of changing circumstances.

Work at multiple scales – the approach seeks to work both in developing local social fabric and to build and cultivate connections to larger systems via partnering with the municipality for example.

Make community building visual – communication is vital as the community seeks to adapt to the challenges and shocks that it faces. Developing methods of communication that are trusted, engaging, relevant, and visual has been effective in this regard.

Build creative infrastructure – emphasizing the facilitation, connection, and support

needed to center community priorities in the work of the partnership, as part of an infrastructure that facilitates community agency in local decision-making.

4.3 Community Based Participatory Research (CBPR)

CBPR has long been held as a means of fostering university-community collaboration^{86,135,149}. Built on the idea that equity-seeking and front-line communities often have little access to decision-making on research priorities or policy outcomes this model seeks to democratize research⁹⁶. Working from community assets, and seeking to promote equitable partnerships¹⁵⁰, the core principles of CBPR relate to the meaningful inclusion of the community at all stages of the research process, valuing diverse forms of knowledge, and creating actionable knowledge that is aligned with community priorities⁸⁶. Community should not only have decision-making power over what is researched, but also over how research is conducted, and used¹³⁵. In turn, this knowledge can then be used to inform local policy or in service of community-based solutions to context-based challenges²⁶.

CASE STUDY

Community Climate Resilience Lab, Toronto

KEY POINTS

- Community based research connecting climate resilience with racial justice
- Racialized communities subject to the greatest climate impacts
- Working to create a Racial Justice Climate Resilience Framework for the city

Founded in 2022 the Community Climate Resilience Lab (CCRL)¹⁵¹ brings together community and non-profit leaders, policymakers, and academics, and aims to co-create a Racial Justice Climate Resilience Framework for Toronto¹⁵² through the Reconciling Racial Justice and Climate Resilience Project. It centers on the knowledge that genuine climate resilience requires systemic change¹⁵³. The partnership is based on the fact that Toronto is becoming increasingly unequal in its economic affluence, access to housing, and access to service provision¹²⁸. In turn, the areas that are most equity seeking, also overlap with racial divisions in the city, with those areas that tend to be most equity seeking being found in traditionally Black neighborhoods¹²⁸.

The partnership draws upon communitybased action research and consists of the University of Toronto Dalla Lana School of Public Health, Ryerson University Sociology Department, the Network for the Advancement of Black Communities, and the Center for Connected Communities¹⁵² and is the recipient of an Urban Challenge Grant from the University of Toronto, School of Cities¹⁵⁴. Noting the increase in insecurity and instability that the climate crisis will continue to produce, the partnership aims to influence policymaking in the city through research and eventually a framework that is co-produced by diverse partners. It draws upon lessons learned in cities that are also working through issues surrounding racial justice such as New York, Boston, and Miami¹²⁸. The aim is for these outputs to be actionable over the long term and for partners to continue in partnership into the future¹²⁸.

This model of partnership sets a high standard for partnerships, yet it is often framed as research alone⁸⁶. Though the intention and theory of CBPR sets a far higher goal than this – namely a knowledge and evidence base founded on community priorities - this categorization carries with it issues surrounding internal power dynamics across the partnership, such as management of program funds¹⁵⁵. Whilst this is far from ubiquitous, it has led to multiple examples of partnership models growing from the tradition of CBPR to address such relational disparity within partnership^{76,150}.

The CORE model is such an example⁷⁶. This model has been shown to create partnerships that can last for decades based upon individual cycles of three to five-year partnerships each of which can work towards the larger issue addressed, whilst deepening the relationships of partnering groups and organizations⁸⁶. These partnerships begin with a phase of collaborative investigation and planning into areas of mutual priority and interest that are crucial in equitably addressing and mitigating the space between university research priorities and community needs⁸⁶. The result of this period should be an MOU and a multi-year plan which outlines expectations for the direction of the partnership, processes for decision-making, and what resources each partner will bring⁸⁶. Key to this is the conception of university as an anchor institution⁶⁵ engaged in the creation of jobs, industry, and social capital in their area, with the possibility of revitalizing local areas that have otherwise been underinvested in. In this guise, research and learning have the voices and interests of equity-seeking populations at their core and are directly applied to challenges faced by local society⁸⁶.

The Morgan Community Aligned REsearch Solutions (CARES) model offers another case that seeks to actively foster capacity building and logistical support to build and maintain balance within the CBPR partnership¹⁵⁰. This model includes a specialized community advisory board of diverse membership from community organizations and university to help ensure continued co-governance of partnerships¹⁵⁶. The board provides broad oversight, connects partners on individual projects, undertakes strategic planning, and seeks to maintain equitable partnerships¹⁵⁰.

The model then consists of five stages (adapted here from Sheikhattari et al., 2022)¹⁵⁰:

Connection – in which prospective partners build rapport and learn about each other's interests for research.

Partnership development – partners seek to deepen their relationship and are provided with capacity-building training and opportunities for discussion and networking to facilitate reciprocal learning.

Innovation – partners discuss project ideas and begin to define the nature of the project. Partners are given access to training in grant writing and proposal preparation to streamline and accelerate funding access.

Collaborative action – the project is conducted and has continued access to technical and logistical support as needed from the advisory board.

Outcome and impact – results are compiled into deliverables that can be tailored and made available to various audiences including policymakers and the scientific community. If applicable, support services can be provided to help communicate and disseminate results and to maintain the partnership.

5. Recommendations

Since May 2023 CLEAR has established a firm foundation for the partnership. Partnering organizations have been convened and the relationships that constitute the partnership have been built through monthly partner meetings. Advocacy training has begun with a group of four peer advocates who have also raised key areas of concern to be addressed in workshops, speaker events, and mobilization of research. 'Pop-up' engagement events have been successfully piloted as a way of engaging with community members and reaching a better understanding of climate impacts in the neighborhood. UBC staff, faculty, and students have been brought into the partnership to assist with speaking events and identifying areas of common interest for the delivery of undergraduate courses and contributing to applied research through the Sustainability Scholars program. Finally, innovative knowledge translation and climate resiliency training has begun, for example through a workshop on DIY air filtration fans.

These recommendations offer suggestions for how the partnership might further progress toward its goals. The criteria for assessing the relative importance or value of these recommendations are:

- **Community leadership** community voices should have meaningful input into the direction and priorities of the partnership.
- **Community-oriented impacts** partnership outcomes and outputs should center community priorities even while they seek to provide some benefit to all partners.
- Cost-effectiveness partnership activities should seek the greatest impact at the lowest cost.
- **Timeliness** this is a long-term process, but this should not obstruct the fact that the work of the partnership is important and urgent.
- Impacts on climate resilience given the increasing frequency of extreme weather events the practical implications of the partnership on community resilience to climate impacts must be considered.

1. Backbone Organization

While the models outlined in this report are not mutually exclusive, a permanent backbone organization can manage the day-to-day operations of the partnership with greater consistency and focus than partners also engaged in other work. While this will require funding to train and retain staff members it also presents a possibility through which more funding opportunities can be sought out and applied for.

This organization need not dilute systems of decision-making and leadership that already exist within the partnership. Direction of partnership activities can still sit with leaders of the core coalition of partners. However, this dedicated staff can field or seek out new partners, look for

funding opportunities, and be a central point of contact for feedback on community priorities or engagement activities.

One way of implementing this could be to staff this central body with graduate students in an internship-style capacity. Though this would entail a turnover in staff it would offer the possibility of training soon-to-be graduates in local climate justice issues.

A modification of this might entail an offset intake period. For instance, two to three students may work for one semester and part of their role is to provide training for the next cohort of two to three interns. All of this can operate under the supervision of partners in a similar model to that of the UBC Sustainability Scholars program.

2. Closer engagement with government

The partnership should work to identify offices, individuals, or initiatives at the City of Vancouver or within provincial government with overlapping interests and work to cultivate relationships that could result in closer integration within the partnership. Governmental staff are better positioned to identify ways in which the goals of the partnership can complement work being done at the City or province and can point toward policy priorities that have been planned but not yet implemented. This approach to identifying and working with policy windows of opportunity is a means of increasing the potential impact of the partnership and bringing the community actors involved in the partnership into closer alignment with policymakers and policy outcomes.

One area for consideration could be members of the Climate Equity Working Group who coauthored or were involved in the proposed Climate Justice Charter for the City of Vancouver. City staff could meet with partnership leaders and attend partners meetings to scope the possibility of alignment and ongoing collaboration.

City staff could benefit from this by supporting an initiative that is closely aligned with the CEAP, irrespective of political support. This might also be another opportunity for student internships associated with CLEAR or climate justice in the City, thus assisting with the existing workload and offering an opportunity for engaging educational experiences for UBC students.

3. Monitoring and Evaluation Process

A regular and agreed-upon means of monitoring and evaluation could be useful for measuring progress and gauging the extent to which collective interests are being served. This may best be done following key events, pilots, and at annual reviews. Evaluation should be open to all participants within the partnership in such a way that offers equitable opportunities for input.

The FAIICES evaluation method is one option for how this could be pursued³³. Sessions could be independently moderated, and all participants could present either written or verbal feedback for the partnership as an effort to mitigate dynamics that may preclude the meaningful engagement of some participants.

4. Partners and feedback mechanisms

Efforts towards engaging and centering community voices in the partnership should be continued and developed. The partnership has convened a wide range of interests in the community-based organizations currently present, pop-up engagement events have shown promise, and peer advocate training continues apace. Given the heterogeneity of interests in the community, further efforts should be made to bring in partners that represent other key community priorities that are also relevant to climate. As new partners are introduced to the partnership, consideration should be given to how different community perspectives materialize in the work and direction of the partnership, as CLEAR seeks to reflect these priorities in the work that it does.

Equally, feedback from engagement activities such as pop-ups must inform the work done by the partnership. For example, pop-up engagement activities could be designed to identify research or information priorities which can then inform the direction of knowledge translation or the development of CBPR priorities.

5. Public Facing Message

The partnership should mobilize both a public-facing image and message. This messaging should contain what the partnership is, what it hopes to achieve, how it envisions getting there, and why it is relevant. This is key to attracting new partners and ensuring that those who approach CLEAR have some understanding of what partnering would entail.

Raising the public profile of the partnership also increases the credibility of the partnership as it becomes more widely recognized. This not only increases the likelihood of a broader range of actors seeing CLEAR as a viable partner, but it also makes visible a space associated with climate impacts to which community can direct feedback or ideas. If the idea of CLEAR is made to be engaging and relevant, then the existence of climate within various other issues is made more salient, and the scope for community input and engagement may also increase.

An important consideration therein is that this messaging should also embrace the same unsiloing of equity as is embodied by the climate justice movement. This should therefore seek to communicate a common value agreed upon by the partners that can also speak to other areas of interest within the community.

6. Emphasize the novelty of CLEAR in fundraising

Throughout this work, it became increasingly apparent that CLEAR occupies a somewhat novel position among other CUPs. There are seemingly few other partnerships that seek to engage community organizations, residents, and companies; municipal government; and university explicitly in pursuing climate justice policy and research for impact. Particularly given the growing salience of climate justice and the popularity of research for evidence-based policymaking among philanthropies, it seems as though CLEAR occupies a niche that has not yet been widely exploited. There is scope to argue that this model is somewhat novel and therein may lie an appeal for bringing funders and philanthropies into longer-term partnership than is currently being exploited. If this can indeed offer a means of convening funders, then the potential for broadening the partnership and its reach could also increase.

6. Conclusion

This work has sought to survey the landscape of CUPs around inner-city climate justice and cast light on best practices, innovative models, and common barriers to impactful partnerships. While there is considerable variation in partnerships surveyed common themes and methods have emerged throughout the literature such as the importance of shared vision, relationship building, and a shared infrastructure. Specifically, this report has been tailored to the CLEAR partnership, and it is hoped that this work will be of use as the partnership continues to develop.

Looking forward, several key areas for future research deserve consideration. First, specific consideration should be given to the involvement of urban Indigenous populations in climate justice partnerships. Not only is the DTES home to a large Indigenous population whose priorities and interests should be represented in climate justice outcomes but given the presence of multiple Indigenous organizations in the DTES there may be opportunities to deepen and expand the partnership in this regard.

Research should also be directed toward options for further developing engagement activities regarding community priorities, the felt impacts of the climate crisis, and feedback on partnership activities. Finally, additional research towards measurement strategies for partnerships built around climate justice or social justice may also be helpful in the development of specific approaches for evaluating CLEAR outcomes and outputs.

7. Bibliography

- 1. United Nations General Assembly. United Nations Declaration on the Rights of Indigenous Peoples. (2007).
- 2. The World Bank. Overview. *World Bank* https://www.worldbank.org/en/topic/urbandevelopment/overview (2023).
- 3. C40 Cities A global network of mayors taking urgent climate action. *C40 Cities* https://www.c40.org/ (2023).
- 4. Koh, H. K. *et al.* Anchor Institutions: Best Practices to Address Social Needs and Social Determinants of Health. *Am J Public Health* **110**, 309–316 (2020).
- 5. The National Organization for Local Economies. What is an anchor institution? | CLES. https://cles.org.uk/what-is-community-wealth-building/what-is-an-anchor-institution/ (2024).
- 6. UBC Equity and Inclusion Office. Equity and inclusion glossary of terms. UBC Equity & Inclusion Office https://equity.ubc.ca/resources/equity-inclusion-glossary-of-terms/ (2024).
- 7. Phoebe Cheng. Marginalized Populations. **7**, (2016).
- 8. John Kingdon. Chapter 9: Wrapping Things up. In Agendas, Alternatives, and Public Policies. (1984).
- 9. Fitzgibbons, J. & Mitchell, C. L. Inclusive resilience: Examining a case study of equity-centred strategic planning in Toronto, Canada. *Cities* **108**, 102997 (2021).
- 10. Rigolot, C. Transdisciplinarity as a discipline and a way of being: complementarities and creative tensions. *Humanit Soc Sci Commun* **7**, 1–5 (2020).
- 11. Choi, B. C. K. & Pak, A. W. P. Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: 1. Definitions, objectives, and evidence of effectiveness. *Clin Invest Med* **29**, 351–364 (2006).
- 12. Stein, B.A., P. Glick, N. Edelson, A. Staudt. *Climate Smart Conservation: Putting Adaptation Principles into Practice*. (2014).
- 13. IPCC. Intergovernmental Panel on Climate Change Climate Change 2014: Impacts, Adaptation, and Vulnerability - Summary for Policymakers. (2014).
- Intergovernmental Panel On Climate Change (IPCC). Climate Change 2022 Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. (Cambridge University Press, 2023). doi:10.1017/9781009325844.
- 15. Kemp, L. *et al.* Climate Endgame: Exploring catastrophic climate change scenarios. *Proceedings of the National Academy of Sciences* **119**, e2108146119 (2022).
- 16. Record warm November consolidates 2023 as the warmest year | Copernicus. https://climate.copernicus.eu/record-warm-november-consolidates-2023-warmest-year.
- A record-breaking boreal wildfire season | Copernicus. https://atmosphere.copernicus.eu/record-breaking-boreal-wildfireseason?utm_source=press&utm_medium=referral&utm_campaign=newsborealwildfires-aug23.

- 18. UN News. Hottest July ever signals 'era of global boiling has arrived' says UN chief | UN News. https://news.un.org/en/story/2023/07/1139162 (2023).
- 19. Extreme Heat Death Review Panel. Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021. (2022).
- 20. Clark, D. The case for adapting to extreme heat: Costs of the 2021 B.C heat wave. (2021).
- 21. Tuholske, C. *et al.* Global urban population exposure to extreme heat. *Proc Natl Acad Sci U S A* **118**, e2024792118 (2021).
- 22. Maya Korbynn. The Missing Third: Improving BC tenants' rights to energy efficient, climate resilient, and safe housing. (2023).
- Quinton, J., Nesbitt, L. & Czekajlo, A. Wealthy, educated, and... non-millennial? Variable patterns of distributional inequity in 31 Canadian cities. *Landscape and Urban Planning* 227, 104535 (2022).
- 24. UNFCCC. United Nations Framework Convention on Climate Change. (1992).
- 25. Sultana, F. Critical climate justice. The Geographical Journal 188, 118–124 (2022).
- 26. Second Nature. Higher Education's Role in Advancing Climate Justice. (2022).
- Agostino, A. & Lizarde, R. Gender and Climate Justice. in Women Reclaiming Sustainable Livelihoods: Spaces Lost, Spaces Gained (ed. Harcourt, W.) 257–265 (Palgrave Macmillan UK, London, 2012). doi:10.1057/9781137022349_17.
- 28. Brooke Sutherland, Angela Liu, & Hannah Romses. Climate Justice Toolkit for Municipalities: Best Practices for Centring Equity and Justice in Local Climate Action. (2021).
- 29. Bulkeley, H., Edwards, G. A. S. & Fuller, S. Contesting climate justice in the city: Examining politics and practice in urban climate change experiments. *Global Environmental Change* **25**, 31–40 (2014).
- 30. C40 Cities Climate Leadership Group. Why city action is critical in the fight against climate change. https://www.c40knowledgehub.org/s/article/Why-city-action-is-critical-in-the-fight-against-climate-change?language=en_US (2023).
- 31. Elizabeth Kócs *et al.* Accelerating University Community Partnerships for Climate Justice: Report of Best Practices. (2022).
- 32. Keeler, L. W. *et al.* Building actor-centric transformative capacity through city-university partnerships. *Ambio* **48**, 529–538 (2019).
- 33. Caughman, L., Withycombe Keeler, L. & Beaudoin, F. Real-Time Evaluation of City–University Partnerships for Sustainability and Resilience. *Sustainability* **12**, 8796 (2020).
- Pauer, S. U., Pilon, A. & Badelt, B. Strengthening city–university partnerships to advance sustainability solutions: a study of research collaborations between the University of British Columbia and City of Vancouver. *International Journal of Sustainability in Higher Education* 21, 1189–1208 (2020).
- 35. Compagnucci, L. & Spigarelli, F. The Third Mission of the university: A systematic literature review on potentials and constraints. *Technological Forecasting and Social Change* **161**, 120284 (2020).
- 36. Brundenius, C. & Göransson, B. The Three Missions of Universities: A Synthesis of UniDev Project Findings. in *Universities in Transition: The Changing Role and Challenges for Academic*

Institutions (eds. Göransson, B. & Brundenius, C.) 329–352 (Springer, New York, NY, 2011). doi:10.1007/978-1-4419-7509-6_16.

- 37. Trencher, G., Yarime, M., McCormick, K. B., Doll, C. N. H. & Kraines, S. B. Beyond the third mission: Exploring the emerging university function of co-creation for sustainability. *Science and Public Policy* **41**, 151–179 (2014).
- 38. University-City Collaborations on Climate Action: Best Practices. (2021).
- Davidson, K., Coenen, L. & Gleeson, B. A Decade of C40: Research Insights and Agendas for City Networks. *Global Policy* 10, 697–708 (2019).
- 40. Norström, A. V. *et al.* Principles for knowledge co-production in sustainability research. *Nat Sustain* **3**, 182–190 (2020).
- 41. Gruber, J. S. *et al.* Enhancing climate change adaptation: strategies for community engagement and university-community partnerships. *J Environ Stud Sci* **7**, 10–24 (2017).
- 42. City of Vancouver. Greenest City: 2020 Action Plan. (2012).
- 43. City of Vancouver. Our plan in depth. https://vancouver.ca/green-vancouver/climateemergency-action-plan-in-depth.aspx (2023).
- 44. Climate Emergency Action Plan Summary 2020-2025. (2020).
- 45. City of Vancouver. Climate Emergency Action Plan: Council Report. (2020).
- 46. Toronto Environmental Alliance. An Equity Focused Review of the City of Vancouver's Draft Climate Emergency Action Plan. (2020).
- 47. City of Vancouver. A Climate Justice Charter for Vancouver. (2023).
- 48. Priya Bhat. Climate equity working group 'disappointed' after Vancouver city council rejects climate justice charter. *CBC News* https://www.cbc.ca/news/canada/british-columbia/vancouver-city-council-rejects-climate-justice-charter-1.6753320 (2023).
- 49. Jessica Yu *et al*. Mapping spatial patterns in vulnerability to climate change-related health hazards. (2020).
- 50. BC Housing. Building a beacon of Indigenous community in Vancouver's DTES. *Building a beacon of Indigenous community in Vancouver's DTES* https://news.bchousing.org/building-a-beacon-of-indigenous-community-in-vancouvers-dtes/ (2022).
- 51. CityStudio & SFU History Department. History of Northeast False Creek: A collaboration between the City of Vancouver, CityStudio and the SFU History Department. (2016).
- 52. Barman, J. Erasing Indigenous Indigeneity in Vancouver. *BC Studies: The British Columbian Quarterly* 3–30 (2007) doi:10.14288/bcs.v0i155.626.
- City of Vancouver Community Services Social Development, Social Policy & City of Vancouver Planning and Development Services – Central Area Planning, Downtown Eastside Group. Downtown Eastside Local Area Profile (2013). (2013).
- Government of Canada, S. C. Profile table, Census Profile, 2021 Census of Population -Vancouver, City (CY) [Census subdivision], British Columbia. https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E (2022).
- 55. City of Vancouver. Downtown Eastside Plan. (2014).
- 56. BC Coroners Service Death Review Panel. BC Coroners Service Death Review Panel: An Urgent Response to a Continuing Crisis. (2023).

- 57. Nowlan, L. & Linsell, T. Extreme heat, extreme inequality: Addressing climate justice in Vancouver's Downtown Eastside. *The Conversation* http://theconversation.com/extreme-heat-extreme-inequality-addressing-climate-justice-in-vancouvers-downtown-eastside-211724 (2023).
- 58. Louise Boilevin *et al*. Research 101: A Manifesto for Ethical Research in the Downtown Eastside. (2019).
- 59. University of British Columbia. UBC's Institutional Rankings The University of British Columbia. https://ubc-prod.it.ubc.ca/about/institutional-rankings.html (2023).
- 60. Santa Ono. The University of British Columbia President's Declaration on the Climate Emergency. (2019).
- 61. University of British Columbia. UBC Vancouver Campus Climate Action Plan 2030. (2021).
- 62. University of British Columbia. UBC Climate Emergency Engagement: Final Report and Recommendations. (2021).
- 63. UBC Sustainability Hub. Climate Emergency at UBC: Progress Report 2022-23. (2023).
- 64. Universities Canada. Action for net zero. *Universities Canada* https://univcan.ca/priorities/action-for-net-zero/ (2024).
- 65. Kinol, A. *et al.* Climate justice in higher education: a proposed paradigm shift towards a transformative role for colleges and universities. *Climatic Change* **176**, 15 (2023).
- 66. UBC Learning Exchange. About Us | Learning Exchange. https://learningexchange.ubc.ca/about-us/ (2023).
- 67. Getting to know the Downtown Eastside | Inside or Outside? Learning on the Edge. https://margofryer.ca/the-learning-exchange-story/getting-to-know-the-downtown-eastside/.
- 68. McConnell Foundation. About: McConnell Foundation. *McConnell Foundation* https://www.mcconnellfoundation.ca/about/ (2024).
- 69. McConnell Foundation. UBC Sustainability Hub and Learning Exchange: Making Climate Research Accessible to Inform Climate Justice Policy. *McConnell Foundation* https://www.mcconnellfoundation.ca/funding-database/ubc-sustainability-hub-andlearning-exchange-making-climate-research-accessible-to-inform-climate-justice-policy/ (2022).
- 70. UBC Sustainability Hub. Sustainability Scholars Program. *sustain.ubc.ca* https://sustain.ubc.ca/teaching-applied-learning/ubc-sustainability-scholars-program (2019).
- 71. Building transformative city-university sustainability partnerships: the Audacious Partnerships Process. *Urban Transformations* **5**, 1–21 (2023).
- 72. Participant 1. Personal Interview: Participant 1. (2024).
- 73. Withycombe Keeler, L. *et al.* Transferring Sustainability Solutions across Contexts through City–University Partnerships. *Sustainability* **10**, 2966 (2018).
- 74. Fletcher Beaudoin *et al.* Experiences Implementing City University Partnerships: Case studies and insights from the Emerald Corridor Collaboratory. (2020).
- 75. Mosier, S. & Ruxton, M. Sustainability university–community partnerships: Lessons for practitioners and scholars from highly sustainable communities. *Environment and Planning C: Politics and Space* **36**, 479–495 (2018).

- Loh, P., Ackerman, Z., Fidalgo, J. & Tumposky, R. Co-Education/Co-Research Partnership: A Critical Approach to Co-Learning between Dudley Street Neighborhood Initiative and Tufts University. Social Sciences 11, 71 (2022).
- 77. Participant 2. Personal Interview: Participant 2. (2024).
- 78. About Us | FloodSmart Canada. https://floodsmartcanada.ca/about/.
- 79. Partners 4 Action. Partners 4 Action: Annual Report 2022. (2022).
- 80. Julie Wright, Evalyna Bogdan, Shawna Hamilton, Rachel Krueger, & Jean Andrey. Inclusive Resilience: Pathways to Building Awareness and Preparedness Among at-risk Populations in Canada. (2022).
- 81. Home | Inclusive Resilience. https://uwaterloo.ca/inclusive-resilience/.
- 82. Bogdan, E. A. (Evalyna) & Krueger, R. Canadians are unprepared for natural hazards. Here's what we can do about it. *The Conversation* http://theconversation.com/canadians-are-unprepared-for-natural-hazards-heres-what-we-can-do-about-it-201863 (2023).
- 83. Inclusive Resilience: Social Vulnerability Index (SoVI) | Partners for Action. https://uwaterloo.ca/partners-for-action/current-projects/inclusive-resilience-socialvulnerability-index-sovi.
- 84. Urban Resilient Futures. Urban Resilient Futures Burnaby: Program Overview. (2022).
- 85. Civic Innovation Lab. Urban Resilient Futures (URF). *Civic Innovation Lab* https://civicinnovationlab.ca/project/urban-resilient-futures-urf/ (2024).
- 86. Loh, P. Community–University Collaborations for Environmental Justice: Toward a Transformative Co-Learning Model. *New Solut* **26**, 412–428 (2016).
- 87. Front and Centered. Front and Centered: About Us. *Front and Centered* https://frontandcentered.org/about-us/ (2024).
- 88. Front and Centered. Front and Centered: Our Members. *Front and Centered* https://frontandcentered.org/membership/ (2024).
- 89. University of Washington Department of Environmental & Occupational Health Sciences. Washington Environmental Health Disparities Map: Comparing environmental health risk factors across communities. (2019).
- 90. UW Climate Impacts Group, UW Department of Environmental and Occupational Health Sciences, Front and Centered, & Urban@UW. An Unfair Share: Exploring the Disproportionate Risks from Climate Change Facing Washington State Communities. (2018).
- 91. Front and Centered. Legislature Falls Short on Community Climate Commitments in 2023–2025 Budget. *Front and Centered* https://frontandcentered.org/legislature-falls-short-on-community-climate-commitments-in-2023-2025-budget/ (2023).
- 92. Front and Centered. Community Leadership: Front and Centered. *Front and Centered* https://frontandcentered.org/community-leadership/.
- 93. Miller, T., Goodling, E., Herrington, C. & Devlin, J. The Community Watershed Stewardship Program: experiments in engagement and equity in Portland, OR. *Current Opinion in Environmental Sustainability* **17**, 30–35 (2015).
- 94. Bureau of Environmental Services. About the Community Watershed Stewardship Grant Program | Portland.gov. https://www.portland.gov/bes/grants-incentives/communitywatershed-stewardship-grants (2024).

- 95. Marybelle Tobias *et al.* Framework for J.E.D.I. Centered Climate Resilience Planning: Guidance for University of California Campuses and Medical Centers. (2021).
- 96. Restrepo-Mieth, A., Perry, J., Garnick, J. & Weisberg, M. Community-based participatory climate action. *Global Sustainability* **6**, e14 (2023).
- 97. Fay Hanleybrown, John Kania, & Mark Kramer. Channeling Change: Making Collective Impact Work (SSIR).
 - https://ssir.org/articles/entry/channeling_change_making_collective_impact_work (2012).
- 98. East Scarborough Storefront. East Scarborough Storefront's Theory of Change: How we create change. (2017).
- 99. Norman, C. Developmental Evaluation: Questions and Qualities. https://www.tamarackcommunity.ca/latest/developmental-evaluation-questions-andqualities (2014).
- 100. Elizabeth Dozois, Marc Langlois, & Natasha Blanchet-Cohen. DE 201: A Practitioner's Guide to Developmental Evaluation. (2010).
- 101. Lachapelle, P. *et al.* Academic capture in the Anthropocene: a framework to assess climate action in higher education. *Climatic Change* **177**, 40 (2024).
- 102. Participant 4. Personal Interview: Participant 4. (2024).
- 103. Emily J. Ozer, Jennifer Renick, Bruce Jentleson, & Bemmy Maharramli. Scan of Promising Efforts to Broaden Faculty Reward Systems to Support Societally Impactful Research. (2023).
- 104. Talloires Network of Engaged Universities. Talloires Network of Engaged Universities: Home. *Talloires Network of Engaged Universities* https://talloiresnetwork.tufts.edu/ (2024).
- 105. Place-Based Justice Network The Mulvaney Center for Community, Awareness and Social Action University of San Diego. https://www.sandiego.edu/mccasa/place-based-justice-network.
- 106. IARSLCE. International Association for Research on Service-Learning and Community Engagement. *IARSLCE* https://www.iarslce.org (2024).
- 107. Staub, S. & Maharramli, B. Recognizing Community-Engaged Scholarship in Academic Personnel Review. (2021).
- 108. UC Berkeley. Social Impact Innovation Grant. *Berkeley Public Health* https://publichealth.berkeley.edu/research/social-impact-grant (2024).
- 109. Hunter, B. How We Embraced the Challenge of Institutional Change to Pave the Way for Community-Engaged Research. William T. Grant Foundation https://wtgrantfoundation.org/how-we-embraced-the-challenge-of-institutional-change-topave-the-way-for-community-engaged-research (2021).
- 110. Participant 5. Personal Interview: Participant 5. (2024).
- 111. UBC Sustainability Hub. Sustainability Scholars: About. *sustain.ubc.ca* https://sustain.ubc.ca/programs/sustainability-scholars-program/about (2019).
- 112. City of Vancouver. Opportunities for students. https://vancouver.ca/greenvancouver/opportunities-for-students.aspx (2024).
- MacKillop, E., Connell, A., Downe, J. & Durrant, H. Making sense of knowledge-brokering organisations: boundary organisations or policy entrepreneurs? *Science and Public Policy* 50, 950–960 (2023).

- 114. Participant 3. Personal Interview: Participant 3. (2024).
- 115. The Pew Charitable Trusts. Transforming Evidence Funders Network. https://pew.org/3GTW11U (2022).
- 116. Angela Bednarek & Craig Connelly. New thinking needed for funding in a complex world. *Philanthropy News Digest (PND)* https://philanthropynewsdigest.org/features/commentaryand-opinion/new-thinking-needed-for-funding-in-a-complex-world (2023).
- 117. Julia Kaufman. Building a Big Tent for Evidence-Informed Policy: Reflections from the Inaugural Conference of the Transforming Evidence Network. *Center For Global Development* https://www.cgdev.org/blog/evidence-policy-bridge-builders-and-knowledge-brokers-unitereflections-inaugural-conference (2022).
- 118. Tseng, V., Bednarek, A. & Faccer, K. How can funders promote the use of research? Three converging views on relational research. *Humanit Soc Sci Commun* **9**, 1–11 (2022).
- 119. About the RAC | Urban@UW. https://urban.uw.edu/rac/about-the-rac/.
- 120. Marian Scott. Montreal, environmental groups join forces to reach climate goals. *montrealgazette* https://montrealgazette.com/news/local-news/montreal-partners-withenvironmental-groups-to-achieve-climate-goals (2018).
- 121. Montreal Climate Partnership. Climat Montréal. *Partenariat Climat Montréal* https://climatmontreal.com/ (2024).
- 122. Montreal Climate Partnership. À propos: PCM. *Partenariat Climat Montréal* https://climatmontreal.com/le-partenariat-climat-montreal/ (2024).
- 123. Montreal Climate Summit. About Sommet Climat Montréal. https://sommetclimatmtl.com/en/about/ (2024).
- 124. Montreal Climate Partnership. 2022 Montreal Climate Summit Proceedings. (2022).
- 125. Montreal Climate Partnership. 2023 Montreal Climate Summit Proceedings. (2023).
- 126. Adams, K. R. The Exploration of Community Boundary Spanners in University-Community Partnerships. *Journal of Higher Education Outreach and Engagement* **18**, 113–118 (2014).
- 127. Goodrich, K. A. *et al.* Who are boundary spanners and how can we support them in making knowledge more actionable in sustainability fields? *Current Opinion in Environmental Sustainability* **42**, 45–51 (2020).
- 128. Symposium on Climate Justice & Cities Panel 4. (2023).
- 129. CityStudio. CityStudio: Founding and History. *CityStudio Vancouver* https://citystudiovancouver.com/what-we-do/founding-and-history/ (2023).
- CityStudio. CityStudio Vancouver. CityStudio Vancouver https://citystudiovancouver.com/ (2023).
- Perkmann, M. How Boundary Organizations Facilitate Collaboration across Diverse Communities. in *Managing Knowledge Integration Across Boundaries* (eds. Tell, F., Berggren, C., Brusoni, S. & Van de Ven, A.) 0 (Oxford University Press, 2016). doi:10.1093/acprof:oso/9780198785972.003.0010.
- 132. Graham, A. J. Climate change adaptation in Metro Vancouver: The role of boundary organizations and advocacy planning. (2016).
- 133. Ewa Jackson, Deborah Harford, & David Bristow. Chapter 2 Cities and Towns: Canada in a Changing Climate - National Issues Report. (2021).

- 134. Brand, F. S. & Jax, K. Focusing the Meaning(s) of Resilience: Resilience as a Descriptive Concept and a Boundary Object. *Ecology and Society* **12**, (2007).
- 135. Davison, J. & Way, T. A Synthesis of the Bullitt Foundation's Thought Leadership and Innovation RFP. (2021).
- 136. Meyer, M. The Rise of the Knowledge Broker. Science Communication 32, 118–127 (2010).
- 137. James Downe, Eleanor Mackillop, & Hannah Durrant. Knowledge brokering organisations what are they and what do they do? *Impact of Social Sciences* https://blogs.lse.ac.uk/impactofsocialsciences/2023/08/15/knowledge-brokeringorganisations-what-are-they-and-what-do-they-do/ (2023).
- 138. Jorrit de Jong *et al.* Cross-Boundary Collaborations in Cities: Where to Start (SSIR). https://ssir.org/articles/entry/cross_boundary_collaborations_in_cities_where_to_start (2023).
- 139. John Kania & Mark Kramer. Collective Impact (SSIR). https://ssir.org/articles/entry/collective_impact (2011).
- 140. John Kania *et al.* Centering Equity in Collective Impact (SSIR). https://ssir.org/articles/entry/centering_equity_in_collective_impact (2022).
- 141. Tamarack Institute. Collective Impact. https://www.tamarackcommunity.ca/collective-impact (2023).
- 142. Cabaj, M. Evaluating Systems Change Results. (2019).
- 143. LUGER, T. M., HAMILTON, A. B. & TRUE, G. Measuring Community-Engaged Research Contexts, Processes, and Outcomes: A Mapping Review. *Milbank Q* **98**, 493–553 (2020).
- 144. Harder, M. & Burford, G. *Measuring Intangible Values: Rethinking How to Evaluate Socially Beneficial Actions*. (Routledge, Taylor & Francis Group, London ; New York, NY, 2019).
- 145. East Scarborough Storefront. East Scarborough Storefront: What We Do. *East Scarborough Storefront* https://thestorefront.org/what-we-do/ (2018).
- 146. Gloger, A., Llanos, E. C., Iveniuk, J. & Modlinska, E. The Connected Community Approach: A Theoretical Framework.
- 147. Poland, B. *et al.* A Connected Community Approach: Citizens and Formal Institutions Working Together to Build Community-Centred Resilience. *IJERPH* **18**, 10175 (2021).
- 148. East Scarborough Storefront. An Emerging Model for Meaningful Community-University Partnership: Evaluation fo the Kingston-Galloway/Orton Park University of Toronto Partnership (2011-2014). (2014).
- 149. Sánchez, V. et al. CBPR Implementation Framework for Community-Academic Partnerships. American Journal of Community Psychology **67**, 284–296 (2021).
- 150. Sheikhattari, P. *et al.* Building Capacity for Community-Academia Research Partnerships by Establishing a Physical Infrastructure for Community Engagement: Morgan CARES. *Int J Environ Res Public Health* **19**, 12467 (2022).
- 151. Françoise Makanda. Community Climate Resilience Lab brings racial justice lens to climate change research | University of Toronto. https://www.utoronto.ca/news/community-climate-resilience-lab-brings-racial-justice-lens-climate-change-research (2021).
- 152. Community Climate Resilience Lab. https://www.communityclimateresiliencelab.org/.
- 153. The Climate Crisis Will Enlarge the Cracks and Chasms That Chronic Inequity Creates, Says Climate Advocate | The Climate Baby Dilemma. (2022).

- 154. Urban Challenge Grant 2.0: Climate, Justice, and Cities. *School of Cities* https://schoolofcities.utoronto.ca/programs-opportunities/urban-challenge-grant/urbanchallenge-grant-2-0-climate-justice-and-cities/ (2022).
- 155. Loh, P., Ackerman, Z. & Fidalgo, J. A Relational Approach to Transforming Power in a Community-University Partnership. *Gateways: International Journal of Community Research and Engagement* **14**, (2021).
- 156. Newman, S. D. *et al.* Community Advisory Boards in Community-Based Participatory Research: A Synthesis of Best Processes. *Prev Chronic Dis* **8**, A70 (2011).