Introduction to Scale-Up Concepts for Urban Low-Carbon Action

Implications for Enabling Scale

June 2020

In December 2019, The Atmospheric Fund (TAF) commissioned researchers from the Lee-Chin Institute at the Rotman School at University of Toronto to provide a primer on theories and pathways for scale-up. TAF and our Low Carbon Cities Canada (LC3) colleagues are interested in understanding how to enable scale-up of urban low-carbon actions, which is a central tenet of our mandate.

The resulting paper, Scaling Impact: Models, Theories and Pathways (April 2020), is now available for review. We invite you to take a look at this thought-provoking and timely piece presenting approaches to scale.

The questions arising from this research are intended for the climate action sector and our partners – in this introduction, when I say "we", I am referring to all of us in the sector, considering the scale of climate action that we must achieve together. I hope the following eight issue areas, informed by the research paper, will spur conversation on how to speed up climate action to meet our targets in the coming decade.

If you have received this paper, it is because you have indicated interest in taking part in a conversation about these ideas.

Thanks in advance for your interest in this topic and for your support, guidance, contrary ideas and inspiration!

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1 BUILDING COLLECTIVE KNOWLEDGE ABOUT HOW SCALING WORKS

There are many scale-related theories and models to draw from – and these are quickly evolving.

IMPLICATIONS: It is challenging to continuously absorb the latest theories into our practices, as theoretical work evolves and continues apace. Many of us find this theoretical work abstract and hard to advance given the demands placed on us by our existing work. However, we also know that current work has not given us the results we want with respect to full-scale impacts. As the research paper conveys, an incremental approach to change doesn't work.

- Should more time be spent during the planning of low-carbon actions to re-focus them around accelerated scale-up?
- How might new collaborations between academic partners and low-carbon practitioners create new ways to bridge theoretical and practice-based spheres of action, allowing us to weave new ideas into the design of our applied work?
- What value can practitioners offer theorists and academic partners by feeding back how different approaches work on the ground?

2 USING POLICY ADVOCACY TO SPEED UP TRANSFORMATIONAL CHANGE

We know policy work is a natural scale pathway, but the pace is often slow, the existing policy frames limiting, and the work often fails to capture public imagination.

IMPLICATIONS: The beauty of a new policy is that once the new rules are in place, they are immediately applicable at community scale. For this reason, even the most mundane of policy changes – such as codes and standards for buildings and appliances that tighten up expectations for energy performance – can drive significant carbon reductions. However, policy work requires deep knowledge of technical matters, it is framed in "insider" language, it is subject to slow and often confusing bureaucratic process, and it happens in a way that is largely inaccessible to many players. Yet, policy work going on in the background can potentially determine lock-in on key pathways. To make things more complicated, hard-won policy change must be monitored with vigilance, to avoid weak application of the policy, or erosion by opposing interests.

- How can diverse collaborators work to unpack the policy landscape around key low-carbon activities, to understand where the more "radical" policy levers might rest, or how they might be created, considering and prioritizing strategies like "power politics" or "grassroots movements"?
- What can we do to focus more public attention on important policy matters, to spur more robust public engagement in these decisions, to enliven and open up policy conversations?
- How can multi-sector networks create powerful collaborations of integrated policy thinkers to innovate in the public policy realm, ensuring that policies are multi-solving?
- How do we identify and engage our most powerful policy allies and perhaps more importantly, groups that will "contest" proposed changes?

3

IDENTIFYING OUR ROLE IN HARNESSING MARKET FORCES

The market is an important scale pathway as well as a driving and enabling force for change, but how well are we positioned to influence this sphere?

IMPLICATIONS: From global energy prices to the emergence of EV technology, from consumer habits to investment trends, the market plays a key role in advancing or inhibiting low-carbon actions. We often find ourselves working very hard to position low-carbon actions in a desirable light in relation to current market conditions, but this is a challenging prospect especially when new low-carbon actions will be competing head to head with strong existing market players who are influential.

- What role can we play in contributing to creation of a more level playing field for low-carbon products and services in the Canadian and global marketplaces?
- Is there any way we can expand our sphere of influence in the marketplace?
- What social trends or other elements can be leveraged to re-shape consumer demand and/or to harness powerful market forces to create and scale multiple community benefits – including reduced carbon emissions?

4

EXTENDING SUPPORT TO THE SOCIAL CHANGE PATHWAY

Social change, including influencing norms and behavior change, is identified as a key component for scaling and transformational change.

IMPLICATIONS: As a non-partisan public agency, we tend towards activities such as leveraging business case analyses, practical technology solutions testing, discussion of financial risks, and presentation of evidence-based findings. Municipal carbon emissions inventories do not assess the impacts of emissions associated with consumer choice – even though we have come to understand that the implications of these choices have influential climate impacts. Following recent social movements – including Indigenous Climate Action, Youth Climate Strikes, veganism, local democracy around access to local decision-making processes to engage the full diversity of our local populations, and consciousness around some of the inherent equity issues associated with climate solutions – we need to more actively consider the role our work plays in the sphere of social change and how that impacts our identity/modus operandi.

- How can we incorporate social equity into all of our climate program design work?
- How might we support indigenous groups and incorporate indigenous perspectives into urban climate action work?
- How might we support youth leadership and elevate youth voices and perspectives?
- How will we incorporate consumption issues into our work?
- What is the role we might play in activating the social change pathways to scale, and what risks may there be to more proactively extending our work to this sphere?

5

UNDERSTANDING HOW TO LEVERAGE TIPPING POINTS

The idea of identifying and using tipping points to help lock in change is a compelling one – and potentially an interested way to frame our strategy.

IMPLICATIONS: We are very aware of the shifting social, political and economic dynamics we are witnessing right now, as well as the pressures to create radical new activity in competing directions. We need to consider how we might predict where tipping points may occur and prepare ourselves to address new opportunities when they arise. We may also endeavor to develop methods to stimulate, accelerate, or direct tipping point instances. There may be a need for additional capacities in our organizations to fully leverage tipping points when they do occur, to lock-in low-carbon actions at the scale we are seeking. And, it will be necessary to manage the risks inherent in this work; notably, risks that the turbulence of tipping point situations could provide momentum in directions we oppose.

- Could we identify the "top 10" low-carbon tipping point opportunities or decisions for Canada that could allow for irreversible low-carbon actions, and use these as focal points for collective work?
- How might we "nudge" the tipping point process, using small but powerful interventions?
- What are the most important things to do right now – in our organizations and collectively – to leverage the COVID-19 crisis to lock in new behaviours, policies and investments to create unstoppable momentum towards a low-carbon society?

6

EMBRACING MULTI-SOLVING WHILE MAINTAINING STRATEGIC FOCUS

We risk continued marginalization of our climate work if we continue to frame our issues in a narrow way and miss out on opportunities to strengthen the impact and durability of our efforts.

IMPLICATIONS: We endeavor to find strategic focus to "move the dial" on important low-carbon opportunities, given our limited resources. Broader systems thinking is rich with complexities, whether we're considering something in our own direct realm concerning energy, for example, utility governance structures and energy pricing and externalized pollution costs; or whether we are thinking about the broader social sphere, considering social equity issues, health, community resilience, job creation or pandemic readiness. When we enter into this kind of broader systems thinking, things quickly feel like we're getting "a mile wide and an inch deep", that we are losing our ability to have impact, and that we are entering into areas outside of our existing professional spheres where we have little knowledge or limited capacity in our existing teams. And we fear if we let the climate narrative take a "back seat" our impacts will be diluted. Yet scale theories suggest that single-focus strategies may not be enough to make the change we seek.

- How do we think broadly, across systems and sectors, while still managing to retain focus?
- How might we stimulate and support the necessarily diverse networks to do this work, especially given the time-consuming and challenging nature of this work, and given urgent pressures and resourcing challenges in our organization?
- Is there a way to do "quick prototyping" or to apply other design theories to explore and clarify what integrated solutions might look like and to articulate this vision to inspire action?

7

GETTING OUR MINDS AROUND THE "FRACTAL" CONCEPT

Examination of the pathways to scale highlights the overlap and inter-dependence of different pathways, and how they work at multiple levels.

IMPLICATIONS: While the research paper teased apart and examined several distinct pathways to scale – policy advocacy, market transformation, commercialization, social innovation, and social change/behavior change – it notes strong inter-relation among these. This leads to the conclusion that similar to the idea of multi-solving, we have to hold multiple issues and multiple pathways in mind when undertaking scale work. Further, there is a consciousness that change patterns happen at different levels – individual behavior, neighbourhood, community, municipality, region, province, nation, global – and that we need to consider the links among these as we design our work and monitor our progress.

- How might the concept of fractals – the repetition and reinforcement of actions at multiple scales – be incorporated into our thinking and our work?
- How can we design and leverage LC3 and other national networks along with local work and partnerships to reinforce important low-carbon patterns?
- How can we reconcile the inherently complex and conceptual nature of the fractal frame with practical on-the-ground approaches?

8

CREATING METRICS TO EVALUATE AND IMPROVE SCALE-UP EFFORTS

It is not enough to measure the potential carbon reductions associated with key actions – we must also measure the extent to which we are helping achieve that potential as quickly as possible.

IMPLICATIONS: While we have great insight into understanding how to quantify projected carbon emissions reductions, we have less understanding about how our work can enable broad adoption of these actions. Understanding signals of scale may help us improve how we "sow the seeds of scale" into our work and monitor progress against specific "signals of scale" that can be observed. This is a new area of evaluation for many of us and will take some quick prototyping and evolution of our metrics, which now mostly focus on quantification of carbon emissions reduction potential and mobilization of capital.

- How might the ideas in this research help define "signals of scale" as a framework to measure the impacts of scale-enabling work?
- What kind of scoring system/approach might we construct to create scale metrics and KPIs?
- How can we incorporate the importance of a faster pace of adoption of low-carbon actions?
- Who else is grappling with measurement in this area that could collaborate with us?