**Why Cities May Be the Most Appropriate Level of Government to Pursue Climate Science-Policy Partnerships**

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### Abstract

The urgency of climate change demands that we think strategically about the uptake of scientific knowledge by policy-makers and, more broadly, the relationship between science and public policy. Literature from the fields of political science and STS (science, technology, and society) tells us scientific knowledge is unlikely to influence policy decisions, at least not in any direct or immediate way, unless policy-makers are involved in producing or requesting that knowledge. Consequently, science-policy partnerships (SPPs), which bring together researchers and policy-makers (usually civil servants rather than politicians) for direct and regular co-operative exchanges, are a possible way forward, potentially improving mechanisms of uptake for evidence-informed policy. My research uses a social scientific and qualitative lens to examine existing cases of climate SPPs in Canada (with a particular focus on the province of British Columbia), including research organizations such as the Pacific Climate Impacts Consortium (PCIC) and the Pacific Institute for Climate Solutions (IPCS) as participants. Findings demonstrate the possible benefits of SPPs for both science and policy, the factors that must be considered and understood in order to establish such SPPs, and the institutional design principles that may improve the effectiveness of SPPs. Most importantly, my research suggests that SPPs may be easiest to establish and most productive at the municipal or local level of government (i.e. rather than the regional or national level), which implicates cities as a crucial site for co-operative action on climate change.

### What Is a Science-Policy Partnership?

“A science-policy partnership (SPP) is any lasting, regular, collegial interaction between a specific ministry, branch, or agency within government and a specific department, research group, or institute within academia. They can be as simple as informal, monthly meetings to exchange information about current policy priorities and contemporary research in a given field. For the sake of simplicity and focus, this definition sees university-based groups as the likely research partner, but similar arrangements may be possible with research organizations outside of academia (although think tanks and private research groups may bring their own complications).”

(Weiss 1977)

**Examples of SPPs for Climate Change**

- BC Provincial Government
- BC Municipalities

### What Is Multi-Level Governance?

A country’s constitution often specifies which policy sectors fall under the jurisdiction of which level of government (e.g. Canada’s federal government has law-making authority for foreign affairs and commerce, while provincial governments are responsible for natural resources and municipalities). However, the environment is still a relatively new sector, and it is not always clear which section should have authority, nor to mention that climate change itself cuts across many sectors. In such situations, we must turn to multi-level governance (MLG). This can mean specifying new, distinct responsibilities for each jurisdiction to avoid overlap, or it can mean accepting complexity and having the levels deliberately work together to address an inter-jurisdictional issue (Hooge & Marks 2003). Obviously, climate change action can take place at any level of government. Still, even under a collaboration or MLG model, we must ask how the ease and effectiveness of climate actions vary across the different levels. What role should municipalities play?

### Are Cities the Most Important Sites for Climate SPPs?

Maybe! The interview data from my research suggests the following possibilities:

- Cities tend to have jurisdiction over adaptation measures (e.g. civil infrastructure) for many of the most immediate impacts of climate change (e.g. flooding), so they may be more likely to have the institutional capacity to engage in SPPs.
- Because there are a large number of municipal governments in any given region, and a lot of variability among them, chances are good that a few will be interested in climate SPPs (perhaps leading to further connections with others).
- Institutions for municipal governance are “smaller” and less formalized than those for regional or national governance, and their more permeable boundaries make it easier for science organizations to interact with them.
- Municipal governments are not as likely to have any authority [per se or actual] over science organizations, with whom they might partner, avoiding a complicating power dynamic.
- Cities are usually under less public scrutiny than higher levels of government, which means they may have more to gain from the ease and effectiveness of climate SPPs.

### My Research: Climate SPP Case Studies in British Columbia

**Question** - What explains the success or failure of a climate SPP?

**Hypothesis** - Institutional design characteristics are an important factor.

**Methods** - Elite interviews with science and policy partners from cases of climate SPPs at each level of government.

**Supplementary Network**

- Co-Production
- Interactive Dialogue
- Basic Partnership
- Incidental Interaction

**Key findings include...**

- While institutional design characteristics (e.g. informal, feedback, facilitation) can contribute to the success of a SPP to some degree, they are not nearly as important as external factors like political will.
- Climate SPPs can be classified into a framework that I call the Science-Policy Relationship Hierarchy (SPRH) model. The science and policy partners must form a basic partnership based on trust and credibility before they can engage in a more interactive dialogue. From there, moving to the ideal of true co-production (i.e. mutual influence) without violating the initial foundation of trust requires particularly high political interest in climate change or the involvement of particularly proficient individuals.

**An important theme for this research was to identify causes that can be manipulated. Scientists cannot easily change the amount of political interest in climate change, but they can choose which governments to engage with.**

### Conclusion: Research Gaps to Consider

1. How do the ease and effectiveness of climate science-policy partnerships vary across different levels of government (e.g. municipal, regional, national)?

   Possible answer: For the reasons above, cities may be the most appropriate site (although the potential impact of SPPs will be less than at higher governmental levels with)

2. What principles for effective climate science-policy partnerships can we learn from successful municipal-level cases?

   Possible answer: The policymakers I interviewed reported credibility, informal, and a focus on users as key ingredients to successful municipal-level SPPs.

3. Information on science-policy-practice linkages should draw on the expertise and experience of actual policymakers and practitioners, not just academics.

   Possible answer: We cannot yet know what answers this consideration might bring, but it is critical not to be over-reliant on existing academic procedures and research.

### Key References


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Social Sciences and Humanities Research Council of Canada

Conseil de recherches en sciences humaines du Canada

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