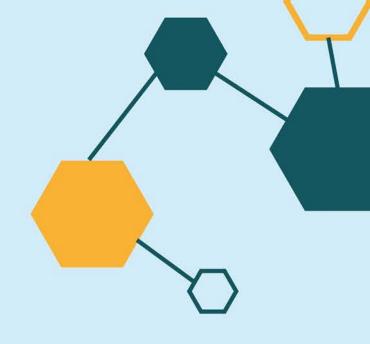
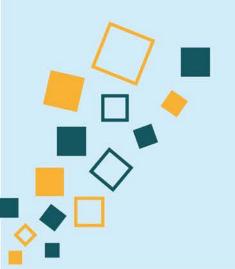
Theme 1 / Cohabitation in governance: a need for new policy approaches?

Thème 1 / La cohabitation en gouvernance : vers de nouvelles approches en politique publique?



STRATEGIC DIALOGUE ON CLIMATE CHANGE POLICY RESEARCH IN CANADA
RECHERCHE EN POLITIQUES CLIMATIQUES AU CANADA : UN ATELIER-DIALOGUE STRATÉGIQUE





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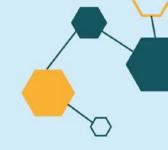








## **Issues and Challenges**



- Climate change is an urgent issue
- Long-term durability and resilience to changing governments is key
- Federalism presents challenges for policy coordination
- Climate change is a cross-cutting issue requiring coordination and collaboration across many policy areas
- There is a need for more inclusive processes
- Integration across mitigation, adaptation, and clean growth is hard



### Research Ideas: Four Themes



- 1. "Top-down, Bottom-Up, and Everything in Between"
- 2. Institutional Innovation and Institutions of Innovation
- 3. Knowledge Mobilization
- 4. Governance in the Context of Natural Resources



# Research Ideas: *Top-Down, Bottom-Up, and Everything in Between*



#### • Top-Down

- Is there a need for more centralization? If so, what federally-led agreements have worked and why?
- What changes can be made at the federal level to improve coordination within government?

#### Bottom-up

- What is the role of community engagement in policy development?
  - What are the most effective models of community/citizen-led policy development?
- What other players need to be involved to ensure the success of climate action (industry, NGOs, academia, youth, etc)?



# Research Ideas: *Top-Down, Bottom-Up, and Everything in Between*



- Multi-level Cooperation and Coordination (Everything In-Between)
  - What are the best mechanisms for collaboration between multiple orders of government?
    - How can governance processes better recognize and support government-togovernment relationships with Indigenous governments?
    - What is the role of municipalities in climate policy and decision-making?
    - Is it better to encourage policy harmonization? Or rather decentralization with overarching goals and missions?
    - What incentives (carrots and sticks) exist to encourage cooperation between governments?



# Research Ideas: *Institutional Innovation and Institutions of Innovation*



- "What kind of public sector do we need for a low-carbon transition?"
- How can government institutions shift to an innovative culture, rather than one that's risk-averse, fostering innovation inside and outside government?
  - E.g. Regulatory sandboxes, mission-oriented innovation, incubator approach
- What lessons can we learn from governments' response to COVID-19?



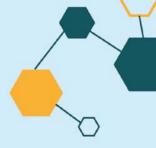




- How can we effectively mobilize and leverage the information and knowledge that already exists?
- How can we learn from best practices?
  - Both in and outside of climate policy
  - Both in Canada and internationally



### Research Ideas: Natural Resources



#### Shifting jobs and resources

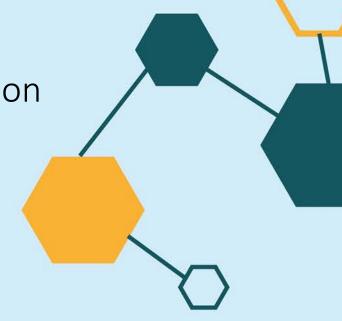
- How to design pivot plans for small communities dependent on natural resource extraction?
- What will be the role of rare earth minerals in Canada's natural resource sector?
- What role will land use play in a low-carbon transition? What are the opportunities and trade-offs?
- What types of energy will we use in the future and how do we prepare our infrastructure?

### The circular economy

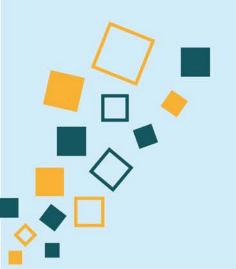
- What are the lifecycle impacts of biomass?
- What innovation (both in terms of policy and technology) exists for waste diversion and management?

Theme 2 / Social and equity dimensions of low-carbon transitions and adaptation to a warming world

Thème 2 / Les dimensions sociales et d'équité de la transitions vers une société sobre en carbone et adapté à un monde plus chaud



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## Select Equity Issues in Climate Policy & Research

- Both climate change policies and the impacts of climate change can exacerbate inequalities across Canada
- Perception of climate impacts are often disconnected from the lived experience of people
- Science has not shifted structurally to meet communities and co-generate knowledge
- Climate change policy and research is currently falling short



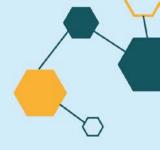
## **Major Themes**



- Improving how research is conducted
- Wellbeing as a policy outcome
- Supporting action of practitioners and communities



## Improving How Research is Conducted



- Research questions developed in collaboration with people that are most impacted
  - What are the right conditions to foster the trust and collaboration?
  - How are local case studies scalable?
  - What structures inhibit ability to listen?
- Both western science and Indigenous Traditional Knowledge systems are used to inform policy
  - How do we better braid knowledge systems to improve policy?
- Interdisciplinary teams
  - How do we better integrate adaptation, mitigation, and clean growth?



## Wellbeing as a Policy Outcome



### Framing the issue differently

- Solution-oriented
- Setting GHG reductions and adaptation in broader context (such as SDG)
- Forward looking research defining future pathways based on a common vision

### Focusing on issues that are compelling to people

- Health, food, housing, etc. are interconnected with climate change
- Effects on wages, human capital, labor, etc.

### Asking 'what are the social justice implications?'

- What are the economic, social, and environmental costs of inaction?
- How were disenfranchised groups meaningfully involved in research?



# Supporting action of practitioners and communities



### Supporting behavioral change

- What are the main drivers of behavioral change and factors that sustain changes over time?
- How can we build initiatives that demonstrate benefits (e.g. agriculture extension model)?

#### Information is out there!

- Inventory and analysis of recommendations stemming from existing expert reports
- Synthesizing to identify common and complementary actions
- Learning from community-based research

### Storytelling approaches to engage various groups

- Find ways to provide a voice through different medium (film, photography, art, ...)
- Applied spatial planning (participatory map-making, etc.)



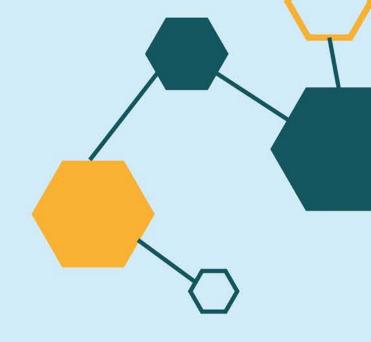
# Reflections in the Context of the Natural Resources Sector



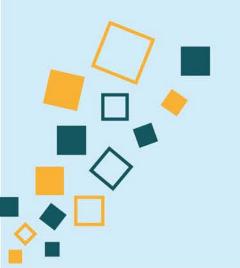
- 'Natural resources' should be defined broadly
- Natural resources are interconnected with health and the land
- Historically marginalized and disenfranchised groups should be meaningfully involved in the development of research questions and policies
- Researchers should start by listening

Theme 3 / Integrative strategies – realizing transformations through the successful implementation of climate policy

Thème 3 / Les stratégies intégratives – réaliser les transformations par la mise en œuvre réussie de politiques climatiques



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## Issues and challenges (1/4)



### Incremental versus disruptive change

- Transformation is required; small fixes aren't enough, we need systems change
- But aggressive change also risks a counter-reaction that can lead to backsliding
- Need to work at different time scales, squaring more incremental near-term action with the more fundamental transformation required in the long-term

#### **Technical versus social innovation**

- Easier to invest in "technological innovation" than in "social innovation"
- But societal transformation (for example, changing humans' relationship with nature) might prove critical
- How to drive social innovation at scale, in time?
- How to harness the energy that exists in youth-led movements on climate change?



## Issues and challenges (2/4)



### Thinking about financial, technological and behavioural dimensions requires:

- Acknowledging how power structures play a role
  - There are powerful institutions that will work against particular changes
  - Need a clear-eyed view of the way in which the fossil fuel sector, for example, engages on climate policy
- Grappling with complexity
  - A lot of players involved by definition, but also due to increasing complexity
- Regional realities
  - Transformation cannot and must not look the same everywhere
- Also thinking about other environmental challenges
  - Where to land on the spectrum of exclusive focus on climate vs. simultaneously considering impacts on biodiversity, air pollution, water quality, etc.



## Issues and challenges (3/4)

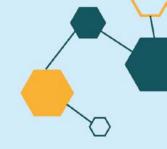


### Meaningful change will require:

- Integrated approaches
  - Need integrated approaches that include regulation, incentives, training, int'l cooperation, etc.
  - This does not often come naturally to governments because it requires breaking down silos
- Greater policy certainty, consistency
  - Need a stable, predictable policy landscape to drive change and investment
  - Need to address "protect" reactions on the part of industry that can act as barriers to policy change
  - Across governments: Need to achieve better harmonization without closing off space for governments to develop tailored solutions
  - Within governments: Need to better align policy and objectives across gov't departments and agencies



## Issues and challenges (4/4)



### Canada is ready for a "grown up" conversation

- We need to establish a social consensus that there is a problem and we need to act
- But this is also not enough
- The Canadian mindset is ripe for a conversation about "what do we want to be when we grow up". Do we want to be champions, leaders, and innovators - and how does climate change integrate with that?
- ...We need to be more intentional about what we want to achieve

#### Context matters in this conversation

- Considering equity, fairness
- Reflecting Canadian complexity
  - Federalism
  - Different politics across the country
  - Different sector-level challenges, opportunities



### Research ideas

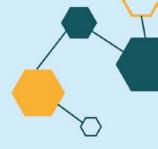


### Grouped under five themes:

- Measurement and indicators
- Setting (and acting on) priorities
- How to drive behavioural change
- Financial instruments, innovations
- Transformation pathways for Canada's natural resource sectors



## Research ideas: Measurement and indicators



- Consumption based GHG accounts for Canada
  - Not considering this could cause you to overlook the GHG emissions you're outsourcing to others
- Indicators for adaptation
  - Lack of data a big enough problem, we also lack consensus on what we need to measure, where our priorities are, what targets for the future should be
- Data barriers to measuring progress
  - Addressing data gaps, issues in what gets counted and how
- An integrated GIS showing health impacts from emissions, climate risks; include demographic and socioeconomic lenses



## Research ideas: Setting (and acting on) priorities

- Priorities we need to act on now
  - Start with sectoral mapping, identify priorities, and do a deep dive on behavioural/tech/finance barriers and how to overcome them
  - And/or take a systems-level approach
    - e.g., what change do we want to drive in the natural gas energy ecosystem, for example, and how?
- Winning the long game through innovation
  - Develop a framework for assessing climate policies based on their ability to drive reductions or meaningful adaptation at home and abroad
  - Look for co-benefits: how can Canada create an industrial cluster around these areas that aligns with specific capacities or resources that exist in the country
  - The how: sandboxes, mission-driven innovation, portfolio approach



## Research ideas: How to drive behavioural change

- Identify: What are the behavioural nudges that need to happen and how big do they have to be in a given area to unleash a given solution / remove barriers?
  - Mitigation: Recognize that making people feel guilty and responsible does not inspire, need to incentivize people to get involved
  - Adaptation: Information is power
- A realistic picture of behavioural change and technology adoption is necessary
  - Early vs late adopters
  - Risk perception and tolerance
  - ...Experiments can help reveal real-world behaviours, and what works



# Research ideas: Financial instruments, innovations



- Realizing tax code changes for encouraging private sector investment in clean innovation
  - CCA, tax credits, flow-through shares (SP)
- Mortgage approvals that consider full costs of ownership
  - e.g., considering the impact of lower operating costs due to greater energy efficiency
- Public sector as green loan underwriter
  - Federal gov't could use its borrowing power to make green loans more accessible, acting as an underwriter like it does with CMHC



## Research ideas: Transformation pathways for Canada's natural resource sectors



- How to transform the current fossil fuel sector into a clean hydrocarbon sector
  - Identify pathways for natural resources to be not only a source of emissions, but becoming part of a solution
  - Could we use fossil fuels other ways than burning them? Potential to use carbon fiber in vehicles, in concrete, etc. But costs are a barrier
  - How to support sub-sectors with high capex, thin margins and high GHGs?
- Provide clarity around challenges, barriers, investment needs
- ... And the alternatives to this kind of transformation