



# Canada, Climate Change and Education: Opportunities for Public and Formal Education

## Atlantic Knowledge Mobilization Session

A project of



With support from



SSHRC CRSH



# Final Report

*January 30, 2020*

*Mount Allison University*

*Sackville, NB*

## About the Partners

**Learning for a Sustainable Future (LSF)** is a national charity founded in 1991 to promote, through education, the knowledge, skills, values, perspectives and practices essential to a sustainable future.

**Lakehead University** is a fully comprehensive university with approximately 8,500 students and over 2,000 faculty and staff at two campuses in Orillia and Thunder Bay, Ontario. Lakehead has 10 Faculties, including Education.

**Trottier Family Foundation's** mission is to support organizations that work towards the advancement of scientific inquiry, the promotion of education, fostering better health, protecting the environment and mitigating climate change.

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**Prepared by Pamela Schwartzberg, Learning for a Sustainable Future**

Edited by Ellen Field, Lakehead University and Samatha Gawron, Learning for a Sustainable Future

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## About the Knowledge Mobilization Session

On Thursday, January 30, 2020 over 45 stakeholders drawn from across the Atlantic representing the education, government, academia, business and non-profit sectors as well as teachers and high school students participated in a Knowledge Mobilization Session at Mount Allison University in Sackville, NB. The purpose of the session was to: share the findings from *Canada, Climate Change and Education: Opportunities for Public and Formal Education*- a national survey of over 3,196 Canadians; discuss emerging trends and opportunities for climate change education in the Atlantic; and develop strategies to strengthen climate change education in the region.

The session was facilitated by: Pamela Schwartzberg, President and CEO, Learning for a Sustainable Future; Ellen Field, Lead Researcher, Post-Doctoral SSHRC Fellow, Lakehead University; and Elaine Rubinoff, Director of Programs, Learning for a Sustainable Future

Activities and deliberations at the full-day facilitated session included the following:

- A welcome from Pamela Schwartzberg, Learning for a Sustainable Future (LSF) President and CEO and Ellen Field, Lead Researcher and Post-Doctoral SSHRC Fellow at Lakehead University
- A presentation of the National Climate Change Education Survey report entitled *Canada, Climate Change and Education: Opportunities for Public and Formal Education* - Pamela Schwartzberg
- A presentation of the Atlantic Summary Report - Ellen Field
- Question and answer session on the Report findings
- Individual and small group reflections on the most interesting and most surprising elements of the survey report
- A small group activity by sector (government, school boards, academia, business, NGOs, teachers and youth) to identify the current reality (helping and hindering forces) for climate change education in the Atlantic
- A rotating “open space” activity to brainstorm “what needs to be done” by government, educators, community and youth to advance climate change education in the Atlantic
- Small group activity by sector (government, school boards, academia, business, NGOs, teachers and youth) to develop action plans for moving forward and getting the message out
- A closing reflection circle to share commitments and next steps

This report captures the session and output from participants in the facilitated activities that occurred during the day.

To read the Full Report, Executive Summary and view the Video please visit: [www.LSF-LST.ca/en/cc-survey](http://www.LSF-LST.ca/en/cc-survey). Pour lire le rapport complet, consulter le Sommaire et visionner la vidéo, visitez le site [www.LSF-LST.ca/fr/cc-survey](http://www.LSF-LST.ca/fr/cc-survey)

To access the *Focus on Atlantic – Regional Report*, Atlantic Knowledge Mobilization Session Video and an electronic version of this report please visit: [www.LSF-LST.ca/en/cc-survey/atlantic-kms](http://www.LSF-LST.ca/en/cc-survey/atlantic-kms).

## ***About Learning for a Sustainable Future***

Learning for a Sustainable Future is a bilingual Canadian charity founded in 1991 by the National Round Table on the Environment and the Economy. Working with business, governments, school boards, universities, communities, educators, and youth across Canada, LSF acts as a connector, a resource, and a facilitator for change.

LSF's innovative programs and strategic partnerships are helping to reshape education policy and transform learning methods, empowering students to address the increasingly difficult economic, social, and environmental challenges of the 21st century.

### **LSF's Mission**

LSF's mission is to promote, through education - the knowledge, skills, values, perspectives, and practices essential to a sustainable future.

### **LSF's Strategic Priorities**

1. Advancing innovative education policies, standards and good practice
2. Reorienting teaching and learning toward active, responsible citizenship
3. Fostering sustainable communities that link education to informed action
4. Supporting collaborative initiatives, networks, and champions

### **LSF's Reach**

LSF reaches over 225,000 Canadians each year through our programs.

### **Support for Climate Change Education**

Learning for a Sustainable Future (LSF) has been supporting climate change education since 2006 and can provide immediate support to enhance climate change education through: advancing curriculum policy; providing professional development; sharing peer reviewed, curriculum connected classroom resources; and enhancing student engagement.

### **Contact Information**

Pamela Schwartzberg, President and CEO

343 York Lanes, York University, 4700 Keele Street, North York, Ontario M3J 1P3

Phone: (416) 327-2149

E-mail: [pam@LSF-LST.ca](mailto:pam@LSF-LST.ca)

## About The Survey

The purpose of this national survey was to gain an understanding of Canadians' current levels of knowledge and perceptions of climate change and its risks, assess Canadians' views on how the education system should respond to climate change, and provide a snapshot of climate change education practice in Canada.

### Total respondents:

3,196

### Languages:

English • French

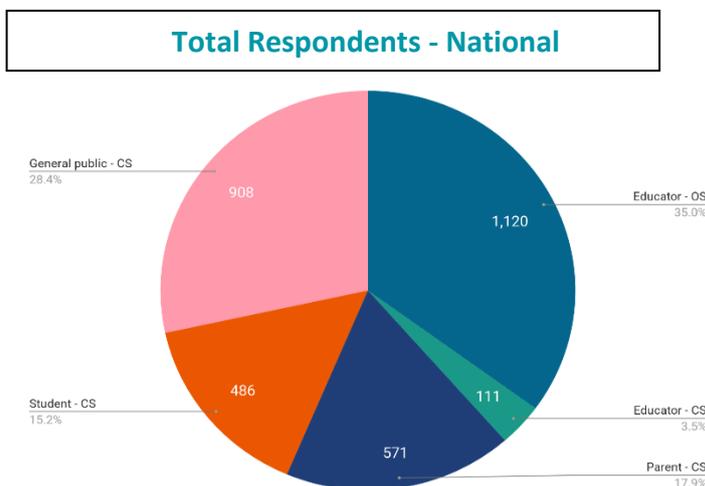
### Target Audiences:

General Public in Canada

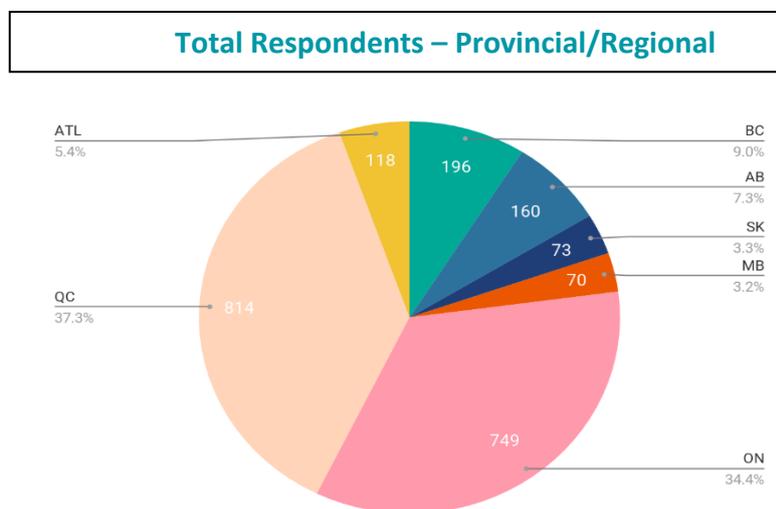
Parents of K-12 students

Youth in grades 7-12

Educators K-12



$n=3196$  (Educator OS = 1120, Educator CS = 111, Parent CS= 571, Student CS= 486, Other CS= = 908)



$n=2180$  (BC=196, AB=160, SK=73, MB=70, ON=749, QC=814, ATL=118)

# National Survey Insights

## Survey insights: Perspectives of Canadians\*

- The majority of Canadians are certain that climate change is happening, they are concerned and they believe there are risks to people in Canada.

## Survey insights: Knowledge, Understanding and Information

- 43% of Canadians failed the climate change knowledge test.
- Canadians are less sure about the causes and human impacts of climate change.
- There is a significant gap between what Canadians perception of how well-informed they are and their actual knowledge.
- Canadians trust scientists/academics the most.
- Canadians get climate change information predominately from television news and documentaries.

## Survey insights: Impacts and Action

- 36% of Canadians reported that they have personally experienced the effects of climate change.
- A majority of Canadians feel that climate change is causing or making droughts, hurricanes, wildfires, coastline erosion, river flooding, and severe winters worse.
- Two thirds of Canadians are taking action to reduce climate change.
- Only 30% of Canadians agree that new technologies will solve the problem without individuals having to make big change.
- The majority of Canadians agree that, while personal actions are important, systemic change is needed to address climate change.

## Survey insights: Role of Education

- Canadians and educators agree that more should be done to educate young people about climate change
- Only 1/3 of closed-sample educators and 59% of open sample educators reported teaching any climate change.
- For teachers who do integrate climate change content, most students experience 1 - 10 hours of instruction per year or semester.
- Only 1/3 of closed-sample educators feel they have the knowledge and skills to teach about climate change.
- All teachers should be teaching about climate change.

## Survey insights: Students

- 46% of students ages 12-18 are categorized as “aware,” meaning they understand that human-caused climate change is happening, but they do not believe that human efforts will be effective.

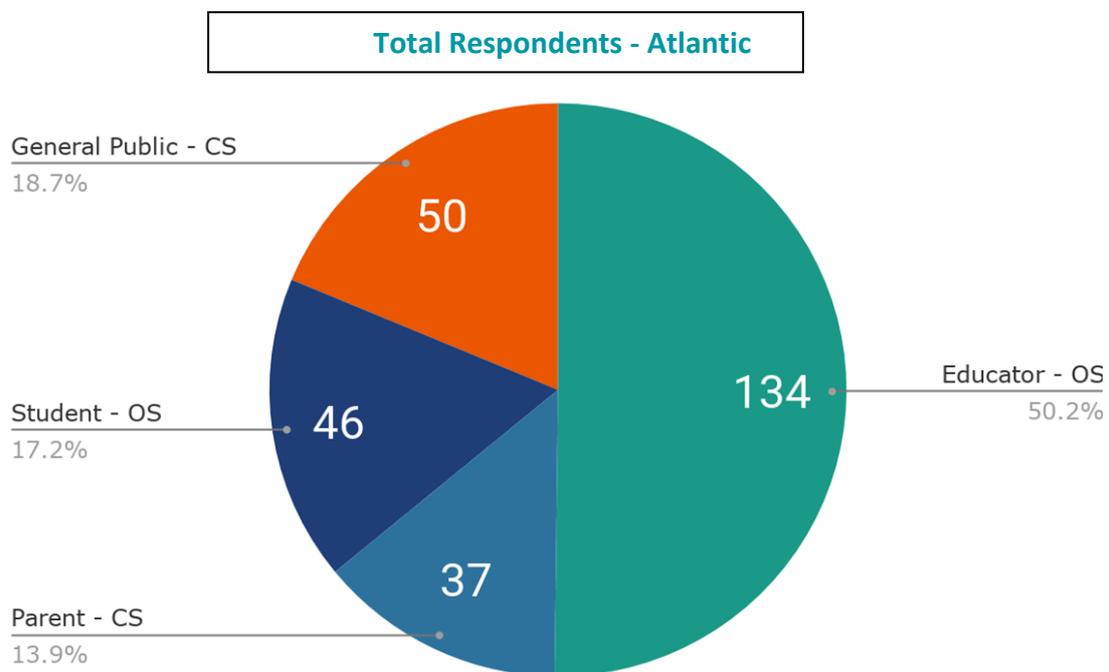
\*Canadians = average of closed-sample respondents (students, parents, teachers, public)

## Methodology - Atlantic Region

To generate an overview of the Atlantic Region, data from both open-sample (OS) respondent groups and closed-sample (CS) respondent groups were included to provide a snapshot of Atlantic Canadians':

- Current levels of knowledge
- Perceptions of climate change and its risks
- Views on how the education system should respond to climate change
- Climate change education practice in Atlantic Canada

The CS data is considered representative of the population and percentages are weighted accordingly. OS data is not considered representative of the population because of the ability for respondents to opt in and is therefore not weighted.



$n=267$  (Educator - OS = 134, Parent -CS = 37, Student - OS = 46, General Public -CS = 50)

# Atlantic Insights

## Survey insights: Perceptions

- The Atlantic results align closely with the national results indicating that the majority of Atlantic respondents are certain that climate change is happening, they are concerned about the impacts, and they believe there are risks to people in Canada. A higher number of parents in the Atlantic (86%) indicate concern compared to the national average (76%).

## Survey insights: Knowledge, Understanding and Information

- The Atlantic provinces had a significantly higher percentage of students (63%) failing the knowledge test as compared to the national average (43%). Parents were slightly more informed in the Atlantic (17%) compared to nationally (12%).
- The general public feels less informed in the Atlantic (40%) compared to nationally (54%)
- Most respondent groups in the Atlantic indicated that they need more information in order to form a firm opinion on climate change. Significantly less students indicated a desire for more information: only 71% compared to 88% nationally.

## Survey insights: Impacts and Action

- Responses from educator and parent groups across the Atlantic were consistent with the national average with respect to the influence that their actions have on climate change. The most striking difference is the number of students in the Atlantic that believe their actions can have an influence on climate change (44% vs. 61% nationally). Similarly, 47% of the general public in the Atlantic believe their actions can have an influence vs. 55% nationally.
- Over half of all respondent groups agreed that systemic change is required to fight climate change. Student perspectives were significantly different with 55% of Atlantic students agreeing compared to 61% of national students.
- With respect to new technologies solving climate change, Atlantic responses are consistent with national results except for the number of students who do not think technology will solve the problem: 14% in Atlantic and 33% nationally.

## Survey insights: Role of Education

- When asked if the education system (grades 7-12) should be doing more to educate young people on climate change only 25% of Atlantic students agreed compared to 62% nationally.
- 50% of teachers in the Atlantic either reported not covering climate change in their classrooms, being unsure about their coverage, or responded N/A compared to 43% nationally. The number of hours taught in the Atlantic is consistent with national results.
- Similar to the national average, 54% of teachers in the Atlantic indicate feeling prepared with the knowledge and skills to teach climate change.
- The barriers most selected by Atlantic educators were lack of personal knowledge, lack of accurate information sources, and lack of classroom resources/activities. The largest national barrier, lack of time, was 6th most identified barrier in the Atlantic, while lack of parental support/fear of controversy (hardly chosen in the national sample) was 5<sup>th</sup>.
- With respect to support(s) needed to teach climate change, Atlantic educators identified national or provincial data, professional development on climate change education, and information on climate science. National or provincial data did not make the top three most requested supports for national data, but was the most requested support within the Atlantic region.

# *Notes from the Atlantic Knowledge Mobilization Session, Jan. 30, 2020 Question and Answer Session*

## **What was the spread of responses in the Atlantic**

- General public - NB 31.8%, NS 34.8%, PE 15.9%, NL 17.5%
- Parents - NB 24%, NS 46%, PE 6%, NL 24%
- OS Educators - NB 19.2%, NS 17.6%, PE 44%, NL 19.2%
- OS Students - NB 17%, NS 0%, PE 81%, NL 2%

Please note that the closed-sample (CS) data is weighted against stats Canada data to ensure it is representative of the Canadian population. The open-sample (OS) data is not weighted so a direct comparison is not possible, nor can percentages of reported aggregated ATL findings be calculate by directly dividing with these numbers.

## **Was data segmented for rural and urban?**

No, the data was not segmented this way. We did segment by gender as well as other data. This is a massive dataset and there is a lot more research that will be done

## **In terms of the recommendations for climate change education, I noticed that learning from Indigenous ways of life was not included.**

This is a good point as we did not make an explicit recommendation in the report that focuses on learning from and with Indigenous peoples. In our full report, we acknowledge that Indigenous peoples have cared for this land for over 5,000 years and many communities have been leaders at the forefront to protect land, water, air, and now the climate. However, making an explicit recommendation that connects to Truth and Reconciliation processes is a good suggestion.



## **With respect to the question “I believe my actions have an influence on climate change” how you think this was interpreted – positive influence or negative influence? I am particularly interested in how students would interpret this question.**

It is up to the respondent. On the surface we could assume positive, but this data does not answer this. Ellen is applying for a research grant to undertake a qualitative and quantitative survey of some of the survey participants to assess this question as well as the ones on systemic change and the role of technology.

**You indicate that this is a baseline survey. Will you be doing a follow up survey? Things are moving so quickly and so much has happened since this survey was done it would be interesting to see how things have changed.**

Our intention is to do a follow up survey. This will be based on securing funding to undertake the survey. With increased interest in climate change we are hoping to secure the funding to do a follow up, though perhaps not with all of the questions as this was a costly project. The student sample of grade 7 -12 students is unprecedented, and it would be important to sample them again.

**The sample size for each of the Atlantic provinces is quite small. Why did Leger not do a larger sample?**

This was a national survey to give us a big picture of climate change education in Canada. We extracted data for regions to give a picture in that region. There is certainly a need for follow up in the Atlantic to get more detailed data. We did not seek ethics approval from every school board in Canada as that would have taken years to accomplish.

**Why is there not data from the Territories?**

We did not have enough data from the 3 Territories to report on the data. We only had 12 responses in total and required a minimum of 30 respondents to be reliable.

**The question about “Actions taken to learn about climate change” - was this a closed question?**

Yes, we provided a list of closed questions to choose from and we visualized the most frequent responses.



# Breakout 1: Reflections on the Survey Results

## What was most interesting about the survey results?

- Atlantic Canadians are engaged, empowered – something to build on
- Majority of Atlantic Canadians passed the climate change knowledge quiz
- Gap between perceived understanding and actual understanding and the percentage who feel uninformed
- Few Canadians think that new technologies can solve climate change, however, students view technology as saviour
- Level of trust and where people are going for information - documentaries inform the bulk of people about climate change
- Students don't think their actions will have an influence on climate change
- Majority agree climate change is creating increases in drought, floods, etc. but only 30% of Atlantic respondents say they have personally experienced the effects of Climate change
- Consistently lower results in AB and SK with respect to attitude and cause
- Biggest barriers and supports are aligned - e.g. lack of knowledge → more PD
- A lot of insecurity and lack of teaching outside of sciences

## What was the most surprising?

- Low level of knowledge on climate change
- Number of people who want more information
- Government was on par with social media as trusted source
- Positive surprise - overwhelming consensus we need more climate change education
- Student lack of knowledge - Atlantic students don't think climate change is primarily caused by humans (comparatively)
- Only 25% of Atlantic students want more climate change education - would have thought that they would have wanted climate as a higher priority considering it impacts their future so heavily
- Students seemed to be less hopeful - actions are not making a difference, do not want to learn more about climate change through school
- Students are less likely to think that systemic change is required than the general public
- Number of educators who feel uncomfortable
- Teaching climate change is not treated as cross-curricular but more like a "unit" in science or world issues
- Knowledge trumped time as a barrier
- That teachers only taught climate change for 1-10 hours in a course per semester. In reality a course is only 90 (actually truly 75 hours) so perhaps there needs to be a specific climate change course that everyone takes
- Ladder of engagement → communication planning/education planning
- Sample size seems small - surprised that Leger was not able to obtain a controlled survey group for Atlantic Canada
- No indigenous perspective included or mentioned in the education recommendations

- Would be interesting to later compare perceptions of people in northern communities and the rest of Canada
- There are tons of resources available - surprised that so many educators felt that there are not
- Educators 86% believe their actions have influence but then students don't (61%). Why the difference?
- If science is the answer to addressing climate change, then only educators that have passed some sort of certification that they are qualified to teach a course on climate change should teach it. That would eliminate "false news" being distributed to students

## *Breakout 2: Current reality – Helping and hindering forces for climate change education*

### Government

<p><b>Helping</b></p> 	<ul style="list-style-type: none"> <li>• Global competencies</li> <li>• Sustainable Development Goals</li> <li>• Inquiry based learning</li> <li>• Partnership with NGO's, utilities, business, etc.</li> <li>• Media</li> <li>• Public engagement</li> <li>• Political mandate</li> </ul>
<p><b>Hindering</b></p> 	<ul style="list-style-type: none"> <li>• Structure, resources</li> <li>• Structural barriers that impede collaboration, external partners</li> <li>• Silos</li> <li>• Funding availability</li> <li>• Time to change</li> <li>• Workload</li> <li>• Changing governments and platforms</li> <li>• Complexity of files</li> <li>• Unreasonable approval timelines – short-term funding programs</li> <li>• Public school students not voting therefore no say in government</li> <li>• 4-5 year terms and goals</li> <li>• Lack of consistent collaboration with NGO's that already have solutions to these huge issues</li> </ul>

## School Boards and Teachers/unions

<p><b>Helping</b></p> 	<ul style="list-style-type: none"> <li>• Indigenous world view</li> <li>• Personalization (student profiles) to engage authentically and within their context</li> <li>• Essential skills</li> <li>• Global competencies increased awareness</li> <li>• Time for teachers to use resources</li> <li>• Community partnerships</li> <li>• Kids get it – awareness</li> <li>• Sustainable Development Goals</li> <li>• Office 365 tools – easier to connect</li> <li>• UNESCO Associated Schools</li> <li>• R4R – Hub for resources</li> <li>• Professional learning (helping and hindering)</li> <li>• Clear policy (helping and hindering)</li> <li>• NGOs including NB Environment Network, NATURENB, GAIA Project, Conservation Council of NB, HOMARUS Eco Centre</li> </ul>
<p><b>Hindering</b></p> 	<ul style="list-style-type: none"> <li>• Hard to contact teachers who have administration support and also are champions of CC in schools</li> <li>• Lack of global policy</li> <li>• Opportunity for students to be engaged in topic</li> <li>• Eco-anxiety</li> <li>• Slow to respond with formal curriculum</li> <li>• Geographical location</li> <li>• Communication effective</li> <li>• Time and resources</li> <li>• Climate change denial – Trump – and deniers on the staff</li> <li>• Mixed messages</li> <li>• Silo'ed curriculum</li> <li>• High and numerous demands on teachers</li> <li>• Feeling like teachers need curriculum</li> </ul>

## Youth

<p><b>Helping</b></p> 	<ul style="list-style-type: none"> <li>• Engaged youth</li> <li>• Media receiving information</li> <li>• Clubs and groups at school – guidance counsellors have \$ and they have time to help create them</li> <li>• Information - More mainstream/more accessible to youth</li> <li>• Communities are supportive</li> <li>• Great role models – Greta!</li> <li>• Youth have different levels of knowledge about climate change (both helping and hindering)</li> </ul>
<p><b>Hindering</b></p> 	<ul style="list-style-type: none"> <li>• Old individuals who hold all the power</li> <li>• Students getting their information from the wrong sources</li> <li>• Climate education should start young</li> <li>• Misleading packaging</li> <li>• Link to agency - ability to take action – lack of reliable bus/train systems – bike lanes/bike safety</li> <li>• Not included in politics</li> <li>• Difficult to escape the negatives – eco-anxiety</li> <li>• Information isn't always contextualized to headlines, etc. – fear</li> <li>• Lacking climate education in school</li> </ul>

## Academics

<p><b>Helping</b></p> 	<ul style="list-style-type: none"> <li>• New fields, applied degrees</li> <li>• Teacher education – national advocacy</li> <li>• Policy – Council of Ministers of Education Canada (CMEC), Association of Canadian Deans of Education (ACDE)</li> <li>• Engaged students</li> <li>• UN Sustainable Development Goals – Global competencies</li> <li>• University strategic plans</li> </ul>
<p><b>Hindering</b></p> 	<ul style="list-style-type: none"> <li>• “Sustainability education” – systems thinking!</li> <li>• Prescribed B. Ed. Curricula</li> <li>• Restrictive teachable areas</li> <li>• Knowledge – readiness to teach</li> <li>• Faculty buy-in</li> <li>• Silos from K-12 don't have to be as separate. Combine class projects, visit schools as mentors – adapt high school native education model</li> <li>• \$ for research</li> <li>• Silos of disciplines</li> <li>• Message too complicated - KISS</li> </ul>

## NGOs

<p><b>Helping</b></p> 	<ul style="list-style-type: none"> <li>• Have audience of nature lovers with consistent support</li> <li>• Geography – mobility</li> <li>• CBC and weather network reporting</li> <li>• GRETA strikes</li> <li>• Global competencies</li> <li>• So many small NGOs with complimentary, collaborative work and partnerships</li> <li>• NS curriculum (integrated curriculum)</li> <li>• Greta (empower) VS Radicalist (fear) (both helping and hindering)</li> </ul>
<p><b>Hindering</b></p> 	<ul style="list-style-type: none"> <li>• Perceptions of being “green, radical groups”</li> <li>• Problems reaching a wider audience</li> <li>• General population literacy levels</li> <li>• Perceived competition between each other</li> <li>• Poverty</li> <li>• Lack of professional development</li> <li>• Type of funding that is available</li> <li>• Specificity</li> <li>• Teachers’ perception of curriculum limitations</li> <li>• Assessment frameworks</li> <li>• Lack of professional development on climate science</li> <li>• Time to pursue/report on funding</li> </ul>

## Business/Utilities

<p><b>Helping</b></p> 	<ul style="list-style-type: none"> <li>• Relationship with customers</li> <li>• Partnerships and involvement with NGO’S and communities</li> <li>• Knowledgeable people</li> <li>• Customer expectations (both helping and hindering)</li> <li>• Employee base</li> <li>• Interlinkage of “stake”</li> <li>• “Collective ownership”</li> <li>• Creating more sustainable jobs</li> <li>• Collaboration</li> <li>• Trust (both helping and hindering)</li> </ul>
<p><b>Hindering</b></p> 	<ul style="list-style-type: none"> <li>• Lack of transparency in the Utility and Review Board and interaction with business utilities</li> <li>• Choices that benefit: profit and not people, e.g. bulk Electric vehicle cars or solar panels instead of maintaining need for NS Power</li> <li>• \$ funding</li> <li>• Carbon economy</li> <li>• Fear about jobs/change</li> <li>• Missing alignment with business goals</li> <li>• Can capitalism coexist with environmentalism?</li> <li>• Regulatory permission</li> <li>• Greenwashing of funding to NGO’S</li> </ul>

## ***Breakout 3: What needs to be done to advance climate change education?***

### **Government and School Boards**

- Share the sense of urgency
- Implement policies that are political-party-free (no 4-year changes)
- Lead by example – e.g. Remove silo's/distributive leadership/diversify resources/innovation, follow the grassroots or example of the people
- Alignment of policy across departments and governments with targets
- Take advantage of expertise outside government
- Strengthen consultation/robust public consultation
- Engage students (youth councils that lead to change)
- Curriculum needs change – skills based
- Education to youth about how government works (civics activism, etc.)
- More value on activism in curriculum
- Money to climate action at all levels
- Consider government footprint
- Cut oil/gas subsidies
- Focus on people's interest not industry
- Education should not be partisan
- Climate/education ombudsperson
- Involve a diverse group of voices at all levels of discussion
- Longer and larger funding opportunities for NGO's so half the time isn't taken up by writing proposals and scrambling to implement them



### **Educators**

- Opportunities for learners to engage in debate about issues
- Discussion time
- Educate themselves – demand it – professional learning – stay current
- Consider various world views
- Teach kids what they can do, give power to students, encourage students to take action
- Collaborate with each other and students
- Tell it like it is. Use real data
- Cross curricular –opportunities – use climate change to teach as a subject

- Real world projects, get outside – experiential opportunities – engage with nature and environment – personal connection with the earth
- Inquiry based education
- Guest speakers –with ideas and concrete things to do - engage students in choosing
- Find the answers
- Get to know your students so “personalization” can be relevant to their own context (while providing various world views)
- Seek NGO’s who can help!
- Champion to admin and other staff
- Use “high yield” resources (ex UNESCO goals, community partners)
- Teach outside every day/week
- Get creative - take a chance
- Be impatiently courageous and kind
- Recognize that all education is political and don’t be afraid of that
- Invite guest speakers that talk about climate change as it relates to their industries and fields (agriculture, architecture) to better understand their sustainable advances.
- Invite government representatives into schools to explain how things happen and understand government policies.



## Community

- Put students not programs first
- Work from “Aware” to “Empowered”
- Work together (depolarize) – share knowledge/practices
- Honour intelligence and skill set of youth - inclusive of all
- Acknowledge youth as a stakeholder
- Come to schools
- Open doors to students (co-ops)
- Teach skills to students/share expertise
- Intergenerational learning opportunities
- Collaborate on projects
- Focus on solutions/opportunities
- Showcase the job opportunities
- Challenge political leadership to address climate change
- Showcase how climate change is affecting community and industries
- Position statements
- Collaboration - \$\$\$ resources
- Suggestions re: lesson plans/resources
- Community outdoor activities with schools and students



- Action field trips
- Break the mold - get creative and forward thinking in community planning

## Youth

- Support one another
- Get involved in your community
- Get outside in nature
- Class for climate action
- Keep talking – demanding
- Organized idea sharing – don't give up! Keep positive
- Consider different world views
- Stay hopeful/be persistent – remember your voice is valid
- Reach out to NGO'S, businesses
- Be leaders
- Volunteer
- Choose post-secondary – being informed, continued learning
- Take care of yourself
- Follow other passions
- Don't let fear control you
- Mobilize your family
- Lobby
- Reduce carbon footprint
- Collaborate
- Think critically – this touches everyone
- Ask questions
- Seek/create solutions
- Be courageous/stay motivated
- Explore the gray areas
- Share your knowledge
- Peers helping peers
- Pursuit of green careers
- Vote
- Open to learning from experts
- If there is a personal connection to environment, they are wanting to protect it



## Breakout 4: Sectoral Action Plans

### Government

- SDG's and global competencies
- Website with information about environment
- Use investigation to cover environmental topic
- Building partnership across departments
- Recognizing work that's being done in the province



### School Boards

- Climate change resource walk, Professional Learning, virtual and archived Science and Social Studies facilitated weekly by coordinators Beth and Jon and teachers
- District level youth committee to advise on SDG's – 3 gatherings by end of June – HS East
- Partnership consultant to work with teachers on results of impact studies – brainstorm world café idea including various stakeholders
- Partnering schools on bigger issue projects
- Civics course gr. 9 (year long service learning module) – Climate Change and global citizenship



### Educators

- Smaller class sizes
- Inquiry based learning is supported
- Appropriate Professional Learning – demand it
- Faculties of education – embedded in their learning
- Post secondary needs to align requirements to what we are doing – value enduring skills
- Curriculum changes – reactive/fluid
- Local community needs (ecological) informs instruction
- “Double dipping” assignments that meet expectations in multiple sub jects e.g. “persuasive essay” in English on Blue Green Algae



## Youth

- Demand student representation in district school board decisions
- Fight to have a student/youth representative at climate change decisions in the community/school board
- Older generations stubborn, stuck in their ways (oil/gas)
- Don't want to always listen to youth
- Propose greener options with benefits
- Convince older generations to do what we don't have the resources to do



## Academics

- Develop national policies for CMEC, ACDE to guide climate change education
- Commitment to interdisciplinary learning systems thinking, project-based learning
- Streamlined curriculum connected SDG's, global competences
- Opening up SKILLS; smaller classes, project management
- Schools restructured to allow for inquiry-based learning
- Resilient student teachers – new teachers
- Rich induction for lead teachers/associate teachers
- Climate change education as part of pre-service teaching

## Business

- HR - Incorporate climate change education with new employees in all lines of business at hire, through on boarding and existing channels
- Communication - employee engagement/celebrate wins/tell our story with concrete examples, at events and ongoing, in all lines of business, through Internal channels with proof points
- Partnerships with NGO's for varied resources/research/content - Reach out, learn, sit on boards, provide funding, use our channels to help get their message out
- Senior Leadership – Greater policy influence with government/universities
- Walk the talk on the "SDG's" e.g. procurement, contractor management. Set goals and action plans and communicate through annual on-line reporting



## Non-Government Organizations (NGOs)

- Collaborative Atlantic coalition
- Get what we do out there
- Effective Professional Development
- Be out in the "community"
- Have the conversations and build relationships with each other
- Model Brilliant Labs

## Next Steps

### Final Reflection Circle - “What are the opportunities to foster climate change education throughout the Atlantic provinces? What is your commitment?”

- Have quarterly meetings with a group like the one present at today’s session to come up with different ideas and facilitate commitments
- Help build capacity with teachers and support them with resources, utilize the information and resources around us
- Have a lunch and learn about climate change at work with colleagues
- Accept knowledge from others so that we can learn
- Spread a network of positive practice in climate change action
- As an educator you must mediate conversations on climate change. Climate change issues are charged and often resort to shouting matches rather than “getting to know the human in front of you.” Get students to construct questions and work towards critical thought and discussion
- Give youth a place to share their voices, concerns and fears on climate change, engage in climate change advocacy and give them opportunities to connect with people on an Atlantic basis so that action could be made to counter the issue



**The following calls to action were generated through the Climate Change Education Survey Report and the knowledge mobilization discussions and activities.**

#### 1. Leadership by Government

- Governments in the Atlantic should show leadership by putting climate change education and action at the top of their priority list
- Governments should provide incentives for employees to become literate in climate change (e.g. hiring practices, professional learning)
- Establish a climate change education policy and embed core curriculum across all subjects to address the multiple dimensions of climate change through science, social studies, math, art, language, etc.
- Utilize the Global Competencies and the Sustainable Development Goals (SDGs) to begin the conversation on climate change. “It is a global movement people are jumping onto.” Teachers want to teach more of what kids are interested in and what “trends” are popular in the society

## 2. Engage Youth

- Give youth a place to share their voices, concerns and fears on climate change, engage in climate change advocacy, become educated on how policy making works and how government and schools boards operate, and have opportunities to connect with people to facilitate action.
- Youth will feel the effects of climate change the most, and therefore it is important to listen to their concerns and solutions on the matter. The goals that they come up with now need to be implemented now, not for the “next generation,” because by then, they feel, it will be too late.
- Facilitate youth agency through their ability to take action

## 3. Engage Parents

- In Atlantic Canada 86% of parents are concerned about the impacts of climate change, only 37% feel well informed, and 91% want more information about climate change. Over 55% think the education system should be doing more to educate young people on climate change. This could lead to awareness
- Utilize a bottom-up regional approach to create a gateway to advancing climate change awareness and action

## 4. Build capacity of Teachers and Teacher Candidates

- To address the barriers identified by Atlantic teachers (lack of knowledge, lack of accurate information sources, lack of classroom resources and lack of instructional strategies) governments, school boards, teachers’ unions and faculties of education should:
- support teachers with Professional Learning opportunities to enhance knowledge, tools, strategies and confidence in engaging students in climate change learning
- Embed climate change education in their pre-service learning for all teachers
- Provide teachers and teacher candidates with access to excellent climate information and data and climate change classroom resources

## 5. Multiple voices and approaches

- Have quarterly meetings with a group like the one present at today’s session to come up with different ideas and facilitate commitments
- Climate change effects everyone differently. People of different socioeconomic backgrounds experience the effects of climate change differently. Having a one-size-fits-all approach will not work.
- Ensure Indigenous perspectives and voices are included in the dialogue, planning and action.
- Those with privilege should utilize the platforms they have to speak for individuals or groups who are marginalized and do not always have the opportunity to speak out
- Facilitate partnerships between government, business, academia, youth and NGOs to undertake research, develop resources, share content, and utilize channels to help get the message out

## *Final words...*

“It is hard for youth not to be fearful in the climate emergency when we do everything in our power to make a change but often little amounts from it. And then, we have to wait until we are older and have more agency to actually make noticeable changes.”

“For better or for worse, action against climate change has brought people and communities together to fight for a common goal: a sustainable future. This fosters the ability to have a relationship with the natural world and to each other as humans on Earth.”

“Leadership in climate change awareness and action should be a grassroots movement rather than top-down one. Leadership is what is occurring in this room today.”

## Participants

<b>First Name</b>	<b>Last Name</b>	<b>Title/Position</b>	<b>Employer/Affiliation</b>	
Carolyn	Barnhart	SPR Science	Fredericton High School	
Roy	Bourgeois	Conseiller en sciences humaines	Conseil scolaire acadien provincial	
Kathleen	Brennan	Special Projects Advisor	Department of Climate Change - PEI	Via Zoom
Tzomi	Burkhart	Program Coordinator	NB Environmental Network	
Georgia	C	Student	Fredericton High School	
Jane	C	Student	Tantramar Regional High School	
Simone	Charron	Climate Change Policy Analyst	NS Department of Environment	
Adam	Cheeseman	Director of Conservation	Nature NB	
Roland	Chiasson	Educator/Wildlife Biologist	Aster Group	
Christine	Christensen	Science Consultant	NS Department of Education and Early Childhood Development	
Beth	Christie	Subject Coordinator – Social Studies, Fine Arts and Enrichment	Anglophone West School District	
Barbra	Clayton	Associate Professor	Mount Allison University	
Rick	Cuming	President	NB Teachers' Association	
Melanie	Doyle	Education and Outreach Coordinator	Conservation Corps Newfoundland and Labrador	Via Zoom
Michael	Edwards	Chief Science Officer	Science East	
Ellen	Field	SSHRC Postdoctoral Fellow & Contract Faculty	Faculty of Education, Lakehead University	
Pamela	Fowler	Teacher	Riverview High School	
Michael	Fox	Professor of Geography & Environment	Mount Allison University	
Becky	Geneau	Director, Programs	Science East	
Brooke	Gillespie	Student	Mount Allison University	
Lizzy	Gresh	Executive Director	The Gaia Project	
Ben	Grieder	Efficiency Projects Coordinator	Ecology Action Centre	
Maja	H	Student	Riverview High School	
Shannon	Harding	Director of Programs	Clean Foundation	
Patrick	Howard	Associate Professor	Cape Breton University	
Jon	Hoyt-Hallett	Subject Coordinator - Science K-12	Anglophone West School District	
Susan	Kelley	Executive Director	Cape Breton Victoria Regional Centre for Education	Via Zoom

Tracy	Landry	First Nation Education Coordinator	Anglophone East School District	
Quinn	M	Student	Tantramar Regional High School	
Nancy	MacKinnon	Teacher/Executive Director	Tantramar Regional High School/Tantramar Wetlands Centre	
Raissa	Marks	Executive Director	NB Environmental Network	
Meghan	McMorris	Community Energy Coordinator	Ecology Action Centre	
Rene	Morais	Environmental Coordinator	J.D. Irving Limited	
Jack	N	Student	Riverview High School	
Zahn	N	Student	Riverview High School	
Mark	Perry	Social Studies and First Nation Education Subject Coordinator, ASD-S	NB Department of Education and Early Childhood Development	
Jim	Petrie	Consultant	Learning for a Sustainable Future	
Beth	Pollock	Senior Manager, Energy Efficiency Services	NB Power	
Chris	Porter	Consultant	Learning for a Sustainable Future	
Michel	Robichaud	Agent pédagogique provincial en sciences	NB Department of Education and Early Childhood Development	
Ingrid	Robinson	Assistant Professor	St. Francis Xavier University	Via Zoom
Elaine	Rubinoff	Director of Programs	Learning for a Sustainable Future	
Joey	Savoy	STEAM & Science Subject Coordinator	Anglophone North School District	
Pamela	Schwartzberg	President & CEO	Learning for a Sustainable Future	
Jeremy	Smith	EST Science, Grades 6-12	Anglophone West School District	
Tracey	Somers	Program Lead, Behaviour and Market Transformation	NB Power	
Darren	White	Subject Area Coordinator (Science / Technology)	Anglophone South School District	
Meaghan	Wilbur	Learning Through Personalization Lead	Anglophone North School District	
Sasha	Wood	Climate Change Strategist	NB Department of Environment and Local Government	
Todd	Woodland	Program Development Specialist	Department of Education and Early Childhood Development - NL	Via Zoom
Maddie	Y	Student	Fredericton High School	
Liam	Bunin	Renaissance College Green Rep	Renaissance College (UNB)	Cancelled
Jonathan	Hayes	Secondary Science and Innovation Specialist	PEI Department of Education & Lifelong Learning	Cancelled-Death in family
Pierrette	Janes	Student	University of New Brunswick	Cancelled

Ronald	MacDonald	Dean, Faculty of Education	UPEI	Cancelled - weather
Megan	Mitton	MLA Memramcook-Tantramar		Cancelled - Sick
Jaclyn	Reid	Secondary math and science leader (French programs)	PEI Department of Education & Lifelong Learning	Cancelled-Weather