A GUIDE TO CLIMATE ACTION

EMPOWERING LOCALLY SITUATED, COLLECTIVE, AND LONG-TERM CLIMATE ACTION IN BRITISH COLUMBIA AND BEYOND

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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 organisations 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 the BC Sustainable Energy Association staff. The opinions and recommendations in this report and any errors are those of the author and do not necessarily reflect the views of BC Sustainable Energy Association or the University of British Columbia.

The author acknowledges that this work was conducted on the traditional, unceded territory of the Syilx Okanagan People and gives gratitude for the ability to work, live, and play on this land. The author also recognizes that the colonial history of Canada has led to Indigenous Peoples across the country being unequally and unfairly impacted by climate change. The author is committed to moving forward on the path to reconciliation and working to dismantle ongoing legacies of oppression and inequalities.

Using This Guide

Who is this guide for?

This guide is for anyone who's interested in climate action! Whether you're a group wanting to inspire climate action in your community, a teacher trying to engage your students in climate change, or an individual interested in climate action yourself, this guide is for you. Although this guide was developed for a British Columbia audience, it can be easily adapted to any location.

How is this guide structured?

This guide is divided into 4 units. Each unit can be completed in approximately 1.5 - 2 hours. The units build on each other and, therefore, are meant to be completed sequentially. Each unit consists of a variety of information, videos, and activities related to the unit's topic and ends with a set of take home challenges intended to connect the learning to individual's own lives. Feel free to adapt the learning content to fit your own context! Ideally, the units are completed in 4 group sessions with a facilitator leading each session. In between sessions participants can complete the take home challenges on their own time.

Unit 1: Building Socio-Emotional Resilience for Climate Action

Learning Objectives

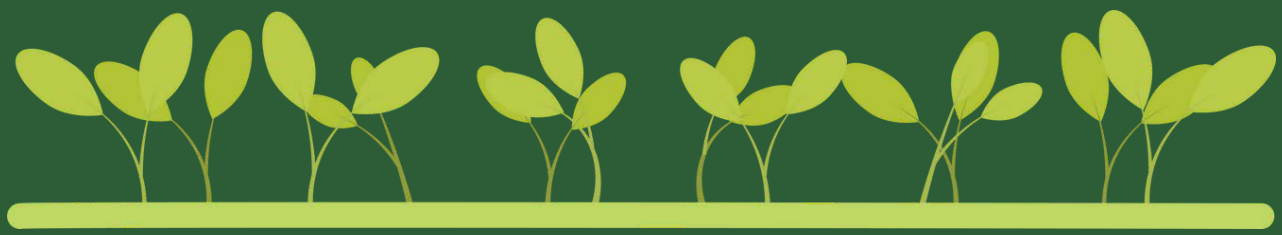
- Reflect on one's own emotions related to climate change
- Understand the importance of building socio-emotional resilience for engaging in climate action
- Practice reframing the climate narrative to imagining a collective, caring, and hopeful future for our planet
- Explore how climate action can be used as a tool to overcome climate anxiety

Activity 1: Climate Action Bingo Icebreaker

Time: 10-15 minutes
Materials: Climate Action Bingo Cards (see Appendix 1-A), pens/pencils

Instructions

- Give each participant a climate action bingo card (see Appendix 1-A) and pen or pencil.
- Have participants walk around the room and try to find other individuals who have done/do the actions listed on the bingo card.
- Participants try to cross of as many squares as possible in the allotted time (10-15 minutes depending on group size).



Climate Anxiety

We are constantly hearing about the devastating effects of climate change in the news, on social media, and in other areas of our life. There are an increased number of natural disasters and more extreme weather patterns globally. We are also seeing the effects right here in BC including an increase in the number and severity of wildfires. All these factors can lead people to experience climate anxiety.

Climate anxiety is characterized by feelings of fear, worry, despair, and guilt and can negatively affect psychosocial health and well-being. Although young people disproportionately experience climate anxiety compared to other demographics of the population (a study that surveyed thousands of young people found that most were worried about climate change), climate anxiety can impact all of us. Without allowing ourselves time to process these emotional responses to climate change, we could burnout or become immobilized and unable to engage in climate action.

Activity 2: Emotions Check In

Time: 10-15 minutes
Materials: Pens/pencils and paper

Instructions

- Give each participant a paper and pencil/pen.
- Watch this video (you can stop at the 4:50 mark): Click here for video.
- Have participants write down the emotions and thoughts that come up while watching this video.
- Participants get into pairs and each person takes turns speaking for 1-2 minutes. Participants should answer the following question: “How have you been feeling lately about the climate, activism, the environment, and the future? How did this video make you feel?”
- After about two minutes the facilitator signals and participants take turns speaking for 1-2 minutes answering the question: “What have you done for self-care in the last week?”

What is Resilience?

Socio-emotional resilience is the ability to endure turmoil and to anticipate, adapt, and flourish in the face of change. Socio-emotional resilience is easier if a person has someone to talk to regarding shared experiences. A foundation of socio-emotional resilience is critical for engaging in climate action. Addressing trauma, grief, anxiety, and other emotions is needed in order to have the capacity to act on the climate crisis.

Watch this video about resiliency
Click here for video.

Resiliency is...

- To adapt well in the face of adversity
- The ability to “bounce back” from difficult experiences; Similar to buoyancy – when pushed under water our bodies instinctively rise back up to the surface.
- Involves skills that can be learned and developed in anyone
- Does not mean a person doesn’t experience emotional distress; It is NOT: invulnerability, perfection, isolation from all risk
- Highly resilient people are able to cope and recover from problems/challenges (stress): COVID, School stress, loss, work stress, financial problems, relationship problems, illness, natural disasters, medical emergencies, divorce, the death of a loved one, questions about the future

Building Resiliency: Drawing on Strengths and Competencies

Nurture a positive view of yourself

- Take in the positives that come your way
- Be aware of negative self talk…replace with positive
- Expand your view of success
- Manage your (social)media: sift through the media-driven messages so you can be in control of your own opinions and self image
- Take healthy risks/challenges

Learning from your past

- What kinds of events have been most stressful for me and why?
- How have I been able to overcome obstacles?
- What have I learned about myself and others during these times?
- What makes it easier to bounce back?
- What has helped me feel hopeful about the future?

Managing Stress Effectively: Change how you perceive the situation

Avoid Thought Traps (cognitive distortions)

All-or-Nothing Thinking: I'm perfect or I'm a failure. Things aren't always so black & white – don't let the perfect be the enemy of the good.
Overgeneralization: If one thing sucks, everything sucks forever. Our brain decides that some small negative is going to be that way forever and only get worse and it will apply to everything else in our lives.
Disqualifying the Positives: That Didn't Count Anyway. We find reasons that good things in our lives "don't count": we explain away positives instead of noticing & celebrating them – however small they may be.

Jumping to Conclusions

Mind-Reading – we decide for sure what someone thinks about us without them verifying or telling us
Fortune-Telling – we predict the future as if something is set in stone
Catastrophizing: It's the End of the World. Blowing things out of proportion – fail a test…fail the course…don't graduate…no job…homeless…
Emotional Reasoning: I'm Sad, so Life Sucks. We may feel sad – but a few hours later when we are happy, things don't look so gloomy. Watch that your life perspective doesn't completely turn on its head when you have a bad day or even a bad week – it's just a temporary lens.
"Should" Statements: Guilting yourself. Using critical words like "should" or "must" can make us feel guilty or like we have already failed, or lead us to feel obligated.

Relationships and Support

Make time for relationships – friends & family (especially in person)

- Plan to visit with friends; don't wait for them to invite you
- Be active in groups & activities & organizations
- Obtain a mentor or serve as a mentor to others

Work to increase positive communications

- Make a conscious effort to increase the amount of positive communications (appreciation, affection, support, etc.) and decrease the negative ones (criticism, demands, etc.)

Reach out for Support when needed

- Seek help from others; don't be afraid of asking for what you need
- Seek professional support

Support the people you care about in times of need and in accomplishment

Positive Self Care

- It's healthy, normal, and HIGHLY recommended to have self-care in your life at all times; And when things get tough, to increase this self-care even further!
- Self-care can be anything that helps you take care of YOU.
- Self-care isn't always a matter of spoiling yourself or doing something fun, exciting or luxurious.
- Sometimes it is self-care that helps makes sure you engage in the basics of your life – healthy eating, adequate sleep, basic hygiene and chores, exercising well, saying "Yes" to some activities and "No" to others

Watch this video about resilience and climate action:
Click here for video

Video Discussion Questions:

- Have you ever felt like you're outside of your window of tolerance (not necessarily related to climate change)? How did this affect your ability to act on an issue?
- Do you have any self-care tips that have worked for you to stay within your window of tolerance?

The Importance of Hope for Climate Action

Climate communication scholars call for new climate stories that move beyond apocalyptic imageries to offer more hopeful narratives. Creating stories that offer critically hopeful engagements is critical. Individualist, technocratic, and fear-based approaches to climate change can negatively influence people's active participation in the climate crisis. Hope linked to problem solving or positive thinking can lead to more concrete actions.

Watch this video about climate change and hope:
Click here for video

Activity 3: The Importance of Hope - Retelling the Climate Narrative

Time: 15-20 minutes
Materials: Large pieces of paper, coloured markers

Instructions

- Split participants into groups of 3 or 4.
- Give each group a large piece of paper and markers.
- Give each group the prompt: "What do climate-changed societies look like in a collective, caring, and hopeful future?"
- Have participants brainstorm and write their responses on the paper. Encourage them to use whatever method of representation they find best (e.g., drawing, writing key words).
- After about 10 minutes have each group present their findings.
- Have everyone reflect on how envisioning this more hopeful future made them feel about climate change and the climate crisis.

Take Home Challenges

Challenge 1: Journaling

Every day for one week journal about emotions that arise related to the climate crisis. What brought up these emotions (a specific event, encounter etc.)? Once you've identified your emotions and their cause, try to identify one climate action you could take in response to this emotion. Consider how reframing the narrative towards action changes your perception about the climate crisis.

Challenge 2: Photography

Over the next few weeks explore your environment (home, neighborhood, work, school) and take photos of elements that represent a collective, caring, and hopeful future for our planet. How does changing the narrative about the future make you feel about climate action and the climate crisis?

Challenge 3: Conversations about climate futures

Have a conversation with someone who you trust and feel safe around. Focus the conversation on the future of the planet and what climate-changed societies might look like in the future. Notice if they tend to view the future in a negative or positive light. Offer thoughts about hopeful narratives for the future.

Challenge 4: Explore Solarpunk

Solarpunk is a genre that offers a more hopeful narrative of the future. Watch this video about solarpunk: Click here for video. Explore other videos and resources related to this genre. How does this material make you feel about the future of the planet?

Appendix 1-A: Climate Action Bingo Cards

CLIMATE ACTION BINGO

Eats plant-based foods	**Composts**	**Uses public transport**	**Brings their own coffee cup**	**Voted in the last election**
Drives a hybrid or electric car	Volunteered within the last month	Wrote a letter to a local member of parliament	Participated in a protest	Recycles at home
Gardens at home or at a community garden	Watches the news	FREE SPACE	Shops at a farmer's market	Mends your own clothes
Bikes or walks to work	Talks to friends or family about climate change	Planted a tree	Attended a community town hall	Shops second hand
Carries a reusable water bottle	Donates money or time to a charity	Switch off lights when you're not in the room	Preserve food (canning, freezing etc.)	Talk to the next generation about climate change

Unit 2: Climate Communication

Learning Objectives

- Learn about the importance of climate communication
- Identify climate communication "traps" and how to avoid them
- Identify climate communication "gateways" and how to effectively use them in conversations
- Practice having climate conversations in a safe environment

Activity 1: Climate Communication Icebreaker

Time: 10-15 minutes
Materials: Paper, pens/pencils

This activity was adapted from the Emotional Resilience Toolkit for Climate Work

Instructions

- Put participants into pairs.
- Give each pair a piece of paper and writing materials.
- Facilitator reads: *You are going to start a climate conversation with your partner. This will be like any other conversation, except you will use lines, shapes, and colors instead of words. You might focus on how you are feeling about climate change, ways you are taking action, how you are coping with or receiving care and support as you address climate change in your life, or what you want your partner to know about climate change. One person will begin and the other will respond. Continue communicating back and forth through drawing. Don't feel like you need to understand what your partner is communicating. Remember, this exercise is about using art for expression. Put aside any judgments about art ability and simply be in the process. Try to avoid talking.*
- Let participants communicate silently in this way for about 5 minutes.

Why Climate Communication?

How can we start fighting climate change? The first step is ***talking about it!***

Although 66% of individuals in the United States are interested in climate change, and 71% of Americans say climate change is important to them personally, 61% of the population never or rarely talk about it with their friends and family. This statistic is similar in a Canadian context. This lack of communication is a problem because if we don't talk about climate change, how will people know that it's something most people care about? Conversations about climate change have been shown to lead to increased pro-environmental behaviour and concern about the environment. These conversations can also lead to increased support for larger scale climate-friendly policies and actions. Therefore, simply communicating about climate change is a form of action.

Where can these conversations start? With you! You can use your voice to talk about why climate change matters to you. But sometimes it's hard to know where to start and it can feel overwhelming and scary to engage in conversations about climate change. When thinking about talking about climate change these thoughts may cross your mind:

- "I'm not a scientist, I don't know all the facts about climate change, therefore I'm not qualified to talk about it."
- "I don't think anyone in my life cares about climate change."
- "Climate change is too big an issue. I can't do anything about it so there's no point in talking about it."

These are all very reasonable thoughts to have. But the good news is that you don't need to be a scientist with all the facts to talk about climate change. Research has shown that talking about how climate change has impacted you or concerns you personally is a much more effective communication strategy than using facts and figures to talk about climate change. And, as the above statistics show, most people do care about climate change so will likely be open to talking about it. Finally, climate change is a big issue but that doesn't mean you can't do anything about it. Engaging in conversations about climate change can foster collective climate action which can have a positive impact on the climate crisis.

When communicating about climate change using specific evidence-based communication strategies can increase the effectiveness of your communication. This unit will outline some of these strategies so that you feel ready to have climate conversations with your family and friends or in your place of work, city, town, or province.

Activity 2: Emotions Check In

Time: 20-30 minutes
Materials: None

Instructions

- Watch this TedTalk by Dr. Katherine Hayhoe about climate communication: Click here for video.
- Either as a large group or smaller groups, work through the following discussion prompts:
  - Do you feel confident in talking about climate change with your friends or family? What about with people you don't know as well?
  - What are barriers you face when thinking about engaging in climate conversations (e.g., you don't think you know the science well enough)?
  - Do you think the people in your life care about climate change and would be interested in talking about it?
  - Can you think of examples of positive climate conversations you've had? What led to these positive experiences?

Climate Communication "Traps"

The strategies presented in this section were adapted from the National Network for Ocean and Climate Change Interpretation (NNOCCI) strategic framing for climate change communication as well as Dr. Katherine Hayhoe's book Saving Us: A Climate Scientist's Case for Hope and Healing in a Divided World. These techniques are evidence-based methods to engage in climate change conversations and have been shown to increase individuals' confidence in engaging in climate change conversations.

Climate communication traps are ways of talking about the climate crisis that have been shown to be ineffective and can lead to climate ***in***action rather than action.

Trap 1

Fear-Based Narratives

Fear, when paired with uncertainty, leads to inaction rather than action. When faced with the scary facts of climate change and catastrophic stories, it leads to a collective feeling of helplessness. Therefore, although fear can make people pay attention in the short term, it is emotionally unsustainable in the long term and does not lead to sustained climate action.

Avoid by...

Maintaining a **reasonable tone and using hopeful language about the future.** Instead of using fear to motivate climate action, try to focus on a hopeful narrative of the future. As neuroscientist Tali Sharot said, "we're more likely to execute an action when we are anticipating something good than when we are anticipating something bad." Therefore, maintaining a reasonable and hopeful tone in your communication rather than scaring the person you're talking to is more likely to lead to action.

Trap 2

Far Away Examples

In order to protect ourselves and stay within our window of tolerance, our brains ignore repeated bad messages when they don't relate to our own lives. Using far away examples leads to individuals viewing the climate crisis as distant (both in time and space) and disconnected from their own lives. In addition to making the problem seem disconnected from one's own life, using far away examples can make the climate crisis seem too big to do anything about and lead to people feeling like they are powerless in the face of such a huge threat.

Avoid by...

Using **local examples of problems and solutions**. Instead of talking about how polar bears are being impacted by climate change, talk about how your community is being impacted. Instead of talking about wildfire smoke in New York, talk about wildfires that have occurred in your area. By using local examples you are showing that climate change isn't a distant threat, it is something that's affecting all of us right here right now.

Trap 3

Focusing on Individual Behaviour Change

Focusing on environmentally friendly behaviour that individuals can engage in may seem like a good idea but, in reality, focusing on these individual behaviour changes can lead to an overemphasis on the impact individual changes can have on the climate crisis and draws attention away from community and collective strategies that have been shown to be crucial in addressing climate change. In fact, overemphasizing the impact of individual actions could lead to decreased support for larger scale climate actions.

Avoid by...

Discussing wide-scale collective solutions, not individual behaviour changes. Frame solutions as wide-scale, collective solutions rather than individual behaviour changes. For example, instead of suggesting someone buy an electric car, talk about a local carpooling initiative and the community involvement that led to the success of this initiative. Transition to solutions early in your conversation. If solutions are discussed late in the conversation, or not discussed at all, it sends the message that there is no solution to the problem and lead to feelings of hopelessness or apathy.

Activity 3: Reframing Climate Narratives

Time: 20-30 minutes
Materials: News excerpts (see Appendix 2-A), paper, pens/pencils

Instructions

- Put participants into groups of 3 or 4.
- Give each group one news excerpt from group A and one news excerpt from group B.
- Groups read through the two articles together to identify strategies that may be preventing or enhancing effective climate communication in the articles (e.g., fear based, far away examples, hope-based approach). Have participants discuss how the different article tones (fear-based vs. hopeful) make them feel about climate change and climate action. Did they find one article to be more effective than the other?
- Once everyone has a chance to read through the articles and engage in discussion, have each smaller group share some of their thoughts with the entire group.

Climate Communication "Gateways"

Now that we've discussed some common climate communication "traps" and how to avoid them, we'll move on to climate communication "gateways." Climate communication "gateways" are communication strategies that have been shown to be effective in empowering people to engage in climate action.

Gateway 1

Connect with People's Values and Interests

Increased knowledge about a climate issue does not translate into attitude change or support for climate smart policies. Instead connecting the values people already hold to climate issues has been shown to be an effective strategy in attitude change about climate change.

Lead your conversation with shared values. Ask yourself, "what do we both care about? Why might climate change matter to both of us?" Are you both farmers? Do you both have children? Do you live in the same area? Do you both enjoy doing the same activities? There is almost certainly some type of shared value you have with the person with which you're communicating. Finding that shared value can be a great starting point for a climate conversation. Once you've identified a shared value or interest, try to connect the dots between that value and interest and climate change. As climate change is affecting everything, almost every value and interest can be connected to climate change!

For example, are you both parents? You could use this shared trait and talk about how you as a parent care about climate change because it affects your children's health. Do you both hunt? You could talk about how climate change is affecting population levels of species you normally hunt in your area.

If you're having trouble thinking of a shared value, research conducted by the FrameWorks Institute found that one value many people hold is protection. This value means that someone is concerned about protecting people from harm. Connecting to this value in a climate conversation could look like discussing the effects of climate change on human health. If you can't find a different shared value, try using this one in a climate conversation.

Gateway 2

Lead with Your Heart

Talking about your own experiences and concern about climate change has been shown to be much more effective than simply stating facts or explaining the science behind climate change. Therefore, sharing why you care about climate change and how you've personally been impacted is an effective communication strategy. Instead of worrying about the facts, focus on your own personal experiences.

Activity 4: Finding Shared Values for Climate Conversations

Time: 15-30 minutes
Materials: Character cards (see Appendix 2-B), pencils/pens

Instructions

- Put participants into groups of 2.
- Give each participant a character card (see Appendix 2-B).
- Have participants complete their character card by naming their character and writing down three values that character might hold. A list of values has been provided if participants are having difficulty thinking of values. Alternatively, participants can write down hobbies or interests their character might have.
- Direct participants to have a conversation about climate change. One person in the group (the communicator) acts as themselves and the other person role plays their character. Encourage the communicator to:
  - Find an entry point to talking about climate change by finding values they share with the character being roleplayed.
  - Focus on local impacts of climate change in their conversation (e.g., ways their community has been impacted by climate change).
- After about 5 minutes have the pairs switch roles.
- End this activity with a group discussion. Did participants find it easy to connect their values with the role-played character? Was it scary engaging in a climate conversation?

List of values to help participants create their character. Participants can pick values from this list or make up their own.

Family Wealth Defence Charity Public Health Credibility Faith Freedom

Hard Work Growth Knowledge Justice Obedience Organization Patriotism

Peace Security Self-reliance Service Status Sustainability Stability Quality

Positivity Kindness Independence Happiness Gratitude Honour Fitness Fun

Generosity Fairness Empathy Decisiveness Beauty

Take Home Challenges

Challenge 1: Reframing the News

Read two news articles that discuss climate change. Try to identify climate communication “traps” and “gateways” that are used in the articles. How would you change the article’s tone if you were the one writing it?

Challenge 2: Talking About It

Over the next week try to bring climate change into 3 different conversations. Remember to avoid the climate communication “traps” and try to use the climate communication “gateways” discussed in this module. How did the conversation go? Write down your thoughts after each conversation.

Challenge 3: Defining Your Values

In order to find shared values in climate conversations, it’s important to understand your own values. Spend some time reflecting and writing down your own values. Consider using a guide such as this worksheet from Wiona State University: Click here for worksheet.

Appendix 2-A: News Excerpts for Activity 3

A

‘Get scared’: World’s scientists say disastrous climate change is here

(https://www.politico.com/news/2021/08/09/climate-change-scientists-report-disastrous-502799)

The long-feared era of disastrous climate change has arrived.For the first time, the planet’s top scientists said in a monumental report released on Monday they have definitively linked greenhouse gas emissions to the type of disasters driven by a warmer climate that have touched every corner of the globe this year: extreme rainfall in Germany and China, brutal droughts in the western U.S., a record cyclone in the Philippines and compound events like the wildfires and heat waves from the Pacific Northwest to Siberia to Greece and Turkey.

This is the world as it exists today, with an atmosphere 1.1 degrees Celsius hotter than it was in the pre-industrial era thanks largely to burning fossil fuels such as coal, oil and natural gas. Even grimmer: There is no scenario in the new analysis by the United Nations’ Intergovernmental Panel on Climate Change in which the world avoids breaching the threshold of 1.5 degrees Celsius that the U.S., EU and several other countries have set as a target. Even the weaker 2-degree target that major polluters China and India have set as guideposts will be eclipsed unless greenhouse gas emissions peak by mid-century.

Those numbers have real-world consequences for billions of people, with cascading impacts on agriculture, human migrations and even wars, numerous studies in recent decades have warned. An extreme heat wave that once would have occurred only twice a century would instead hit about every six years at the 1.5-degree threshold, the IPCC says. With 2 degrees of warming, you can expect them every four years.

“Human-induced climate change is already affecting many weather and climate extremes in every region across the globe,” the IPCC authors concluded in the summary to the report that brought 234 authors across 66 countries together to analyze more than 14,000 studies. “Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since” the last report released in 2013.

What’s become virtually certain to scientists is that heat waves are hotter, longer-lasting and more frequent. Oceans are overheating, locking in further warming. Glaciers and ice shelves will continue to melt for decades — regardless of new action by governments — pushing tides higher to flood cities and propel storm surges further inland.

Extreme, rare events are happening in such quick succession that scientists barely have enough time to recalibrate their models. Those calamities are buckling societal institutions and physical infrastructure. And as scientists’ ability to project those events improves, it’s making them even more nervous.

A

Climate Change: Severe flooding in Yemen has impacted over 165 000 people, worsening the displacement crisis

(https://watchers.news/2023/06/13/severe-flooding-in-yemen-impacted-over-165-000-people-exacerbating-the-displacement-crisis/)

More than 165 000 people across more than 70 districts of Yemen were impacted by widespread flooding over the past couple of months, leading to loss of life and significant damage to shelters, crops, and infrastructure. The already vulnerable internally displaced persons (IDP) find themselves further distressed as their shelters and belongings have been swept away by the floods, forcing them into yet another round of displacements.

Since mid-March, torrential rainfall has inundated various governorates of Yemen, significantly impacting more than 165 000 people. The flooding not only took a toll on human lives but also inflicted substantial property damage and infrastructure loss. Critical structures, including roads and bridges, have been severely impaired in this environmental disaster.

Reports indicate that the heaviest rainfall has wreaked havoc in the governorates of Al-Jawf, Marib, Sayun, Hajjah, Amran, Marib, Shabwah, Lahj, Al-Bayda, Al-Mahwit, Taiz, and Al-Mahra. The devastation has left 31 people dead and over 37 injured, with nearly 1 000 buildings either partially or completely collapsed.

According to the March update from the Office for the Coordination of Humanitarian Affairs (OCHA) in Yemen, approximately 603 000 people across 112 districts are at high risk of flooding this year. As of that update, 16 435 families had been impacted, with Marib being the worst hit, followed by Hajjah and Amran.

Flooding also exacerbates the threat of water-borne diseases, disrupts livelihoods, and leads to loss of crops and property damage. In 2022, climate-related events were responsible for a 93 percent increase in new and secondary displacements, particularly in Al-Hodeidah, Al-Jawf, Marib, and Ta’iz governorates.

The United Nations’ Food and Agriculture Organization (FAO) reported 30 homes damaged in the Salh district in the Taiz governorate. Areas in southern, central, and western Yemen have experienced torrential rainfall since early April, leading to further flooding and causing significant casualties and damage.

This was the second major flooding event to hit Yemen in a month, adding further strain to an already vulnerable population. The Global Disaster Alert and Coordination System (GDACS) and media sources indicate that at least five people have lost their lives, and 30 houses have been destroyed or damaged in southwestern areas due to flash floods, resulting in more displacements.

A

Smoke brings a warning: There's no escaping climate's threat to health

(https://www.washingtonpost.com/weather/2023/06/07/wildfire-smoke-health-impact-climate-change/)

The cloud of smoke inundating the East Coast on Wednesday — fueled by more than 400 active fires burning across Canada, with more than half of them considered "out of control" — underscored how climate change's threat to human health can transcend national boundaries.
Dozens of East Coast counties issued health warnings as air-quality measures hit their worst marks in years, or even decades, prompting many elderly Americans and schoolchildren to shelter inside.

The shroud above the Northeast prompted public health authorities to convene emergency meetings, hospitals to prepare for a possible uptick in patients and lawmakers to again call for legislation to tamp down the risks of a warming world. The acute public health threat posed by the fumes, which carry dangerous gases and fine particles that can embed in people's lungs and bloodstream, coupled with the transformation of major cities' skylines punctured many Americans' sense of invulnerability.

"Climate change is real. It is here. The extreme weather and disasters like these wildfires, thousands of miles away, land right here in our great city and impact our health," New York City Health Commissioner Ashwin Vasan said at a news conference Wednesday morning, urging residents to stay indoors, wear masks if needed outdoors and take other precautions. City officials said the air was the worst in more than 50 years — with an Air Quality Index score Wednesday that at one point reached 484, signifying "hazardous" conditions — and would likely last several days.

Wildfire smoke has posed a growing health risk in the United States for years, with Western states repeatedly reeling from fires and residents attempting to cope by purchasing personal air filters, staying indoors and adopting other ad hoc solutions. In interviews on Wednesday, federal experts touted guidance from the Centers for Disease Control and Prevention on how to stay safe. But the smoke enveloping the East Coast arrives at a moment when many Americans have tuned out warnings from public health officials in the wake of the coronavirus pandemic. Many people in affected areas continued their usual routines despite the intense haze, scratchy throats and other manifestations of the smoky conditions.

B

Hope in the Midst of Climate Crisis: Doctors Organize Climate Solutions Fair to Inspire Healthy Change

(https://cape.ca/press_release/healthy-climate-solutions-fair/)

This Saturday, the BC chapter of the Canadian Association of Physicians (CAPE) is launching Vancouver's first-ever large-scale, outdoor event dedicated to healthy energy solutions to combat the climate emergency at Milton Wong Plaza in Olympic Village: The Healthy Climate Solutions Fair. After a grim year where patients in her own practice died from climate-change-driven extreme weather events, Dr. Deborah Curry, a Vancouver family physician and lead organizer of the Fair, was looking for a way to channel her own climate anxiety. The idea for a positive, solutions-focused event was the perfect opportunity for her to generate a good dose of hope and real action on planetary health.

"It's so easy to get caught up in climate doomism, but the truth is we have every solution to stop climate change at our fingertips. The only barriers left between us and 100 per cent clean energy across Canada are social and political," says Dr. Curry. "Our Fair lays out the achievable energy prescription we need for a healthy future."

The interactive, family-friendly event co-sponsored by the City of Vancouver, For Our Kids Vancouver, Society Promoting Environmental Conservation (SPEC), Canadian Association of Nurses for the Environment and 350Vancouver will highlight the health impacts of the climate emergency and point the way to a better future. Featuring diverse exhibits designed by award-winning artists from Vancouver's film and graphic design community, live demonstrations of induction stove cooking by celebrity chefs Angus An (Maenam) and Meeru Dhalwala (Vij's), on-site clean-energy experts to answer attendee questions, and renewable energy models that illustrate climate solutions across BC and Canada, the Fair will open positive dialogue with the public and decision-makers on how to move planetary health forward in Vancouver and British Columbia.

Chris Gooderham, technology integrator and Board Director of SPEC, played a key role in mobilizing clean energy experts and working renewable energy exhibits for the event, offering, "SPEC is excited to support the Fair and its vision for a healthier society. The clean energy transition is a powerful tool in our mission to ensure a vibrant, balanced and flourishing ecosystem for all who live on Earth."

Children of all ages are encouraged to attend and learn from the event, with a clean energy art centre specifically designed for kids run by Tarlan Razzaghi, a lawyer, mother and For Our Kids Vancouver team leader. "The climate crisis is the most complex problem affecting the health and quality of life of our children. People of all ages must all come together to identify and advocate for real solutions to safeguard our collective future," Razzaghi says.

Ultimately, CAPE BC hopes that framing action on the climate emergency as an opportunity to co-create a healthier future will move the public and local decision-makers to embrace effective clean energy policies. Dr. Melissa Lem, a Vancouver family physician and President-elect of CAPE, states, "Research tells us that one of the most effective ways to convince people to support good climate policy is by communicating its health benefits. And that's exactly what our Fair is doing—demonstrating real ways we can take action today from household to national scales that will protect our health and the planet at the same time."

B

Rural B.C. communities making big gains in climate change mitigation

(https://www.woodbusiness.ca/rural-b-c-communities-making-big-gains-in-climate-change-mitigation/)

A small West Kootenay community forest is implementing an ambitious climate action plan that uses forest thinning to reduce wildfire risks while also reducing carbon emissions. With support from the Forest Enhancement Society of BC (FESBC), uneconomic low-value fibre from mechanical fuel treatment projects is being shipped to a local pulp mill to avoid burning and to reduce the carbon footprint of operations. With an annual harvest of only 10,000 cubic metres (equal to approximately 200 truckloads), the Harrop-Procter Community Co-operative (HPCC) is one of the smallest community forests in the province. Despite its small size, HPCC has been a leader in demonstrating how forest management practices can be used to adapt to a changing climate while simultaneously working to reduce carbon emissions.

“The Forest Enhancement Society of BC is a proven partner in delivering projects on the ground that benefit communities, workers, and the health of our forests,” said Bruce Ralston, Minister of Forests. “We are building on this foundation with an additional investment of $50 million for the Society to expand funding for projects that increase access to fibre, reduce emissions from slash pile burning and reduce the risk to people from wildfire.”

Several FESBC-funded projects in the communities of Harrop and Procter have generated significant carbon benefits. Over the last three years, FESBC has funded portions of the transportation costs required for the Community Forest to ship low- value fibre to the local pulp mill and break even while doing so. With $94,429 of FESBC support, roughly 8,533 cubic metres of pulp logs that would otherwise be burned on-site, were instead hauled and utilized. The reduction in carbon emissions to the environment, as a direct result of this work, is estimated at 4,149 tonnes CO2e, which is equivalent to taking 890 cars off the road for one year.

“Eliminating slash pile burning is a low-hanging fruit for carbon initiatives,” explained Erik Leslie, RPF, HPCC’s forest manager. “The benefit is immediate because we’re avoiding emitting carbon, starting on day one. Our fuel treatment operations require the removal of lots of small diameter trees, and we don’t want to just burn them, rather we’re trying to use them instead.”

The HPCC is a community-owned, not-for-profit with over 200 members and has been managing the 11,300-hectare Community Forest, one of the first community forests awarded in British Columbia, since 2000. In 2021, the Office of the Chief Forester partnered with HPCC, and using FESBC funds, planted 200,000 seedlings in the heavily burned area of the 2017 Harrop Creek fire with the goal of establishing tree cover quickly to help protect the long- term hydrology of the impacted watershed. The planted trees are also expected to continue sequestering carbon from the atmosphere over the coming decades.

“The Harrop-Procter Community Co-operative’s desire to reduce burning is shared by many citizens of B.C. We now have the tools to measure the greenhouse gas reductions by utilizing low-value fibre, and when we compare these results to burning fossil fuels or the carbon tax, this knowledge becomes both informative and powerful. Removing the equivalent of 890 vehicles off the road by using fibre we used to burn just makes sense,” said Brian Watson, RPF, operations manager with FESBC. “This Community Forest first showed us how small tenure holders can sustain value-added sawmills. Now, they are leading the way on reducing greenhouse gas emissions and it’s a great story.”

B

Ancient Indigenous ‘clam gardens’ could be modern-day climate solutions

(https://www.cbc.ca/news/science/what-on-earth-clam-gardens-indigenous-climate-1.6869870)

For close to four millennia, "clam gardens" on beaches on the west coast of B.C. have provided First Nations with a supply of not just clams but other types of seafood. In the aftermath of the brutal 2021 heat dome on the West Coast, there's renewed interest in this ancient aquaculture technique. Five days of stifling heat killed hundreds of people and billions of sea creatures. But scientific experimentation by researchers from Simon Fraser University, in collaboration with Coastal Salish First Nations, indicates clam gardens help sea life stay cooler. The research aims to show how ancient Indigenous practices offer a modern-day solution to coping with climate change. SFU master's student Emily Spencer wanted to know whether the clam gardens, with their steady supply of cool water, could help keep shellfish cooler and protect them from future episodes of extreme heat.

Ken Thomas was more than willing to demonstrate the age-old practices of maintaining clam gardens on a recent visit to Russell Island, which lies close to the better-known Saltspring Island, off the southeast coast of Vancouver Island. He's intimately involved with the research being carried out here. A tall, broad-shouldered man in his 50s, Thomas is in charge of fisheries, wildlife and natural resources for the Penelakut First Nation. He picked up a three-pronged rake and began "tilling" the sand. As he pulled the rake down, he explained that it helps keep the beach from becoming "hard and dormant." It also revealed small clams and crabs living close to the sand's surface.

When the idea of reconstructing a clam garden on this beach was broached a few years ago, Thomas wasn't convinced. Elders directed him and others to pick up large rocks from higher up the shore and arrange them to form a rough seawall close to the low tide line. "At first it was, 'OK, yeah, I'll go move rocks, whatever,'" Thomas told What On Earth. But something shifted in him as he heard the elders tell stories from the past. He began to understand and appreciate how a technique so old could work so well for him and his children. "It really touched me in a way that I can't explain," Thomas said. "Every time I moved a rock and placed it on the wall, I was like, wow, my ancestors touched these rocks, and here I am putting it back, restoring it back to what it was meant for."

The rock wall is about a metre and a half tall and runs the length of the beach, about 750 metres. It ensures that ocean water recedes slowly as the tide goes out, maintaining a cool, wet environment until the tide comes back in. That makes the beach a kind of shelter or refuge — or pantry, according to Thomas's forebears. "To this day, you still hear our elders saying, 'When the tide's out, the table's set. Go get your food.'" Working with Thomas to ensure Indigenous knowledge and practices are respected, Spencer designed an experiment that used Ikea chairs, propane torches and non-flammable material to recreate the conditions of the heat dome on the beach. "We created little saunas for the clams," she said. At low tide, they erected a series of these small tents with the clams inside. They did this for five days straight — replicating the length of the heat dome. After that, the clams were scooped up and taken to labs for analysis.

Spencer's results — to be submitted for peer review in the coming months — found the gardens kept the clams cooler even with the added heat. This effect suggests the gardens are more than a way to create and maintain a food source. They could also be a climate adaptation strategy for an entire ecosystem. Spencer's supervisor at SFU, marine ecologist Anne Salomon, is excited about the prospect. "We're desperately looking around the world for climate solutions, and here's one that is at least 4,000 years old," Salomon said. "It works. It's a very simple process, and so I am very optimistic about the future when I see examples like this."

Appendix 2-B: Character Cards for Activity 4

You are a third-generation farmer from rural Alberta.
Your name is _____
You value...
1.
2.
3.

You are a grade 10 high school student interested in going to university for a business degree.
Your name is _____
You value...
1.
2.
3.

You are an 85-year-old retired individual who lives in a suburb.
Your name is _____
You value...
1.
2.
3.

You are a parent of two young children (aged 5 and 8) who lives in the city.
Your name is _____
You value...
1.
2.
3.

You are a 20-year-old TikTok influencer.

Your name is _____
You value...
1.
2.
3.

You are a high school English teacher nearing retirement.
Your name is _____
You value...
1.
2.
3.

You are a middle-aged person who works in the oil sands.
Your name is _____
You value...
1.
2.
3.

Create your on character!
You are _____
Your name is _____
You value...
1.
2.
3.

Unit 3: Climate Justice

Learning Objectives

- Understand the concepts of climate justice and environmental racism
- Explore one's own positionality in relation to climate change
- Examine climate ***in***justices in one's own community
- Explore equitable ways to engage in climate action

Climate Justice

Climate justice recognizes the fact that different groups of people have been disproportionately impacted by climate change. Those who produce the least greenhouse gas (GHG) emissions are often the people who are most impacted by climate change. Climate justice focuses on how climate change impacts people unevenly and looks for ways to address the resulting injustices. Looking at climate action through a lens of climate justice involves critically analyzing who is most impacted by climate change and whose voices are being ignored when looking at interventions to address climate change. As Farhana Sultana said, “climate change is a moral and justice issue, not just a science, techno-managerial, or finance issue” (Sultana, 2021). Focusing on climate justice ensures that solutions to climate change are equitable to all populations.

Watch this video about climate justice
Click here for video

Video Discussion Questions:

- Was there anything in the video that surprised you?
- Had you heard about climate justice before?
- Can you think of an example of climate ***in***justice that you've seen or heard about?
- Are examples that come to mind locally situated or from another part of the country/world?

Activity 1: Positionality Power Flower

Time: 20-30 minutes
Materials: Power flower handouts (see Appendix 3-A), pencils/pens

This activity was adapted from the Exploring My Power and Privilege Toolkit

Instructions

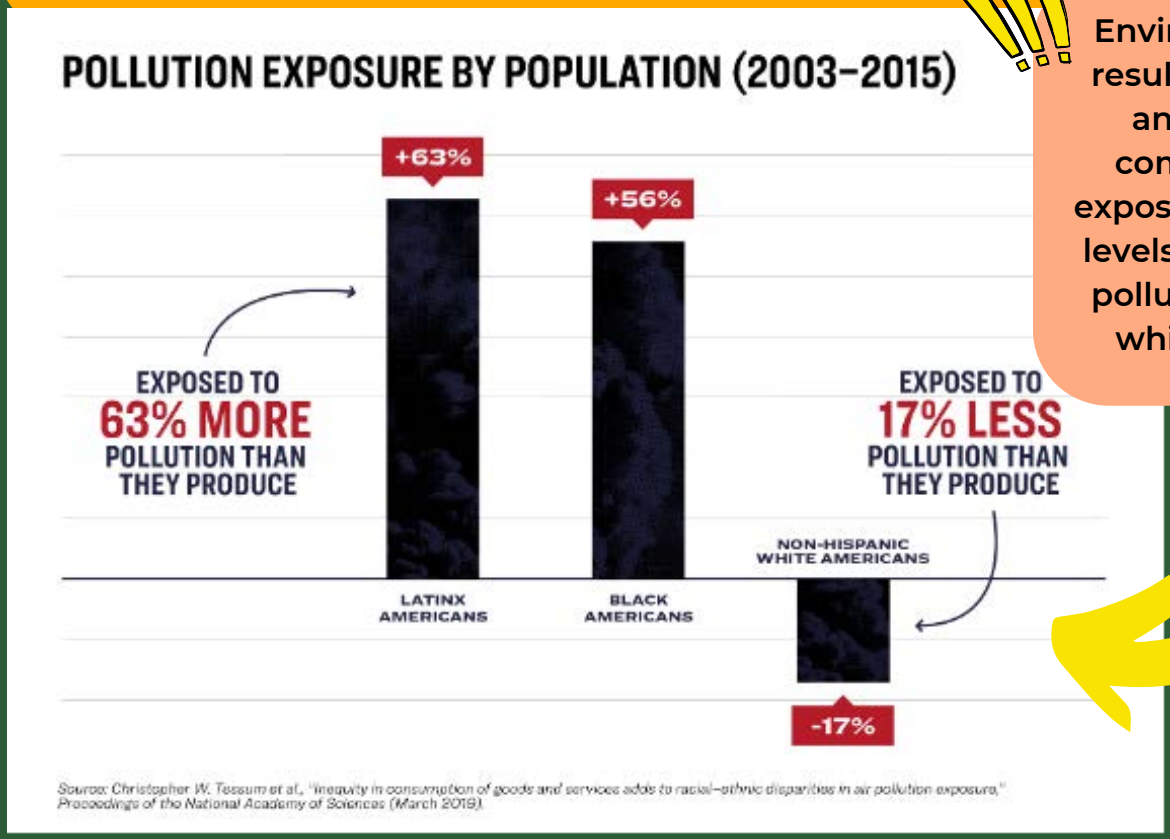
- Give each participant a Power Flower handout (see Appendix 3-A)
- Split participants into four groups and give each 3 or 4 "petals" to focus on
- In their groups, participants identify the socially dominant group for each petal category they are assigned. Groups also try to think of one example of a privilege the socially dominant group enjoys.
    - Example for clarification: For the petal "sexual orientation," a group must identify which group in society accesses the most privileges in relation to sexual orientation. In this case the answer would be "heterosexual." An example of a privilege this group enjoys is not having to come out to their friends and family because their sexual orientation is considered the norm.
- Groups will fill in their answers in the outer petals (don't worry about the inner petals yet)
- After about 5-10 minutes, have each group share their answers with the class. Have everyone fill in petal categories they weren't assigned as groups share their answers.
- Following the group discussion, instruct participants to fill out the inner petals with how they personally identify with each category. For example, if you identify as Caucasian, you would write Caucasian in the inner 'race' petal. This part of the activity is meant to be done as individuals.
- After filling out the inner petals have participants count how many of the inner petals match the dominant groups represented in the outer petals. Encourage participants to reflect on what privileges they may be enjoying by being a member of the socially dominant group. Tell participants that this activity is not meant to make them feel guilty or evoke blame. It is simply an awareness exercise. Once we identify our own privilege, we are in a better position to be allies for less privileged groups and individuals.
- End the activity with the following discussion prompts:
    - Where do you come from? How has your own history shaped your practice?
    - How has your privilege influenced your education/teaching practice?
    - What biases/inequalities may you be unintentionally perpetuating in your own practice?

Environmental Racism

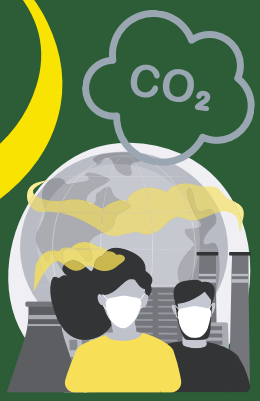
Environmental racism is a form of climate injustice. Environmental racism can be defined as:

"Racial discrimination in environmental policy-making, the enforcement of regulations and laws, the deliberate targeting of communities of colour for toxic waste facilities, the official sanctioning of the life-threatening presence of poisons and pollutants in our communities, and the history of excluding people of colour from leadership of the ecology movements." (Benjamin Chavis)

Environmental racism has led to many injustices for Indigenous and colored communities around the world. These injustices include policies being intentionally put in place that result in marginalized communities being more likely to live near hazardous waste or lack access to safe drinking water. Living in these areas results in devastating consequences for those communities' health and wellbeing.



Environmental racism results in many BIPOC and marginalized communities being exposed to much higher levels of environmental pollution compared to white communities



Watch this video about environmental racism in Canada:
Click here for video

Video Discussion Questions:

- Was environmental racism something you were previously aware of?
- Have you seen examples of environmental racism in your community?

Activity 2: Considering Environmental Racism in Canada

Time: 20-30 minutes
Materials: Paper, pencils/pens

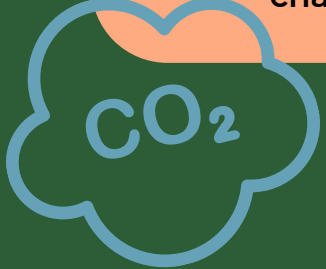
Instructions

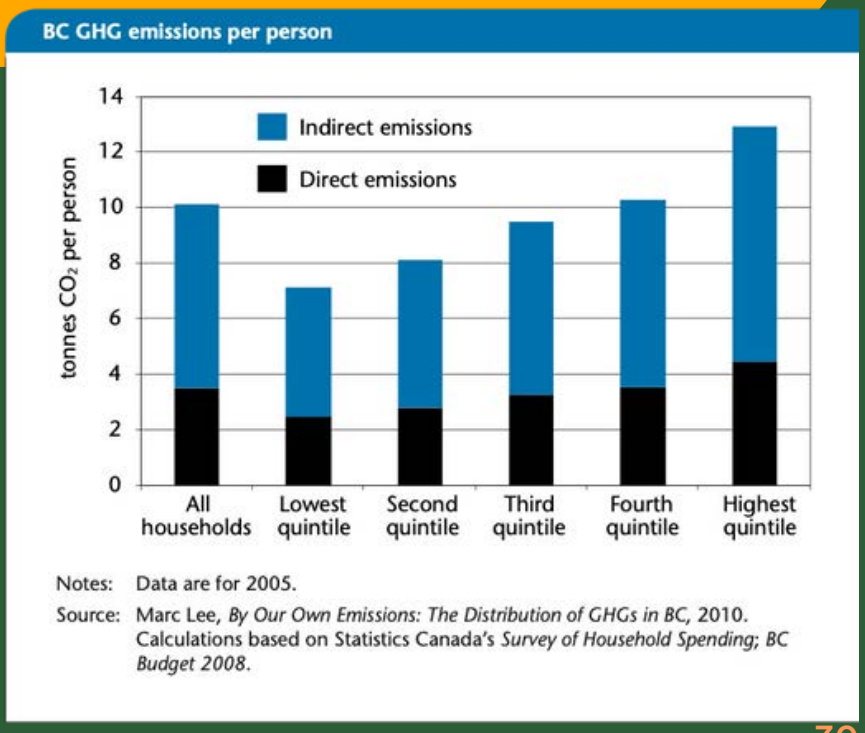
- Watch this video about how the Great Bear Lake community is being impacted by climate change: Click here for video.
- Lead participants through the following discussion prompts:
  - Are there measures being taken by government or other groups in Canada that are having a larger climate change impact on Indigenous populations? (e.g. modern colonialism)
  - Compare the impacts of climate change in your community to the impacts of climate change on Indigenous communities in Canada highlighted in the videos.

Climate Justice and Environmental Racism in British Columbia

Just like in other parts of the world, there are climate injustices right here in B.C. Different groups of people, primarily Indigenous communities and communities of color have been disproportionately impacted by climate change. In B.C., those who produce the least GHG emissions are often the people who are most impacted by climate change. For example, in urban areas of large Canadian cities like Vancouver, neighborhoods that have lower walkability, less green space, and higher traffic pollution are areas with higher poverty rates.

In B.C. (and other parts of the world), a higher income is associated with higher GHG emissions per person. Those who produce the least GHG emissions are often the most impacted by climate change.





Activity 3: B.C. Climate Justice Brainstorm

Time: 10-20 minutes
Materials: News article (see Appendix 3-B), paper, pencils/pens

Instructions

- Split participants into groups of 3-5
- Give each group a copy of the news article (found in Appendix 3-B)
- Have participants read the news article and discuss the following prompts:
  - How did reading this article make you feel?
  - Have you heard about or seen the disproportional impact wildfires have had on Indigenous communities in BC?
  - What are other examples of climate injustice and environmental racism in BC?
  - What can we do as a province to pursue climate justice?
- After about 5-10 minutes have participants share their responses to the larger group.
- End the activity by having the group consider the following quote: "*Climate justice is our biggest opportunity to rebuild a world led by Indigenous knowledge forms, worldviews and ways of living*." - Sakshi Aravind.

Moving Forward with Equitable Solutions

Because there are differences in who is most impacted by climate change and who produces the highest levels of GHG emissions, policies to tackle climate change must consider these systemic inequalities in order to support solutions that are fair and equitable for all.

A 2008 Canadian Centre for Policy Alternatives report stated that, "The academic literature on ethics and environmental justice broadly supports the principle that all people should have an equal right to emit greenhouse gases, subject to an overall cap. The literature also calls for preferential treatment of the most vulnerable. There are also broader considerations, such as the historical liability for past and current emissions, suggesting that those who have most benefited from burning fossil fuels should bear the greatest burden of adjustment.

All policies to tackle climate change need to be viewed through a social justice lens. For example, some recent federal climate policies, while positive steps, also have some largely unrecognized distributional effects. For instance ... the rebate policy for purchases of hybrid cars provides a tax benefit to middle and high-income people, but is not an option for those who cannot afford to buy and maintain a new car."

Activity 4: What are Equitable Solutions to Climate Change?

Time: 20-30 minutes
Materials: Budget handouts (see Appendix 3-C), pencils/pens

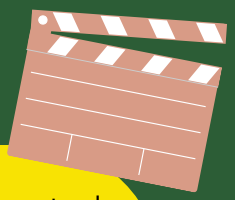
Instructions

- Split participants into 5 groups.
- Give each group a budget sheet (see Appendix 3-C).
- In this activity, groups roleplay that they are an individual planning their yearly budget. Their goal is to live as eco-friendly a life as possible.
- Instruct the groups to allocate their funds into the categories provided on the budget sheet. In the third column have them provide details about what they're spending their money on in each category.
- Once all groups are done have them write their answers on a white board or piece of paper that everyone can see
- Lead the group in a discussion about the activity. The purpose of the discussion is to think about the equitability of many individual climate actions that are commonly promoted (e.g., buying an electric car, making your home energy efficient, buying locally grown foods). The following questions could help guide the discussion:
  - If you were given a higher budget, did you initially judge the budget choices of the lower income groups?
  - If you were given a lower budget, was it difficult to prioritize "eco-friendly" solutions?
  - How could seemingly cheap eco-friendly solutions (e.g., biking instead of owning a car) have a disproportionally large impact on individuals with lower incomes (e.g., cheaper housing may be further from places of employment making biking a larger time investment)?
  - Is everyone able to equally participate in "eco-friendly" lifestyles if the only metric we use to judge this is how we spend our money (voting with our dollar)?
  - How could a reframing of how we see ourselves from "consumers" to environmental citizens change the ways we take climate action?
- End the group discussion by focusing on the importance of collective rather than individual action. Have participants brainstorm types of collective action. Are these actions equitable?

Take Home Challenges

Challenge 1: What's My Carbon Footprint?

Do an online carbon footprint calculator (search “carbon footprint calculator” online and pick one to complete). Consider the actions the calculator encourages you to take following the survey. Does the calculator suggest any actions at all? Are these actions equitable or only available to people who could afford to make changes? Does the calculator suggest collective actions you could take or only individual consumer changes?



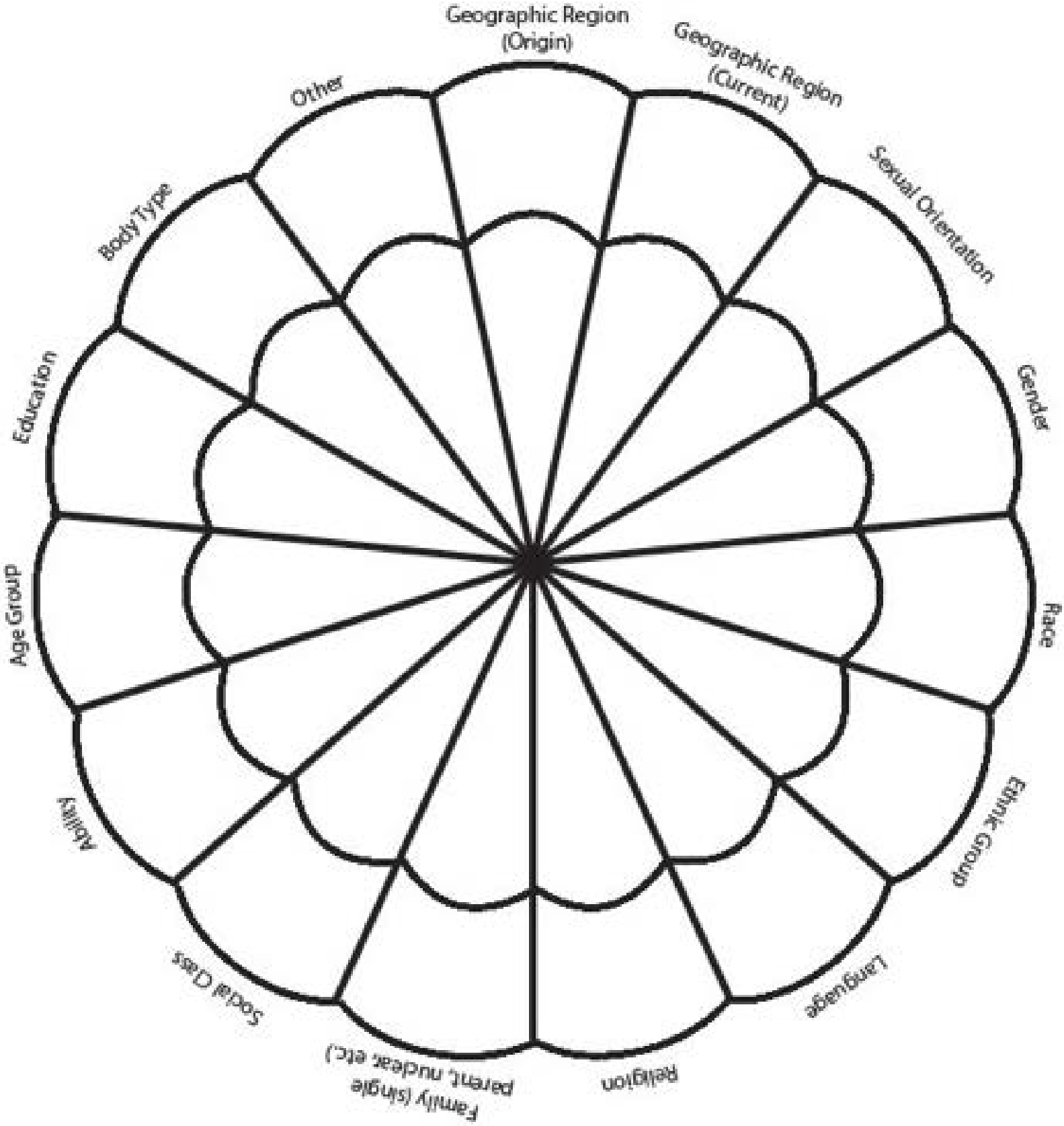
Challenge 2: Watch a Documentary

Watch the documentary “There’s Something in the Water,” a 2019 film directed by Ellen Page and Ian Danial that looks at environmental racism and its effect on Nova Scotia Indigenous communities. This film is available to watch on Netflix in Canada.

Challenge 3: Listen to a Podcast

Listen to this CBC podcast about how Skeetchestn First Nation uses traditional knowledge to keep wildfires at bay: Click here for video. Consider the role of Indigenous knowledges in fighting the climate crisis. Reconsider the quote, “Climate justice is our biggest opportunity to rebuild a world led by Indigenous knowledge forms, worldviews and ways of living.” (Sakshi Aravind).

Appendix 3-A: Power Flower Handout for Activity 1


Geographic Region (Origin)
Geographic Region (Current)
Sexual Orientation
Gender
Race
Ethnic Group
Language
Religion
Family (single parent, nuclear, etc.)
Social Class
Ability
Age Group
Education
Body Type
Other

Appendix 3-B: News Article for Activity 3

Wildfires Disproportionately Threatening First Nations and Worst Could be Yet to Come, Study Finds

(https://www.ctvnews.ca/climate-and-environment/wildfires-disproportionately-threatening-first-nations-and-worst-could-be-yet-to-come-study-finds-1.5544760)

First Nations communities are disproportionately threatened by wildfires, a study finds, with people who live on reserves making up nearly one-third of all evacuees in Canada since the 1950s. “How frequently communities will experience fires is going to be a lot higher for First Nations reserves than for non-Indigenous communities in Canada,” said Amy Cardinal Christianson, one of the co-authors of a study published in Canadian Science Publishing in April, in a telephone interview with CTVNews.ca. “Our results suggest that the extent of losses and the number of evacuations that First Nations populations experience could drastically increase in the coming decades,” the authors wrote.

Christianson, a Metis fire research scientist with the Canadian Forest Service, said it is troubling that is the case given that First Nations living on reserve make up a much smaller proportion of the total Canadian population -- about 1.1 per cent. “We need to start preparing now for more fire events and that means sending additional money to mitigate the impacts on these communities,” she said. The National Resources Canada study, which looked at wildfire data dating back to the 1950s, found around four million people – or 12 per cent of the country’s total population – live near or within at-risk forest areas.

But when it came to First Nations people who live on-reserve, 32.1 per cent of this population were at risk of natural disasters driven by climate change. Christianson said this increased risk to wildfires is brought about by a “perfect storm” of factors including warmer climates, increased fuel load of dead leaves and vegetation which can drive fires, Indigenous communities sometimes having a limited ability to evacuate by road, and more people moving into areas where homes are built near or in wooded areas. The recent findings are especially pertinent as wildfires destroy homes, habitats and livelihoods in many parts of Canada.

As of Aug. 18, 3.9 million hectares of land in Canada have been affected by wildfires this summer, according to data from the Canadian Interagency Forest Fire Centre. Researchers from the latest study said as buildings continue to go up near at-risk forests, we can expect more of them to be damaged or destroyed by fire. They say two-fifths of Canada forests are already close to housing, industry buildings and other infrastructure. The authors said the risk of wildfires has only increased as the climate has become drier, and wildfire seasons have been starting earlier and ending later. “We hope that our findings will raise awareness of the impacts of climate change on humans living and working in areas exposed to wildland fire,” the authors wrote. The federal fire study found that people who live in First Nations reserves made up nearly a third of all evacuees in the recent decades. “Indigenous communities in Canada are on the front lines of climate change,” Christianson said. “We're seeing that northern communities are already experiencing significant changes.”

In May, hundreds fled their homes in First Nations communities in Manitoba. In mid-July, more than 1,000 people were evacuated from Pikangikum, Deer Lake, and Poplar Hill First Nations in northwestern Ontario. And a week after that, 200 residents of the Cat Lake First Nation fled their homes to shelters in the Greater Toronto Area. Researchers expect First Nations communities to continue being disproportionately represented among evacuees in the coming years. They also echoed what many Indigenous people and fire researchers have been saying for decades: there needs to be larger focus on prevention and mitigation efforts, not simply allocating resources to extinguish fires.

“It is also important to recognize and value traditional knowledge,” the researchers said. Knowledge keepers and fire experts have previously said governments’ disregard of Indigenous prescribed and cultural burns -- purposefully burning away entire patches of trees and dry vegetation -- has greatly contributed to the wildfire crisis in British Columbia today. A University of Waterloo study also found that Indigenous fire stewardship could help protect the world from the type of severe wildfires that have been occurring more frequently in recent years. Researchers there suggested cultural burning, could also help promote greater biodiversity. And while some countries and cultures are embracing these practices, Canada has fallen behind.

Appendix 3-C: Handouts for Activity 4

Group 1

Yearly Income: $20,000

Category	Funds Allocated	Reasoning/What you're spending your money on
Housing		
Clothing		
Transportation		
Food		
Recreation		
Education		

Questions to consider when creating your budget:

Housing
- Are you living alone or with roommates?
- Based on your income do you own a house?
- Are there energy efficient upgrades you're able to make to your home? (e.g., solar panels, energy efficient appliances)

Clothing
- What brands of clothing are you buying?
- Are you purchasing new clothing or thrifting/buying second-hand?
- Are the clothing brands you're purchasing from produce their products in a sustainable way?

Transportation
- Do you live in an area with good public transit?
- Do you live close to your place of work?
- Do you own a car?
- Did you consider maintenance costs if you own an older vehicle?
- Could you afford to buy a hybrid or electric vehicle?

Food
- Does your income allow you to buy fresh, local, foods?
- Are you able to buy foods that are culturally meaningful to you?

Education
- Do you have children who will require daycare/childcare?
- Are you planning on going to college/university?

Group 2

Yearly Income: $35,000

Category	Funds Allocated	Reasoning/What you're spending your money on
Housing		
Clothing		
Transportation		
Food		
Recreation		
Education		

Questions to consider when creating your budget:

Housing
- Are you living alone or with roommates?
- Based on your income do you own a house?
- Are there energy efficient upgrades you're able to make to your home? (e.g., solar panels, energy efficient appliances)

Clothing
- What brands of clothing are you buying?
- Are you purchasing new clothing or thrifting/buying second-hand?
- Are the clothing brands you're purchasing from produce their products in a sustainable way?

Transportation
- Do you live in an area with good public transit?
- Do you live close to your place of work?
- Do you own a car?
- Did you consider maintenance costs if you own an older vehicle?
- Could you afford to buy a hybrid or electric vehicle?

Food
- Does your income allow you to buy fresh, local, foods?
- Are you able to buy foods that are culturally meaningful to you?

Education
- Do you have children who will require daycare/childcare?
- Are you planning on going to college/university?

Group 3

Yearly Income: $50,000

Category	Funds Allocated	Reasoning/What you're spending your money on
Housing		
Clothing		
Transportation		
Food		
Recreation		
Education		

Questions to consider when creating your budget:

Housing
- Are you living alone or with roommates?
- Based on your income do you own a house?
- Are there energy efficient upgrades you're able to make to your home? (e.g., solar panels, energy efficient appliances)

Clothing
- What brands of clothing are you buying?
- Are you purchasing new clothing or thrifting/buying second-hand?
- Are the clothing brands you're purchasing from produce their products in a sustainable way?

Transportation
- Do you live in an area with good public transit?
- Do you live close to your place of work?
- Do you own a car?
- Did you consider maintenance costs if you own an older vehicle?
- Could you afford to buy a hybrid or electric vehicle?

Food
- Does your income allow you to buy fresh, local, foods?
- Are you able to buy foods that are culturally meaningful to you?

Education
- Do you have children who will require daycare/childcare?
- Are you planning on going to college/university?

Group 4

Yearly Income: $80,000

Category	Funds Allocated	Reasoning/What you're spending your money on
Housing		
Clothing		
Transportation		
Food		
Recreation		
Education		

Questions to consider when creating your budget:

Housing
- Are you living alone or with roommates?
- Based on your income do you own a house?
- Are there energy efficient upgrades you're able to make to your home? (e.g., solar panels, energy efficient appliances)

Clothing
- What brands of clothing are you buying?
- Are you purchasing new clothing or thrifting/buying second-hand?
- Are the clothing brands you're purchasing from produce their products in a sustainable way?

Transportation
- Do you live in an area with good public transit?
- Do you live close to your place of work?
- Do you own a car?
- Did you consider maintenance costs if you own an older vehicle?
- Could you afford to buy a hybrid or electric vehicle?

Food
- Does your income allow you to buy fresh, local, foods?
- Are you able to buy foods that are culturally meaningful to you?

Education
- Do you have children who will require daycare/childcare?
- Are you planning on going to college/university?

Group 5

Yearly Income: $120,000

Category	Funds Allocated	Reasoning/What you're spending your money on
Housing		
Clothing		
Transportation		
Food		
Recreation		
Education		

Questions to consider when creating your budget:

Housing
- Are you living alone or with roommates?
- Based on your income do you own a house?
- Are there energy efficient upgrades you're able to make to your home? (e.g., solar panels, energy efficient appliances)

Clothing
- What brands of clothing are you buying?
- Are you purchasing new clothing or thrifting/buying second-hand?
- Are the clothing brands you're purchasing from produce their products in a sustainable way?

Transportation
- Do you live in an area with good public transit?
- Do you live close to your place of work?
- Do you own a car?
- Did you consider maintenance costs if you own an older vehicle?
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Food
- Does your income allow you to buy fresh, local, foods?
- Are you able to buy foods that are culturally meaningful to you?

Education
- Do you have children who will require daycare/childcare?
- Are you planning on going to college/university?

Unit 4: Local Problems and Solutions

Learning Objectives

- Identify ways in which one's own community is being impacted by climate change
- Explore the relationship between individual and collective action
- Reflect on ways that communities can engage in collective climate action

Local Problems and Solutions

In Unit 2 we talked about the importance of using local problems and solutions in climate communication. Although you can likely already think about ways that your community is being impacted by climate change, this unit will help highlight some of the ways British Columbia specifically is being affected by climate change as well as great work that's being done in the province to help minimize the impacts.

Watch this video about climate change in British Columbia:
Click here for video

Video Discussion Questions:

- What emotions emerged while watching the video?
- Have you or someone you know been personally impacted by climate change in the province?
- Did you notice any climate communication "traps" or "gateways" in this video (refer back to Unit 2 for review)

As shown the video, climate change is having major effects on the province of British Columbia. Three significant ways that climate change is impacting the province are flooding, wildfires, and extreme heat. Although there are many other ways in which climate change impacts B.C., we will focus on these three areas for the majority of this unit

Wildfires

Watch this video about wildfires in British Columbia:
Click here for video

Impacts

Hotter year-round weather and droughts cause wildfires to start and spread easier resulting in an increased number and intensity of wildfires across the province. Wildfires have several negative effects on communities including threatening or destroying the places we live, and reducing the air quality due to wildfire smoke.

Community Solutions

One example of an organization reducing wildfire risk in the province is the Forest Enhancement Society of BC (FESBC). FESBC funds various projects across the province to reduce wildfire risk, several of which are community forests. Community forests are forestry operations owned and managed by a community group, local government, or First Nation and benefit the entire community. With the help of FESBC "many community forests have been able to take meaningful action to make their communities safer, and their forests more resilient" (Jennifer Gunter, Executive Director of the BC Community Forest Association).

Flooding

Watch this video about flooding in British Columbia:
Click here for video

Impacts

Flooding has major impacts on communities across B.C. and the number of severity of floods in the province is increasing due to climate change. Climate change is causing more frequent and severe flooding in B.C. This is due to unpredictable weather in the spring that leads to snowpacks melting faster earlier in the year. These floods put people and communities at risk, wipe out or disrupt fish habitats and watersheds, damage roadways, impact physical and mental wellbeing, and contaminate drinking water among other things.

Community Solutions

In the Mount Pleasant neighborhood of Vancouver, a "rainway" is replacing the pavement along four blocks in the area. This "rainway" will be a series of gardens, streambeds and small dams that will capture and slow rainfall so that instead of going straight to the sewage treatment plant, the water will go into the ground through gardens or streambeds instead. Community members hope that this model will be replicated in other areas across the city.

Extreme Heat

Watch this video about extreme heat in British Columbia:
Click here for video

Impacts

The climate in B.C. is warming and we're experiencing longer, hotter summers as well as heat waves that are increasing in frequency and intensity. Heat can have serious health consequences including heat stroke, heat exhaustion, and death in extreme cases. Heat can also reduce the air quality through the creation of smog which is made when exhaust and industrial pollution mix with sunlight. Smog has many negative health consequences including headaches, nausea, coughing, chest pain, and can worsen symptoms of heart disease, asthma, and pneumonia. Additionally, warmer weather throughout the year is causing pest to survive longer and spread to new areas. The presence of these pests has a negative effect on the ability of an area to grow local and healthy food.

Community Solutions

Urban forests are being used as a tool to combat extreme heat across the province. Urban forests are the vegetation and landscapes found throughout cities in areas like public parks, streetscapes, natural areas, and yards. Trees provide shade for housing resulting in a cooler home environment and, consequently, protecting people from the consequences of extreme heat. Trees also cool the wider neighborhoods in which homes are located. As Dr. Sheppard from the University of British Columbia said, "trees are the most efficient air conditioner we've got."

Activity 1: How Has Climate Change Impacted Your Community?

Time: 15-20 minutes
Materials: Paper, pencils/pens

Instructions

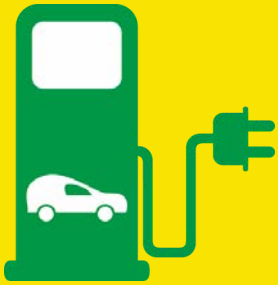
- Split participants into groups of 3-4.
- Have participants discuss ways that their community has been affected by climate change (this could include wildfires, floods, and heat waves).
- Have participants consider how they personally have been affected by climate change.
- Come back as a group and have the smaller groups share some of their thoughts.

Action as a Local Solution to Climate Change

Knowing how your local area is being affected by climate change is important, but of equal importance is knowing what's being done to fight climate change in your area and ways that you can be involved. There are two primary forms of climate action: individual action and collective action.

Individual Climate Action

Individual action is actions taken by an individual person. These actions are based on that individual's personal decisions and beliefs. Individual actions tend to focus on a person's own life and impact on the planet.



Some benefits of individual action include:

- Reducing your own carbon emissions
- Signalling to companies that you're interested in being green
- Inspiring others to take individual action
- Making you feel good and reduce feelings of climate anxiety

Examples of individual action include:

- "Voting with your dollar" (purchasing products that reflect your care for the environment)
- Recycling
- Composting
- Being willing to support environmental taxes
- Buying an electric car
- Eating a plant-based diet
- Donating money to a charity/project

Although individual action has many benefits, individual action alone will not be enough to solve the climate crisis. However, individual actions can be precursors to wider change and incentivise the collective climate action that is needed for change.

What other individual climate actions can you think of?

Collective Climate Action

Collective action is action taken by a group of people based on a shared decision. Collective political and social actions have the potential to drive positive systems changes much more effectively than individual actions alone. Placing an "emphasis on political action provides effective, macro-scale action that individuals can partake in to make a significant difference. They flip the script on the typical story of individual consumer responsibility, instead emphasizing systemic change and centering marginalized communities through their emphasis on direct benefits and inclusive action" (Zach Wandalowski).

Examples of collective climate actions include:

- Volunteering
- Talking to friends and family about climate change
- Writing to your local Member of Parliament
- Participating in a protest
- Being involved in local politics
- Voting for environmentally friendly policies
- Going to local debates/lectures
- Signing petitions
- Campaigning for your workplace to make a specific environmentally friendly change (such as transitioning to renewable energy)

Both individual and collective action are needed in the fight against climate change.

What other collective climate actions can you think of?

Activity 2: Individual Vs. Collective Action

Time: 20-30 minutes
Materials: None

Instructions

- Watch this video about climate action: Click here for video.
- Watch this video about individual vs. collective/community action: Click here for video.
- Lead participants through the following discussion questions:
  - Were you surprised in the first video about the impact of individual actions?
  - What types of "climate friendly" actions have you seen promoted? Were they individual or collective actions?
  - What do you see as the connection between individual and collective action?

Activity 3: Community Solutions Roleplay

Time: 20-30 minutes
Materials: Coloured pens/sticky notes, pencils/pens

Instructions

- Split participants into groups of 3-5.
- Give each group an area they will be focusing on from the following categories:
  - Transportation
  - Infrastructure
  - Food systems
  - Energy
  - Waste
  - Health
- For this activity, each group will roleplay that they are a planning committee of a local municipality in B.C. Their goal is to create a plan of action to fight climate change within their assigned area of focus.
- Have groups write their area of focus on the top of their paper.
- Have groups brainstorm: What actions could your community take to fight climate action? Do you know of any organizations in your community who are already taking positive action in this area?
- Using different colored sticky notes or markers, have the groups brainstorm potential ideas. Get the groups to structure their thoughts as ideas, challenges, and solutions to the challenges by using three different colored markers or different colored sticky notes (for example yellow represents ideas, red represents challenges, green represents solutions).
- Encourage participants to consider climate justice in their solutions. Are their proposed solutions equitable?
- Finish the activity with a large group discussion where each smaller group shares their findings. If possible, write each group's ideas on a large whiteboard or piece of paper that all participants can see.

Watch this video about what the future of B.C. could look like if we take meaningful, equitable, and collective climate action *now*:
Click here for video

"In terms of both mitigation and adaptation, the challenge posed by climate change is immense. But it is not insurmountable. Humans caused climate change and humans can fix it. And if thoughtful policies are put into place there is good reason to believe we can have an improved quality of life at the same time."
-Canadian Centre for Policy Alternatives

Take Home Challenges

Challenge 1: Connecting to the Community

Research organizations in your area that work in environmental/climate action. Map out organizations, local leaders, and community members who you could connect with to participate in collective climate action.

Challenge 2: What is Our Government Doing?

To be able to vote for policies that support the fight against climate change, we need to be aware of the various political parties' platforms regarding climate action. In this activity, start by picking a level of government to focus on (municipal, provincial, federal). Explore the different parties' platforms in relation to climate change. Was there anything that surprised you about this search? Do you think climate change is being properly prioritized?

Challenge 3: Who Can Advocate for My Community?

Our local elected members of parliament are there to listen to the voices of their constituents and take those concerns to the larger provincial or federal government. Therefore, it's important to know who your local MLA (provincial) and MP (federal) are. These are the individuals who you can reach out to voice your concerns about climate change. If you're not already familiar, find out who your local representatives are using these websites:

Challenge 4: How Can You Be Part of a Collective Movement?

Go to this website and take the "What Kind of Changemaker Are You?" quiz. Reflect on if you feel the category you're assigned seems accurate and write down what participation in collective action could look like based on that role.

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