

Ethics Bowl:
The Ethics of Climate Change Adaptation

November 2022 Case Set



SFU

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CASE 1 | What does the coast cost?

Case by: Strengthening Canadian Democracy – an initiative of the SFU Morris J. Wosk Centre for Dialogue

In January 2022, king tides and storm surges battered Vancouver and damaged the sea wall and Kitsilano pool. While the public parks and public infrastructure surrounding Vancouver has been damaged before, this amount of damage was a sign of things to come with rising ocean levels and the climate crisis. These amenities are important to Vancouver's identity, its residents' well-being, and have indirect economic benefits. However, the costs associated with their maintenance is getting higher and higher.

Coastal flooding during storms is a growing challenge and expense for cities around the world. Some cities are trying adaptation solutions, such as adding surge breaks and secondary wave defense walls to reduce the power of waves before they hit the land. Others are and changing the soil angle and materials at the base of their beaches to reduce ocean swells. Others, like Vancouver at the moment, focus on repair so they can re-open the amenities as soon as it is safe to do so.

Repair and future coast defense strategies are expensive and can cost tens of millions of dollars. The work and structures are usually paid for by local government or provincial emergency funds. As the repair costs increase, and funds are depleted, we might have to think about how much is too much to pay for coastal amenities. Is there a point where we should stop repairing the seawall and the Kitsilano pool? Should we consider just the repair costs, or also the potential environmental harms of having a seawall?

With increasing costs, we also need to fund these repairs. Some think that local governments should pay, since it is the local residents that most often use these amenities. Residents that choose to live near the coast also take on the risk of these locations and what is required for climate resilience. But not all residents use these amenities equally, and some of them live near the coast for work and schooling, and not for access to coast specifically.

As costs often surpass local government funding, we might have to come up with funds through other measures. One option is to reduce spending in other areas. Some others argue that public amenities like Kitsilano pool and the seawall are tourist attractions and are used by those who live beyond the city's physical and taxable boundaries. They are a benefit to the general population, not a select few residents, and they have cultural significance. Provincial and federal governments should contribute to their upkeep through special tax levies on tourism.

As repair costs rise and investments must be made to protect our coasts, governments will need to find the funds to pay for the work or make sacrifices to the amenities and services we offer.

Discussion Questions

1. Who "owns" coastal public amenities such as the Sea Wall? Who is responsible for its upkeep?
2. How much is too much to pay for saving public recreational amenities like Kitsilano pool when rising ocean waters threaten their existence?
3. What other government services should be reduced to find the funds to pay for coastal surge protection projects?
4. What kinds of new taxes should be raised to find the funds to pay for coastal surge protection projects? Who should be taxed and how?

Further Reading

Uytaa Lee, "[Should we tear down the Vancouver Seawall?](#)" CBC News. April 19, 2019.

Outdoor Recreation Council of BC, "[New IPSOS survey confirms the importance of trails and outdoor recreation to British Columbians.](#)" June 3, 2022.



CASE 2 | Road pricing

Case by: Moving in a Livable Region – an initiative of the SFU Morris J. Wosk Centre for Dialogue

Moving around Metro Vancouver (made up of 23 municipal jurisdictions) is costly in many senses of the word. Greenhouse gas emissions from transportation come at a cost to our environment, while congestion costs us time. Public transit is a partial solution to both of these problems, but it costs a lot of money to fund a public transit system. Some planners and decision-makers advocate for road-pricing systems as way of addressing these issues and counterbalancing some of the costs involved in moving around town.

Within the region, on-road transportation accounts for 35% of greenhouse gas (GHG) emissions. Of the 35%, light-duty vehicles such as personal cars make up 84.5% of on-road emissions, contributing significantly to our GHG emissions.

The average commuter in Metro Vancouver lost 75 hours of time in 2021 to congestion (and that's a 6% decrease from 2019 i.e. pre-COVID). Congestion also comes with financial loss: in 2015, a national study of metro areas by McGill University found that congestion cost our region \$1.4 billion due to lost time, with another \$1.2 billion lost in hidden costs and missed employment opportunities. By 2050, the region is expected to grow from 2.6 million residents to almost 3.6 million, adding more residents moving around Metro Vancouver. How do we ensure everyone gets to where they are going?

Public transit can help reduce both emissions and congestion. However, TransLink, the public transit agency responsible for providing certain mobility services within Metro Vancouver, is also facing a significant funding gap in the coming years. The reduced ridership during the pandemic already caused a financial hardship. In addition, the agency is expected to lose a significant source of its funding i.e. fuel taxes. In 2022, the fuel tax will bring the agency almost \$395.7 million (more than %20 of its revenue). As electric vehicles replace gas (and gas vehicle sales ending after 2035), this source of revenue is designed to expire.

How do we tackle all these problems? One option is a road pricing system whereby a fee would be charged to drivers for use of the road network. This could take a variety of forms: for example, drivers could pay a bridge toll, or a fee could be charged to drive into city centres. Other examples include: mileage charges, time of day charges, flat fees and more. Could certain types of mobility pricing be preferable to others?

Supporters say road pricing could be used to fund public transit, reduce congestion and, therefore, reduce GHG emissions. They suggest that given our delay in addressing climate impacts to date, this is the fastest and most effective manner to ensure that we get back on track to meet regional goals. They say that the fee assessments could potentially be adjusted to reduce the impact on lower income residents in the region.

Opponents say that this price would inevitably impact some residents unfairly. Cost-of-living increases have pushed people further away from employment, thus requiring the use of a vehicle. They also say that without significant improvements to transit service availability and frequency, this fee would largely be an added financial burden without providing options for people to get out of their vehicles and onto reliable transit.

Discussion Questions

1. Should the government (provincial and/or municipal) have the authority to charge people for using roads?
2. Are there features of road pricing that might be unfair? What would an equitable road pricing system look like?
3. In the age of work-from-home, should the responsibility for bearing mobility costs be on workers or the employers who require them to commute?
4. Do individuals have the right to own a personal vehicle that they can use without limitations?

Further Reading

Kenneth Chan, "[TransLink considering eliminating 17 cents/litre gas tax in Metro Vancouver.](#)" DailyHive. May 18, 2022. City of Vancouver, "[Transport Pricing.](#)" <https://vancouver.ca/streets-transportation/transport-pricing.aspx>



CASE 3 | Should Canada require automakers to sell more electric vehicles?

Case by: Clean Energy Canada – a program at the SFU Morris J. Vosk Centre for Dialogue

Transportation is responsible for 25% of Canada’s climate-change-causing emissions, while our oil and gas sector (most Canadian oil is used to fuel transportation) accounts for an additional 26%. In short, eliminating emissions from transportation is critical to solving climate change.

A significant portion of these emissions come from the cars and trucks driven by everyday Canadians. Accordingly, the federal government and some provincial governments (including B.C.) have introduced a number of policy measures to hasten the transition to electric vehicles (EVs).

These include consumer rebates to make EVs cheaper to buy, investments in charging stations, and more. But while these measures have encouraged more Canadians to buy EVs, the transition to clean vehicles faces another kind of hurdle: most Canadian car dealerships don’t have a single EV available for purchase. Buyers have to order them, and wait times can be over a year. Basically, Canada has what’s called a “supply-side” problem: there aren’t enough EVs available to keep up with growing consumer demand.

Canada’s federal government is currently designing a measure to solve this very problem: a zero-emission vehicle mandate, requiring automakers to sell an increasing percentage of EVs over time. The law would require 100% of new car sales to be zero-emission by 2035. In essence, the government is intervening on the automobile market to reduce emissions. This raises questions about the role markets play in our lives, and the government’s role in managing the market.

Supporters of the policy say a zero-emission vehicle mandate would help ensure Canada receives more EVs from automakers, helping supply keep up with high demand. They point to places where the policy is already working, such as B.C. and Quebec (which have the highest EV uptake in Canada) and a number of U.S. states.

Opponents of the policy say automakers shouldn’t face this requirement as buyer demand for EVs is all the incentive they need. Therefore, governments should only implement “demand-side” measures, such as bigger EV rebates and more charging stations.

Discussion Questions

1. What’s the ethical difference between a “demand-side” solution and a “supply-side” solution for getting more EVs on the road?
2. Is it the federal government’s role to mandate which kinds of cars Canadians can purchase after 2035?
3. Should governments be able to regulate which kinds of cars automakers can build -even if these cars are less profitable for them- or should companies be free to build whatever they want?
4. Broadly speaking, governments can either penalize companies and individuals for polluting too much (through regulations), or they can incentivize them to pollute less (through subsidies). Which approach do you think is right in most cases? Which approach do you think is more effective?

Further Reading

Canada Energy Regulator, “[Market Snapshot: Growing electric vehicle incentives in Canada.](#)” January 17, 2018.

Emma Jarratt, “[Transport Canada report says undersupply continues to be a recurring problem for EV adoption.](#)” Electric Autonomy Canada. January 14, 2022.

Rick Smith, “[ZEV mandates are good climate policy — because they work.](#)” The Star. July 7, 2022.

Brian Kingston, “[Here’s why zero-emission vehicle mandates don’t work.](#)” The Star. August 6, 2022.



CASE 4 | Tenant/landlord communication in rental buildings when dealing with heat waves

Case by: Renewable Cities – a program at the SFU Morris J. Wosk Centre for Dialogue

In Vancouver, there is still a large proportion of older rental buildings that are not well insulated and therefore create difficult living conditions in the face of heat waves like the one British Columbians endured in June 2021. These extreme climate events are expected to increase in the future. In a province facing a notorious housing crisis, tenants are thus affected more dramatically by extreme climate events.

In purpose-built rental buildings with a corridor in the middle, it is near impossible to create any cross ventilation, with units' windows facing one side of the building. It can get really stuffy on the top floor and inside units. Not to mention the lack of insulation in the roof, and the presence of single pane windows which do nothing for energy efficiency. In BC landlords are required by law to maintain the tenant's home in a good state of repair and fit for habitation. This means that landlords pay to comply with health, safety, housing and maintenance standards, and to always ensure a reasonable supply of fuel, electricity, hot and cold water and other utility services (cable, Internet) unless the tenant has agreed to obtain and pay for these services.¹

However, unlike with heating in the winter, very few jurisdictions have any kind of requirement that landlords provide a cool enough apartment or that utility providers not turn peoples' electricity off in the summer. In addition, those who are most drastically affected by extreme weather are often already living in precarious situations, or in neighbourhoods that lack infrastructure to dampen the effects of hot weather.

The lack of official policies means the tenants may have to talk to their landlords about cooling their unit, but they might decide against this for fear of rent increases or causing problems with their landlords. Moreover, cooling rental units can be complicated, including figuring out whether installing air conditioning is allowed in the first place. More extensive renovations for better insulated, greener buildings are often costly and time-consuming, meaning that a landlord's options might be limited during an extreme weather event.

Discussion Questions

1. How can tenants in rental buildings engage with their landlords or property managers on actions to take to alleviate the impacts of a heat wave?
2. What constraints are landlords or property managers facing when it comes to making buildings more climate friendly? How can tenants and landlords of rental buildings find middle ground on their needs and constraints when dealing with heat waves?
3. Whose responsibility should it be to ensure that tenants are protected from extreme weather? Should this be up to the landlord, or should it be regulated at a higher level?

Further Reading

University of British Columbia, "[Housing Justice in a Climate Emergency.](#)"

Human Rights Watch, "[Canada: Disastrous impact of extreme heat.](#)" October 5, 2021.

York University, "[Climate mitigation from a renter-centered perspective.](#)" November 10, 2021.

¹ <https://www.cmhc-schl.gc.ca/en/consumers/renting-a-home/i-am-renting/landlord-tenant-responsibilities>



CASE 5 | The ethics of managed retreat

Case by: Walker Hathaway-Williams

Managed retreat refers to policies that encourage, incentivize, or mandate that residents of climate-vulnerable communities, neighbourhoods, or entire towns give up their property and relocate. This usually involves some form of financial compensation for property owners. Managed retreat is already happening here in British Columbia, across Canada, and all over the world, including in the US, Japan, Indonesia, and many Pacific Island countries.

The impacts and disasters that most often result in managed retreat include flooding (coastal, riverine, storm- or hurricane-related) and wildfires. In the future, it is speculated that drought and water scarcity may also provoke forms of managed retreat.

Up until recent years, approaches like seawalls, dykes, and fire suppression have been the preferred tools of civil engineers and disaster prevention agencies. As weather patterns and natural disasters become more extreme and unpredictable, however, it has become less practical to repeatedly rebuild in disaster zones, leading to a rise in managed retreat policies.

In British Columbia, there is an increasing focus on the impacts of flooding. The massive flooding events that occurred in November 2021 prompted discussions in communities such as Abbotsford and Merritt around the pros and cons of rebuilding and whether to relocate the most vulnerable communities. Questions about whether and how to financially compensate impacted community members were top of mind; in Grand Forks, the decision to base compensation on post- rather than pre-flood property values sparked controversy.

Devastating wildfires in BC in 2021 destroyed the town of Lytton. At the moment, the town is being rebuilt, but in other places, like Paradise, California, which was leveled by 2018 fires, there have been questions about whether to reinhabit the area if future fires are likely inevitable.

Managed retreat raises many thorny ethical and practical questions about rights, responsibilities, obligations, and trade-offs. For example, does managed retreat conflict with traditional conceptions of property rights? What are our obligations to neighbours who are facing displacement? What kinds of trade-offs should be considered in deciding when to implement managed retreat policies? And how might historical injustices/inequalities be cemented or ameliorated through these policies?

Discussion Questions

1. Who decides that retreat is necessary? What happens if a community or individual does not want to move?
2. Should we use managed retreat as a prevention strategy, employing it to relocate people before disaster strikes? What factors would you think about if you were trying to decide whether to relocate a community or not?
3. How can we fairly compensate those forced to relocate as a result of managed retreat policies?
4. In your opinion, should managed retreats come in the form of mandates, incentives, or something else? What are the ethical implications of each approach?

Further Reading

Susana da Silva. "[Rebuild or retreat? B.C. communities face tough choices after catastrophic floods.](#)" CBC News. June 12, 2022.

John Carey. "[Managed retreat increasingly seen as necessary in response to climate change's fury.](#)" Proceedings of the National Academy of Sciences. May 27, 2020.

Climate Adaptation Initiative. "[Legal Issues in Managed Coastal Retreat.](#)" Columbia University.



CASE 6 | How much of governance should be focused on the present, and how much on the future?²

Local governments have a base responsibility to restore and maintain services such as garbage/recycling/compost collection, maintenance of sewage systems, maintaining current parks, maintaining roads, and running recreational facilities. They also have the duty to their citizens to spend public tax dollars responsibly. However, especially with the extreme impacts that will arise with climate change, local governments also have the responsibility to invest in infrastructure, buildings, and other programs or initiatives that will help adapt to the impacts of climate change, growing populations, and future affordability. The goals of maintaining current services, spending public money responsibly, and preparing for the future sometimes come at odds. How should our local governments prioritize these goals?

Earlier this year, the 2022 BC Budget was announced, allocating \$1 billion over three years to the government's CleanBC plan (which helps and incentivizes adaptation to climate change) and \$2.1 billion over three years to recovery efforts for communities impacted by climate change. Part of the CleanBC program is the "Local Government Climate Action Program," which gives money to local governments to be used on climate-related expenses (for example, making heating more efficient in older houses, building more bike lanes, or even research projects). Some have commented that while program is a step in the right direction, the 2022 BC Budget focuses too much on maintaining and repairing services and infrastructure, and not enough on investing in the future (which can sometime mean changing the way we have organized our cities).

Local governments are also looking to cover some climate-related expenses through levies, such as Vancouver's climate levy. The climate levy will tax property owners and use the money to pay for climate action related projects. Some critics noted that this tax will reduce affordability, and that local governments should not be bearing the burden of climate change related expenses. Proponents of the levy note that the tax will be commensurate with property values.

As we are raising the funds to fight the effects of climate change, we also have to make tough decisions about how to spend them. Our infrastructure is affected by extreme climate events with increased frequency, such as the 2021 floods which damaged BC's highways. When faced with such destructive events, we are forced to balance considerations of people who are already relying on these services, and reducing reliance on such services by replacing them with resilient and climate-friendly alternatives. How do we decide when to invest in new infrastructure, and when to repair already existing ones?

Discussion Questions

1. Should local governments prioritize keeping costs low, maintaining services, or adapting to climate change?
2. What role do cities play in our climate response? What responsibilities do local governments have for adapting to climate change?
3. How do we ethically decide between meeting our community's needs now, or preventing future damage? How do these concerns apply to climate change related expenses?

Further Reading

Jane Seyd. "[BC announces local government \\$76-million climate action fund.](#)" North Shore News. May 16, 2022.

Amir Ali. "[Vancouver City Council votes to approve climate tax.](#)" Daily Hive. December 7, 2021.

Dustin Godfrey. "[How is Burnaby tackling climate change—and how should it?](#)" Burnaby Beacon. November 24, 2021.

Michelle Gamage. "[BC budget fails to deliver on climate change, say experts.](#)" The Tyee. February 24, 2022.

² Case idea by Alison Gu, Burnaby City Councillor.



CASE 7 | Climate change activism

Climate change is a notoriously complex problem: we are forced to navigate immediate emergencies cropping up, while wrangling our political institutions and thinking about how to make our planet's future safer. Activism can be a powerful tool for many different groups of people to guide our societal response to climate change. But "activism" can mean many things. What role does activism play in responding to climate change? Are all kinds of activism created equal?

Some climate change activism aims to go beyond marches and petitions, and tries to disrupt day-to-day life around cities to draw attention to a problem. The environmental activist group Extinction Rebellion has faced negative reactions from the public, as well as arrest, when they organized protests to block major intersections in Vancouver. Some experts say that such disruptive strategies may alienate people who are actually sympathetic to a cause, and some other research shows that people can be sympathetic to radical actions when they see that political solutions are failing.

Some activism aims to stop injustice. Here in British Columbia, old-growth logging and natural gas pipeline construction are two controversial activities (with various degrees of government support). In 2020, the Wet'suwet'en First Nation formed blockades to prevent the construction of a natural gas pipeline going through their territory. The pipeline construction had all the necessary permits, but Wet'suwet'en land defenders note that the Supreme Court of Canada recognized Wet'suwet'en right to their lands. For these land defenders, activism can be a tool for asserting their rights and addressing the shortcomings of legal systems.

Activism is a way for citizens to engage governments and corporations, and it comes in a wide variety of forms, from petitions to protests and blockades. Such direct action can raise awareness, and demonstrate to decision makers that the issue matters to citizens, but activists also need to think about engaging their communities effectively.

Discussion Questions

1. What role does activism play in guiding climate change response?
2. Are certain forms of climate activism preferable to others?
3. How, if at all, should the government interfere with protests?
4. Is there a difference between making your voice heard through an open house or a public hearing, as opposed to a protest or a petition?

Further Reading

Heather Alberro. "[Climate change: radical activists benefit social movements – history shows why.](#)" The Conversation. May 24, 2022.

Mallika Talwar. "[Do climate protests shift public support for climate change action?](#)" Yale Environment Review. February 23, 2022.

Jon Hernandez. "[Why Extinction Rebellion protesters have been blocking major thoroughfares in B.C.](#)" CBC News. May 4, 2022.

Mark Armao. "[Canada sides with a pipeline, violating Wet'suwet'en laws — and its own.](#)" Grist. November 18, 2021.



CASE 8 | Who should be involved in shaping community responses to climate adaptation?

Case By: CityHive

When municipalities make important decisions about how they want to address climate change, they rely on the same engagement tools they do for everything else: surveys, open houses, and public hearings. Unfortunately, those methods tend to attract specific demographics of contributors and not others.

One demographic that is very conspicuously absent from those engagement processes are youth under 30. In the case of climate change and climate adaptation planning, that demographic also happens to be the one who will live with the consequences the longest.

The lower rates of youth engagement is explained by many factors: some tools of public engagement present barriers to youth. For example, public hearings tend to take a lot of time, meaning those with other time commitments, such as schooling, find it harder to participate. In some cases, youth are not motivated to engage because they feel their engagement will not have impact.

When youth don't show up to open houses, speak at public hearings, and complete feedback surveys, the decision-makers aren't able to incorporate their feedback. On the other hand, it can be quite expensive to conduct engagement with youth in new, different and equitable ways. And in the end, not all youth engagement is equal: some kinds of engagement treat youth as passive recipients of information. Some other kinds of engagement create worries of tokenizing youth. What does ideal youth engagement look like, especially when it comes to an issue that will disproportionately affect youth?

Discussion Questions

1. Whose voices should be prioritized when making decisions about today that impact all our futures?
2. How much responsibility lies with youth to ensure they are taking all possible steps to have their voices heard? How much responsibility lies with urban planners and elected officials to do a better job of reaching out to hear directly from youth?
3. What barriers do youth face in engaging with decision makers? What does it take to eliminate these barriers? Are all youth affected by these barriers to the same degree?
4. Should all youth engagement be active (letting youth guide policy), or is there room for passive engagement (informing youth) as well? What is the ideal balance to strike, when it comes to engaging youth?
5. What should be the goals of engaging youth in decision-making?

Further Reading

Ulrika Mod er and Noella Richard. "[Placing meaningful youth engagement at the heart of environmental action.](#)" UN Development Programme. June 3, 2022.

Union of BC Municipalities. "[Youth Engagement Programs and Best Practices.](#)"

Keith Neuman. "[Canadian youth perspectives on democracy, global issues and civic engagement.](#)" Environics Institute. May 13, 2021.