

WHAT WE HEARD

CLIMATE READY BC: PREPARING TOGETHER — ENGAGEMENT RESULTS

Building Toward a Climate Preparedness
and Adaptation Strategy

- March 2020 -



cleanBC



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CLIMATE PREPAREDNESS AND ADAPTATION STRATEGY ENGAGEMENT

WHAT IS CLEANBC?

CleanBC is a pathway to a cleaner, stronger future where renewable energy helps fuel our economy, while creating more jobs and opportunities for people, business and communities. The Climate Preparedness and Adaptation Strategy is part of CleanBC. For more information on the plan, visit cleanbc.ca.



Across B.C., we've seen record wildfires, extreme weather, increased drought, and more frequent flooding due to the increasing impacts of climate change. The Province is developing a climate preparedness and adaptation strategy to help make sure that people and their communities are prepared.

Between November 7, 2019 and January 10, 2020, people across B.C. shared their thoughts and concerns around climate change impacts and provided their ideas on supports and actions to help prepare. They participated by filling out an online or paper questionnaire, joining one of six online discussion forums or providing written submissions. The purpose of this engagement was to gather input from people across B.C. to help support development of a climate preparedness and adaptation strategy, expected to be released in 2020.

This report summarizes the feedback we heard from individuals, communities, businesses, environmental groups and other organizations. This input will be used to help develop potential actions and opportunities that the government could consider to prepare for and respond to climate impacts.



ABOUT THE STRATEGY AND CURRENT WORK ON CLIMATE ADAPTATION

Our changing climate is already impacting people across British Columbia. Preparing for climate change is about understanding these changes and developing appropriate measures so we're ready for impacts and hazards it will continue to bring, now and in the future. Preparing for climate impacts will help our communities become more resilient to the challenges ahead and is more effective and less expensive than responding after the fact.

As a part of the larger CleanBC initiative, the Province is developing a climate preparedness and adaptation strategy to help ensure that communities across B.C. can prepare for a changing climate. This strategy will help ensure we're ready to reduce risks and consider opportunities that may result from B.C.'s changing climate.

As the first step towards better understanding climate-related risks in B.C., the Province completed a Preliminary Strategic Climate Risk Assessment, which examined 15 climate risks and their potential consequences in 2050. The assessment will help inform the climate preparedness and adaptation strategy, along with input gathered from individuals, businesses, local government and non-governmental organizations. The Province is also working with Indigenous peoples to jointly develop an approach to climate adaptation that respects commitments to reconciliation and deepens our partnerships to prepare for a changing climate.

The Province already has a number of programs and resources in place to help prepare for climate change and improve community resilience. You can learn more at: www2.gov.bc.ca/gov/content/environment/climate-change/adaptation.

Why Prepare?

The Province is doing critical work through CleanBC to reduce our greenhouse gas emissions and put B.C. on a path to a cleaner future. But this is only part of addressing the climate challenge. This is because elevated levels of global greenhouse gas (GHG) emissions already in the atmosphere will continue to cause changes over the coming decades.

By planning ahead and taking action now, we can take care of our homes, businesses and communities and build a better future where everyone has the support they need to adapt to a changing climate. We can develop effective responses that are integrated into planning at all levels of government, making them less expensive in the long-run and making the most of potential opportunities.

BROADER ENGAGEMENT CONTEXT

In addition to input received through the online engagement, questionnaire and written submissions, the Province also engaged with professional associations, local governments, non-profit organizations, and industry through a variety of forums including:

- Engaging directly with local governments and the Union of BC Municipalities (UBCM); engaging with local governments through the UBCM convention and regional association meetings as well as through involvement in the Province-UBCM Green Communities Committee Climate Adaptation Working Group
- Engagement with provincial public sector organizations (schools, health districts, post-secondary, Crown corporations, government ministries) through the annual Public Sector Leadership Symposium and support in coordinating climate action activities across the provincial public sector to achieve carbon neutrality
- Presentations on the Climate Preparedness and Adaptation Strategy and Preliminary Strategic Climate Risk Assessment at a range conferences and workshops
- Youth engagement events and working with public libraries to distribute Climate Ready BC materials.

To ensure the strategy is developed in collaboration with Indigenous peoples, the Province has engaged through a number of mediums including:

- CleanBC Regional Forums across B.C.
- CleanBC Provincial Forum
- Where invited, attending existing tables (e.g., Emergency Management Partnership Tables with First Nations)
- Engaging youth and elders (e.g., Gathering our Voices, Elders Gathering)
- Working with Aboriginal Friendship Centres and Metis Nation BC to distribute Climate Ready BC materials to reach urban and rural Indigenous populations
- B.C. First National Leadership Council Technical Working Group on Climate Change
- Indigenous Climate Adaptation Technical Working Group.

Feedback received from these broader engagements will help to inform development of the strategy.

This *What We Heard* report focuses specifically on the online citizen engagement held between November 2019 and January 2020.

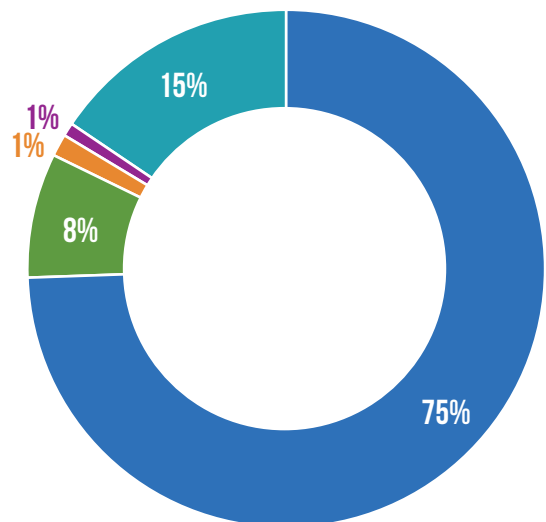
Who Responded to the Public Engagement?

In total, 225 paper copies and 2,733 online questionnaires were completed. We received 265 online comments within six online discussion topic areas. In addition, 57 submissions were received from individuals and 32 from organizations, as well as 488 form letters.

Over 90% of feedback came from individuals, while the remaining 10% originated from organizations or businesses. Approximately 59% identified as female, 39% identified as male, and the remaining 2% identified as gender diverse. The majority of those who provided feedback were between 19 and 55 years old, although some younger people expressed their thoughts, as did older adults and seniors.

Total feedback received by type

- Questionnaire
- Discussion Forum
- Individual Submissions
- Organizational Submissions
- Form Letters





WHAT WE HEARD



In the following sections, we review the feedback received from the questionnaire, submissions and comments from each of the discussion topic areas in more detail. The emphasis of each section is on exploring key trends, common suggestions, and frequently mentioned concerns and ideas related to climate preparedness and adaptation.

AN OVERVIEW

Through all streams of feedback during this engagement, the top climate impacts reported were wildfire and smoke, water availability, changes to ecosystems, and more extreme weather events. These climate issues impacted people's physical and mental health, damaged property, and inhibited their ability to recreate, hunt and cultivate food.

Respondents also elaborated on adaptation and preparedness strategies. Commonly mentioned ideas include collaboration between all levels of government and emergency providers, climate change resistant buildings and infrastructure, and rethinking natural resource management, particularly forests and water. Respondents emphasized that a plan to prepare for and adapt to climate change should be based on the most up-to-date research, and include adaptation measures that support affected industries and populations that bear unequitable burdens from climate change. The plan should also identify natural hazard areas, include both technological and natural asset based strategies, and outline clear roles, responsibilities, and measures. Finally, respondents were clear that this strategy must also abide by the Province's commitment to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

Questionnaire

In general, respondents expressed similar observations of climate change across the province, with minimal difference between the regions. Wildfire smoke and extreme weather or storms were noted as the primary changes of concern. Residents were mostly noticing minor to moderate impacts with a smaller number experiencing more extreme impacts. Mental and physical health issues were of greatest concern overall.

Changes to forests and ecosystems, seasonal water shortages, and significant changes affecting animals were the most concerning risks and impacts of climate change in our near future. This was followed by heat waves, severe wildfire season, and increase in invasive species. Overall, respondents to the questionnaire did not feel well prepared for these potential climate risks.

Online discussion

Online discussion topics generated similar responses to the feedback received in the questionnaire. The majority of participants spent their time in discussion topic one – describing the effects of climate change in their communities. Most of these effects were described as environmental – changing plant communities, weather, the impact of these changes on their health and wellbeing particularly in food growing areas. Economic impacts, including damage to property due to extreme weather events were also highlighted strongly.

In preparing for health impacts, respondents noted four key focus areas. These included air quality (from wildfires), updating building codes and guidelines, and applying a climate lens to forest management and ecosystem protection.

A number of participants shared ways they and their communities are already preparing for climate change. Many have made personal lifestyle changes including collecting rainwater for irrigation in drier months, supporting local food, urging local governments to act, and being better prepared for extreme weather events individually and in the home, through use of air filtration and energy efficient heating and cooling.



Many of these preparatory actions may be addressed at a local, provincial and federal level. As such, there was a call for strong leadership, planning, focusing on data collection and monitoring, and providing more health and wellness services – i.e. mental health support, emergency response, adaptation planning and education, etc.

Identified adaptation actions fell into four general areas. These included personal lifestyle changes, supporting strong leaders in government, getting more involved in initiatives to act, and obtaining more information on adaptation measures. Overall, areas in which respondents indicated an interest in more information, education and training were: climate change, adaptation, case studies, and a clear understanding of government's role in managing climate change impacts.

Individual submissions

Individual submissions addressed Climate Ready BC in general. These described climate change impacts, thoughts on adapting to and preparing for these changes, and supports needed. The content of these submissions appeared similar to feedback received in the questionnaire. Wildfire, water shortage, flooding and health were outlined as priority impacts along with anticipated impacts of food insecurity, loss of ecosystems, climate refugees, and impacts of sea level rise.

Most submissions called on the provincial government for leadership in preparing for climate change with less emphasis on individual actions. In particular, individuals urged the provincial government to enact regulations and incentives to help the province adapt to climate change. Individuals also mentioned looking to Indigenous governments and Indigenous-led initiatives to prepare for climate change. The importance of the scientific community providing accurate and current climate change data and innovative adaptation ideas was also highlighted. Very few submissions referenced personal adaptation ideas or organizations that they look to for help in preparing for climate change.

Individual submissions offered a broad range of ideas for adaptation and focused on two types of support: funding from the government and updating land use planning and management to better support adaptation and climate change mitigation efforts.

Organizational submissions

Organizational submissions highlighted a number of climate change impacts including the displacement of people, water scarcity, wildfire and more extreme rain, snow, wind and heat events. To prepare for climate change, organizations promoted adopting carbon emission-reducing technologies, working with all levels of government, implementing UNDRIP, updating climate change resilient building guidelines, and employing an equity lens to understand which populations are disproportionately impacted by climate change. Some organizations also highlighted how they are currently preparing for climate change, including industry-specific research and innovation, hazard mapping, performance monitoring, and university programs. Organizations called for more support for industry-specific and equity-focused research, climate change resilient infrastructure, stronger regulation of natural resources, realistic targets, and employment transition support.

Form letters

Form letters provided more structured and straightforward responses. Key points outlined in form submissions focused on impacts to people's livelihood and wellbeing and the prospect of more severe impacts in the future. Form submissions strongly urged the government to look at nature-based solutions and collaboration with Indigenous communities on adaptation strategies.

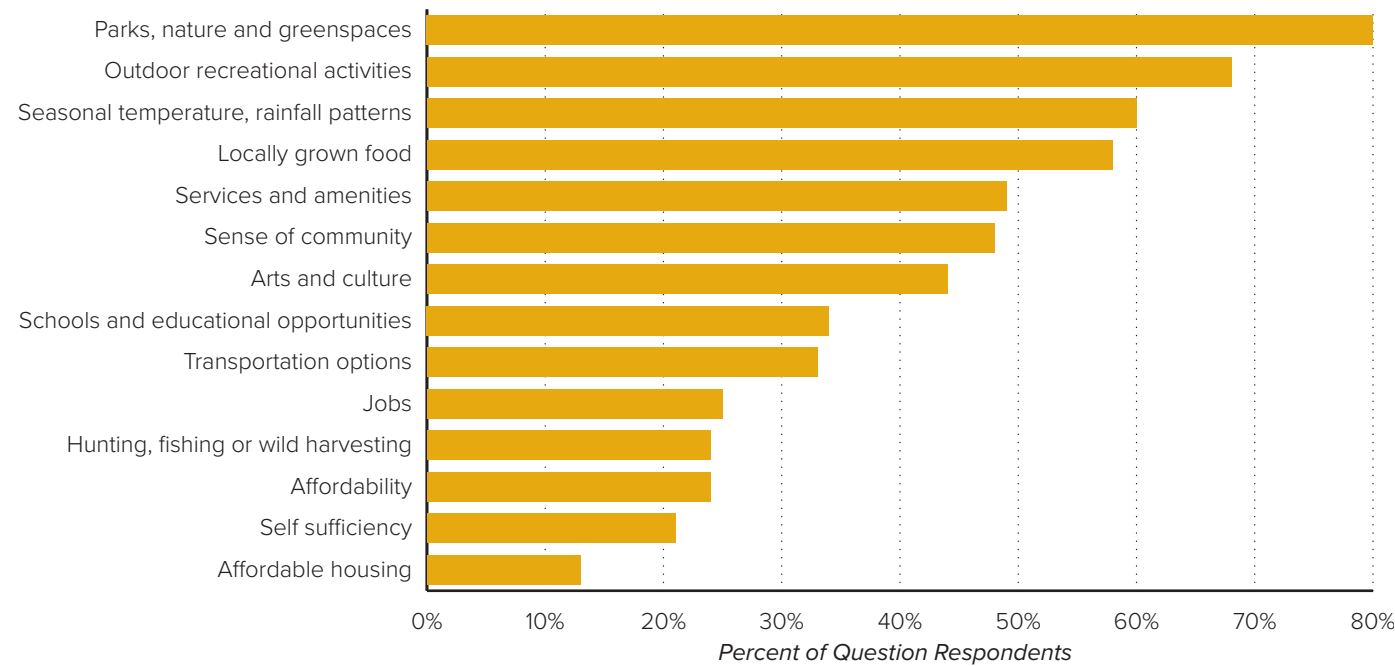
QUESTIONNAIRE

The purpose of the questionnaire was to obtain feedback on how to best support communities, households, businesses and public bodies to prepare for current and future climate change impacts. The following provides a snapshot of responses to each key question related to climate change impacts.

Communities

What makes your community a great place to live?

Things that make respondents' communities a great place to live



The bar graph above shows the percent of all the people who responded in favour of the category.

Topics related to the natural environment (e.g., green space, outdoor activities, climate) ranked highest amongst factors that respondents found great about their communities. Topics related to affordability and self-sufficiency ranked lowest.

Regionally, these patterns varied slightly. Outside of Vancouver Island/Coast and the Mainland/Southwest, locally grown food was ranked higher than climate (i.e., seasonal temperatures and precipitation), while transportation options dropped to the bottom three. In more northern regions (i.e. Northeast, Nechako, and Cariboo) jobs and affordability were ranked highly, while arts and culture, services and amenities, and schools and educational opportunities ranked lower.

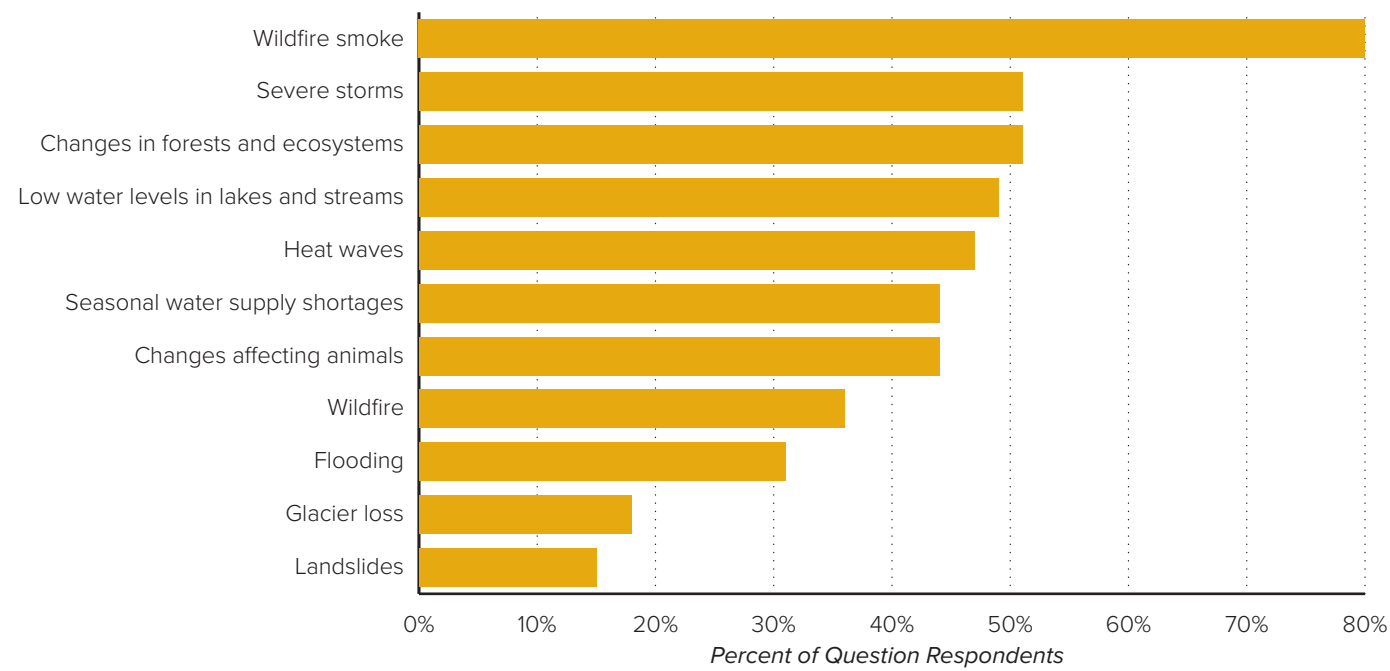
Other factors that respondents noted were great about their communities included:

- Actively working towards reconciliation
- Family, friends, and neighbours
- Safety
- Connectivity to other communities
- Low density and rural character
- Unique natural and built features (e.g. the mountains, old architecture)
- Walkability and active transportation (as a subset of transportation overall)
- Shared values

Climate-Related Experiences

Have you experienced any of the following in your region in recent years?

Changes that respondents have experienced



Wildfire smoke, severe storms, and changes in forests and ecosystems were the top three changes experienced by all respondents. The least number of respondents have experienced flooding, glacier loss, and landslides.

Patterns remained relatively consistent across all regions. Wildfire smoke was clearly the change experienced by most respondents. Regionally, severe storms correlated more closely to those respondents on the Coast. Outside of Vancouver Island/Coast and the Mainland/Southwest, wildfire was the second most reported experience. There were also more reports of flooding. Seasonal water supply shortages were experienced more in the south. In the Northeast, landslides were the second most experienced change.

Other changes respondents had also experienced included:

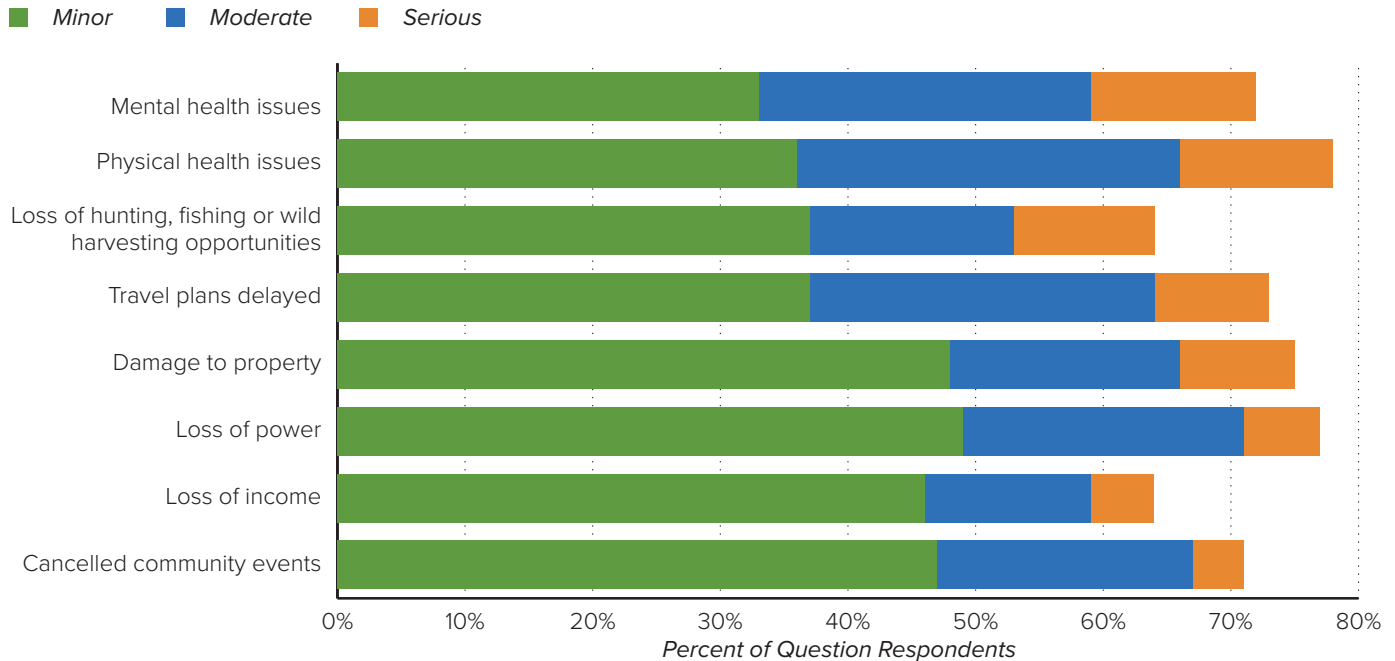
- Change in insects and pollination
- Erosion along streambanks and shorelines
- Reduced fish populations

Only 7% of respondents indicated that they had not experienced any changes related to climate.

Climate-Related Impacts

To what level (if any) have the climate impacts in the previous question disrupted you and your community?

Level of climate impacts



The chart above shows how severely respondents have been affected by climate change impacts in descending order from impacts with the most serious rankings (shown in orange) to the least. Overall, mental and physical health issues had the most serious rankings, while loss of income and cancelled community events have the least.

Climate change impacts varied slightly by region. Respondents in all regions said mental health impacts were one of the most serious climate change impacts. In all regions except Nechako, respondents also said physical health issues were a serious climate change impact. Several respondents from the Kootenay and Mainland/Southwest regions reported that delayed travel plans were a serious impact in their communities. Thompson/Okanagan was the only region in which respondents said damage to property was a serious impact. Outside of southwest B.C., respondents were seriously impacted by loss of hunting, fishing or wild harvesting opportunities. More north, respondents reported loss of income as a top impact of climate change.

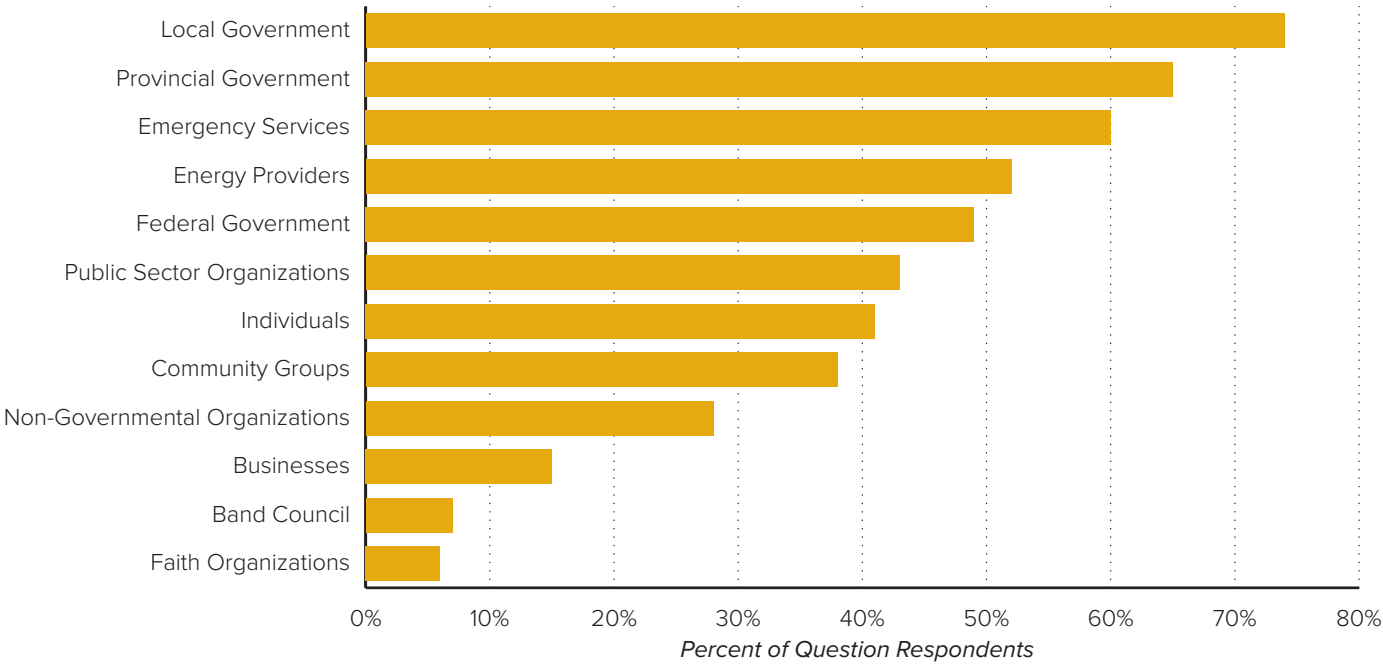
For nearly all genders and groups (i.e., people who identify as a visible minority, Indigenous, a person with a disability, LGBTQ+, new Canadians) mental health impacts were ranked the most serious and concerning issue. People who identified as Indigenous more frequently ranked the loss of hunting, fishing, or wild harvesting as a serious impact of concern. Additionally, for new Canadians, physical health issues were as serious more frequently than mental health impacts. Indigenous respondents and those who identified as having a disability reported 6% to 9% more frequently that they were seriously impacted by loss of income and damage to property.

Respondents elaborated on other impacts not outlined in the survey, including:

- Increased cost of living, especially food and energy
- Unable to enjoy community amenities
- Loss of culture
- Hindered food production levels
- Community polarization and disenchantment with the government

Who do you rely on in your community to prepare for climate impacts?

To prepare for climate change impacts, respondents rely on:



Most respondents reported relying on their local government, the provincial government, and emergency services to prepare for climate change impacts. Few respondents reported relying on businesses, and faith organizations. Band Councils were most relevant for Indigenous respondents.

Responses about which organizations communities relied on to prepare for climate change were similar across regions. Most respondents from all regions reported that their local government was one of the top organizations on which they relied. Similarly, respondents from all regions except Nechako relied heavily on emergency service providers. Several respondents from Nechako said they relied on non-governmental organizations. Respondents from all regions except the Northeast said they relied on the provincial government to prepare for climate change. Several respondents from the Northeast said energy providers were one of the top organizations on which they relied.

Generally, these patterns were consistent across gender and groups. However, people who identified as Indigenous relied equally on local governments and emergency services and reported relying on the public sector less and more on their elected councils than respondents overall. Additionally, new Canadians rely less on energy providers to prepare for climate change impacts.

Other organizations and resources that respondents mentioned relying on included:

- The internet
- Weather forecasts
- Post-secondary institutions

Approximately 6% who responded “other” stated that they relied on themselves, while 4% were unsure who they should look to for support in climate change preparedness.

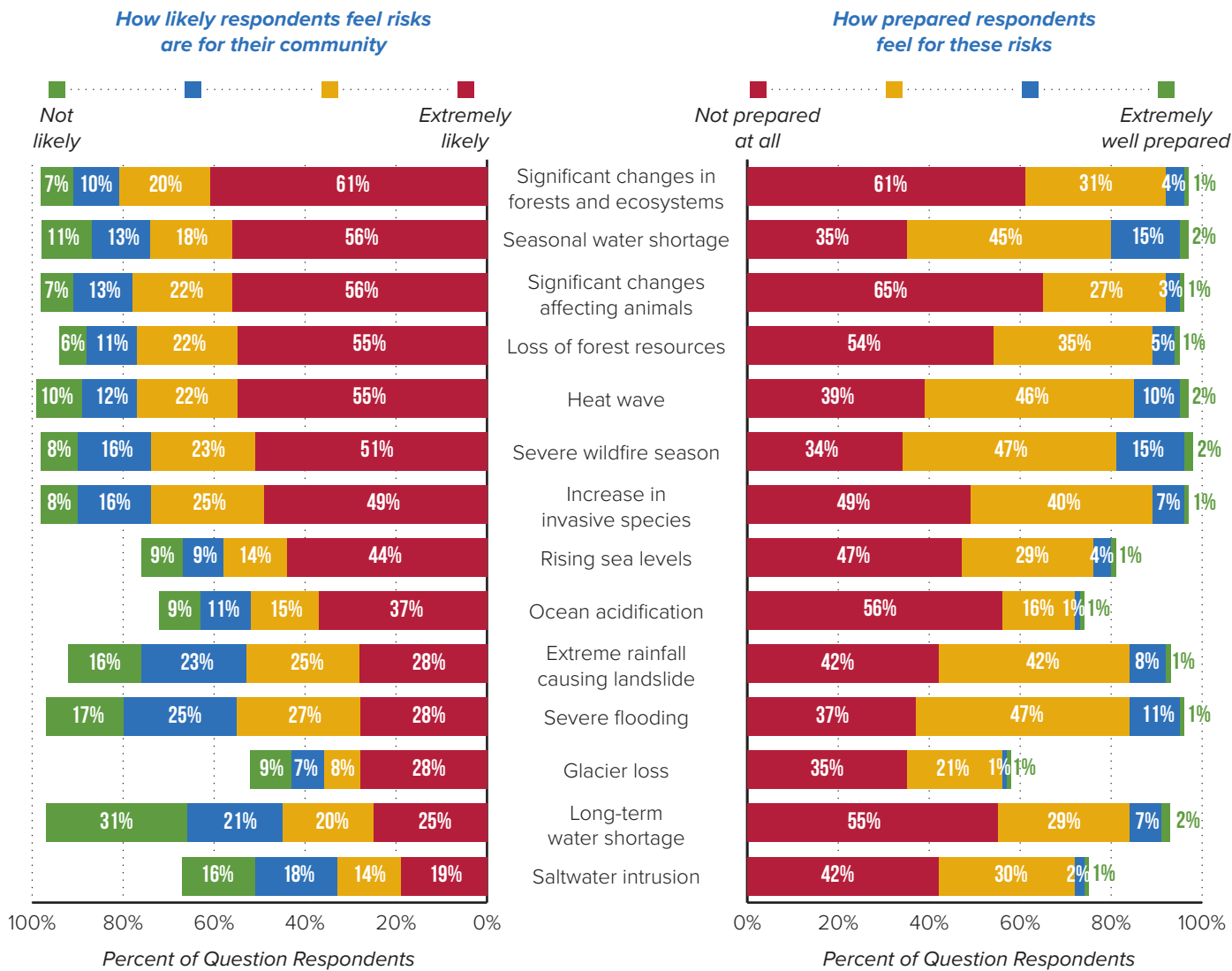
Over the next 30 years, how likely do you feel your region will experience the following climate risks AND how prepared are you and your community for them?

The following bar charts are sorted in order of most to least extreme likelihood rankings.

Changes in forests and ecosystems, seasonal water shortages, and significant changes affecting animals (specific affects not identified) are the top three extremely likely risks according to respondents. This is followed closely by loss of forest resources, heat wave and severe wildfire season. Loss of glaciers, long-term water shortages, and saltwater intrusion have the least extremely likely rankings.

Overall, respondents do not feel well prepared for climate change impacts. Most feel least prepared for changes in forests and ecosystems, changes affecting animals, and ocean acidification.

These patterns were similar across regions. Many respondents from eastern B.C. felt severe wildfire seasons were the most likely risk for their community. On the west and in the Northeast, respondents felt changes to ecosystems were the most likely risk. Many respondents from the Mainland/Southwest region felt heat waves were most likely. While seasonal water shortages were considered extremely likely, respondents across all regions felt long-term water shortages were a lower risk for their communities. Respondents from all regions except the Nechako, Cariboo, and Mainland/Southwest regions also felt more prepared for seasonal water shortages than long-term water shortages. Respondents across all regions felt least prepared for significant changes to ecosystems and changes affecting animals. Only respondents from Vancouver Island/Coast felt least prepared for ocean acidification.



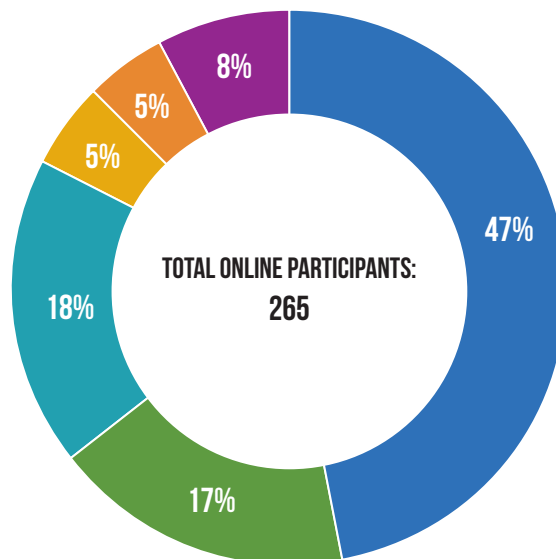


In addition to the online questionnaire, there were a total of six online discussion topics open for comment. Each discussion topic included an initial question for consideration. The first three were launched sequentially, 1-2 weeks apart, and left open for further reflection while the last three were posted at the same time. The discussion topic areas provided a forum for interested residents to identify in their own words their experience and concerns regarding climate impacts, their level of preparedness, and their thoughts and ideas for actions and supports to help prepare their communities.

In total, 265 people participated in the online discussion topics. Of these, 47% of posts were focused on discussion question 1, 35% focused on questions 2 and 3, and the remaining 18% discussed questions 4 to 6.

Discussion topics included a number of comments, suggestions and concerns about climate change and the Province's approach to clean growth generally, including several comments relating to subjects that were beyond the scope of the discussion topics for this consultation. These and other comments are available in the archived online discussions.

- Discussion Topic 1: How has climate change affected your community?
- Discussion Topic 2: How do we prepare for the health impacts of climate change?
- Discussion Topic 3: What can you and others do to prepare for impacts from climate change?
- Discussion Topic 4: What supports will you need as impacts from climate change increase?
- Discussion Topic 5: How are you planning to adapt to the risks and opportunities of a changing climate?
- Discussion Topic 6: What education and training will help your community prepare for future climate impacts?



1 DISCUSSION TOPIC 1: How has climate change affected your community?

Participants explained changes they have experienced and how these changes have impacted their community. These have been classified as environmental, wellbeing, and economic.

CHANGE OBSERVED	IMPACTS		
	Environmental	Wellbeing	Economic
TREES. More trees – particularly cedar and arbutus – are dying.	<ul style="list-style-type: none"> • Wildfires • Loss of habitat 	<ul style="list-style-type: none"> • Diminishes park and recreation area quality • Less urban tree canopy and shade • Negatively affect mental health 	<ul style="list-style-type: none"> • Less food from fruit trees • Buying drought-resistant plants
WATER. There is increased runoff from snowpack melting earlier in the year. More freshwater shortages occur, especially in the summer.	<ul style="list-style-type: none"> • Loss of habitat, particularly salmon spawning grounds • New species 	<ul style="list-style-type: none"> • Diminish park and recreation area quality • Smaller salmon runs • Water borne bacteria 	<ul style="list-style-type: none"> • Limits fisheries • Property and infrastructure damage
FIRE. There is an increased number and duration of summer wildfires.	<ul style="list-style-type: none"> • Loss of habitat • Poor air quality 	<ul style="list-style-type: none"> • Causes and aggravates health conditions • Worry about damage (property, employment, etc.) • Unable to recreate 	<ul style="list-style-type: none"> • Property and infrastructure damage • Purchasing air purifying equipment and other retrofits
SUMMER. Summer is hotter and drier.	<ul style="list-style-type: none"> • Wildfires • Loss of habitat 	<ul style="list-style-type: none"> • Unable to water gardens • Causes and aggravates health problems 	<ul style="list-style-type: none"> • Buying drought-resistant plants
FOOD. Less pollinators and water shortages during growing seasons reduces food availability for people and animals.	<ul style="list-style-type: none"> • Loss of species • Seasonal timing changes (i.e. blooming before pollinators arrive) 	<ul style="list-style-type: none"> • Unable to collect traditional foods • Unable to grow food at home 	<ul style="list-style-type: none"> • Negative affects on agriculture and fisheries • Increased reliance on non-local food
EXTREME EVENTS. Extreme wind, rain, snow and flooding events are more common.	<ul style="list-style-type: none"> • Erosion of streambeds 	<ul style="list-style-type: none"> • Plan new commutes • Dangerous road conditions 	<ul style="list-style-type: none"> • Property and infrastructure damage

The discussion forum emphasized that the impacts of climate change are broad. Climate change alters the natural environments that people love and depend on to meet their daily needs, negatively affects people's physical and mental health, and undermines employment stability, while increasing the cost of living. Climate change also impacts business and recreation. Some respondents also worried that climate change may impact community aesthetics as adaptation efforts, such as home retrofits, may not look nice.

“

We packed all our stuff and were ready to go and leave the family business behind before the fire got under control last minute. Too much stress to do this, and in the future we'll have to do this over and over. You can't risk your livelihood year after year. The worst feeling is knowing things are only going to get worse.”

2 DISCUSSION TOPIC 2: How do we prepare for the health impacts of climate change?

The discussion focused on two main health concerns which may be caused or aggravated by climate change: respiratory illness and poor mental health. Participants also highlighted four main areas in which to prepare for these health impacts:

AREA	POSSIBLE ACTIONS
IMPROVE AIR QUALITY	<ul style="list-style-type: none">• Installing air filtration systems in homes and public buildings• Checking air quality advisories and sign up for alerts provided by the local government if possible• Stop woodburning• Have a mask ready
UPDATE BUILDING CODES AND GUIDELINES	<ul style="list-style-type: none">• Energy-efficient heating and cooling systems• Air-filtration systems• Urban tree canopy networks• Fossil-fuel free, affordable, and reliable energy systems• Funding to support the implementation of these retrofits
APPLY A CLIMATE LENS TO FOREST MANAGEMENT AND ECOSYSTEM PROTECTION	<ul style="list-style-type: none">• Enforce better forestry practices; disallow clearcutting, monocultures, and burn piles• Protect old growth forests• Plant trees including in urban areas• Use FireSmart principles to reduce homeowners' vulnerability to forest fires, though some respondents believe vegetation helps with climate change mitigation and adaptation and should not be removed from properties
REDUCE DEPENDENCY ON FOSSIL FUELS	<ul style="list-style-type: none">• Shift to clean energy industries• Support clean energy affordability

“Due to the increased wildfire smoke during summers and wood-smoke in winters, we spent quite a bit of money to buy HEPA filtration units big enough to adequately clean the inside home air. Due to heatwaves, we spent again and switched all windows and skylights to energy star units, then bought portable air conditioners for bedrooms so we could sleep. Window coverings were upgraded as well, a new roofing and doubled the number of attic roof vents. All unexpected expenses on a 25 year old residence, but we are fortunate to have had these options.”

“I think the point in this is that there are multiple solutions and approaches required. Those of us that can make change and mitigate ourselves from harm should. Those that can't should take whatever actions they can. Overall, governments, businesses and society as a whole should continue (start?) to address the root causes and ensure that access to supports exist for everyone that needs them.”

3 DISCUSSION TOPIC 3: *What can you and others do to prepare for impacts from climate change?*

In this discussion forum participants shared ways they and their communities can prepare for climate change impacts. These included:

- **Transportation** - Switch to electric bikes and vehicles. Choose active and public transportation.
- **Water supply** - Apply a climate lens to water management. Collect rainwater.
- **Food** - Support local food production. Cultivate and preserve food at home.
- **Planning** - Local governments should be prepared with local climate action plans.
- **Anticipate flooding** - Update flooding projections and build with those in mind. Have adequate sandbags available.

As fossil fuels are a known source of GHGs, many discussion participants indicated feeling that a strategy to prepare for and adapt to climate change also needs to include shifting to clean energy, which is a main focus in government's CleanBC plan.

4 DISCUSSION TOPIC 4: *What supports will you need as impacts from climate change increase?*

Discussion indicated that many of these preparatory actions may be addressed at a local, provincial and federal government level.

- **Leadership** - Many discussion participants wanted to see their government formally acknowledging climate change and taking concrete actions to adapt.
- **Planning** - Participants discussed a need for more local-level and sector-specific climate change planning. Participants indicated that plans should include food security and local food production, green space, local food systems, waste management, energy, environmental restoration, climate-resistant infrastructure, health services, and space for connection. Many participants spoke about the benefit of collaborative planning with Indigenous communities.
- **Data** - Discussion participants wanted greater access to reliable data about climate change, relevant policies, and information about the ways communities are adapting to changes. Ideas included online databases, information pamphlets, school programs, and community events.
- **Wellness services** - Direct and indirect impacts of climate change take a mental and emotional toll. Discussion participants would like to see greater access to mental health supports including therapy, cultural healing circles and rituals, mindfulness and meditation, physical activity, psychosocial recovery and social connection groups.

“*There needs to be tools for communities to aggressively address mitigation and adaptation.*”

5 DISCUSSION TOPIC 5: *How are you planning to adapt to the risks and opportunities of a changing climate?*

Participants discussed adaptation actions that fell into four areas: personal lifestyle changes, supporting strong leaders in government, getting more involved in initiatives to act, and obtaining more information on adaptation measures.

AREA	POSSIBLE ACTIONS
LIFESTYLE CHANGES	Personal changes to everyday routines such as: <ul style="list-style-type: none"> • Buying local • Cultivating and preserving food at home • Repairing and sharing goods • Promoting climate change awareness at work
POLITICAL ENGAGEMENT	Electing and supporting strong leaders: <ul style="list-style-type: none"> • Supporting politicians who take concrete actions to adapt to climate change • Holding politicians accountable to accurate and reliable climate data
GETTING INVOLVED	Participating in existing climate change adaptation initiatives: <ul style="list-style-type: none"> • “Climate 101” type education programs • Research initiatives • Development of local climate action plans
EDUCATION AND TRAINING	In general, discussion respondents did not have specific plans on how they would adapt to climate change, but mentioned education on how they could adapt. Specific questions included: <ul style="list-style-type: none"> • How will our regions be impacted by climate change? • How can society become more sustainable? • What does the government plan to do to adapt to climate change? • Can we rely on other energy sources? • Can we build and develop communities more sustainably? • How can their industries adapt to climate change? • Will adapting make a difference for the climate in the future?

“*I would like to see more serious discussion about what our community will do to adapt to what we know we can expect; whether that is climate changes already baked into the atmosphere or socio-economic shifts that emerge from understanding how to become a sustainable society.*”

“*I’m not currently doing anything to prepare, because I don’t know what I can do.*”

“*I believe that adaptation requires preparation now rather than waiting to see what happens.*”



DISCUSSION TOPIC 6: *What education and training will help your community prepare for future climate impacts?*

Participants indicated information and education related to climate change should include B.C.'s education system, post-secondary institutions, elected representatives, climate change organizations, and locals with relevant backgrounds and training in climate change.

Areas in which participants would like more education and training include:

- **Climate change** - Several discussion respondents recommended more education about climate science to better understand climate change.
- **Adaptation** - Most discussion participants lacked concrete plans on how they or their communities would adapt to climate change. Most either wanted more information on what they could do to adapt to climate change or help prioritizing possible actions, as well as a consistent, reliable, and easily accessible source for this information.
- **Political transparency** - Many discussion respondents wanted elected representatives to be clear about their stance on climate change and their proposed actions to adapt.
- **Case studies** - Participants also discussed learning from other communities who are adapting to climate change effectively. Successful case studies also help people remain optimistic.



I am encouraged that the question posed implies that we also need to prepare to adapt to climate change and not just pray that it doesn't occur."



Along with climate adaptation training that is practical (regenerative agriculture, water stewardship, reforestation/food forestry, riparian area rehabilitation, eco-technologies, alternative transportation etc.), I believe that we need education for communities and individuals on the emotional, spiritual and relational ways we can move through the discomfort that climate change is bringing in a peaceful and connected way."



I believe we will start to take responsible actions when we are forced to realise how we are individually and collectively responsible at the local level for the impacts we are directly contributing to. What is my environmental footprint? What is my community's environmental footprint? Should I be concerned or is it somebody else's problem? "



Individuals submitted emails addressing Climate Ready BC in general. These individual submissions described climate change impacts, thoughts on adapting to and preparing for these changes, and supports needed. Several comments also related to subjects that were beyond the scope and focus of this engagement.

Priority Impacts

Many individual submissions described specific climate change impacts. Half of these impacts were related to changes that individuals are currently experiencing, while the other half discussed climate changes that individuals expect will occur in the coming years.

Experienced

- Wildfires damaging property and causing air pollution
- Water shortages leaving communities struggling to control wildfires
- Flooding causing evacuations, property and infrastructure damage, boil water advisories, and crop damage
- Worry, isolation, and other mental health challenges

Anticipated

- Food insecurity
- Ecosystem changes and loss of vegetation
- Water shortages
- Housing more climate refugees
- Sea level rise and higher storm surges

“

I know all too well the damage caused by the now yearly destructive forest fires.”

Preparation for Climate Change

Most submissions called on the provincial government for leadership in preparing for climate change. In particular, individuals urged the provincial government to enact regulations and incentives to help the province adapt to climate change. Individuals also mentioned looking to Indigenous governments and Indigenous-led initiatives to prepare for climate change as well as relying on the scientific community for accurate and current climate change data and innovative adaptation ideas. Very few submissions referenced personal adaptation ideas or organizations that they look to prepare for climate change.

“

I expect the BC government to lead on climate change adaptation in partnership with Indigenous nations.”

Individual submissions provided a broad range of actions to prepare for climate change. Common themes included the following

- **Developing the strategy** - Individual submissions indicated that developing a climate change adaptation strategy is fundamental to preparing for climate change. To help prioritize actions and choose between alternatives, submissions indicated that a climate change strategy should:
 - Be based on current and accurate data
 - Consider actions at different scales
 - Include technological and nature-based innovations
 - Compare the costs and benefits of alternative actions
 - Monitor climate and environmental changes, as well as adaptation
 - Outline roles, responsibilities, measures and deliverables
- **UNDRIP** - Submissions indicated that any climate adaptation strategy must meet B.C.’s legislated commitment to implement the United Nations Declaration on the Rights of Indigenous Peoples, including working in partnership with Indigenous communities to adapt and investing in Indigenous-led adaptation initiatives.
- **Resilience** - Submissions indicated that industry, infrastructure, and food systems need to reduce emissions, and be resilient to projected climate changes. Climate hazard areas should be identified, mapped, and avoided.
- **Education** - Submissions indicated that people should be taught to view their everyday choices through a climate change lens. This includes educating people about climate change and about how their choices like using clean energy alternatives can affect climate change. Submissions also indicated that people should be taught to be prepared for climate change just like other specific hazards (i.e. earthquakes). LUSAR (Light Urban Search and Rescue) is a specific program that trains able-bodied volunteers to respond in crises, assisting professionals and providing services necessary and should be explored for climate emergency response.
- **Clean energy** - Several individual submissions emphasized that part of an adaptation strategy should include shifting away from fossil fuels, including activities such as using electric bikes, electric heat, rail systems, and active transportation. These areas are covered in more detail in the CleanBC plan and B.C.’s Active Transportation Strategy.

Preparation Support Needed

Individual Submissions focused on two types of support: funding from the government and revising land use.

AREA	POSSIBLE ACTIONS
FUNDING	<ul style="list-style-type: none">• Fund green infrastructure innovation, environmental restoration, and hazard area identification• Fund home retrofits and business adaption
RETHINK LAND USE	<ul style="list-style-type: none">• Protect old growth trees, which play an important role in adapting to climate change• Develop permaculture tenures, as monocultures may increase forest fire risk• Disallow building in hazard areas, such as floodplains, which currently may be the most affordable place to develop



Approximately 32 organizations submitted feedback to Climate Ready BC. Submissions came from local, provincial, national, and international organizations including the following.

- BC Agriculture and Food Climate Action initiative
- BC Dairy Association
- BC Real Estate Association
- Burnaby Board of Trade
- Canadian Geothermal Energy Association
- Canadian Home Builders' Association
- Canadian Parks and Wilderness Society
- Climate Migrants and Refugees Project
- District of Saanich
- Ducks Unlimited
- Engineers and Geoscientists British Columbia
- Forest Practices Board
- HealthADAPT
- Hospital Employees Union
- Innergex Renewable Energy
- Insurance Bureau of Canada
- Interior University Research Coalition
- Island Health
- Islands Trust
- Metro Vancouver
- Mott MacDonald
- Okanagan Basin Water Board
- Planning Institute of British Columbia
- POLIS Water Sustainability Project
- Sierra Club
- Watershed Watch Salmon Society
- West Coast Environmental Law
- Yellow Point Ecological Society
- Youth submission from 10 organizations

Each submission presented a detailed and valuable perspective on climate change adaptation. The following provides a high-level overview of overarching themes that emerged from the organizational submissions as a whole.

Priority Impacts

- **Displacement** - People may be displaced directly, such as communities subject to fire and flooding, or indirectly through loss of jobs and increased cost of living.
- **Water availability** - Water may become scarce due to reduced snowpack and warm, dry periods.
- **Fire** - Communities and industries are threatened by forest fires.
- **Extreme events** - Weather such as rainfall, snowfall, wind, and heat, may reach new extremes more frequently.
- **Flooding** - Organizations anticipate increased flooding, which has wide-reaching impacts on industry, agriculture, infrastructure, and personal property.
- **Health** - Climate change will impact people's physical and mental health.

- **Food** - Water scarcity and flooding are both expected to threaten agriculture in B.C., making cultivation more difficult and costly.
- **Sea level** - Coastal communities in B.C. may be impacted by periods of rapid sea level rise.
- **Species change** - Invasive species may spread and pollinators may be disrupted.

Preparation for Climate Change

- Adopt innovations and technology that reduce carbon emissions.
- Collaborate with Indigenous and federal governments, organizations, and communities.
- Implement UNDRIP and work towards reconciliation.
- Adaptation should include protecting and conserving ecosystems and augmenting natural assets with green infrastructure.
- Assess organizational performance and monitor adaptations to ensure adaptations are successful in achieving targets.
- Organizations are completing climate change related research, including pest models, decision support tools, floodplain mapping, building guidelines, and equity lens implementation.
- Some B.C. universities have developed programs focused on climate change and adaption.
- New and existing buildings and infrastructure need to meet climate change adaptation standards, such as drainage features, fire-resistant exteriors, and building envelope upgrades.
- Employ an equity lens, understanding that certain populations are disproportionately affected by climate change or face more barriers in adapting to climate change.

Preparation Support Needed

- **Industry specific** - Organizations want to see planning, funding, and education related to their specific sectors.
- **Infrastructure** - Infrastructure should be resistant to climate change and incorporate natural assets and green infrastructure where possible. This includes diversifying B.C.'s renewable energy options and providing reliable clean energy infrastructure.
- **Regulation** - Organizations call for stronger regulation over water resources, development in hazard areas, building codes, transportation, utilities, forestry, energy use, climate-related financial disclosure, and more.
- **Equity** - Organizations want to see more research about populations who are most vulnerable to climate change.
- **Realistic targets** - Some emphasise that, though bold, adaptation strategies also have to be realistic. Some people may not want to move from hazard areas or have the financial security to make costly changes.
- **Employment** - Adaptation may result in a reduction of employment in carbon-intensive sectors and increased opportunities in new fields. People need support through this transition.



A total of 488 form letters were submitted in this engagement. Form submissions are coordinated efforts by an organization or group. They provide a message in a letter format of which individuals, who feel it represents their position, can utilize and/or mail in on their own behalf.

Each submission was considered representative of the values and input of the individual sender. Form submissions were clear and generally straightforward. Most form submissions were titled *Take practical climate action through nature-based solutions*. Key points outlined in form submissions are summarized as follows.

- People's livelihood and wellbeing are negatively impacted by increased wildfire and smoke, low water levels and drought.
- In the future we will face more water shortages, ocean acidification, changes in forest ecosystem and impacts on wildlife.
- Nature-based solutions, including protecting and better managing forests, wetlands, and grasslands, can support climate change adaptation.
- Indigenous communities are promoting increased land protection in their traditional territories and leading conservation projects that create long-term tourism and stewardship jobs, support reconciliation, and protect species.

Individuals also customized their submissions with gratitude for the natural abundance of B.C. and observations of species that are declining and natural features that are changing. Several encouraged the government to rethink forestry practices to support adaptation rather than augment climate change. Individuals urged the government to act now.



NEXT STEPS



Public input received during this engagement will help support development of potential policies and actions that the Province could take to build a climate ready B.C. The Province will continue to engage key sectors to help inform B.C.'s climate preparedness and adaptation strategy.



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