Forest Bioeconomy Public Perceptions Survey

Final Report

Prepared for Natural Resources Canada

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Prepared for Natural Resources Canada by Environics Research

March 2022

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Executive summary

A. Background and objectives

In recent years, the development of a competitive bioeconomy has become a key interest for federal, provincial and territorial governments. The forest bioeconomy specifically represents an opportunity for the forest sector to diversify products and access new markets and is a vital part of the transition to a low carbon future. However, little research has been conducted on public perceptions of the bioeconomy in Canada.

Natural Resources Canada commissioned Environics Research to conduct quantitative research to assess public awareness, knowledge, and perceptions of the forest bioeconomy.

The objectives of this study are to assess:

- Perceptions of the Canadian forest industry, third-party certifications, sustainability, the bioeconomy, the forest bioeconomy, and the appropriate role of the Government of Canada in relation to the forest bioeconomy.
- Knowledge and awareness of the forest bioeconomy and what aspects of it resonate with Canadians.
- Perceptions, awareness and potential interest of forest bioproducts.

B. Methodology

Environics Research conducted an online survey with 3,059 Canadians aged 18 and over, from February 7 to 25, 2022. Quotas were set by age, gender, and region and the final data was weighted to ensure the sample is representative of the Canadian population, according to the most recent Census data. Survey respondents were selected from registered members of an opt-in online panel. Since a sample drawn from an online panel is not a random probability sample, no formal estimates of sampling error can be calculated. Nonetheless, online surveys can be used for general population surveys provided they are well designed and employ a large, well-maintained panel.

More information about the survey methodology is included in Appendix A of the full report.

C. Contract value

The contract value was \$79,890.89 (HST included).

D. Key findings

Knowledge and general perceptions

Only 2% of respondents say they are very well informed about the forest bioeconomy or Canada's bioeconomy. In addition, only 3% to 5% say they are very well informed about related topics such as Canada's natural resources sectors, the Canadian forest industry, innovation in the industry, the federal government's contribution to research and development in Canada's natural resource sectors, or sustainable forest management.

• Of those respondents who reported feeling somewhat or very informed about the bioeconomy and/or the forest bioeconomy (27% of all respondents), 65% said they learned about it from the news, much more than from friends and family (cited by 25%), social media (24%), Government of Canada (16%) or provincial government (15%) websites, work (16%) or courses/school (14%).

Canada's forest industry

- Almost half (47%) of the respondents have a positive overall view of the Canadian forest industry (rating it a 7 out of 10 or higher), while just over one-quarter (28%) hold a moderate view (ratings of 5 or 6). A small number of respondents (10%) have a negative view of the Canadian forest industry (ratings between 1 and 4). Another 14% of respondents are unsure about how they view the Canadian forest industry.
- Just under four in ten respondents (37%) strongly agree that the industry produces high quality products, such as lumber, pulp and paper, 25% strongly agree the industry provides economic benefits for local, rural and forest-based communities, and 25% strongly agree it provides a lot of jobs for Canadians.

Performance of federal government on forest issues

• Three in ten respondents (30%) believe the federal government does a good job working with provinces and territories to make sure Canada's forests are managed in a way that respects the environment. About one in four (27%) believe the federal government does a good job working with provinces and territories to make sure Canada's forests are managed in a way that respects local rural forest-based communities, and 25% believe the federal government does a good job working with provinces and territories to make sure Canada's forests are managed in a way that respects Indigenous communities. One in three respondents (34%) consider the federal government to be doing a good job promoting the economic growth of Canada's forest industry.

Forests

- When respondents were asked to note the first word or phrase that comes to mind when thinking about how Canada's forests are managed, the most frequently mentioned *positive* themes were related to effective oversight (13% of respondents citing things like balance, control, protection) or economic stewardship (12% citing things like innovation, growth, abundance, efficiency). *Negative* themes were related to environmental impacts (14% of respondents citing things like clear cutting, deforestation, climate impacts) or ineffective oversight (10% citing things like weak or haphazard management).
- Approximately three in ten respondents (31%) strongly agree that forests provide a wide range of
 economic, social and environmental benefits for all Canadians or for local communities. Moreover, 24%
 agree that forests provide social and environmental benefits for Indigenous communities, and 23%
 agree that third-party certification of Canada's forests is important to ensuring forests are sustainably
 managed.

Forest bioeconomy

- Approximately four in ten respondents (41%) were able to name at least one product they are aware of
 that is made with, or contains, forest biomass or other naturally-occurring products from forests. Paper,
 tissue, packaging and stationery products were the most often cited (20%), followed by wood products
 for construction (15%), biofuels (9%), food and tableware (9%), and furniture and flooring (8%).
- When respondents were asked to what extent they agreed with a range of potential socioeconomic and environmental impacts of forest products, 38% strongly agreed that it is better to use single use forest-based products than single use plastics, and 32% strongly agreed that these products can be recycled into new products and materials at the end of their lives. Approximately one in four respondents strongly agreed: that such products provide meaningful socioeconomic opportunities for residents of rural, forest-based communities (26%); that forest-based products have a lower environmental impact than comparable products made with non-renewable materials (26%); and that it is worth paying more for forest-based products (23%). Approximately one in five respondents strongly agreed that forest-based products can provide meaningful socioeconomic opportunities for Indigenous communities (22%); and that forest-based products will be as durable/long-lasting as other products (21%).
- Three in four respondents (75%) are very or somewhat likely to switch to forest bioproducts when they become available, primarily due to the environmental benefits of doing so or because it's the right thing to do.
- Many respondents see potential opportunities in the forest bioeconomy: 83% strongly or somewhat
 agree that Canada should try to be a world leader in this area, 78% agree that the forest bioeconomy
 can help support ecosystem diversity and wildlife habitats, and 69% agree that the bioeconomy is
 environmentally friendly.

Role of the Government of Canada

- Approximately one in five respondents (19%) consider that innovation and development of Canada's
 forest bioeconomy should be a top priority for the Government of Canada, while 60% consider this
 important but not a top priority.
- Respondents were also asked what role they think the Canadian government should play in areas related to the forest bioeconomy. Respondents are most supportive of the Government of Canada taking a leadership role to ensure that forests are managed in a way that protects biodiversity (51%), and working with provinces and territories to ensure Canada's forests are managed to ensure a sustainable wood supply (45%). Approximately one in three respondents (35%) think the Government of Canada should lead in investing in the forest bioeconomy, in encouraging its development by the forest industry (35%), and informing Canadians about the forest bioeconomy (31%).

E. Political neutrality statement and contact information

I hereby certify as senior officer of Environics that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the Communications Policy of the Government of Canada, and Procedures for Planning and Contracting Public Opinion Research. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leaders.

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About this report

This report begins with an executive summary outlining key findings and conclusions, followed by detailed analysis of the results. A detailed set of "banner tables" is provided under separate cover, presenting results for all survey questions by segments such as region, age and gender.

The quantitative results are expressed as percentages unless otherwise noted. Results may not add to 100% due to rounding or multiple responses. Net results cited in the text may not exactly match individual results shown in the charts due to rounding. Base size is the total sample of n=3,059 unless otherwise specified.

Detailed findings

The following are results of an online survey of 3,059 adult Canadians.

All survey results were analyzed by the following variables:

- Region: British Columbia (BC), Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and Atlantic.¹
- **Self-identified Community type**: CMA/Large Urban Population Centre (Population of 100,000 or greater); Medium Population Centre (Population of 30,000-99,999), Small Population Centre (Population of 1,000 to 29,999); Rural or remote-non-Indigenous community (Population less than 1,000).
- **Gender** (male, female).²
- Age (18-34, 35-54, 55+).
- Annual household Income (<\$40K, \$40K <\$80K, \$80K <\$100K, \$100K <\$150K, \$150K+).
- **Education** (high school or less; apprenticeship or other trade certificate or diploma, college/some university; university degree; post-graduate degree).³
- **Employment status** (full-time/self-employed; part-time; unemployed/looking; stay at home; student; retired).
- Indigenous identification (yes or no).
- Knowledge about the industry and the forest bioeconomy (a summative [0-7] index based on responses to questions on feeling informed or not about: Canada's bioeconomy; the federal government's contribution to R&D and innovation in Canada's natural resource sectors; Canada's natural resource sectors; the Canadian forest industry; the extent to which Canada's forests are sustainably managed; innovation in the Canadian forest industry; and the forest bioeconomy).
- Overall perceptions of the industry (negative, moderate, positive, very positive).

In this section of the report, the results of each question are presented overall, and attention is also drawn to the most notable findings by region, socio-demographics, and other sub-groups (i.e., the variables described above). When such differences are noted, the divide between the subgroups identified is typically in the range of 10 percentage points or more.

Details on the sample and respondent characteristics are found in Appendix A of this report and the survey questionnaire is found in Appendix B.

¹ Respondents from NB, NS, PEI and NL have been aggregated to enable meaningful analysis. The number of respondents from the Territories is insufficient for meaningful analysis.

² The number of respondents who identified their gender as Non-binary or Other is insufficient for meaningful analysis.

³ Where appropriate in the remainder of the report (and unless otherwise specified), "lower levels of formal education" is used to refer to respondents with a high school education or less and "higher education levels" is used to refer to those with any post-secondary education including apprenticeship or other trade certificate or diploma, college, some university, university degree or post-graduate degree.

A. Knowledge and general perceptions

Knowledge

Only 2% of respondents say they are very well informed about the forest bioeconomy or Canada's bioeconomy. In addition, only 3% to 5% say they are very well informed about related topics such as Canada's natural resources sectors, the Canadian forest industry, innovation in the industry, the federal government's contribution to research and development, or sustainable forest management.

Respondents were asked how well informed they feel about Canada's natural resources sectors and forest industry, forest management in Canada, innovation in the Canadian forest industry, the forest bioeconomy, Canada's bioeconomy in general, and the federal government's contribution to research and development in Canada's natural resources sectors. Across these topics, the responses ranged from 2% to 5% feeling very well informed, while 19% to 34% report being somewhat informed.

Reported knowledge of select natural resources topics

Issues	Very well informed	Somewhat informed	Not very informed	Not at all informed
Canada's natural resource sectors	5%	34%	45%	16%
The Canadian forest industry	4%	31%	47%	19%
The extent to which Canada's forests are sustainably managed	3%	31%	46%	19%
Innovation in the Canadian forest industry	3%	21%	50%	26%
The forest bioeconomy	2%	19%	47%	31%
Canada's bioeconomy	2%	20%	49%	29%
The federal government's contribution to research and development, and innovation in Canada's natural resource sectors	3%	24%	49%	25%

Q5 How well informed do you feel about each of the following.

These results are largely similar across the country, although respondents from Quebec are less likely to feel informed about:

- Canada's natural resource sectors (31% compared to 44% in other regions).
- The Canadian forest industry (29% compared to 38% in other regions).
- The extent to which Canada's forests are sustainably managed (26% compared to 38% in other regions).
- The federal government's contribution to research and development, and innovation in Canada's natural resource sectors (20% compared to 29% in other regions).

Men are more likely to report feeling informed on these topics than women by approximately 10 to 15 percentage points.

Respondents aged 55 and older are the most likely to say they are informed about the forest industry (39% compared to 32% of respondents aged 54 and younger), and the extent to which forests are sustainably managed (40% aged 55 and older compared to 31% aged 54 and younger).

Indigenous respondents are more likely to feel informed about each of these topics in comparison to non-Indigenous respondents (by approximately 10 to 15 percentage points depending on the topic).

There is no clear pattern in the results by income level. However, fewer respondents with lower levels of formal education (i.e., high school or less education) report feeling informed about Canada's natural resource sectors (30% compared to 41% of those with any post-secondary education).

Information sources for bioeconomy/forest bioeconomy

Among respondents who feel informed about the bioeconomy and/or forest bioeconomy, 65% learned about it from the news. Other sources of information include friends and family, social media, federal and provincial government websites, and work or courses/school.

Of those respondents who reported feeling at least somewhat informed about the bioeconomy and/or the forest bioeconomy (27% of all respondents), 65% said they learned about it from the news. Other respondents reported learning about the bioeconomy/forest bioeconomy from friends and family (25%), social media (24%), Government of Canada (16%) or provincial government (15%) websites, and work (16%) or courses/school (14%), or from companies and/or businesses that sell these products (9%).

Sources of information about the bioeconomy and/or the forest bioeconomy

Source	Base: those at least somewhat informed (n=871)
Read/heard about it in the news	65%
From friends/family members	25%
From social media (e.g., Twitter, Facebook, Instagram, Reddit)	24%
From a Government of Canada website	16%
At work/through my work	16%
From a provincial government website	15%
In a course/schoolwork	14%
From a business/company that sells these products	9%
Other	2%
Prefer not to answer	2%

Q6 Where did you learn about...?

Within this group, men more often learned about the bioeconomy or forest bioeconomy from news sources (69% compared to 60% of women), work (18% compared to 12% of women), or companies (12% compared to 4% of women), while women are more likely to learn about it from social media (29% compared to 20% of men).

Older respondents (aged 55 and older) more often learned about the bioeconomy or forest bioeconomy from the news (75% compared to 60% among respondents aged 54 and younger).

Younger respondents (aged 18-34) more often learned about the bioeconomy or forest bioeconomy from social media (31% compared to 21% of respondents aged 35 and older) and school/course work (27% compared to 9% aged 35 and older).

B. Canada's forest industry

Almost half (47%) of respondents have a positive overall view of the Canadian forest industry, while 28% hold moderate views.

Respondents were asked to rate their overall perception of Canada's forest industry, using a scale from 1 (very negative) to 10 (very positive). Almost half (47%) held a positive perception of the Canadian forest industry (rating 7 or higher). Approximately three in ten respondents (28%) gave moderate ratings (5 or 6), while 15% were unsure. One in ten respondents (10%) gave a negative rating (1-4).

	Positive (7-10)	Moderate (5-6)	Negative (1-4)	Not sure
Overall view of Canada's forest industry	47%	28%	10%	15%

Q7 What is your overall view of Canada's forest industry? Please use a 10-point scale where "1" means very negative and "10" means very positive.

Overall, those who view Canada's forest industry the most positively are found in Alberta (58%) and Saskatchewan (52%) compared to respondents in other regions (45%).

Positive perceptions of Canada's forest industry also increase with age, from 38% among those aged 18-34 to 55% among those aged 55 and older. Younger respondents (18-34) are most often "not sure" (20% compared to 13% among those aged 35 and older).

Men (56%) also hold a more positive perception of the Canadian forest industry than women (39%).

Indigenous respondents (39%) hold a somewhat less positive perception of the Canadian forest industry compared to non-Indigenous respondents (48%).

A strong majority of respondents agree that Canada's forest industry produces high quality products such as lumber, pulp and paper, provides a lot of jobs for Canadians, and provides economic benefits for local, rural, and forest-based communities.

Respondents were asked to what extent they agree or disagree with seven statements about Canada's forest industry. Just under four in ten (37%) strongly agree the industry produces high quality products such as lumber, pulp and paper, 25% strongly agree the industry provides economic benefits for local, rural, and forest-based communities, and 25% strongly agree that it provides a lot of jobs for Canadians. Approximately 10% to 15% of respondents strongly agree that the industry produces a wide variety of non-conventional products (14%), provides economic benefits for Indigenous communities (12% overall, 17% of Indigenous respondents), is environmentally responsible and sustainable (10%), and uses innovative processes and materials (9%).

Perceptions of Canada's forest industry

Canada's forest industry	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure
Produces high quality products such as lumber, pulp and paper	37%	49%	4%	2%	8%
Provides economic benefits for local rural, forest-based communities	25%	50%	8%	3%	14%
Provides a lot of jobs for Canadians	25%	54%	8%	2%	12%
Produces a wide variety of non- conventional products (e.g., biodegradable packaging)	14%	50%	10%	2%	24%
Provides economic benefits for Indigenous communities	12%	39%	16%	5%	29%
Is environmentally responsible and sustainable	10%	44%	19%	8%	19%
Uses innovative processes and materials	9%	44%	12%	3%	32%

Q8 To what extent do you agree or disagree with the following statements about Canada's forest industry.

Respondents from BC, Alberta, Saskatchewan and Atlantic Canada were more likely to strongly agree with the statements. Alternatively, respondents from Quebec were least likely to strongly agree with the statements. However, there were similar levels of strong agreement with two of the statements: *Canada's forest industry is environmentally responsible and sustainable*, and that the industry *uses innovative processes and materials*.

More men than women strongly agree that Canada's forest industry:

- Produces high quality products such as lumber, pulp and paper (44% compared to 31%).
- Provides economic benefits for local rural, forest-based communities (33% compared to 19%).
- Provides a lot of jobs for Canadians (30% compared to 20%).

More respondents aged 55 and older (compared to those aged 18-54) strongly agree that Canada's forest industry:

- Produces high quality products such as lumber, pulp and paper (48% compared to 30%).
- Provides economic benefits for local rural, forest-based communities (33% compared to 21%).
- Provides a lot of jobs for Canadians (30% compared to 21%).

C. Performance of federal government on forest issues

One in three respondents (34%) consider the federal government to be doing a good job promoting the economic growth of Canada's forest industry and three in ten (30%) believe it does a good job working with provinces and territories to make sure Canada's forests are managed in a way that respects the environment.

One in three respondents (34%) consider the federal government to be doing a good job promoting the economic growth of Canada's forest industry, while three in ten (30%) believe the federal government does a good job working with provinces and territories to make sure Canada's forests are managed in a way that respects the environment. Another 27% of respondents believe the federal government does a good job working with provinces and territories to make sure Canada's forests are managed in a way that respects local, rural, forest-based communities and 25% of respondents believe the federal government does a good job working with provinces and territories to make sure Canada's forests are managed in a way that respects Indigenous communities.

Government performance on forest issues

Forest issues	Good job (7-10)	Neutral (5-6)	Poor job (1-4)	Not sure
Promoting the economic growth of Canada's forest industry	34%	29%	19%	17%
Working with provinces and territories to make sure Canada's forests are managed in a way that respects the environment	30%	27%	23%	19%
Working with provinces and territories to make sure Canada's forests are managed in a way that respects local rural, forest-based communities	27%	30%	23%	20%
Working with provinces and territories to make sure Canada's forests are managed in a way that respects Indigenous communities	25%	26%	27%	21%

Q9 When it comes to Canada's forests, how would you rate the performance of the **Government of Canada** in each of the following areas? Please use a 10-point scale where "1" means a very poor job and "10" means a very good job.

These results are similar across the country and by all socio-demographic groups.

As shown in the following table, respondents with positive perceptions of the forest industry, and those who report being better informed about the industry and the forest bioeconomy are also more likely to say the government is doing a good job in each of these performance questions.

Government performance on forest issues by knowledge and perception

	Good job (7-10)				
Forest issues	All respondents	More informed on knowledge index (6-7)	Very positive overall perception of forest industry (9-10)		
Promoting the economic growth of Canada's forest industry	34%	58%	58%		
Working with provinces and territories to make sure Canada's forests are managed in a way that respects the environment	30%	61%	60%		
Working with provinces and territories to make sure Canada's forests are managed in a way that respects local rural, forest-based communities	27%	43%	56%		
Working with provinces and territories to make sure Canada's forests are managed in a way that respects Indigenous communities	25%	60%	57%		

D. Forests

Perception of/association with forests

Forests and forest management evoke a wide range of sentiments among respondents, from nature and beauty to economic implications and environmental, social and cultural considerations.

Respondents were asked to note the first word or phrase that came to mind when thinking about how Canada's forests are managed. A range of items with positive and negative connotations were mentioned, such as economics, forest management, the environment, nature, social and cultural topics. Thematically grouped results are presented in the table below.

Top of mind reactions about how Canada's forests are managed (Top mentions)

Top of mind reactions about how Canada's forests are managed (grouped)				
Positive mentions	•			
Forest management (good management/well managed; balanced/controlled; protection)	13%			
Economic (innovation; economy/growth; abundance/wealth; efficiency)	12%			
General (good/positive/impressive; better; important)	8%			
Nature (beautiful places/nature; forest animals/wildlife/fauna and flora; trees)	5%			
Social and cultural (green spaces; Indigenous people/rights; respect)	4%			
Environment (environmentally friendly; reforestation/regrowth/replanting of trees; renewable/natural resources)	3%			
Negative mentions				
Environment (negative) (clear cutting/out of control; deforestation; climate change/global warming; negative impact on environment/pollution)	14%			
Forest management (negative) (could be managed better; mismanaged/poorly managed; haphazardly)	10%			
General (negative) (bad/poor/messy; controversial; varies from region to region)	7%			
Economic (negative) (making money/profit oriented; exploitation)	2%			
Nothing	3%			
Not sure	13%			

Q10 Turning to another topic, when you think about how Canada's forests are managed, what is the first word or phrase that comes to mind.

Those who responded to the preceding question were also asked to explain their initial reaction (top of mind phrase) about how Canada's forests are managed. The responses are summarized below.

Positive mentions

Economic: References made to economics of the forest industry mentioned the importance of the industry and the importance of reforestation for the industry.

- Forests are vital for the economy/trade/creating jobs
- Renewable/balanced/new trees planted/reforestation is key for successful development of the industry

Forest management: References made to forest management mentioned regulatory and industry efforts to manage forests in a responsible and sustainable way, and the benefits this has for people and animals.

- Regulations in place for selective/responsible harvest practices/no clear cut
- Forests are well taken care of/protected/managed for the sake of humankind/all species
- Importance of maintaining sustainable resources

General: Non-specific references to the forest industry were typically based on the respondents not having heard negative things about forests/forest management.

- Based on personal experience/what I hear and see/the news/no negative news
- Overall impression
- Don't hear much about it/not covered in mainstream news/nothing released to the public

Nature: References to nature mentioned the importance of forests and green spaces, the value of old growth forests, and the need to protect forests.

- Forests/green spaces are important/the lung of our Earth/preserving national parks/no cut allowed
- Old growth forests/trees
- Old growth trees are rare and valuable/should be preserved
- Need to protect forests from increasing fires

Social and cultural: References to the social and cultural importance of forests mentioned the importance of forests for future generations and the environment and the importance of including Indigenous people in decisions that affect their lands.

- Increased awareness about importance of our forests
- Future is the focus in any decision regarding our forests
- Indigenous people are ignored/not involved in decisions regarding their lands

Environment: References to the environment mentioned the importance of protecting the environment and the sustainability of Canada's forest as a resource.

- Keeping environment safe is very important/our primary concern
- Importance of maintaining sustainable resources

Negative mentions

Forest management: References made to forest management mentioned that forests were not well maintained and forest management lacked research and the ability to manage forests sustainably.

- Forests are not well managed/a lot of damage is being done to them due to neglect
- Lack of research/development to maintain sustainability of resources for future generations

Environment: References made to the environment mentioned that forests were being clear cut and the impacts this has on both forests and the environment.

- Massive clear cut to build condos and houses is polluting the environment and changing the climate to the worse
- Reading about protests/hearing bad news/seeing forests stripped of trees
- Deforestation leads to floods and landslides in the area

Economic: References made to economics of the forest industry mentioned that industry interests were seen as being prioritized over environmental protection and sustainability.

• Economic benefits are prioritized over sustainability/environment protection

Q11 Why do you say that?

Agreement with statements about forests

A strong majority of respondents agree that forests provide a wide range of economic, social and environmental benefits for all Canadians (78%), local communities (79%), Indigenous communities (64%), and that independent, third-party certification of Canada's forests is important to ensuring forests are sustainably managed (63%).

Approximately three in ten respondents (31%) strongly agree that forests provide a wide range of economic, social and environmental benefits for all Canadians and for local communities. Approximately one in four respondents strongly agree: that forests provide a wide range of economic, social and environmental benefits for Indigenous communities (24%), and that independent, third-party certification of Canada's forests is important to ensuring forests are sustainably managed (23%).

One in ten respondents (10%) strongly agree that Canada uses science-based sustainable forest management practices to conserve and protect its forests, while 39% somewhat agree with this statement and 30% are unsure.

Agreement with statements about forests

Statement	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure
Forests provide a wide range of economic, social and environmental benefits for all Canadians.	31%	47%	9%	3%	10%
Forests provide a wide range of economic, social and environmental benefits for <i>local communities</i> .	31%	49%	8%	2%	11%
Forests provide a wide range of economic, social and environmental benefits for <i>Indigenous communities</i> .	24%	40%	11%	4%	21%
Independent, third-party certification of Canada's forests is important to ensuring forests are sustainably managed.	23%	40%	11%	3%	23%
Canada uses science-based sustainable forest management practices to conserve and protect its forests.	10%	39%	16%	4%	30%

Q12 To what extent do you agree or disagree with the following statements.

Strong agreement with most of these statements is higher for those with incomes of \$100,000 per year or more, compared to those with incomes below \$40,000 per year (typically by 8 to 10 percentage points). The exception is the statement that *Canada uses science-based sustainable forest management practices to conserve and protect its forests*, where strong agreement is similar across income levels.

There was little difference between Indigenous and non-Indigenous respondents in terms of strong agreement with these statements (i.e., a difference of 5 percentage points or less for each statement).

As shown in the following table, strong agreement with these statements is higher among respondents with very positive perceptions of the forest industry (by 10 to 15 percentage points or more depending on the statement), and those who report being better informed about the industry and the forest bioeconomy (by 15 percentage points or more).

Agreement with statements about forests by knowledge and perception

	Strongly Agree					
Statement	All more informed on knowledge index (6-7)		Very positive overall perception of forest industry (9-10)			
Forests provide a wide range of economic, social and environmental benefits for all Canadians.	31%	52%	60%			
Forests provide a wide range of economic, social and environmental benefits for <i>local communities</i> .	31%	53%	57%			
Forests provide a wide range of economic, social and environmental benefits for <i>Indigenous communities</i> .	24%	38%	46%			
Independent, third-party certification of Canada's forests is important to ensuring forests are sustainably managed.	23%	38%	34%			
Canada uses science-based sustainable forest management practices to conserve and protect its forests.	10%	37%	35%			

E. Forest bioeconomy

In this part of the survey, respondents were asked about the forest bioeconomy and its products. To set the stage, the following definition was provided before the questions were asked.

The **forest bioeconomy** is a set of economic activities related to the invention, development, production, and use of sustainably managed and harvested forest biomass – material that comes from any part of a tree, and non-timber forest products (e.g., mushrooms, maple syrup) —for materials, energy, or chemicals.

Canada's forest industry operates through a system that ensures the highest value parts of a sustainably harvested tree are used first. For example, the majority of a harvested tree is used for high-value products such as lumber, while the bark, branches, and treetops are used for other value-added products such as furniture or construction materials, biodegradable packaging, textiles, personal care products, cultural products, fuels and chemicals.

Additionally, forest-based materials that may be either damaged by natural disturbances, such as forest fires or pest infestations, or that would otherwise be sent to a landfill or burned can be repurposed for materials, energy, or chemicals as part of the forest bioeconomy.

Awareness of products

Respondents are aware of a wide range of forest products, ranging from packaging to biofuels, food, and flooring, among others.

Survey respondents were asked to name products they were aware of that are made with, or contain, forest biomass or other naturally-occurring products from forests. Four in ten respondents (41%) were able to name at least one product of which they were aware.

Paper, tissue, packaging and stationery were the products most often cited (20%), followed by wood products for construction (15%), biofuels (9%), food and tableware (9%), and furniture and flooring (8%). Detailed results are found in the following table.

Products from forest biomass or other naturally-occurring products from forests	Total (n=3,059)
Paper, tissue, packaging, and stationery	20%
Wood products for construction (plywood, particleboard, lumber, building materials)	15%
Biofuels (fireplace/stove wood, biofuel i.e., biodiesel, bio-coal, bio-mass, wood pellets/shavings/sawdust)	9%
Food and tableware (maple/birch syrup, food e.g., Chaga mushrooms, utensils/trays/cups/ plates)	9%
Furniture and flooring	8%
Other (fabrics/clothes, mulch, chemicals/medicine/cosmetics)	11%
Nothing/No answer	59%

Q13 What products, if any, are you aware of that are made with, or contain, forest biomass or other naturally-occurring products from forests?

Awareness of products is quite similar across the country and across all socio-demographic groups. Those with lower levels of formal education (i.e., high school or less education) are more likely to have provided no response (70% compared to 56% of those with any post-secondary education).

Perceptions of forest-based products

Respondents agree most strongly with statements about the environmental benefits of forest-based products: that they can be recycled at the end of their lives (32%), and that it is better to use single use forest-based products than single use plastics (38%).

Respondents were asked to what extent they agree or disagree with seven statements about forest-based products. A majority of respondents strongly or somewhat agree with each statement.

Strong agreement is highest for the statement: it is better to use single use forest-based products than single use plastics (38%), followed by forest-based products can be recycled into new products and materials at the end of their lives (32%). Approximately one in four respondents strongly agree: that forest-based products have a lower environmental impact than comparable products made with non-renewable materials (26%), can provide meaningful socioeconomic opportunities for residents of rural forest-based communities (26%), that it is worth paying more for forest-based products (23%), and that forest-based products can provide meaningful socioeconomic opportunities for Indigenous communities (23%). Approximately one in five respondents (21%) strongly agree that forest-based products will be as durable/long-lasting as other products.

Agreement with statements about forest-based products

Statement	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure
It is better to use single use forest- based products than single use plastics.	38%	40%	6%	2%	13%
Forest-based products can be recycled into new products and materials at the end of their lives.	32%	48%	6%	1%	13%
Forest-based products have a lower environmental impact than comparable products made with non-renewable materials (e.g., fossil fuel-based materials, metals).	26%	45%	9%	3%	17%
Forest-based products can provide meaningful socioeconomic opportunities for residents of rural forest-based communities.	26%	52%	6%	1%	15%
Forest-based products can provide meaningful socioeconomic opportunities for Indigenous communities.	22%	45%	8%	2%	22%
It is worth paying more for forest-based products instead of an equivalent product made with non-renewable materials (e.g., fossil fuel-based product, metal-based product).	23%	46%	12%	4%	15%
Forest-based products will be as durable/long-lasting as other products.	21%	46%	12%	2%	20%

Q14 To what extent do you agree or disagree with the following statements about forest-based products.

Responses are broadly similar across the country, with the following exceptions:

- More respondents from Saskatchewan (45%), Manitoba (47%), and the Atlantic region (43%) strongly agree that it is better to use single use forest-based products than single use plastics (compared to 37% in other regions).
- Fewer respondents from Quebec strongly agree that forest-based products can provide meaningful socioeconomic opportunities for residents of rural forest-based communities (19% compared to 29% in other regions).
- Fewer respondents from Quebec (16%) and Atlantic Canada (18%) strongly agree that forest-based products can provide meaningful socioeconomic opportunities for Indigenous communities (compared to 27% in other regions).

Respondents aged 55 and older strongly agree more than respondents aged 54 and younger that:

- It is better to use single use forest-based products than single use plastics (47% compared to 33%).
- Forest-based products can be recycled into new products and materials at the end of their lives (38% compared to 29%).

- Forest-based products have a lower environmental impact than comparable products made with non-renewable materials (31% compared to 23%).
- Forest-based products can provide meaningful socioeconomic opportunities for residents of rural forest-based communities (32% compared to 22%).

Agreement (strongly or somewhat) is lower among respondents with lower levels of formal education (i.e., high school or less education) for the following statements, compared to those with any post-secondary education:

- Forest-based products can provide meaningful socioeconomic opportunities for residents of rural, forest-based communities (68% compared to 81%).
- Forest-based products have a lower environmental impact than comparable products made with non-renewable materials (65% compared to 74%).
- It is worth paying more for forest-based products instead of an equivalent product made with non-renewable materials (62% compared to 71%).
- Forest-based products can provide meaningful socioeconomic opportunities for Indigenous communities (59% compared to 70%).

As shown in the following table, strong agreement with these statements is higher among respondents with very positive perceptions of the forest industry (by 9 percentage points or more depending on the statement), and those who report being better informed about the industry and the forest bioeconomy (by 9 percentage points or more).

Agreement with statements about forest-based products by knowledge and perception

	Strongly Agree			
Statement	All respondents	More informed on knowledge index (6-7)	Very positive overall perception of forest industry (9-10)	
It is better to use single use forest-based products than single use plastics.	38%	47%	52%	
Forest-based products can be recycled into new products and materials at the end of their lives.	32%	47%	51%	
Forest-based products have a lower environmental impact than comparable products made with non-renewable materials (e.g., fossil fuel-based materials, metals).	26%	42%	43%	
Forest-based products can provide meaningful socioeconomic opportunities for residents of rural forest-based communities.	26%	49%	55%	
Forest-based products can provide meaningful socioeconomic opportunities for Indigenous communities.	22%	36%	48%	
It is worth paying more for forest-based products instead of an equivalent product made with non-renewable materials (e.g., fossil fuel-based product, metal-based product).	23%	36%	30%	
Forest-based products will be as durable/long-lasting as other products.	21%	35%	42%	

Likelihood of switching

Three in four respondents (75%) are at least somewhat likely to switch to forest bioproducts when they become available, including 22% who say they are very likely. The main reasons include environmental benefits, a better alternative to plastics, liking the concept of or being committed to the cause of environmental stewardship, and using forest bioproducts because it is the right thing to do.

Respondents were asked how likely they are to switch to forest bioproducts when they become available. Most are somewhat (53%) or very (22%) likely to do so. Only 7% are unlikely, and 18% are unsure.

Likelihood of s	witching to f	forest bioprod	lucts wh	nen available
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Likelihood	Total (n=3,059)
Net: likely	75%
Very likely	22%
Somewhat likely	53%
Net: Not likely	7%
Not very likely	6%
Not at all likely	1%
Not sure	18%

Q18. How likely are you to switch to forest bioproducts when they become available to you?

Responses are broadly similar across the country. Older respondents (aged 55 and older) are the most likely to say they will switch (82%), compared to younger respondents aged 18-54 (70%). Respondents with positive overall perceptions of the forest industry (84%) are also more likely to say they will switch to forest bioproducts when they become available, compared to those with moderate (74%) or negative (70%) perceptions of the industry.

Respondents were asked the reasons for their likelihood rating. Half (50%) say something positive, mainly that it is important to protect the environment/save the planet (21%). The reasons respondents gave for their likelihood of switching to forest bioproducts are summarized below.

- Among those *very likely* to switch (22%), the main reasons given include: environmental benefits (37%), seeing them as a better alternative to plastics/a way to reduce fossil fuel dependence (16%), liking the concept of or being committed to the cause of environmental stewardship (12%), and switching being the right thing to do (12%).
- Among those reporting that they are *somewhat likely* to switch (53%), the main reasons given include: an environmental motivation (18%), cost/price of product (12%), the type of products/benefits of switching (7%), or the availability of the products (3%).
- Among those who are *not very or not at all likely* to switch (7%), the main reasons given include: products will be too expensive (18%), switching is not of interest or a priority to them (7%), they need more information before deciding (7%), and they doubt the environmental benefits of the products (8%).

Q19. Why do you say that?

Views on the forest bioeconomy

Approximately eight in ten respondents agree (44% strongly and 39% somewhat) that the forest bioeconomy is an area in which Canada should try to be a world leader.

Many respondents see opportunity in the forest bioeconomy: 44% strongly agree that Canada should try to be a world leader in this area, while 39% somewhat agree. Nearly eight in ten generally agree (33% strongly agree and 45% somewhat agree) that the forest bioeconomy can help support ecosystem diversity and wildlife habitats, and 69% generally agree that the bioeconomy is environmentally friendly (23% strongly agree and 46% somewhat agree).

Agreement with statements about the forest bioeconomy

Statement	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure
The forest bioeconomy is an area in which Canada should try to be a world leader.	44%	39%	5%	2%	10%
The forest bioeconomy can help support ecosystem diversity and wildlife habitats.	33%	45%	7%	2%	13%
The forest bioeconomy is environmentally friendly.	23%	46%	9%	3%	19%
Canada's bioeconomy contributes to its climate change goals and the transition to a net-zero carbon emissions economy.	22%	44%	8%	3%	24%
Canada is a leader in forest sustainability.	13%	39%	14%	4%	29%

Q17 To what extent do you agree or disagree with each of the following statements about the forest bioeconomy and its products?

These results are largely consistent across the country.

Respondents aged 18-34 are the least likely to agree with each of these statements compared to those aged 35 and older (by at least 8 percentage points on each statement).

Respondents with household annual household incomes below \$40,000 are less likely to agree that:

- The forest bioeconomy is an area in which Canada should try to be a world leader (76% compared to 86% among those with incomes over \$40,000).
- The forest bioeconomy can help support ecosystem diversity and wildlife habitats (72% compared to 80% among those with incomes over \$40,000).
- Canada's bioeconomy contributes to Canada's climate change goals and the transition to a net-zero carbon emissions economy (60% compared to 68% among those with incomes over \$40,000).

Indigenous respondents are approximately 7 to 14 percentage points less likely to agree with each of the statements compared to non-Indigenous respondents, with the exception of the statement that *Canada is a leader in forest sustainability*.

As shown in the following table, strong agreement with these statements is higher among respondents with very positive perceptions of the forest industry (by 10 percentage points or more depending on the statement), and those who report being better informed about the industry and the forest bioeconomy (by 6 percentage points or more).

Agreement with statements about the forest bioeconomy by knowledge and perception

	Strongly Agree		
Statement	All respondents	More informed on knowledge index (6-7)	Very positive overall perception of forest industry (9-10)
The forest bioeconomy is an area in which Canada should try to be a world leader.	44%	50%	54%
The forest bioeconomy can help support ecosystem diversity and wildlife habitats.	33%	46%	50%
The forest bioeconomy is environmentally friendly.	23%	42%	44%
Canada's bioeconomy contributes to its climate change goals and the transition to a net-zero carbon emissions economy.	22%	40%	37%
Canada is a leader in forest sustainability.	13%	39%	37%

F. Role of the Government of Canada

One in five respondents (19%) consider that innovation and development of the forest bioeconomy should be a top priority for the Government of Canada, while 60% consider this important but not a top priority.

When asked how much of a priority it is for the Government of Canada to encourage innovation and development of the forest bioeconomy, 19% of respondents consider this a top priority, while 60% consider it important but not a top priority.

Level of priority for the Government of Canada to encourage innovation and development of the forest bioeconomy

Priority level	Total (n=3,059)
Top priority	19%
Important but not a top priority	60%
Not a priority	12%
Not sure	10%

Q15 In your view, how much of a priority is it for the Government of Canada to encourage innovation and development of the forest bioeconomy.

Responses are broadly similar across the country with some difference across age cohorts. Older respondents (aged 55 and older) are the most likely to think it is important but not a priority (66% compared to 55% of respondents aged 54 and younger).

Fewer respondents with household annual incomes below \$40,000 consider it important but not a top priority that the Government of Canada encourage innovation and development of the forest bioeconomy (49% compared to 61% of those with incomes of \$40,000 and higher).

As shown in the table below, respondents with very positive perceptions of the forest industry are more likely to consider this a top priority (33% compared to 19% of all respondents). Respondents who report being better informed about the forest industry and the forest bioeconomy are also more likely to consider it a top priority for the Government of Canada to encourage innovation and development of the forest bioeconomy (42% compared to 19% of all respondents).

Top priority that the Government of Canada encourages innovation and development of the forest bioeconomy by knowledge and perception

	Top priority			
Citing as a top priority for the Government of Canada	All respondents More informed on knowledge index (6-7) Very positive overall percep of forest industry (9-10)			
Encouraging innovation and development of the forest bioeconomy.	19%	42%	33%	

Approximately half (51%) of respondents think it would be appropriate for the federal government to lead in ensuring forests are managed in a way that protects biodiversity, while 45% of respondents support the federal government leading work with provinces and territories to ensure Canada's forests are managed to ensure a sustainable wood supply.

When asked what role they think the Canadian government should play in various initiatives related to the forest bioeconomy, a majority of respondents support the federal government taking a leading role in making sure forests are managed in a way that protects biodiversity (51%), while a plurality support it taking a leading role in working with provinces and territories to ensure a sustainable wood supply (45%). Approximately one in three respondents think the federal government should lead in: investing in the forest bioeconomy (35%), encouraging its development by the forest industry (35%), and informing Canadians about the forest bioeconomy (31%).

Roles of the federal government

Initiative	Lead role	Contributing role	No role	Not sure
Making sure forests are managed in a way that protects biodiversity, in terms of the animals and plants that depend on that ecosystem.	51%	38%	5%	7%
Working with provinces and territories to ensure Canada's forests are managed in terms of a sustainable wood supply.	45%	42%	5%	8%
Investing in the forest bioeconomy.	35%	50%	6%	8%
Encouraging the development of the forest bioeconomy by the forest industry.	35%	51%	5%	9%
Informing individuals about the forest bioeconomy.	31%	53%	8%	9%

Q16 What role do you think would be appropriate for the **Government of Canada** in relation to each of the following.

Respondents from Quebec are more likely to support federal government leadership in:

- Making sure forests are managed in a way that protects biodiversity (60% compared to 45% in other regions).
- Informing individuals about the forest bioeconomy (40% compared to 26% in other regions).

Older respondents (aged 55 and older) are more supportive than those aged 54 and younger (by at least 8 percentage points) of the federal government taking a leading role for all initiatives, except for investing in the forest bioeconomy, where all age cohorts expressed a similar view on federal leadership.

Respondents with post-graduate degrees are the most supportive of a lead role for the federal government in working with provinces and territories to ensure Canada's forests are managed to ensure a sustainable supply of wood (53% compared to 43% with any other level of education).

Appendix A: Methodology

The study consisted of an online survey of 3,059 adult Canadians. Survey respondents were selected from registered members of an online panel. Since the samples used in online panel surveys are based on self-selection and are not a random probability sample, no formal estimates of sampling error can be calculated. Nonetheless, online surveys can be used for general population surveys provided they are well designed and employ a large, well-maintained panel.

Sample design, weighting and respondent profile

Environics Research conducted this online survey from February 7 to 25, 2022. The sampling method was designed to complete interviews with at least 3,000 Canadians ages 18 and over. Quotas were set by age, gender, and region.

The survey obtained the following distribution:

Variable	% of population	Target (quota)	% of sample	Actual Unweighted	Actual Weighted*
Jurisdiction					
Newfoundland and Labrador	2%	120	4%	116	46
Nova Scotia	3%	120	4%	115	83
Prince Edward Island	<1%	60	2%	45	12
New Brunswick	2%	120	4%	122	67
Quebec	23%	660	22%	671	716
Ontario	38%	720	24%	747	1,172
Manitoba	3%	150	5%	159	107
Saskatchewan	3%	150	5%	154	92
Alberta	11%	420	14%	434	343
British Columbia	13%	450	15%	470	413
Territories	<1%	30	1%	26	9
CANADA	100%	3,000	100%	3,059	3,059
Age					
18-34	27%	810	27%	892	826
35-54	34%	1,020	34%	1,096	1,040
55+	39%	1,170	39%	1,071	1,193
Gender					
Male	49%	1,470	49%	1,500	1,499
Female	51%	1,530	50%	1,529	1,536
Non-binary/other	-	-	0.6%	18	15
Indigenous person					
Yes	5%	300	10%	314	153
No	95%	2,700	90%	2,594	2753
Prefer not to answer	-	-	-	151	153

^{*}Results are weighted to 2016 Census data by region, gender, age and Indigenous response.

The following table presents the weighted distribution of survey respondents by specific variables.

Variable	Total sample %	% of population
Education ^α		
High school or less	17	35
Apprentice/college/some university	32	36
University graduate/post-graduate	50	29
Employment status ^α		
Full time/self employed	54	50
Part time	8	11
Not in work force (including retired)	38	35
Total annual household income ⁺		
Under \$40,000	15	17
\$40,000-<\$80,000	32	30
\$80,000-<\$100,000	16	13
\$100,000-<\$150,000	21	22
\$150,000 or more	16	18
Survey language /official languages		
English	85	85
French	15	15

Actual Census categories differ from those used in this survey; categories have been adjusted to correspond. Statistics Canada figures for education are for Canadians aged 25 to 64 years. For employment age 15+.

Questionnaire design

Natural Resources Canada provided Environics with desired topic areas, survey objectives and background material. Environics then designed a questionnaire, advising on best practices in question design, particularly for online surveys. Upon approval of the English questionnaire, Environics arranged for the questionnaire to be translated into French by professional translators.

Environics' data analysts programmed the questionnaires, then performed thorough testing to ensure accuracy in set-up and data collection. This validation ensured that the data entry process conformed to the surveys' basic logic. The data collection system handles sampling invitations, quotas and questionnaire completion (skip patterns, branching, and valid ranges).

Prior to finalizing the survey for field, a pre-test (soft launch) was conducted in English and French. The pre-test assessed the questionnaires in terms of question wording and sequencing, respondent sensitivity to specific questions and to the survey overall, and to determine the survey length; standard Government of Canada pre-testing questions were also asked. As only minor changes were required following the pre-test, the n=107 responses (74 English, 33 French) have been included in the final data set.

The final survey questionnaire is included in Appendix B.

Percentaged on those providing a response

Fieldwork

The survey was conducted by Environics using a secure, fully featured web-based survey environment. The average interview length was 13.5 minutes.

All respondents were offered the opportunity to complete the surveys in their official language of choice. All research work was conducted in accordance with the Standards for the Conduct of Government of Canada Public Opinion Research – Online Surveys and recognized industry standards, as well as applicable federal legislation (Personal Information Protection and Electronic Documents Act, or PIPEDA).

Following data collection, the data from this survey were statistically weighted to ensure the sample is representative of the Canadian population according to the most recently available Census information.

Completion results

The completion results are presented in the following table.

Contact disposition

Disposition		N
Total invitations	(c)	81,481
Total completes	(d)	3059
Qualified break-offs	(e)	891
Disqualified	(f)	700
Not responded	(g)	70,696
Quota filled	(h)	6135
Contact rate = (d+e+f+h)/c		13.24
Participation rate = (d+f+h)/c		12.14

Non-response bias analysis

The table below presents a profile of the final sample (unweighted), compared to the actual population of Canada (2016 Census information). As is the case with most surveys, the final sample underrepresents those with high school or less education, which is a typical pattern for public opinion surveys in Canada (i.e., those with higher education are more likely to respond to surveys).

Non-response bias analysis

Sample type	Sample*	Canada (2016 Census)
Gender (18+)		
Male	50%	49%
Female	50%	51%
Age		
18-34	29%	27%
35-54	36%	34%
55+	35%	39%
Education level ^a		
High school diploma or less	18%	35%
Trades/college/post sec no degree	33%	36%
University degree	49%	29%

^{*} Data are unweighted and percentaged on those giving a response to each demographic question

^a Actual Census categories differ from those used in this survey and have been recalculated to correspond. Statistics Canada figures for education are for Canadians aged 25 to 64 years.

Appendix B: Survey questionnaire

Environics Research Group February 2022

Natural Resources Canada Forest Bioeconomy Survey Questionnaire – Final

LANDING PAGE

Please select your preferred language for completing the survey / Veuillez sélectionner la langue de votre choix pour remplir le sondage.

01-English / Anglais

02-Français / French

Welcome to the survey. Environics Research, an independent research company, is conducting this survey about current issues of interest to Canadians, on behalf of the Government of Canada. The survey will take about 15 minutes of your time.

Your participation is entirely voluntary, and all of your answers will be kept completely anonymous and will be administered in accordance with the Privacy Act.

This study has been registered with the Canadian Research Insights Council's Research Verification Service so that you may validate its authenticity. If you would like to enquire about the details of this research, you can visit CRIC's website www.canadianresearchinsightscouncil.ca. If you choose to verify the authenticity of this research, you can reference project code 20220126-EN149.

The objectives of this study are to assess:

- 1. Perceptions of the forestry industry, third party certifications, sustainability, bioeconomy, forest bioeconomy, and the role(s) of the government of Canada,
- 2. Knowledge and awareness of the forest bioeconomy and what aspects of it resonate with Canadians
- 3. Awareness and potential interest/perceptions of forest bioproducts

Thank you in advance for your participation.

< PROGRAMMING NOTE: All questions are mandatory unless specified.>

Screening

In what year were you born?
 DROP DOWN LIST – SEE QUOTAS

IF RESPONDENT DECLINES TO PROVIDE A PRECISE BIRTH YEAR: Would you be willing to indicate in which of the following age categories you belong?

DROP DOWN LIST: Select one only.

01-18 to 19

02-20 to 24

03-25 to 29

04-30 to 34

05-35 to 39

06-40 to 44

07-45 to 49

08-50 to 54

09-55 to 59

10 -60 to 64

11-65 and over

99-Prefer not to answer

IF UNDER 18 THANK AND TERMINATE

2. In what province or territory do you live?

Select one only

DROP DOWN LIST - SEE QUOTAS

01-British Columbia

02-Alberta

03-Saskatchewan

04-Manitoba

05-Ontario

06-Quebec

07-New Brunswick

08-Nova Scotia

09-Prince Edward Island

10-Newfoundland and Labrador

11-Yukon

12-Northwest Territories

13-Nunavut

3. How do you identify your gender? (This may be different from the information noted on your birth certificate or other official documents)

Select one only - SEE QUOTAS

01-Female gender

02-Male gender

03-Non-binary

04-Other, please specify _____

99-Prefer not to answer

4. Are you...?

Select one only - SEE QUOTAS

01-First Nations (status or non-status)

02-Inuk/Inuit

03-Métis

04-A non-Indigenous person

99-Prefer not to answer

A. Context: Knowledge and General Perceptions

5. How well informed do you feel about each of the following:

RANDOMIZE - CAROUSEL (SHOW ONE AT A TIME)

- a. Canada's bioeconomy
- b. The federal government's contribution to research and development, and innovation in Canada's natural resource sectors (e.g., Energy, Minerals and Mining, Forestry and Forest Industries)
- c. Canada's natural resource sectors (e.g., Energy, Minerals and Mining, Forestry and Forest Industries)
- d. The Canadian Forest industry
- e. The extent to which Canada's forests are sustainably managed
- f. Innovation in the Canadian forest industry
- g. The forest bioeconomy
- 01 Very well informed
- 02 Somewhat informed
- 03 Not very informed
- 04 Not at all informed

IF VERY OR SOMEWHAT INFORMED AT Q5a AND/OR Q5g

6. Where did you learn about

IF Q5a and not Q5e: Canada's bioeconomy?

IF Q5e and not Q5a: The forest bioeconomy?

IF Q5a and Q5e: Canada's bioeconomy and the forest bioeconomy?

SELECT ALL THAT APPLY

- 01-Read/heard about it in the news
- 02-At work/through my work
- 03-In a course/schoolwork
- 04-From a provincial government website
- 05-From a Government of Canada website
- 06- From social media (e.g., Twitter, Facebook, Instagram, Reddit)
- 07-From friends/family members
- 08-From a business/company that sells these products
- 97-Other, please specify _____
- 99-Prefer not to answer

7.	What is your overall view of Canada's forest industry? Please use a 10-point scale where "1" means very
	negative and "10" means very positive.

Very 2 3 5 6 7 8 9 Very Not negative positive sure 1 10 99

- 8. To what extent do you agree or disagree with the following statements about Canada's forest industry? RANDOMIZE – CAROUSEL
 - a. It provides a lot of jobs for Canadians
 - b. It provides economic benefits for local rural, forest-based communities
 - c. It provides economic benefits for Indigenous communities
 - d. It produces high quality products such as lumber, pulp and paper
 - e. Canada's forest industry uses innovative processes and materials
 - f. It is environmentally responsible and sustainable
 - g. It produces a wide variety of non-conventional products (i.e., products other than lumber, pulp and paper like biodegradable packaging)

01-Strongly agree

02-Somewhat agree

03-Somewhat disagree

04-Strongly disagree

99-Not sure

9. When it comes to Canada's forests, how would you rate the performance of the Government of Canada in each of the following areas? Please use a 10-point scale where "1" means a very poor job and "10" means a very good job.

RANDOMIZE - CAROUSEL (SHOW ONE AT A TIME)

- a. Working with provinces and territories to make sure Canada's forests are managed in a way that respects the environment
- b. Working with provinces and territories to make sure Canada's forests are managed in a way that respects local rural, forest-based communities
- c. Working with provinces and territories to make sure Canada's forests are managed in a way that respects Indigenous communities
- d. Promoting the economic growth of Canada's forest industry

A very 2 3 4 5 6 7 8 9 A very Not poor job good job Sure 1 10 99

B. Forests

10. Turning to another topic, when you think about how Canada's forests are managed, what is the first word or phrase that comes to mind?

[OPEN ENDED. INSERT 1 SMALL TEXT BOX.]

RESPONSES TO BE GROUPED INTO THEMES: ECONOMIC, SOCIAL/CULTURAL, NATURE, ENVIRONMENT...

11. Why do you say that?

[OPEN ENDED. INSERT 1 MEDIUM-SIZED TEXT BOX.]

12. To what extent do you agree or disagree with the following statements?

RANDOMIZE - CAROUSEL

- a. Forests provide a wide range of economic, social and environmental benefits for all Canadians
- b. Forests provide a wide range of economic, social and environmental benefits for local communities
- c. Forests provide a wide range of economic, social and environmental benefits for Indigenous communities
- d. Canada uses science-based sustainable forest management practices to conserve and protect its forests
- e. Independent, third-party certification of Canada's forests is important to ensuring forests are sustainably managed
- 01-Strongly agree
- 02-Somewhat agree
- 03-Somewhat disagree
- 04-Strongly disagree
- 99-Not sure

Forest Bioeconomy

The **forest bioeconomy** is a set of economic activities related to the invention, development, production, and use of sustainably managed and harvested forest biomass – material that comes from any part of a tree, and nontimber forest products (e.g., mushrooms, maple syrup) —for materials, energy, or chemicals.

Canada's forest industry operates through a system that ensures the highest value parts of a sustainably harvested tree are used first. For example, the majority of a harvested tree is used for high-value products such as lumber, while the bark, branches, and treetops are used for other value-added products such as furniture or construction materials, biodegradable packaging, textiles, personal care products, cultural products, fuels and chemicals.

Additionally, forest-based materials that may be either damaged by natural disturbances, such as forest fires or pest infestations, or that would otherwise be sent to a landfill or burned can be repurposed for materials, energy, or chemicals as part of the forest bioeconomy.

13. What products, if any, are you aware of that are made with, or contain, forest biomass or other naturally-occurring products from forests?

[OPEN ENDED. INSERT 1 MEDIUM-SIZED TEXT BOX. OR 98-NONE]

- 14. To what extent do you agree or disagree with the following statements about forest-based products?

 RANDOMIZE CAROUSEL
 - a. Forest-based products have a lower environmental impact than comparable products made with non-renewable materials (e.g., fossil fuel-based materials, metals)

- b. It is worth paying more for forest-based products instead of an equivalent product made with non-renewable materials (e.g., fossil fuel-based product, metal-based product)
- c. Forest-based products can be recycled into new products and materials at the end of their lives
- d. It is better to use single use forest-based products than single use plastics
- e. Forest-based products will be as durable/long-lasting as other products
- f. Forest-based products can provide meaningful socioeconomic opportunities for residents of rural forest-based communities
- g. Forest-based products can provide meaningful socioeconomic opportunities for Indigenous communities
- 01-Strongly agree
- 02-Somewhat agree
- 03-Somewhat disagree
- 04-Strongly disagree
- 99-Not sure
- 15. In your view, how much of a priority is it for the Government of Canada to encourage innovation and development of the forest bioeconomy.
 - 01-Top priority
 - 02-Important but not a top priority
 - 03–Not a priority
 - 99-Not sure

Reminder

The **forest bioeconomy** is a set of economic activities related to the invention, development, production, and use of sustainably managed and harvested forest biomass – material that comes from any part of a tree, and nontimber forest products (e.g., mushrooms, maple syrup) —for materials, energy, or chemicals.

16. What role do you think would be appropriate for the Government of Canada in relation to each of the following?

RANDOMIZE - CAROUSEL

- a. Investing in the forest bioeconomy
- b. Encouraging the development of the forest bioeconomy by the forest industry
- c. Making sure forests are managed in a way that protects biodiversity, in terms of the animals and plants that depend on that ecosystem
- d. Working with provinces and territories to ensure Canada's forests are managed in terms of a <u>sustainable</u> wood supply.

A **sustainable wood supply** refers to the scientifically-determined volume of timber that can be harvested while minimizing the impact on forests and the surrounding wildlife and communities.

- e. Informing individuals about the forest bioeconomy
- 01-A lead role
- 02-A contributing role
- 03-No role
- 99-Not sure

17. To what extent do you agree or disagree with each of the following statements about the forest bioeconomy and its products?

RANDOMIZE - CAROUSEL

- a. Canada is a leader in forest sustainability.
- b. The forest bioeconomy is environmentally friendly
- c. Canada's bioeconomy contributes to Canada's climate change goals and the transition to a net-zero carbon emissions economy.
- d. The forest bioeconomy can help support ecosystem diversity and wildlife habitats.
- e. The forest bioeconomy is an area in which Canada should try to be a world leader.
- 01-Strongly agree
- 02-Somewhat agree
- 03-Somewhat disagree
- 04-Strongly disagree
- 99-Not sure
- 18. How likely are you to switch to forest bioproducts when they become available to you?
 - 01-Very likely
 - 02–Somewhat likely
 - 03-Not very likely
 - 04-Not at all likely
 - 99-Not sure
- 19. Why do you say that?

[OPEN ENDED. INSERT 1 MEDIUM-SIZED TEXT BOX]

Demographics

The following are a few questions about you and your household, for statistical purposes only. Please be assured all of your answers will remain completely confidential.

20. What is the highest level of formal education you have completed?

Select one only

- 01-Up to high school
- 02-Some high school
- 03-High school diploma or equivalent
- 04-Registered Apprenticeship or other trades certificate or diploma
- 05-College, CEGEP or other non-university certificate or diploma
- 06-University certificate or diploma below bachelor's level
- 07-Bachelor's degree
- 08-Post graduate degree above bachelor's level
- 99-Prefer not to answer

21. Which of the following best describes your own present employment status?

Select one only

01-Working full-time

02-Working part-time

03-Unemployed or looking for a job

04-Self-employed

05-Stay at home full-time

06-Student

07-Retired

99-Prefer not to answer

22. In what type of area do you live?

01-Census Metropolitan Area/Large Urban Population Centre (Population of 100,000 or greater)

02-Medium Population Centre (Population of 30,000-99,999)

03-Small Population Centre (Population of 1,000 to 29,999)

04-Rural or remote-non-Indigenous community (Population less than 1,000)

05-Indigenous community

99-Prefer not to answer

23. Which of the following categories best describes your total household income? That is, the total income of all persons in your household combined, before taxes?

Select one only

01-Under \$20,000

02-\$20,000 to just under \$40,000

03-\$40,000 to just under \$60,000

04-\$60,000 to just under \$80,000

05-\$80,000 to just under \$100,000

06-\$100,000 to just under \$150,000

07-\$150,000 and above

99-Prefer not to answer

For more information about the Forest bioeconomy click here:

https://www.nrcan.gc.ca/our-natural-resources/forests/industry-and-trade/forest-bioeconomy-bioenergy-bioproducts/13315

https://www.ccfm.org/climate-conscious/canadas-bioeconomy-transformation-innovation-inmitigating-climate-change/

https://www.forestryforthefuture.ca/

This completes the survey. On behalf of the Department of Natural Resources Canada, thank you for your valuable input. In the coming months, the results of this survey will be available on the Library and Archives Canada website.