#### **The Conference Board of Canada**



# **Trekking Our Trails**

The Benefits and Significance of Canada's Trail System



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## **Key findings**

- Trails attract local users, visitors from across the country, and international tourists. They generate significant economic, health, and environmental benefits.
- The economic benefits of trails come from user expenditure on the trail. This helps communities, businesses, and the wider economy through supply-chain and income effects.
- For human health, environment matters. By putting people in physical contact with nature, trails' health benefits become both physical and mental. Trail use also reduces accidents and medical costs due to improved health.
- Beyond being transportation corridors and outdoor facilities, trails also provide green infrastructure. They offer stormwater retention, flood control, carbon reduction, air and water pollution reduction, and preservation of natural habitat.
- Trail-trekking is a uniquely safe activity in a time of physical distancing. Evidence from both within and outside Canada shows that trail usage is growing during COVID-19.
- Worldwide trends show that nature-based activities will play a role in reviving tourism. Organizations could take advantage of this, and collaborate to get more Canadians and tourists using trails.
- This country has a vast network of trails. But there has yet to be a comprehensive measuring of the many ways Canadians benefit from them.

## Introduction

Trails across the world are safe, green pathways that promote the use of multiple physical activities and provide recreation for their users. Trails are typically public paths that allow for active transportation through built or natural environments. Apart from users in the local community, trails attract domestic and international tourists. Trails generate benefits for local communities, businesses, and the wider economy, contribute to healthier lifestyles, and aid in environmental management.



Canada has a wide network of trails that span the entire country and provide opportunities for various kinds of physical activities. In fact. The Great Trail of Canada is the world's longest network of multi-use recreational trails and allows users to engage in a wide array of activities across rural, urban, and wild landscapes. Despite having a vast and well-connected network of trails, very few studies have looked at the benefits of trails across Canada and how they impact Canadians. This briefing aims to bring into the public domain some of the discussion around the use of trails and related benefits and the significant role that trails could play in the revitalization of local communities and through this to

the wider Canadian economy. The briefing emphasizes the need for an across-Canada consolidation of information and data on trails and best practices to obtain the most out of trail usage. While the focus in this briefing is on trails in general, the discussion has implications for Canada, since trails could be an important catalyst for economic growth given their focus on local communities and trail usage being a relatively COVID-19 safe activity.

## **Trails generate significant benefits**

#### **Economic benefits**

Economic benefits associated with trails are manifold. The construction and maintenance of trails increases income and employment both in the region where the trail is built and across the country through indirect and induced impacts. Once operational, trails lead to economic impacts through user-spending. They also support local businesses and increase property values around the trail.

The direct economic impacts of trails are generated primarily from spending by local residents and tourists, both domestic and international. While local spending might not be incrementally new,<sup>1</sup> the kinds of spending influence the nature of the economic impacts across local businesses and communities in the area.

Users of the trail will typically spend on non-durable goods such as food and beverages, on durable goods such as equipment related to trail use, and on overnight accommodation. Local users typically spend more on hard goods than on soft goods and very marginally on overnight accommodation. Surveys on Pennsylvanian multi-user trails, primarily visited by locals, indicate that between 70 and 80 per cent of trail users bought hard goods like bicycles while only 40 to 50 per cent of users bought soft goods.<sup>2,3</sup> This is supported by similar surveys for the Maryland Northern Central Rail Trail and the York county trails.<sup>4</sup> This spending on trail-related goods has a positive impact on local businesses and leads to a wider economic impact through supplychain and income effects.

Spending on trails by tourists is significantly higher than by local users.<sup>5</sup> Different trails attract tourists to varying extents, depending on the accessibility of the trails and the activities and amenities offered. Tourism-spending, whether domestic or international, is additional revenue generated and therefore value added. Much of the evidence on tourism spending on trails and the related economic impact is from American trails, which are generally well advertised and promoted. While there are challenges for Canadian trails to achieve the same level of tourism flows, the benefits are indicative. Studies on the Great Alleghany passage trail system, for instance, indicate that non-local visitors who stayed overnight had a higher average spending of US\$98 per visit, compared with US\$13 by local visitors.6,7

- 2 Knoch and Tomes, "Perkiomen Trail 2008 User Survey and Economic Impact Analysis."
- 3 Tomes and Knoch, "Schuylkill River Trail 2009 User Survey and Economic Impact Analysis."
- 4 Maryland Department of Natural Resources and Gunpowder State Park, "Northern Central Trail User Survey and Economic Impact Analysis."
- 5 Spencer, "Understanding Local Versus Tourist Visitors to Recreation Areas."
- 6 The dollar estimates from various studies are based on different years and are not directly comparable without deflating them to the same base year. This is beyond the scope of this study.
- 7 Campos Inc., 2008 Trail Town Economic Impact Study.

Incrementally new spending refers to spending that would not have been spent in the community otherwise.

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Some localities, such as those around the Virginia Creeper trail system, have developed economic development models around their trail systems, inviting non-local visitors to spend on their trails and local businesses.<sup>8</sup> When a trail is marketed as a tourist destination and supported by government, businesses can start up and make investments more easily. The Cabot Trail, for example, is promoted online, through magazine advertisements, and in newsletters. The Nova Scotia government also ran a cost-sharing program for businesses along the trail to renovate their storefront to appeal to trail users. This program found an average of 15 to 20 per cent increase in revenue for businesses that took part in the program.<sup>9</sup> This program was renewed in 2016 due to its success.

Promotion of events and other activities on trails can lead to higher economic benefits. For example, the non-local attendee at a bicycle event in Minnesota spent an average of US\$121 a day and brought, on average, an additional half person.<sup>10</sup>



Cycling provides significant tourism-related economic benefits. For instance, in Quebec, cycling on trails like La Route Verte contributed \$1.2 billion in spending per year with \$700 million coming from tourist activity. It also contributed \$150 million in taxes per year to the provincial government and \$65 million to the federal government.<sup>11</sup> In addition, cycle tourists spend 6 per cent more than the average tourist in Quebec.

Interestingly, cycling-related activities and the associated spending is found to be high not just for tourists but also for local visitors. This could be because of the increased proportion of cycle users in the general population as opposed to other trailbased activities. A study on the European Union found that while cycling constitutes only 8 per cent of transportation within the region, the economic benefits per year approximate 500-billion euros, corresponding to 1,000 euros per European citizen.<sup>12</sup>

Economic impacts across different trails vary. Studies on building bicycle infrastructure, such as multi-user trails within the U.S., found that for every US\$1-million investment, 9.6 jobs are generated. The Ontario Trails Council estimated that trails contributed \$2 billion to Ontario in 2005.<sup>13</sup> Along the Virginia Creeper Trail, visitors spend US\$1.5 million annually and support 27 jobs in the region.<sup>14</sup> While it is difficult to compare economic impacts across different trails, trail usage can clearly lead to significant benefit for the local economy and businesses.

- 8 Bowker, Bergstrom, and Gill, "Estimating the Economic Value and Impacts of Recreational Trails."
- 9 Chang and others, Case Studies of Canada's Icon Trail Systems Completed by Transportation Options.
- 10 Qian, Assessing the Economic Impact and Health Effects of Bicycling in Minnesota.

- 11 Vélo Québec, Cycling in Quebec in 2015.
- 12 Neun and Haubold, The EU Cycling Economy.
- 13 Ontario Ministry of Health Promotion, Ontario Trails Strategy.
- 14 Bowker, Bergstrom, and Gill, "Estimating the Economic Value and Impacts of Recreational Trails."

Access to trails leads to increased physical activity, a long-term decrease in chronic illnesses, improved mental health, improved physical health, and improved quality of life. Trails also contribute to the appreciation of property values. A study on properties around the San Antonio, Texas, trails found that houses adjacent to trails without a green belt have a 2 per cent price premium, and if they are adjacent to a trail with a green belt they enjoy a 5 per cent price premium.<sup>15</sup> Similar property appreciation ranging between 2 and 20 per cent in areas with trails was found in Delaware, Washington, and Ohio, depending on the proximity of the trail and the amenities on the trail.<sup>16,17</sup>

#### **Health benefits**

Physical and mental health are not just outcomes of genetics and personal choices but also stem from the surrounding environment, including access to safe spaces to engage in physical exercise and contact with nature.<sup>18</sup> Health impact assessments for the U.S. indicate that access to trails leads to increased physical activity, a long-term decrease in

- 15 Asabere and Huffman, "The Relative Impacts of Trails and Greenbelts on Home Price."
- 16 Racca and Dhanju, *Property Value/Desirability Effects of Bike Paths Adjacent to Residential Areas.*
- 17 Resource Dimensions, *Economic Impacts of MVSTA Trails* and Land Resources in the Methow Valley.
- 18 Davis, Cruz, and Kozoll, "Health Impact Assessment, Physical Activity and Federal Lands Trail Policy."

chronic illnesses, improved mental health, improved physical health, and improved guality of life.<sup>19</sup>

Apart from the improvements in physical and mental health, wider health benefits of trails are increased savings due to reduced health care costs and fewer accidents because of safer spaces to exercise and transit.

The positive relationship between improved health outcomes and increased outdoor activities is well-established.<sup>20,21</sup> Trails allow users to safely engage in outdoor pursuits and improve the physical health of people who live in the communities nearby. The Great Trail, for instance, offers the potential to engage in six different kinds of physical activities (i.e., walking/hiking, cycling, paddling, horseback riding, cross-country skiing, and snowmobiling). While there are no comprehensive studies assessing the linkages between the health of Canadians and proximity or increased usage of trails, a literature review by the World Health Organization found that access to urban green spaces has a positive effect on health outcomes, including obesity.



#### 19 Ibid.

- 20 Kerr and others, "The Relationship Between Outdoor Activity and Health in Older Adults Using GPS."
- 21 Harvard Medical School, "A Prescription for Better Health."

particularly for socio-economically disadvantaged populations.<sup>22</sup> In Canada, the share of adults classified as obese was 50 per cent lower in the most walkable neighbourhoods compared with the least.<sup>23</sup>

Apart from obesity, evidence also indicates that increased physical activity could lead to reduction in many chronic conditions. In Canada, 44 per cent of adults over the age of 20 have at least one chronic disease.<sup>24</sup> Trails, therefore, could play a significant role in improving the health of Canadians.

In addition to physical health improvements, increased access to nature has positive mental health impacts. Evidence from Wisconsin indicates that higher levels of green space access are associated with higher levels of mental health.<sup>25</sup> Something as simple as a 90-minute walk in a natural environment can provide lower levels of rumination, a risk factor for mental illness, compared with a 90-minute walk in an urban environment.<sup>26</sup> Both exposure to nature and physical activity have been found to improve mental health.<sup>27,28</sup> This has important implications in the current situation of high levels of mental stress because of the pandemic. Related to these benefits are the economic impacts of reduced health care costs. A health impact calculation on the basis of 14 U.S. trails found that the usage of the average trail in this study led to health care cost savings of US\$2.1 million in avoidable health care costs.<sup>29</sup> Given that the proportion of Canadians with chronic conditions has been increasing over the years and the health care costs associated with these conditions are estimated to be \$190 billion per year, this is an important area to explore further.<sup>30</sup>

As previously mentioned, trails allow active transportation, which leads to safer spaces, reduced accidents, and saved health costs. For example, in Toronto, active transportation prevents 120 deaths each year, saving residents direct medical costs of \$110 million. If the walking and cycling commuting shares in Toronto rose to levels found in more active cities, it would prevent an additional 100 deaths a year.<sup>31</sup>



- 22 World Health Organization, Urban Green Spaces and Health.
- 23 Statistics Canada, "Walkable Neighbourhoods and Physical Activity in Canada."
- 24 Public Health Agency of Canada, "Prevalence of Chronic Diseases Among Canadian Adults."
- 25 Beyer and others, "Exposure to Neighborhood Green Space and Mental Health."
- 26 Bratman and others, "Nature Experience Reduces Rumination and Subgenual Prefrontal Cortext Activation."
- 27 Ibid.
- 28 Paluska and Schwenk, "Physical Activity and Mental Health."

- 29 Götschi and Hadden Loh, "Advancing Project-Scale Health Impact Modeling for Active Transportation."
- 30 Chronic Disease Prevention Alliance of Canada, 2018 Pre-Budget Submission to the House of Commons Standing Committee on Finance.
- 31 Toronto Public Health, *Road to Health*.



Also, North American commuting infrastructure is more dangerous than Europe's, with higher levels of mortality due to accidents. Cyclists in North America were three times more likely to be killed in a traffic incident and 30 times more likely to be seriously injured than in the Netherlands.<sup>32</sup> Nature trails can provide a safe space for exercise and reduce the extent of injuries and accidents. When a trail is used for daily commutes, it can also increase safety as bikers are no longer on the roads.<sup>33</sup> Governments should recognize that trail infrastructure across the country can be improved to be safer. As trails become safer and easier to use. Canadians will be more likely to use them.

## Green infrastructure and environmental benefits

Trails, being mostly greenways, have significant environmental benefits. Proximity to trails can encourage communities to be more conscious about the conservation of the environment. Trails can help to preserve green spaces while also providing habitats to local wildlife.<sup>34</sup>

Trails can enhance the environmental and economic benefits they generate by supporting efforts toward promoting green infrastructure. Green infrastructure is widely defined as infrastructure projects that protect communities and support a nation's transition toward a clean growth economy.<sup>35</sup> The essence underlying the concept of green infrastructure is that an interconnected system of natural, enhanced, and built assets such as trails and parks creates a comprehensive network of infrastructure that both supports the ecology and biodiversity while also enhancing urban and rural growth. Green infrastructure systems provide many of the benefits that grey infrastructure provides, such as providing transportation corridors and other outdoor facilities, while having additional advantages of storm water retention, flood control, carbon reduction, reduction of air and water pollution, and preservation of natural habitats.36

33 Qian, Assessing the Economic Impact and Health Effects of Bicycling in Minnesota.

<sup>32</sup> Ibid.

<sup>34</sup> Penny, The Social and Economic Impacts of BC Recreational Sites and Trails.

<sup>35</sup> Infrastructure Canada, "Investing in Green Infrastructure."

<sup>36</sup> City of Saskatoon, "Green Strategy."

Green infrastructure practices have been successfully incorporated in many American trail systems. For instance, the Indianapolis cultural trail has been fitted with 25,400 square feet of stormwater planters, which helps stormwater to slowly drain into the water-reducing stormwater run-off and recharging ground water supplies.<sup>37</sup> This trail has a bike-share program, which supports bike-sharing by low-income residents through a subsidized pass system, and thereby plays both an important environmental as well as economic role in the communities through which it passes. Similarly, the Atlanta BeltLine, which has been described as a comprehensive transportation and economic development effort undertaken by the City of Atlanta, includes a 22-mile network of parks and trails. This trail has been estimated to have saved US\$16 million because the city constructed a water-retention pond to mitigate flooding, rather than tunnelling and installing a single-use network of pipes to deal with the problem.<sup>38,39</sup>

In Canada, examples of trail-specific green infrastructure programs are more limited, underlining the need for a more planned perspective in this area. However, an example of climate-resilient infrastructure is the Red River floodway that is estimated to have saved the City of Winnipeg over \$40 billion in flood-related damages since its construction in 1968.<sup>40</sup>

- 37 United States Environmental Protection Agency, Green Infrastructure in Parks.
- 38 Nagel, "Why Urban Parks Are Essential Infrastructure."
- 39 Atlanta BeltLine, "The Project."
- 40 Government of Canada, "Economic Analysis of the Pan Canadian Framework."

# Trails as an economic catalyst for Canadian recovery

#### Economic growth strategies amidst a pandemic

The impact of COVID-19 on the Canadian economy has been severe. Even before COVID-19, Canada's economic growth was looking subdued, with few industries possessing strong growth outlooks. Tourism had gained attention among policy-makers and other stakeholders as representing a sector with significant growth potential, particularly nature-based tourism.<sup>41</sup> Living in a pandemic reality, it is crucial that Canada is able to capitalize on any activities that can provide strong economic growth while still remaining relatively safe from COVID-19.

Trails are well-positioned to provide a boost to economic activity as they are outdoors and users can easily physically distance. They also provide mental health benefits, which are needed in a time when people are still being encouraged to stay home and may feel isolated.

So how does Canada position its trails so more Canadians and international tourists use them? Better data collection along with Canadian studies may be the key to understanding more about increasing trail usage.

41 Destination Canada, Unlocking the Potential of Canada's Visitor Economy.

Trails are well-positioned to provide a boost to economic activity, as well as mental health benefits, which are needed in a time when people are still being encouraged to stay home.

## Canadian trails need to attract more tourists

European countries are much further along in assessing and promoting activities that strive to achieve the shared (and sustainable) goals of citizens, government, and business. In these countries, trail use and benefits are better understood and developed. The U.S. has also advanced its thinking behind trails and now regularly reports on activity through multiple agencies. The data compiled and the footprint analyses researchers engage in are used not just for strengthening the knowledge base on trail coverage and trail impacts, but also for advocacy and agenda-setting in policy. In contrast, Canada-although it has as well-connected and diverse trails as the U.S. or Europe-lags behind many parts of the world in recognizing the importance of trails for achieving the shared goals of citizens, government, and business. The data compilation, research, and impact analysis are more limited and compartmentalized.

A nationwide perspective on how trails could be a sector of interest and growth is still to be developed. This could be because American and European trails attract more international tourists and in

general are busier and therefore could lead to higher economic gains. But this difference of performance of Canadian trails in attracting international tourists could also be because of an absence of concerted effort. Canada's international tourism sector has been lagging behind that of other countries.<sup>42</sup> Compared with domestic visitors, trails and parks in Canada attract a lower share of international visitors. For instance, over 50 per cent of international visitors to Canada's national parks is attributed to just three of them (i.e., Pacific Rim National Park, Banff National Park, and Jasper National Park).43 Marketing Canada's nature sector would help to ensure these trails get the most economic benefits possible by attracting an international audience in the long term. In the short and medium term, the focus could be on increasing the usage of trails and attracting more domestic visitors. The first step toward this would be to undertake more research on what distinguishes Canadian trails from more economically successful trails in other countries and what best practices could be adopted.

Even within Canada, trails have differences. For instance, the demographics of who visits trails across locations vary. Comparing four trails, for instance-the Cabot Trail, the Confederation Trail, the Galloping Goose Regional Trail, and La Route Verte-it can be found that for the first three, at least 85 per cent of their business comes from out-of-province while only 38 per cent of La Route Verte users are from out-ofprovince.44 Understanding the differences between the marketing strategies and what each trail and park offers is key to getting Canadians and tourists out on more trails.

A successful trail depends on sharing information between all stakeholders. Getting people to use trails will make Canadians healthier and businesses will make more money.



44 Chang and others, Case Studies of Canada's Icon Trail Systems Completed by Transportation Options.

42 Ibid.

43 Ibid.

# Resurgence in domestic tourism aided by trails

Evidence indicates that there is an increase in the usage of trails and parks across the world, in response to policy responses to manage COVID-19. For instance, the Virginia Capital Trail in the U.S. saw a 77 per cent increase in usage in May 2020 compared with the same period the previous year.<sup>45</sup> In Canada, while data still need to be compiled to measure these increases, there is indicative evidence that suggests that this might be the case.<sup>46</sup>

A recent national survey on Canadian trail usage confirmed that trail usage remains an integral part of Canadian life, with 75 per cent of those surveyed using trails. While the survey does show a decline in trail usage during June 2020, this is because the survey was carried out during the period when parks and trails were closed due to COVID-19–related government restrictions. More importantly, the survey indicates that among those who have made plans to travel, 43 per cent have decided to include trails in their plans.<sup>47</sup>

This provides Canada with opportunities for the way ahead. Domestic tourism historically comprises more than 80 per cent of tourism spending in Canada.<sup>48</sup> This reduces the vulnerability of the tourism contribution to the current uncertainties around international travel and international tourist sentiment. Trends across the world indicate that nature-based tourism activities are going to play a role in reviving both the tourism sector and the overall economy. Given this, there is an opportunity that all levels of government in Canada could take advantage of by promoting trail usage for residents and domestic tourists. In the short term, what is required will be a well-coordinated marketing effort and clear guidelines on how to stay safe during the time of COVID-19.

In the long term, trails and active transportation infrastructure can provide benefits to Canadians by bringing in international tourism while also providing Canadians with a way to make their daily routines more active. However, this hinges on the actions of government and various other organizations to consolidate information and best practices to attract Canadians and international visitors to these national treasures.



- 45 WTVR 6 News, "Virginia Capital Trail Sees 'Awesome' Usage Uptick During COVID-19 Pandemic."
- 46 Fraser Valley Regional District, "COVID-19 Impacts on Regional and Community Parks and Trails."
- 47 Trans Canada Trail, "Trail Use an Integral Part of Canadians' Lifestyles, Survey Finds."

48 Hermus and Zhuang, Travel Markets Outlook: Metropolitan Focus—Spring 2018.

## **Appendix A**

#### Methodology

An independent literature review of the benefits that trails provide to the economy, people's health, and the environment was carried out by The Conference Board of Canada. This led to the synthesis of the evidence-based findings presented in this briefing.

## **Appendix B**

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