

THE CRITICAL IMPORTANCE OF PROTECTED AREAS FOR HUMAN HEALTH



LA PLANÈTE S'INVITE EN SANTÉ REPORT

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S'INVITE
EN SANTÉ**



Project manager: Sarah Bergeron, MD, family doctor

Revision: Hugo Lefrançois, Social worker

Marie-Christine Milot, MD-PhD student, University of Sherbrooke

Olena Zotova, MDCM student, McGill University

Graphic design: Maxence Croteau

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Website: <https://laplanetesinvite.org/la-planete-sinvite-en-sante/>

Mail: la.planete.en.sante@gmail.com

Twitter/Facebook: @PlaneteEnSante

Contact us

La Planète s'invite en santé

Dr. Sarah Bergeron, Project lead, spokesperson and executive board member
514 559-5949 / la.planete.en.sante@gmail.com



SNAP Québec

Charlène Daubenfeld, Head of communications
514 378-3880 / communications@snapquebec.org



Nature Québec

Gabriel Marquis, Head of communications
581 307-8613 / gabriel.marquis@naturequebec.org



Fédération des kinésiologues du Québec

Marc-Antoine Pépin, vice-president
418-809-3833 / vice-president@kinesiologue.com



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Montreal, July 7, 2020

Executive Summary

The Government of Quebec set a goal of meeting the international target requiring at least 17 percent of its terrestrial areas and inland water to become protected areas by 2020. However, as of March 31, 2020, Quebec's protected areas covered just 10.04% of the total territory of the province.¹ In addition to enabling the government to meet its target, a larger network of protected areas in Quebec would bring about numerous health benefits for the population.

Studies show that those who regularly spend time in protected areas have better physical and mental health. Physical health benefits include: reduced blood pressure, coronary heart disease and incidence of type II diabetes; reduced overall mortality rates; better general health, etc.² Multiple mental health and well-being benefits have also been noted, in particular reduced anxiety, depression and irritability.³ The health co-benefits of protected areas could also lead to substantial economic gains. By improving the population's overall health, government's economic burden caused by health problems will be reduced.⁴ However, these benefits rely on guaranteed access to protected areas.



¹ Quebec Ministère de l'Environnement et Lutte contre les changements climatiques. "Protected Areas in Quebec." *Government of Quebec*. [Online] 2020. URL: http://www.environnement.gouv.qc.ca/biodiversite/aires_protegees/aires_quebec-en.htm (Retrieved on July 3, 2020)

² Caoimhe Twohig-Bennett and Andy Jones. "The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes." *Environ. Res.* 166. July 5, 2018. Page 636. <https://doi.org/10.1016/j.envres.2018.06.030>

³ Alexandra Jiricka-Pürer et al. "Do Protected Areas Contribute to Health and Well-Being? A Cross-Cultural Comparison." *International Journal of Environmental Research and Public Health*. 16. 1172. April 2019. Page 14. <https://doi.org/10.3390/ijerph16071172>

⁴See: Ralf Buckley et al. "Economic value of protected areas via visitor mental health." *Nature Communications*. 10:5005. 2019. 10 pages. <https://doi.org/10.1038/s41467-019-12631-6>

Protected areas can also be major allies for combating climate change and air pollution. Many studies demonstrated that climate change can cause serious health impacts for Quebecers.⁵ Heat waves have caused hundreds of deaths in recent years and are becoming increasingly prevalent.⁶

Forest fires, which are already a common occurrence in Canada, can result in anxiety, post-traumatic stress disorder, and the destruction of property, in addition to burns and death. Flooding has long been the most widespread type of natural disaster in Quebec and is occurring with greater frequency. According to Health Canada, air pollution causes 3,800 premature deaths per year in Quebec.⁷

Protecting biodiversity by increasing the network of protected areas is also directly linked to protecting human health, as supported by the World Health Organization (WHO).⁸ In fact, the many ecosystems that make up our biodiversity provide numerous services to the human populations: freshwater, shelter, resources, food, etc. Likewise, the preservation of forests ensures the sustainability of watercourses used by surrounding populations for both potable water and for sourcing fish, as well as for flood control.⁹

By implementing protected areas, the government would also be guaranteeing areas free from hydrocarbon development for the population. In addition to an increase in greenhouse gas (GHG) emissions from burning fossil fuels, the extraction methods used for some—such as hydraulic fracturing (also known as “fracking”)—are being called into question due to their potential impact on human health.¹⁰

Several events in recent decades have emphasized the links between the environment and human health: the zoonotic COVID-19 pandemic, floods, heat waves, and the 1998 ice storm crisis are examples familiar to all Quebecers. Humans live in a complex environment on which they are entirely dependent. When we improve the health of the environment, human health also improves. To this effect, protected areas play many roles: providing a natural, high-quality territory that produces health benefits for those exposed to it; providing an efficient method of combating climate change; enabling biodiversity essential to human health and subsistence to thrive; protecting watercourses used by populations through the protection of forests; and limiting the negative health impacts for Quebecers that may be caused by hydrocarbon production.

⁵See: Diane Bélanger, Pierre Gosselin, Ray Bustinza and Céline Campagna. “Changements climatiques et santé : Prévenir, soigner et s’adapter.” *Presses de l’Université Laval*. 2019. 213 pages.

⁶See: Ray Bustinza et al. “Health impacts of the July 2010 heat wave in Québec, Canada.” *BMC Public Health*. 13. 56. January 21, 2013. 7 pages. <https://doi.org/10.1186/1471-2458-13-56>

⁷Health Canada. “Health Impacts of Air Pollution in Canada: Estimates of morbidity and premature mortality outcomes. 2019 Report.” June 2019. ISBN: 978-0-660-31165-4. Page 5.

⁸World Health Organization. “Biodiversity.” [Online]. URL:

<https://www.who.int/globalchange/ecosystems/biodiversity/fr>/<https://www.who.int/globalchange/ecosystems/biodiversity/en/> (Retrieved on July 3, 2020).

⁹Comité de protection des monts Chic-Chocs. “Lettre aux élus.” [Online]. August 22, 2018. URL: <http://chic-chocs.orgs/documents.html> (Retrieved on July 3, 2020).

¹⁰ See: Ronald Macfarlane and Kim Perrotta. “Fractures in the Bridge: Unconventional (fracked) natural gas, climate change and human health.” *Canadian Association of Physicians for the Environment (CAPE)*. January 2020. 50 pages.



The idea of creating a partnership between nature protection organizations and healthcare professionals to establish policies that recognize the interdependence of ecosystems and healthy people has already been discussed.¹¹ Nevertheless, political actors such as the Government of Quebec must join the movement to ensure that their targets of creating protected areas are met, and to ensure that protected areas improve the health of the population to the greatest degree possible, including Indigenous communities and vulnerable and marginalized groups. It is a matter of conserving our natural wealth and protecting the health of the population of Quebec, while ensuring our collective resilience.

With several months left in 2020, the Government of Quebec still has time to meet its target of protecting 17% of its territory, and of ensuring better health for its population through the numerous human health co-benefits delivered by protected areas.

¹¹ Ambra Burls and Woody Caan. "Human health and nature conservation." *British Medical Journal*. Volume 331. 2005. Page 1222.

