CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

Our lives depend on energy. Industry needs electricity, oil and natural gas to make and ship products that consumers buy. We use electricity to heat and cool our homes, generate light so we can read bedtime stories to our children, and cook a special meal for our friends. Enjoying a hot shower or a cold drink at the end of the day depends on electricity or natural gas. Presently, we rely on gasoline and other liquid fuels to move cars, trucks, planes, trains and buses so we can ship products, get to work or school, or go on holidays. It is not an overstatement to say that our way of life depends on energy.

Unfortunately, there are unintended consequences from depending on these energy sources, as well as from how we manage forests, grow food, and build our communities. When we burn fossil fuels to generate energy, we also produce greenhouse gases that change the climate. When we cut forests for timber, pulp, fuel and other products and clear land for farms and communities, we also add greenhouse gases to the air. This is because through photosynthesis, trees and plants absorb carbon dioxide when they grow and release it when they die or are disturbed. Rotting food in landfills and using too much fertilizer also add to the problem by releasing greenhouse gases called methane and nitrous oxide. **Our way of life is heating up the planet and the changing climate is making weather extreme.**

Burning fossil fuels can also generate other pollution that worsens air (and water) quality. Small particles and volatile organic compounds that react in sunlight creates smog and can make rain more acidic. Special pollution control equipment placed on smoke stacks, and in cars, can reduce this kind of air pollution, and once this pollution is reduced air quality can quickly improve. End-of-pipe technologies on cars, however, cannot trap greenhouse gases like carbon dioxide. These gases stay in the air for hundreds of years.

Globally, humanity spewed almost 40 billion tonnes of carbon dioxide into the air in 2018.

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More than **80 per cent of Canada's 716 million tonnes of greenhouse gas emissions in 2017** came from the energy we produce and use, about the same percentage as globally. In New Brunswick in 2017, the proportion of our **14.3 million tonnes of emissions from energy use was about 90 per cent.** The rest comes from changing the land, either by cutting trees to make products or to grow food. Some people say that Canada's, and New Brunswick's, contribution to climate change pollution is too small to matter in the total scheme of things.

After all, Canada's total emissions are less than two per cent of the global total. It is also true, however, that in 2017 Canada remains a **top ten global emitter**. We are one of the world's highest per capita emitters at **19.5 tonnes per person**. New Brunswick is the fourth highest per capita emitter in Canada. We are a wealthy nation, marked by our membership in the **Group of Seven**, the club for the world's most advanced economies, representing almost 60 per cent of global net wealth. We also punch above our weight as polluters. Scientists tell us we need to do more to get our pollution under control.

Climate change is a health issue in New Brunswick as elsewhere. Chronic climate change-induced changes in temperature, hot days, and precipitation cause both day-to-day changes (ticks carrying Lyme disease, pollen like ragweed making allergies worse, increased eco-anxiety) and acute changes from extreme events (intense precipitation, floods, ice storms, droughts) that will exacerbate existing physical and mental health conditions in these communities.

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opportunity, however, means considering social, and physical and mental health dimensions of climate change in climate change mitigation and adaptation planning.

Campbellton, the area with the lowest median household income and Oromocto, the area with the highest, provide instructive examples. Campbellton can expect greater annual and spring warming and precipitation increases than Oromocto. More of the Campbellton-area population is comprised of seniors, especially women living alone, people living on low income, and people experiencing food insecurity. The Oromocto area, however, has higher rates of chronic conditions and perceives its mental and

physical health as lower than people living in the Campbellton area. How will these differences in population and climate change dynamics affect people living in these communities?

In the Oromocto area, factors associated with military life may be important, while in the Campbellton area, factors associated with income may be more of a factor. Community-appropriate strategies need to account for climate change and health condition differences to protect the most marginalized and vulnerable, and to maximize opportunities to advance protection from extreme events, while advancing provincial goals for aging and wellness.

New Brunswick needs to move quickly to address climate change risks and cut greenhouse gas pollution in line with science-based targets in order to protect our health. We ask stakeholders interested in protecting New Brunswickers' health to encourage the provincial government to:

1 **To maximize the potential for securing health and climate change co-benefits, make physical and mental health protection and promotion a driving force behind climate change mitigation and adaptation plans and implementation strategies.** There is an opportunity to ensure the province meets its wellness objective of increasing the number of New Brunswickers with capacity to support healthy development and wellness and increasing the number of settings that have conditions to support wellness, while pursuing greenhouse gas reductions and protection from the acute and chronic effects of climate change.

a. Integrate and coordinate climate action strategies with provincial strategies aimed at improving wellness and aging.

b. Commit to tracking and reporting on climate change-related health and well-being indicators to monitor progress over time (Appendix 1).

2 **To secure the air quality and greenhouse gas (carbon pollution) reductions, develop an electricity implementation plan for New Brunswick that phases out coal and oil over the next 10 years.** Strategies would:

a. Accelerate the shift to a clean electricity system with a commitment to **50 per cent renewable energy supply by 2025**, 60 per cent by 2030, 70 per cent by 2035, 80 per cent by 2040, and by 95 per cent by 2050. Accelerate solar rooftop targets. A stretch target for New Brunswick could be 200,000 kilowatts (kW) of cumulative installed commercial and residential solar power by 2025 (100,000 kW each for residential and commercial, grid connected and off-grid).

b. **Legislate a ban on the sale of internal combustion engine vehicles in the province by 2025.** Create incentives to ensure New Brunswick reaches its goal of having **2,500 electric and plug-in hybrid vehicles** on the road in New Brunswick by 2020 and 20,000 by 2030. Pursue community planning that emphasizes active transportation, community green space and gardening.

c. Regulate energy-efficiency-performance targets of at least **two per cent a year** to lower electricity demand and improve the quality of our homes and buildings, require net-zero home building standards by 2025.

d. Put a price on carbon in 2020 that meets federal requirements of at least **$50 per tonne of greenhouse gas by 2022** for industry and consumers. Direct carbon pricing revenue to the provincial Climate Change Fund to invest in programs and to provide incentives.

3 **To protect communities and households from the acute and chronic physical and mental health effects of climate change,** accelerate regulations and investments in programs and physical and institutional infrastructure to minimize flood risk, protect seniors from extreme heat, and the population from Lyme (and other vector-borne) disease.

a. Commit to **17 per cent of New Brunswick in protected areas by 2020** on land and 10 per cent in the ocean to increase carbon uptake and to create natural spaces for well-being. Designate all drinking water watersheds as protected areas. Enhance forest restoration and diversification and expand green spaces in urban environments to moderate heat.

A comprehensive climate change plan for New Brunswick is essential to our physical and mental well-being. The time to act is now; any delay harms our health.