



A Glimpse of Canada's Future

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In *A Glimpse of Canada's Future*, the David Suzuki Foundation considers some compelling scenarios for what the changing climate could mean to individual Canadians, their communities and natural ecosystems in the 21st century. Unless we act immediately to prevent climate change, real and enduring hardship will ensue.

IMAGINE A WORLD IN WHICH CLIMATE CHANGE GOES AHEAD UNIMPEDED. Under a doubling or greater increase in atmospheric carbon dioxide levels, the following kinds of situations could develop:

- In the 21st century, on the Pacific Coast, a **commercial fisher** and the industries and communities that depend on the fishery for their livelihood face a crisis as habitats are destroyed and salmon stocks move to colder waters.
- A **southern Prairie wheat farmer** confronts challenges similar to the “Dirty Thirties,” with more frequent and prolonged droughts, dust storms and soil erosion, and insect infestations.
- A **coastal resort owner** on the Atlantic Ocean is rocked by ferocious storms, eroding beaches, and the high costs of beach protection and rebuilding – assuming the property survives rising sea levels.
- A **homeowner in a river delta** experiences severe ocean and river flooding, resulting in falling property values, a decline in local trade and commerce, and all the expenses and trauma that accompany such catastrophes.
- In the North, an **aboriginal hunter** finds his traditional lifestyle in tatters as permafrost melts, lakes and wetlands dry up, and caribou and other wildlife populations dwindle.
- An **urban condo dweller** in a southern Canadian city is at much greater risk of suffering the effects of increased heat and smog, with rising asthma, cardiovascular disease, and heat-related deaths.
- Canadian **wetlands** and all the birds and other life they support are further devastated by flooding and shifts in regional water tables.
- Northern **permafrost** continues to thaw, causing erosion and landslides, clogged rivers and streams, and the destruction of wetlands, deltas and small lakes.

- Canada's boreal forest falls into severe decline, devastated by fires and pests, with some tree species disappearing because they cannot adapt quickly enough to the rapid warming.
- On the Arctic Ocean, summer sea ice cover melts dramatically, threatening the entire Arctic food chain, from polar bears to microorganisms living under the ice.

In 1992, the Canadian government made a commitment to stabilize Canada's greenhouse gas emissions at 1990 levels by the year 2000. It is now certain that Canada will fall short of that commitment. Meanwhile, the risks of climate change continue to mount. Governments, business and private citizens all need to do more to address this serious environmental threat.

Recent events, from the worst eastern hurricane in 20 years to this spring's Red River flood, have individual Canadians more concerned than usual about the weather. And, while there is a lot we do not know about the specifics of climate change, one thing is certain: our climate is changing at any accelerating rate and the overwhelming scientific consensus is that human activity is the major catalyst in this change. Since the consequences of an altered climate will likely be devastating, decisive global action to slow the change is needed immediately.

As the world's second largest per capita user of energy, Canada has a moral obligation to cut its greenhouse gas emissions. A policy mix aimed at mitigation, adaptation to unavoidable damage, and information and research is essential to move on this environmental threat. Inaction is clearly not acceptable, given the high economic, social and ecological

costs of unabated climate change. Just as we commit money to health care, defense and other preventative programs in the public interest, so must we reduce our vulnerability to the very real dangers of climate change.

The world's leading scientists agree that global average temperatures have risen at an unprecedented rate over the last hundred years, largely due to human-caused greenhouse gas emissions. Canada has warmed by about 1°C, or roughly twice the global increase. There is evidence of other climate changes as well, including greater precipitation in certain areas and more frequent extreme weather events, such as heat waves and tornadoes.

If fossil fuel use continues its current expansion, atmospheric concentrations of carbon dioxide could double by the middle of the next century or earlier, perhaps tripling by the year 2100. Even a doubling of atmospheric CO₂ could have severe effects around the world: from flooding and droughts to increased disease and species extinction.

With global warming projected to increase by an average 0.2°C per decade, immediate action is required. Fortunately, there are some initial "no regrets" measures for reducing emissions that are inexpensive, save resources and provide other environmental benefits.

The David Suzuki Foundation urges Canadians to contact politicians with your views on climate change and what should be done about it. We also ask you to read the remaining reports in this series, which will look more closely at the specific policies and measures to address this serious threat to our future.

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