

CLIMATE CHANGE

IN SASKATCHEWAN

Around the world, our climate is changing. Average global temperatures are rising – the 20th century was the warmest the world has seen in 1,000 years, and the 1980s and 1990s were the warmest decades on record.



Human activities are upsetting the balance of greenhouse gases, such as carbon dioxide, in our atmosphere. Our heavy use of fossil fuels for heating, transportation and electricity, releases carbon dioxide and other greenhouse gases.

These gases are accumulating in our atmosphere and causing the Earth to “heat up”.

Most climate change projections for the Prairies show an increase in temperature under global warming. In fact, recent models suggest that summer temperatures in Saskatchewan could warm by 3 to 5°C by 2080. Such changes

would be the largest and most rapid of the last 10,000 years and would have profound effects on our lives and on ecosystems.

Life in the Country

Nearly half of the population of Saskatchewan lives in rural areas, and agriculture is an important industry in the province. Climate change may threaten our farms by increasing the risk of drought, dust storms, and insect infestations. Farmers may need to irrigate their crops more, while changes in the growing season would affect the types of crops grown. On the

positive side, warmer temperatures may increase productivity and allow farmers to grow crops farther north.

Rivers in Flux

The impacts of climate change on Saskatchewan rivers will depend on each river’s location and source of water. Rivers that originate in the prairies will likely experience lower and more variable flows. This means that although there will generally be less water available for use, the risk of larger extreme flows will increase. Riverside flooding in low-lying areas already affects many communities. In the Northern Plains, thawing permafrost would greatly increase the risk of damaging floods.

Water Resources

The supply of water from Prairie streams is strongly affected by climate and varies from year to year. Longer and hotter summers will increase evaporation and reduce water levels in lakes



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and rivers. As a result, demands on groundwater could increase, making it even more important for Saskatchewan residents to use water resources wisely.

Receding Forests and Expanding Grasslands

In a warmer climate, boreal forest, aspen parkland and open grassland zones may shift northward. This means that much of the boreal forest may be replaced by aspen parkland, while large regions of aspen parkland may become grasslands. In the northern regions, forest growth may benefit from warmer temperatures and longer growing seasons but may be limited by unsuitable soil. Forest fires and



insect outbreaks are expected to increase throughout the province. Damages to our forests from such events have been substantial in the past.

Changing Weather Patterns

Extreme events, such as severe thunderstorms, tornadoes, hailstorms, and heat waves, may become more common on the

Prairies due to climate change. Warmer winters may mean more intense winter storms, and increase the likelihood of rain. In the summer, flooding may increase due to heavier rainfalls. Extreme weather conditions, such as droughts, may become more frequent.

What can you do?

Actions by individuals account for 28 per cent of Canada's greenhouse gas emissions – that's almost six tonnes per person per year! If we're part of the problem, we can be part of the solution, too. By reducing the amount of energy you use at home and on the road, you can save yourself money and contribute to the global challenge of reducing greenhouse gas emissions. Small actions, like installing low-flow showerheads or not idling your car, can make a big difference.



Information in this fact sheet is derived from
**"The Winds of Change:
Climate Change in
the Prairie Provinces"**
View online at
www.adaptation.nrcan.gc.ca/posters

Want to know more about climate change?

Visit the Government of Canada climate change Web site at:
www.climatechange.gc.ca
or call toll-free: 1 800 O-Canada
(1 800 622-6232)
or TTY 1 800 465-7735 and ask for a climate change information kit.

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