

An aerial photograph of a tropical cyclone, showing a well-defined eye and spiral cloud bands over a dark ocean. The image is the background for the entire page.

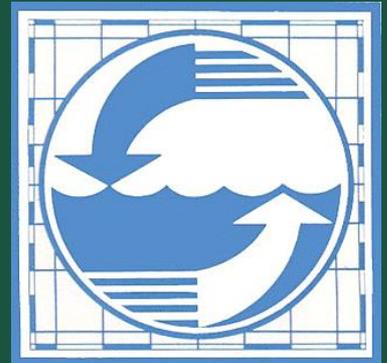
climate change

A PROFILE FOR COMMUNITY ACTION





What is global climate change?
A global shift in the general patterns of our climate: an average rise in worldwide temperature and changes in wind and ocean currents.





What is causing it?

The Intergovernmental Panel on Climate Change has made it clear that by burning fossil fuels, humans have dramatically increased the level of greenhouse gases (such as carbon dioxide, methane, nitrous oxide, and halogen compounds) in the atmosphere.

Cutting down forests reduces the earth's capacity to absorb greenhouse gases.

According to Environment Canada, the nation's biggest emitters are transportation, industry, electricity generation, agriculture and fossil fuel production and distribution. As individuals we account for about 1/4 of Canada's total greenhouse gas emissions, largely through driving our cars and heating and cooling our homes.





The results:

Rising average surface temperatures on the planet lead to rising ocean levels and increasing severe weather events, such as tropical storms, hurricanes, forest fires, floods, droughts and extreme changes in temperature. Other consequences include disrupted food supplies, compromised human health and wildlife extinctions.

**10 of the hottest 15 years on record
have occurred since 1990**



According to Environment Canada, floods are now the most common and most costly natural disaster in the world. Rising water levels threaten ocean states, coastal and delta areas.



In temperate and tropical regions, rainfall greatly impacts agricultural crop yields.

Pests and weeds benefit from changing growing conditions, possibly out-competing food crops or forcing farmers to use more chemicals.



Increase in pollens due to warmer temperatures cause more respiratory problems.

Vector/insect-borne diseases like malaria and West Nile virus are becoming more common.



Masses of people will be forced to flee from devastation in their homelands create a new group of refugees.



Native wild animal populations are displaced and decline due to habitat change and invaders who out-compete them.



Marine life will suffer from loss of food and shelter caused by global warming.





Federal actions to reduce emissions should include:

- “Carbon” taxes to penalize emitters
- Economic incentives for alternative energy use (such as wind, solar) and use of less damaging fuels
- Industry regulation (“polluter pays” principle)
- Targeted regulation (phasing out particular gases through bans)
- International/domestic trade in emissions reductions
- Reduction and elimination of fossil fuel subsidies
- Increased funding for public transit
- More stringent energy efficiency standards for appliances, equipment and buildings



Municipal government actions to reduce emissions should include:

- Improve urban planning: reduce car dependence, make public transit more appealing (frequency and connections), provide facilities for cyclists (parking, change rooms at workplaces, bike racks on buses, bike lanes) and plan higher density, mixed-use communities
- Reduce methane emissions from landfill
- Preserve greenspace, plant trees, leave riverbanks and ravines in natural state for carbon “sinks” to absorb carbon dioxide and offset emissions
- Set aside space for parks in new developments
- Assign official status to parklands and use legal covenants to preserve greenspace

Get fit, burn less, save the planet

Individual actions to reduce emissions should include:

- ✓ Park the car: walk, cycle, rollerblade, car pool or take public transit

If you must drive:

- ✓ Keep tires inflated: under-inflated tires can increase fuel use by 5%
- ✓ Tune your car regularly to prevent fuel waste
- ✓ Turn off the ignition! Ten seconds of idling uses more fuel than restarting the engine
- ✓ Improve fuel efficiency by choosing least damaging fuels
- ✓ Car pool





Energy conservation is an essential action to help stop global warming

Individual actions to reduce emissions should include:

- ✓ Switch fuels (oil to natural gas)
- ✓ Use programmable thermostats and window shades to regulate temperature
- ✓ Turn down the temperature on your hot water tank (54° C is adequate)
- ✓ Wash your clothes in cold water and reduce your hot water heating needs by 25%
- ✓ Insulate your hot water tank (reduce energy use by 10%) and put pipe wrap on your hot water pipes
- ✓ Install low-flow shower head and use up to 60% less water for your showers
- ✓ Draft proof your home and save up to 20% on your heating bill



It's in your power: save energy

Individual actions to reduce emissions should include:

- ✓ Hang washing out to dry and save 50kWh for average clothes dryers
- ✓ Turn down the thermostat: save 2% on your heating bill for every degree lower
- ✓ Turn off unnecessary lights
- ✓ Choose energy-efficient appliances and light bulbs: 13 watt compact fluorescent provides as much light as a 60 watt incandescent bulb
- ✓ Set the refrigerator compartment at 3 °C and freezer at -18 °C
- ✓ Leave at least 8cm of air space between back of fridge and wall for circulation and dust coils for efficient operation.
- ✓ Use “no heat” drying option on dishwasher or open and let air dry after rinse cycle

Community Success Stories:

Railway Branch Line Preservation

Magyar Közlekedési Klub

(Hungarian Traffic Club), Hungary



**MAGYAR
KÖZLEKEDÉSI
KLUB**

- Goal of Project:
To save Hungary's railway branch lines from closing
- The Hungarian Traffic Club was created to promote transportation solutions that are better for the environment and human health. The group convinced the government to protect 95% of the lines, make improvements to infrastructure and make train travel more attractive by coordinating bus schedules with train schedules thereby shortening connection waits.



Community Success Stories:

Landfill Gas Recovery

EPCOR

Edmonton, Alberta, Canada

- Goal of Project:
To use landfill gas to generate electricity.
- Since 1992, Edmonton's old garbage has been given "a new life" as electricity. The city has been using the methane gas in its landfill - produced from rotting materials - to generate electricity. The project has greatly reduced local greenhouse gas emissions and created a transferable model other cities can adopt.



A million tons of garbage makes a wonderful chocolate cake.

What a delicious idea. Capture the methane rising from an old garbage dump and turn it into power. At EPCOR's Clover Bar Landfill Gas facility, that's exactly what we're doing, creating enough power for 4500 homes for the next ten years. Now that's a lot of baking.

This is just one more way EPCOR is harnessing nature to provide the power and water you need in the most responsible and reliable way. See epcor.ca for more.

EPCOR



Community Success Stories:

Mayan Forest Resource Management

EcoLogic Development Fund & Mayan
Forestry Action Plan (PAF-Maya)
Guatemala



- EcoLogic supported the training of representatives from 32 communities on the use and management of natural resources such as restoring degraded areas, reforestation and natural regeneration, agroforestry, watershed management and the cultivation of fruit-bearing trees
- 100 community members from 50 communities received training as volunteer forest guardians
- Twenty volunteer agricultural promoters were enabled to assist community members in horticulture and nursery operations



Climate Change: Why Should We Care?

Around the world, humans will have to adapt to different living conditions. The infirm, the elderly and children will be most vulnerable to increasing pressure from heat waves, air pollution and other extreme weather events.

In whatever way we choose to take action, we must begin now. It is clear that we stand on the threshold of creating a catastrophe for our own habitat, the earth. The choices we make today, in both everyday life and in society as a whole are critical. We know the problems, we have the means to deal with them, and future generations of our children and grandchildren will judge us harshly if we fail to act.

Selected Climate Change Resources

- Canadian Institute for Climate Studies
www.cics.uvic.ca
- Intergovernmental Panel on Climate Change (IPCC) Secretariat
www.ipcc.ch
- International Council for Local Environment Initiatives (ICLEI)
www.iclei.org
- National Climate Change Secretariat
www.nccp.ca
- Climate Hot Map
www.climatehotmap.org
- Climate Institute
www.climate.org
- NASA Global Change Master Directory
gcmd.nasa.gov

PROFILE FOR
COMMUNITY
ACTION
SERIES



Climate Change: A Profile for Community Action

A Companion to Harmony Foundation of Canada's
Community Action Workshop Manual



Environmental Education in Action!

Harmony Foundation is dedicated to achieving progress through cooperation and education. Harmony's training programs and educational resources encompass environmental values and practical skills for positive action on environment and development issues.

www.harmonyfdn.ca

Based on Harmony Foundation's
Climate Change: A Profile for Community Action

