



Recycling and Climate Change



What is Climate Change?



Climate Change is the variation in the Earth's climate over time, which can be from both natural and human-induced changes. Human activities alter the chemical composition of the atmosphere through the increase of greenhouse gases (GHG). GHG trap heat and reflect it back to the earth's surface. The result is changes in our climate, including a rise in global temperature and more frequent extreme weather events.

The Link Between Greenhouse Gas Emissions and Recycling



Harvesting trees, extracting ores and oil, and transporting raw materials emit GHG

Increase in GHG emissions

Decrease in GHG emissions
Waste prevention and recycling delay the need to extract raw materials, lowering GHG emissions



Manufacturing new products releases GHG during processing as it expends energy

Increase in GHG emissions

Decrease in GHG emissions
With waste prevention, fewer products are made. Making products from recycled requires less energy



GHG are emitted as waste decomposes in landfills

Increase in GHG emissions

Decrease in GHG emissions
Waste prevention and recycling divert materials from landfills, lowering GHG emissions

Did you know?

- Canadians generate about 30 million tonnes (Mt) of waste annually¹
- Almost 24 Mt (78%) of which are discarded as waste²
- Waste management activities (mainly landfill related) contribute to an estimated 3% (18 Mt) of Canada's annual Greenhouse Gas emissions³
- Landfill sites account for about 38% of Canada's total methane emissions⁴
- Methane is 20 times more potent as a greenhouse gas than carbon dioxide⁴
- 17 million Canadians (nearly 2/3 of us) have access to recycling⁴

For more information:

¹ Enhanced Recycling: Government of Canada Action Plan 2000 on Climate Change, Minerals and Metals Program. Available online at: http://www.recycle.nrcan.gc.ca/enhanced2_e.htm

³ Enhanced Recycling: Government of Canada Action Plan 2000 on Climate Change, Minerals and Metals Program. Available online at: http://www.recycle.nrcan.gc.ca/enhanced2_e.htm

³ Canadian government's 1997 Second National Report on Climate Change.

⁴ Environment Canada: The 4 R's - Reduce, Reuse, Recycle, and Recover. Available online at: http://www.ns.ec.gc.ca/udo/reus_e.html



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Yes, You Can Make a Big Difference!

By choosing to prevent waste, recycle and purchase recycled products, you can help curb climate change.


Look how much **Energy** we can **Save** by Making New Products out of Recycled Materials!

Manufacturing Energy Use: Virgin Inputs & Recycled Inputs

Product	Energy (GJ/tonne) for Virgin Inputs	Energy (GJ/tonne) for Recycled Inputs	Reduction in Energy Using Recycled Rather than Virgin Inputs
Aluminium	64.19	6.18	90%
Steel	22.67	9.30	59%
Copper Wire	67.87	6.00	91%
Glass	6.00	4.20	30%
 HDPE Plastic	33.25	6.00	82%
 PET Plastic	62.21	6.00	90%
Tires	102.53	42.11	59%
Newsprint	14.11	8.35	41%
Cardboard	30.93	12.78	59%

By **Reducing** our Consumption we can **Reduce** GHG Emissions!



Reducing 500 tonnes of...	Is approximately equal to removing this many cars from the road in 1 year
Paper	339
Aluminum	1050
Glass	57
 HDPE Plastic	205
Cardboard	216





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What can you do?

Be a Green Consumer

- At the store, ask yourself these questions:
 - Can this product or its packaging be reused or recycled?
 - Was it produced from recycled materials?
- Whenever possible, choose products that meet this criteria
- Use reusable bags for your trips to the store
- Buy products that are well made and durable; you'll reduce waste while save yourself time, money and aggravation
- Purchase paper products with a high recycled content
- Avoid food packaged in individual servings and try to buy in bulk
- Buy multi-use items rather than single-use when possible
- Invest in rechargeable batteries and a charger
- Wrap presents in reusable cloth bags or reused wrapping paper
- Rent items you use infrequently
- Pack your lunch in reusable containers
- Purchase locally grown produce and local products when possible



At Home

- Compost organic food scraps from your kitchen
- Share your newspaper, magazines and books with friends and family
- Use both sides of every sheet of paper
- Use jars, tins, and plastic containers to store leftovers, bulk foods and household items
- Repair, refinish, or donate items that are en route to the trash
- Use a durable refillable mug or glass at school or work
- Support your community's recycling programs
- Encourage your friends and family to follow your good example



For more monthly and seasonal waste reduction tips visit our website at: <http://rcbc.bc.ca/>