

# Out shopping:

Our everyday consumption contributes to a large amount of our GHG emissions, through manufacturing, packaging, transportation, consumption, recycling and disposal. The best solution is to "keep it simple" – buy less. We all need to evaluate our purchases and consider how they contribute to the bigger picture. We need to buy more durable goods, more re-usable products, products with less packaging, and we should borrow or rent items that we use infrequently. Below are more ideas for reducing GHGs when you are out shopping.

## Buy less animal products

Animal products, like meat and dairy, are the most resource-intensive food on the table. Producing meat requires huge amounts of water, grain, land, and other inputs including hormones and antibiotics. It can also produce significant amounts of methane – a cow's diet and multiple stomachs cause them to produce methane every time they burp or fart.

**Meats and dairy take 4 – 8 times more energy to produce than the food contains. In contrast, the ratio is less than 1 for breads, cooking oils, fresh potatoes, nuts and flour, which contains more energy than it takes to produce them** (28).

### Solution:

If you're a meat eater, try cutting out a serving of meat each week. Purchase or borrow a vegetarian cookbook and try cooking vegetarian once a week.

GHG savings:  
Up to  
**1.5 tonnes**  
or more of GHGs  
for an average  
family (29).



## Bring Your Own Bag!

Plastic bags don't biodegrade, they photodegrade – breaking down into smaller and smaller toxic bits contaminating soil and waterways and entering the food web when animals accidentally ingest. Billions end up as litter each year. On top of that, plastic bags are made out of petroleum products.

**Each year, an estimated 500 billion to 1 trillion plastic bags are consumed worldwide (30). That comes out to over one million plastic bags used per minute.**

### Solution:

It's easy – B.Y.O.B (Bring your own bag).

GHG savings:  
Manufacturing 8 plastic  
bags is equivalent to  
driving a car  
**1 km.**  
The manufacturing of  
plastic bags accounts for  
**4%**  
of the world's  
total oil production (31).

## Buy local

Buying local food not only helps local farmers thrive, it reduces energy consumption. A lot of energy is expended freezing, refrigerating, and transporting food.

**Estimates on how long the average food travels from pasture to plate range from 1,200 to 2,500 miles.**

### Solution:

Seek out and support local farmers and farmer's markets. You can also become a 100-Mile diet participant, checkout <http://100milemanitoba.org/>.

GHG savings:  
**1/5**  
of your family's  
total food GHGs (32).

## Break the bottled water habit!

There is a growing trend to buy bottled water. Is it the taste, good marketing, or the in thing to do? The fact is most of Manitoba's tap water is safe to drink and is usually tested more frequently than bottled water. So why are we opting for bottled water?

**Making bottles to meet demand for bottled water requires more than 17 million barrels of oil annually. Eliminating those bottles would be like taking 1,000,000 cars off the road** (33).

### Solution:

Drink tap water! If you don't feel comfortable drinking your tap water, consider installing a filter on your faucet or getting a filtered pitcher you can keep in your fridge. For water on the go, invest in a safe, reusable bottle.



GHG savings:  
We can eliminate  
**450,000 tonnes**  
of carbon dioxide annually  
by eliminating just  
the manufacturing  
of the bottles (34).



## In your community:

### Get Involved

Stay informed on the issues – read books and newspapers, watch films and DVDs about global warming. Then talk to your neighbour, co-worker, friends, family and community groups about ways to reduce global warming.

Contact the media - Write a letter to the editor. Write an op-ed (opinion-editorial). Contact radio and television producers with your ideas for topics and potential guests.

Let political representatives know where you stand - Political leaders earn their positions from votes. They care about public opinion and keep close tabs on issues constituents raise in letters, meetings, phone calls and editorial pages of local papers.

Create change in your community - Invite neighbours and friends to help you effect the changes you want to see.



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<http://www.climatechangeconnection.org/Resources/SolutionsTabloid-referencelist.htm>

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# Wondering what you can do?

## Steps for CLIMATE FRIENDLY living



## It's time for action.

Our climate is changing. As the concentration of greenhouse gases (GHGs) increases in our atmosphere, the average global temperature rises. Rising temperatures have a big impact on our province. In recent years, impacts have included severe weather events, thinning of the ice on Hudson's Bay, increased stress to infrastructure, melting permafrost, and shorter winter road seasons. Atmospheric scientists have accumulated a vast amount of evidence identifying human activity as the main cause.

Every year, each Manitoban produces approximately **17 Tonnes of GHGs**. Sound like a lot? To put this in perspective, the volume of one tonne of GHGs would fill one two-storey, three-bedroom house – **now multiply that by 17.**

**There are many steps we can all take to reduce our GHG emissions and live in a more climate-friendly manner.**

## On the road:

In Manitoba, the transportation sector is the greatest source of GHG emissions. Fossil-fuel burning vehicles generate over one-third (about 37%) of the province's climate-changing pollutants(1). In 1995, road transportation in Manitoba contributed over 7 million metric tonnes of carbon dioxide to the environment. If carbon dioxide were oil, it would be like 20 super tankers running aground and spilling their entire load.

**Driving a car is the single most polluting thing most Manitobans do.**

We now use our cars to take our children to school, to go to work, to grocery shop, and for out of town trips. This hasn't always been the case. And it does not have to be our future.

**If you have to drive - You can do your bit in the following ways:**

- Look for alternatives so you spend less time in your car – walking, biking, carpooling, transit, and reducing the # of trips
- Drive a fuel-efficient vehicle suitable to your needs
- Eliminate unnecessary idling
- Maintain our vehicles and tire pressure
- Drive at the posted speed limit or below

**Did you know?** Idling for more than 10 seconds uses more fuel than restarting your car. For more information about idling and idle-free zone signs visit [www.climatechangeconnection.org](http://www.climatechangeconnection.org).

GHG emissions:  
**Large Car**  
(ex. Ford Crown  
Victoria); (2) **34 kg**  
CO<sub>2</sub>e/100km

GHG emissions:  
**Small Car**  
(ex. Toyota  
Echo); (3) **17 kg**  
CO<sub>2</sub>e/100km

## SOLUTIONS

### WALKING

Live closer to work. When purchasing a house or looking for a job try to stay local. Walking to work can improve health and save your pocketbook. Imagine living in a neighbourhood where you can walk to work, shop for groceries on the way home, and never have to deal with rush hour traffic.

GHG emissions:  
**0 kg**

### CYCLING

The bicycle can reduce a large portion of our GHG emissions from transportation. The bicycle costs pennies per mile. It emits no greenhouse gases, local pollutants, or engine noise. It provides moderate, low-impact exercise of the kind the human body needs to maintain good health. It reduces road maintenance needs, insurance costs, and is an affordable alternative.

GHG emissions:  
**0 kg**

### TRANSIT and BUSES

Jump on a bus! If more people used public transit there would be fewer cars and fewer emissions. Each full bus is equivalent to approximately 40 cars on the road.

GHG emissions:  
**6 kg**  
CO<sub>2</sub>e/100km/  
passenger (4)

## TRAVELING A DISTANCE?

More and more people are traveling by plane. Air travel is harmful to the atmosphere and it is becoming a large percentage of our GHG contribution. Aircrafts use an incredible amount of fuel and they burn it high up in the sky where the air is thin and the chemistry is complex and fragile. Emissions released at this height have twice the impact as they would at ground level (5).

**If you need to fly - You can do your bit in the following ways:**

- Look for alternatives – bus, train, or carpool
- Reduce the # of flights – vacation locally, visit relatives every other year, combine business meetings, or host meetings over the internet.
- Fly direct

Simple "**rule of thumb**" to remember, is that a plane uses about as much fuel, and therefore produces about as much CO<sub>2</sub>, as would every passenger driving one car the same distance.



## COMPARISON

**PLANES**  
Planes have the greatest climate impact of any transportation mode. One flight can produce as much or more GHGs than driving your car all year.

SHORT FLIGHT:  
**39 kg**  
CO<sub>2</sub>e/100km/  
passenger (6)

LONG FLIGHT:  
**32 kg**  
CO<sub>2</sub>e/100km/  
passenger (7)

**TRAINS**  
In Manitoba, emissions from rail transportation have decreased 50% from 1990 levels due to declining use of this mode. When was the last time you were on a train?

GHG emissions:  
**9 kg**  
CO<sub>2</sub>e/100km/  
passenger (8)

**OCEAN LINERS**  
Between 1980 and 2000, the number of North American cruise ship passengers increased 500 percent, to 7 million annually (9).

GHG emissions:  
**32 kg**  
CO<sub>2</sub>e/100km/  
passenger (10)

# At home:

## Switch to a low-flow showerhead and toilet

It takes an immense amount of energy to put water through the municipal system from treatment and purification to pumping it to your home.

The City of Winnipeg provides low-cost Water Conservation Retro-Fit Kits, call 986-2944 or visit <http://www.winnipeg.ca/WaterandWaste/water/conservation/kits.stm>.

A low-flow showerhead uses 60% less water than a standard fixture and can save up to: **0.4 tonnes of GHGs per year** (27).

## Insulate your home

Make sure your home is well insulated everywhere – the roof, floors, walls, basement. It will keep you cool in the summer and toasty in the cold seasons.

Manitoba Hydro's Home Insulation Program offers information and rebates to homeowners who add insulation to their existing home. Eligible homeowners may receive up to 100% of the insulation cost. To learn more about the program visit [http://www.hydra.mb.ca/your\\_home/home\\_insulation.shtml](http://www.hydra.mb.ca/your_home/home_insulation.shtml).

Insulating your basement walls and attic can reduce your energy bill by as much as **30%**. (26)

## Insulate your hot water tank and turn it down to 49°C (4).

Heating cold water is very energy intensive – and also a great place to save energy.

Most hardware stores sell pre-made insulator "jackets" that can be easily wrapped around your water heater.

Experts estimate that adding insulation to your water heater and any exposed pipes can knock up to 15% off the costs of heating water (24). For every 5°C reduction you can save **0.2 tonnes of CO<sub>2</sub>** (25).

## Install an energy-efficient furnace

A high efficiency furnace or boiler uses less energy, costs less to operate, helps conserve natural resources, and reduces GHG emissions. Most have a payback of around seven years.

Manitoba Hydro Furnace and Boiler Replacement Program offers rebates on selected ENERGY STAR qualified furnaces and boilers, for more information visit Manitoba Hydro's website at [http://www.hydra.mb.ca/your\\_home/furnace\\_replacement\\_program.shtml](http://www.hydra.mb.ca/your_home/furnace_replacement_program.shtml).

If your furnace is more than 10 - 15 years old, it is probably a standard, 60% efficient furnace. This means that for every dollar you spend on heating, only 60 cents goes to heating your home. Modern furnaces are **80 - 95% efficient**.

## Avoid using chemical pesticides or fertilizers

Chemical pesticides and fertilizers are petroleum based and when applied are a source of nitrous oxide (N<sub>2</sub>O), a GHG. Try using organic products – they are better for our environment and healthier for your lawn and your family.

For more information about the benefits of Organic Lawn Care, specific techniques, and FREE workshops visit the Manitoba Eco-Network at [http://www.mbeconetwork.org/projects\\_lawncaresp](http://www.mbeconetwork.org/projects_lawncaresp).

N<sub>2</sub>O is **310 times more potent a GHG than CO<sub>2</sub>** (23).

## Avoid using gas powered lawn tools

Using an electric or manual lawn mower or a shovel instead of a snow blower will reduce GHGs and provide you with much needed exercise and fresh air.

Check out the Clean Air Foundation's program MOW DOWN POLLUTION for how you can trade in your old lawn mower for a more energy efficient gas-free model. <http://www.cleanairfoundation.org/mowdownpollution/index.asp>.

Running your gas powered lawnmower for one hour is equal to driving a new car for almost **500 km.** (22)

## Use cold water and clotheslines to do laundry

While switching to front loading laundry sets is guaranteed to produce savings on your utility bill and reduce GHG emissions, freeing yourself of hot water and your dryer altogether will likewise reduce your bills and GHG emissions.

Most detergent brands now provide a cold water alternative.

A whopping 90 percent of the energy used by a washing machine goes to just heating the water. Changing to cold water washing can save you almost \$50 and **0.4 tonnes of CO<sub>2</sub> a year** (21).

## Use recycled or 100% post-consumer paper products

We may take trees for granted, but they provide us with oxygen, clean air, habitat for wildlife. Forests also reduce erosion, flooding, and provide us with numerous resources. The less we harvest the healthier our province will be.

For more information about the tree, energy, GHG, water, and waste savings from choosing recycled paper over non-recycled paper see the Environmental Defence's Paper Calculator at [www.environmentaldefence.org/papercalculator](http://www.environmentaldefence.org/papercalculator).

Each tonne of 100% post-consumer toilet paper saves **12 trees and 1 tonne of GHGs per year** (11).

## Unplug electronics from the wall when you're not using them

Even when turned off, things like cell phone chargers, televisions, DVD players, microwaves, and computers use energy. It's called 'phantom electricity'. The easiest solution is plugging all the devices into a power bar and turning the power bar off or pulling the plug when you are not using the device.

For more tips and residential rebates visit Manitoba Hydro's website at [http://www.hydra.mb.ca/your\\_home/index.shtml](http://www.hydra.mb.ca/your_home/index.shtml).

Unplugging items when not in use can shave up to 10% off the average Canadian household's annual electricity bill. Phantom power is estimated to waste more than **5 billion kwh each year in Canada** (12).

## Use a programmable thermostat

Programmable thermostats are an easy solution to regulating your home's temperature in both summer and winter – when you are asleep or away.

To find a programmable thermostat that is right for your household visit [http://www.energystar.gov/index.cfm?c=thermostats\\_pr\\_thermostats\\_features](http://www.energystar.gov/index.cfm?c=thermostats_pr_thermostats_features).

For every 1°C you lower your thermostat, you save 2% on your heating bill and approximately **0.2 tonnes of GHGs every year** (13).

## Buy energy efficient appliances

Major electrical household appliances sold in Canada must meet minimum energy efficiency standards and are required to display an EnerGuide label. The labels show you how much electricity the appliance consumes in one year, and how the appliance compares to similar models in terms of energy consumption.

An appliance receives the ENERGY STAR rating if it is significantly more energy efficient than the minimum government standards to view and compare ENERGY STAR appliances visit <http://www.oe.nrcan.gc.ca/energystar/english/consumers/appliance.cfm?ext=N&printview=N>

Today's refrigerators use less than half the electricity of a 15-year-old model and can save you more than **0.2 tonnes of GHGs each year** (14).

## Capture rainwater

A cistern or rainbarrel will capture and store rainwater for your lawn and garden reducing your use of municipal water.

Rainbarrels can be purchased at most hardware stores or garden centres.

**34%** of the City of Winnipeg's GHG emissions released are due to water and wastewater (15).

## Junk your junk mail!

Junk mail in Canada accounts for about 30% of all the mail delivered in the world and more than 100 million trees a year are logged to produce it. The Canadian Boreal Forest, which plays a vital role in protecting us from the effects of global warming, is being destroyed to supply paper to this wasteful industry.

To reduce junk mail place a sign on your mailbox or visit <http://www.reddotcampaign.ca/> and learn about how you can be removed from unaddressed mail distribution and the Canadian Marketing Association address list with the Red Dot Campaign.

It's estimated that each Canadian home receives between 550 and 800 pieces of junk mail every single year, which means that more than **16 billion flyers** are distributed to Canadian homes annually. Almost half of which goes to landfills unopened! (16)

## Take care of your trash

Most people don't realize that solid waste reduction and recycling help address climate change. How? Manufacturing, transporting and using the product – as well as management of the resulting waste – all result in GHG emissions. The more we recycle, reduce, and reuse, the less GHGs we will emit.

There are over 200 community recycling programs in Manitoba! To find out about your community's recycling programs and what you can and can't recycle visit Manitoba Product Stewardship Corporation at <http://www.mpsc.com/main.cfm>.

Manitobans generate **950,000 tonnes of waste annually**. Imagine 1 football field piled **600 metres high with garbage** (17).

## Compost organic kitchen waste

Composting your food and yard waste makes valuable fertilizer and reduces the amount of waste in landfills. When organic waste decomposes in the landfill it produces methane, a potent GHG.

For more information about composting basics, workshops, and demonstration sites in Manitoba visit Resource Conservation Manitoba's website at <http://www.resourceconservation.mb.ca/cap/byc.html>.

Methane is 21 times more potent a GHG than CO<sub>2</sub>. By composting, a family of three can reduce GHGs by more than **1/8 of a tonne of GHGs each year** (18).

## Use caulking and weather-stripping around windows and doors

If you combined all the "heat leaks" in an average Canadian home, you would have a hole the size of a basketball! Caulking and weather-stripping all cracks is an easy solution.

To improve comfort, reduce energy use and save money in your home, book a Power Smart eEnergy In-Home Energy Evaluation - [http://www.hydra.mb.ca/your\\_home/home\\_evaluation\\_details.shtml](http://www.hydra.mb.ca/your_home/home_evaluation_details.shtml)

Proper weather stripping and caulking of doors and windows can reduce heating bills by as much as 25% and save up to a **1/2 a tonne of GHGs every year** (19).

## Plant a tree

A well-placed evergreen on the north side of your home can shelter it against cold winter winds and reduce your home's energy demands. Similarly, shade trees on the south side can keep your home cooler in summer and reduce the need for air conditioning by shading your home's windows and walls.

To purchase seedlings to plant on your property or to give away at a special event visit the Manitoba Forestry Association at [http://www.mbforestryassoc.ca/seedlings/seedlings\\_order\\_info.htm](http://www.mbforestryassoc.ca/seedlings/seedlings_order_info.htm).

A single tree will absorb **1 tonne of CO<sub>2</sub> over its lifetime** and can save up to **0.1 tonnes of GHG** if planted to shelter a heated building (20).

