

WHAT IS CARBON?

When we hear the word carbon in relation to climate change, we are talking about carbon dioxide (CO₂), which is emitted when fossil fuels are burned, and carbon dioxide equivalents (CO₂e) such as methane and nitrous oxide.

 CO_2e was developed so these other emissions could be measured along with CO_2 .

WHY IS IT IMPORTANT TO REDUCE EMISSIONS?

To meet international emission reduction targets, Canadians need to reduce annual individual emissions from 13.5t (tonnes) to 2.1t of CO_2e . This is the only way to prevent catastrophic warming by 2050.

WHAT ARE THE 3 MOST IMPACTFUL LIFESTYLE CHANGES TO REDUCE EMISSIONS?

1. EATING A PLANT-BASED DIET

By reducing consumption of all meat and most dairy, an individual can reduce their annual emissions by 0.8t CO₂e per year.

EAT VEGETARIAN OR VEGAN MEALS WHENEVER POSSIBLE. ESPECIALLY AVOID BEEF PRODUCTS.



2. LIVING CAR FREE

Having no car reduces annual emissions by 2.4t CO₂e.

Switching to an electric car or a more efficient car provides substantial emissions relief, but simply driving at all contributes to infrastructure emissions. (Road maintenance & car production)

BIKE, WALK, OR USE PUBLIC TRANSIT INSTEAD OF DRIVING.

3. AVOIDING AIR TRAVEL

By avoiding a single roundtrip trans-Atlantic flight, an individual reduces their annual emissions by 1.6t CO₂e.

VACATION CLOSER TO HOME AND USE ALTERNATE TRAVEL OPTIONS SUCH AS TRAINS.





WHAT OTHER LIFESTYLE CHANGES CAN HAVE AN IMPACT?

High impact changes can reduce individual emissions while simultaneously influencing systemic change. It is more efficient to make a few high impact changes than to implement many low impact emissions reduction strategies, BUT ANY CHANGE IS BETTER THAN NO CHANGE!

HIGH IMPACT CHANGES

- Have a smaller family*
- Purchase green energy (including solar panels)

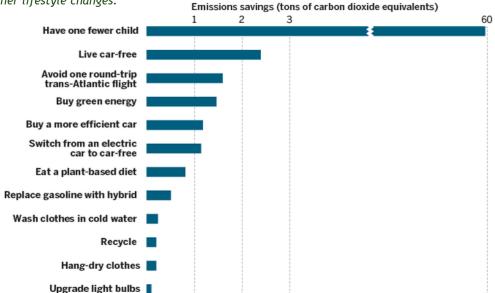
MEDIUM IMPACT CHANGES

- Improve home efficiency
- Buy energy efficient products
- Conserve energy
- Reduce consumption
- Recycle
- Eat local

LOW IMPACT CHANGES

- Conserve water
- Minimize waste
- Compost
- Plant a tree
- Purchase carbon offsets
- Reduce unnecessary travel
- Buy organic food

^{*}With the inclusion of future emissions of descendants, having one fewer child will reduce an individual's emissions by 58.6t of CO2e per year. This is a substantially higher reduction in emissions than a combination of all other lifestyle changes.



The information in this handout is compiled from the following research: Wynes S., Nicholas K.A., *The climate mitigation gap: education and government recommendations miss the most effective individual actions*, Environmental Research Letters 12 (2017) 074024