

# **Global Warming: The Actions that Ontarians Can Take to Reduce Their Carbon**

## **Footprint**

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Ever since the Industrial Revolution started, the amount of greenhouse gases (GHGs) released in the atmosphere by human activities has continuously been rising. The boost in the concentration of these gases in the atmosphere is starting to have dramatic effects on the environment. Ice masses all over the world are starting to melt, resulting in an increase in temperature and sea level, and the oceans are becoming more acidic than ever, threatening species that reside in the waters (Al Gore, 2006). In 2013, Canada ranked ninth among the top 10 countries in the world that were emitting the largest amounts of GHGs. In 2015, Ontario had the second highest rate of GHG emissions among the Canadian provinces (Environment and Climate Change Canada, 2017). Given the Ontarians' significant contribution towards global warming, what measures can they take to diminish their carbon footprint?

Transitioning from burning fossil fuels to using solar power to generate electricity is one of the most effective measures Ontarians can take to combat global warming. Solar power accounts for only 0.2% of the electricity generated today in Ontario, while natural gas, a type of fossil fuel, accounts for 8.3% (Canadian Nuclear Society, 2017). Ontarians can easily switch to using solar power either by installing solar panels on their roofs, or by sourcing their electricity from local solar farms. Harnessing the power of the sun to produce electricity solves the problem of GHG emissions, since the process does not release any pollutants in the atmosphere, while burning fossil fuels releases carbon dioxide and sulfur dioxide, two harmful GHGs (BBC). Moreover, solar farms generate electricity without producing any *material* waste or toxins, altering the composition of the water that flows underground, or damaging the land they operate on, thus preserving the ecosystems around them (Penn Energy Renewables).

Limiting the usage of a private road motor vehicle to the greatest extent possible would lead to a considerable reduction in Ontarians' carbon footprint. In 2016 alone, a staggering 8.5 million road motor vehicles were registered in Ontario (Statistics Canada, 2017). The average road motor vehicle in developed countries, including Canada, emits about 2.4 tonnes of carbon dioxide per year, in addition to methane and nitrous oxide, two other GHGs with a higher global warming potential (Jake Edmiston, 2017; U.S. E.P.A). This amount of emissions can be lowered by choosing alternatives to using a private vehicle for transportation. In Ontario, transit stops and stations are in close proximity to each other. This indicates that the transit systems can service most or even all of the general population's travel needs. An eco-friendlier alternative, mostly suitable for short-distance trips, is to use a bicycle. Walking is another option. The few Ontarians for whom these options are not viable can still decrease their carbon footprint by buying or swapping their existing vehicle for a fully or partially electric vehicle.

Switching from the average meat-containing diet to a vegan diet (a diet absent of dairy and meat) would greatly reduce the amount of GHG emissions by Ontarians. According to a study conducted by the WorldWatch Institute, livestock accounted for over half of all GHG emissions globally in 2009 (Goodland, R. & Anhang, J., 2009). Beef production in Ontario accounted for 0.003% of that amount, which is equivalent to over 975 000 tonnes of GHGs (Beef Farmers of Ontario). However, beef production is only one facet of livestock in Ontario; the farming of poultry, hogs, sheep, and cows in the province collectively emits an amount of GHGs that is multiple times higher. In 2011, the Environmental Working Group issued a report that showed the number of kilos of carbon dioxide released in the atmosphere when producing one kilo of different foods. The eight foods whose production caused the largest amount of emissions were products derived from animals. Lamb topped the list, producing a kilo of which was equivalent to driving 91 miles (Environmental Working Group, 2011).

In his essay *The Moment of Truth* (2006), Al Gore describes global warming as “a crisis like no other we have ever encountered” (p. 1). He explains that the level of global warming is at its peak and continues to rise daily, largely due to inaction on behalf of world leaders. Canada is one of the most notorious polluters worldwide, and within the country, the province of Ontario is the second biggest polluter. But Ontarians can join the fight against global warming in several ways. They can switch to using electricity generated by solar energy. They can avoid using their private motor vehicle as a means of transportation, and opt for greener alternatives. They can adopt a vegan diet. If they do, their deeds may inspire inhabitants of other regions of the planet to take action.