The Rise of Light-Duty Trucks in Canada: Reversing the Trend

A phenomenon with consequences in many sectors.

**Climate**
Between 1990 and 2018, the number of light-duty trucks increased by 280% and their GHG emissions by 156%, while the number of cars increased by 10% and their GHG emissions decreased by 19%.

**Public safety**
Crashes involving sport utility vehicles (SUVs) are more fatal for the person driving the other vehicle (+28%) and more common (+10%).

**Finances**
Light-duty trucks cost on average $10,000 more than a standard in Canada. Since 1981, 65% of the increase in household spending on transportation was due to the purchase of new light-duty trucks.

**Road network**
The higher number of larger and heavier vehicles results in longer and more frequent traffic jams and causes premature wear and tear.

In 20 years, the space occupied by Montreal’s vehicle fleet has increased by 46%, from 1,338 to 1,948 hectares, the equivalent of losing 1,355 American football fields in area.

In Canada, the transportation sector is responsible for one-quarter of greenhouse gas (GHG) emissions, with more than half coming from light-duty trucks. Domestic light-duty truck sales increased by 280% between 1990 and 2018.

**Definitions and issues regarding classification.**

- **What is a light-duty truck?**
  A light-duty truck is:
  1) either 4-wheel drive or with a gross vehicle weight rating of more than 6,000 pounds and has one of the 4 features defined by the Government of Canada, such as an approach angle of at least 28 degrees;
  2) designed to: carry more than 10 people; provide temporary shelter; carry goods on an open platform; provide a volume for the carriage of cargo greater than that for the carriage of passengers; or permit the carriage of cargo with the seats removed.

- **Inconsistent vehicle classifications**
  In Canada, there is no consensus on the definition of light-duty vehicles.
  Light trucks are defined differently between levels of government, departments, provinces and within the automotive industry: weight, passenger capacity, primary function, etc.

- **Use of space**
  In 20 years, the space occupied by Montreal’s vehicle fleet has increased by 46%, from 1,338 to 1,948 hectares, the equivalent of losing 1,355 American football fields in area.

- **Morency et al. (2020)**
- **ECCC (2018)**
- **Banholzer (2020)**
- **Monfort et Nolan (2019)**
- **Morency et al. (2021)**
- **Morency et al. (2021a)**
- **Morency et al. (2021b)**
- **Small 3 rows**
- **Large**
- **Very small**
- **Examples of SUV segments used by the industry. Morency et al. (2021)**
- **Very different vehicles are classified in the same category, and similar vehicles in different categories.**
- **The light truck category is subject to less stringent GHG emission standards than cars.**

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**Definitions and issues regarding classification.**

- **Light trucks**
- **Cars**
- **Pickup trucks**
- **Vans**
- **SUV**
- **Compact**
- **Intermediate**
- **Full size**
- **Small 3 rows**
- **Large**
- **Very small**

*Examples of SUV segments used by the industry. Morency et al. (2021).*
Evolution of vehicle characteristics in Canada

<table>
<thead>
<tr>
<th>1994</th>
<th>2019</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (cm)</td>
<td>+7%</td>
<td></td>
</tr>
<tr>
<td>Footing (cm)</td>
<td>+7%</td>
<td></td>
</tr>
<tr>
<td>Mass (kg)</td>
<td>+25%</td>
<td></td>
</tr>
<tr>
<td>Ground surface (m²)</td>
<td>+11%</td>
<td></td>
</tr>
</tbody>
</table>

The arrival of crossover utility vehicles (CUVs) in 2000, which are often smaller than traditional SUVs, has contributed to the popularity of light trucks.

+42% increase in the number of models offered in Canada since 1994, from 278 to 383 models.

+60% increase in the number of versions per model offered in Canada since 1994, from 556 to 889 versions.

Understanding the demand for light-duty trucks.

Diversifying demand

### Before
- Household with above average income
- Men
- People aged 55+ years
- Large families
- People living in suburban or rural areas

### Today
- All income levels
- More women
- More people aged between 35 and 44 years
- More couples with no children
- More people living in urban areas

Understanding what motivates the purchase of light-duty trucks.

Socioeconomic context

### Pickup trucks
- I carry material for work
- I tow recreational vehicles
- I am between 45 and 65 years old
- I live in a rural setting

### SUV
- I already own an SUV
- My household is high income
- I have a large family
- I am between 25 and 34 years old
- I live in the suburbs or in the city

Psychological aspects

- I value ambition and influence
- I like to drive
- I perceive my vehicle as indispensable

Vehicle-related aspects

- I am concerned about safety in the event of a collision and in winter conditions
- I seek comfort
- I prefer 4 wheel drive and a high driving position

External influence

The most common sources of information used when buying a vehicle are, in order: dealership, friends and family and third party websites.
Understanding the role of automobile advertising.

Disproportionate investments

The automotive sector is the 2nd largest investor in digital advertising in Canada with a 19% share or $1.6 billion.

79% of automobile advertising in Canada promotes light-duty trucks.

Weak legal framework

In Canada, there is no federal control over automobile advertising before it is aired; the Canadian system acts only after receiving complaints. The environment has not yet been incorporated into Canadian advertising laws and standards.

Advertising Standards Canada are applied on a voluntary basis by industries. Unlike other sectors, there are no specific codes for the automotive sector.

New Zealand

Advertisements shall not depict environmental damage in areas of significant conservation value.

United Kingdom

Advertisements must include the vehicle’s fuel consumption and CO₂ emissions.

Brazeau et Denoncourt (2021)

Best practices

Sweden

Terms such as “environmentally friendly” can only be used if the product improves or does not harm the environment.

Belgium

The use of off-road locations in advertisements is restricted and misleading messages about environmental effects are prohibited.

Reversing the trend: Équiterre’s recommendations.

1. Recognize the rise of light-duty trucks in Canada as a climate and public health and safety issue.

2. Establish an automatic and universal classification system for light-duty vehicles.

To ensure a coherent framework for the automotive industry, promote cooperation between governments and facilitate the monitoring of government objectives.

3. Establish an independent advisory committee.

To assist the government in developing and implementing measures to reduce the supply and demand for light trucks.

4. Implement measures to reduce the demand for large vehicles.

- Establish a self-financing fee-rebate system
- Maintain the progressive increase in the price of carbon
- Introduce kilometre-based pricing
- Introduce a program to retire gas-guzzling vehicles

5. Implement measures to reduce the supply of large vehicles.

- Reform light-duty vehicle GHG emission regulations
- Impose “green requirements” on the auto industry

6. Increase regulation surrounding automobile advertising.

7. Develop campaigns to promote sustainable mobility.