

Purpose of indicator

Monitoring the trends in greenhouse gas emissions and their sources means we can begin to manage resources and change behaviours in order to reduce the effects on our environment. The data for this indicator is baseline information from which we will monitor progress.

Current information and trend

Figure 12.1 shows the 2001 baseline information on emissions produced by waste and energy resources used in the Rotorua area.

- Petrol produces the largest amount of emissions.
- Carbon dioxide is the most common greenhouse gas from vehicles, and has a life span of 50 to 200 years in the atmosphere.
- Diesel engines can be more efficient than petrol engines, but there are fewer diesel vehicles being used.



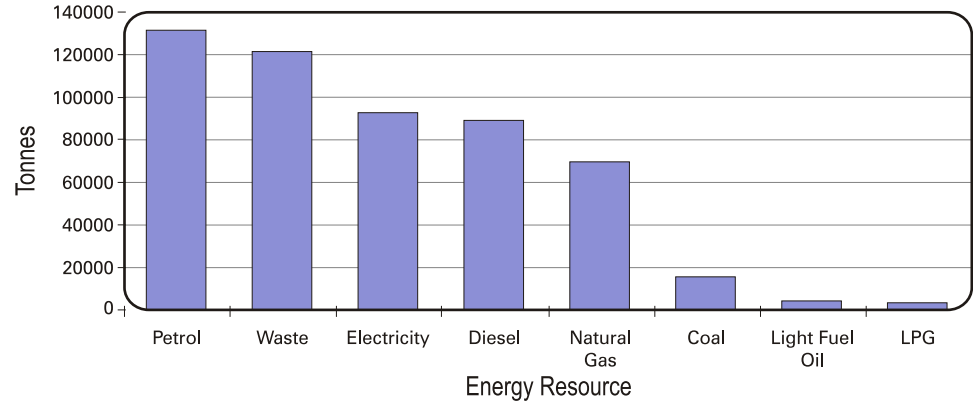
- Emissions from diesel are slightly higher per litre than petrol but the efficiency gain can result in fewer emissions per kilometres travelled. Emissions from waste are the second highest amounts emitted (Figure 12.1).
- Methane gas is produced when organic matter such as food scraps and garden clippings break down in the absence of oxygen.

There are varying levels and types of greenhouse gases produced, depending on the resource used to produce electricity. The industrial sector (Figure 12.2) uses mostly natural gas, electricity and diesel for its operations.

What the community said

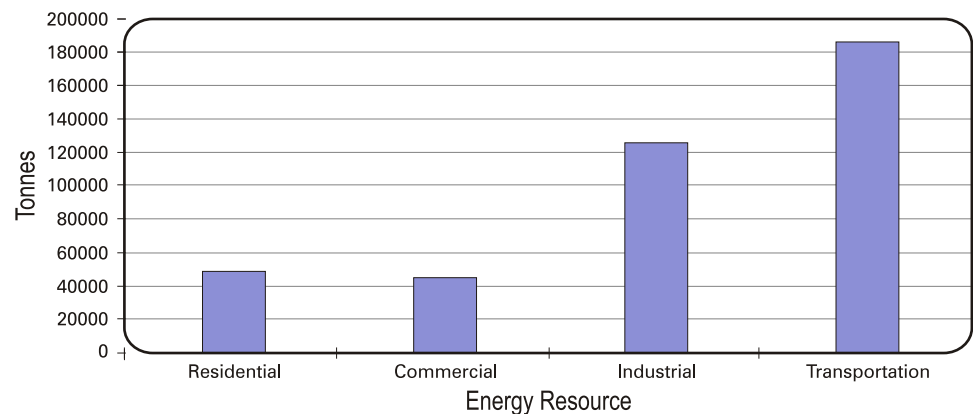
Despite the large proportion of people who stated they were aware of global warming and the actions that could be taken to reduce its effects, 44% stated they either did not know what actions they were taking to reduce the effect of global

Figure 12.1 Community greenhouse gas emissions 2001 by source (Co2 equivalent)



Source: Communities for Climate Protection, 2006

Figure 12.2 Community greenhouse gas emissions 2001 by sector (Co2 equivalent)



Source: Communities for Climate Protection, 2006

warming (20%), or were doing nothing to reduce the affect of global warming (24%). The most common actions respondents reported were planting trees (13%) or not burning fossil fuels (16%).

The Global environment: vehicle use and emissions



Indicator 12.2 Vehicle kilometres travelled

STEADY

Purpose of indicator:

The number of vehicle kilometres travelled shows how often vehicles are used and gives an indication of the use of fossil fuels and subsequent contribution to air quality and climate change.

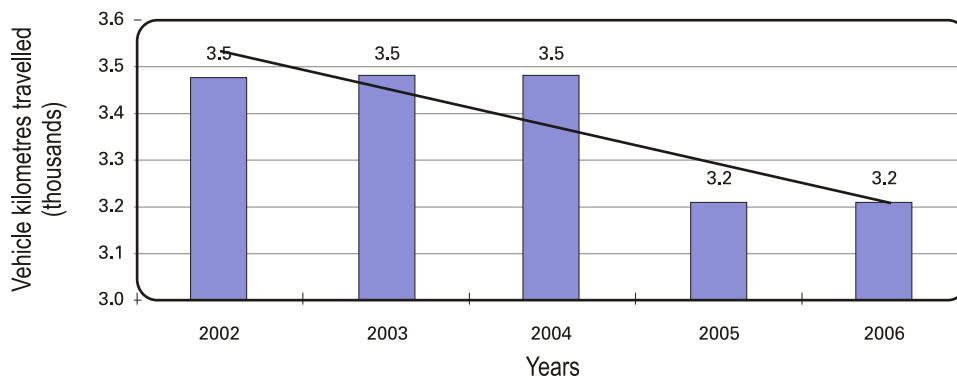
The number of vehicles registered in the district gives an indication of whether greater or lesser amounts of greenhouse gases are being emitted as a result of combustion of fuel from driving vehicles.

Current information and trend

The number of vehicle kilometres travelled remained steady for years 2002-2004, then decreased. This is demonstrated in Figure 12.3, which is an anomaly caused by the change in the status of the Tauranga Direct Road from a local road to a state highway. The real trend shows a steady state.

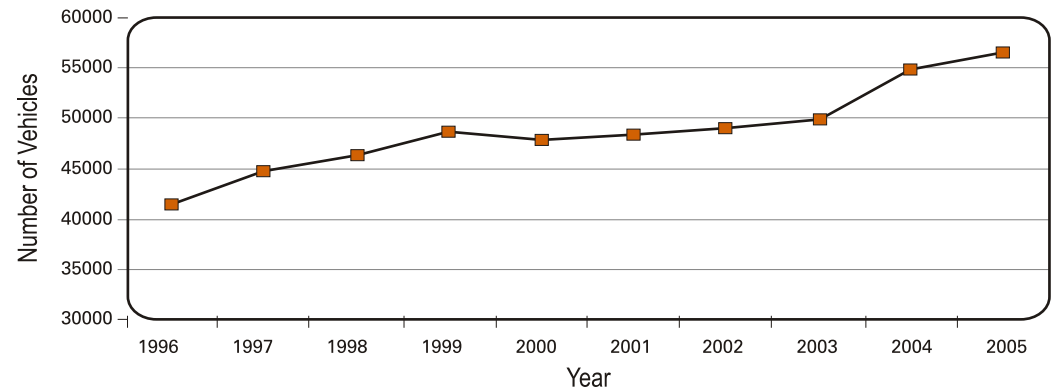
Vehicle registrations in the district increased in a slow and steady manner from 2000 to 2003 (Figure 12.4). In 2004 there was an increase of 5000 cars. The long term trend shows that vehicle registrations have continued to increase, by over 15,000 vehicles in less than 10 years. Although there are more vehicles being registered in Rotorua, the loads of traffic on local roads remain steady.

Figure 12.3 Vehicle kilometres travelled on local roads, per person



Source: Rotorua District Council, 2007

Figure 12.4 Number of vehicles owned in the Rotorua district



Source: Land Transport New Zealand, 2006

What the community said

The actions already taken by the community to reduce the effects of global warming are not burning fossil fuels (16%), cycling to work/ shops (8%), using public transport (6%) and using more energy efficient transport such as hybrid cars (4%). Just over half (51%) of the community who were not already taking action to reduce the effects of global warming said they were willing to use public transport.

