

Adapting to Climate Change



L6A4/p1

A scientific stocktake

Victorian greenhouse gas inventory

With a population of around five million people and a thriving agricultural and industrial profile, Victoria is a significant contributor to greenhouse gas emissions. The current data demonstrates that the state of Victoria actually produces a greater volume of greenhouse gases than some industrialized nations with larger populations, such as Switzerland. It is clear that we need to address this for the sustainability of our own nation.

Greenhouse gas inventories present data on emissions of a range of greenhouse gases, and on the removal of these gases from the atmosphere by 'sinks'. The emissions and removals recorded in these inventories relate to human activity. The data is categorised by sector and presented for different kinds of industry and activity.



1. In relation to greenhouse gas emissions, explain what is meant by the following terms. Give an example of each.

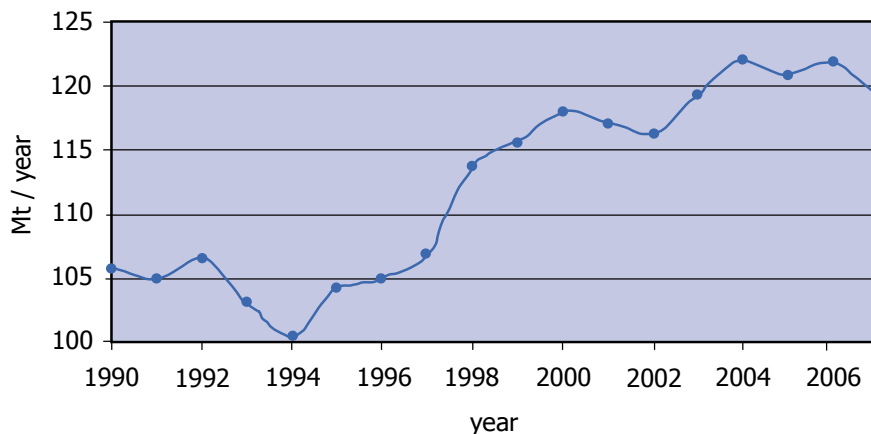
Sources: _____

Example: _____

Sinks: _____

Example: _____

Figure 1 Trends in Victoria's total greenhouse gas emissions – 1990 to 2007



Legend: Mt – megatonne CO₂

Source: Department of Climate Change and Energy Efficiency



Produced by Science Teachers' Association of Victoria Inc.

Author: Yvonne Sanders

Founded 1943

2. Describe the pattern of total greenhouse gas emissions for Victoria from 1990 to 2008.

3. By how much did Victoria’s greenhouse gas emissions increase between 1994 and 2004?

- 4a. What was the net greenhouse emissions between 1990 and 2008?

- b. There is a significant decline in greenhouse gas emissions from 2006 and 2008. Suggest reasons for this change.

Figure 2 - Trends in Victoria’s energy industries emissions – 1990 to 2007

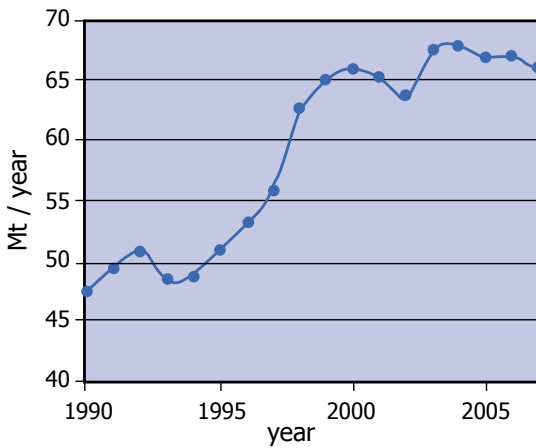
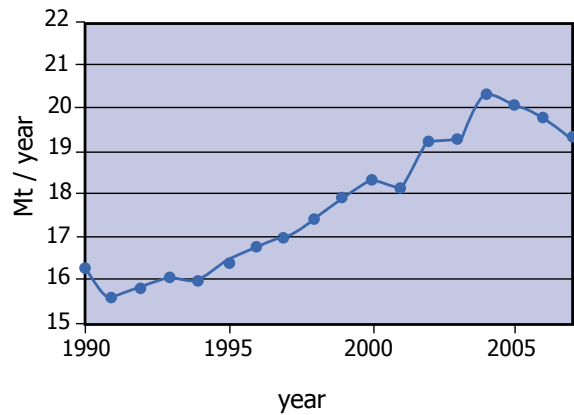


Figure 5 - Trends in Victoria’s transport emissions 1990 to 2007



5. Describe the overall pattern of greenhouse gas emissions attributable to
 - a. Energy industries: _____
 - b. Transport: _____

6. Victoria’s growing population is likely to place even greater demands on these services in the future. Comment on the sustainability of this pattern into the future and suggest how we could respond to this data.
