##### Market failure

# Exercise 5.0 - Congestion

**Activity sheet**

**Congestion:** When demand for journeys exceeds supply of available capacity so that the actual journey time takes longer than the normal expected time. Queuing is always an indication of market failure because a queue is a result of supply not equalling demand. Consumers are not paying a high enough price.

## Web resources

<http://www.teara.govt.nz/en/cars-and-the-motor-industry>

<https://en.wikipedia.org/wiki/List_of_countries_by_vehicles_per_capita>

<http://www.transport.govt.nz/assets/Uploads/Research/Documents/New-Zealand-Vehicle-fleet-stats-final-2013.pdf>

2013 NEW ZEALAND VEHICLE FLEET REPORT HIGHLIGHTS

Light vehicle registrations increased markedly in 2013. New registrations were at an all-time record level, and used registration exceeded 100,000 for the first time since the financial crisis. The high number of light vehicle registrations was accompanied by the lowest level of scrappage of light vehicles in over a decade. As a result the light fleet and its travel both grew.

1. Give **three** reasons to account for the rise in the demand for car transport in New Zealand.
2. Identify three negative externalities of increased car and truck use?
3. Possibly the most damaging of these is congestion. Draw an externality diagram to illustrate this.
4. Congestion arises because the supply of road space is less than demand for road space. Assess the three possible responses as follows:

|  |  |
| --- | --- |
|  **Possible responses:**  |  **Assessment of each response:** |
|  | **Advantages** | **Disadvantages** |
| 1. Do nothing
 |  |  |
| 1. Increase the supply
 |  |  |
| 1. Reduce demand
 |  |  |

1. Government intervention to reduce congestion has been in the form of road tax and excise duty on petrol. However the effect has not been very significant because demand for car use is relatively price inelastic and it does not discriminate between when and where people use their cars. Research the internet to find out what recent Government initiatives have been introduced aimed at reducing demand for road space.
2. A more sophisticated policy would be to internalise the externality. This means making the person who incurred the damage pay the full price i.e. the external costs as well as the private costs they pay at the moment. This is called road pricing. For this to work at its optimum the externalities need to be measured accurately. Assess the 2 main forms of road pricing as follows:

|  |  |  |
| --- | --- | --- |
|  | **Advantages** | **Disadvantages** |
| a) Road tolls |  |  |
| b) Electronic cars |  |  |

1. Research the internet to find out how NZ and Korean congestion levels compare with one another.