



**Victorian Certificate of Education  
2003**

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

**STUDENT NUMBER**

Figures									Letter	
Words										

**GEOGRAPHY**  
**Written examination**

**Thursday 13 November 2003**

**Reading time: 11.45 am to 12.00 noon (15 minutes)**

**Writing time: 12.00 noon to 2.00 pm (2 hours)**

**QUESTION AND ANSWER BOOK**

**Structure of book**

<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
5	5	60

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
  - Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
  - No calculator is allowed in this examination.
- Materials supplied**
- Question and answer book of 13 pages.
  - A data book.
- Instructions**
- Write your **student number** in the space provided above on this page.
  - All written responses must be in English.
- At the end of the examination**
- You may keep the data book.

**Students are NOT permitted to bring mobile phones and/or any other electronic communication devices into the examination room.**

**Instructions**

Answer **all** questions in the spaces provided in this book. Refer to the data book as indicated.  
 The marks allotted to each question are indicated at the end of each question. Suggested times for each question are indicated at the end of each question.

**Question 1**

*Use Figure 1 on pages 2 and 3 of the data book when responding to Question 1.*

- a. The Housing and Development Board buildings are a resource. **Classify** this resource in two ways. **Justify** your classification in each case.

Classification 1 \_\_\_\_\_  
 \_\_\_\_\_

Justification \_\_\_\_\_  
 \_\_\_\_\_

Classification 2 \_\_\_\_\_  
 \_\_\_\_\_

Justification \_\_\_\_\_  
 \_\_\_\_\_

4 marks

*(suggested time: 8 minutes)*

- b. **Complete** the following table to compare the location and scale of Housing and Development Board buildings between the Marine Parade and Woodlands estates.

	Similarity	Difference
Location		
Scale		

3 marks

*(suggested time: 6 minutes)*

- c. 'There is a strong spatial association between the distribution of recreation facilities and the distribution of Housing and Development Board buildings in Singapore.'  
Give one piece of evidence supporting this statement and one piece of evidence rejecting this statement.

Supporting evidence \_\_\_\_\_

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Rejecting evidence \_\_\_\_\_

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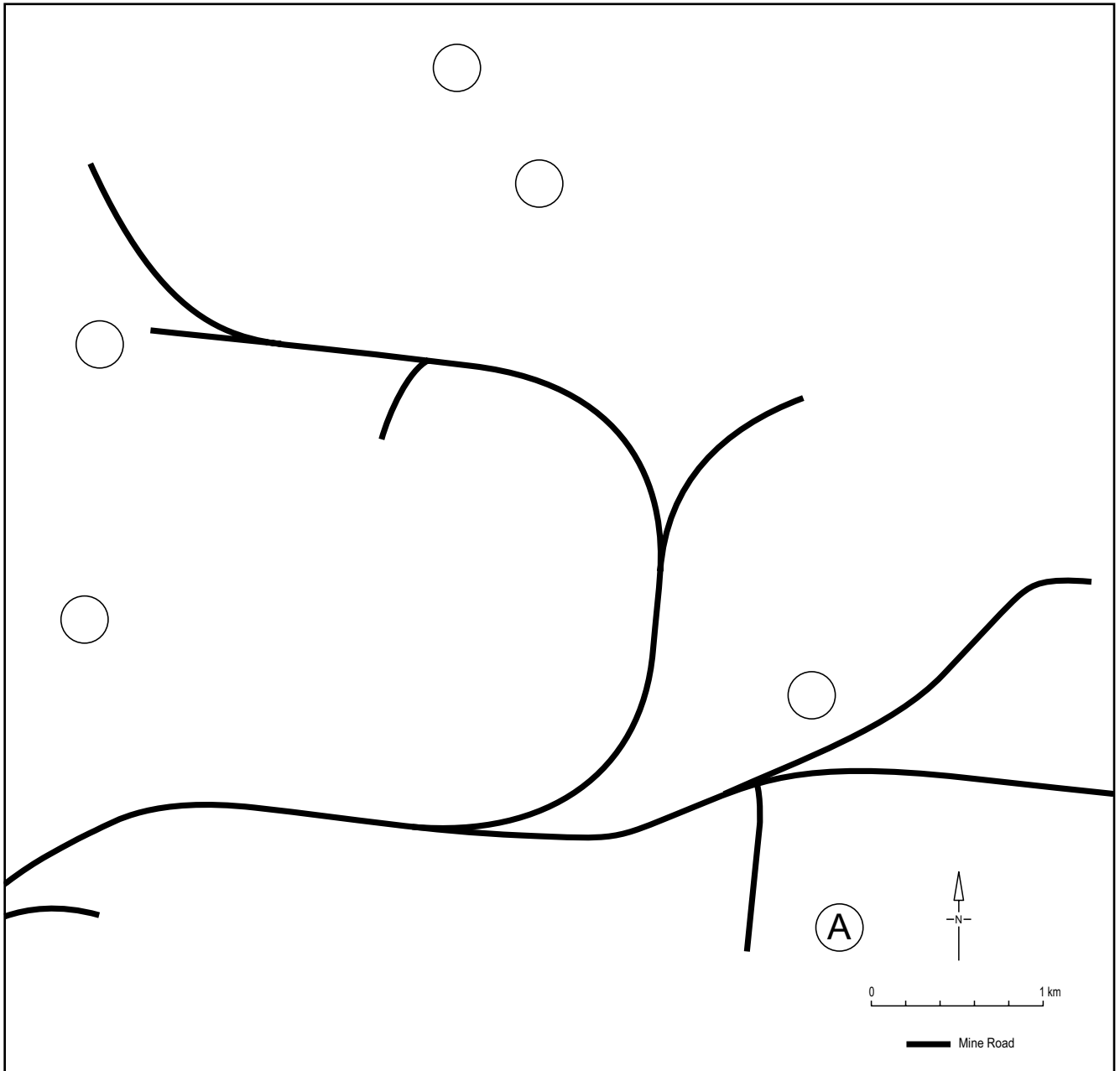
2 + 2 = 4 marks  
*(suggested time: 8 minutes)*

**CONTINUED OVER PAGE**

**Question 2**

Use Figure 2 on pages 4 and 5 of the data book when responding to Question 2.

- a. **Identify** from the aerial photograph (Figure 2(a)) one location for each of the four stages in the mining of bauxite by placing the letters B, C, D and E in four of the five blank circles marked on the outline map below. The undisturbed natural open forest of the region is already identified as A on the outline map.



4 marks

(suggested time: 8 minutes)

- b. Explain how **either** one physical factor **or** one environmental factor could prevent mining taking place at location X as shown on the aerial photograph.

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2 marks

*(suggested time: 4 minutes)*

- c. In 2001 at location Y, as shown on the aerial photograph, land was cleared of vegetation for mining. What change appears to have taken place by 2002, as shown on the land use map?

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1 mark

*(suggested time: 2 minutes)*

- d. What change appears to have taken place at location Z between 2001, as shown on the aerial photograph, and 2002, as shown on the land use map?

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1 mark

*(suggested time: 2 minutes)*

- e. How does rehabilitation contribute to the sustainability of the natural forest in this region?

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2 marks

*(suggested time: 4 minutes)*

**TURN OVER**

**Question 3**

Refer to a specific resource, **excluding** the Singapore Housing and Development Board buildings and bauxite mining at Weipa, to answer the following questions.

- a. **Examine** two effects of resource development and use on people **or** two effects of resource development and use on place.

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4 marks  
*(suggested time: 8 minutes)*

**b. Evaluate** one policy designed to manage the impact of the effects of using the resource analysed in part a.

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4 marks  
*(suggested time: 8 minutes)*

**Question 4**

*Use Figure 3 on pages 6, 7 and 8 of the data book when responding to Question 4.*

- a. **Describe** the distribution of passenger car production in 1959.

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3 marks

*(suggested time: 6 minutes)*

- b. **Identify** two ways the 1959 distribution of passenger car production had changed by 2001. Include specific country names in your answer.

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4 marks

*(suggested time: 8 minutes)*

- c. **Describe** one factor that could explain the differences in the distributions of passenger car production shown on the two maps.

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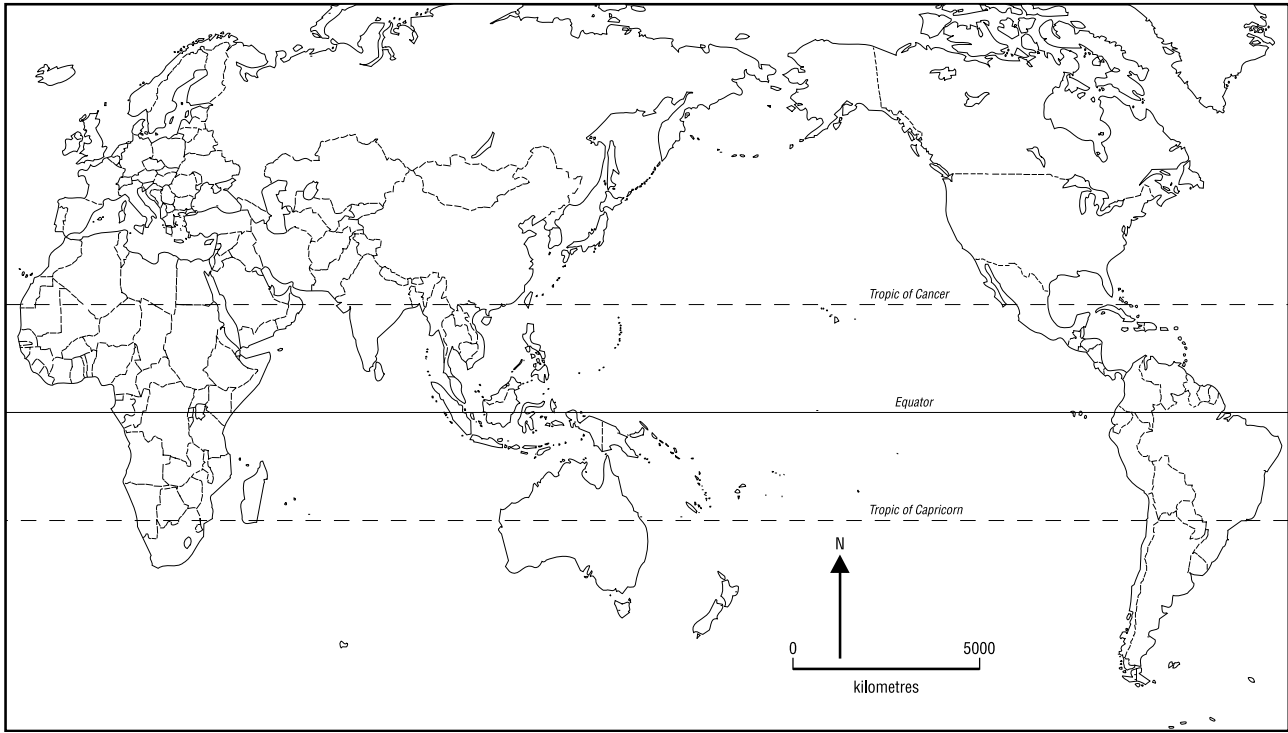
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2 marks

*(suggested time: 4 minutes)*



- d. On the outline map provided below
- map** and **name** one country that shows a strong spatial association between passenger car production in 2001 and GNP per capita.
  - map** and **name** one country that shows a weak spatial association between passenger car production in 2001 and GNP per capita.
  - complete the map using the following conventions: legend (key), title and source.



2 + 2 + 1 = 5 marks

(suggested time: 10 minutes)

- e. **Identify** one global impact, one regional or national impact, and one local impact, of the global phenomenon of increasing passenger car production.

Global impact \_\_\_\_\_

\_\_\_\_\_

Regional or national impact \_\_\_\_\_

\_\_\_\_\_

Local impact \_\_\_\_\_

\_\_\_\_\_

1 + 1 + 1 = 3 marks

(suggested time: 6 minutes)

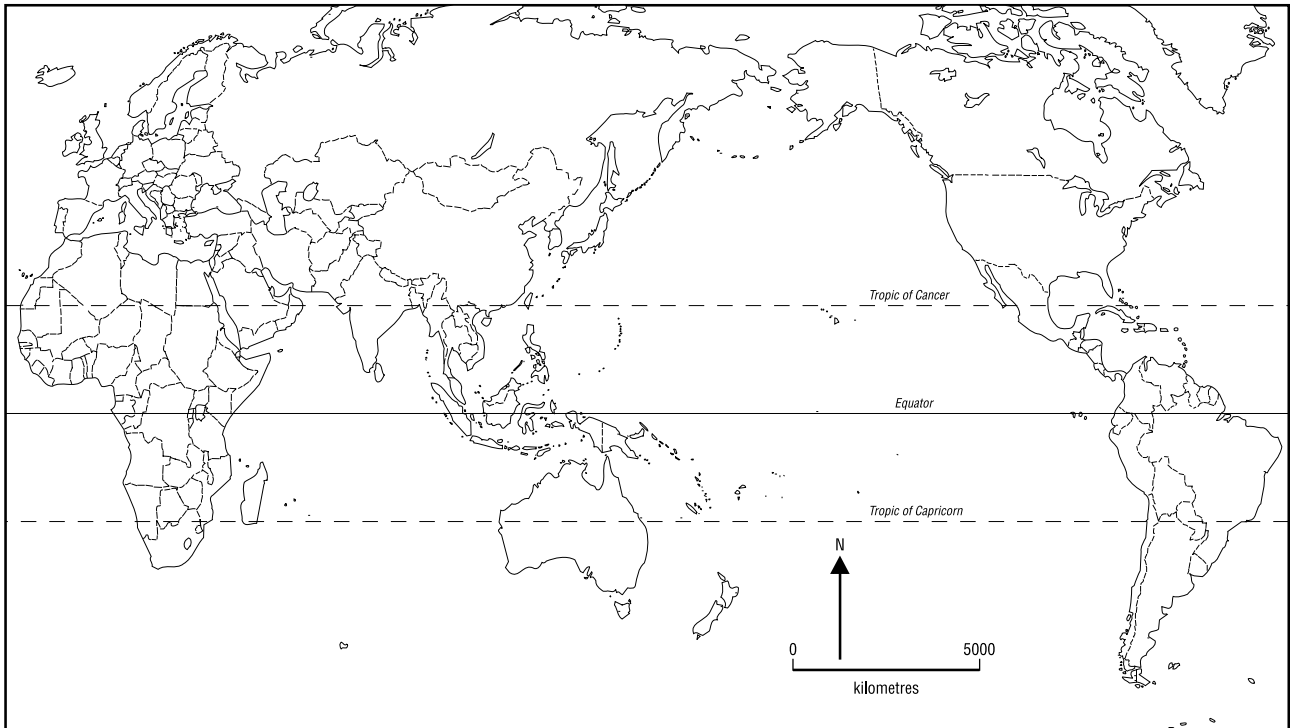
**TURN OVER**

**Question 5**

Answer ***EITHER*** Question 5a. (on pages 10 and 11) ***OR*** Question 5b. (on pages 12 and 13).  
Do ***NOT*** answer both parts.

**EITHER**

- a. i. Use the world outline map provided below to map the **distribution** of a **natural** global phenomenon you have studied.



4 marks

*(suggested time: 8 minutes)***Question 5 – continued**

ii. **Explain** the importance of one factor in determining the distribution of the **natural** phenomenon you have mapped.

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4 marks

*(suggested time: 8 minutes)*

iii. **Compare** and **evaluate** the policies developed to manage the effects of this **natural** global phenomenon at two of the following scales: global, regional/national, local.

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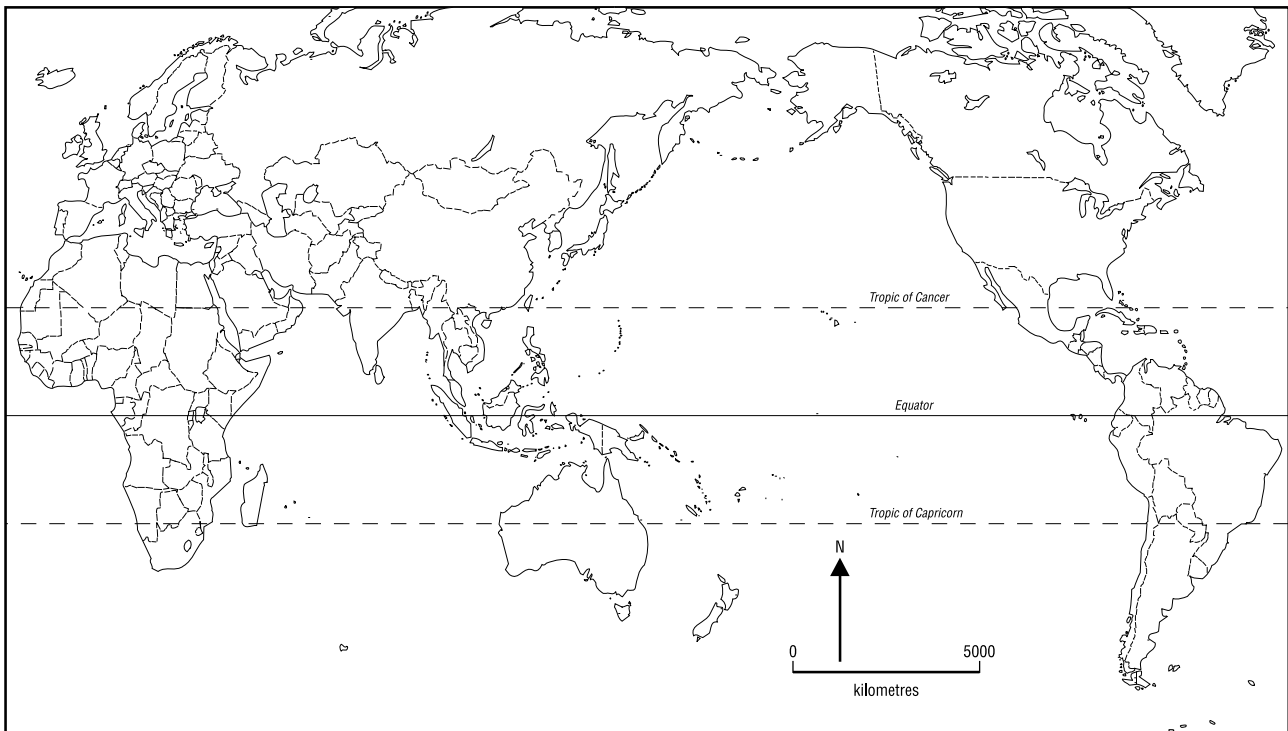
6 marks

*(suggested time: 12 minutes)*

**OR**

*If you have answered part a. of this question **do not** answer part b.*

- b. i.** Use the world outline map provided below to map the **distribution** of a **human** global phenomenon you have studied. Do not use the example of world passenger car production or gross national product per capita that appear on pages 6, 7 and 8 of the data book.



4 marks

(suggested time: 8 minutes)

**Question 5** – continued

ii. **Explain** the importance of one factor in determining the distribution of the **human** phenomenon you have mapped.

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4 marks

*(suggested time: 8 minutes)*

iii. **Compare** and **evaluate** the policies developed to manage the effects of this **human** global phenomenon at two of the following scales: global, regional/national, local.

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6 marks

*(suggested time: 12 minutes)*



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**DATA BOOK**

**Directions to students**

- A question and answer book is provided with this data book.
- Refer to the data in this book for each question as indicated in the question and answer book.
- The data contained in this book is drawn from current real world case studies.

**Students are NOT permitted to bring mobile phones and/or any other electronic communication devices into the examination room.**

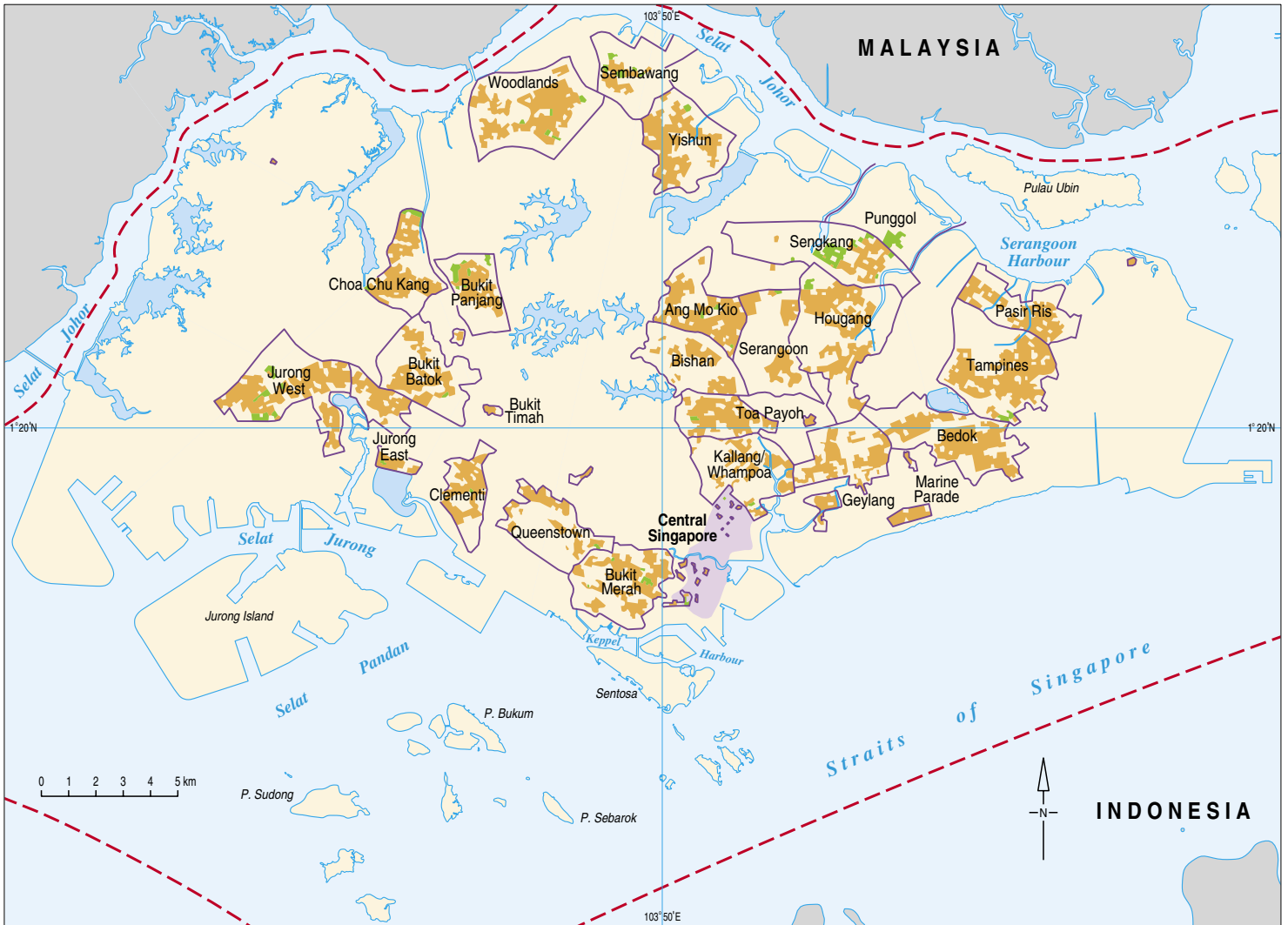


Figure 1 (a): Distribution of Housing and Development Board buildings

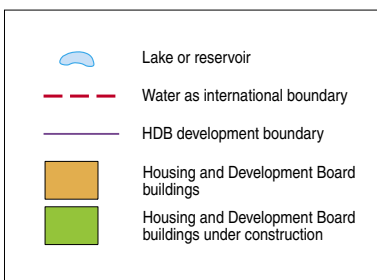


Figure 1 (b): Key to Figure 1 (a)

Figure 1 (c):

### Background information

The Housing and Development Board (HDB) was set up by the Singaporean Government to design, build and manage large-scale housing projects for Singaporeans. By 2001, 85 per cent of Singaporeans were living in HDB buildings, most of which have been developed as extensive estates complete with shopping, recreation, educational, health and religious facilities. Like the buildings in Figure 1(d), most HDB buildings are medium to high-rise.



Figure 1 (d): Singapore landscape

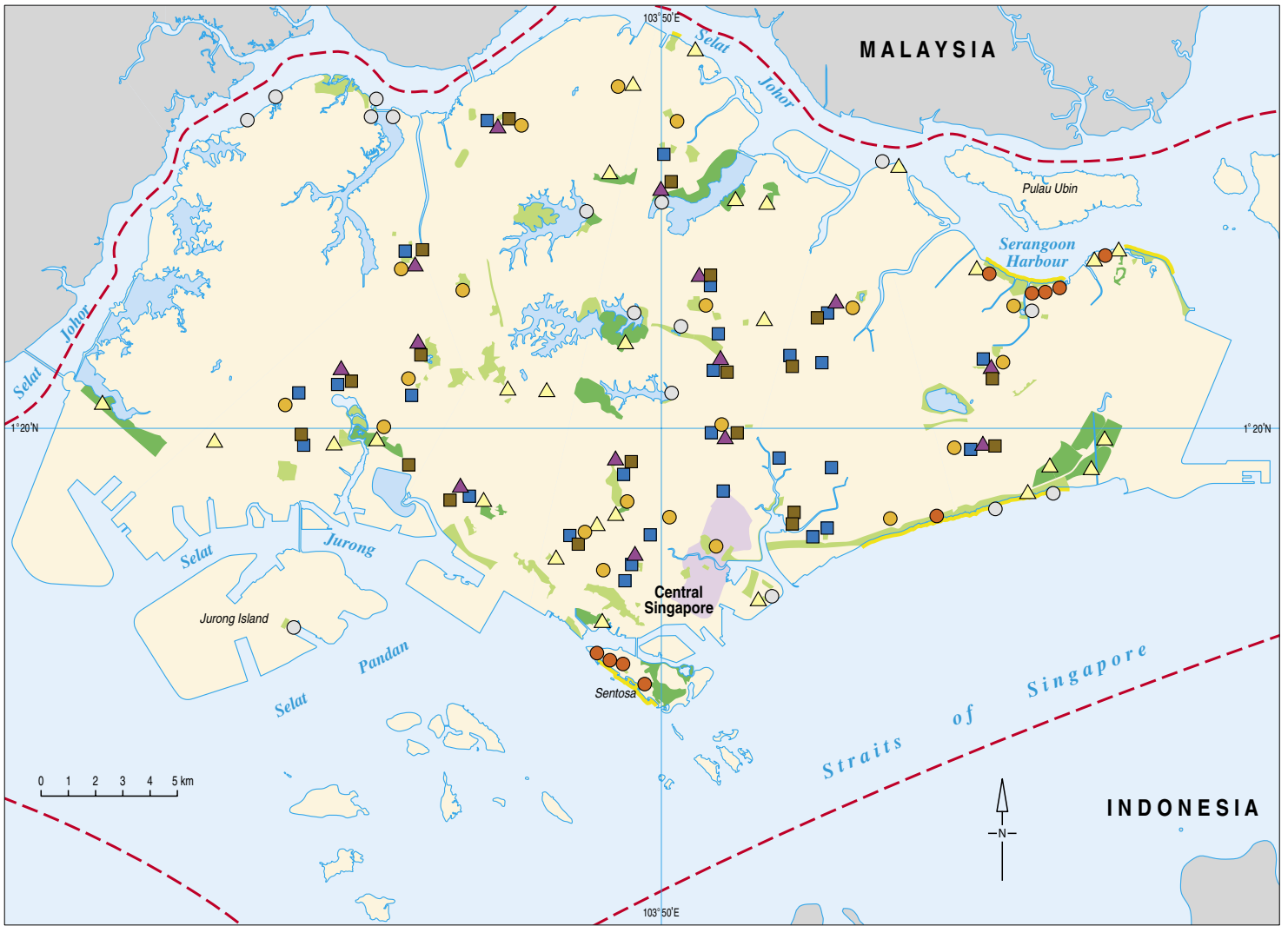


Figure 1 (e): Distribution of recreation facilities



Figure 1 (f): Key to Figure 1 (e)





Figure 2 (a): Aerial photograph of part of the Weipa mining operations, October 2001



◀ Figure 2 (b): ▼

### Background information

Weipa is located approximately 650 kilometres northwest of Cairns in northern Queensland. Bauxite ore, the raw material that is eventually processed into aluminium, is a valuable natural resource.

There is a sequence involved in the mining of bauxite:

- A Bauxite is located 3–4 metres below the natural vegetation, topsoil and surface rock in the region.
- B Vegetation is removed from the site to be mined.



**Figure 2 (c): Land use in the Weipa region, September 2002**

- C The overburden of topsoil and surface rock is stripped away.
- D The bauxite is dug out and transported by road to the port of Weipa. From here it is shipped to processing centres in Queensland and overseas.
- E Mined areas are rehabilitated by replacing the removed topsoil and surface rock and replanting with local trees and shrubs.

The aerial photograph, Figure 2 (a), is a section of the bauxite mining operations at Weipa. Figure 2 (c) is a map of the same area shown in the aerial photograph, taken nearly one year later.



**Figure 2 (d): Key to Figure 2 (c)**

Figure **3** World Passenger Car Production

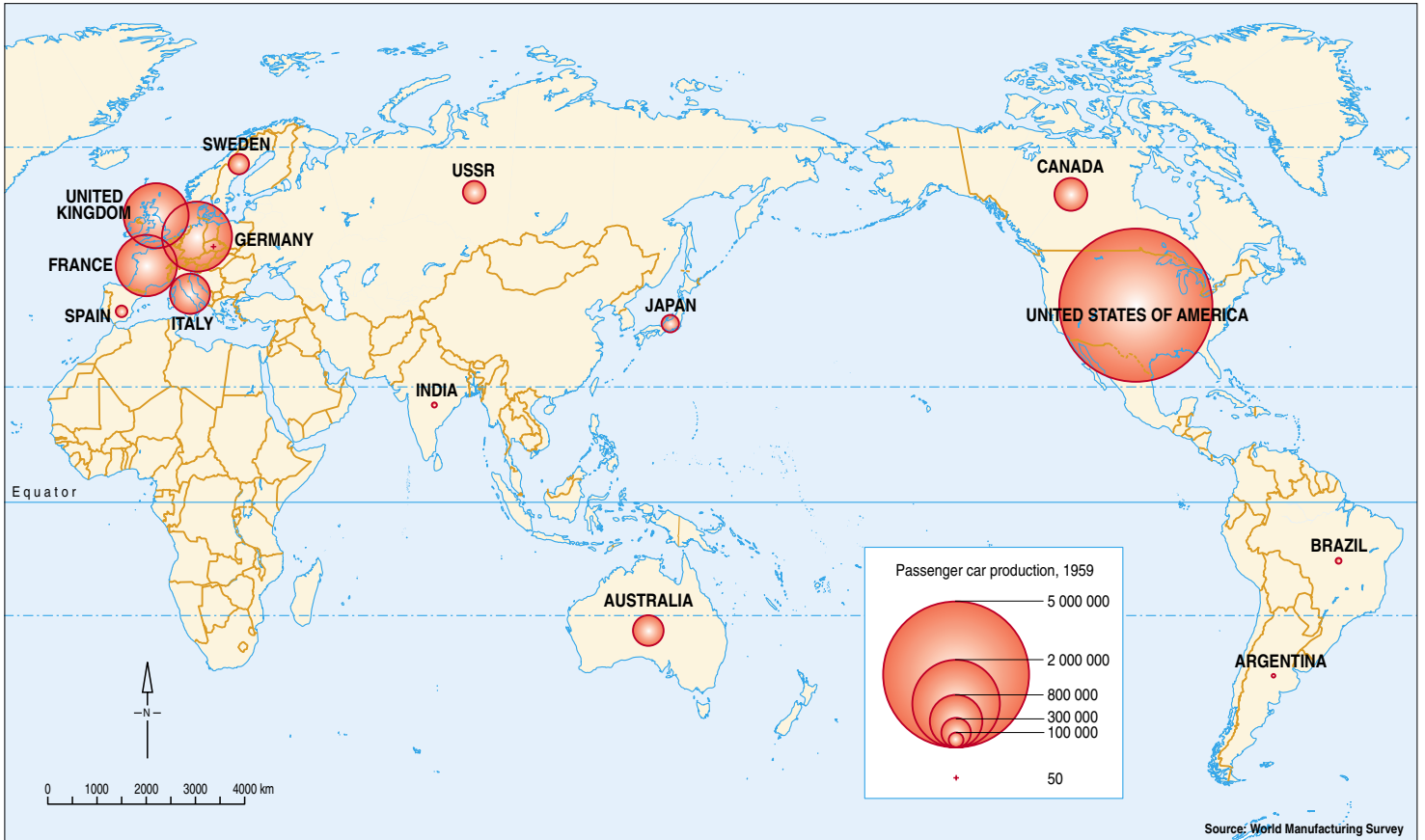


Figure 3 (a): Producing countries, 1959

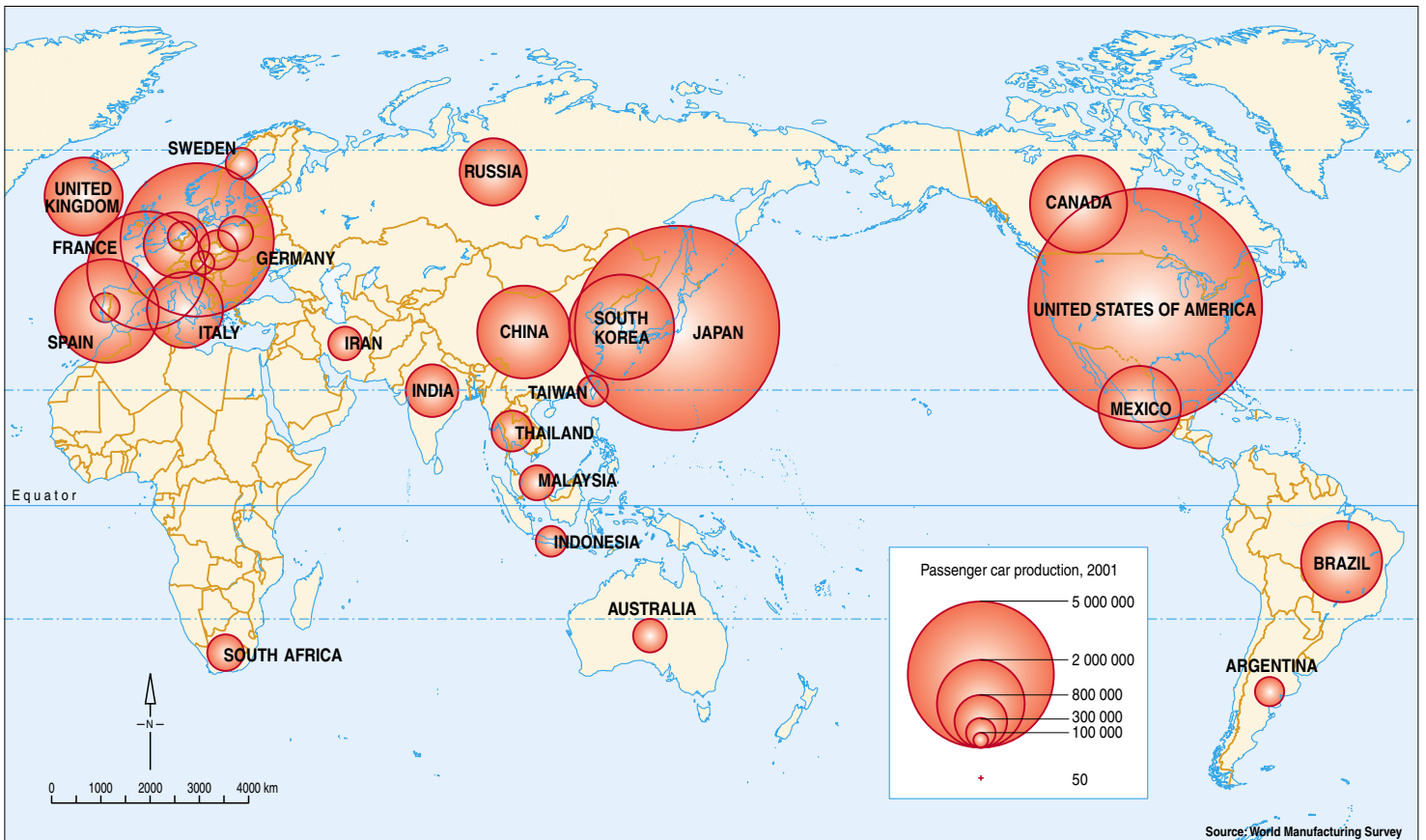


Figure 3 (b): Producing countries, 2001

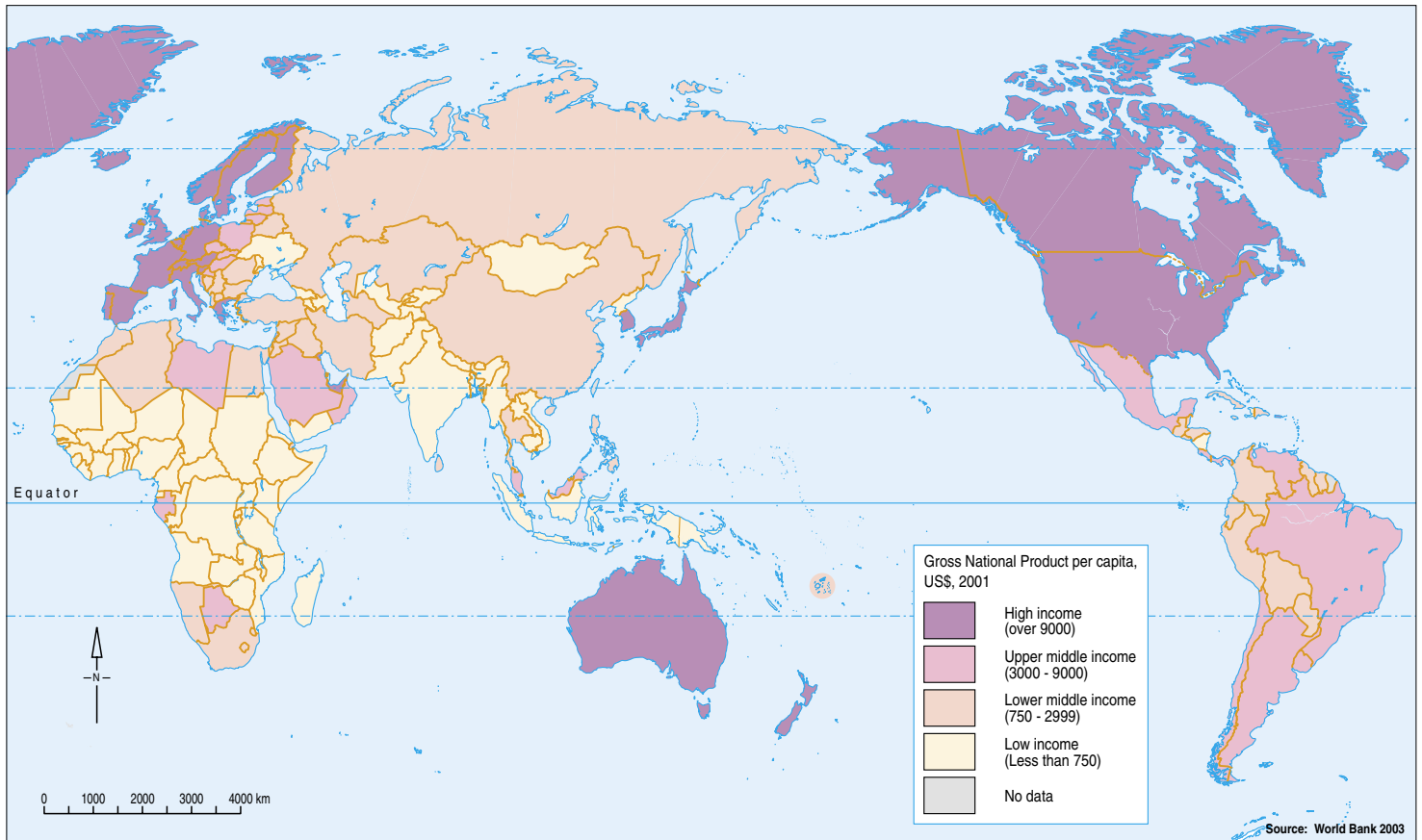


Figure 3 (c): Gross National Product per capita, US\$, 2001

Figure 3 (d): Responses to the global phenomenon of world passenger car production

## Car manufacturing

Passenger car manufacturing involves more than the use of raw materials of steel, iron, rubber, plastics and aluminium. It uses large amounts of substances that deplete the ozone layer, add to greenhouse gases and use huge quantities of energy. An estimated average of 27 tonnes of waste is produced during the manufacture of one car.

*(One Earth)*

## More efficient cars

In the United States, government policies are increasingly aimed at reducing passenger car fuel use. These policies are the result of increasing numbers of cars on roads together with the cost of importing crude oil and/or the desire to improve local environmental quality. The improvements in vehicle efficiency have been largely offset by increases in car sizes and car traffic. US car manufacturers are already in a partnership with the US government aimed at producing passenger cars with triple the fuel economy of the early 90s.

*(United Nations Intergovernmental Panel on Climate Change)*

## Cars in the developing world

Many parts of the developing world are faced with severe environmental problems caused in part by a rapid growth in the use of personal vehicles – scooters, motorcycles, mopeds and cars. The result is traffic congestion, greater fuel consumption and noise and air pollution that degrade the urban environment. In six Indian cities it was found that by improving public transport to meet up to 80 per cent of total travel demand, together with promoting cleaner fuels and improved engine technologies, significant environmental benefits can be achieved.

*(United Nations Intergovernmental Panel on Climate Change)*

## More cars, more roads, more crashes

- ∞ New and wider roads are needed to accommodate more cars. These roads need raw materials for construction, use land that was previously used for farming, recreation and urban residences.
- ∞ Freeways and traffic intersections divide communities in rural and urban areas alike.

- ∞ Natural habitats are often threatened by road construction near sensitive areas.
- ∞ New road building leads to increased car use in the long term rather than permanently solving traffic flow problems.
- ∞ Road crashes produce 800 000 permanently handicapped people every year, globally. Death estimates vary between 0.5 million to over one million with another 10 million estimated to be injured.

*(A SEED, European organisation)*

### South Australia boosts position as major car producer

South Australia, which already produces about 50 per cent of vehicles built in Australia, is set for further developments. Mitsubishi Motors assembles its Magna range in Adelaide, employing 3200 people. The company has announced plans for an export drive that will increase car production and local employment. Holden has announced a five-year expansion of its Elizabeth plant, which employs more than 4200 people.

*(Directions for South Australia, 2001)*

### The value of passenger car production: Malaysia

Malaysia has developed as a passenger car producer. Its Proton company was founded in 1983 with production largely based on technology transfer from foreign car makers such as Citroen (based in France) and Mitsubishi (based in Japan). In 1996 Proton purchased Lotus (based in the UK) providing the company with engineering research.

Despite uneven sales over the last ten years, Proton has significant value to its home country. Prime Minister Mahathir said in May 2000: 'Proton identifies us as a nation of equal importance to other automotive producing nations'. The

company is now producing many of its own components, thus creating local jobs and reducing the import of components. The next step is locally produced engines. Proton's development has been behind substantial tariffs on car components and assembly kits for its rivals. Taxes of 300% existed on imported complete cars. Such protection will disappear by 2005 under Free Trade Area agreements within Southeast Asia. Deals with international companies such as DaimlerChrysler, Ford and General Motors could see Proton models produced elsewhere in the world using these companies' plants and marketing. Already Mitsubishi owns 16 per cent of Proton and DaimlerChrysler is buying 34 per cent of Mitsubishi. These global alliances could assure local identity for Proton's products and give it markets large enough for new products and cost-effective levels.



Figure 3 (e): Part of Singapore's Electronic Road Pricing System

### Car control

Some cities such as London and Singapore are restricting car movements into their city centres through tolls. Singapore's Electronic Road Pricing System (ERP) charges by the time of day as well as the type of vehicle involved.

**END OF DATA BOOK**

