



# GRADE 12 GEOGRAPHY

## UNIT MODULE 3

### COMPARATIVE STUDIES

**CASE STUDY 1: NEW ZEALAND**

**CASE STUDY 2: CHINA**



## ACKNOWLEDGEMENT

We acknowledge the contributions of all Secondary Teachers who in one way or another have helped to develop this Course.

Our profound gratitude goes to the former Principal of FODE, Mr. Demas Tongogo for leading FODE team towards this great achievement. Special thanks to the Staff of the Social Science Department of FODE who played an active role in coordinating writing workshops, outsourcing lesson writing and editing processes, involving selected teachers of Central Province and NCD.

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**DIANA TEIT AKIS**

PRINCIPAL



Flexible Open and Distance Education  
Papua New Guinea

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## SECRETARY'S MESSAGE

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Achieving a better future by individuals students, their families, communities or the nation as a whole, depends on the curriculum and the way it is delivered.

This course is a part of the new Flexible, Open and Distance Education curriculum. The learning outcomes are student-centred and allows for them to be demonstrated and assessed.

It maintains the rationale, goals, aims and principles of the national curriculum and identifies the knowledge, skills, attitudes and values that students should achieve

This is a provision of Flexible, Open and Distance Education as an alternative pathway of formal education.

The Course promotes Papua New Guinea values and beliefs which are found in our constitution, Government policies and reports. It is developed in line with the National Education Plan (2005 – 2014) and addresses an increase in the number of school leavers which has been coupled with a limited access to secondary and higher educational institutions.

Flexible, Open and Distance Education is guided by the Department of Education's Mission which is fivefold;

- to facilitate and promote integral development of every individual
- to develop and encourage an education system which satisfies the requirements of Papua New Guinea and its people
- to establish, preserve, and improve standards of education throughout Papua New Guinea
- to make the benefits of such education available as widely as possible to all of the people
- to make education accessible to the physically, mentally and socially handicapped as well as to those who are educationally disadvantaged

The College is enhanced to provide alternative and comparable path ways for students and adults to complete their education, through one system, many path ways and same learning outcomes.

It is our vision that Papua New Guineans harness all appropriate and affordable technologies to pursue this program.

I commend all those teachers, curriculum writers and instructional designers, who have contributed so much in developing this course.

**UKE KOMBRA, PhD**  
Secretary for Education

**STUDY GUIDE**

Steps to guide you in your course study.

- Step 1: Carefully read through each module. In most cases, reading through a lesson once is not enough. It helps to read something over several times until you understand it.
- Step 2: There is an instruction below each activity that tells you to check your answers. Turn to the marking guide found at the end of each module and mark your own written answers against those listed under the **Answers to Activities**. Do each activity and mark your answers before moving on to the next part of the module.
- Step 3: After reading the summary of the unit module, start doing the Practice Exercise. Refer to the module notes. You must do only one practice exercise at a time.
- Step 4: Below each Learning activity, there is an instruction that says:

**CHECK YOUR WORK. ANSWERS ARE AT THE END OF COURSE MODULE.**

- Turn to the marking guide at the end of the Module Unit and mark your own written answers against those listed under the Answers to Learning Activity.
- Step 5: When you have completed a practice exercise and marked your answers, go back to the module and correct any mistakes you may have made before moving on to the next module.
- Step 6: Study the entire module following Steps 1, 2, 3, 4 and 5.

Here is a sample Study Timetable for you to use as a guide. Refer to it as a reminder of your study times.

TIME	MON	TUE	WED	THU	FRI
<b>8:00-10:00</b>	F O D E S T U D Y				
<b>10:00-11:00</b>					
<b>1:00-2:00</b>					
<b>2:00-4:00</b>					
<b>6:00-7:00</b>					
<b>7:00-9:00</b>	Listen to or watch current affairs programmes. Write your diary or read a book.				

A timetable will help you to remember when you should be doing your FODE studies each day.



## UNIT MODULE 12.3: COMPARATIVE CASE STUDIES

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### Unit Introduction

Welcome to Unit Module 12.3. This unit focuses on two comparative case studies involving developed and developing countries. Selected developing and developed countries are compared to Papua New Guinea. Students learn about the similarities and differences between the selected countries and Papua New Guinea.

Students examine the effect altitude has on climate, vegetation, land use, settlement patterns and so on, and relate this to their own society. Students develop understandings by interacting with one another and asking questions; and by observing, critically evaluating and analysing the comparative factors between these nations and locations. By using investigation, reasoning, participation and communication skills, students learn to become purposeful, tolerant and active members of the local, national and global community.

There are two Case Studies in this unit. These case studies are presented in the form of text books. Each Case Study has an assessment book that assesses the students learning of the main knowledge and skills taught through the text books.



### Objectives or Aims

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On successful completion of this module, students will be able to:

- describe and explain the relationships between landforms, climate and vegetation and human activities
- explain and analyze factors influencing population change and its effect on the environment
- compare and contrast the factors that influence urbanization and industrialization
- choose and apply a range of geographical skills
- demonstrate understanding of key geographical concepts and ideas
- Communicate geographical information, ideas and issues using appropriate written and/or oral, cartographic and graphic forms



### Time Frame

This unit should be completed within 10 weeks.

If you set an average of 3 hours per day, you should be able to complete the unit comfortably by the end of the assigned week.



## **COMPARATIVE STUDIES**

### **CASE STUDY 1**

### **NEW ZEALAND**



## CHAPTER 1: INTRODUCTION

### 1.1 Location

**New Zealand** is an island country in the south-western Pacific Ocean. The country geographically comprises two main landmasses: that of the North Island, or Te Ika-a-Māui, and the South Island, or Te Waipounamu and numerous smaller islands. New Zealand is situated some 1,500 kilometres (900 mi) east of Australia across the Tasman Sea and roughly 1,000 kilometres (600 mi) south of the Pacific island areas of New Caledonia, Fiji, and Tonga. Due to its remoteness, it was one of the last lands to be settled by humans. During its long isolation, New Zealand developed a distinctive biodiversity of animal, fungal and plant life. The country's varied topography and its sharp mountain peaks, such as the Southern Alps, owe much to the tectonic uplift of land and volcanic eruptions. New Zealand's capital city is **Wellington**, while its most populous city is **Auckland**.

#### Key Facts:

**Capital:** Wellington

**Currency:** New Zealand dollar

**Population:** 4.471 million (2013) World Bank

**Continent:** Oceania

**Official languages:** Māori, New Zealand Sign Language

**Area:** 103,737 square miles (268,680 sq. km)

**Coastline:** 9,404 miles (15,134 km)

**Official Languages:** English and Maori

**Highest Point:** Mount Cook (Aoraki) at 12,349 ft (3,764 m)

### MAPS OF NEW ZEALAND





## 1.2 Physical Geography

New Zealand is in Oceania, in the South Pacific Ocean at 41°South and 174°East. It has an area of 267,710 square kilometres (103,738 square miles) (including Antipodes Islands, Auckland Islands, Bounty Islands, Campbell Islands, Chatham Islands, and Kermadec Islands), making it slightly smaller than Italy and Japan and a little larger than the United Kingdom. These islands are the main areas of land that emerged from the largely submerged continent of Zealandia, which came into existence about 83 million years ago before sinking about 20 million years ago.

New Zealand has 15,134 kilometers (9,398 miles) of coastline and extensive marine resources. The country claims the fifth largest Exclusive Economic Zone in the world, covering over four million square kilometres (1.5 million square miles), more than 15 times its land area. It has no land borders.

New Zealand is made up of two large islands, the North Island and South Island, which are separated by the narrow *Cook Strait*. The spectacular land has towering mountain ranges, lush forests, rolling grasslands and long sandy beaches. A chain of mountains runs through the two main islands and are known as Southern Alps in the south island and Eastern Mountain in the northern island.

The South Island is the largest land mass and contains about one quarter of the population. The island is divided along its length by the Southern Alps, a northeast-southwest oriented mountain range covered in *glaciers*. Its highest *peak* is Mount Cook, also known as Aoraki in the Maori language, at 12,349 feet (3,764 metres). There are 18 *peaks* of more than 3000 metres (9800 ft) in the South Island. To the east of these mountains, the island is dry and made up of the treeless Canterbury Plains, while the West Coast is famous for its rough coastlines, very high proportion of native bush, and Fox and Franz Josef Glaciers. On the southwest, the island's coast is heavily forested and jagged with *fjords*. This area also features New Zealand's largest national park, Fiordland. The Southern Alps has peaks that are covered with large masses of snow and ice and forms rivers of snow and ice which are called glaciers.



Figure 1.2.1 Southern Alps covered with

Due to its volcanic past, the North Island features *hot springs* and *geysers* and several low volcanic mountains. Earthquakes are also frequent in this region. The North Island is less mountainous than the South, and is marked by volcanism. The island's tallest mountain, Mount Ruapehu (2797 m / 9176 ft), is an active cone volcano. Lake Taupo is near the centre of the North Island and is the largest lake by surface area in the country. It lies in a *caldera* created by the Oruanui eruption, the largest eruption in the world in the past 70,000 years.



The climate is cool, mild and pleasant due to temperate latitudes, the oceanic surroundings and westerly winds. New Zealand has an oceanic and maritime climate. Rain is evenly distributed, usually experienced on islands and near the western coast of the landmasses, within the zone of the westerlies.



Figure 1.2.2 Autumn in



Figure 1.2.3 Scorching Bay Beach in

Conditions vary sharply across regions from extremely wet on the West Coast of the South Island to almost semi-arid in Central Otago and the Mackenzie Basin of inland Canterbury and subtropical in Northland. Generally, most of the country has mild temperatures with high rainfall. The mountains however, can be extremely cold.

### 1.3 Historical Overview

New Zealand is a young country, in both geological and human terms. In fact, New Zealand was the last habitable place in the world to be discovered.

First to arrive were ancestors of *Māori*, journeying in canoes from Hawaiki about 1,000 years ago. The term 'Māori' did not actually exist until the Europeans arrived. It actually means 'ordinary' and Māori used it to distinguish themselves from the new, fair skinned settlers. These first settlers probably arrived from Polynesia between 1200 and 1300 AD. They discovered New Zealand as they explored the Pacific, navigating by ocean currents, the winds and stars. In some traditions, the navigator credited with discovering New Zealand is *Kupe*.

A Dutch explorer, Abel Tasman, was the first European to sight the country in 1642 but it was the British who made New Zealand part of their empire. That is how we got the Dutch-sounding name from a Dutch mapmaker who first called it Nieuw Zeeland. A surprisingly long time: 127 years passed before New Zealand was visited by another European, Captain James Cook. He came in 1769 on the first of three voyages.

European whalers and sealers started visiting regularly and then came traders. By the 1830s the British government was being pressured to curb lawlessness in the country and also to prevent the French who were considering New Zealand as a potential colony.



Figure 1.3.1 Governor

Eventually, at Waitangi on 6 February 1840, William Hobson, New Zealand's first Governor, assembled Māori chiefs to sign a treaty with the British Crown. The treaty was taken all round the country, as far south as Foveaux Strait, for signing by local chiefs, and eventually more than 500 signed. It established British law in New Zealand and is considered New Zealand's founding document and an important part of the country's history. The building where the treaty was signed has been preserved and, today, the Waitangi



Figure 1.3.2 Waitangi Treaty

The country has a *liberal* political history. It gained early prominence in women's rights and has a good record in ethnic relations, especially with its native Maori. In addition, New Zealand is sometimes called the "Green Island" because its population has high environmental awareness and its low population density gives the country a large amount of pristine wilderness and a high level of biodiversity.

#### 1.4 The System of Government

New Zealand is a constitutional monarchy with a parliamentary democracy system of government. This means that its head of state is sovereign (currently Queen Elizabeth II). The Queen is represented in New Zealand by a Governor General.

In terms of its voting system, it uses a Mixed Member Proportional (MMP) voting system which makes it unlikely that any one political party (e.g. National, Labour, Greens) will win a majority of the seats in the House. The party with the most votes usually needs to form a coalition or agreement with another party or parties.

It also uses the system of 'responsible government'. This means, government can only be made up of Ministers who are first elected members of the House of Representatives. The government can only stay in power while it has a majority of members in the House of Representatives. This is known as having the confidence of the House.



The system of government works by having three separate branches of government. This 'separation of powers' makes sure no one part of government has too much power.

**The Branches of Government are:**

1. The Legislature (Parliament)

This is the House of Representatives (where all the MPs sit) and it includes select committees. The House's role is to:

- supply the government (the political party or parties in power) with MPs
- make new laws and update old ones by carefully looking at and talking about bills - which become laws when they're passed
- represent New Zealanders by giving a voice to different ideas from people and organisations
- examine and approve the government's taxes and spending
- check the actions of the Executive.

2. The Executive Branch

This is the Government. It runs the country and makes day-to-day decisions on how and what New Zealand should spend its money on. It brings proposed laws to parliament, and decides policies which get put into practice by government departments. It is made up of Ministers of the Crown supported by government agencies.

3. The Judiciary

The judiciary are judges and the courts. Judges interpret the law in cases that come before the courts by hearing and deciding cases, and they can review decisions of government.

Now do the activity on the next page.



### Student Learning Activity 1

1. Why was New Zealand one of the last lands to be inhabited?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  
2. What conclusion can you draw from New Zealand's physical features such as mountains, hot springs and geysers?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  
3. What does it mean by Maori?  
\_\_\_\_\_

**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 2: POPULATION GROWTH

---

### 2.1 Trends

As of June 2015, the population of New Zealand is estimated at 4.597 million. New Zealand is predominantly an urban country, with 72 percent of the population living in 16 main urban areas and 53 percent living in the four largest cities of Auckland, Christchurch, Wellington, and Hamilton. New Zealand cities generally rank highly on international liveability measures. For instance, in 2010, Auckland was ranked the world's 4th most liveable city and Wellington the 12<sup>th</sup> by the Mercer Quality of Life Survey.

Life expectancy for New Zealanders in 2012 was 84 years for females, and 80.2 years for males. Life expectancy at birth is forecast to increase from 80 years to 85 years in 2050 and infant mortality is expected to decline. New Zealand's fertility rate of 2.1 is relatively high for a developed country, and natural births account for a significant proportion of population growth. Consequently, the country has a young population compared to most industrialized nations, with 20 percent of New Zealanders being 14 years old or younger. By 2050, the population is forecast to reach 5.3 million, the median age to rise from 36 years to 43 years and the percentage of people 60 years of age and older to rise from 18 percent to 29 percent. Despite the high life expectancy, mortality from heart disease is higher in New Zealand, than it is in various other developed Western countries such as Australia, the United Kingdom and Canada.

New Zealand has a growing population. The last official census carried out took place in 2006 and at the time, the figures claimed a total of 4,027,947 residents. This could have been attributed mainly by natural increase (births), new migrants or New Zealanders returning from overseas. Like many countries around the world, those numbers are believed to be increasing steadily and although the next census will not take place until 2016, it is estimated that the population for New Zealand in 2014 is 4.5 million, up from a 4.4 million estimated in 2012.

What does the future hold? Some people suggest a larger population of 7, 10, or 15 million would give economic benefits. Other people wonder about the social and environmental downsides of a much larger population.

Can New Zealand reach 7 million by 2061? Is population growth of another 2.55 million feasible in less than 50 years? Statistics NZ's 2011-base national population projections indicate this level of growth is unlikely. The chance of New Zealand reaching 7 million people by 2061 is estimated at 1 in 25.

The median projection (there is an estimated 50 percent chance the population could be lower, and a 50 percent chance it could be higher) is a population of 6 million in 2061. In order to reach a population of 6 million, NZ need:

- a total fertility rate of 1.9 births per woman in the long term
- life expectancy at birth increasing to 89.3 years in 2061

- net migration gain of 12,000 a year in the long term.

The graph below shows the projection of population distribution from 1951-1961.

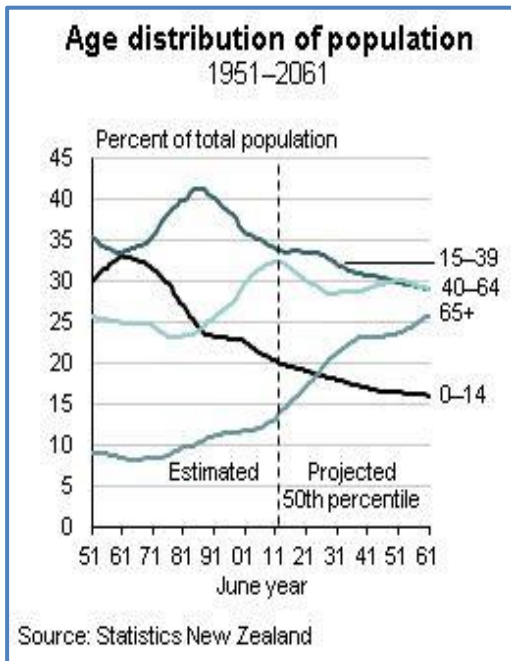


Figure 2.1 Age Distribution of Population

What level is more likely? A population of around 6 million in 2061 is more likely than a population of over 7 million. Projections also indicate the structure of our future population. One of the most striking aspects of the main trends from the 2011-base projections is how much the population will have aged by 2061. Under the median projection, the proportion of the population aged 65 years and over (65+) will be 26 percent in 2061. It was 14 percent in 2013. The number of people in this age group will have grown from 600,000 in 2013, to 1.5 million in 2061.

The projections also indicate that by the late 2020s, the 65+ age group will outnumber those in the 0–14 age group. In 2013, the 65+ age group numbered some 600,000 people, while there were 900,000 children. The projections also indicate that population growth will slow

In 2006, the nationwide census declared a total of 4,027,947 residents with 76 percent of the New Zealand population living in the North Island. With a land mass of 103,734 square miles that, therefore, translates into a population density of around 39 citizens, living in every square mile of New Zealand territory.

As far as demographics are concerned, the indigenous Maoris were overtaken in terms of numbers by European settlers as early as the 19<sup>th</sup> century. The 2006 census revealed that of the total population of just over 4 million, 67.6 per cent of citizens declared themselves to be of European descent. Maoris made up for 14.6 per cent with those of Asian ethnicity contributing the just over 9 per cent of the total figures.

Other ethnic groups inside New Zealand came to just 1 per cent while a further 11 per cent claimed to be simply a 'New Zealander'.

New Zealand is therefore experiencing a significant change in the structure of its population. The number of people aged 65 and over (65+) has doubled since 1980, and is likely to double again by 2036. The largest growth will occur between 2011 and 2036, as the baby boomers (those born from 1946 to 1965) move into the 65+ age group.

Population decline may mean some local services become unsustainable in terms of patronage (eg schools, retail outlets) and funding (eg council rates). Population decline may also dampen housing demand, though the ageing population will help offset this.



## 2.2 Social Indicators

Social indicators are numerical measures that describe the well-being of individuals or communities. Indicators are comprised of one variable or several components combined into an index. They are used to describe and evaluate community well-being in terms of social, economic, and psychological welfare.

Social Indicators of Development contains the World Bank's most detailed data collection for assessing human welfare to provide a picture of the social effects of economic development. Data are presented for over 170 economies, omitting only those for which data are inadequate.

Political attention in New Zealand in recent years has been concerned with the quality of life of New Zealanders and their standard of living as New Zealand's per capita income continues to fall behind the levels of other OECD nations. These areas of focus include health, education, crime, and social, political, and cultural participation. Social indicators help to reflect the good and the bad, tell us in which direction we are heading, and how fast, in areas of life that are critical for economic performance but are seldom acknowledged by economic indicators. Social indicators help to; provide more representative measures of well-being and progress; assess the cost-effectiveness of policies; chart social trends; inform investment and firm location decisions; improve the information base of societies; and enhance democratic life.

Globalisation, technological innovation, environmental challenges, and occupational and demographic change signal changing social, ecological, and political priorities that will require broader measures of progress in dimensions other than just economic.

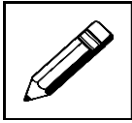
Political attention in New Zealand in recent years has been concerned with the quality of life of New Zealanders and their standard of living as New Zealand's per capita income continues to fall behind the levels of other OECD nations. The level of health care services, access to education, and housing quality are among the key determinants of living standards and quality of life, and these are influenced by income levels. It is important then that those areas of social concern that impinge on people's well-being are regularly surveyed by a system of social indicators. Such indicators complement existing economic indicators by providing a more rounded assessment of trends in the standard of living and well-being of New Zealanders.

It is also apparent that the importance of complementary indicators of development has taken on increased urgency as the social and environmental side effects of economic and industrial development become apparent at both national and international levels. Attention is therefore turning to social and sustainable development indicators. An integrated set of economic, social, and environmental measures that provide a more comprehensive assessment of progress in terms of the quality of people's lives.

Social indicators are suggested as providing more representative measures of progress for the twenty-first century, a century in which progress must also be measured in terms of well-being and quality of life. Defining progress in these terms requires that dimensions, other than just economic, are measured health, education, environmental quality, and levels of political, social and cultural participation are important too.



Now do the activity below.



### Student Learning Activity 2

- 1. What percentage of New Zealand’s population lives in urban areas?

\_\_\_\_\_

- 2. New Zealand is a developed nation; however its population structure does not show one that is of a developed nation. Explain.

\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 3. Explain the term Social Indicators.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 3: SETTLEMENT AND URBANISATION

### 3.1 Distribution of Cities

We learnt that New Zealand was originally inhabited by the Polynesian Maori, who came in 800 A.D, making New Zealand the youngest country in the world (Tourism New Zealand, 1999-2010). The British colony of New Zealand became independent in 1907.

In the past few years, more people have been immigrating into New Zealand from China, Japan, Taiwan and the UK, increasing New Zealand's multicultural community. These immigrants tend to be attracted to large metropolitan areas especially in the North Island where there is more opportunities for work.

The present major cities in New Zealand are Wellington and Auckland. Wellington, also the capital of New Zealand, has a population of 423,800 and is home to the Te Papa Tongrewa museum, a main tourist attraction. (Tourism New Zealand, 1999- 2010). Auckland is surrounded by beaches, forests and wildlife. It is also home to the annual Pacifica festival. Auckland also has the Sky Tower, the largest structure in New Zealand. (Tourism New Zealand, 1999- 2010).

Below are pictures of the Pacifica Festival.



Figure 3.1 Pacifica Islands Dancers participating in the Pacifica

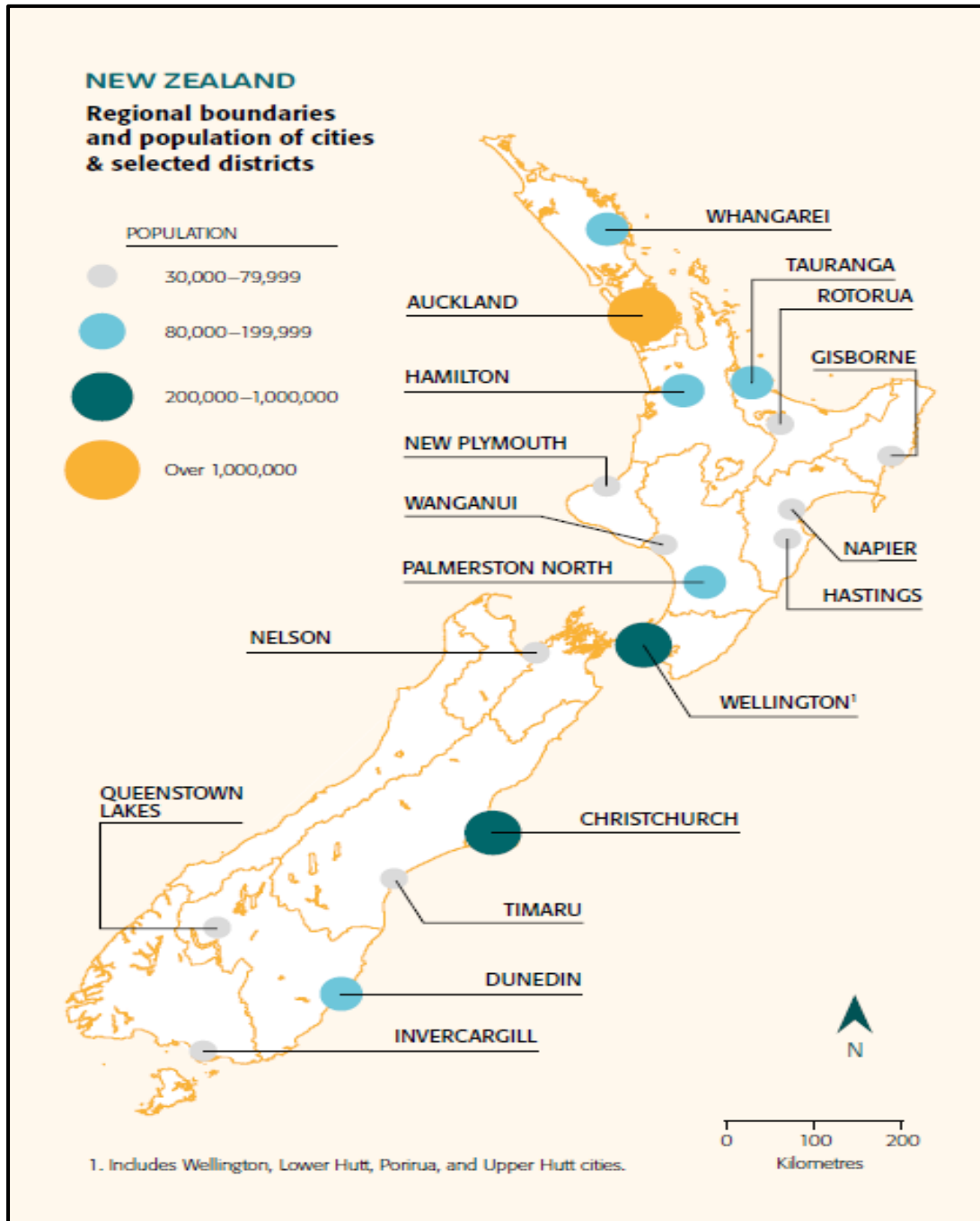
The New Zealand population is highly urbanized. At the 2006 Census, 86 percent of the population was living in an urban area. This includes 72 percent living in main urban areas (population of 30,000 or more), 6 percent living in secondary urban areas (10,000–29,999) and 8 percent living in minor urban areas (1,000–9,999).

There are marked ethnic differences in urbanization, with the vast majority of Pacific peoples, Asian and other ethnic groups living in main urban areas and very few in rural areas.



The map below shows the distribution of New Zealand’s major cities by population.

**REGIONAL BOUNDARIES AND POPULATION OF CITIES & SELCTED DISTRICTS:  
JUNE 2014**



**TABLE 3.1 URBAN AND RURAL RESIDENCES (%), BY ETHNIC GROUP 2006**

	European	Māori	Pacific peoples	Asian	Other	Total
<b>Main urban area (30,000+)</b>	69	65	92	94	91	72
<b>Secondary urban area (10,000–29,999)</b>	7	7	3	2	2	6
<b>Minor urban area (1,000–9,999)</b>	9	13	2	2	3	8
<b>Total urban</b>	84	84	97	98	96	86
<b>Rural</b>	16	16	2	2	4	14
<b>Total</b>	100	100	100	100	100	100

Source: Statistics New Zealand, 2006 Census, unpublished data

Notes: (1) "New Zealander" is included in European. (2) Middle Eastern, Latin American and African groups are included in Other.

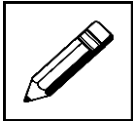
### 3.2 Distribution of the Population

Over three-quarters of New Zealand's population live in the North Island (76 percent) with one third of the total population living in the Auckland region. This region is also the fastest growing, accounting for 46 percent of New Zealand's total population growth. Most Māori live in the North Island (87 percent), although less than a quarter (24 percent) live in Auckland. New Zealand is a predominantly an urban country, with 86 percent of the population living in an urban area. About 72 percent of the population lives in the 16 main urban areas (population of 30,000 or more) and 53 percent live in the four largest cities of Auckland, Christchurch, Wellington, and Hamilton.

Approximately 14 percent of the population lives in four different categories of rural areas as defined by Statistics New Zealand. About 18 percent of the rural population live in areas that have a high urban influence (roughly 12.9 people per square kilometre), many working in the main urban area. Rural areas with moderate urban influence and a population density of about 6.5 people per square kilometre account for 26 percent of the rural population. Areas with low urban influence where the majority of the residents work in the rural area, house approximately 42 percent of the rural population. Remote rural areas with a density of less than 1 person per square kilometre account for about 14 percent of the rural population.<sup>[20]</sup>

The vast majority of the population live on the main North and South Islands, with New Zealand's major inhabited smaller islands being Great Barrier Island, Chatham and Pitt Islands and Stewart Island. In 2006, 15,342 people were residents of the Cook Islands, with two thirds living on Rarotonga, and the other third spread over the other 14 islands. The resident population of Tokelau and Niue was 1,466 and 1,625<sup>l</sup> respectively in 2006. At the time 58,008 Cook Islanders, 22,476 Niueans and 6,819 Tokelauans lived in New Zealand.

Now do the activity on the next page.



### Student Learning Activity 3

1. Who were the original inhabitants of New Zealand?

\_\_\_\_\_

Refer to table 3.1 on page 19 to answer questions 2 and 3.

2. What percentage of Pacific peoples live in secondary urban area?

\_\_\_\_\_

3. Which ethnic group has the highest percentage of people living in urban areas?

\_\_\_\_\_

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**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 4: LAND USE AND TRANSPORT

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### 4.1 Major Land use Patterns

Land use describes the human activities or economic functions that occur on land. Many environmental, economic and social factors influence how we use our land. In turn, different land uses can affect the environment, economy and society in different ways.

In New Zealand, natural forest covers about 30 per cent of New Zealand's land area. Collectively, low producing and high producing grasslands (likely to be predominantly used for agricultural grazing), cover half of New Zealand's land area. Between 1990 and 2008, land-use change occurred on around three per cent of New Zealand's land area. Most land-use change was due to the conversion of grassland into forest. New Zealand has the second largest proportion of grassland and the sixth largest proportion of forest out of 30 OECD countries.

The value of livestock, cropping and dairy farming to New Zealand's economic activity, has increased from nearly \$2.7 billion in 1991 to nearly \$5 billion in 2007. However, these land uses may damage soil health, which can lower productivity and increase surface run off. Excess nutrients can run off to fresh water causing excessive plant and algal growth that affects recreational, aesthetic and ecological values. New Zealanders surveyed in 2008 perceive that farming land uses are major pressures on our soils and fresh waters.

In contrast, native land cover set aside for conservation or recreation, places less pressure on environment and is important for plant and animal biodiversity, ecosystem services, and for New Zealanders and visitors to enjoy our natural environment.

Table 4.1 in the following page show that natural forest covers about 30 per cent of New Zealand's total land area. Scrubland, 'other land' (eg, alpine gravel, snow and ice), lakes and rivers, and wetland cover a further 10 per cent of the country. In 2009, about 33 per cent of all New Zealand's total land area was legally protected for conservation or recreation purposes. This protected land is expected to have primarily native land cover, which generally occurs within the land-use classes listed above.

**TABLE 4.1 LANDUSE IN NEW ZEALAND, 2008**

Land-use Class	Description	Area (hectares)	Percentage of Total Land Area
Cropping and horticulture	Annual crops or land cultivated for crops. Orchards and vineyards	422,400	2
High producing grassland	Exotic grassland with highly productive vegetation	5,803,100	22
Lakes and rivers	Open waters and riverbeds	529,600	2
Low producing grassland	Exotic and indigenous grassland with lower productivity vegetation	7,705,800	29
Natural forest	Forest and shrub that is not grazed around and is, or could grow to five or more meters tall	8,101,900	30
New forest land	Natural or planted forest present in 2008 but not in 1990	586,600	2
Forestry land planted before 1990	Exotic forest used for either timber production or protection, eg, erosion or river control. Includes harvested areas	1,432,400	5
Scrubland	Scattered scrub within or near grassland not protected or managed for regeneration	1,059,600	4
Settlements	Urban areas, towns and settlements	206,100	1
Wetland	Wetland with vegetation	114,500	<1
Other land	Primarily bare of vegetation and not within settlements, eg, alpine gravel, snow and ice	889,100	3

**Notes:**

1. Figures rounded to nearest 100 hectares.
2. LUCAS mapping focuses on four key land-use classes, ie, natural forest, forestry land planted before 1990, scrubland, and new forest land. All other land uses are determined from pre-existing datasets, such as the Land Cover Database (LCDB) versions 1 and 2 and the New Zealand Land Resource Inventory (NZLRI).

Low producing and high producing grasslands cover 29 and 22 per cent of New Zealand's land area respectively. In other words, half of New Zealand's land area is grassland (Table 4.1). Both of these grassland types are likely to have predominantly agricultural grazing land uses, such as sheep, beef or dairy farming. However, some low producing grassland may have conservation or recreational uses. Low producing grassland tends to have low plant growth, and livestock tend to be grazed over large areas. In contrast, high producing

grassland tends to have more intensive grazing and farm management practices, such as the use of fertilizer or irrigation to improve the land’s productivity.

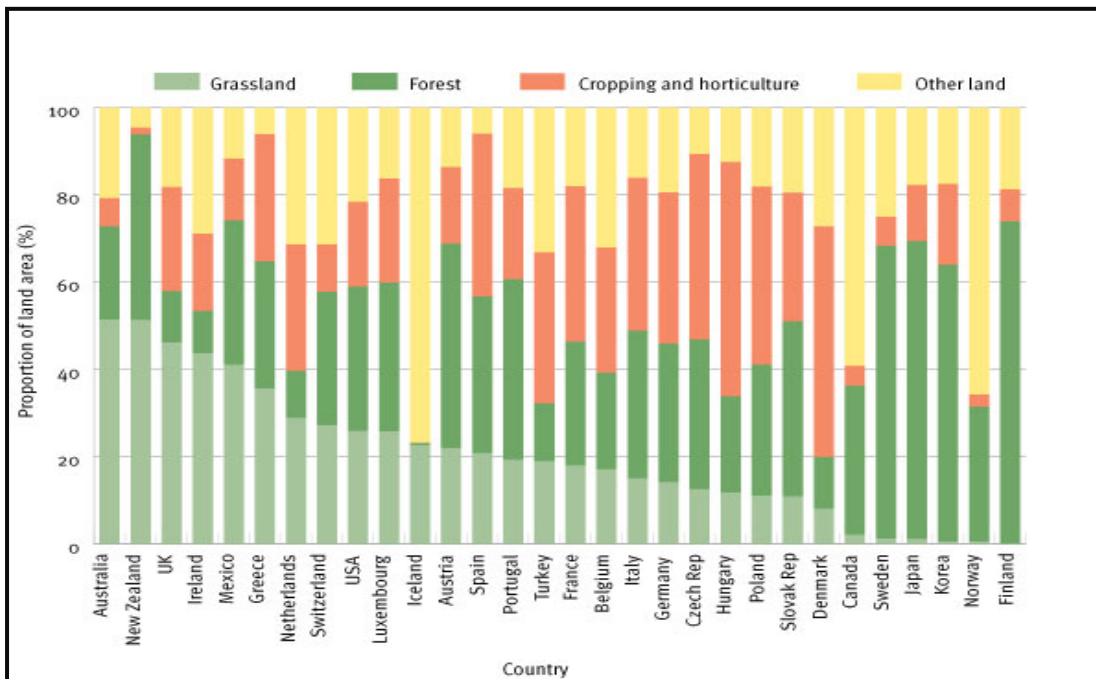
Forestry land planted before 1990 represents about five per cent of New Zealand’s land area. New forest land (ie, land with forest present in 2008 but not in 1990) covers a further two per cent of New Zealand’s land area (table 1 and figure 1). Forestry land planted before 1990 and the majority of new forest land are both likely to be used for plantation forestry. However, a small proportion of the new forest land is likely to be forest used for protection purposes (eg, erosion or river control) or regenerating natural forest. Forestry can be a useful option for managing soil erosion. It also provides a sink for greenhouse gases and contributed over \$1 billion to our economy in 2007. However, forest harvesting and replanting must be carefully planned and executed to avoid soil erosion and nutrient losses.

Cropping and horticulture land uses occur on about 2 per cent of New Zealand’s land area (Table 4.1). These land uses consist primarily of seasonal crops, for example, vegetables, cereal crops or maize.

**International Comparison**

Figure 4.1 shows that New Zealand has the second largest proportion of grassland out of 30 OECD countries and the sixth largest proportion of forest. The comparatively high proportion of grassland reflects the high contribution of livestock, cropping and dairy farming to the New Zealand economy. In contrast, New Zealand has the second smallest proportion of land used for cropping and horticulture and the smallest proportion of ‘other land’.

**FIGURE 4.1 NEW ZEALAND IN CONTRAST WITH OECD COUNTRIES-LANDUSE**





## 4.2 Importance of Transport System

**Transport in New Zealand**, with its mountainous topography and a relatively small population, mostly located near its long coastline, has always faced many challenges. Before Europeans arrived, Māori either walked or used watercraft on rivers or along the coasts. Later on, European shipping and railways revolutionized the way of transporting goods and people, before being themselves overtaken by road and air, which are nowadays the dominant forms of transport. However, bulk freight still continues to be transported by coastal shipping and by rail transport, and there are attempts to (re)introduce public transport as a major transport mode in the larger population centers.

Historically very car-dependent, as of 2010, transport funding in New Zealand is still heavily dominated by money for road projects, the National government proposes to spend \$21 billion on road infrastructure after 2012, yet only \$0.7 billion on other transport projects (public transport, walking and cycling). This has been criticized by opponents of the current government strategy as irresponsible, in light of increasing fuel prices and congestion. Government has claimed that their priority on roads is in line with New Zealanders' favored travel modes, and as being the most promising in terms of economic benefits.

Most people in New Zealand find driving easier and more convenient for much of their getting around. In rural areas, it's often the only option. So, although public transport is available in the larger centers, you will almost certainly need a vehicle here, probably sooner rather than later.

## 4.3 Main Types of Transport

### 1. Road transport

The **state highway network** is the principal road infrastructure connecting New Zealand urban centers. It is administered by the New Zealand Transport Agency. The majority of smaller or urban roads are managed by city or district councils, although some fall under the control of other authorities, such as the New Zealand Department of Conservation or port and airport authorities.



Figure 4.2.1. A bullock wagon in the [Canterbury region](#) in the 1880s. Their tracks later often formed the first roads.



Figure 4.2.2 State Highway 1 in South Auckland.



## Network

New Zealand has a state highway network of 10,895 kilometers (5,974 kilometers in the North Island and 4,921 kilometers in the South Island, as of August 2006) of which 170 kilometers are motorways. This link to 82,000 kilometers of local authority roads both paved and unpaved. The state highways carry 50 percent of all New Zealand road traffic, with the motorways alone carrying 9 percent of all traffic (even though they represent only 3 percent of the whole state highway network, and even less of the whole road network).

## Speed limits

The maximum speed limit on the open road is 100 km/h for cars and motorcycles, with 50 km/h the common limit in residential areas. Speed limits of 10 to 90 km/h are also used in increments of 10 km/h, and the posted speed limit may be more than the allowed speed limit for a particular vehicle type. Speeds are often reduced to 30 km/h beside roadworks.

Private landowners may set their own speed limits, for example 5 km/h, although these are not enforced by police or road authorities.

The Land Transport Rule: Setting of Speed Limits (2003) allows road controlling authorities to set enforceable speed limits, including permanent speed limits, of less than 50 km/h on roads within their jurisdiction. However, there are still very few areas of the country's road network with permanent speed limits below 50 km/h.

## Road safety

Total road deaths in New Zealand are high by developed country standards. 2010 figures from the International Transport Forum placed New Zealand 25th out of 33 surveyed countries in terms of road deaths per capita, a rank that has changed little in 30 years. The fatality rate per capita is twice the level of Germany's or that of the United Kingdom, Sweden or the Netherlands (2010 comparison). This is variously blamed on aggressive driving, insufficient driver training, old and unsafe cars, inferior road design and construction, and a lack of appreciation of the skill and responsibility required to safely operate a motor vehicle.

In 2010, 375 'road users' were killed in New Zealand, while 14,031 were injured, with 15 to 24 year olds, the group at highest risk. The three most common vehicle movements resulting in death or injury were "head-on collisions (while not overtaking)", "loss of control (on straight)" and "loss of control (while cornering)". In terms of deaths per 10,000 population, the most dangerous areas were the Waitomo District (121 deaths) and the Mackenzie District (110 deaths). Larger cities were comparatively safe, with Auckland City (28), Wellington (22) and Christchurch (28), while Dunedin had a higher rate of 43.

New Zealand has a large number of overseas drivers (tourists, business, students and new immigrants), as well as renting campervans/motorhomes/RV's during the New Zealand summer. Overseas licensed drivers are significantly more likely to be found at fault in a collision in which they are involved (66.9%), compared to fully licensed New Zealand drivers



(51.9%), and only slightly less likely to be found at fault than restricted (novice) New Zealand drivers (68.9%).

Drunk driving is a major issue in New Zealand, especially among young drivers. New Zealand has relatively low penalties for drunk driving. In the late 2000s, reports indicated that the rate of drunk driving by under 20s in Auckland had risen 77 percent in three years, with similar increases in the rest of the country. Many drunk drivers already had convictions for previous drunk driving.

The road toll has decreased over the 5 years from 421 in 2007 to 284 in 2011.

In the 'Safer Journeys' Strategy, intended to guide road safety developments between 2010 and 2020, the Ministry of Transport aims for a 'safe systems' approach, prioritized four areas, being "Increasing the safety of young drivers", "Reducing alcohol/drug impaired driving", "Safe roads and roadsides" and "Increasing the safety of motorcycling".

### Public Transport

All New Zealand cities and most towns have buses, and Auckland and Wellington both have city-suburban rail services. Transport by bus services form the main component of public transport services in New Zealand cities, and the country also has a network of long-distance bus or coach services, augmented by door-to-door inter-city *shuttle vans*, a type of shared taxi.



Figure 4.3. Busses as a means of Public

Peak hour services are generally good but New Zealand is a land of wide open spaces and low population density. They make it impractical to provide the extensive public transport systems you find in more built-up and crowded cities.



## 2. Rail Transport

Wellington was for a long time the only city of New Zealand that retained a well-patronised commuter rail system. Only in the 2000s was there a (continuing) resurgence in Auckland's commuter rail patronage, driven in great part by new investment in infrastructure.



Figure 4.2.3 Railway in New

### Network

There is a total of 3,898 km of railway line in New Zealand, built to the narrow gauge of 1,067 mm (3 ft 6 in). Of this, 506 kilometer is electrified. The national network is owned by state-owned enterprise New Zealand Railways Corporation division, KiwiRail Network. The national network consists of three main trunk lines, seven secondary main lines and during its peak in the 1950s, around ninety branch lines. The majority of the latter are now closed. Most lines were constructed by government but a few were of private origin, later nationalized. In 1931, the Transport Licensing Act was passed, protecting the railways from competition for fifty years. The transport industry became fully deregulated in 1983.

Between 1982 and 1993 the rail industry underwent a major overhaul involving corporatization, restructuring, downsizing, line and station closures and privatization. In 1993 the network was privatized, and until 2003 the national network was owned by Tranz Rail, previously New Zealand Rail Limited. The Government agreed to take over control of the national rail network back when Toll Holdings purchased Tranz Rail in 2003. In May 2008, the Government agreed to buy Toll NZ's rail and ferry operations for \$665 million, and renamed the operating company KiwiRail.



### 3. Air Transport

Flying is popular for longer trips, for both personal and business travel. It is only an hour to fly between Auckland and Wellington, compared to eight or so hours driving. The Wellington-Christchurch flight is about 50 minutes, compared to a five or six hour driving plus a three hour ferry trip. Of course, if you have time and want to see New Zealand, you may prefer the drive.

There are two main domestic carriers, Air New Zealand and Jetstar, plus a small number of regional operators.



Figure 4.4 The National Airline -Air New Zealand

#### Airport



Christchurch Airport, the largest in the South Island

Christchurch Airport, is the largest in the South Island. There are 113 airports in New Zealand (2002est.). The main international airport is Auckland Airport, which handled about 11 million passengers in 2005. Christchurch Airport around 6 million passengers per year and Wellington Airport around 5 million passengers per year.



#### 4. Water Transport



Mail steamer [Mariposa](#) casting off in Auckland in the 1880s, with a paddle steamer ferry in the front.

The two main islands are separated by Cook Strait, 24 km wide at its narrowest point, but requiring a 70 km ferry trip to cross. This is the only large-scale long-distance car / passenger shipping service left, with all others restricted to short ferry routes to islands like Stewart Island/Rakiura or Great Barrier Island.

New Zealand has 1,609 km of navigable inland waterways, however these are no longer significant transport routes.

##### International Shipping

Historically, international shipping to and from New Zealand started out with the first explorer-traders, with New Zealand waters soon becoming a favorite goal for whalers as well as merchants trading with the Maori and beginning European colonies.

In the 19th century, one of the most important changes for New Zealand shipping and for New Zealand itself, came with the introduction of refrigerated ships, which allowed New Zealand to export meat to overseas, primarily to the United Kingdom. This led to a booming agricultural industry which was suddenly offered a way to ship their goods to markets around the world.

Larger, deeper-draught ships from the middle of the 19th century made dredges a common sight in shipping channels around New Zealand, and tugboats were also often bought to assist them to the quays, where electric or hydraulic cranes were increasingly used for on- and off-loading. However, manpower was still needed in large amounts, and waterfronts were the hotbeds of the industrial actions of the early 20th century.

In the 1970s, containerization revolutionized shipping, eventually coming to New Zealand as well. The local harbor boards wrought massive changes on those ports, selected (after much political wrangling) to handle the new giant vessels, such as Lyttelton and Auckland Port. Gantry cranes, straddle carriers and powerful tugboats were built or purchased, and shipping channels dredged deeper, while large areas of land were reclaimed to enable the new container terminals. The changes have been described as having been more radical than the changeover from sail to steam, a century before.



However, containerization made many of the smaller ports suffer, this being only later recovered somewhat with newer, smaller multi-purpose ships that could travel to smaller ports, and the loosening of the trade links with the United Kingdom, which diversified the trade routes. The time for river ports had gone however, and most of them disappeared, facing particular pressure from the new rail ferries. In the 1980s, deregulation also involved and heavily changed the port industry, with harbor boards abolished, and replaced by more commercially focused companies. Many port jobs were lost, though shipping costs fell.

### Ferry Services

Regular roll-on/roll-off ferry services have crossed Cook Strait, linking the North and South Islands between Wellington and Picton, since 1962. Interisland Line, a division of KiwiRail, owns the main inter-island ferry service, the Interislander. Two of the three ferries used by the Interislander, *Arahura* and *Aratere*, are rail ferries with special rail decks. The largest and newest ferry, *Kaitaki* came into service in September 2005. A competitor service is operated by Strait Shipping Ltd, using the former French *Santa Regina* and the former Danish *Straitsman*, under the Bluebridge brand.



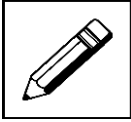
Interisland Line's DEV *Arahura* in the Marlborough Sounds

Depending on the vessel, usual transit time between the North and South Islands is between three hours and three hours twenty minutes. Faster catamaran ferries were used by Tranz Rail and its competitors. To reduce voyage times, Tranz Rail proposed to relocate the South Island terminal of its services to Clifford Bay in Marlborough, which would also avoid a steep section of railway. This proposal has been shelved since the takeover by Toll Holdings in 2003.

Smaller ferries operate in the Bay of Islands, Rawene (Northland), Auckland, Tauranga, Wellington, the Marlborough Sounds and Lyttelton (Christchurch), and between Bluff and Halfmoon Bay (Stewart Island).

A passenger ferry service also operated for many years between Wellington and Lyttelton (the port closest to Christchurch). This service was operated by the Union Steam Ship Company. The passenger ferries typically operated an overnight service, although in later years, the last of these vessels, the *Rangatira*, operated alternate nights in each direction plus a daylight sailing from Lyttelton to Wellington on Saturdays (so as to get a balance of four sailings in each direction, each week).

Now do the activity on the next page.



### Student Learning Activity 4

1. Livestock, cropping and dairy farming are very important economic activities in New Zealand. What environmental damage can result from these activities?

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Refer to table 4.1 on page 21 to answer questions 2 and 3.

2. What percentage of total land area is covered by natural forest?

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3. Describe scrubland vegetation.

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**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 5: THE ECONOMIC SECTOR

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### 5.1 Historical Overview

Historically, extractive industries have contributed strongly to New Zealand's economy, focussing at different times on sealing, whaling, flax, gold, kauri gum, and native timber. With the development of refrigerated shipping in the 1880s, meat and dairy products were exported to Britain, a trade which provided the basis for strong economic growth in New Zealand. High demand for agricultural products from the United Kingdom and the United States, helped New Zealanders achieve higher living standards than both Australia and Western Europe in the 1950s and 1960s. In 1973, New Zealand's export market was reduced when the United Kingdom joined the European Community and other compounding factors, such as the 1973 oil and 1979 energy crisis, led to a severe economic depression. Living standards in New Zealand fell behind those of Australia and Western Europe, and by 1982 New Zealand had the lowest per-capita income of all the developed nations surveyed by the World Bank. Since 1984, successive governments engaged in major macroeconomic restructuring (known first as Rogernomics and then Ruthanasia), rapidly transforming New Zealand from a highly protectionist economy to a liberalised free-trade economy.

Unemployment peaked above 10 percent in 1991 and 1992, following the crash. It eventually fell to a record low of 3.4 percent in 2007 (ranking fifth from twenty-seven comparable OECD nations). However, the global financial crisis that followed had a major impact on New Zealand, with the GDP shrinking for five consecutive quarters, the longest recession in over thirty years, and unemployment rising back to 7 percent in late 2009. At May 2012, the general unemployment rate was around 6.7 percent, while the unemployment rate for youth aged 15 to 21 was 13.6 percent. In the September 2014 quarter, unemployment was 5.4 percent. New Zealand has experienced a series of "brain drains" since the 1970s percent that still continue today. Nearly one quarter of highly skilled workers live overseas, mostly in Australia and Britain, which is the largest proportion from any developed nation. In recent years, however, a "brain gain" has brought in educated professionals from Europe and lesser developed countries.

New Zealand has a modern, prosperous and developed market with an estimated gross domestic product (GDP) at purchasing power parity (PPP) per capita of roughly NZ\$47,784. The currency is the New Zealand dollar, informally known as the "Kiwi dollar". It also circulates in the Cook Islands (see Cook Islands dollar), Niue, Tokelau, and the Pitcairn Islands. New Zealand was ranked sixth in the 2013 Human Development Index, fourth in The Heritage Foundation's 2012 Index of Economic Freedom, and 13th in INSEAD's 2012 Global Innovation Index.



## 5.2 Principal Economic Sectors

The Primary Industries are agriculture, horticulture, forestry, mining and fishing and play a fundamentally important role in New Zealand's economy, particularly in the export sector and in employment. Overall, the primary sector accounts for 7.6 percent of GDP and contributes over 50 percent of New Zealand's total export earnings.

### Agriculture and Horticulture

Agriculture directly accounts for around 5.0 percent of GDP, while the processing of primary food products accounts for a further 2.8 percent. Downstream activities, including transportation, rural financing and retailing related to agricultural production, also make important contributions to GDP.

Recent fluctuations in commodity (particularly dairy) prices, have highlighted the importance that agriculture plays in the New Zealand economy. Rising demand from developing countries and supply constraints, helped push dairy prices to their highest ever level in both world and New Zealand-dollar terms in late 2007. As a result, primary sector incomes were boosted, which, in turn, lifted spending and investment, spilling over to the wider economy.

Prices for New Zealand's key export commodities turned down in mid-2008, gathering momentum as the financial crisis intensified and placing pressure on already soft domestic demand. However, commodity prices recovered strongly during 2009 and over the second half of 2010 and first half of 2011 as global growth and demand returned. New Zealand's major dairy exporter, Fonterra, was able to increase forecast payouts to farmers on the expectations of sustained high prices. Over the second half of 2011, commodity prices came off their highs, as renewed euro area concerns emerged, leading to demand worries. In late 2011, Fonterra lowered forecast payouts due to the lower world prices and relatively high New Zealand dollar. Nevertheless, commodity prices for New Zealand's key exports remain at near-historical highs.

Horticultural products have become increasingly important, with the principal crops being wine and kiwifruit. Other significant export products include apples and pears, fresh and processed vegetables, and seeds.



TABLE 5.1. The table shows sales of the principal categories of agricultural products for the years indicated and as a percentage of agricultural sales for 2011.

**TABLE 5.1 -GROSS AGRICULTURAL PRODUCTION**

Year Ended 31 March	2008	2009	2010	2011	2011
	(dollar amounts in millions)				% of Total
<b>Dairy</b>	10,140	6,384	7,904	9,515	39.1
<b>Agricultural services</b>	2,974	3,752	3,864	4,087	16.8
<b>Cattle</b>	1,709	2,049	1,842	2,125	8.7
<b>Sheep meat</b>	1,667	2,136	2,134	2,044	8.4
<b>Fruit</b>	1,750	2,117	1,942	1,913	7.9
<b>Vegetables</b>	963	918	985	1,063	4.4
<b>Sales of live animals</b>	735	735	806	851	3.5
<b>Crops and seeds</b>	510	698	619	639	2.6
<b>Wool</b>	480	402	448	560	2.3
<b>Non-farm income</b>	325	407	403	448	1.8
<b>Other horticulture</b>	274	246	224	241	1.0
<b>Other farming</b>	253	216	217	229	0.9
<b>Deer</b>	258	280	218	222	0.9
<b>Poultry/eggs</b>	163	178	204	213	0.9
<b>Pigs</b>	160	180	171	154	0.6
<b>Value of livestock change</b>	154	29	70	10	0.0
<b>Total Gross Revenue</b>	<b>22,515</b>	<b>20,729</b>	<b>22,052</b>	<b>24,315</b>	<b>100.0</b>

Source: Ministry of Agriculture & Forestry

## Forestry

Forestry and logging makes up around 1.3 percent of GDP and is the basis of an important export industry, with almost 70 percent of wood from the planted production forests eventually being exported in a variety of forms, including logs, wood chips, sawn timber, panel products, pulp and paper, and further manufactured wooden products, including wooden furniture.

For the year ending September 2011, the value of exports of forestry products was \$4.6 billion, 10.1 percent of New Zealand's total merchandise exports. China and Korea were the largest markets for log exports at \$1,077 million and \$307 million respectively, while India and Japan continue to be important destinations for the export of sawn timber.

New Zealand's climate and soils are well-suited to the growth of forest product. These forests cover an area of 1.8 million hectares and produce over 99 percent of the country's wood. Radiata pine, which makes up 90 percent of the plantation estate, matures in 25 to 30 years, more than twice as fast as in its natural habitat of California. This species has had



considerable research investment and has demonstrated its versatility for a wide range of uses. The second most important species is Douglas fir, which makes up 6 percent of the planted forest area.

New Zealand's total planted forest growing stock at 1 April 2008 was estimated at 446 million cubic metres. For the year ending September 2011, an estimated 26.1 million cubic metres of wood were harvested from production forests, an increase of 11.4 percent from a year earlier. Of this, 12.8 million cubic metres were exported as logs and the balance was manufactured into a range of products, including 3.8 million cubic metres of sawn timber, 1.9 million cubic metres of wood panels (consisting of fibreboard, veneer, plywood and particleboard) and 1.6 million tonnes of wood pulp (made from harvested logs plus residues from sawmills).

### **Fishing**

Fishing is a major New Zealand industry and an important merchandise export earner. Fish and other seafood accounted for \$1.53 billion in export revenues in the year ending September 2011, a 5.75 percent increase from the previous year.

The most important export species are green-lipped mussels, hoki, mackerel, squid and tuna. Smaller volume but high value exports are rock lobster, abalone and orange roughy. The main export markets are Hong Kong, Australia, the United States and Japan.

The conservation and management of the fisheries is based on a quota management system designed to protect the future sustainability of the fisheries while facilitating their optimum economic use. The system uses markets, together with scientific assessments of fish stocks, to allocate fishing rights without arbitrarily restricting fishing methods.

New Zealand has an Exclusive Economic Zone (EEZ) of 3.1 million nautical square kilometres, supporting a wide variety of inshore fish, some large deep-water fin fish, squid and tuna. New Zealand's unpolluted coastal waters are also well-suited to aquaculture. The main species farmed are Pacific oyster, green-lipped mussels and quinnat salmon.

### **Energy and Minerals**

New Zealand has significant natural energy resources, with good reserves of coal, natural gas and oil/condensate, extensive geothermal fields, and a geography and climate which have supported substantial hydro-electric development. The main minerals mined, in addition to coal, are gold, silver, ironsands, various industrial minerals and gravel for construction.

Programmes for the exploitation of New Zealand's energy resources were accelerated after the first oil shock in 1973. Oil and gas exploration was increased and energy conservation programmes were developed and promoted. As a result, New Zealand is able to meet a significant proportion of its overall energy requirements. More recently there has been a renewed interest in the development of energy and mineral resources to contribute to economic growth, including the issuance of new licences for the exploration of significant offshore oil prospects.



**Natural gas** is currently produced from 20 fields and wells in the Taranaki region of the North Island, with production dominated by the inshore Pohokura oil and gas field, the long-standing offshore Maui field and smaller onshore fields. There are three main uses for gas in New Zealand: electricity generation, petrochemical production and fuel for industrial and domestic purposes.

**Crude petroleum** production has been increasing since the second half of 2006 when the Pohokara field commenced production. The Tui Area Oil Fields, located in the offshore Taranaki basin, commenced commercial production in the middle of 2007 and produced 32.5 percent of New Zealand's oil in the 2009 year. New Zealand's production of crude oil was further boosted in late 2008, as Maari, a new field also located off the Taranaki coast, started production.

**Coal** is New Zealand's most abundant energy resource with total in-ground resources estimated at about 15 billion tonnes. Of this, 8.6 billion tonnes is judged to be economically recoverable from 42 coalfields. Of this amount, 80 percent is relatively low-grade lignite, 15 percent is middle-grade sub-bituminous, and the remaining 5 percent is bituminous. Lignite is used mainly for industrial fuel and sub-bituminous coal for industrial fuel, steel manufacture, electricity generation and domestic heating. Bituminous coal, which is typically very low ash, low sulphur coking coal, is mainly exported for metallurgical

**Electricity** power generated from renewable resources (hydro and wind generation) accounted for around 70 percent of total energy production with thermal and geothermal making up the remainder.

### **Manufacturing**

New Zealand's manufacturing industries make an important contribution to the national economy. In the year ending September 2011, manufacturing sector output accounted for 12.2 percent of real GDP. The proportion of the labour force employed in manufacturing was around 10.3 percent. Primary sector processing (food and forestry) makes up a significant proportion of the sector.

The food manufacturing industry produces high quality products for both the domestic and export market. This industry enjoys the advantages of a natural environment that is highly conducive to pastoral agriculture, an absence of major agricultural diseases, the potential for year-round production and an international reputation for excellence. The industry had sales of over \$40.2 billion in the year ending September 2011, including more than \$27 billion for meat and dairy products. Exports of meat and dairy products amounted to about \$17 billion over the same period.



2015 Executives of NZPNG Business Council

Papua New Guinea in consultation with New Zealand Business Council has announced the appointment of a new executive team as the two countries look to strengthen trade and economic ties. The newly-elected council will work closely with New Zealand Trade and Enterprise to identify opportunities for Papua New Guinean and New Zealand businesses to work more closely together across a number of industry sectors.

Table 5.2 below sets out the sales of goods and services in the manufacturing sector for the five years ended 30 September 2011.

**TABLE 5.2: OPERATING INCOME OF MANUFACTURING SECTOR BY INDUSTRY GROUP**

Industry Division	Year ended 30 September					
	2007	2008	2009	2010	2011	2011
	(dollar amounts in millions)					% of Total
<b>Food</b>						
<b>Meat and Dairy</b>	19,839	24,369	25,377	23,784	27,500	33.6%
<b>Other food, beverages and tobacco</b>	11,181	12,514	12,723	12,767	12,739	15.6%
<b>Petroleum, coal and chemical products</b>	7,819	8,166	7,665	7,295	7,718	9.4%
<b>Metal products</b>	7,922	8,410	7,438	7,289	7,659	9.4%
<b>Wood and paper products</b>	7,640	7,468	6,874	7,278	7,101	8.7%
<b>Machinery and equipment</b>	7,032	7,576	6,934	6,636	7,034	8.6%
<b>Printing, publishing and recorded media</b>	3,803	3,836	3,497	3,523	3,545	4.3%
<b>Transport equipment</b>	2,505	2,902	2,467	2,550	2,540	3.1%
<b>Non metallic mineral products</b>	2,820	2,945	2,639	2,455	2,464	3.0%
<b>Textile and apparel</b>	2,472	2,287	2,040	1,973	1,912	2.3%
<b>Furnitures and other manufacturing</b>	2,105	1,980	1,797	1,768	1,765	2.2%
<b>Total</b>	75,137	82,453	79,451	77,318	81,763	100.0%
<b>Manufacturing index</b>	119	115	115	102	102	

Source: Statistics New Zealand

Now do the activity on the next page.



### Student Learning Activity

1. Make a list of the principal economic sectors in New Zealand.

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Refer to table 5.1 on page 31 to answer questions 2 and 3.

2. Which agricultural product has always been the major income earning product in New Zealand?

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3. What are the three uses of gas in New Zealand?

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 6: FOREIGN RELATIONS AND TRADE

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### 6.1 Foreign Relations

New Zealand has a strong presence among the Pacific Island countries. A large proportion of New Zealand's aid goes to these countries and many Pacific people migrate to New Zealand for employment. Permanent migration is regulated under the 1970 Samoan Quota Scheme and the 2002 Pacific Access Category, which allow up to 1,100 Samoan nationals and up to 750 other Pacific Islanders respectively to become permanent New Zealand residents each year. A seasonal workers scheme for temporary migration was introduced in 2007 and in 2009. About 8,000 Pacific Islanders were employed under it. New Zealand is involved in the Pacific Islands Forum, Asia-Pacific Economic Cooperation and the Association of Southeast Asian Nations Regional Forum (including the East Asia Summit). New Zealand is also a member of the United Nations, the Commonwealth of Nations, the Organisation for Economic Co-operation and Development and the Five Power Defence Arrangements.

New Zealand ranks 8th in the Center for Global Development's 2012 Commitment to Development Index, which ranks the world's most developed countries on their dedication to policies that benefit poorer nations. New Zealand is considered the fourth most peaceful country in the world according to the 2014 Global Peace Index.

### 6.2 Trade

New Zealand is heavily dependent on international trade, particularly in agricultural products. Exports account for a high 24 percent of its output, making New Zealand vulnerable to international commodity prices and global economic slowdowns. Food products made up 55 percent of the value of all the country's exports in 2014. Wood was the second largest earner (7%). Its major export partners are Australia, United States, Japan, China, and the United Kingdom. On 7 April 2008, New Zealand and China signed the New Zealand–China Free Trade Agreement, the first such agreement China has signed with a developed country. The service sector is the largest sector in the economy, followed by manufacturing and construction and then farming and raw material extraction. Tourism plays a significant role in New Zealand's economy, contributing \$15.0 billion to New Zealand's total GDP and supporting 9.6 percent of the total workforce in 2010. International visitors to New Zealand increased by 3.1 percent in the year to October 2010 and are expected to increase at a rate of 2.5 percent annually up to 2015.

### 6.3 New Zealand's Trade Relations and With PNG

The New Zealand Papua New Guinea Business Council was established in 1993 with the underlying objective to heighten awareness of the business environment and market opportunities in Papua New Guinea. The Council exists to promote and facilitate economic and trade relations between New Zealand and Papua New Guinea. It exists to provide an environment where knowledge is shared and business connections are made.



This organization organizes regular events where you have the opportunity to meet with visiting dignitaries and New Zealand government officials and gain valuable insight into the business and cultural environment of the Papua New Guinea market. The group assists Members with their trade enquiries and act as the voice of business between New Zealand and Papua New Guinea companies. The New Zealand Papua New Guinea Business Council is also proud to partner with the Auckland Chamber of Commerce and Industry.

Reg Monagi, a senior executive with extensive business experience and connections in Papua New Guinea and New Zealand will lead the Council as President. Supporting Mr Monagi in this role is Dr Miok Komolong as Vice President, Hubert Namani as Secretary and Eddie Ruha as Treasurer. Recently appointed New Zealand Trade Commissioner to Papua New Guinea, Peter Hobbs, based at the New Zealand High Commission in Port Moresby, will help the Council become established as an Ex-Officio member.

“Papua New Guinea’s economy has been growing solidly year on year, creating demand for new products and services across almost every industry,” said Mr Monagi. “The rise in gas and minerals developments and construction projects in Papua New Guinea has also opened numerous opportunities for New Zealand companies to establish strong trade relationships.”

Papua New Guinea is New Zealand’s second largest export market in the Pacific and the largest economy in the region. Around 2,500 New Zealanders are estimated to live and work in Papua New Guinea, with more looking to partner with local Papua New Guinea businesses for mutual growth opportunities. New Zealand companies are active in a range of sectors in Papua New Guinea including communications, construction and transport.

“From Papua New Guinea’s standpoint, New Zealand is also an attractive trading partner, providing local businesses with the opportunity to learn best practices from internationally-recognized New Zealand industries such as dairy, fishing and marine resources, tourism, energy and education. As a result, there is growing network of Papua New Guinean citizens who are choosing to study in New Zealand and do business there.”

To support cross-border trade and investment partnerships, a double tax agreement between New Zealand and Papua New Guinea came into force in February last year, preventing businesses and individuals from being taxed twice on income earned in the other country.

The New Zealand Papua New Guinea Business Council Chairman, Mr Stephen Eagle sent a congratulatory message from Auckland to the new executive saying he was delighted to learn that a corresponding business council has been established in PNG. He said, “the two councils share the objective of assisting member countries in securing and carrying out business in the two countries, to high standards of professionalism. The business councils enjoy excellent support from the respective Governments, and much has been achieved in recent years in terms of putting clients and customers in touch with suppliers and service providers, and in providing advice to help firms avoid pitfalls and surmount challenges”. “With the existence of two corresponding councils, and the support structures of the two governments, this success can only increase”, Mr Eagle said.







**You have come to the end of CASE STUDY 1 on NEW ZEALAND. Now turn to your Assessment Book 3 and do assessment tasks on New Zealand. Once you complete the assessment tasks, make sure you cross check your answers before you begin with the reading of CASE STUDY 2 on CHINA.**

**Case Study 2 begins on the next page.**



## COMPARATIVE STUDIES

### CASE STUDY 2

#### CHINA



## CHAPTER 1: INTRODUCTION

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### 1.1 Location

Located in Southeast Asia along the coastline of the Pacific Ocean, China is the world's third largest country, after Russia and Canada. With an area of 9.6 million square kilometres and a coastline of 18,000 kilometres. Its shape on the map is like of a rooster. It reaches Mohe in Heilongjiang Province as its northern end, Zengmu Ansha (or James Shoal) to the south, Pamirs to the west, and expands to the eastern border at the conjunction of the Heilongjiang (Amur) River and the Wusuli (Ussuri) River, spanning about 50 degrees of latitude and 62 degrees of longitude.

China shares land borders with 16 countries: Kazakhstan, Russia, North Korea, India, Mongolia, Burma, Vietnam, Hong Kong, Macao, Lao People's Democratic Republic, Afghanistan, Kyrgyzstan, Nepal, Bhutan, Pakistan, Tajikistan. Marine-side neighbours include eight countries; North Korea, Japan, Philippines, Brunei, Indonesia, Malaysia and Vietnam.

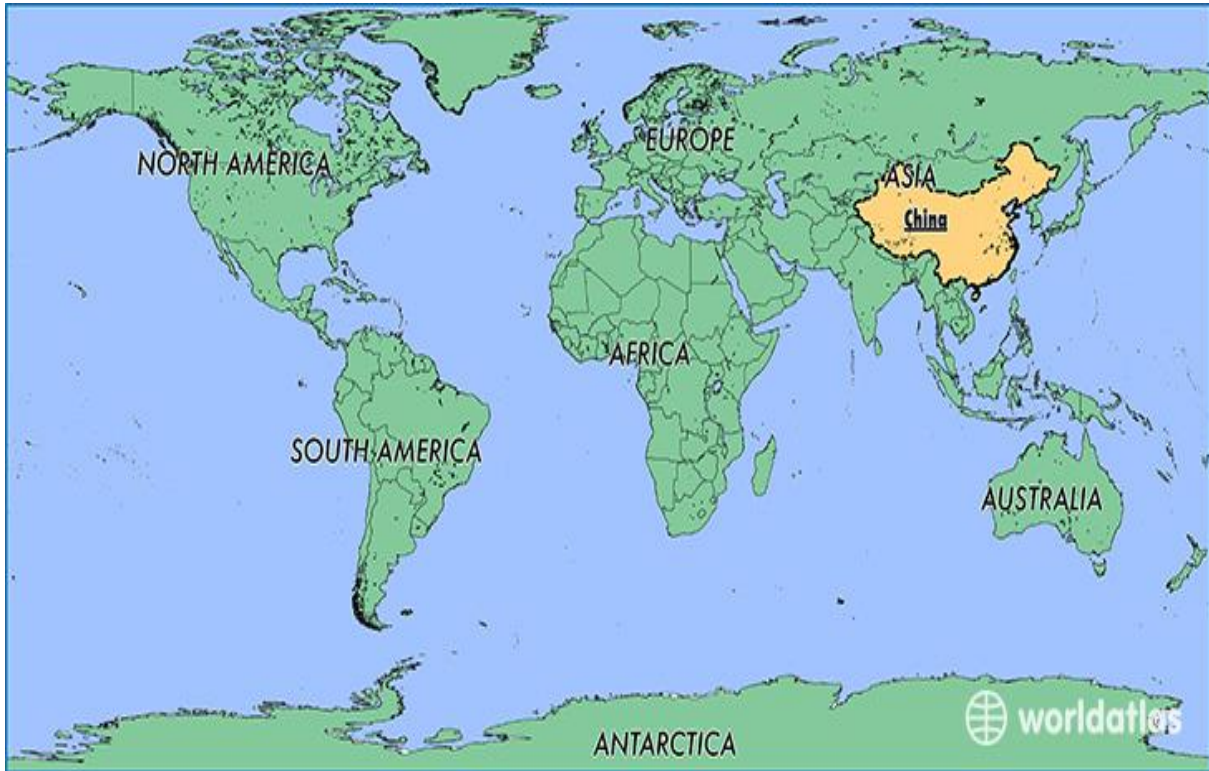
The People's Republic of China is located on the geographic coordinates of 35.0000° N latitude and 103.0000° E longitude in Asia. China is bounded by Korea Bay, East China Sea, South China Sea and Yellow Sea. The country of China measures 9,596,960 square kilometers in area. China was founded as a distinct and original nation in 1368. The population of China is 1,343,239,923 (2012) and the nation has a population density of 140 people per square kilometer.

The currency of China is the Yuan Renminbi (CNY) and the people of China are referred to as Chinese. The dialing code for the country is 86 and the top level internet domain for Chinese sites is .cn.

Beijing is the capital city of China. It has a population of 11,716,620. Beijing is also the political centre of China, which is considered a Republic, and home to its Executive head of state.



MAP1. LOCATION OF CHINA ON MAP



MAP 2. CHINA AND NEIGHBORING COUNTRIES





## 1.2 Physical Geography

The vast land expanses of China include plateaus, plains, basins, foothills, and mountains. Defining rugged plateaus, foothills and mountains as mountainous, they occupy nearly two-thirds of the land, higher in the West and lower in the East like a three-step ladder.

The highest step of the typical 'ladder topography' is formed by the Qinghai-Tibet Plateau at the average height of over 4,000 meters, with the Kunlunshan range, Qilianshan range and Hengduan mountain chain as the division between this step and the second one. The highest peak in the world, Everest, at 8844.43 meters high is known as 'the Roof of the World'.

On the second step are large basins and plateaus, most of which are 1,000 to 2,000 meters high. The Daxing'an, Taihang, Wu and Xuefeng Mountains divide this step and the next lower one. Plateaus including Inner Mongolian, Loess, Yungui Plateaus, and basins such as Tarim, Junggar, and Sichuan Basins are situated here.

The third step, abundant in broad plains, is dotted with the foothills and lower mountains, with altitudes of over 500 meters. Here are located famous plains; the Northeast, the North China, and the Middle-Lower Yangtze Plains, neighbouring with each other from north to south. These well-cultivated and fertile lands produce abundant crops.



Figure 1.2.1 Pamir Plateau

China is 3.7 million square miles. Hainan Province, China's southernmost region is in the tropics, while Heilongjiang Province which borders Russia, can dip to below freezing. The country has many mountain ranges including the Himalayas along the India and Nepal border to the north. The two other massive ranges, cresting at 25,000 feet (7,600 m), are the Kunlun Mountains and the Tien Shan. The Yangtze River is 6,300 kilometres long and has a catchment area of 1.8 million square kilometres. It is the third longest river in the world, after the Amazon and the Nile.

Although the physical features are as described, people tend to divide China into four regions, that is, the North, South, Northwest and the Qinghai-Tibetan areas. Because of geographical differences, residents of each region have distinctive life styles and customs.



Figure 1.2.2 Fertile Plain



Figure 1.2.3 Picturesque Li River

The North and South regions are located in the Eastern monsoon area and are divided by the Qin Mountains and Huai River. Nearly 95 percent of the Chinese population lives here. The other two regions, the Northwest and Qinghai-Tibetan regions that occupy 55 percent of the land, have fewer people, although most of the ethnic groups cluster there.

### Rivers and Lakes

China has numerous rivers and lakes. According to statistics, more than 50,000 rivers have drainage areas that exceed 100 square kilometers. Of these, more than 1,500 exceed 1,000 square kilometers. These rivers can also be classified as exterior and interior rivers. The Yangtze, the longest in China and even in Asia, is the third-longest in the world. The Yellow River, 'Mother River of the Chinese People', is just behind the Yangtze, both flowing into the Pacific Ocean. The Yarlung Zangbo River belongs to the Indian Ocean water system, and the Irtys River to the Arctic Ocean. On the other side, the interior rivers drain less area than the exterior ones.



Figure 1.2.4 Yangtze



Figure 1.2.5 Qinghai Lake

Lakes are also important. The areas with the most lakes are the Middle-Lower Yangtze Plain and Qinghai-Tibet Plateau. Many lakes in the northwest are salty. Qinghai Lake, a beautiful natural salt-water lake, is the largest. In southeast China, most lakes are fresh water. Poyang Lake, Dongting Lake, and Taihu Lake are all fresh water lakes. These provide China with



precious resources such as aquatic products, petroleum, natural gas, mines and renewable resources including tide power.

### Mountainous Topography

China has large areas of mountainous land which is about two-thirds of the country. The ranges mainly run from east to west and from northeast to southwest. Among these mountains, some reach to the sky, and others are lower with charming scenery. Out of the mountains throughout the world at the altitude of over 7,000 meters, over 50 stand in China. To the east in China, lower mountains like Mt. Taishan, Mt. Huashan, and Mt. Emeishan, also display their unique beauty.

The most famous and highest mountains in China are the Himalayas. They include Mount Everest, which at 8,850 metres (29,035 feet) is the world's highest mountain.

The Himalayan Mountains rise up from the Tibetan Plateau, the highest plateau in the world with an average height of over 4,000 metres. This area is known to most people as Tibet, although is in fact just another region of China.



Figure 1.2.6. The Himalayas



Figure 1.2.7. The Tibetan Plateau



Figure 1.2.7 Yellow



Figure 1.2.8 Jade Dragon Snow



## Climate

Climate is extremely diverse from tropical in the south to subarctic in north. It is **a large country** according to the number of inhabitants, its size, varying regional climate, ethnic groups and the amount of reliefs and streams. Its surface area is classified third among world ranking behind Russia and Canada. China itself represents a quarter of the surface of Asia.

This vast territory's climate has undergone the influence of almost all other climates (except the Siberian one), ranging from hottest to the coldest.

China covers a wide range of latitudes and longitudes. Some areas are far from the sea while others are beside or nearby. Both its topography and climate are diverse and complex. China's climate is dominated by dry and wet monsoons, which creates obvious temperature differences between the winter and summer.

In summer, the climate is influenced by warm and moist winds from the sea. Most parts of the country are hot and rainy. Wuhan, Chongqing, and Nanjing along the Yangtze River are China's three famous 'furnaces.'

In the winter, the cold and dry winds blowing from the continental land-mass toward the sea prevail. Most parts, especially the northern part of the country are cold and dry.

China's temperate zone is divided from south to north into six categories as follows: tropical, subtropical, warm-temperate, temperate, cold-temperate, and Qinghai-Tibet Plateau Temperate Zone. Most of the country lies in the North Temperate Zone, which is characterized by a warm climate and well-defined seasons.

### 1.3 Historical Overview

For many centuries, China had the world's most advanced civilization. Chinese history can be traced back to around 1550 BC (Shang Dynasty). It was followed by the long lasting Zhou Dynasty during which Chinese writing evolved. Successive dynasties in Chinese history controlled various territories under the direct rule of the Emperor of China.

China is one of the world's four ancient civilizations. Here we give a concise overview of more than 5000 years of Chinese history, including the Great Wall and the four great inventions of ancient China.

The written history of China can be said to date back to the Shang Dynasty (1600–1046 BC), over 3,000 years ago. The first dynasty was founded in the 21st century B.C and China was first unified in 221 B.C.



Figure 1.2.9. Spectacular scenery of the

The ancient Chinese believed their ancestors in heaven had chosen their leaders. They called this the Mandate of Heaven. The Chinese people often rebelled against a weak leader if they believed he had lost the Mandate of Heaven.

There are indications of an earlier Hsia Dynasty, but the Shang were the first dynasty to leave written records. The Shang also developed a lunar calendar consisting of twelve months of 30 days each. The Shang Dynasty ruled China from approximately 1766BCE to about 1040BCE. Shang rulers expanded the borders of their kingdom to include all of the land between Mongolia and the Pacific Ocean.



Figure 1.2.91. Ying Zheng, the first emperor of the Qin Dynasty and the people began to construct the Great Wall.

The Shang practiced human sacrifice. If a Shang king died, many of his subjects would join the ruler in his grave. Some people were beheaded first but others were buried alive. When a Shang king died, his next oldest brother replaced him. When there were no brothers, the ruler's oldest maternal nephew became king. A maternal nephew would be a child of one of the deceased king's cousins, that is, a son of his mother's siblings.

The Chou was initially nomads who lived west of the Shang. They overthrew the Shang and ruled China from 1040BCE to the third century before the Common Era. The Chou gained power, in part, from their ability to extract iron from rocks. They used the metal to create powerful weapons.

The Chou developed a feudal system in China. In a feudal system, the rulers appoint nobles to govern smaller parts of an empire. The nobles divided the land into farms for extended families. An extended family might include many generations and would often include cousins and second cousins. Landholding families were loyal to their nobles and the nobles were in turn loyal to the Chou rulers.



The Chou rulers taxed their subjects, but they used the wealth they collected to build huge walls to defend their cities from nomadic warriors. The Chou also built roads, irrigation systems and dams.

Chinese nobles gradually gained more power than the Chou rulers in a period of Chinese history that historians call the Age of Warring States. It was during this period of instability that a great teacher named Confucius tried to develop good government.

Rulers of the Ch'in dynasty managed to unify China and end the Age of Warring States by 221BCE. The Ch'in rulers clearly explained their laws to the people, and then strictly enforced them. Ch'in rulers standardized weights and measures and carried out irrigation projects. The Ch'in also gave peasant farmers the land they lived on. The West first learned of China during the Ch'in dynasty. It is from Ch'in that we get the word China.

A group known as the Legalists influenced the Ch'in Dynasty. The Legalists believed that a powerful leader and a stable legal system was needed to create social order. The Legalists tried to suppress all thoughts that disagreed with their philosophy. People who discussed ideas not approved by the Legalists faced execution. One Ch'in ruler ordered 460 scholars to be buried alive because the scholars disagreed with the teachings of the Legalists.



Figure 1.2.92. The Forbidden City is the imperial palace of Ming and Qing

China grew into a powerful empire during the Han Dynasty, between 202BCE and 220CE. Scholars trained in the teachings of Confucius ran the Han governments with great skill. During the Han Dynasty, the Chinese invented paper, recorded the history of their land, and first learned of Buddhism.

The last Chinese dynasty to rule came from a region of northeast China called Manchuria. The Manchus (also known as the Quing) were weak rulers who were unable to stop other nations from interfering with China.

The British seized Hong Kong in 1841, but more importantly, by the middle of the nineteenth century, the British forced the Chinese government to allow them to sell a dangerous drug called opium to the Chinese people. The British defeated the Manchus in a series of conflicts that later became known as the Opium Wars.

In 1894, Japan seized the island of Formosa, which later became known as Taiwan. By the dawn of the twentieth century, foreigners had overrun China. Parts of China were ruled by the British, French, American, German, Russian, and Japanese forces. The Chinese people believed that the Manchus had lost the Mandate of Heaven. They began to support a group known as the Nationalists, who pledged to free China from foreign rule. The Nationalists had driven out the last of the Manchu rulers, a six-year-old boy, by 1911.



## Modern Era

The Revolution of 1911 is of great significance in modern Chinese history. The monarchical system was discarded with the founding of the provisional government of the Republic of China. The victory was soon compromised by concessions on the part of the Chinese *bourgeoisie*, and the country entered a period dominated by the Northern Warlords, headed by Yuan Shikai.

Since the founding of the People's Republic of China in 1949, China has entered a new Communist era of stability, with the Reform and Opening Up policies of 1978, bringing in China's phenomenal economic growth.

### The Dynasties of China

**Hsia (c. 2200-1766BCE)** -- Most historians believed the Hsia to be a mythical dynasty, but recent archaeological findings have verified their existence.

**Shang (1766- c.1040BCE)** -- Excavations have confirmed descriptions in ancient Chinese literature of a highly developed culture. The Shang Dynasty was distinguished by an aristocratic government, great artistry in bronze, a writing system still in use today, an agricultural economy, and armies of thousands whose commanders rode in chariots.

**Chou (c.1040 - 256BCE)** -- The semi-nomadic Chou people from northwestern China overthrew the Shang king. The Chou developed a feudal society in China.

**The Age of Warring States (c.481- 221BCE)** Local warlords became more prominent as the Chou Dynasty slowly lost power. This is by the Chou Dynasty overlaps the Age of Warrings States for more than two centuries.

**Ch'in (221-206BCE)** -- The group of warlords known as the Legalists strengthened state power and control over the people. Weights and measures, and the Chinese writing system were unified. Chinese defenses were strengthened by creating the Great Wall.

**Han (206BCE - 220CE)** -- The Han Dynasty is often compared to the Roman Empire. It is considered the "Golden Age of Chinese History." Today the Chinese word for Chinese person means "a man of Han."

**Sui (589-618)** -- The Sui, Tang and Song Dynasties were quite similar. The short-lived Sui dynasty reunified China after four hundred years of fragmentation.

**Tang (960-1279)** -- Li Yuan was a Sui general who founded the Tang Dynasty, the largest, wealthiest, and most populous in the world at that time. The Tang based their laws on based on Confucian thought.

**Song (1279-1368)** -- The Song Dynasty continued the flowering of Chinese culture.

**Yuan (Mongols) (1279-1368)** -- Kublai Khan established the Yuan Dynasty after his Mongol tribes defeated China. The Yuan encouraged Europeans to travel overland to China; Marco Polo was the most famous of the early Europeans to make the journey.

**Ming (1368-1644)** -- Founded by a Buddhist monk who led a peasant army to victory over the Mongols

**Quing (Manchus) (1644-1911)** -- Founded by conquerors from Manchuria in 1644, the Quing was the last imperial dynasty of China. When it was overthrown in 1911, China became a republic.



#### 1.4. Overview of China's Culture

The Chinese culture is one of the oldest and most complex cultures in the world. The culture of China has been influenced by China's long history and by its diverse ethnic groups which customs and traditions could vary greatly between towns, cities and provinces. Despite all of its regional diversity, the Chinese culture is dominated by the Confucian value system. It has been the ethical and philosophical system in China since its foundation by Confucius 2000 years ago. It is a complex system of moral, social behaviour, political, philosophical and quasi-religious thought that has had tremendous influence on the culture and history of China.

Confucianism emphasizes on self-restraint, good relationship with others and mutuality to promote social harmony. Confucianism advocates respect for hierarchy and emphasizes loyalty to authority, to family, spouse and friends for keeping society in good order. Confucianism also exhorts all people to strive for being a perfect gentleman and be humaneness to all people.



Figure 1.4.1. Large Spring Festival Lanterns, Lucky Red Lanterns Chinese New Year Decorations Gate Ditan Park Beijing China. During Lunar New Year, many parks and temples in China have large outdoor fairs and festivals. Chinese characters on lanterns say Spring Festival.

Confucianism has embedded in people's behaviour and business culture in China. Many Chinese business people attach great importance to cultivating, maintaining, and developing personal relationship (*guanxi*) before doing business.

China composes 56 ethnic groups. Among them, Han Chinese is the majority ethnic group that account for 91.2 percent of the total population. The other 55 ethnic groups are consequently referred to as minority ethnic groups, or minorities.

China is a pluralism of religion country. Religions include Buddhism, Taoism (Taoism), Islam, Christianity, Judaism and other smaller religions. Confucianism, by many is considered as *quasi-religious*.



In China, much of the business is arranged and negotiated at the dining table. Since the Chinese prefer to do business with whom they know well, dining and drinking are the best media for building relationships and connections, 'guanxi'. The degree of importance and the depth of the relationship with the guest can be judged from the food and wine offered.

Important components of Chinese culture include; music, art, literature, cuisine and martial arts. These are aspects of the country that mostly intrigue people of different countries of the world.



Figure 1.4.2. The Great Wall of

**The Great Wall is a potent Chinese cultural icon.** The relics of the Great Wall and its fortresses and watchtowers shows China's culture of national pride, grand projects, and determined resistance. It also shows its culture of extravagant architecture and art. There are many paintings, poems, operas, stories, and legends inspired by the Great Wall.

Nowadays the Great Wall exemplifies a culture of preserving cultural heritage, and greater openness to the outside world, with the Great Wall becoming China's *greatest* tourist attraction. Great Wall paintings, embroidery, decorations, photography, and post cards are a modern Chinese art form.



Figure 1.4.3. Giant Panda Bear

The giant panda, regarded as one of China's National Treasures, is on the verge of extinction. Today there are fewer than 1,000 giant pandas living in the world. The giant panda is the symbol of eco-environmental conservation. Visitors to China can see this reclusive animal in Sichuan Province's Chengdu Research Base of Giant Panda Breeding. We hope, with their cute faces, unusual beauty and grace, giant pandas can bring visitors to China for pleasure and enjoyment.



### 1.5. System of Government

The country is governed under the constitution of 1982 as amended, the fifth constitution since the *accession* of the Communists in 1949. The *unicameral* legislature is the National People's Congress (NPC), consisting of deputies who are indirectly elected to terms of five years. The NPC decides on national economic strategy, elects or removes high officeholders, and can change China's constitution. It normally follows the directives of the Communist party's *politburo*. The executive branch consists of the president, who is head of state, and the premier, who is head of government. The president is elected by the NPC for a five-year term and is eligible for re-election. The premier is nominated by the president and approved by the NPC. Administratively, the country is divided into 22 provinces, five autonomous regions, and four *municipalities*. Despite the concentration of power in the Communist party, the central government's control over the provinces and local governments is limited, and they are often able to act with relative impunity in many areas.

China began to build a modern legal system in the late 1970s, after opening itself economically to the rest of the world. Since then it has developed legal codes in the areas of criminal, civil, administrative, and commercial law. The legal system is not independent of the government, however, a problem that is especially acute on the local level, where corrupt officials manipulate the process to protect themselves and limit citizens' rights.

#### Military

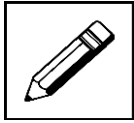


Figure 1.3.2 Chinese Military

The Chinese military is known as the PLA (People's Liberation Army) and is the largest military in the world (not including North Korea), employing about 7 million people. China is also one of the 8 nuclear states and is thought to have around 250 nuclear missiles. The Chinese government is also responsible for spending \$98.8 billion on its military in 2009. Analysts say spending could be more than three times that amount, which is still the second most in the world. China knows it could not win in a conventional war against the U.S., but little is known of its cyber-warfare programs that may give it an edge. The PLA however has not been in a serious conflict since the 1950's and the Korean War.



Now do the activity below.



### Student Learning Activity 1

1. Briefly describe the location of china in relation to its neighbouring countries.

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2. List down China's common physical features.

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3. Name the four regions in China

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**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



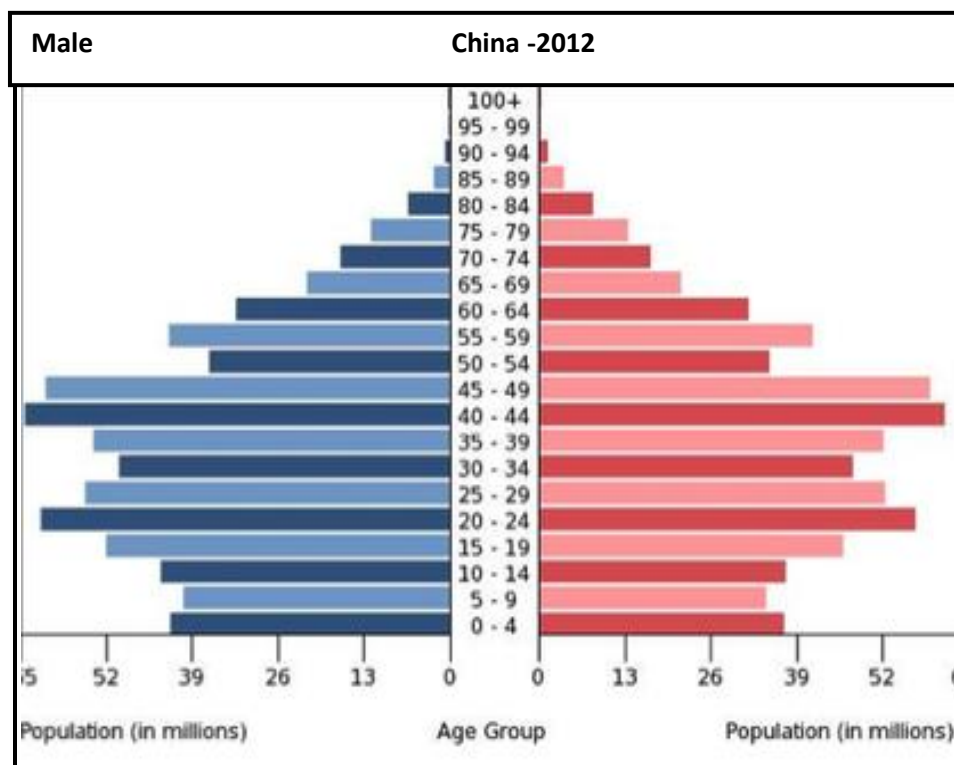
## CHAPTER 2: POPULATION GROWTH

### 2.1 Trends

China's population is the largest in the world. In 2011 the census counted 1.344 billion people, which is just a hundred thousand less than India. Before 1950, China's government was encouraging its habitants to have lots of children in order to support the country's workforce. The one child policy was introduced in China in 1979 to decrease its excessively high population that was increasing by 1.9 percent each year. This policy was used to restrict couples of one child. People living in rural areas and in an ethnic minority were allowed to have extra children. The policy prevented the birth of 250 million babies between 1980 and 2000, and 400 million births from about 1979 to 2011.

However, after the one child policy was established, problems started to rise. The biggest problem was that many wanted a son, so this created a significantly high boy population; this would create a massive decrease in population in the future. Those who had more than one child did not receive benefits and were fined which then created many tensions within the country.

**FIGURE 2.1.1 POPULATION STRUCTURE FOR CHINA, 2012**



In 2012, the population showed slow growth. From the above pyramid, we can see that the number of people between the ages of 40-44 is dominating the chart with just about less than 65 million men and 63 million females. Age groups from 65-100 are extremely low compared to the rest of the population as this may suggest poor healthcare for elderly people. China's life expectancy was about 73.5 in 2010, which is 30 years more than in 1960. This is due to its increasing health care and standard of living.



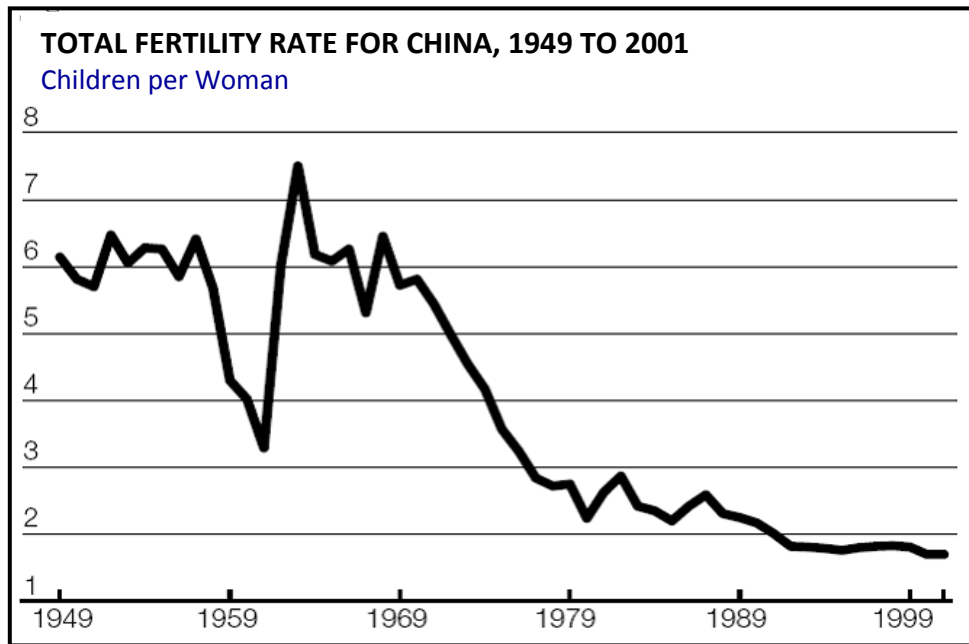
## 2.2. China Population Case Study

### BACKGROUND DATA – 2009 CIA FACT BOOK

<b>Total Population</b>	<b>1,338 Million</b>
GDP	\$6,000
Birth rate	14
Death Rate	7.06
Infant Mortality	20.25
Number of people per doctor	950
<b>% 0-14</b>	<b>19.8</b>
% 65+	8.1
Dependency Ratio	34
Population Growth Rate	0,655
Migration Rate	-0.39
Life Expectancy	73.47
Fertility Rate	1.79
Male to Female Ration	1.1 Males to Females

### Context

China has been the world's most populous country for centuries and today makes up one-fifth of the world's population. The country's population of 1.3 billion in the early 2000s is projected to grow by another 100 million by 2050. India, with its higher fertility levels- is forecast to move ahead of China in total population size by 2035. China covers about the same geographic area as the United States, although its population is nearly five times greater. In addition, because of rugged mountains in the west and vast desert areas in central China, the population is concentrated within a surprisingly small area along the East and South.



### Birth Rate Trends and Management

Fertility rates have been slashed in China in one of the most ambitious state attempts to control population growth. The government feared a looming crisis in the 1960s where every 3 years another 55 million people were added to top the population. The government feared a Malthusian crisis, where population growth would completely outstrip resource availability. They launched into China's now famous one child policy in 1979, after Chinese demographer Liu Zeng calculated China's *optimum* population at 700 million. The government set the limit at one child per family, a total fertility rate of 1. The state offered incentives for having only one child such as; Free education, Priority housing, Pension and Family benefits.

They also had a rigorous range of punishments if the one child rule was broken (which it clearly was when you look at the fertility graph, it never reaches 1!) including; losing all of the benefits listed above and fines of up to 15 percent of the families income.

In addition, couples could only marry at 22 for a man and 20 for a woman, and had to apply to the state for permission to first marry and then have a child. This reduces the reproductive "lifespan" of that couple.

The policy courted lots of controversy, and China's imbalance in male to female ratio is evident in the figures about China's population. It was claimed in the South China post that once couples knew the sex of a baby some would abort if it was a girl. This is known as female infanticide. This is because the Chinese value males in their society more than females because they carry the family name.

It has been documented that some women were forced into having abortions if they conceived a second child, and persistent offenders were offered sterilisation. The local factories and communities also had the granny police, who monitored and spied on prospective mothers. This policy was not enforced in the same manner across China, and in



some areas, it was possible to have more than one child, particularly in rural areas where children were needed to work on farmers.

This policy has had huge social ramifications for China. Yes, it has reduced the population growth, but there have been many secondary problems that arose from the policy. One, it has led to the phenomenon of “Little Emperors”, spoilt single children who get everything they want. It has also destroyed some family way of life, no brothers or sisters, no Aunts and Uncles. It also has future ramifications for China’s dependency ratio where one single child to look after two elderly grandparents. This means that many Chinese simply do not work in the formal economy but work to look after their ageing parents. This also means that they are not contributing to the economy and in the past China has relaxed the one child rule. In certain cities today, it has been completely abandoned as cities search for economic growth and a workforce that can supply it in the future. The last impact has been to create an army of bachelors, competing for the lower number of females available.

### **Death Rate Trends, Life Expectancy and Management**

Life Expectancy has increased considerably in China, especially since the cultural revolution of China and the creation of the People’s Republic of China.

#### Historical Change

China’s mortality has declined dramatically over the past 50 years, especially in the early years of the People’s Republic. The official death rate in 1953 was 14 deaths per 1,000 people, but it was probably much higher because mortality was chronically underestimated. The official death rate had dropped below 8 by 1970 and below 7 by 2000. China’s mortality fell because there was land and other resources to help ensure access by even the poorest citizens. The new government also began to develop massive public health programs. Early programs focused on relatively inexpensive goals and campaigns such as local environmental clean-up programs and training programs for local health personnel. This contributed to lower mortality. China’s mortality decline was interrupted at several points by temporary but often severe disruptions tied to political, economic, or social changes. The most notable was the Great Leap Forward.

In 1958, the Chinese government launched the Great Leap Forward, a massive effort to rapidly increase agricultural and industrial production. The program was a failure and, ironically, caused one of the largest famines in human history. The Chinese government kept the details of the era secret for many years, releasing some data only in the 1980s. Demographers and others who pieced together the available information have estimated that more than 30 million people died between 1958 and 1961 as a result of the Great Leap Forward. Infants were especially vulnerable. Infant mortality rates spiked in 1958 and again in 1961. Adult mortality surged in 1960. As the country recovered, mortality levels declined and life expectancy at birth increased, from 35 years in 1949 to 72 years in 2001.



China's entry into the Free Trade system and market reform has further increased access to medical care and has built on state systems such as "barefoot doctors", who helped in rural districts, and immunisation against polio and measles. The current problem is that, there is a gap between services available in rural and urban areas.

### Recent Change

The average life expectancy of Chinese increased to 73 in 2005, 1.6 years more than in 2000, according to the Chinese Ministry of Health. Life expectancy was only 36.5 years in 1949 when the People's Republic of China was founded. The infant death rate decreased to 1.53 percent last year, down from 2.55 percent in 2003.

The reasons for this are multiple, but much can be attributed to;

1. Massive investment in Health Care provision, the number of health organizations jumped to 315,000 while the government spent 1.05 trillion Yuan (US\$144.27 billion), or 4.82 percent of China's gross domestic product on health care.
2. Investment in stemming the potential AIDS epidemic. About 1.8 billion Yuan of the central government's budget was devoted to AIDS treatment in 2007 as the number of people estimated to be living with HIV on the mainland may have risen to 700,000 in the same year.
3. 30 million people were estimated to have joined the country's medical insurance network by the end of 2007 after a basic medical insurance trial program was launched in July.
4. In addition, the rural cooperative medical insurance system, initiated in 2003 to offer farmers basic health care, covered 730 million rural residents, or 86 percent of the rural population, by the end of September

### Migration Patterns and Laws

Towards the end of the 20th century, it was estimated that there were some 33 million ethnic Chinese living outside China, Taiwan, and Hong Kong. Large though this figure might appear, it is small compared with the total population of China itself, representing only 2.5 percent of a figure that presently exceeds 1.3 billion.

However, any simple correlation between the total population of China and the number of Chinese overseas is deceptive, because the majority of the latter trace their roots to a very few regions within China. The three southern coastal provinces of Guangdong, Fujian, and Zhejiang, have dominated the emigration, and within those provinces, a limited number of districts and even villages. These areas were marginal to the Chinese state and weak in terms of their resource base. However, most importantly, these areas were the earliest and most intensively affected by the seaborne expansion of European colonial powers, which linked them to a wider global system. Furthermore, in contrasting numbers of Chinese living overseas with the base population of China, migration of Chinese from China has, nevertheless, been significant. It is a growing phenomenon, one that is often included under the rubric "the Chinese diaspora." The 33 million estimate at the end of the 20th century for the number of Chinese overseas had increased from around 22 million in 1985, and from



12.7 million in the early 1960s. Given the generally low fertility of overseas Chinese populations, this suggests a significant role for migration from China (including Hong Kong and Taiwan) over the second half of the 20th century.

In the past and until the 1960s, China was characterized by high fertility that generated a "surplus" population that was available to migrate from certain parts of the country.

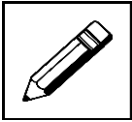
With the establishment of the People's Republic of China in 1949, *emigration* from China became strictly controlled. The migration from China that did occur was primarily of students to the then Soviet Union and of specialist workers to certain developing countries such as Tanzania. Any remaining migration was within the Chinese sphere. Over one million migrants, mainly supporters of the defeated nationalist Guomindang Party, fled to Taiwan around the time of the formation of the People's Republic. An equal number of migrants went to Hong Kong at the same time, followed by a continuous, if fluctuating, flow to the British colony over the subsequent three decades. Almost half a million entered Hong Kong between 1977 and 1982, for example.

Once China began to open up after the economic reforms implemented from 1979, increasing numbers of Chinese began to go overseas. In small numbers at first, but in significant numbers from the mid-1990s.

The figures on Chinese going overseas as immigrants provide only part of the picture. Large numbers go abroad temporarily as students or skilled workers. Students from China make up the most important group of foreign students in Canada and the second most important group in the United States in the early 21st century.

There is also large scale internal migration in China, particularly since industrialisation and urbanisation took hold.

Now do the activity on the next page.



### Student Learning Activity 2

1. What was the reason behind China's population boom?

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Study the population pyramid of China on page 51 to answer questions 2 and 3.

2. What happened to the population structure of China after the introduction of one child policy?

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3. What can you notice on the population structure after the one child policy?

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**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 3: SETTLEMENT AND URBANISATION

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### 3.1 Migration and Settlement Patterns

The household registration law (hukou), enacted by the Chinese socialist state in 1958, played the primary role in blocking population movement, especially rural-to-urban labour migration in Mao's era. Government officials believed that it was necessary to keep the rural population on the farmlands so that they would continue to produce food for those working in industry and would not burden the existing urban infrastructure. Restricting people's spatial mobility was also seen as key to maintaining social control and political stability. As a result, spontaneous labour migration was largely absent in China from the 1950s to the 1970s. During this period, however, a very different kind of state-directed, politically motivated, 'reversed' migration took place. Many skilled urban workers and professionals were urged by the Maoist state to relocate to economically underdeveloped regions, while millions of urban youth were sent down to the countryside to be 're-educated' by the *peasants*.

With rapid commercialization, a booming urban economy, the influx of foreign capital, and relaxed state migration policy, there have been several large waves of mass labour migration in the post-Mao reform era. Over 100 million Chinese farmers have poured into the cities to look for jobs and small business opportunities. This large mobile population is known as 'the floating population' (*liudong renkou*), and its members are often called 'peasant workers' (*mingong*), or 'working brothers' (*dagongzai*) and 'working sisters' (*dagongmei*).

The vast majority of these rural *transients* are temporary or seasonal *menial* workers who have nothing but their labour to sell. The rest of them are small independent entrepreneurs in family-based businesses. Migrants today are required to register with local authorities and obtain temporary resident status, but they are treated as second-class citizens and can be driven out of the city whenever officials deem necessary. While most rural migrants move from place to place frequently in response to the unpredictable job market demand, some have also formed their own unofficial settlements on the outskirts of Chinese cities based on their common local place of origin. Such settlements are usually named by urbanites as 'villages' after the provincial origin of the migrants living there. The largest and best-developed one is the so-called 'Zhejiangcun' in Beijing. This is created by migrant entrepreneurs and merchants from rural Wenzhou in Zhejiang province. Not only did Wenzhou migrants build their own housing and permanent market buildings for garment production and trade, but they also developed a sense of group solidarity and a growing community leadership. At its peak, there were about 100,000 migrants living and working in this settlement. Yet, authorities and urbanites often regard such unofficial migrant communities as hotbeds for crime and a threat to state regulatory power. As a result, there have been periodical government campaigns to clean out migrant settlements in the cities, but migrants persistently come back to stay and resume their economic activities after each political tornado ends.



### 3.2 Urbanization and Population Distribution

All major cities in China (such as Beijing, Shanghai, Guangzhou, Chongqing, Nanjing, and Shenzhen) are generally located in the south east part of the country. There are also some major cities in the north-eastern part of China, but very few in the west. This mirrors the greatly varying population density of China. The east part of China is very densely populated, while the west is very sparsely populated. This is due to the fact that it is very mountainous in the west.

#### MAJOR CITIES IN CHINA



Urbanization in the People's Republic of China increased in speed following the initiation of the reform and opening policy. By the end of 2015, 56 percent of the total population lived in urban areas, a dramatic increase from 26 percent in 1990.

#### Modern History

Urban population grew steadily at around 3 percent to 20 percent from 1950 to 1965. Urban population experienced a 'great jump' in 1958-1961 during the "Great Leap Forward" in conjunction with the massive industrialization effort. During the Cultural Revolution years of 1965-1975, urban population growth dropped. An estimated 18 million urban youth were moved to the countryside within that period.

However, after reforms were launched at the end of 1978, urban population growth began to accelerate again. The inflow of foreign direct investment created massive employment opportunities, which fostered urban population growth. In the 1990s, urban population growth started to slow. This reflected a slower increase in employment growth following the restructuring of the state-owned enterprises (SOE).

The majority of China's people live in the eastern segment of the country, the traditional China proper. Most are peasants living, as did their forebears, in the low-lying hills and central plains that stretch from the highlands eastward and southward to the sea.



Although migration to urban areas has been restricted since the late 1950s, as of the end of 1985 about 33 percent of the population was urban. An urban and industrial corridor formed a broad arc stretching from Harbin in the northeast through the Beijing area and south to China's largest city, the industrial metropolitan complex of Shanghai.

The uneven pattern of internal development and settlement, has led to the eastern part of the country being more populated. The interests in exploiting the mineral-rich and agriculturally productive portions of the vast northwest and southwest regions will still not attract as much population due to the adverse terrain and climate of most of those regions.

In 1987, China had a total of twenty-nine provincial-level administrative units directly under the central government in Beijing. In addition to the twenty-one provinces (*sheng*), there were five autonomous regions (*zizhiqu*) for minority nationalities, and three special municipalities (*shi*) the three largest cities, Shanghai, Beijing, and Tianjin. A 1979 change in provincial-level administrative boundaries in the northeast region restored Inner Mongolia Autonomous Region to its original size (it had been reduced by a third in 1969) at the expense of Heilongjiang, Jilin, and Liaoning provinces. Urban areas were further subdivided into lower-level administrative units beginning with municipalities and extending down to the neighborhood level.

The pace of urbanization in China from 1949 to 1982 was relatively slow because of both rapid growth of the rural population and tight restrictions on rural-urban migration for most of that period. According to the 1953 and 1982 censuses, the urban population has a percentage of total population increased from 13.3 to 20.6 percent during that period. From 1982 to 1986, however, the urban population increased dramatically to 37 percent of the total population. This large jump resulted from a combination of factors. One was the migration of large numbers of surplus agricultural workers, displaced by the agricultural responsibility system, from rural to urban areas. Another was a 1984 decision to broaden the criteria for classifying an area as a city or town. During 1984, the number of towns meeting the new urban criteria increased more than twofold, and the urban town population doubled. In the mid-1980s, demographers expected the proportion of the population living in cities and towns to be around 50 percent by the start of the 21st century. This urban growth was expected to result primarily from the increase in the number of small and medium-sized cities and towns rather than from an expansion of existing large cities.

### **The Changing Definition of Urban Population in China**

China's statistics regarding urban population sometimes can be misleading because of the various criteria used to calculate urban population. In the 1953 census, urban essentially referred to settlements with populations of more than 2,500, in which more than 50 percent of the labor force were involved in nonagricultural pursuits. The 1964 census raised the cut-off to 3,000 and the requirement for nonagricultural labor to 70 percent. The 1982 census used the 3,000/70 percent minimum but introduced criteria of 2,500 to 3,000 and 85 percent as well. In calculating urban population, the 1982 census made a radical change by including the agricultural population residing within the city boundaries. This explains the dramatic jump in urban population from the 138.7 million reported for year-end 1981 to the 206.6 million counted by the 1982 census. In 1984 the urban guidelines were further



loosened, allowing for lower minimum population totals and nonagricultural percentages. The criteria varied among provincial-level units.

Although country urban population of 382 million, or 37 percent of the total population in the mid-1980s was relatively low by comparison with developed nations, the number of people living in urban areas in China was greater than the total population of any country in the world except India. The four Chinese cities with the largest populations in 1985 were Shanghai, with 7 million, Beijing with 5.9 million, Tianjin, with 5.4 million and Shenyang with 4.2 million. The disproportionate distribution of population in large cities occurred as a result of the government's emphasis after 1949 on the development of large cities over smaller urban areas. In 1985, the 22 most populous cities in China had a total population of 47.5 million, or about 12 percent of China's total urban population. The number of cities with populations of at least 100,000 increased from 200 in 1976 to 342 in 1986.

In 1987, China was committed to a three-part strategy to control urban growth. It strictly limited the size of big cities (those of 500,000 or more people); developed medium-sized cities (200,000 to 500,000); and encouraged the growth of small cities (100,000 to 200,000). The government also encouraged the development of small market and commune centers that were not then officially designated as urban places, hoping that they eventually would be transformed into towns and small cities. The big and medium-sized cities were viewed as centers of heavy and light industry, and small cities and towns were looked on as possible locations for handicraft and workshop activities, using labor provided mainly from rural overflow. The urbanization of small and medium-sized towns has created different challenges for ethnically diverse areas.

In 2005, China had 286 cities. Most of China's cities have a population of one million and below. Shanghai is the largest city in China, with a population of 19 million followed by Beijing with a population of 17.4 million. These are the two mega-cities in China.

From 2010 to 2025, it is estimated by the Ministry of Housing and Urban-Rural Development that 300 million Chinese now living in rural areas will move into cities. The fast pace of urbanization will create at least 1 trillion Yuan in annual investment opportunities in building water supply, waste treatment, heating and other public utilities in the cities. The Chinese government is also demolishing rural villages and building new cities and towns to relocate villagers to. It ultimately aims to integrate about 70 percent (about 900 million) of China's population into cities by 2025.

**TABLE 3.2.1. WORLD URBANISATION GROWTH**

Urban Population Growth (%)				
Region/country	1985-1990	1990-1995	1995-2000	2000-2005
Asia	3.78	3.09	2.88	2.61
South-East Asia	4.11	3.99	3.84	3.40
East Asia	4.08	3.08	2.82	2.52
China	5.04	3.77	3.52	3.08
Europe	0.78	0.37	0.14	0.13
North America	1.24	0.57	1.51	1.37
Oceania	1.52	1.52	1.46	1.40
World	2.70	2.33	2.18	2.04

According to Professor Lu Dadao, president of the Geographical Society of China (GSC), China's urbanization took 22 years to increase to 39.1 percent from 17.9 percent. It took Britain 120 years, the US 80 years, and Japan more than 30 years to accomplish this.

As shown in the Table 3.2.1, China's urban population growth is higher than that of Asia as well as the world. China's urbanization rate in 2005 was higher than that of Asia and roughly on par with the levels in East and South-East Asia. However, the country still has a long way to go in catching up with the western developed countries.

Now do the activity on the next page.



### Student Learning Activity 3

1. What is the aim of the household registration law (Hukou)?

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2. What do these Chinese terms refer to?

i) Liudong Renkou \_\_\_\_\_

ii) Mingong \_\_\_\_\_

iii) Dogongzai \_\_\_\_\_

iv) Dagongmei \_\_\_\_\_

3. Why was the pace of urbanisation slow in China from 1949 to 1982?

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**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 4: LAND USE AND TRANSPORT

### 4.1 Major Land use

Land use describes the human activities or economic functions that occur on land. Many environmental, economic and social factors influence how we use our land. In turn, different land uses can affect the environment, economy and society in different ways.

China is experiencing massive **land use** changes and impacts to the environment due to an unprecedented period of economic growth, which has catapulted it from one of the world's poorest countries 30 years ago to the world's second largest economy today. Based on trends in economic development, population growth, and land use, China's natural landscape will experience significant and increasing pressures well into the future.

#### Urbanization

China has four times the population of the U.S., within roughly the same area. With 1.3 billion inhabitants, 20 percent of the world's population lives in China. While the rate of population growth has been declining for decades, the total number of inhabitants has been growing and is expected to do so through 2030. China's urban population is growing rapidly; between 1950 and 2009, the percentage of the population living in urban areas quadrupled from 14 percent to 48 percent. Meanwhile, the rural population is declining, opening the landscape in areas that are not urbanized. The forests and farming land of eastern China support far more people and major cities than do the grasslands, deserts, and high mountain regions of the west.

#### Cultivated Land

The vast majority of China's cultivated land lies in eastern China. Nearly all of the arable land, totaling 122 million hectares or 13 percent of the country, is cultivated. To ensure adequate food production, the government has identified a minimum threshold or "redline" of 120 million hectares of cultivated land. Chinese law also requires a one-to-one replacement (in quantity and quality of farmland that is converted to other uses). These policies, combined with development and other land use pressures, are shifting the location of farmland. Some cultivated lands are being newly created from other uses such as forestry, grasslands, and wetlands while existing cultivated lands are being converted to other uses such as built-up areas, forests, and grasslands.

#### Livestock Grazing

Livestock grazing occurs throughout China and is possibly the most common use of grasslands. China is the world's largest producer of sheep and goats, and the fourth largest producer of cattle. Livestock grazing is a major driver of grassland degradation in China. The government has instituted a variety of programs to combat desertification, which has slowed to 3,000 square kilometers per year.



## Forest Uses

Since the late 1950s, China's forests have experienced several periods of significant *deforestation*, which contributed to related environmental disasters such as the Yangtze River flood in 1998. In response, the Central Government has attempted to restore forest cover by investing upwards of 1 trillion RMB into six forest conservation programs, the most significant of which include Grain to Green (1999–2016) and the Natural Forest Protection Program (NFPP) (1998–2020). These programs combine *afforestation* efforts (primarily in northern China) and timber harvesting bans or limits to restore forest cover. Forest cover was 20 percent as of 2008. The Central Government aims to achieve 23 percent forest cover by 2020, and 26 percent by 2050.

## Mining and Energy Development

China has one of the largest mining sectors in the world and is the world's largest energy producer. Energy production is on the rise, which will impact *biodiversity* as China constructs more mines, oil and gas wells, dams and hydropower stations, wind farms, pipelines, and other infrastructure. In particular, western and central China will experience increasing energy development because they hold many untapped and lesser tapped oil and gas fields, coal reserves, and areas with the highest potential for wind and solar energy production.

## Transportation

China is expanding its road and rail networks, investing 5 trillion RMB to construct 40,000 km of railroads by 2020. The vast majority of planned and existing transit is located in eastern China. Secondary road construction is more of an emphasis in western China. The rail network is expanding nationwide to connect most cities with populations of at least 200,000.

## Land Use Changes and Economic Growth

The conversion of land from agricultural production to urban and industrial development is one of the critical processes of change in developing economies undergoing industrialization, urbanization, and globalization. Urban land use changes taking place in China have attracted much scholarly attention, especially in light of the extensive economic reforms, remarkable economic growth, and profound structural changes over the last three decades. The transition from a planned to a market economy and from authoritarian to more decentralized provincial and local government has generated a new institutional setting for changes in land use (Lin and Ho 2005).

Land use changes in China are also affected in significant ways by land supply policies, which have been adjusted regularly to meet the demands of economic development. Illegal land supply is a leading cause of excessive and uncontrolled investment, which occurs when local governments do not supply land to land users according to current land use plans or following the final permission of the central government. As a result, the central government started to use land policy as a major aspect of national macro-economic control in late 2003.



Among other measures, land transfers have been conducted through auction or tender since 2004, and land supply policy has shifted from quantity control to structural control since 2006. Land use indexes distributed by the central government to the local governments emphasized only the quantity of land before 2006, but currently, the distribution of land uses among categories is set by the central government and even the intensity of land use is defined.

### Changes in Land Use Patterns across China

Land policy in China has changed dramatically since 2004, and one would also expect a different pattern of land use since then. Based on official county-level data from 2004 and 2008, the land use change is examined at the provincial prefecture city level and the spatial relationship between land use change and economic growth. Official land use change data are divided into several land use categories at three levels every year. The first level includes agricultural land, construction land, and unused land; the second level contains ten categories of land uses; and the third level contains 52 subcategories.

Table 4.1.1 shows land use changes nationally from 2004 to 2008, during which time, more land was converted into uses for construction while the amount of agricultural land and unused land declined. Among agricultural land categories, pasture land and cultivated land shrank by 12.69 million mu (0.85 million hectares) and 11.27 million mu (0.75 million hectares) respectively. Unused land fell by 17.91 million (1.19 million hectares).

Given recent rapid industrialization and urbanization, it is not surprising that the fastest land conversions in China have been to construction uses, which added 18.83 million (1.26 million hectares). In the category of settlements and industrial/mining sites, cities, designated towns, and industrial/mining sites witnessed the fastest land expansion, with growth rates of 19.61, 13.33, and 12.42 percent respectively, while the land area of rural settlements decreased. Significant amounts of land were also converted for the use of transportation, particularly the construction of highways.

**TABLE 4.1.1. LAND USE CHANGES IN CHINA, 2004-2008**

Major Land Use Categories	Land Use Composition (%)		Land Use Change (2004-2008)	
	2004	2008	Rate of Change (%)	Change of Area (million mu)
<b>Agricultural Land</b>	69.11	69.10	-0.01	-0.72
Cultivated Land	12.88	12.80	-0.61	-11.27
Orchards	1.19	1.24	4.72	7.99
Forestland	24.72	24.84	0.45	15.87
Pasture	27.63	27.54	-0.32	-12.69
Other Agricultural Land	2.69	2.68	-0.16	-0.63
<b>Construction Land</b>	3.32	3.45	3.98	18.83
Settlements and Industrial/Mining Sites	2.71	2.81	3.87	14.92
Cities	0.18	0.22	19.61	5.12
Designated Towns	0.17	0.20	13.33	3.32
Rural Settlements	1.74	1.74	-0.09	-0.22
Stand-alone Industrial/Mining Sites	0.38	0.43	12.42	6.70
Transportation Land	0.23	0.26	9.89	3.31
Railways	0.04	0.04	7.01	0.39
Highways	0.19	0.21	10.35	2.79
Land for Water Conservancy Facilities	0.38	0.38	1.11	0.60
<b>Unused Land</b>	27.57	27.44	-0.46	-17.91
Unused Land (potentially developable)	24.47	24.35	-0.48	-16.70
Other Unusable Land	3.10	3.09	-0.27	-1.22

Note: 1 hectare (ha) =15 mu; 1 million mu=666.666 thousand hectares.

## 4.2. Main Transport System

**Transport in China** has experienced major growth and expansion in recent years. Airports, roads, and railway construction will provide a massive employment boost in China over the next decade.

Rail, which is the primary mode of transport, has also been used for long distances. It has doubled in length since the mid-twentieth century, and an extensive network provides service to the entire nation. The larger cities have metro systems in operation, under construction, or in the planning stage. The highway and road system also has gone through rapid expansion, resulting in a rapid increase of motor vehicle use throughout China. Although China's transport system comprises a vast network of transport nodes across its huge territory, the nodes tend to concentrate in the more economically developed coastal areas and inland cities along major rivers.



Figure 4.2.1. The Transrapid Shanghai Maglev Train, with a top speed of 431 km/h (268 mph). It is the first and only commercial high-speed maglev line in the world.

The physical state and comprehensiveness of China's transport infrastructure tend to vary widely by geography. While remote, rural areas still largely depend on non-mechanized means of transport, a modern maglev train system was built in China to connect the city center of Shanghai with its international airport.

Much of contemporary China's transport systems have been built since the establishment of the People's Republic in 1949. Prior to 1950, there were only 21,800 km (13,546 mi) of railway lines. In 2010, the railway network has since been expanded to 90,000 km (55,923 mi). Rail travel remained the most popular form of transport, although air travel has also experienced significant growth since the late 1990s. The government-led effort that began in the 1990s to connect the country by expressways via the "National Trunk Highway System" has expanded the network to about 97,000 km (60,273 mi) by the end of 2012 making China's the longest expressway network in the world.



Figure 4.2.2. The [Donghai Bridge](#) is [one of the longest bridges](#) in the



Figure 4.2.3. [Beijing Capital International Airport](#), the [busiest](#) airport in Asia



Rivers and canals (notably the Grand Canal, which connects the Huang He Yellow and Chang Yangtze rivers) remain important transportation arteries. Since the 1980s, China has undertaken a major highway and paved road construction program, and more recently it has invested significantly in constructing high-speed rail lines; it now has the most extensive high-speed rail system in the world. Much of the nation, but especially the east, is now well served by railroads and highways, and there are major rail and road links with the interior. There are railroads to North Korea, Russia, Mongolia, and Vietnam, and road connections to Pakistan, India, Nepal, and Myanmar. In addition, pipelines connect China with the oil and natural gas producing nations of Central Asia, where China has displaced Russia as the major foreign economic power. As part of its continuing effort to become competitive in the global marketplace, China joined the World Trade Organization in 2001. The nation became the world's largest exporter of manufactured goods in 2009. Its major trade partners are the United States, Japan, Hong Kong, South Korea, and Taiwan. China's economy, though strengthened by more liberal economic policies since the 1980s, continues to have some inadequacies in transportation, communication, and energy resources.

Now do the activity on the next page



### Student Learning Activity 4

1. State the significant change that China is currently experiencing.

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2. What are the major land uses in China?

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3. What was the major effect of land conversions in China?

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**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 5: INDUSTRIAL AND ECONOMIC GROWTH

### 5.1. China: The Rise of an Industrial Giant

The transformation of the Chinese economy over the last decade or so has been nothing short of phenomenal, with the country now being dubbed as 'the workshop of the world'. The scale and the pace of change are causing major adjustments both within China and in the rest of the world. China's car industry has been one of the major focal points for foreign direct investment.

Chinese steel production in 2003 was thought to be 20 percent of total world output. China makes 60 percent of the world's bicycles and 50 percent of the world's shoes. One-fifth of all garments exported were Chinese and this is expected to rise to 50 percent in 2012. Between 2000 and 2006, cloth manufacture more than doubled and car production increased by more than six times, while mobile phone ownership increased nine times.

The main reasons for growth can be seen in the government legislation. The Chinese government sought foreign investment to help end China's isolation and stimulate economic growth. Special Economic Zones (SEZs) were set up to encourage businesses into China. They often had advanced factories set up in the zones and tax incentives such as reduced tax rates, were used to attract more businesses. The one-child policy, which was introduced in 1979, meant that the population level was much lower than it would have been (estimated at over 2 billion) and people's desires changed. There was an increased demand for electrical household goods, air conditioning, cars and computers.

At China's home market, it has a large and increasingly wealthy population. Per capita income in urban households was about £600 in 2001, having risen from below £200 in 1993. China's ambitious urban population numbers some 500 million people. More people who have more money, means they can buy more things which create a greater demand for Chinese products so industry makes more products.

The 2008 Olympics were held in Beijing. This provided China with the perfect opportunity to showcase the nation. The opening ceremony, based on the theme 'One World, One Dream', was important in an attempt to convey China as an open, friendly country and an important, integrated, positive part of the world in the 21st century. The prestige of hosting the games and the image portrayed, will be immensely important in stimulating further foreign investment.

The Three Gorges Dam has also impacted China's development. Industrial Development on a large scale demands large resources of energy. China currently generates two-thirds of its electricity from coal-fired power stations. Many new plants are being built. Hydroelectric power (HEP) accounted for 7 percent of electricity in 2006. China produces more HEP than any other country in the world and is keen to develop new sources of energy. The Three Gorges Dam is the biggest in the world, generating 22,500mW when fully operational. Together with the development of navigation along with the Yangtze, the dam has led to much development.



Figure 5.1.1. Aerial View of the Dam



Figure 5.1.2. The First Gorge: Xiling Gorge

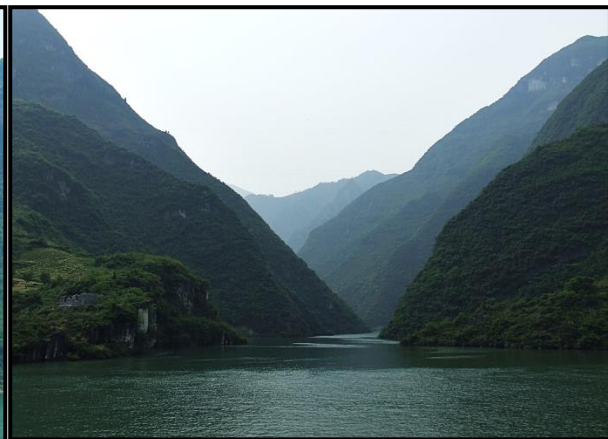


Figure 5.1.3. The Second Gorge: Wu Gorge

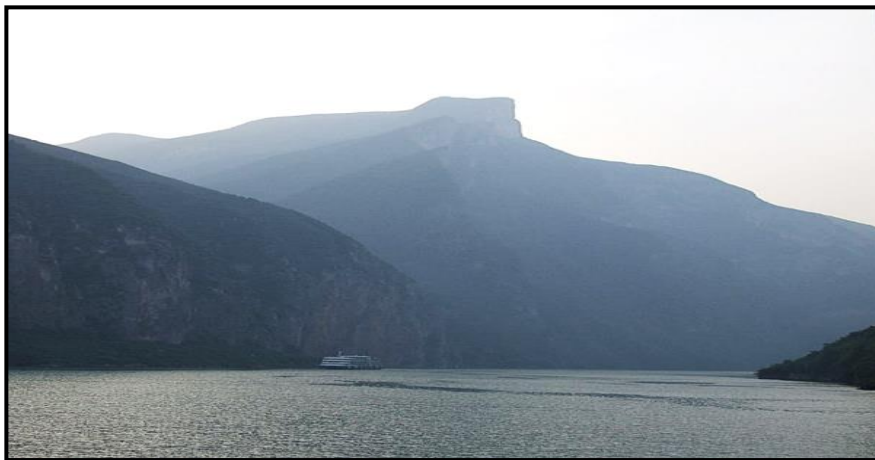


Figure 5.1.4. The Third Gorge: Qutang Gorge

Other factors that contributed to growth include cheap labour which is a key reason where wages are 95 percent lower than in the USA. This means Trans National Corporations (TNCs)



will have lower costs and therefore greater profits, providing China a more attractive place to locate a factory. China has a GDP 7.3 trillion and per capita in \$5,444. Factors that have enabled the economy to grow include cheap raw materials, availability of resources, cheap labour, investment into good transport and infrastructure (The Donghai Bridge).

China has the fourth largest economy in the world after the USA, Japan and Germany. It is the world's fastest-growing major economy, with growth rates averaging 10 percent over the past 30 years. China's high expansion rate is mainly due to its success at manufacturing the world's products, which gave it its name as "the world's factory". Exporting is the key reason for China's economic growth.

The abundance of cheap, hardworking labour has attracted many TNC's allowing the country to expand and flourish economically through drawing record amounts of foreign investment. Today, 270 million people have come out of poverty. Another factor involved in this is the hard working ethics in which the vast majority of the population abides by. China is now an 'industrialized' country, and because of this, it is now willing to invest large amounts in oil and necessary fuel to maintain this economy. This will only heighten its importance globally spending billions of dollars in pursuit of foreign energy supplies.

## 5.2 The Economic Sector

China's socialist market economy is the world's second largest economy by nominal GDP, and the world's largest economy by purchasing power parity according to the IMF, although China's National Bureau of Statistics rejects this claim. Until 2015, China was the world's fastest-growing major economy, with growth rates averaging 10 percent over 30 years. Due to historical and political facts of China's developing economy, China's public sector accounts for a bigger share of the national economy than the private sector.

China is a global hub for manufacturing, and is the largest manufacturing economy in the world as well as the largest exporter of goods in the world. It is also the world's fastest growing consumer market and second largest importer of goods in the world. It is a net importer of services products.

China is the largest trading nation in the world and plays a vital role in international trade and has increasingly engaged in trade organizations and treaties in recent years. China became a member of the World Trade Organization in 2001. China also has free trade agreements with several nations, including China-Australia, South Korea, ASEAN, Switzerland and Pakistan.

On a per capita income basis, China ranked 77<sup>th</sup> by nominal GDP and 89<sup>th</sup> by GDP (PPP) in 2014, according to the International Monetary Fund (IMF). The provinces in the coastal regions of China tend to be more industrialized, while regions in the hinterland are less developed. As China's economic importance has grown, so has attention to the structure and health of the economy.

To avoid the long-term socio-economic cost of environmental pollution in China, it has been suggested by Nicholas Stern and Fergus Green of the Grantham Research Institute on Climate Change and the Environment that the economy of China be shifted to more



advanced industrial development with high-tech, low carbon emissions with better allocation of national resources to innovation and R&D for sustainable economic growth. This will help reduce the impact of China's heavy industry. This is in accord with the planning goals of the central government.

China has experienced tremendous economic growth since the late 1970s. In large part as a result of economic liberalization policies, the gross domestic product (GDP) increased tenfold between 1978 and 2006, and foreign investment soared during the 1990s. In 2007 China passed Germany to become the world's third-largest economy, and in 2010 it passed Japan to become the second-largest. These gains obscure, however, the fact that per capita wealth is still significantly less than that of many smaller economies. China's challenge in the early 21st century will be to balance its largely centralized political system with an increasingly decentralized economic system and increase domestic consumption to diminish its economy's great dependence on exports for growth.

### Main Economic Activities

**Agriculture** is by far the leading occupation, involving almost 50 percent of the population, although extensive rough, high terrain and large arid areas especially in the west and north, limit cultivation to only about 15 percent of the land surface. Since the late 1970s, China has decollectivized agriculture, yielding tremendous gains in production. Even with these improvements, agriculture accounts for only 12 percent of the nation's GDP. Despite initial gains in farmers' incomes in the early 1980s, taxes and fees have increasingly made farming an unprofitable occupation. This is also because the state owns all land, farmers have at times been easily evicted when croplands are sought by developers. Additional land reforms adopted in 2008 allow farmers to transfer land use rights.

Except for the oasis farming in Xinjiang and Qinghai, some irrigated areas in Inner Mongolia and Gansu, and sheltered valleys in Tibet, agricultural production is restricted to the east. China is the world's largest producer of rice and wheat and a major producer of potatoes, corn, peanuts, millet, barley, apples, sweet potatoes, sorghum, and soybeans. In terms of cash crops, China ranks first in cotton and tobacco and is an important producer of tea, oilseeds, silk, ramie, jute, hemp, sugarcane, and sugar beets.

**Livestock** raising on a large scale is confined to the border regions and provinces in the north and west. It is mainly of the nomadic pastoral type. China ranks first in world production of red meat (including beef, veal, mutton, lamb, and pork). Sheep, cattle, and goats are the most common types of livestock. Horses, donkeys, and mules are work animals in the north, while oxen and water buffalo are used for plowing chiefly in the south. Hogs and poultry are widely raised in China, furnishing important export staples, such as leather and egg products. Fish, chicken, and pork supply most of the animal protein in the Chinese diet. Due to improved technology, the fishing industry has grown considerably since the late 1970s.

**Mining** is an important industry in China. It is one of the world's major mineral-producing countries. **Coal** is the most abundant mineral (China ranks first in coal production). High-quality, easily mined coal is found throughout the country, but especially in the north and northeast. China nonetheless also imports a significant amount of coal to satisfy its energy needs. There are also extensive iron-ore deposits, the largest mines are at Anshan and Benxi,



in Liaoning province. Oil fields discovered in the 1960s and after made China a net exporter, and by the early 1990s, China was the world's fifth-ranked oil producer. Growing domestic demand beginning in the mid-1990s, however, has forced the nation to import increasing quantities of petroleum. Offshore exploration has become important to meeting domestic needs and massive deposits off the coasts are believed to exceed all the world's known oil reserves.

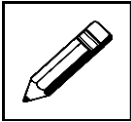
China's leading export minerals are tungsten, antimony, tin, magnesium, molybdenum, mercury, manganese, barite, and salt. China is among the world's four top producers of antimony, magnesium, tin, tungsten, and zinc, and ranks second (after the United States) in the production of salt, sixth in gold, and eighth in lead ore. There are large deposits of uranium in the northwest, especially in Xinjiang. There are also mines in Jiangxi and Guangdong provinces. Alumina is found in many parts of the country. China is one of world's largest producers of aluminum. There are also deposits of vanadium, magnetite, copper, fluorite, nickel, asbestos, phosphate rock, pyrite, and sulfur.

**Coal** is the single most important energy source where coal-fired thermal electric generators provide over 70 percent of the country's electric power. China also has extensive hydroelectric energy potential, notably in Yunnan, W Sichuan, and E Tibet. The Three Gorges Dam, the world's largest concrete structure and largest hydroelectric station, is on the lower Chang (Yangtze) River.

### Industry of China

Industry is 72.8 percent of China's gross domestic product (GDP) in 2005. Industry (including mining, manufacturing, construction, and power) contributed 46.8 percent of GDP in 2010 and occupied 27 percent of the workforce in 2007. The manufacturing sector produced 44.1 percent of GDP in 2004 and accounted for 11.3 percent of total employment in 2006. China is the world's leading manufacturer of chemical fertilizers, cement, and steel. Prior to 1978, most output was produced by state-owned enterprises. As a result of the economic reforms that followed, there was a significant increase in production by enterprises sponsored by local governments, especially townships and villages, increasingly, by private entrepreneurs and foreign investors. By 1990 the state sector accounted for about 70 percent of output. By 2002 the share in gross industrial output by state-owned and state-holding industries had decreased with the state-run enterprises themselves accounting for 46 percent of China's industrial output. In November 2012, the State Council of the People's Republic of China mandated a "social risk assessment" for all major industrial projects. This requirement followed mass public protests in some locations for planned projects or expansions.

Now do the activity on the next page.



### Student Learning Activity 5

1. What can you say about China's economic growth in the last decade?

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2. What economic factors are the reasons behind China's economic success?

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3. Which industry involves almost 50% of the working class population in China?

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**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## CHAPTER 6: FOREIGN RELATIONS AND TRADE

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### 6.1 Foreign Relations

Oceania is, to the People's Republic of China and the Republic of China (Taiwan), a stage for continuous diplomatic competition. Eight states in Oceania recognise the PRC, and six recognise the ROC. These numbers fluctuate as Pacific Island nations re-evaluate their foreign policies, and occasionally shift diplomatic recognition between Beijing and Taipei. In keeping with the "One China" policy, it is not possible for any country to maintain official diplomatic relations with "both Chinas", and this "either/or" factor has resulted in the PRC and the ROC actively courting diplomatic favours from small Pacific nations.

In 2003, the People's Republic of China announced its intention in enhancing its diplomatic ties with the Pacific Islands Forum, and increase the economic aid package it provided to that organisation. At the same time, PRC delegate Zhou Wenzhong added: "The PIF should refrain from any exchanges of an official nature or dialogue partnership of any form with Taiwan". In 2006, Chinese Premier Wen Jiabao announced that the PRC would increase its economic cooperation with Pacific Island States. The PRC would provide more economic aid, abolish tariffs for exports from the Pacific's least developed countries, annul the debt of those countries, distribute free anti-malaria medicine, and provide training for two thousand Pacific Islander government officials and technical staff. In 2006, Wen became the first Chinese premier to visit the Pacific islands, which the *Taipei Times* described as "a longtime diplomatic battleground for China and Taiwan". Similarly, according to Ron Crocombe, Professor of Pacific Studies at the University of the South Pacific, "There have been more Pacific Islands minister visits to China than to any other country".

### 6.2 Summary on China's Foreign Trade

Over the past five decades, China's trade and economic relations with other countries and regions have undergone continuous development. As a result, the country's position in world trade has been greatly elevated, from the 32nd place in 1978 to the 10th in 1997. Since 1979, along with China's efforts in opening up to the outside world, it has actively developed its economic exchanges and cooperation with other countries and regions in line with the principle of equality and mutual benefit. Consequently, a multi-tiered, multi-channel and diversified management system has been established in China's foreign trade and economic relations. This comprises specialized foreign trade firms at various levels and of various kinds, productive enterprises that manage their own import and export, scientific research institutes, commercial and goods supply enterprises and foreign-funded enterprises. A framework of "broadly-based foreign economic relations and trade" has been set up initially. In this system, import and export trade, utilization of foreign capital, overseas investment, contracting of engineering projects overseas, cooperation in labor service and foreign aid mutually promote, and it involves the participation of foreign trade, production, scientific research and financial departments.

China's trading and economic partners spread throughout the world, and their number had increased from a few dozens in 1950 to 228 in 1997. In 1950, China's total foreign trade turnover was only US\$1.135 billion, whereas in 1997, it amounted to US\$325.1 billion,



representing an increase of more than 290 times. The period after 1992 saw the most rapid development in China's foreign trade: from 1992 to 1997, the country's volume of foreign trade totalled US\$1493.8 billion, exceeding the accumulated total from 1949 to 1991.

China's economic and technical assistance to foreign countries has further expanded. Shortly after the founding of the People's Republic, China began to provide economic and technical assistance to other countries. By the end of 1997, China had, in total, offered assistance to 114 countries, and the number of complete sets of equipment supplied to other countries reached 1531. Marked achievements have been made in multilateral and bilateral trade and economic cooperation. Its bilateral relations with such major trade partners as the United States, Japan and European countries as well as other countries and regions have been continuously consolidated. This has helped the country to enjoy a sound international environment for the development of foreign trade and economic relations.

The continuous and rapid expansion of China's foreign trade and economic relations has enabled the country to rid its national economy of the plight of seclusion and semi-seclusion and gradually shift to an open economy. By 1998, China's open areas had expanded from the coastal areas and special economic zones to border regions, areas along the Yangtze River as well as the provincial capital cities.

### **6.3 China's Trade Relations with PNG**

#### History and Current Situation

The Independent State of Papua New Guinea and China (PRC) established official diplomatic relations in 1976, soon after Papua New Guinea became independent. The two countries currently maintain diplomatic, economic and, to a lesser degree, military relations. Relations are cordial. China is a significant provider of both investments and development aid to Papua New Guinea.

Like other Pacific countries, Papua New Guinea has been courted by both Beijing and Taipei. It remained unambiguously aligned with Beijing until 1999. In the first decade of the twenty-first century, the possibility of formal ties between Port Moresby and Taipei has prompted the People's Republic of China to significantly strengthen its relations with PNG.

In 1999, the government of Papua New Guinea then Prime Minister Bill Skate, briefly recognised Taiwan. Skate lost power less than a week later, and Papua New Guinea's diplomatic recognition reverted to China.

In 2003, the PRC's embassy in Port Moresby published a statement of concern in reaction to comments in the Papua New Guinean press questioning the justification for PNG's relations with the People's Republic. The embassy statement insisted that relations between the two countries were mutually beneficial, reasserted the PRC's claims to Taiwan, and concluded: "It is our sincere hope that the local [PNG] media will report on China and its relations with PNG in a just and objective way, so as to further enhance the mutual understanding and friendship between the peoples of our two countries."



In July 2003, PNG Governor General Sir Silas Atopare, visited the PRC, re-affirmed his country's adherence to the "One China" policy, and, according to a statement published by the PRC's embassy, "thanked the government and the people of China for their commitment in providing aid to PNG's development".

In May 2008, Taiwan's Foreign Minister James Huang resigned, along with two other top officials, after wasting over €19 million in a failed attempt to win diplomatic recognition for the Republic of China from Papua New Guinea. The misuse of the money caused public outrage, forcing Huang's resignation. Papua New Guinea's foreign minister then Sam Abal subsequently confirmed that his country had no intention of recognising Taiwan.

A few days later, it was announced that members of the Papua New Guinea Defence Force would receive training provided by the PRC. Traditionally, military training aid in Papua New Guinea had been provided by Western countries, namely, Australia, New Zealand and the United States.

Now do the activity on the next page.



### Student Learning Activity 6

1. What are the four things did China intend to offer to the Pacific Island States to increase its economic cooperation in the region?

- i) \_\_\_\_\_
- ii) \_\_\_\_\_
- iii) \_\_\_\_\_
- iv) \_\_\_\_\_

2. In which year did China see the rapid development in its foreign trade?

\_\_\_\_\_

3. What has enable China to rid its national economic relation of the plight of seclusion and semi-seclusion and to shift to an open economy?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NOW CHECK YOUR ANSWERS AT THE END OF THE UNIT SUMMARY**



## UNIT 12.3 SUMMARIES

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### CASE STUDY 1

#### Chapter 1

- **New Zealand** is an island country in the south-western Pacific Ocean. The country geographically comprises two main landmasses: that of the North Island, or Te Ika-a-Māui, and the South Island, or Te Waipounamu and numerous smaller islands.
- New Zealand's capital city is **Wellington**, while its most populous city is **Auckland**.
- New Zealand was the last habitable place in the world to be discovered.
- New Zealand is a constitutional monarchy with a parliamentary democracy system of government. This means that its head of state is sovereign (currently Queen Elizabeth II). The Queen is represented in New Zealand by a Governor General.

#### Chapter 2

- The population of New Zealand in 2015 is estimated at 4.597 million.
- New Zealand is predominantly an urban country, with 72 percent of the population living in 16 main urban areas and 53 percent living in the four largest cities of Auckland, Christchurch, Wellington, and Hamilton.
- Life expectancy for New Zealanders in 2012 was 84 years for females, and 80.2 years for males.
- Social indicators are numerical measures that describe the well-being of individuals or communities.
- Social Indicators of Development contains the World Bank's most detailed data collection for assessing human welfare to provide a picture of the social effects of economic development

#### Chapter 3

- New Zealand was originally inhabited by the Polynesian Maori, who came in 800 A.D, making New Zealand the youngest country in the world
- The present major cities in New Zealand are Wellington and Auckland.
- Over three-quarters of New Zealand's population live in the North Island (76 percent) with one third of the total population living in the Auckland region.



- There are marked ethnic differences in urbanization, with the vast majority of Pacific peoples, Asian and other ethnic groups living in main urban areas and very few in rural areas.

## Chapter 4

- Land use describes the human activities or economic functions that occur on land.
- In New Zealand, natural forest covers about 30 per cent of New Zealand's land area.
- Low producing and high producing grasslands cover 29 and 22 per cent of New Zealand's land area respectively.
- Low producing grassland tends to have low plant growth, and livestock tend to be grazed over large areas.
- High producing grassland tends to have more intensive grazing and farm management practices, such as the use of fertilizer or irrigation to improve the land's productivity.
- Cropping and horticulture land uses occur on about 2 per cent of New Zealand's land area
- New Zealand has the second largest proportion of grassland out of 30 OECD countries and the sixth largest proportion of forest.
- Transport in New Zealand, with its mountainous topography as always faced many challenges.

## Chapter 5

- Extractive industries have contributed strongly to New Zealand's economy.
- Meat and dairy products provided the basis for strong economic growth in New Zealand.
- New Zealand has a modern, prosperous and developed market with an estimated gross domestic product (GDP) at purchasing power parity (PPP) per capita of roughly NZ\$47,784.
- Primary Industries in New Zealand are agriculture, horticulture, forestry, mining and fishing.
- Horticultural products have become increasingly important, with the principal crops being wine and kiwifruit.
- Forestry and logging makes up around 1.3 percent of GDP and is the basis of an important export industry.
- Fishing is a major New Zealand industry and an important merchandise export earner.



- New Zealand has significant natural energy resources, with good reserves of coal, natural gas and oil/condensate, extensive geothermal fields, and substantial hydro-electric development.
- New Zealand's manufacturing industries make an important contribution to the national economy.

## Chapter 6

- New Zealand has a strong relationship with many the Pacific Island countries.
- New Zealand is also a member of the United Nations, the Commonwealth of Nations, the Organisation for Economic Co-operation and Development and the Five Power Defence Arrangements
- The New Zealand Papua New Guinea Business Council was established in 1993 with the underlying objective to heighten awareness of the business environment and market opportunities in Papua New Guinea.

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## CASE STUDY 2

### Chapter 1

#### Chapter 1

- Located in Southeast Asia along the coastline of the Pacific Ocean.
- China shares land borders with 16 countries: Kazakhstan, Russia, North Korea, India, Mongolia, Burma, Vietnam, Hong Kong, Macao, Lao People's Democratic Republic, Afghanistan, Kyrgyzstan, Nepal, Bhutan, Pakistan, Tajikistan. Marine-side neighbours include eight countries; North Korea, Japan, Philippines, Brunei, Indonesia, Malaysia and Vietnam.
- Beijing is the capital city of China. It has a population of 11,716,620.
- The vast land expanses of China include plateaus, plains, basins, foothills, and mountains.
- Climate is extremely diverse from tropical in the south to subarctic in north.
- The Chinese culture is one of the oldest and most complex cultures in the world.
- The country is governed under the constitution of 1982 as amended, the fifth constitution since the *accession* of the Communists in 1949. The *unicameral* legislature is the National People's Congress (NPC), consisting of deputies who are indirectly elected to terms of five years.



## Chapter 2

- China has been the world's most populous country for centuries and today makes up one-fifth of the world's population.
- The one child policy was introduced in China in 1979 to decrease its excessively high population that was increasing by 1.9 percent each year.
- This policy has had huge social ramifications for China. It has reduced the population growth, but there have been many secondary problems that arose from the policy.

## Chapter 3

- The household registration law (hukou), which was enacted by the Chinese socialist state in 1958, prevented the movement of people, especially rural-to-urban labour migration in Mao's era.
- With rapid commercialization, a booming urban economy, the influx of foreign capital, and relaxed state migration policy, there have been several large waves of mass labour migration in the post-Mao reform era.
- The vast majority of these rural *transients* are temporary or seasonal *menial* workers who have nothing but their labour to sell.
- All major cities in China (such as Beijing, Shanghai, Guangzhou, Chongqing, Nanjing, and Shenzhen) are generally located in the south east part of the country.
- Urbanization in the People's Republic of China increased in speed following the initiation of the reform and opening policy.

## Chapter 4

- Land use describes the human activities or economic functions that occur on land.
- China is experiencing massive land use changes and impacts to the environment due to an unprecedented period of economic growth
- The vast majority of China's cultivated land lies in eastern China.
- Livestock grazing occurs throughout China and is possibly the most common use of grasslands.
- China is the world's largest producer of sheep and goats, and the fourth largest producer of cattle.
- Livestock grazing is a major driver of grassland degradation in China.
- China's forests have experienced several periods of significant *deforestation*, which contributed to related environmental disasters such as the Yangtze River flood in 1998.
- China has one of the largest mining sectors in the world and is the world's largest energy producer.



- The conversion of land from agricultural production to urban and industrial development is one of the critical processes of change in developing economies undergoing industrialization, urbanization, and globalization.

## Chapter 5

- The transformation of the Chinese economy over the last decade or so has been nothing short of phenomenal, with the country now being dubbed as ‘the workshop of the world’.
- The main reasons for growth can be seen in the government legislation. The Chinese government sought foreign investment to help end China's isolation and stimulate economic growth.
- China has the fourth largest economy in the world after the USA, Japan and Germany. It is the world's fastest-growing major economy, with growth rates averaging 10 percent over the past 30 years. China’s high expansion rate is mainly due to its success at manufacturing the world’s products, which gave it its name as “the world’s factory”. Exporting is the key reason for China’s economic growth.
- China is a global hub for manufacturing, and is the largest manufacturing economy in the world as well as the largest exporter of goods in the world. It is also the world's fastest growing consumer market and second largest importer of goods in the world.
- China is the largest trading nation in the world and plays a vital role in international trade and has increasingly engaged in trade organizations and treaties in recent years.
- **Agriculture** is by far the leading occupation, involving almost 50 percent of the population

## Chapter 6

- Over the past five decades, China's trade and economic relations with other countries and regions have undergone continuous development.
- China's trading and economic partners spread throughout the world, and their number had increased from a few dozens in 1950 to 228 in 1997.
- China's economic and technical assistance to foreign countries has further expanded.
- The continuous and rapid expansion of China's foreign trade and economic relations has enabled the country to rid its national economy of the plight of seclusion and semi-seclusion and gradually shift to an open economy.
- The Independent State of Papua New Guinea and China (PRC) established official diplomatic relations in 1976, soon after Papua New Guinea became independent. The two countries currently maintain diplomatic, economic and, to a lesser degree, military relations. China is a significant provider of both investments and development aid to Papua New Guinea.



## ANSWERS TO STUDENT LEARNING ACTIVITIES

### Answers to Learning Activities in Case Study 1

#### Activity 1

1. New Zealand is located furthest south of the Pacific Ocean and because of its isolated location, it was the last to be inhabited.
2. It is located along the plate boundaries Australian and Pacific plates where mountain building processes, earthquakes and volcanic activities are common.
3. It means ordinary.

#### Activity 2

1. 72%
2. High fertility rate resulting in high birth rate  
High percentage of young population of 14years old or younger  
High mortality from heart diseases
3. Social indicators are numerical measures that describe the well-being of individuals or community

#### Activity 3

1. Polynesian Maori
2. 3%
3. Asian
4. Most Maori live in the North Island



### Activity 4

1. These land uses may damage soil health, which can lower productivity and increase surface run off. Excess nutrients can run off to fresh water causing excessive plant and algal growth that affects recreational, aesthetic and ecological values.
2. 30%
3. Scattered scrub within or near grassland not protected or managed for regeneration.

### Activity 5

1.
  - i) Agriculture and Horticulture
  - ii) Forestry
  - iii) Fishing
  - iv) Energy and Minerals
  - v) Manufacturing
2. Dairy Products
3.
  - i) electricity generation
  - ii) prochemical production
  - iii) fuel for industrial and domestic purposes

### Activity 6

1. New Zealand has strong ties with many Pacific Island countries through trade, migration and aids. A large population of New Zealand aids goes to the Pacific countries.

A lot of Pacific peoples migrate to New Zealand for job and educational opportunities. New Zealand also has a good trade relationship that exist between her and the Pacific countries.

2. To heighten awareness of the business environment and market opportunities in Papua New Guinea. The Council exists to promote and facilitate economic and trade relations between New Zealand and Papua New Guinea. It exists to provide an environment where knowledge is shared and business connections are made.



## Answers to Learning Activities on Case Study 2

### Activity 1

1. The People's Republic of China is located on the geographic coordinates of 35.0000° N latitude and 103.0000° E longitude in Asia. China is bounded by Korea Bay, East China Sea, South China Sea and Yellow Sea.
2. The vast land expanses of China include plateaus, plains, basins, foothills, and mountains. Defining rugged plateaus, foothills and mountains as mountainous, they occupy nearly two-thirds of the land, higher in the West and lower in the East like a three-step ladder.
3. North, South, Northwest and Qinghai
4. The climate is dominated by dry and wet monsoons, which creates obvious temperature differences between the winter and summer.

### Activity 2

1. Before 1950, the government encourage its habitants to have lots of children mainly to support the country's workforce.
2. There was a decrease in the population of children between the ages of 0 to 19 years and a greater workforce.
3. Increased in the average life expectancy

### Activity 3

1. It aims at blocking population movement, especially rural-to-urban labour migration in Mao's era. Government officials believed that it was necessary to keep the rural population on the farmlands so that they would continue to produce food for those working in industry and would not burden the existing urban infrastructure. Restricting people's spatial mobility was also seen as key to maintaining social control and political stability.
2.
  - i) The Floating Population
  - ii) Peasant Workers
  - iii) Working Brothers
  - iv) Working Sisiters
3. Because of the rapid growth of the population and the tight restriction on the rural-urban migration for most of the period.



### Activity 4

1. China is experiencing a massive economic growth which has resulted in China becoming the second largest economy today.
2. Urban settlement, Forest uses, Mining and energy and Transportation.
3. There was a significant decrease in land area for rural settlement.

### Activity 5

1. China's economy has been growing at a fast rate and causing major adjustment both within china and in the rest of the world.
2. cheap raw materials, availability of resources, cheap labour and investment in good transport and infrastructure.
3. Agriculture

### Activity 6

1.
  - i) abolish tariff for exports
  - ii) annul the debt of the countries
  - iii) distribute free anti-malaria medicine
  - iv) provide training
2. 1992
3. The continuous and rapid expansion of China's foreign trade and economic relations.

**YOU HAVE COME TO THE END OF CASE STUDY 2. THIS IS ALSO THE END OF UNIT MODULE 12. 3. NOW TURN TO YOUR ASSESSMENT BOOK 3 AND COMPLETE ALL THE CASE STUDY 2 ASSESSMENT TASKS. AFTER THE COMPLETION OF ALL THE ASSESSMENT TASKS, CHECK YOUR ANSWERS AGAIN. WHEN YOU ARE SATISFIED WITH YOUR ANSWERS, SEND YOUR ASSESSMENT BOOK TO YOUR PROVINCIAL COORDINATOR FOR MARKING.**



## GLOSSARY

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### Case Study 1: New Zealand

Word	Meaning
Strait	A narrow passage of water connecting two seas or two large areas of water
Glacier	Rivers of moving ice
Peak	The pointed top of a mountain
Fjord	A long, narrow, deep inlet of the sea between high cliffs, as in Norway and Iceland, typically formed by submergence of a glaciated valley
Maori	The term 'Māori' did not actually exist until the Europeans arrived. It means 'ordinary' and Māori used it to distinguish themselves from the new, fair skinned settlers
Hot Spring	A spring of naturally hot water, typically heated by subterranean volcanic activity.
Geyser	A hot spring in which water intermittently boils, sending a tall column of water and steam into the air.
Liberal	Open to new behaviour or opinions and willing to discard traditional values
OECD	Organisation for Economic Co-operation and Development The Organisation for Economic Co-operation and Development is an international economic organisation of 34 countries, founded in 1961 to stimulate economic progress and world trade.

### Case Study 2: China

Word	Meaning
Accession	The attainment or acquisition of a position of rank or power, typically that of monarch or president.
Afforestation	Afforestation is the establishment of a forest or stand of trees in an area where there was no forest. Reforestation is the reestablishment of forest cover, either naturally (by natural seeding, coppice, or root suckers) or artificially (by direct seeding or planting)
Biodiversity	The variety of plants and animals living in a particular climatic region
Bourgeoisie	In Marxist philosophy the <i>bourgeoisie</i> is the social class that came to own the means of production during modern industrialization and whose societal concerns are the value of property and the preservation of capital, to ensure the perpetuation of their economic supremacy in society.



Deforestation	Clearing of earth's forests in a massive scale, often resulting in damage to the quality of the land.
Dynasty	Dynasty is a family that passes control from one generation to the next. A dynasty does not have to last for a long time. One Chinese dynasty lasted more than 800 years while another lasted only fifteen years.
Emigration	To leave one country or region to settle in another
Impunity	Exemption from punishment or freedom from the injurious consequences of an action
Menial	Work not requiring much skill and lacking prestige
Municipalities	A <i>municipality</i> is usually an urban administrative division having corporate status and powers of self-government or jurisdiction. The term <i>municipality</i> is also used to mean the governing, ruling body of a <i>municipality</i> .
Optimum	Most conducive to a favourable outcome; best.
Peasant	A member of a traditional class of farmers either labourers or owners of small farms, especially in the middle ages in the pre-industrial society
Politburo	A <b>politburo</b> is the executive committee for a number of (usually communist) political parties.
PRC	People's Republic of China
Quasi Religious	Quasi-religious - resembling something that is religious. sacred - concerned with religion or religious purposes; "sacred texts"; "sacred rites"; "sacred music"
ROC	Republic of China (Taiwan)
TNCs	Transnational Corporations
Transients	A person who is staying or working in a place for a short time only
Unicameral	In government, <i>unicameralism</i> (Latin uni, one + camera, chamber) is the practice of having one legislative or parliamentary chamber. Thus, a <i>unicameral</i> parliament or <i>unicameral</i> legislature is a legislature which consists of one chamber or house.



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**FODE PROVINCIAL CENTRES CONTACTS**

PC NO	FODE PROVINCIAL CENTRE	ADDRESS	PHONE/FAX	CUG PHONES	CONTACT PERSON		CUG PHONE
1	DARU	P. O. Box 68, Daru	6459033	72228146	The Coordinator	Senior Clerk	72229047
2	KEREMA	P. O. Box 86, Kerema	6481303	72228124	The Coordinator	Senior Clerk	72229049
3	CENTRAL	C/- FODE HQ	3419228	72228110	The Coordinator	Senior Clerk	72229050
4	ALOTAU	P. O. Box 822, Alotau	6411343 / 6419195	72228130	The Coordinator	Senior Clerk	72229051
5	POPONDETTA	P. O. Box 71, Popondetta	6297160 / 6297678	72228138	The Coordinator	Senior Clerk	72229052
6	MENDI	P. O. Box 237, Mendi	5491264 / 72895095	72228142	The Coordinator	Senior Clerk	72229053
7	GOROKA	P. O. Box 990, Goroka	5322085 / 5322321	72228116	The Coordinator	Senior Clerk	72229054
8	KUNDIAWA	P. O. Box 95, Kundiawa	5351612	72228144	The Coordinator	Senior Clerk	72229056
9	MT HAGEN	P. O. Box 418, Mt. Hagen	5421194 / 5423332	72228148	The Coordinator	Senior Clerk	72229057
10	VANIMO	P. O. Box 38, Vanimo	4571175 / 4571438	72228140	The Coordinator	Senior Clerk	72229060
11	WEWAK	P. O. Box 583, Wewak	4562231/ 4561114	72228122	The Coordinator	Senior Clerk	72229062
12	MADANG	P. O. Box 2071, Madang	4222418	72228126	The Coordinator	Senior Clerk	72229063
13	LAE	P. O. Box 4969, Lae	4725508 / 4721162	72228132	The Coordinator	Senior Clerk	72229064
14	KIMBE	P. O. Box 328, Kimbe	9835110	72228150	The Coordinator	Senior Clerk	72229065
15	RABAU	P. O. Box 83, Kokopo	9400314	72228118	The Coordinator	Senior Clerk	72229067
16	KAVIENG	P. O. Box 284, Kavieng	9842183	72228136	The Coordinator	Senior Clerk	72229069
17	BUKA	P. O. Box 154, Buka	9739838	72228108	The Coordinator	Senior Clerk	72229073
18	MANUS	P. O. Box 41, Lorengau	9709251	72228128	The Coordinator	Senior Clerk	72229080
19	NCD	C/- FODE HQ	3230299 Ext 26	72228134	The Coordinator	Senior Clerk	72229081
20	WABAG	P. O. Box 259, Wabag	5471114	72228120	The Coordinator	Senior Clerk	72229082
21	HELA	P. O. Box 63, Tari	73197115	72228141	The Coordinator	Senior Clerk	72229083
22	JIWAKA	c/- FODE Hagen		72228143	The Coordinator	Senior Clerk	72229085

**SUBJECT AND GRADE TO STUDY**

GRADE LEVELS	SUBJECTS/COURSES
Grades 7 and 8	1. English
	2. Mathematics
	3. Personal Development
	4. Social Science
	5. Science
	6. Making a Living
Grades 9 and 10	1. English
	2. Mathematics
	3. Personal Development
	4. Science
	5. Social Science
	6. Business Studies
	7. Design and Technology- Computing
Grades 11 and 12	1. English – Applied English/Language & Literature
	2. Mathematics - Mathematics A / Mathematics B
	3. Science – Biology/Chemistry/Physics
	4. Social Science – History/Geography/Economics
	5. Personal Development
	6. Business Studies
	7. Information & Communication Technology

**REMEMBER:**

- For Grades 7 and 8, you are required to do all six (6) courses.
- For Grades 9 and 10, you must study English, Mathematics, Science, Personal Development, Social Science and Commerce. Design and Technology-Computing is optional.
- For Grades 11 and 12, you are required to complete seven (7) out of thirteen (13) courses to be certified.

Your Provincial Coordinator or Supervisor will give you more information regarding each subject.

**GRADES 11 & 12 COURSE PROGRAMMES**

No	Science	Humanities	Business
1	Applied English	Language & Literature	Language & Literature/Applied English
2	Mathematics A/B	Mathematics A/B	Mathematics A/B
3	Personal Development	Personal Development	Personal Development
4	Biology	Biology/Physics/Chemistry	Biology/Physics/Chemistry
5	Chemistry/ Physics	Geography	Economics/Geography/History
6	Geography/History/Economics	History / Economics	Business Studies
7	ICT	ICT	ICT



**Notes:** You must seek advice from your Provincial Coordinator regarding the recommended courses in each stream. Options should be discussed carefully before choosing the stream when enrolling into Grade 11. FODE will certify for the successful completion of seven subjects in Grade 12.

CERTIFICATE IN MATRICULATION STUDIES		
No	Compulsory Courses	Optional Courses
1	English 1	<b>Science Stream:</b> Biology, Chemistry, Physics
2	English 2	<b>Social Science Stream:</b> Geography, Intro to Economics and Asia and the Modern World
3	Mathematics 1	
4	Mathematics 2	
5	History of Science & Technology	