GEOACTIVE 568

Measuring development and quality of life

By Rebecca Tudor

A unit about the different ways of measuring development

This unit covers some key GCSE concepts:

- What economic development is and what social development is.
- Ways of measuring development.
- How countries have different levels of wealth and quality of life.
- How indicators of development are used.
- Some of the advantages and disadvantages of using indicators of development.

Key vocabulary

economic development, social development, indicators of development, Gross National Income (GNI), Gross Domestic Product (GDP), Human Development Index (HDI), life expectancy, infant mortality rates

Learning outcome

This unit will help you to:

- answer questions about the ways of defining development
- start to show how development is measured
- see how indicators can show different levels of development between countries and regions.

Relevance to specifications

Exam board	Link to specification
AQA	Paper 2: Challenges in the human environment, see pages 17–23. Click here
Edexcel A	Component 2: The human environment, Topic 5: Global development, see pages 20–22. Component 2: The human environment, Topic 6: Resource management, see pages 23–25. Click here
Edexcel B	Component 1: Global geographical issues, Topic 2: Development dynamics, see pages 12–13. Component 1: Global geographical issues, Topic 3: Challenges of an urbanising world, see pages 14–15. Click here
OCR A	Component 1: Living in the UK today, 1.2 People of the UK, see page 7. Component 2: The world around us, 2.2 People of the planet, see pages 10–11. Click here
OCR B	Component 2: People and society, Topic 6: Dynamic development, see page 13. Click here
Eduqas A	Component 2: Environmental and development issues, Theme 6: Development and resource issues, see pages 17–18. Component 2: Environmental and development issues, Theme 7: Social development, see page 19. Click here
Eduqas B	Component 1: Investigating geographical issues, Theme 1: Changing places, changing economies see pages 9–10. Click here
WJEC	Unit 2: Environmental and development issues, Theme 7: Social development issues, see page 19. Click here
CCEA	Unit 2: Living in our world, Theme B: Contrasts in world development, see pages 19–20. Click here
Cambridge IGCSE	Theme 3: Economic development, Topic 3.1: Development, see page 19. Click here
Edexcel IGCSE	Section D: Global issues, Topic 9: Development and human welfare, see page 18. Click here

Measuring development and quality of life

There are two main ways to look at the development of countries:

- **Economic development** means how wealthy a country is.
- **Social development** is to do with the standard of living – or quality of life – of the people who live in that country. It looks at aspects such as education and health.

They both play an important role in measuring development, and they can affect each other a great deal.

In order to think about how developed a country is, **indicators of development** are used. These are different sets of data that can help us in many ways. This unit looks at a few of them.

Gross National Income and Gross Domestic Product

Economic development is often measured using either **Gross National Income (GNI)** or **Gross Domestic Product (GDP)** values. GNI can be worked out using the sum set out in Figure 1.

The GNI value is usually converted into US dollars (US$). It is different from GDP because GDP only looks at the goods and services produced within a country's borders. Both are used to study the economic development of countries. For the purposes of this case study, GNI will mainly be used.

Country	GNI per capita (PPP) (US$)	World ranking for GNI per capita	HDI	World ranking for HDI
Norway	64 992	6	0.944	1
USA	52 947	11	0.915	8
UK	38 267	23	0.907	14
The Bahamas	21 336	52	0.790	55
Chile	21 290	53	0.832	42
Libya	14 911	75	0.724	94
China	12 547	83	0.727	90
Fiji	7493	111	0.727	90
Haiti	1669	167	0.483	163
Malawi	747	186	0.445	173

Figure 2 GNI per capita and HDI data and rankings for selected countries
Source: Data from UNDP Human Development Report 2015, http://hdr.undp.org/en/data

How useful is it to compare overall GNI figures?

Total GNI for a country can vary a lot, depending on the size of the country and the number of people living there. Instead, GNI per capita, which is an average figure, is often used. It is worked out by dividing the GNI by the total population of the country. Some GNI per capita values are listed in Figure 2.

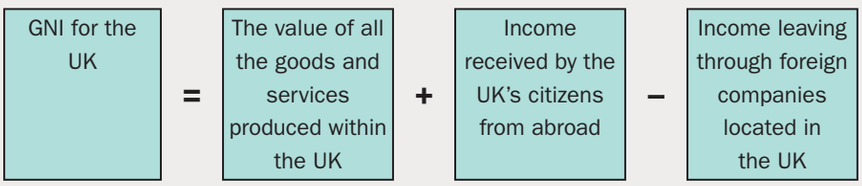

Figure 1 GNI calculation, using the UK as an example

Human Development Index

The **Human Development Index (HDI)** looks at quality of life as well as the wealth. It does this by bringing together three factors:

- **life expectancy**
- the average number of years that citizens attend school (or are expected to attend, if they are children)
- GNI per capita.

It uses them to generate a number between 0 and 1 for each country. The closer a country is to 1, the higher its level of development.

If a country has a higher GNI per capita, it can mean there is more money available to spend on services such as healthcare and education. However, the way that GNI is spent can vary between countries. HDI rankings may, therefore, be very different from GNI per capita rankings (Figure 2).

> "It can be useful to look at data over time as well as using indicators to compare countries."

Also, one piece of data might not tell us the whole story. Libya's HDI ranking is 19 places below its GNI per capita ranking. However, according to the UNDP Human Development Report 2015, Libya's HDI value increased from 0.636 to 0.724 between 1980 and 2014. Its GNI per capita went down by roughly 60.9% in the same period. Therefore, it can be useful to look at data over time as well as using indicators to compare countries with each other, and to ask why these changes might have taken place.

How else do geographers measure social development?

It is often useful to look at data linked with population. This can help geographers to make assessments about the quality of life and wellbeing of the people who live in a country. Life expectancy, for example, is the average age that a person lives to within a country (Figure 3).

According to estimated figures from the CIA's World Factbook:

- Monaco has the world's highest life expectancy (89.52 years).
- Chad (a country in central Africa) has the lowest life expectancy (49.81 years).

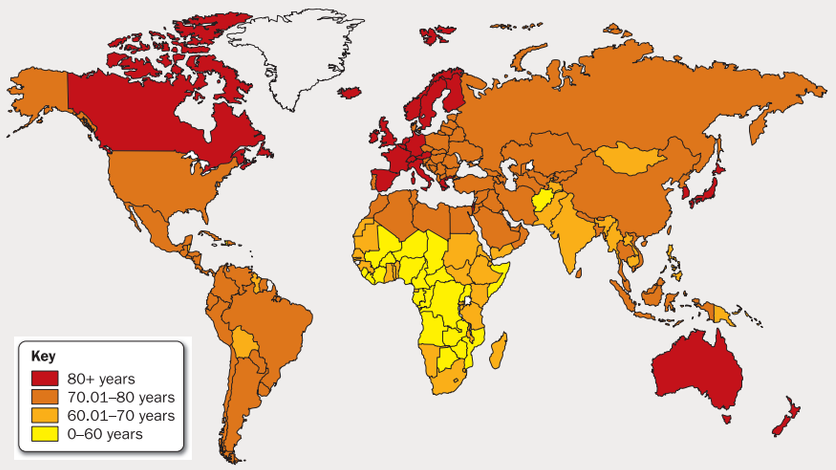

Figure 3 Life expectancies around the world
Source: The World Factbook at www.cia.gov; estimated figures for 2015

Life expectancy tells us about many different social development factors:

- If a country has a low life expectancy, it may also mean a lower number of doctors per person. This suggests that people have less access to healthcare.
- There may be a lack of money to pay for healthcare facilities so there might not be enough medication or the right equipment to treat the sick.
- Low-income developing countries (LIDCs) may suffer from a 'brain drain'. This means that educated and professional people leave the country to look for better-paid work abroad.
- There may be a lack of access to education and therefore some of the population may not understand about diet and hygiene. According to the World Health Organization, diarrhoea is the second leading cause of death in children under five years old. This may be linked to poor hygiene, or poor-quality sanitation systems, or a lack of a clean water source.

Life expectancy figures are averages. This means that countries with low life expectancy often have high **infant mortality rates**. Chad has an infant mortality rate of 88.69 deaths/1000 live births, which is the 6th highest in the world, according to The World Factbook. Because children die young, the average age of death for the whole population is made lower.

What are the problems with using indicators of development?

There are problems with making sure that all data are reliable. Although many countries conduct censuses, they may not be taken regularly and they may not be accurate. For example:

- Remote rural communities can be difficult to access

> "There are problems with making sure that all data are reliable."

because of poor roads or landscapes that are difficult to cross.

- Some of the population may well be illiterate, and find it difficult to fill out forms.
- Countries in which citizens who speak many different languages, or which includes groups that migrate within and between countries, may find it difficult to collect accurate information.
- War can affect the collection of data.
- If a large proportion of a country's economy is made up of subsistence farmers, or informal sector work, then it is difficult to calculate the GNI.

Even where countries can afford to conduct a census as accurately as possible every ten years, there may still be barriers. For example, the Office for National Statistics states that in the UK's most recent census, taken in 2011, some people didn't respond, or were counted more than once, or were counted in the wrong place. Adjustments have to be made in the data to account for these problems.

Figure 4 presents some useful definitions when assessing development and issues concerning the quality of life.

Brain drain – when people who are highly trained or educated emigrate from a country, usually in search of better-paid work or improved living conditions

Indicators of development – measures such as GNI per capita or life expectancy that can be used to make an assessment about the development of a country or region

Infant mortality rates – the number of babies that die before their first birthday, per 1000 live births

Informal sector – jobs that are not regulated by the government and where the workers pay no tax

Subsistence farmers – farmers who grow enough food to feed themselves and their families, but not to sell for profit – they may occasionally sell any surplus crops they have

Figure 4 Some useful definitions when assessing development and quality of life

Case study: differences within countries – India

Measures of development can give an indication about a country as a whole. However, there are often big differences between populations *within* a country. For example, the economy of India has grown rapidly in recent years and yet many people in the country are still living in poverty (Figure 5).

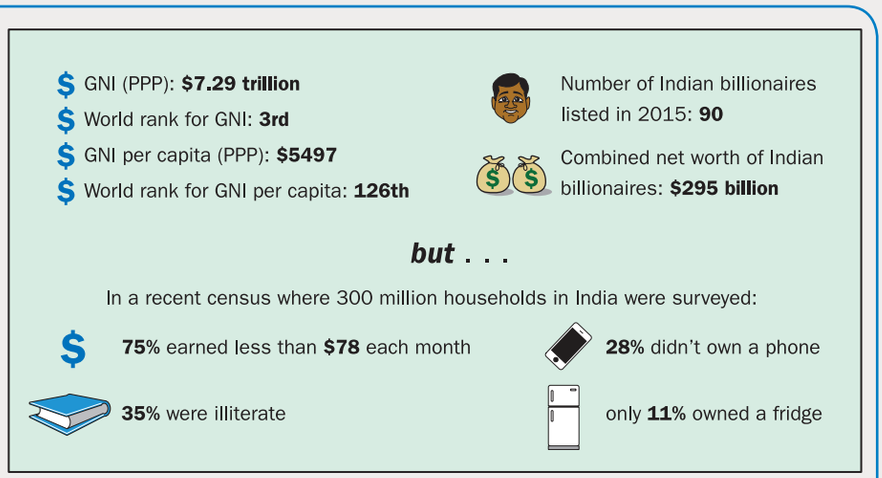

Figure 5 Some facts about India

Sources: The World Bank; data.worldbank.org; UNDP Human Development Report 2015; cnn.com; www.forbes.com

Case study: differences within cities – London

Even within cities, there can be big differences. The Royal Borough of Kensington and Chelsea in London (Figure 6, top) has one of the highest life expectancies in the UK at 83.3 years, according to the Office for National Statistics. But research done by Imperial College London and cited in the *Evening Standard* newspaper states that this drops to 77.4 years for men in the Borough of Tower Hamlets, only 16 km away (Figure 6, bottom). What do these statistics tell us about differences in development and quality of life between even *neighbouring* areas within the UK?

Figure 6 Kensington and Chelsea (top) and Tower Hamlets (bottom)
Sources: Andersphoto/Shutterstock; Claudiodivizia/Shutterstock

Conclusion

This unit has shown that:

- there are many ways of defining and measuring development
- countries at different levels of development show significant differences in data such as GNI per capita and life expectancy
- there may be problems with collecting accurate data
- by interpreting this data, governments and non-governmental organisations can make decisions to try to improve conditions for people.

> **"There are many ways of defining and measuring development."**

Activities

1 Use the information in Figure 2 to draw a bar chart showing HDI.

2 Copy and complete Figure 7. Work out GNI per capita for each country. Divide the total GNI by the total population (all figures are rounded).

3 Describe what GNI per capita can tell geographers about the uneven development of countries. Try to use data from Figure 2 and key words in your answer.

4 a Using the graded shading (choropleth) map in Figure 3 and an atlas, write down the approximate life expectancy for people living in:

- Japan
- Egypt
- Afghanistan.

Country	GNI (PPP) ($ billions)	Total population (millions)	GNI per capita (PPP) ($)
Japan	4821	127	37 961
Mexico	2086	125	
Bangladesh	530	159	
Ireland	195	5	
Chad	28	14	

Figure 7 GNI, total population and GNI for selected countries
Source: World Bank, data.worldbank.org

b Give three reasons why life expectancies vary in different parts of the world.

5 Give two reasons why using GNI alone may not give a full picture about India's level of development. Use Figure 5 to help you.

6 'Data used to measure development is inaccurate and therefore not useful.'

How far do you agree with this view? Have a class debate on this topic, using ideas from this unit and further research.

Learning checkpoint

- Economic development is associated with wealth and is often measured using GDP or GNI per capita.
- Social development looks at quality of life and can be measured using different indicators, including life expectancy.
- The Human Development Index aims to include both economic and social development measures.
- There are benefits and problems associated with using indicators of development.
- While there are variations in GNI and HDI between countries, there are also considerable variations within individual countries and large cities.

Glossary task

Write glossary definitions for these terms:

economic development
Gross National Income (GNI)
Human Development Index (HDI)
indicators of development
infant mortality rates
life expectancy
social development

Remember this case study

To help you remember this case study, make notes under the following headings:

What is meant by economic development?

What is meant by social development?

How is development measured?

What are some advantages of using indicators of development?

What are some difficulties with using indicators of development?

Try to make your notes fit a single sheet of A4.