


**LEAVING CERTIFICATE**

# **GEOGRAPHY** **TODAY**



**BOOK 2**

**ELECTIVE 4**  
**OPTIONS 6 & 7**

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**The Educational Company of Ireland**

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# PREFACE

*Geography Today 2* meets the demands of the Leaving Certificate Geography syllabus at both Higher and Ordinary Level. It covers the following areas of the course:

- Elective Unit 4: Economic Activities
- Optional Unit 6: Global Interdependence
- Optional Unit 7: Geoecology.

All students must study Elective Unit 4. Two optional units (for Higher Level students only) are also included in *Geography Today 2*. Higher Level students must study one of the two optional units presented in this book.

The authors were conscious of the need to ensure that the text is easy to read and presented in an interesting way. The nuances of examination questions from recent years are also reflected in the presentation of text and illustrations. The material is fully up to date at the time of writing.

The format of the chapters is similar to that of *Geography Today 1*. Each chapter opens with a list of keywords and learning objectives. A strong emphasis is placed on geographic skills. Many maps and illustrations are accompanied by short questions to test students' skills and understanding of the material.

*Geography Today 2* is colourfully illustrated. A wide range of maps, diagrams, photographs, statistical data and satellite images have been used.

Because OS maps and aerial photographs are central features of the course, Chapter 5 of Elective Unit 4 is devoted to a study of both of these.

Up-to-date case studies are used in both the elective and optional units. These case studies are linked to regions that were examined in *Geography Today 1* where possible. For example, the biome studied in Optional Unit 7 is the tropical rainforest biome, which links with Brazil, the subtropical region studied in *Geography Today 1*.

An end-of-chapter summary map is provided to facilitate revision and further understanding of the topic.

A wide range of activities and short questions, with an emphasis on skills, is included throughout each chapter. They include numeracy, research and discussion. Each chapter ends with actual Leaving Certificate examination questions at both Higher and Ordinary Level.

\*Teachers who use the textbook will be provided with a free Teacher's Resource Book.



## Digital resources

The *Geography Today 2* digital resources will enhance classroom learning by encouraging student participation and engagement.

To provide guidance for the integration of digital resources in the classroom, PowerPoints and Weblinks are **referenced in the student textbook** using the following icons:



**PowerPoint** presentations summarise key chapters of the student textbook, highlighting key themes and topics



Useful **Weblinks** documents provide links to additional material

Teachers can access the *Geography Today 2* e-book, plus the PowerPoints and Weblinks, online at [www.edcolearning.ie](http://www.edcolearning.ie).





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A photograph showing two large white wind turbines in the background against a cloudy sky. In the foreground, there is a vast field of dark solar panels arranged in neat rows.

# ELECTIVE 4 ECONOMIC ACTIVITIES

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# Chapter 1

## Measuring Economic Development

**Economic activities are unevenly distributed around the world.**

### KEYWORDS

- › developed world
- › developing world
- › gross national product (GNP)
- › gross domestic product (GDP)
- › Sub-Saharan Africa
- › informal economy
- › Human Development Index (HDI)
- › life expectancy
- › primary healthcare
- › gross national income (GNI)
- › remittances

### LEARNING OBJECTIVES

By the end of this chapter, you should be able to understand:

- › That wealth is unevenly distributed across the globe
- › That we can measure the average income of people in different countries using GNP figures
- › That the Human Development Index gives a broader picture of the quality of life of people in different countries than GNP figures.

## Introduction

You are already familiar with the terms **developed world** (the North) and **developing world** (the South). Most of the world's wealth is concentrated in the North, where less than one-sixth of the world's population lives. In the North, most people work in services such as education, healthcare, tourism and transport.

## How do we measure economic development?

The level of economic development in each country can be measured in the following ways:

- › Gross national product (GNP) per person in each country
- › The Human Development Index (HDI).



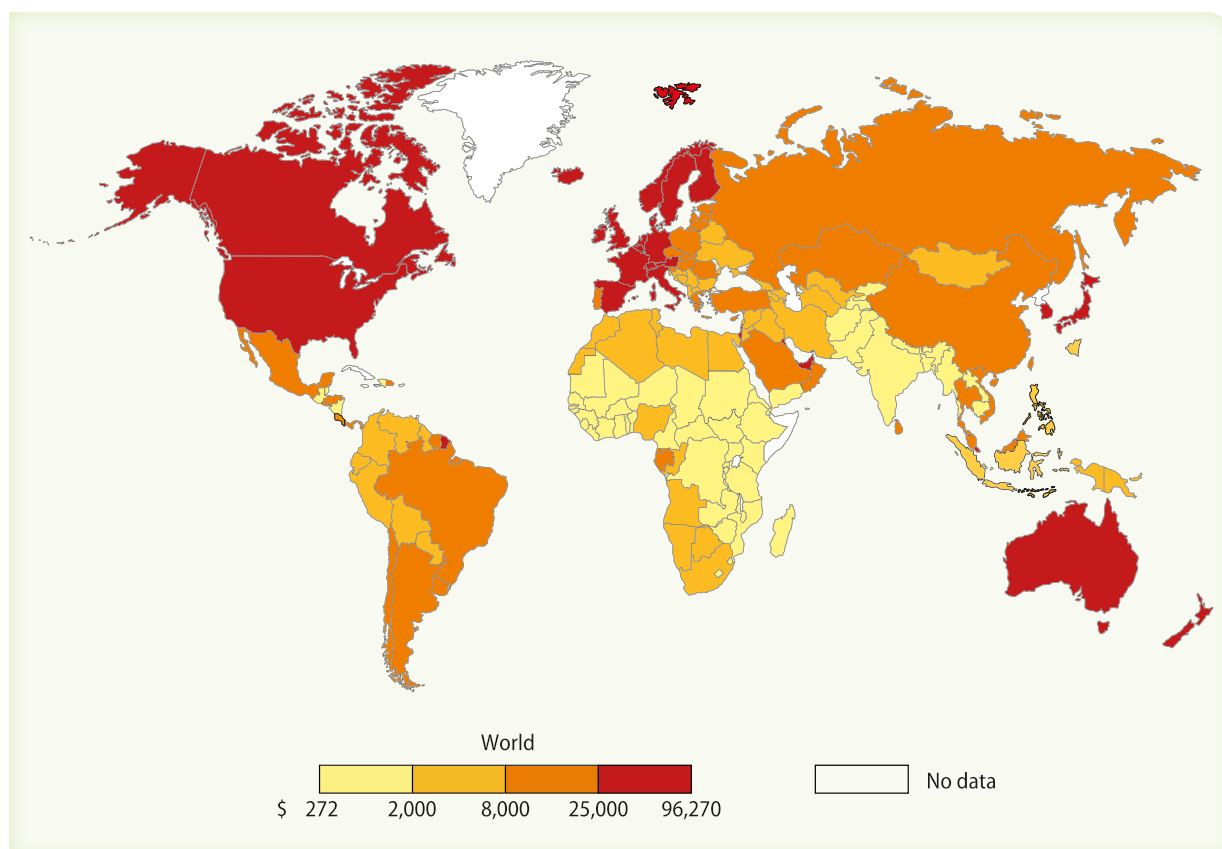
## What is GNP?

**Gross national product (GNP)** is the total value of goods and services that a country produces in a given year. GNP includes income from investments abroad. GNP per person is that amount of wealth divided by the population.

**Gross domestic product (GDP)** is sometimes used in examination questions instead of GNP.

### GEOFACT

GNP and GDP figures are expressed in US dollars.



**Figure 1.1** GNP per person by country in US\$

### ACTIVITY

#### Skills

Examine Figure 1.1.

- Name the poorest continent. Explain your answer.
- Name two of the poorest countries in Asia.
- Which continent has the greatest number of wealthy countries?
- In which category of GNP per person do we find the following?
  - USA
  - China
  - India

### GEOFACT

China was the sixth largest economy in the world in the year 2000. Today it is in second place and its GNP may equal or surpass that of the USA in the coming years.

## Strengths and weaknesses of GNP figures

### Strengths

- › Maps and tables showing the relative size of each country's GNP tell us that the largest economies in the world are the USA, China, Japan and Germany, in that order. It is clear that Brazil is easily the largest economy in South America.
- › We can see where the world's poorest countries in terms of GNP are located. A GNP map shows us that **Sub-Saharan Africa** is the poorest region in the world and that some countries in South Asia also have very little gross national income.
- › We can also conclude from GNP figures that people in countries with a high GNP per person generally have higher standards of living than people in countries with a low GNP per person. This is because most people can afford education, healthcare and a good quality of life.

### Weaknesses

- › Collecting GNP data is a huge job for organisations such as the World Bank. GNP figures can be inaccurate, especially in developing countries, where it is very hard to collect information.
- › GNP figures do not include a country's shadow or **informal economy**. This can be as high as 60% in very poor countries.
- › The greatest weakness is that GNP figures contain no information on income inequality in a country. This is because GNP per person is an average figure. For example, even though the GNP per person in Ireland is high, it gives no indication of homelessness in Irish cities or the level of unemployment.

#### DEFINITION

**The informal economy:** Work that is done for cash and is not included in national accounts or for taxation purposes.

## The Human Development Index

The **Human Development Index (HDI)** has been published annually by the United Nations since 1990. The HDI gives a broader picture of people's quality of life than GNP figures alone. This is because the rankings are based on three basic factors:

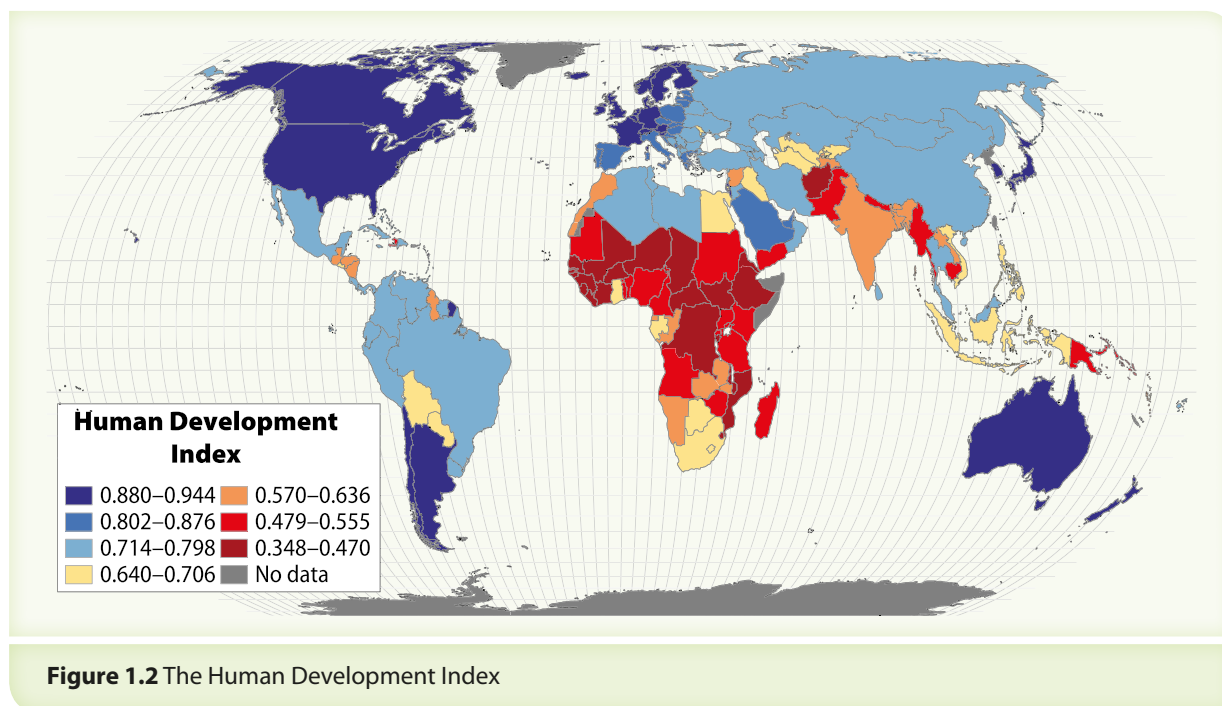
- › **Life expectancy** at birth
- › Education levels
- › Income per person adjusted to the local cost of living.

### How is the HDI scored?

Each country scores between 0 and 1.0. A score of 0.9 or more is very high and indicates a very good quality of life. On the other hand, a score of 0.5 or less is given to countries where many people live shorter lives, large numbers of children do not attend school and people generally are very poor.

#### GEOFACTS

- › Norway took the top spot in the HDI for the fourteenth straight year in the 2016 HDI report.
- › In 2016, the EU, with 7.3% of the world's people, had 23% of the world's wealth.
- › According to Oxfam, in January 2017 the eight wealthiest people in the world had as much wealth as the poorest 50% of the entire global population.



**Figure 1.2** The Human Development Index

### Countries with high HDI scores

Why do the top-ranked countries score so well on the HDI?

- › They have vigorous democracies with a politically engaged public. Political corruption is low or non-existent.
- › A free and open media helps to maintain high democratic standards.
- › Governments in these countries are generally composed of able and committed people who have the interests of their countries at heart.
- › Governments make plans for economic development over time.
- › Governments invest in communications infrastructure to encourage private investment.
- › Annual budgets include large government investments in education and healthcare. For example, in 2017 the health budget in Ireland was €14.6 billion and the education budget was €9.53 billion. Wealthier people also pay for private healthcare and education. This investment provides high levels of education and long life expectancy in these countries.
- › These countries are great trading nations with strong exports in manufactured goods and services.

### GEOFACTS

- › 188 countries were ranked in the 2016 HDI.
- › Haiti is the poorest country in the Western Hemisphere.



Part of the Europort in the Netherlands, the largest port in the EU. The Netherlands is a great trading nation.

### Countries with low HDI scores

In the 2016 HDI report, 37 of the 44 countries with the lowest HDI scores were all in Sub-Saharan Africa. Why is this?

- The rulers in some of these countries are corrupt.
- Dictators often spend large sums on prestige projects such as conference centres and showpiece airports rather than on schools, teacher training or health clinics.
- Civil wars ravage many countries. This leads to high spending on arms and low spending on health and education. Therefore, life expectancy and literacy levels are among the lowest in the world.
- HIV/AIDS is still the cause of many deaths.
- Many of the people in these countries are very poor and do not have balanced diets. Malnutrition leads to high child mortality.



The Catholic cathedral in Yamoussoukro, Côte d'Ivoire, a pet project of the late President Houphouët-Boigny. Côte d'Ivoire was, and still is, a very poor country.

### Advantages of the HDI ranking system

- Clear global patterns of development are evident on a global map of the HDI, such as Figure 1.2.
- The HDI is used by economic and social planners in different countries and regions.
- The HDI does not concentrate solely on national income – it also focuses on more social ways to measure human development and well-being.
- The scoring system is easy to understand. The higher the score, the better the quality of life in a country.
- The poorest countries are easily identified. This helps global organisations such as the United Nations and the World Health Organization to target poverty, education and health issues in these countries.

### ACTIVITY

#### Research

Look up the location of Côte d'Ivoire on the internet.

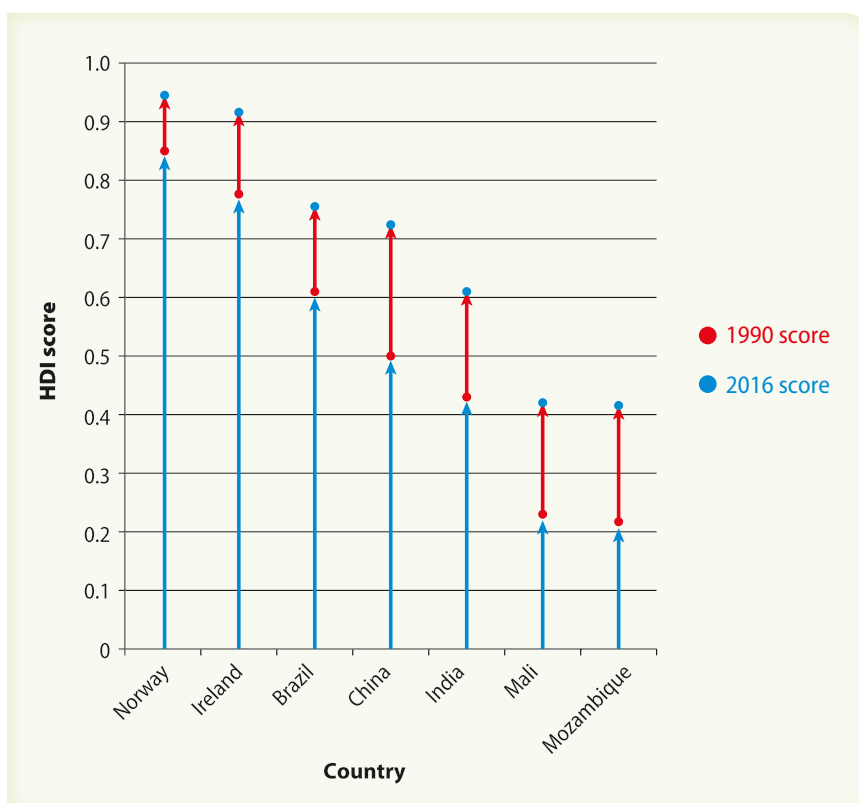
### Changes in the HDI over time

Since 1990, countries have shown remarkable improvements in their HDI score. Despite the fact that poverty exists in every country and that poverty is very high in the poorest countries, countries are registering higher scores now than in 1990. Some, such as China, have done very well.



On a global scale, the higher scores are due to:

- Improved health services, including **primary healthcare**
- Safer drinking water
- Developments in education, especially for girls in poorer countries
- Economic growth because of inward investment and participation in international trade.



**Figure 1.3** The scores for selected countries in the HDI for 1990 and 2016

## CASE STUDY

### The increase in Ireland's HDI score

Ireland's HDI score in 1990 was 0.77 but today it has climbed to more than 0.91, which is one of the highest scores in the world. How was this achieved?

The main driver of this improvement was economic development. There were several important milestones in the economic development of modern Ireland.

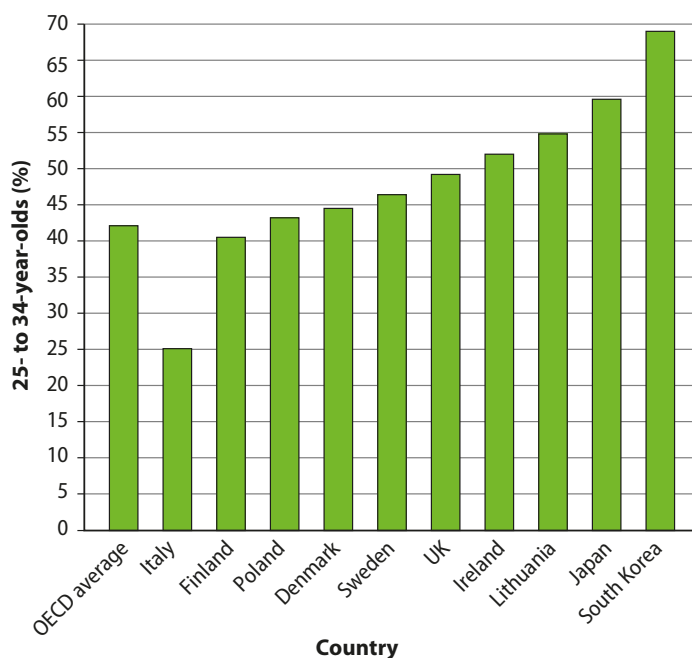
- Modern Ireland began in 1958 with the First Programme for Economic Expansion. Its author, Ken Whitaker, set out targets for economic development. The taoiseach at that time, Seán Lemass, backed the programme. Multinational corporations were invited to invest in the country and modern industrialisation began.
- EEC membership in 1973 gave a great boost to the Irish economy. A tariff-free export boom to mainland Europe grew steadily. Jobs were created and outward migration was reversed in the 1970s for the first time since the Great Famine. The population began to grow. This created a larger internal market.

#### GEOFACT

Over a 40-year period, Ireland went from being a relatively poor country to a very wealthy country per head of population.

## GEOFACTS

- The IFSC in Dublin has gone from strength to strength since it was founded in 1987 and has raised the per capita income overall.
  - Ireland's 35-year-olds are among the most likely in the world to have completed third-level education.
- After free secondary education was introduced in 1968, the number of pupils who entered secondary education continued to increase. Over the next several years, a revolution took place in Irish education right up to third level.
- In 1966, one in every three children left school with only primary education and a mere 20% sat their Leaving Certificate. In 2016, 70% of students who finished their Leaving Cert went on to third-level education. In 2016, there were 182,623 students in full-time third-level education. Those educational developments helped Ireland to improve its HDI score because students are staying in full-time education for a longer period of time.
- The Celtic Tiger era (1995–2008) was a time of unprecedented economic growth when Irish per capita income was amongst the highest in the EU. Ireland embraced a technological wave and became a knowledge-based economy. Many of the world's top pharmaceutical, technological, and internet and social media companies established themselves in Ireland. Third-level courses prepared young people for these new jobs.



**Figure 1.4** Percentage of 25- to 34-year-olds with third-level education in selected countries



Road bowling in Co. Cork in the 1930s, a practice that has almost died out in an Ireland that has changed dramatically in just a few generations. People made their own amusements in earlier generations.

- The Irish working population almost doubled, from approximately 1.1 million people in 1971 to 2.1 million in 2008. Wages increased and people's standards of living rose visibly during that time.
- During the Celtic Tiger years, the government had plenty of money from income tax, stamp duty from property sales and corporation tax to expand the health service and primary healthcare. Rising standards of living also helped to increase people's life expectancy.
- The economy crashed after September 2008. Austerity, poverty and emigration followed. However, after 2014 in particular, the economy began to grow strongly. Whether Brexit (the name given to the UK's planned departure from the EU) will weaken this growth over time remains to be seen.



East Point Business Park, Dublin. Dublin is the economic driver of the Irish economy.

## Gross national income (GNI)

In some exam questions, the HDI uses **gross national income (GNI)** as an indicator.

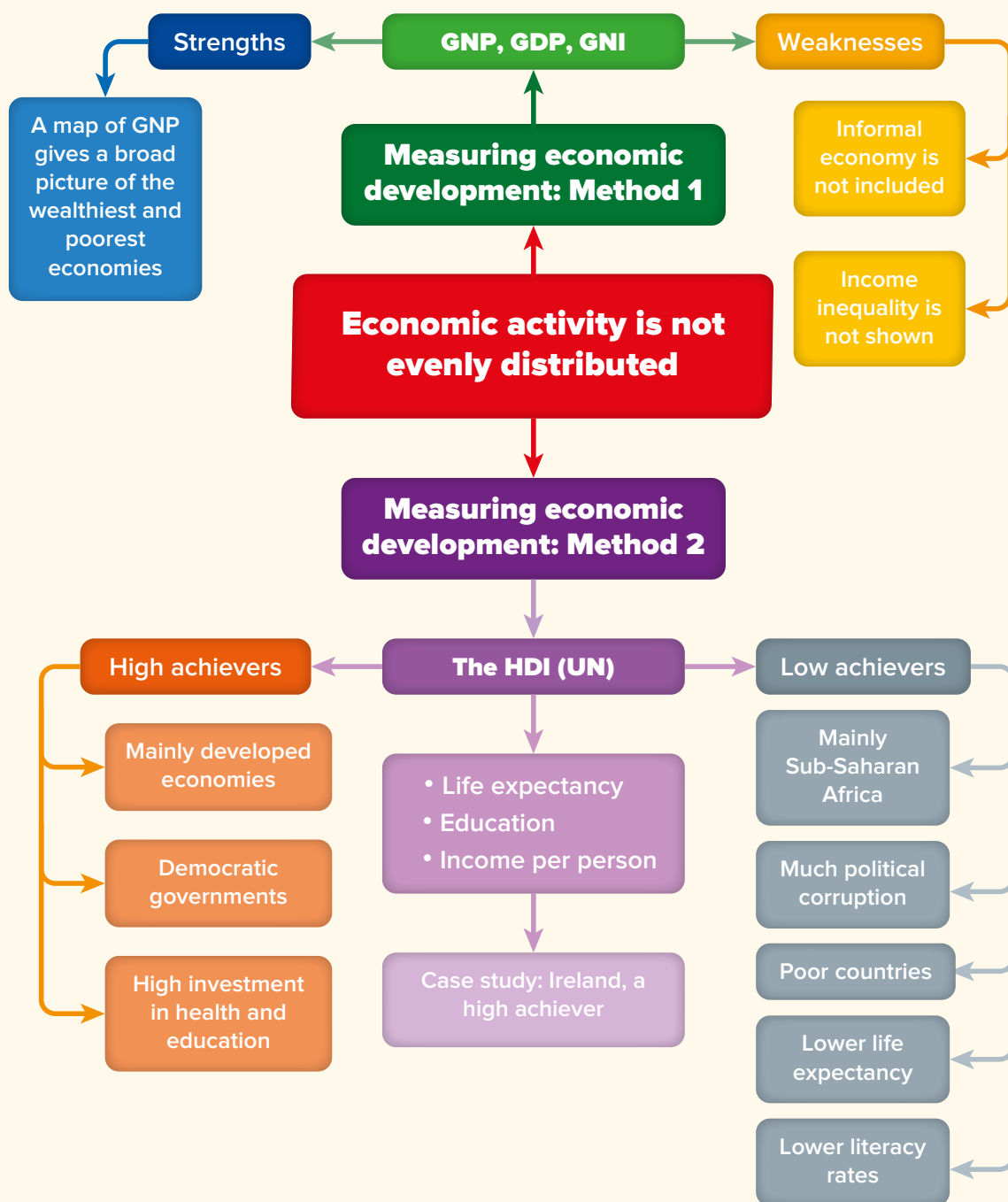
GNI is a country's national income that includes **remittances** by migrants of that country from abroad and also international aid payments. For example, because of remittances from abroad, GNI in the Philippines greatly exceeds GNP.

### DEFINITION

A **remittance** is a transfer of money by a foreign worker to an individual in his or her home country.



## SUMMARY CHART





# Leaving Cert exam questions

HL

## HIGHER LEVEL

### 1 Human Development Index (20 marks)

Human Development Index (HDI) data for selected regions

Region	HDI score 1990	HDI score 2014	Gross national income 2014	Life expectancy at birth (years) 2014	Mean years of schooling 2014
Norway	0.849	0.944	\$64,992	81.6	12.6
Ireland	0.770	0.916	\$39,568	80.9	12.2
USA	0.859	0.915	\$52,947	79.1	12.9
Brazil	0.608	0.755	\$15,175	74.5	7.7
Haiti	0.417	0.483	\$1,669	62.8	4.9
Mali	0.233	0.419	\$1,583	58.0	2.0

Examine the table above showing Human Development Index data for selected regions and answer each of the following questions.

- Which region had the highest Human Development Index score in 1990 **and** which region had the highest Human Development Index score in 2014?
- Calculate the difference (in dollars) between the gross national income in Norway and the gross national income in Mali in 2014.
- Which region had the highest mean years of schooling in 2014?
- Explain briefly **one** reason why the mean years of schooling are higher in countries such as Norway and Ireland.
- Name **one** indicator used to calculate the Human Development Index.
- Explain briefly **one** advantage of using the Human Development Index as a measure of economic development.

### 2 Economic development (20 marks)

The Human Development Index (HDI) data for selected countries, 2012

HDI rank	Country	HDI score 2012	Life expectancy at birth (years)	Gross national income per capita (\$)
1	Norway	0.955	81.3	\$48,688
3	USA	0.937	78.7	\$43,480
26	UK	0.875	80.3	\$32,538
85	Brazil	0.730	73.8	\$10,152
101	China	0.699	73.7	\$7,945
136	India	0.554	65.8	\$3,285
146	Pakistan	0.515	65.7	\$2,566
175	Afghanistan	0.374	49.1	\$1,000

Examine the table above and answer each of the following questions.

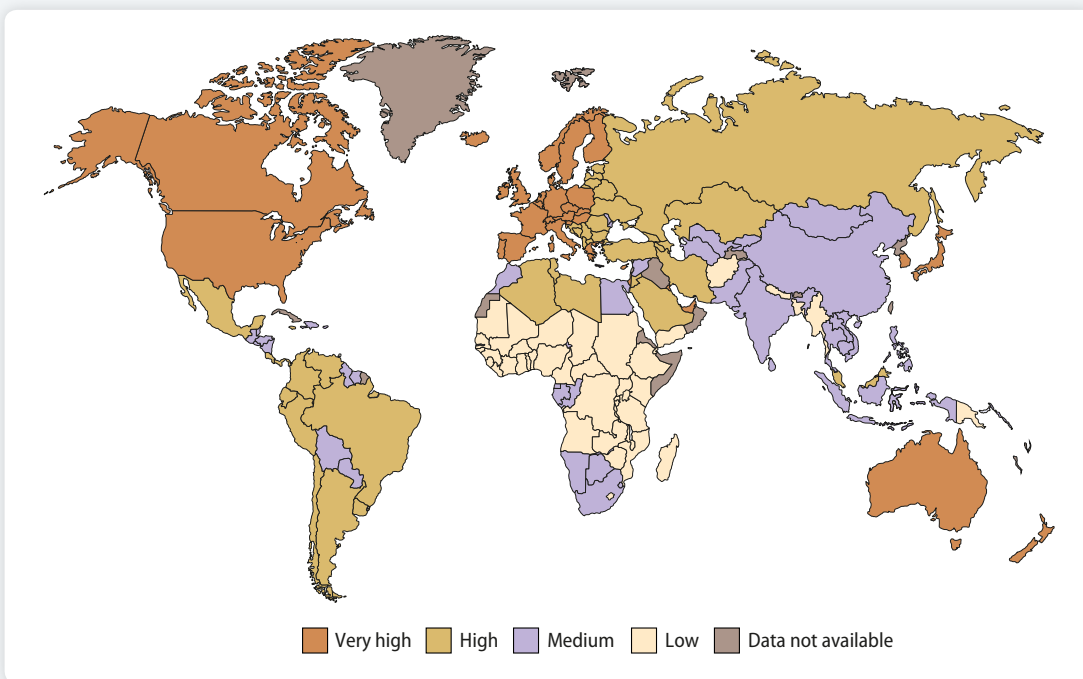
- Calculate the difference in gross national income between the USA and China.
- Name the country with the lowest life expectancy at birth **and** name the country with the highest life expectancy at birth.

HL

- (iii) Explain briefly **one** reason why life expectancy at birth is higher in some countries.
- (iv) Life expectancy and income levels are two factors used to calculate the Human Development Index. Name a third factor.
- (v) Explain briefly **one** use of the Human Development Index.

### 3 Human Development Index (20 marks)

#### United Nations Human Development Index, 2010



Examine the world map above, which shows United Nations Human Development Index (HDI) for 2010, and answer the following questions.

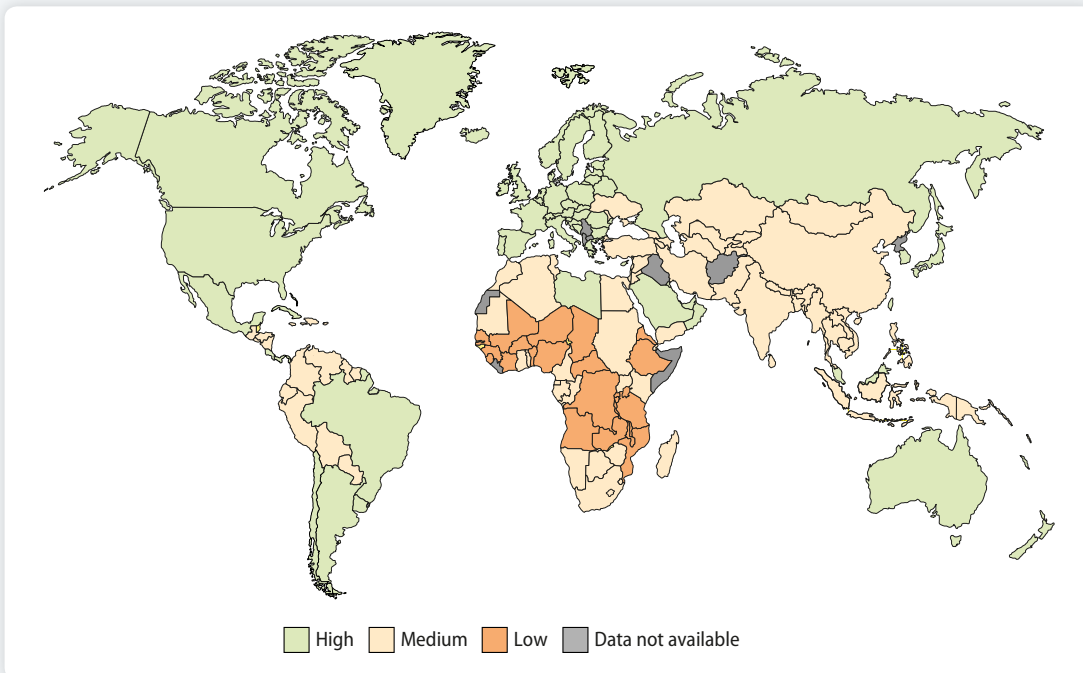
- (i) In which category of the HDI is Ireland?
- (ii) Name **two** countries outside Europe with a very high HDI score.
- (iii) Which continent shows the greatest proportion of low HDI scores?
- (iv) State **two** reasons why some countries have a low HDI score.

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## ORDINARY LEVEL

## 1 Economic development (30 marks)

## Human Development Index



Country	Expected years of schooling	Gross national income
Ethiopia	8.5	\$1,428
Germany	16.5	\$43,919
Ireland	18.6	\$39,568
Mali	8.4	\$1,583

Examine the information above and answer each of the following questions.

- Name **two** countries with a high Human Development Index score.
- Which continent has the greatest number of countries with a low Human Development Index score **and** state **one** reason for this.
- Name any **two** factors used to calculate the Human Development Index.
- Explain briefly **one** reason why the Human Development Index score for some countries is higher than others.
- Explain briefly **one** way that Human Development Index information is used.

OL

**2 Economic development** (30 marks)**Human Development Index, 2014**

Country	HDI score
Niger	0.3
Norway	0.9
Sierra Leone	0.4
Portugal	0.8

Examine the table above showing the Human Development Index (HDI) score for a number of countries.

- Using graph paper, draw a suitable graph to illustrate this data.
- Explain briefly **one** reason why some countries have a high Human Development Index score.

**3 Economic development** (30 marks)**Levels of human development, 2012**

Country	Gross national income per capita (\$)	Human Development Index (HDI) value	Life expectancy at birth (years)	Expected number of years in school
Botswana	\$13,102	0.634	53.0	11.8
Haiti	\$1,070	0.456	62.4	7.6
India	\$3,285	0.554	65.8	10.7
Ireland	\$28,671	0.916	80.7	18.3

Examine the table above and answer each of the following questions.

- Calculate the difference in the gross national income per capita (in dollars) between Haiti and Ireland.
- How many more years are Irish children expected to spend in school compared to children in India?
- Explain briefly why life expectancy at birth is lower in some countries.
- Name the country with the lowest Human Development Index value **and** name the country with the highest Human Development Index value.
- List **two** reasons why some countries have a higher Human Development Index value than others.