

Global Issues

Topic 1: Development and Health



What are the outcomes?

1. Use a range of graphical and numerical skills and techniques in the context of global geographical issues by:

- 1.1 Interpreting a range of numerical and graphical information
- 1.2 Analysing a range of numerical and graphical information
- 1.3 Synthesising information from a range of numerical and graphical information
- 1.4 Reaching a conclusion based on evidence about a complex global geographical issue

2. Draw on and apply knowledge and understanding of significant global issues by:

- 2.1 Giving detailed descriptions and detailed explanations of the interaction of physical and human factors in the context of a complex global geographical issue
- 2.2 Giving detailed descriptions and detailed explanations of the strategies adopted in response to a complex global geographical issue

Development and Health

Introduction



Economic and Social Indicators

Today I will:

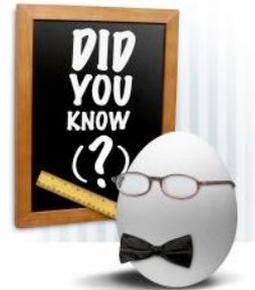
- Know what development is
- Know and be able to describe two social and two economic indicators of development

Development and Health

Introduction



- Every year six million children die from malnutrition before their fifth birthday.
- More than 50 percent of people in Africa suffer frequently from water-related diseases such as cholera and infant diarrhoea.
- More than 800 million people go to bed hungry every day.
- Every 3.6 seconds another person dies of starvation and the large majority are children under the age of 5.



Development and Health

Introduction



Development is **any improvement** in the standard of living of the people living in a country. It is measured using development indicators.



Many people believe that economic growth alone is responsible for development. Social factors play an equally important role

There are generally 2 types of country:

Developed Country

Developing Country

Write appropriate definitions for these

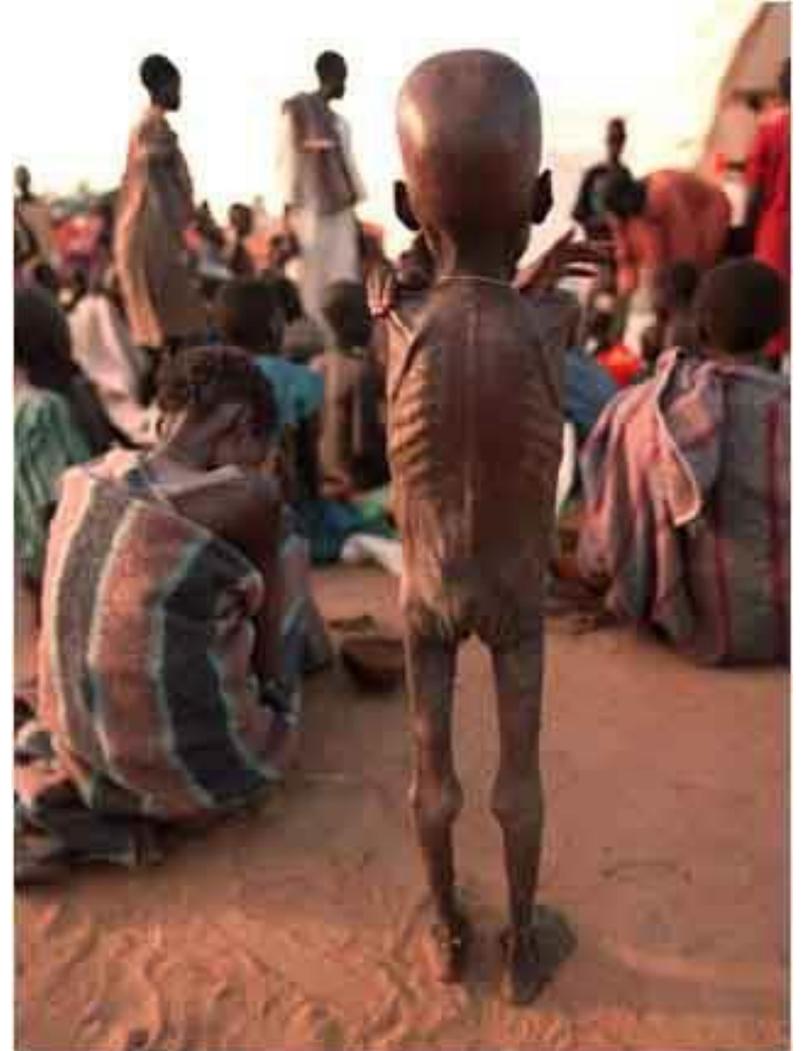
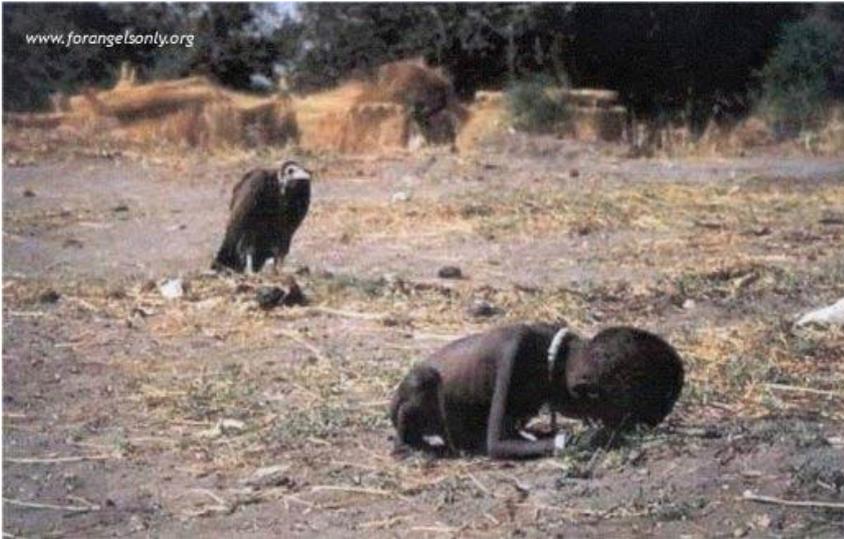
Development and Health

Introduction



Development and Health

Introduction



Development and Health

Indicators

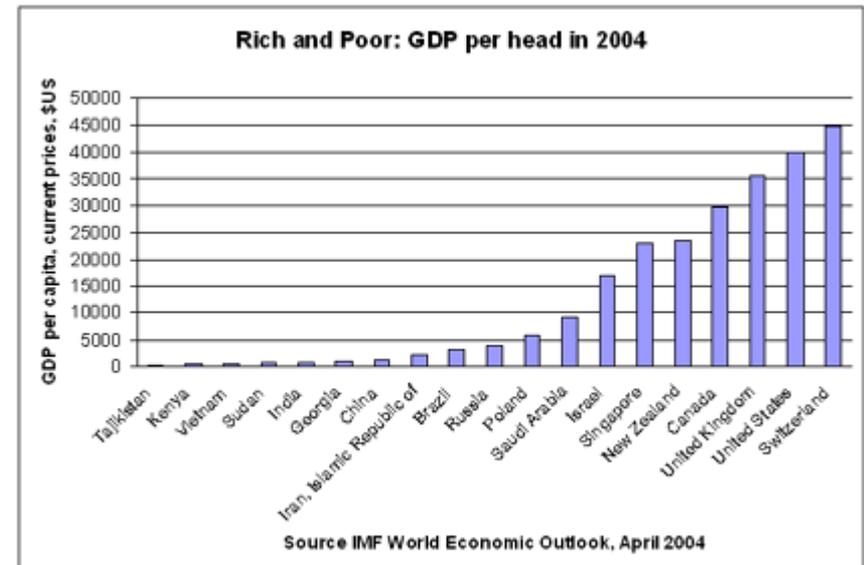


An indicator is a statistic we use to tell how developed a country is. Indicators of development fall into **three** categories:

1. Economic Indicators

These measure wealth. They indicate the amount of wealth in a country and/or the extra money available for luxuries.

- (a) Gross Domestic Product per Capita
- (b) Gross National Product per Capita
- (c) Income per Capita
- (d) Energy consumed per capita
- (e) TV sets / cars per 1000 people



Development and Health Indicators



GNP Per Capita



Write the definitions of each indicator

GNP per capita (US \$): This is the value of all goods and services produced in a country in a year (and money earned abroad) divided by the population. A high GNP will generally reflect an industrialised country and show how much health care and education a country is likely to be able to provide.

A high GNP usually indicates a developed country (UK: \$37,230 per capita compared to Ethiopia: \$110 per capita)



Add some statistics / examples to illustrate the difference between developed and developing countries

Development and Health Indicators

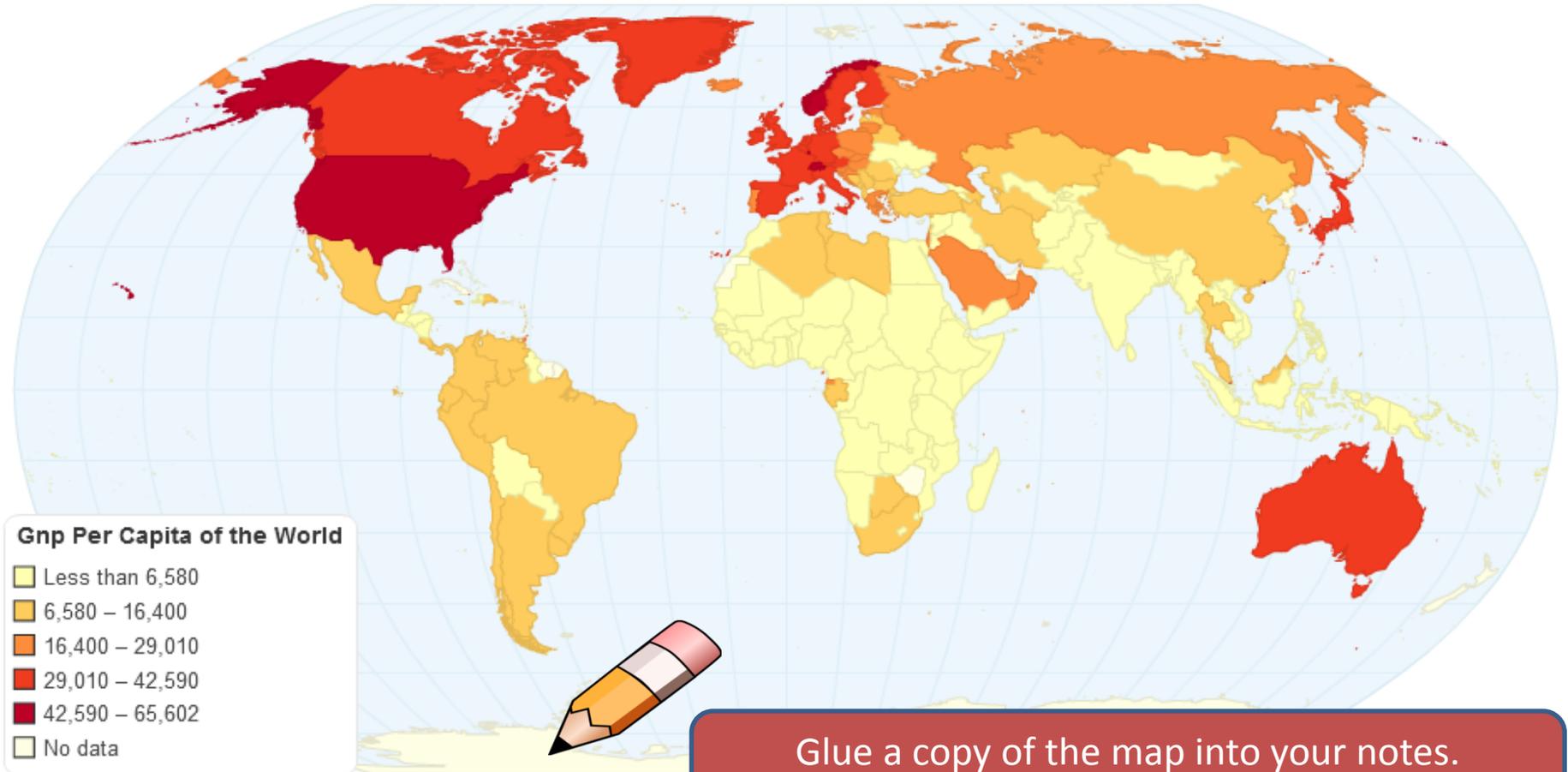


Country	GNP per Capita (\$)
Chad	690
Iraq	2,640
Croatia	13,350
Australia	49,130
Finland	47,770
Portugal	21,210
Saudi Arabia	17,820
Kenya	820



1. Rank the data in order from low to high and copy the table into your jotter.
2. Draw a bar chart showing the data in order.

Development and Health Indicators



Glue a copy of the map into your notes.
Comment on the patterns / any obvious trends

Development and Health Indicators



Energy Used per Person (Watts): This is the amount of energy used by a country e.g. coal, oil, gas. People with a higher standard of living will use cars and domestic appliances which require energy. Countries with higher energy consumption will tend to indicate a high industrial base which will create wealth .

UK: 5218.2 Watts per capita

Ethiopia: 370 Watts per capita



Development and Health Indicators



Income per capita: is how much each individual receives, in monetary terms, of the yearly income generated in the country. This is what each citizen is to receive if the yearly national income is divided equally among everyone.

UK: \$US 38,500 per capita

Ethiopia: \$US 380 per capita



Development and Health Indicators



TV Sets / car ownership per 1000 people - Indicates wealth of a country as gives an indication of the amount of people who can afford to spend money on luxuries.

UK: 516 cars per 1000 people
Afghanistan: 29 cars per 1000 people



Development and Health Indicators



2. Social Indicators

These measure the 'quality of life' by indicating the amount of food, quality of health care, education and other basic necessities.

- (a) Life Expectancy at birth
- (b) Number of patients per doctor
- (c) Adult Literacy rate
- (d) Number of calories per person per day



Queuing to be seen by a doctor: Somalia

Development and Health Indicators



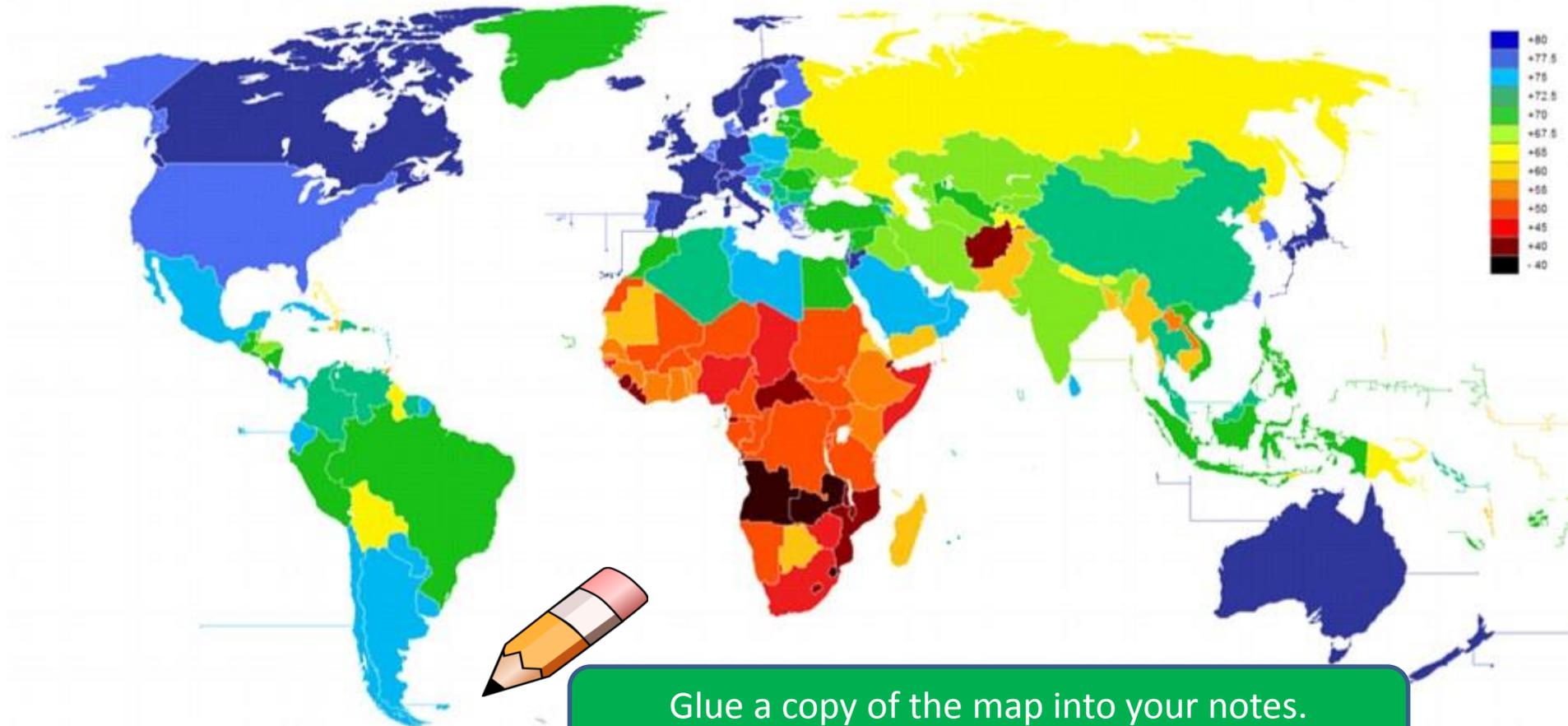
Life expectancy at birth(years): Provides a good reflection of the quality of sanitation and healthcare available and the ability of the government to pay for such services. It is a very sensitive indicator which also reflects the number of diseases common in that country. A high infant mortality will reduce average life expectancy.

UK: 80 years

Swaziland: 40 years



Development and Health Indicators



Glue a copy of the map into your notes.
Comment on the patterns / any obvious trends

Development and Health Indicators



Adult Literacy Rate (%): This is an indication of the degree of education in a country (for example the number of schools and qualified teachers which would allow it to move forward in its development . If the female to male literacy is compared, the accessibility of a countries education can also be measured.

UK: 99%

Mali: 26%

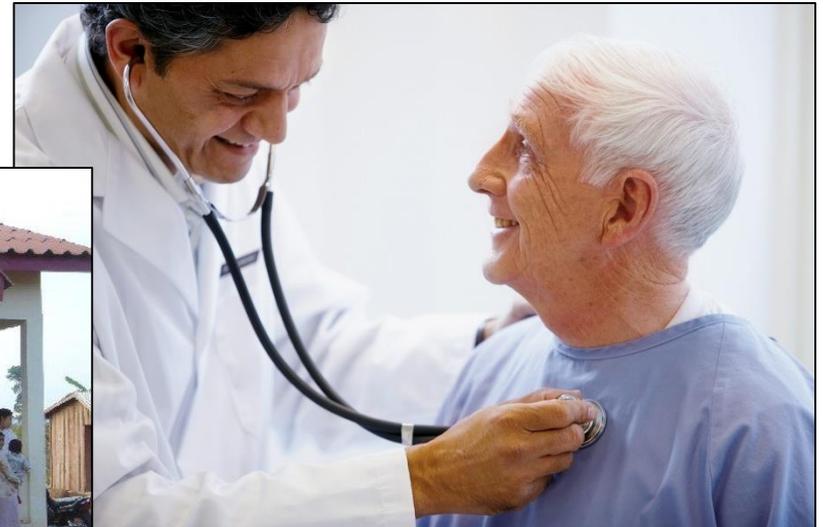


Development and Health Indicators



Average number of patients per doctor: gives an indication of the level and provision of healthcare in a country. In some developing countries values are very high, indicating a low level of healthcare provision and a lack of access to basic medical facilities.

UK: 2.77 physicians/1,000 population (2011)
Ethiopia: 0.03 physicians/1,000 population (2009)



Development and Health Indicators



Average calorie intake per capita per day – the average amount of calories consumed per person. Low values are indicative of developing countries and reflect an uncertain food supply, leaning towards a poor standard of living and malnutrition.

UK: 3,440 per capita per day

Eritrea: 1,590 per capita per day



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Exam Type Question



Infant Mortality Rate per 1000 live births is a social indicator of development. Name **one** other social indicator and **one** economic indicator of development and **explain** how they show a country's level of development. **[8 marks]**

What indicators are you going to use?

Use the writing frame to help you to answer the above question

- 1) Name the indicator in full (you must give the EXACT statistic)
- 2) Define it in detail
- 3) Say what it shows about level of development
- 4) Give the contrast examples to illustrate



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Check your answer



An economic indicator of development is GNP per capita (US \$): This is the value of all goods and services produced in a country in a year (and money earned abroad) divided by the population. A high GNP will generally reflect an industrialised country and show how much health care and education a country is likely to be able to provide. A high GNP usually indicates a developed country for example the UK which has a GNP per capita statistic of \$37,230 whereas a developing country like Ethiopia has a much lower statistic of \$110 per capita.

A social indicator of development is Adult Literacy Rate (%): This is an indication of the degree of education in a country (for example the number of schools and qualified teachers which would allow it to move forward in its development . If the female to male literacy is compared, the accessibility of a countries education can also be measured. High literacy rates tend to reflect developed countries like the UK which has a rate of 99%. In contrast rates for developing countries tend to be lower like in Mali where it is only 26%

Development and Health

Problems with indicators



Problems with Indicators

using single indicators like those you have just looked at is often not ideal. They do not always accurately reflect a country's true level of development

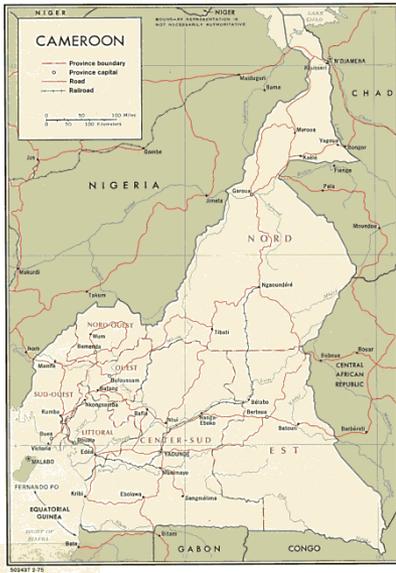


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Problems with indicators



They are **averages** which disguise or distort wide internal variations e.g. a few immensely wealthy families but the majority of the population may be living at subsistence level.



Cameroon: Subsistence agriculture for most of population yet President Paul Biya worth between \$300 and \$400 million.



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Problems with indicators



Subsistence agriculture and 'barter economies' are not included in wealth indicators



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Problems with indicators



Some regions/areas of a country may be much better off than others, for example the regional disparities found in Nigeria and 'urban-rural' contrasts



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Problems with indicators



Lagos, a large city in the south of Nigeria, is more developed and wealthy and contrasts very differently with rural areas in the North.

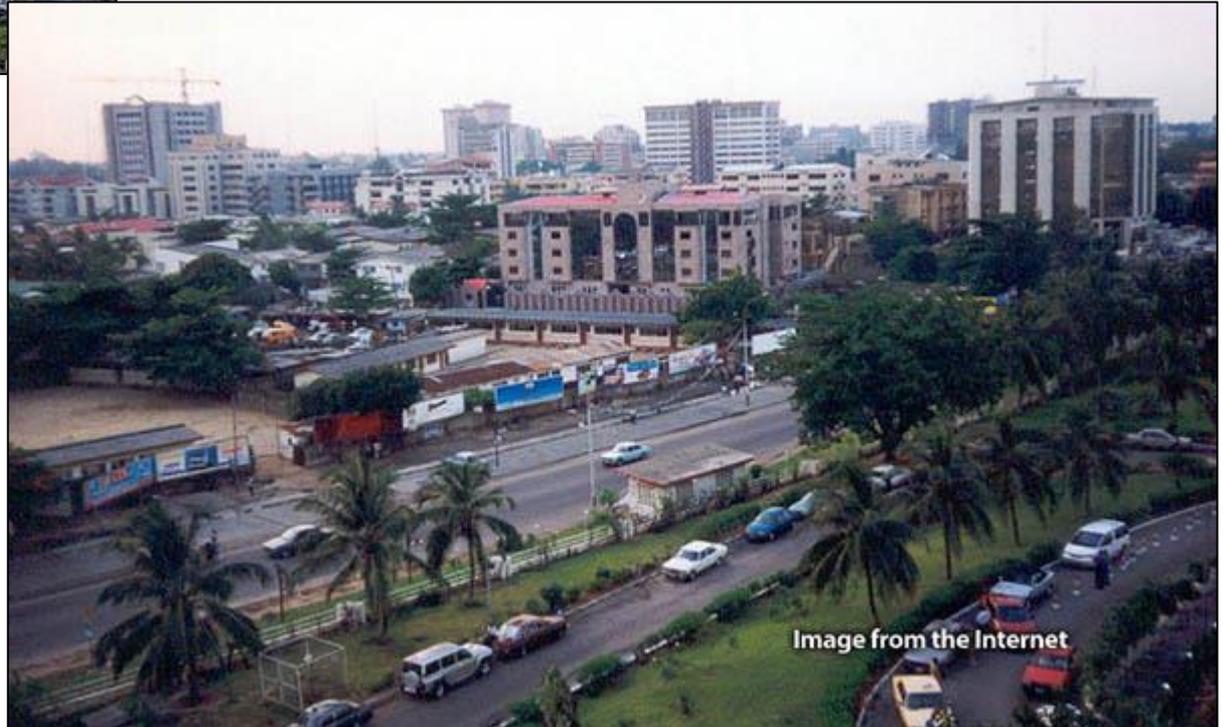
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Problems with indicators



Lagos has many hotels, similar to hotels in developed Countries.

Lagos is very cosmopolitan and has many aspects similar to Developed Countries.



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Problems with indicators



Oil has brought much wealth to Nigeria, especially cities like Lagos but not everyone has benefited, it is not evenly spread.

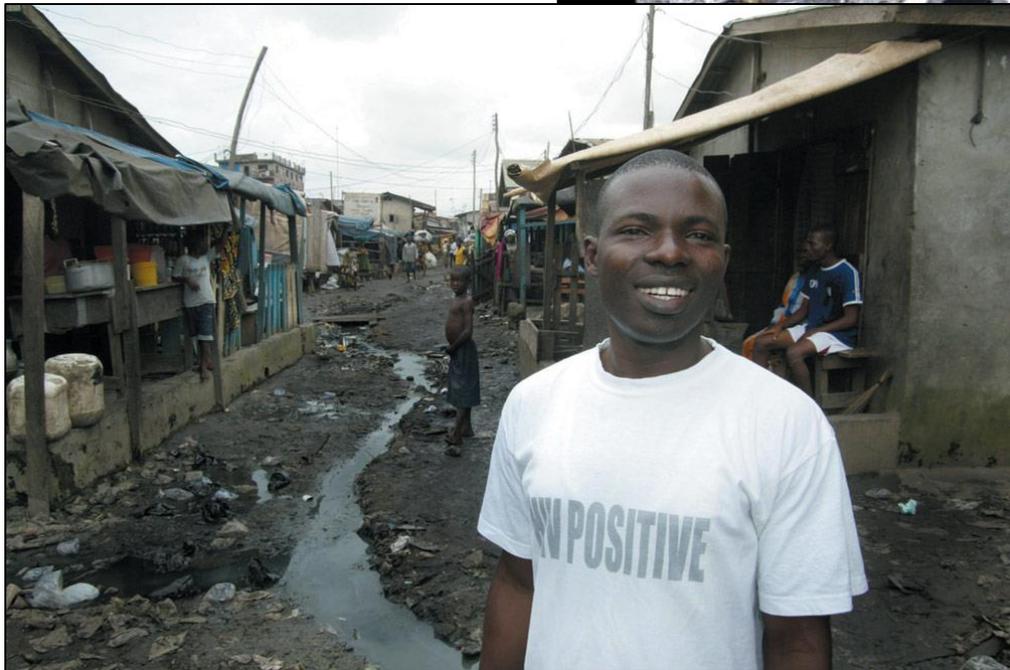
Oil extraction and storage in Nigeria.



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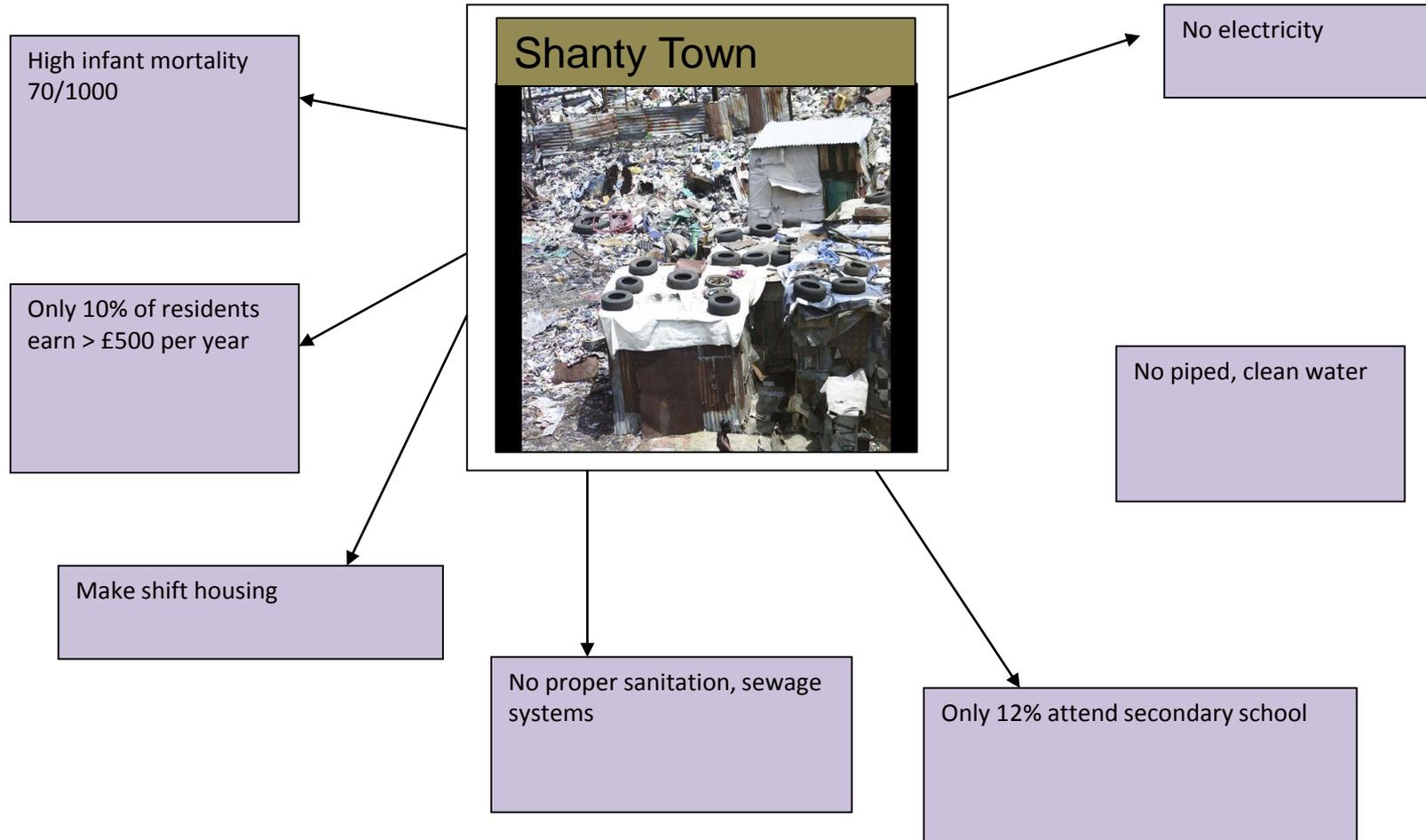
Problems with indicators

Shanty Town
on the outskirts
of Lagos.



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Problems with indicators



Development and Health

Problems with indicators



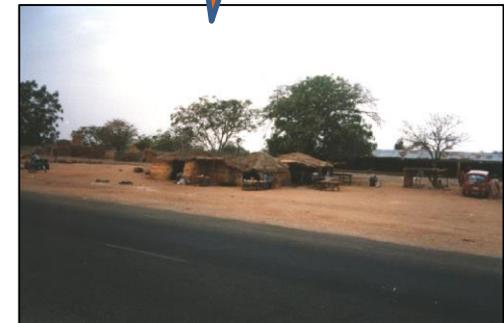
Rural Areas

Rural areas do not fair much better. Development levels in the countryside are low, with most people employed in subsistence farming. In rural areas most houses/villages have no plumbed water and most houses don't have basic services like electricity. Hospitals are basic, if they exist at all

Infant mortality
150/1000

Only 10% of
children attend
secondary school

Only 3%
earn >\$500
per year



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Problems with indicators



GNP figures are in some cases inflated by oil revenues (showing a big gap between these and other indicators that have yet to 'catch up'). For example 45% of Saudi Arabia's GNP is from oil which causes an inflated statistic.



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Problems with indicators



One indicator is not enough on its own, for example being literate does not make up for being hungry or ill.



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Problems with indicators



GNP has to be converted to a common currency. Monetary calculations change daily for example £50 will not always equal \$75.

POUND VERSUS US DOLLAR



SOURCE: Bloomberg

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Problems with indicators



Example 1: Explain why indicators of development may fail to reflect accurately the true quality of life throughout a country **[8 marks]**

Example 2: *“Levels of wealth, health and economic development are not evenly spread within individual countries.”*

(i) In what ways does the information given in the table below suggest that the eight provinces of Kenya are at different levels of development? **[10 marks]**

See map and statistics on next slide



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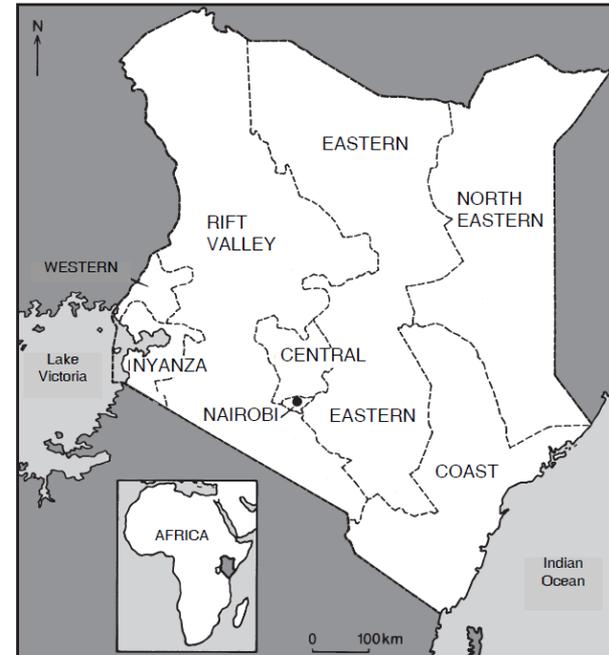
Problems with indicators



Table Q6: Selected socio-economic indicators of development for Kenya's provinces

Province of Kenya	% Females with no education	% Males with no education	% Population below the poverty line	% Children aged 12–23 months without all vaccinations
North Eastern	87	66	64	92
Coast	38	23	58	36
Eastern	20	14	58	37
Central	12	8	31	24
Nairobi	10	8	44	40
Rift Valley	28	22	48	46
Western	18	11	61	52
Nyanza	18	10	65	64

Map Q6: Provinces of Kenya



Have a go at both of the exam type questions you have written down – check that you understand what you are being asked for



Development and Health

Problems with indicators



Example 1: Explain why indicators of development may fail to reflect accurately the true quality of life throughout a country [**8 marks**]

Mark scheme:

- Averages so hide variations within countries (give Nigeria examples)
- Take no account of subsistence economies
- Only focus on one aspect of development – literacy rate tells us about education but not health
- GNP can be inflated by oil wealth
- Take no account of exchange rates

Development and Health

Problems with indicators



Marking Scheme:

Candidates should get credit for noting that the table covers the three major areas of education, wealth and health and could comment on each of these in turn.

Education – varies from 87% of females with no education in North Eastern province to only 10% in Nairobi. The striking difference between male and female percentages, especially in poorer provinces, with males getting preferential treatment in many developing countries, could be noted.

Wealth – all areas of Kenya have many poor, but again big variation from almost 2/3 in North Eastern, Western and Nyanza to <1/3 in Central.

Health – huge variation again here with >3/4 of children in Central province having all vaccinations whereas only 8% in North Eastern are protected. The North Eastern province trails all others alarmingly in this indicator.

Development and Health

Indicators



A better approach?

Composite Measure of Development: HDI

Today I will:

- Know what the HDI is and be able to explain its advantages and disadvantages



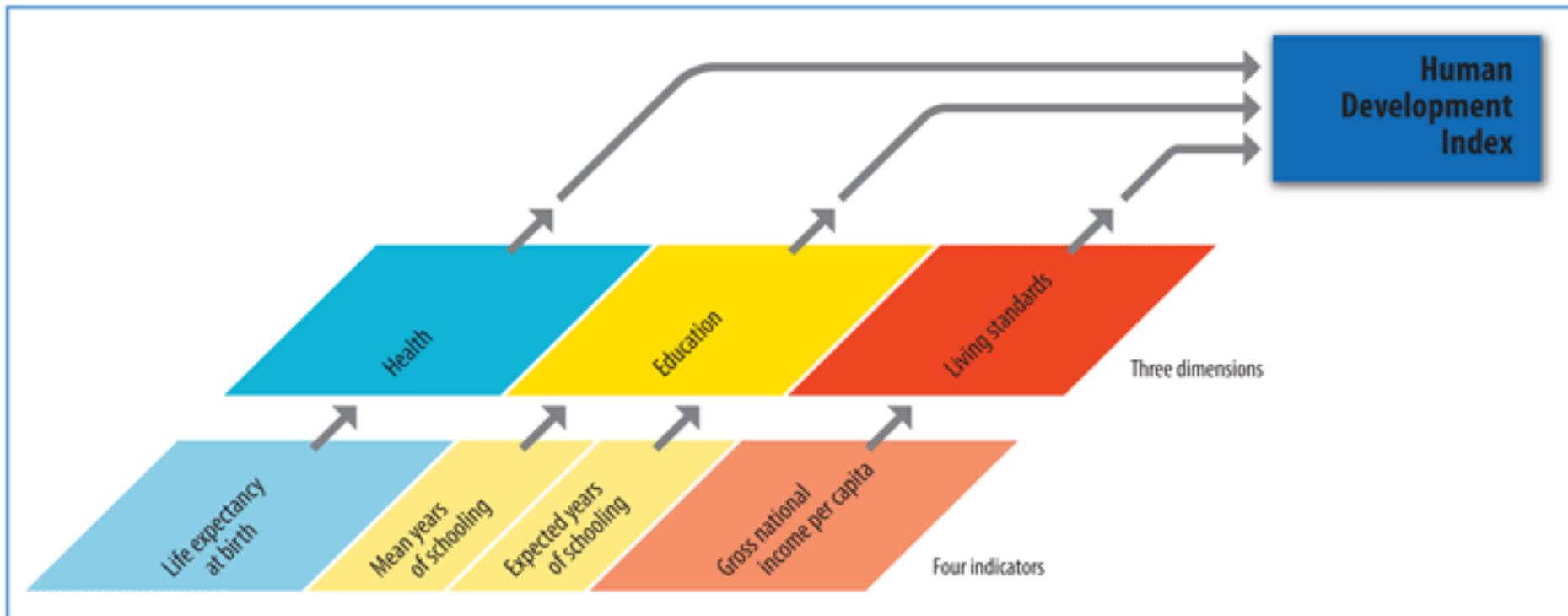
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Indicators



Components of the Human Development Index

The HDI—three dimensions and four indicators

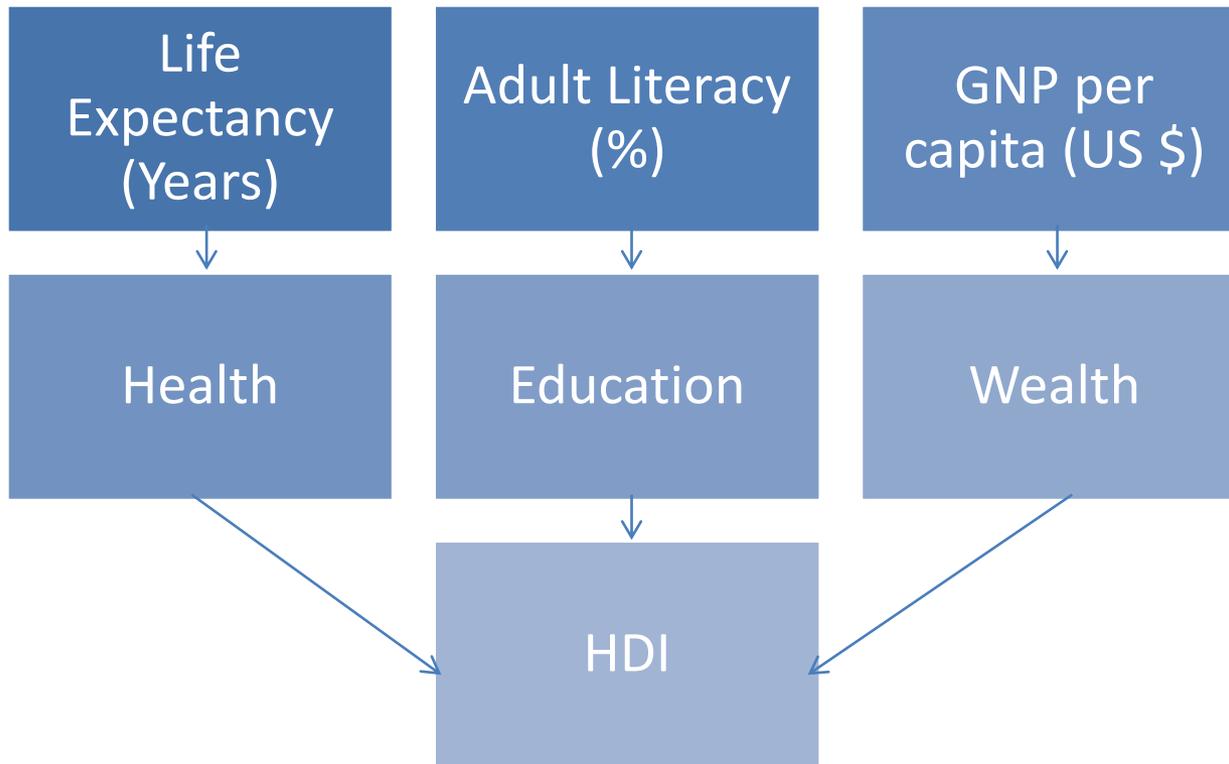


Note: The indicators presented in this figure follow the new methodology, as defined in box 1.2.

Source: HDRO.

Development and Health

Indicators



Extension
Question: How do these three indicators help to show the level of development a country is at?

Development and Health

Indicators



HDI rank	Human Development Index (HDI)						
	1980	1990	2000	2005	2009	2010	2011
VERY HIGH HUMAN DEVELOPMENT							
1 Norway	0.796	0.844	0.913	0.938	0.941	0.941	0.943
2 Australia	0.850	0.873	0.906	0.918	0.926	0.927	0.929
3 Netherlands	0.792	0.835	0.882	0.890	0.905	0.909	0.910
4 United States	0.837	0.870	0.897	0.902	0.906	0.908	0.910
5 New Zealand	0.800	0.828	0.878	0.899	0.906	0.908	0.908
6 Canada	0.817	0.857	0.879	0.892	0.903	0.907	0.908
7 Ireland	0.735	0.782	0.869	0.898	0.905	0.907	0.908
8 Liechtenstein	..	..	..	..	..	0.904	0.905
9 Germany	0.730	0.795	0.864	0.895	0.900	0.903	0.905
10 Sweden	0.785	0.816	0.894	0.896	0.898	0.901	0.904
11 Switzerland	0.810	0.833	0.873	0.890	0.899	0.901	0.903
12 Japan	0.778	0.827	0.868	0.886	0.895	0.899	0.901
13 Hong Kong, China (SAR)	0.708	0.786	0.824	0.850	0.888	0.894	0.898
14 Iceland	0.762	0.807	0.863	0.893	0.897	0.896	0.898
15 Korea, Republic of	0.634	0.742	0.830	0.866	0.889	0.894	0.897
16 Denmark	0.783	0.809	0.861	0.885	0.891	0.893	0.895
17 Israel	0.763	0.802	0.856	0.874	0.884	0.886	0.888
18 Belgium	0.757	0.811	0.876	0.873	0.883	0.885	0.886
19 Austria	0.740	0.790	0.839	0.860	0.879	0.883	0.885
20 France	0.722	0.777	0.846	0.869	0.880	0.883	0.884

Development and Health

Indicators



160	Lesotho	0.418	0.470	0.427	0.417	0.440	0.446	0.450
161	Uganda	..	0.299	0.372	0.401	0.438	0.442	0.446
162	Togo	0.347	0.368	0.408	0.419	0.429	0.433	0.435
163	Comoros	..	..	..	0.428	0.430	0.431	0.433
164	Zambia	0.401	0.394	0.371	0.394	0.419	0.425	0.430
165	Djibouti	..	..	..	0.402	0.425	0.427	0.430
166	Rwanda	0.275	0.232	0.313	0.376	0.419	0.425	0.429
167	Benin	0.252	0.316	0.378	0.409	0.422	0.425	0.427
168	Gambia	0.272	0.317	0.360	0.384	0.413	0.418	0.420
169	Sudan	0.264	0.298	0.357	0.383	0.403	0.406	0.408
170	Côte d'Ivoire	0.347	0.361	0.374	0.383	0.397	0.401	0.400
171	Malawi	0.270	0.291	0.343	0.351	0.387	0.395	0.400
172	Afghanistan	0.198	0.246	0.230	0.340	0.387	0.394	0.398
173	Zimbabwe	0.366	0.425	0.372	0.347	0.349	0.364	0.376
174	Ethiopia	..	..	0.274	0.313	0.353	0.358	0.363
175	Mali	0.174	0.204	0.275	0.319	0.352	0.356	0.359
176	Guinea-Bissau	..	..	..	0.340	0.348	0.351	0.353
177	Eritrea	..	..	..	..	..	0.345	0.349
178	Guinea	..	..	..	0.326	0.341	0.342	0.344
179	Central African Republic	0.283	0.310	0.306	0.311	0.334	0.339	0.343
180	Sierra Leone	0.248	0.241	0.252	0.306	0.329	0.334	0.336
181	Burkina Faso	..	..	..	0.302	0.326	0.329	0.331
182	Liberia	0.335	..	0.306	0.300	0.320	0.325	0.329
183	Chad	..	..	0.286	0.312	0.323	0.326	0.328

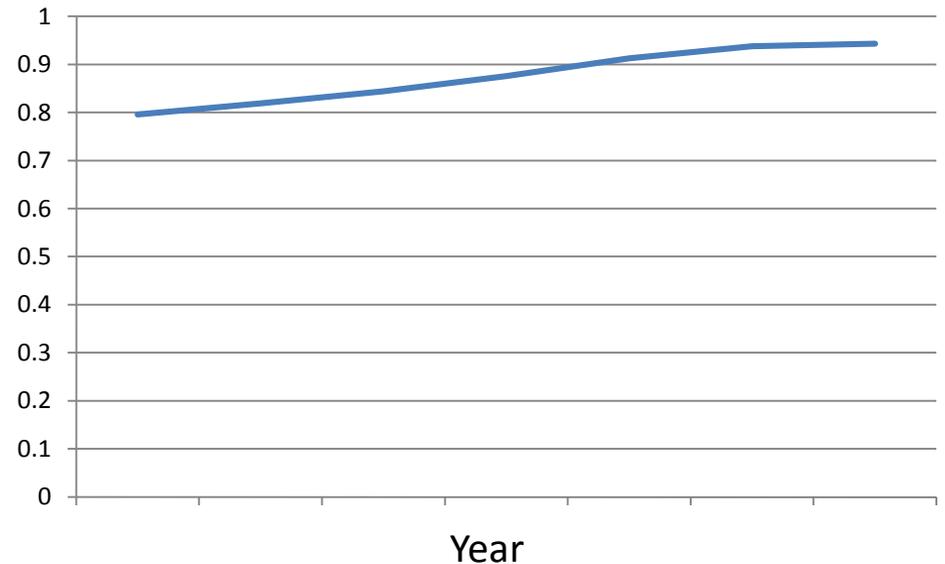
Development and Health

Indicators



Country	1980	1985	1990	1995	2000	2005	2011
1. Norway	0.796	0.819	0.844	0.876	0.913	0.938	0.943
92. Turkey	0.463	0.518	0.588	0.588	0.634	0.671	0.699
146. Bangladesh	0.303	0.324	0.352	0.388	0.422	0.462	0.5
187. Congo	0.282	0.289	0.289	0.254	0.224	0.26	0.286

Draw a line graph to show how the HDI has changed over time in the four countries listed above.



Development and Health

Indicators



Advantages:

1. It allows **direct comparisons** between countries because the index scores tell you how a country stands in relation to the best actual conditions e.g. El Salvador is half as developed as Canada.
2. The HDI is a **mixture of economic and social indicators** which gives a more realistic picture of the standard of living within a country.
3. It reduces the **'fluke' factor** of just using one indicator.
4. It can be **adjusted to consider different scores for men and women** highlighting irregularities between them and also within a country.

Development and Health

Indicators



Disadvantages:

1. The HDI gives **relative figures**. If all countries improve at the same rate the poorer countries will never climb up the rankings and will get no credit for their achievements.
2. Only **three sets** of data are used.
3. Using different indicators can **produce different results** e.g. using infant mortality instead of life expectancy.
4. Can still hide **internal differences** within a country e.g. Brazil's South East region is very developed in comparison to its Northern regions.