

Write your name here

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Other names

**Pearson**  
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Centre Number

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Candidate Number

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# Geography

**Advanced**

**Unit 3: Contested Planet**

Thursday 12 June 2014 – Morning  
**Time: 2 hours 30 minutes**

Paper Reference

**6GE03/01**

**You must have:**

Resource Booklet (enclosed)

Total Marks

## Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **TWO** questions in Section A and **ALL** parts of Section B.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*

## Information

- The total mark for this paper is 90.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*
- The quality of your written communication will be assessed in ALL your responses  
– *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

## Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Spend approximately 80 minutes on Section A and 70 minutes on Section B.
- Check your answers if you have time at the end.

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**PEARSON**

## SECTION A

Answer TWO questions in this section.

You are reminded of the need to use examples to support your arguments.

You are advised to spend approximately 80 minutes on Section A.

### Energy Security

1 Study Figure 1.

- (a) Using Figure 1, explain the physical and economic factors that contribute to **uncertainty** over oil production in the future. (10)
- (b) Using named examples, assess the extent to which fossil fuels could be replaced by renewable energy sources in the future. (15)

(Total for Question 1 = 25 marks)

---

### Water Conflicts

2 Study Figure 2.

- (a) Using Figure 2, explain how **physical** factors influence water availability in areas A and B. (10)
- (b) Using named examples, discuss how both economic development and environmental concerns influence water demand. (15)

(Total for Question 2 = 25 marks)

---

### Biodiversity Under Threat

3 Study Figure 3.

- (a) Using Figure 3, explain the physical and human factors that could influence the number of endemic species found in particular locations. (10)
- (b) Using named examples, evaluate the economic, cultural and environmental value of a named global ecosystem. (15)

(Total for Question 3 = 25 marks)

---



## Superpower Geographies

4 Study Figure 4.

(a) Using Figure 4 and your own knowledge, suggest the impact on people and the environment of the growth in middle-class numbers and spending. (10)

(b) Using named examples, discuss how the balance between direct *versus* indirect superpower influence has changed over time. (15)

**(Total for Question 4 = 25 marks)**

---

## The Technological Fix?

5 Study Figure 5.

(a) Using Figure 5, suggest reasons for the differences in the use of the technologies shown. (10)

(b) Using named examples of developments in technology, such as its use in farming, assess the extent to which they have had a positive impact on people and the environment. (15)

**(Total for Question 5 = 25 marks)**

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(Total for Question = 25 marks)

**TOTAL FOR SECTION A = 50 MARKS**



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# **Geography**

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**Do not return the Resource Booklet with the question paper.**

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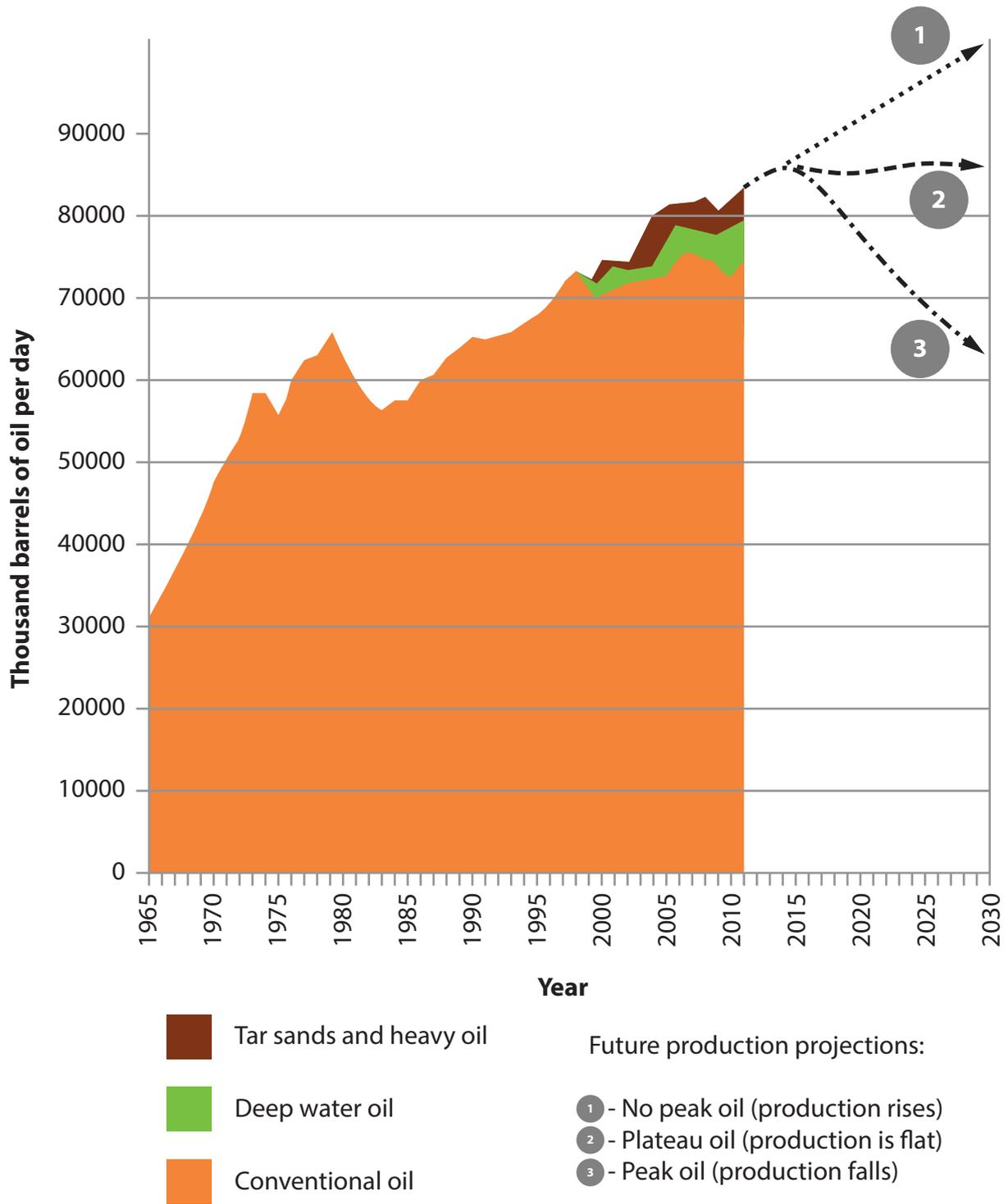
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**SECTION A**

The following resources relate to Questions 1–5

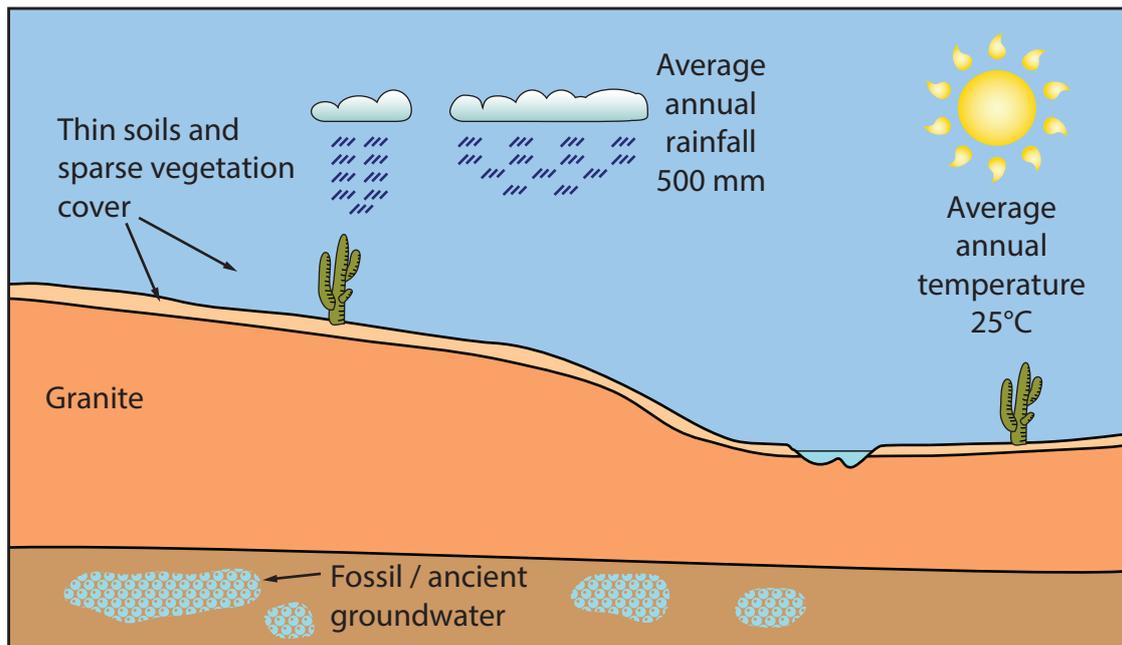


(Source: BP Statistical Review, 2012)

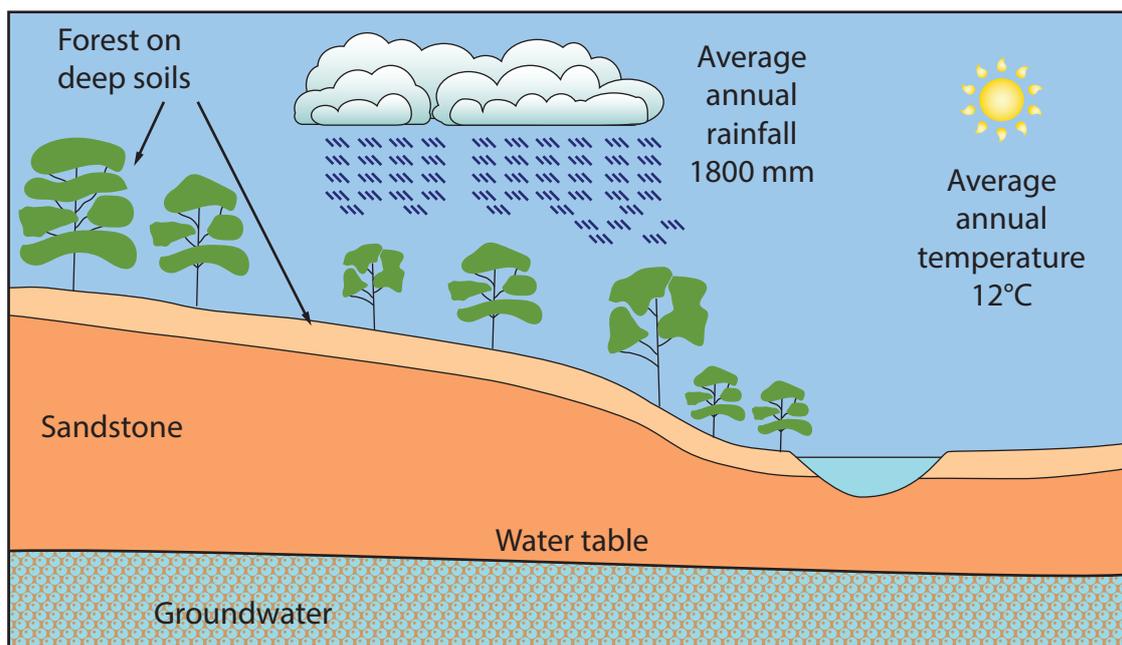
**Figure 1**

**World oil production 1965–2011 and three projections for future production**

**Area A:** 750 cubic metres of water available per person per year, but falling

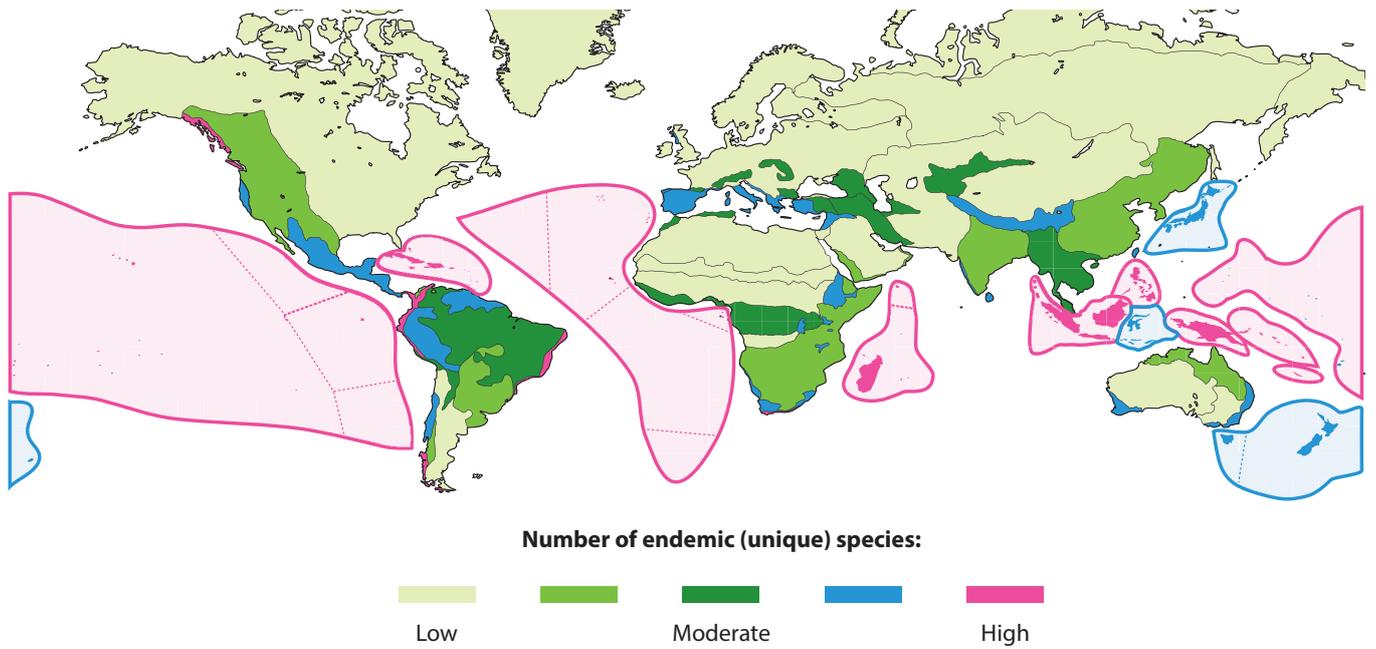


**Area B:** 3000 cubic metres of water available per person per year



**Figure 2**

**Physical factors affecting water supply in two areas**

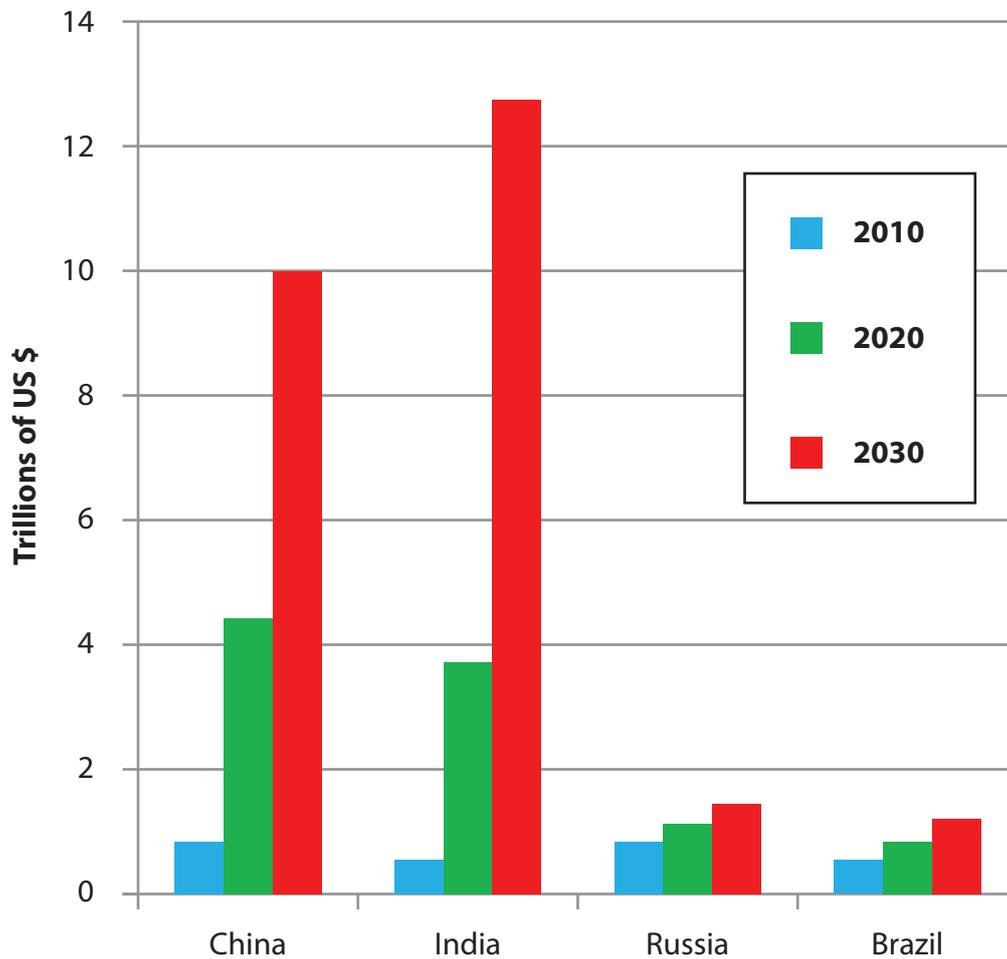


(Source: adapted from A global assessment of endemism and species richness across island and mainland regions, Kier G et al, PNAS June 9, 2009 vol. 106)

**Figure 3**

**The number of endemic species worldwide**

The middle class is defined as people with incomes between US \$6,000 and \$30,000 per year



(Source: OECD Working Paper number 285, 2010)

**Figure 4**

**Middle class spending in Brazil, Russia, India, China (BRICs)**

Country	% of people owning a mobile phone	% of people with internet access	% of people in two age groups using internet social networking sites	
			Aged 18–29	Aged 50+
<b>USA</b>	85	83	80	26
<b>Poland</b>	78	58	75	9
<b>China</b>	93	56	55	9
<b>Egypt</b>	71	34	27	18
<b>Pakistan</b>	48	7	5	0

(Source: Pew Global Attitudes Project, 2011)

**Figure 5**  
**Use of communications technology in five countries**

## SECTION B

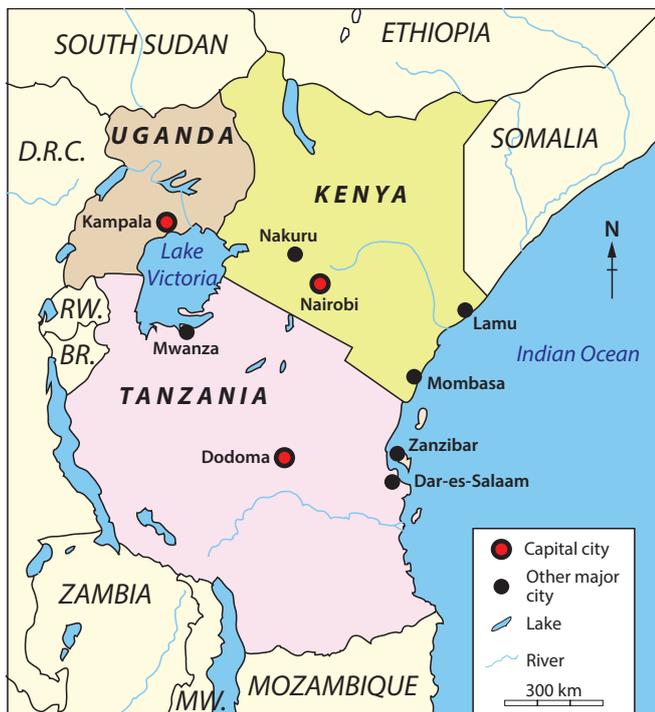
The following resources relate to Question 6

### Bridging the Development Gap

#### East African Development

##### Introduction

Kenya, Tanzania and Uganda are located in East Africa (Figure 1). These developing countries were all UK **colonies** in the past. Independence for Kenya came in 1963, for Uganda in 1962, Tanganyika in 1961 and Zanzibar in 1963 (the latter two merging to form Tanzania in 1964).

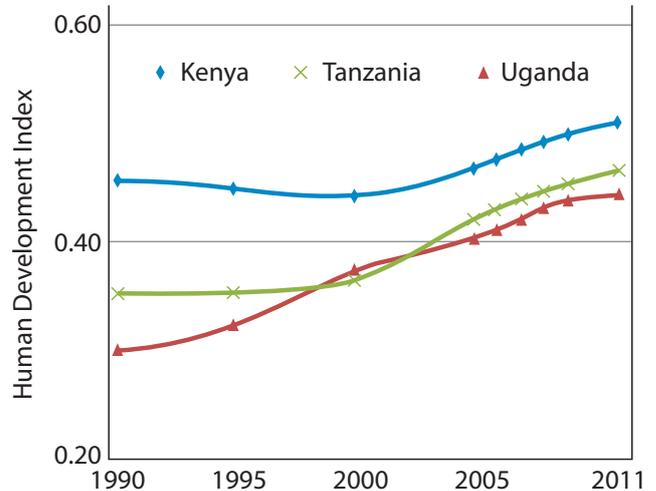


**Figure 1**  
Map of East Africa

The physical geography of the region is dominated by the **East African Rift Valley**. The western arm of the rift has the **Rwenzori Mountains** (rising to over 5000m) at its edge and lakes Albert, Tanganyika and Nyasa trace the line of the rift south to Malawi. The eastern arm of the rift bisects the Kenyan Highlands. Between the two rift arms lies **Lake Victoria** where the national boundaries of Kenya, Tanzania and Uganda intersect. Kampala and Nairobi sit almost on the **Equator** both at a height of over 1000m.

#### Development progress

The region has made some progress in development terms as shown by levels of HDI since 1990 (Figure 2). Figure 3 shows data for selected development indicators for the three countries.



**Figure 2**  
HDI trends 1990–2011

	Kenya	Tanzania	Uganda
<b>GNI per capita in PPP terms (\$)</b>			
1990	1,370	834	517
2011	1,492	1,328	1,124
<b>Life expectancy at birth (years)</b>			
1990	59.3	50.6	47.4
2011	57.1	58.2	54.1
<b>Maternal mortality ratio (deaths of women per 100,000 live births)</b>			
1990	380	880	670
2008	530	790	430
<b>Under-five mortality rate (per 1,000 live births)</b>			
1990	99	162	184
2009	84	108	128
<b>HIV prevalence (% of population)</b>			
1990	3.9	4.8	10.2
2009	6.3	5.6	6.5
<b>Urban population (% of population)</b>			
1990	18.2	18.9	11.1
2011	22.5	26.9	13.5
<b>Annual population growth rate (%)</b>			
1990	3.4	3.2	3.5
2011	2.7	3.0	3.2

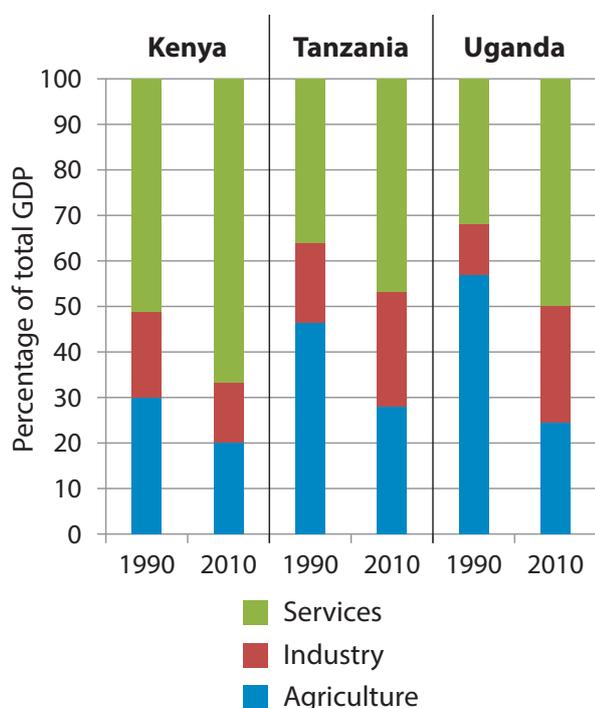
**Figure 3**  
Selected development indicators

Progress in relation to selected Millennium Development Goals (MDGs) is shown in Figure 4.

Progress for 5 MDG targets up to 2011:	Kenya	Tanzania	Uganda
<b>MDG 1a:</b> Halve the proportion of people living on under \$1.25/day	◆	◆	◆
<b>MDG 1c:</b> Halve the proportion of undernourished people	◆	◆	◆
<b>MDG 3:</b> Achieve gender parity in schooling	◆	◆	◆
<b>MDG 6:</b> Halt and begin to reverse the spread of HIV/Aids	◆	◆	◆
<b>MDG 7:</b> Halve the proportion of people without access to safe drinking water	◆	◆	◆
<b>Off target</b>	◆	◆	◆
<b>Some progress</b>	◆	◆	◆
<b>On target</b>	◆	◆	◆

**Figure 4**  
MDG progress up to 2011

The structure of the economy in the countries has changed since 1990 as shown in Figure 5. Figure 6 shows the top three imports and exports for the three countries.



**Figure 5**  
Economic structure 1990 and 2010

	Exports	Imports
<b>Kenya</b>	Tea 21% Flowers 9% Coffee 4%	Fuel oils 14% Crude oil 8% Telephones 4%
<b>Tanzania</b>	Gold 22% Metal ore 9% Tobacco 5%	Fuel oils 24% Cars 4% Trucks 3%
<b>Uganda</b>	Coffee 19% Fish/Meat 7% Tobacco 6%	Fuel oils 19% Cars 5% Medicines 4%
<b>2010 data (% of all exports / imports)</b>		

**Figure 6**  
Top three exports and imports

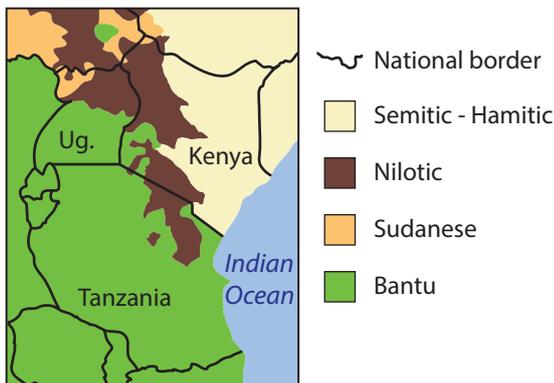
Tanzania and Uganda have participated in the **Heavily Indebted Poor Countries (HIPC)** initiative, which was started by the World Bank and IMF. Kenya has not yet qualified for HIPC relief as its external debt is considered sustainable (Figure 7).

		Kenya	Tanzania	Uganda
Total external debt (US\$ bil.)	1990	7.1	6.5	2.6
	2010	8.4	8.6	3.0
Debt interest (% of GDP / year)	1990	3.9	1.4	0.8
	2010	0.4	0.3	0.1
Debt as a % of GDP	1990	82	151	61
	2010	26	38	18
Government spending (% GDP)	1990	18.6	17.8	7.5
	2010	16.6	18.2	11.8

**Figure 7**  
External debts and government spending

As with many African countries, national borders in this region often do not match up with ethnic and tribal geographical areas, a legacy of the **colonial era** (Figure 8). This factor has contributed to the long history of **conflict, unrest and refugee crises** in the region:

- In 2007–08 disputed presidential elections in Kenya led to widespread civil unrest, up to 800 deaths and the displacement of up to 600,000 people. Violent clashes had an ethnic dimension especially in the Kikuyu region.
- The ongoing conflict in Somalia combined with severe drought in 2011 to precipitate a refugee crisis when up to 400,000 Somalis moved across the border into northern Kenya.
- The Lord’s Resistance Army has been involved in a guerrilla conflict in northern Uganda since 1987, which has at times involved Sudan, the Democratic Republic of Congo (DRC) and the Central African Republic (CAR). The conflict has a significant ethnic dimension.
- Uganda and Tanzania fought a war in 1978–79, and following this the Ugandan Bush War (civil conflict) raged from 1981–1986.
- Within the wider region, Uganda was involved in the devastating Rwandan Civil war 1990–1993 and many countries have been drawn into conflicts in the DRC since 1996.



**Figure 8**  
**Simplified map of ethnolinguistic groups in East Africa**

Kenya, Uganda and Tanzania score poorly on measures of **governance**. Figure 9 shows their rankings on the Ibrahim Index of African Governance, which was set up in 2006 to measure governance and promote better standards of leadership. Figure 10 shows the results of the Corruption Perception Index. The Democracy Index from the Economist

Development Unit measures democratic governance on the basis of whether elections are free and fair, the security of voters, the influence of foreign powers on government and the capability of civil servants to implement policy (Figure 11).

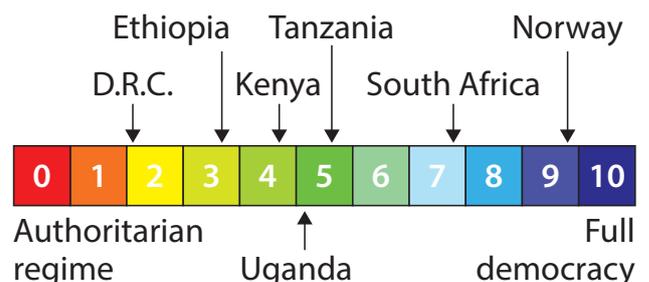
Overall score out of 100 (Rank of 52 countries)	Component scores		
	Safety & Rule of Law	Participation & Human Rights	Human Development
Mauritius 82.8 (1)	Botswana 89.5 (1)	Cape Verde 81.7 (1)	Seychelles 90.8 (1)
Tanzania 58.8 (10)	Tanzania 62.3 (16)	Tanzania 62.3 (9)	Kenya 63.3 (17)
Uganda 55.1 (19)	Uganda 56.8 (22)	Kenya 50.6 (22)	Uganda 57.9 (22)
Kenya 52.7 (25)	Kenya 49.0 (32)	Uganda 54.4 (19)	Tanzania 56.4 (23)
Somalia 7.2 (52)	Somalia 4.8 (52)	Somalia 10.0 (52)	Somalia 11.7 (52)

**Figure 9**  
**Extract from the 2012 Ibrahim Index of African Governance data report**

Country	Score out of 10	Global rank
New Zealand	9.5	1
UK	7.8	16
Tanzania	3	100
Uganda	2.4	143
Kenya	2.2	154
Somalia	1	182

The Corruption Perception Index scores how corrupt the public sector is perceived to be in 182 countries. Scores range from 10 (not corrupt) to 0 (highly corrupt).

**Figure 10**  
**2011 Corruption Perception Index**



**Figure 11**  
**2011 Democracy index selected scores**

This part of east Africa has not escaped **terror attacks**. In 1998 simultaneous bomb attacks destroyed the USA embassies in Nairobi and Dar-es-Salaam (blamed on al-Qaeda). In 2010 bomb attacks in Kampala killed over 70 people (blamed on Al-Shabaab). In addition, the ongoing threats of piracy and general lawlessness in Somalia are a major regional concern.

### The East African Community (EAC)

The EAC **inter-governmental organization** was set up in 1967 to promote regional economic integration. The organization collapsed in 1977 due to political and ideological divisions between member states, especially following the military coup of Idi Amin in Uganda in 1971. In the late 1990s the idea of the EAC was revived and it was relaunched in 2000 (Figure 12). By 2010 the EAC had:

- common import tariffs for non-member countries
- free trade between member states
- shared customs procedures
- a legislative assembly based in Arusha, Tanzania.

Like the **EU**, member states contribute to a shared budget for the EAC. In September 2011 only 23% of member states' payments for 2011–12 had been made.

Member	Population 2012 (millions)	Total GDP (US\$ billions) 2011	Average annual GDP growth 2000–2010 (percentage)
Burundi	8.7	2.4	3.2
Kenya	43.0	34.7	4.4
Rwanda	11.7	6.2	7.6
Tanzania	43.1	23.3	7.1
Uganda	35.8	16.8	7.7
<b>Total</b>	<b>142.3</b>	<b>83.4</b>	(n/a)

**Figure 12**  
**EAC member states, 2011**

There are further proposals to create the **East African Federation (EAF)** in the future, which would deepen the community's ties by putting in place:

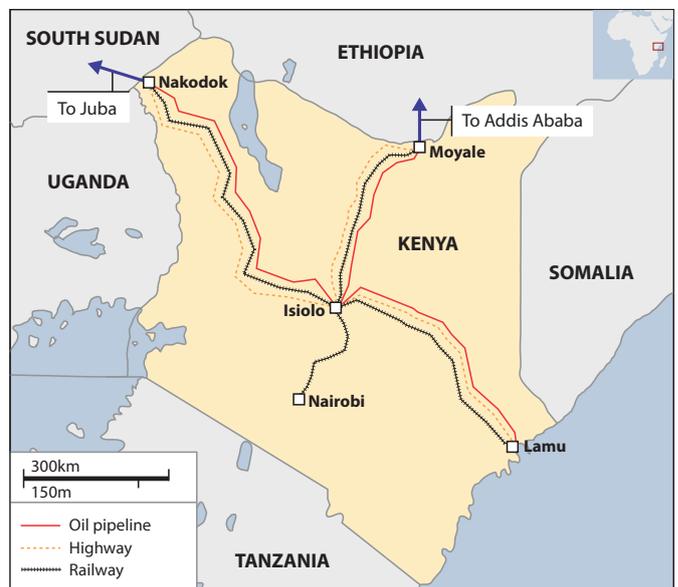
- a shared currency, the East African shilling
- a federation of states, with Arusha in Tanzania as its capital

- a single tourist visa
- possible expansion to include South Sudan and other states.

### The LAPSET project

The idea of developing a port in Lamu, Kenya, dates back to the 1970s. Currently the port development forms part of the LAPSET project (Lamu Port and Lamu Southern Sudan-Ethiopia Transport Corridor), which is a major infrastructure project and forms part of the **Kenya Vision 2030** economic policy. LAPSET's key proposals are:

- a 1730 km rail, road and oil pipeline corridor linking Lamu to Juba in Southern Sudan (Figure 13)
- a rail branch to Nairobi from Isiolo, and a further rail and oil pipeline branch to Addis Adaba in Ethiopia
- a 120,000 barrels per day oil refinery in Lamu
- up to 3 new international airports at Isiolo, Lamu and Lokichoggio
- up to 32 new port berths at Lamu to handle ships up to 100,000 tonnes
- the development of tourist resorts in Lamu, Isiolo and Lake Turkana.



(Source: Kenya Ministry of Transport)

**Figure 13**  
**Map of the LAPSET project**

Costs for the whole LAPSET project are not clear, but have been estimated at between US\$ 16 billion and US\$ 25 billion. Parts of the project were scheduled to begin in 2012 and large parts could be completed by 2018 if funding can be found. South Sudan has expressed interest in helping fund the pipeline from Juba to Lamu and the Chinese government and Chinese companies have also expressed interest.

In Lamu, concerns have been expressed about development of the port and other infrastructure in terms of the **environmental impact** on coral reefs and mangroves. There might be further impacts during construction such as a very large increase in Lamu's population. Local people are concerned that their land rights may be ignored especially as **land tenure** is often not documented.

#### **View 1**

"The problem is not that international trade is inherently opposed to the needs and interests of the poor, but that the rules that govern it are rigged in favour of the rich."

**Trevor Manuel, Finance Minister, South Africa**

#### **View 2**

"On account of a host of factors including low productivity, lack of competitiveness, poor market access, falling terms of trade, and restrictive trade regimes, Africa's relative market share in world exports has been declining for decades according to the World Bank."

**Milton A. Iyoha, African Development Bank**

#### **View 3**

"The kidnapping of Briton Judith Tebbutt and the murder of her husband David in a luxury resort on Kenya's Indian Ocean coast turned what should have been the holiday of a lifetime into a nightmare. It also dealt a severe blow to a tourism industry that just a year before was basking in renewed interest after the engagement of Prince William and Kate Middleton in a rustic lodge near Mount Kenya."

**Guardian, 2012**

#### **View 4**

"Many reasons have been put forward for the region's slow development – a lack of human and government capacity, poor infrastructure and trade access, the effects of too little (or too much) foreign aid, the legacy of arbitrary colonial boundaries, low productivity, the Cold War, climate, and geography."

**Greg Mills, CATO Institute, 2010**

#### **View 5:**

"Africa is not poor. Africa is just poorly managed."

**Kenyan architect Mumo Museva, 2009**

#### **View 6:**

"In the case of Kenya's coastal area, even comparatively modest set-piece projects – like the Ngomeni fish farming project ... and a World Bank funded cold storage facility in Lamu – all flopped. The legacy of mismanagement, corruption, land grabbing and disillusionment is now driving local communities to reassess. LAPSETT may look like a gift horse but viewed against this background it is really a Pandora's box."

**The EastAfrican newspaper, Sept 2011**

#### **Websites:**

Website of the EAC:  
<http://www.eac.int/>

Kenyan government Vision 2030 website:  
<http://www.vision2030.go.ke/>

Website of the Save Lamu coalition:  
<http://www.savelamu.org/issues/lamu-port/>

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BP Statistical Review, 2012

A global assessment of endemism and species richness across island and mainland regions, Kier G et al, PNAS June 9, 2009

OECD Working Paper number 285, 2010

Pew Global Attitudes Project, 2011

EAC

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