

UNIT 3 TOPICAL NEWS UPDATES AND TEACHING SUGGESTIONS

This resource contains topical news updates and teaching suggestions that may be of use to teachers delivering Unit 3 of the Edexcel GCE Geography Specification. All information is drawn from newspaper reports filed during July and August 2010 (key sources being the Financial Times and Guardian).

Topic 1: Energy security

ENERGY SUPPLY, DEMAND & SECURITY ¹

■ China is now the world's biggest user of energy ²

In 2009, China overtook the USA to become the world's biggest energy user. China used 2,252 million tons of oil equivalent of energy from sources including coal, oil, nuclear power, natural gas and hydropower in 2009. This was about 4 per cent more in total than the USA used.

Unlike the USA, China was not badly affected by the global economic crisis of 2008-09, with its continued financial and industrial growth rate still amounting to around 10% per annum. The growing Asian **superpower** needs increasing amounts of energy to fuel this continued expansion.

China has for a long time been the world's largest consumer of coal. In spite of having its own natural reserves, it also imports huge amounts (in 2009 the figure was 105 million tonnes). Saudia Arabia, the world's largest oil exporter, sold more oil to China than to the USA for the first time in 2009.

On a per capita basis, the USA still uses more power than China, although the United States is slowly learning to be more energy efficient. Meanwhile, there is growing global concern about China's rapidly rising carbon emissions (it is now the biggest greenhouse gas polluter).



Activity: Build synoptic links between Unit 1 and Unit 3

The issue of China's growing energy use is linked with (i) climate change studies in Unit 1 (ii) superpower geographies in Unit 3 and (iii) globalisation studies in Unit 1. Draw a web diagram to show how the different topics in Unit 1 and Unit 3 are interconnected.

THE IMPACTS OF ENERGY SECURITY

■ Is the energy security race for biofuels damaging our environment? ³

Greenpeace, the UK-based environmental group, believes that a major Indonesian **biofuel** company has destroyed large rainforest areas and is further undermining endangered species. Greenpeace say that the Golden Agri Resources company, which accounts for 10 per cent of Indonesian Palm oil production, has

broken past promises to become more sustainable and is trying to clear further areas of the Indonesian rainforest in order to create room to grow biofuel crops.

Golden Agri legally owns 430,000 hectares of rainforest land and has recently been licensed by the Indonesian government to extend biofuel production across a further 100,000 hectares.

Golden Agri claim that any breaches of environmental regulations have been the result of local managers who would have been subsequently suspended from working for the company. However, western companies such as Nestlé, Unilever and Kraft Foods have taken Greenpeace's claims seriously enough to stop using Golden Agri palm oil.

Activity: Build synoptic links between Unit 1 and Unit 3

The issue of biofuel impacts on the environment energy use is linked with (i) climate change mitigation in Unit 1 and (ii) biodiversity threats in Unit 3. Draw a web diagram to show how the different topics in Unit 1 and Unit 3 are interconnected.

ENERGY SECURITY AND THE FUTURE

■ Oil shock 'very likely' within next ten years ⁴

Britain is very likely to face an **oil shock** between 2010 and 2020, triggering an economic crisis comparable to the one faced by the UK during the 1970s when OPEC oil prices shot up. Britain looks set to become increasingly vulnerable to outside influences on energy availability and costs: UK politicians are well aware that their **energy security** is under threat.

As global demand for oil grows (as emerging economies require ever-greater amounts) oil price will move well beyond \$100 a barrel cost. Substantial oil price spikes can be expected, which have an enormous capacity to provide shocks to the economies of oil-dependent nations.

The only way in which energy-hungry countries like the UK will be able to avoid such shocks is if they invest heavily in energy efficiency and renewable sources of power. Most UK politicians now concede that increased nuclear power will play a part in providing the UK with energy (although it is a policy still opposed by some, including the Liberal Democrats party).

One current challenge facing the UK and other EU nations is how to provide financial backing for new low-carbon energy technology whilst cutting government spending in order to repair the economic damage of the **global credit crunch**. For instance, the UK government is seeking 20 to 40 per cent savings on public spending as a result of the 2010 budget. Some 'green technology' global companies that have been planning offshore wind turbine manufacturing facilities, or carbon capture and storage plants, are less keen to invest in Britain than they were a few years ago because of the risk that the UK state may withdraw support.

Discussion

Should green technology be a priority that continues to receive government support? Or would the money be better spent on providing improved health care or increased numbers of university places? What should our 21st Century spending priorities be if money is tight? What are your views?

Topic 2: Water Conflicts

WATER CONFLICTS AND THE FUTURE

■ New Chinese dam building project triggers a forced migration ⁵

A huge man-made canal project to channel water to drought-prone **megacity** Beijing will force 440,000 people to leave their homes. This mass relocation is taking place in preparation for one of the biggest irrigation schemes in human history.

People began to be moved from their homes near Wuhan, in the Hubei province of China, in 2009. By September of that year, 6,000 had already left the area with the rest of the forced relocations expected to have taken place by the end of 2014. "I am surprised nobody cried when the coaches left our

village. Last night, we felt sorrow when the whole village gathered to have our last dinner in our home town together," a villager named Wang told newspapers. His town in Danjiankou will soon be lost under 200 metres of water.

All of this will allow the South-North Water Diversion Project (SNWD) to be completed. The purpose is to divert massive amounts of water from China's biggest river, the Yangtze. The project is designed to take water from the Yangtze to satisfy increasing demand in northern China's drought-prone megacities, including the capital Beijing and the busy port of Tianjin. A further water need is linked with the fact that Northern China has only 20 per cent of the country's natural water supplies but has 64 per cent of its arable crop land.

The last time China moved so many people was when it built the £15 billion Three Gorges Dam project, the world's largest hydroelectric project, on the Yangtze in the late 1990s. Then, 1.4 million people were forced to move and their villages were submerged beneath a reservoir nearly 900 km long.

Relocated families in China receive a one-off payment and are given government subsidies for a 20-year period.

Topic 3: Biodiversity Under Threat

MANAGING BIODIVERSITY 6

■ Protected marine sites boost biodiversity in UK waters 7

Great efforts have been made to protect biodiversity in British waters, especially for sea birds. In 2010, an extension of the protected area around the UK coastline was announced that will help ensure a safer environment for the creatures that live on and near British sandbanks, reefs and sea caves.

Fishing and sea-floor dredging are on the verge of being banned in 15 sites around the British Coast, including parts of Cornwall, Norfolk and Northern Ireland. The sea-life inhabitants who will benefit from this form of protection include sponges, sea squirts, corals, shellfish and more exotic breeds like the cuckoo wrasse fish.

The UK Wildlife Trust – an important player in biodiversity management – believes that the UK has taken "a significant step towards realising its commitment to establishing an ecologically coherent network of marine protected areas".

However, budget cuts resulting from the global credit crunch mean that conservation agencies may be left so short of money that they will be unable to properly enforce ecological regulations.



Activity: Further research

Examine the map showing the new protected areas at:

<http://www.guardian.co.uk/environment/2010/aug/20/bird-sea-life-protection-sites>

Topic 4: Superpower Geographies

SUPERPOWER GEOGRAPHIES

■ Changing superpower roles: India and the UK

In July 2010, British Prime Minister David Cameron visited India for trade and security talks and in a speech he said he carried a 'spirit of humility' in the UK's new dealings with India. The event demonstrated just how far the global **superpower** balance has moved since the 1940s, when India was still under direct British rule as part of its empire.

Today, the UK is more interested in courting India as a powerful business partner who can help British firms, for instance through outsourcing of ICT.

Activity: Further research

Research and draw a timeline showing key events in the changing balance of power between India and the UK. Consult a wide range of sources and focus on key issues such as landmark events in the history of colonisation; recent trends in GDP growth for both countries; the rise of Indian TNCs such as Tata (who have begun to take over UK companies like Corus).

SUPERPOWER FUTURES

■ **Rise of China’s economy signals shift in power** ⁸

China has overtaken Japan to become the world’s second largest economy. The world’s largest economy is still the USA. This development reinforces China’s new global position as an emerging global superpower, reflecting a worldwide shift in global economic and political power. Beijing will now be more likely to play a larger role on the world’s stage.

China is already the world’s number-one exporter and will become the number-one energy consumer in 2011. In addition to reaching these milestones, China has increasingly been using its economic power to wield growing political influence in regions such as Latin America and Africa. The reason? China requires access to large amounts of these regions’ natural reserves if it is to keep growing economically.

Due to China’s large population, however, its wealth per person is still less than a tenth of that of the USA or Japan and less than a sixth of people living in the UK.

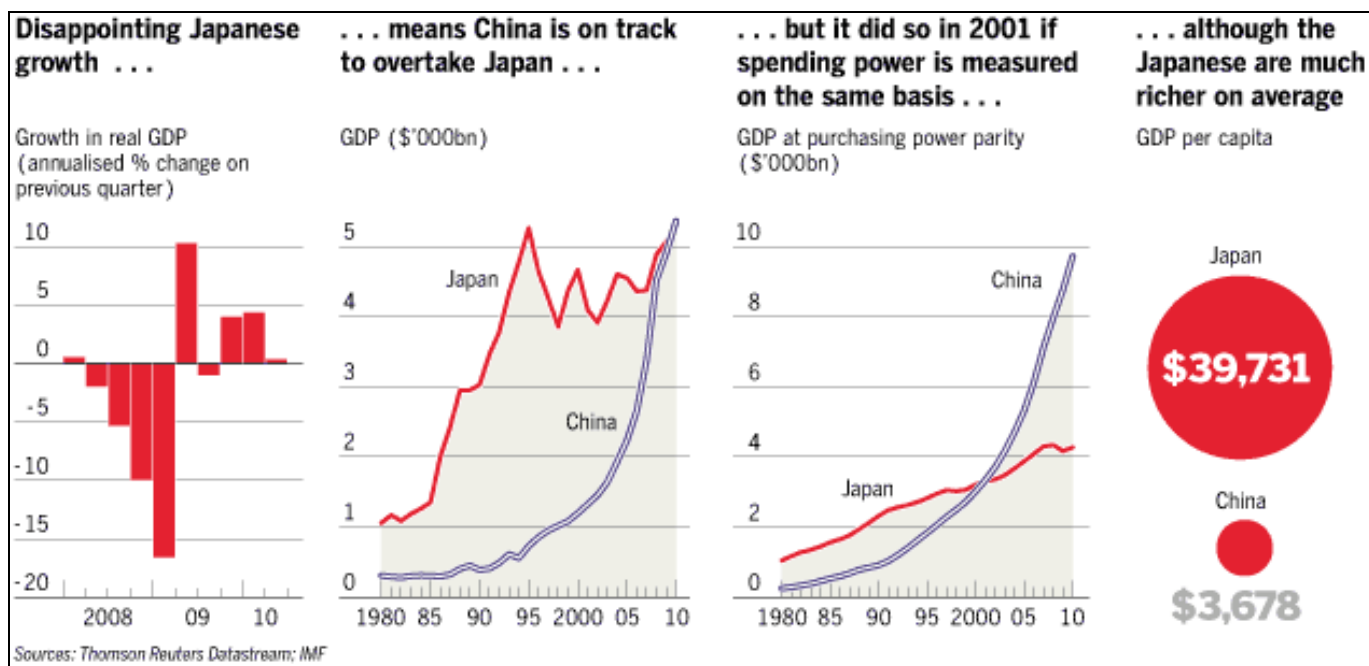


Image (c) Financial Times ⁹

Activity

Study the graphic comparing Japanese and Chinese economic trends. Using this information and your own ideas, examine whether either nation can claim true ‘superpower’ status. (10 marks)

■ US farmers cash in on Chinese demand ¹⁰

American farmers today export large amounts of their grain to China. In 2010, exports were expected to reach a record \$4 billion. The US is the world's largest exporter of soya beans and cotton, and China is the biggest importer of these products.

Long term, the Chinese government wants the country to become agriculturally self-sufficient. However, China does face problems with regard to growing its own farm produce. These include:

- Shrinking arable land area due to urbanisation and environmental changes
- Limited water supplies
- Antiquated farming techniques
- Small inefficient farms (the average Chinese farm plot is less than one acre)

Although China is happy to buy grain, soya and cotton from the USA, it is not always keen to buy other farm products: American beef has been banned in China since 2003 due to the BSE crisis.

While there are still tensions between the two global superpowers, this story indicates the growing **interdependence** of US and Chinese superpower economies.

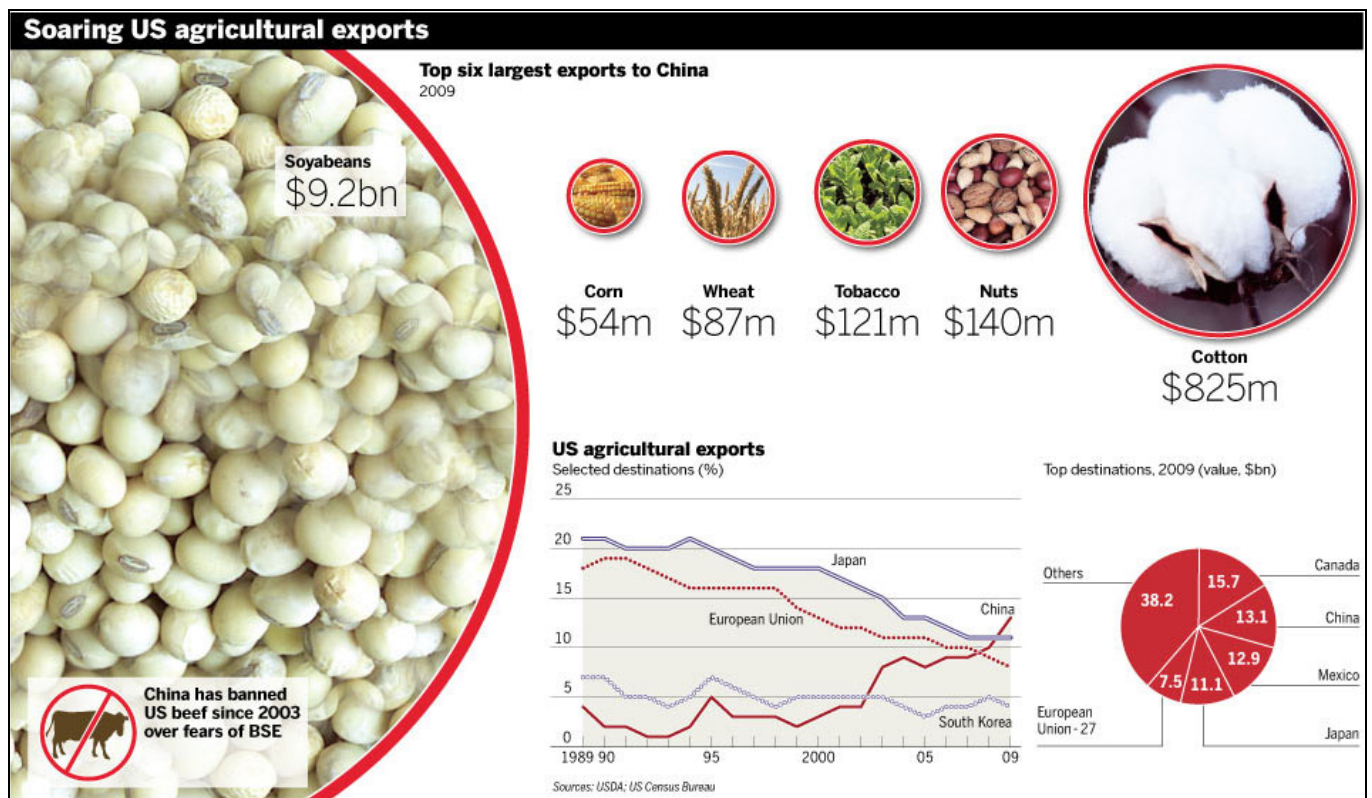


Image (c) Financial Times¹¹

Activity

Study the graphic showing US agricultural export trends. Using this information and your own ideas, suggest why China and the USA are increasingly **interdependent** upon one another. (10 marks)

■ India continues to grow in wealth and power ¹²

India's economic growth was 8.5 per cent in 2010, with 10 per cent growth predicted in the years to come. India's ICT industry alone now has annual revenues of more than \$60 billion. The 30-year rise of India's information technology and outsourcing industry has brought financial success to this emerging economy. The industry has become a symbol of the "New India" – outwardly giving every appearance of self-confidence, ambition and independence.

India's ICT industry successfully weathered the global credit crunch of 2008-09 and has grown from strength to strength. Global ICT spending is currently growing at 10 per cent a year, driven mainly by the financial services industry. This will help India to continue to build its economy.

India also benefits from the following:-

- Major TNCs of its own such as Tata
- A successful record of entrepreneurs such as Lakshmi Mittal
- A large English speaking workforce (a useful global language)
- An extremely successful ICT industry
- A well-regulated banking system

However, a large number of Indians still live in poverty. A significant rise in economic wealth cannot come fast enough in some people's eyes.

Some commentators believe that in the long-term India could out-strip China in terms of economic growth and development. China may now be the world's second biggest economy but it may struggle to sustain current levels of growth, especially on account of its ageing population. China is also an authoritarian state: can the *status quo* be maintained as more wealth is seen to be enjoyed by a minority? In contrast, India is the world's largest democracy.

Topic 5: Bridging the Development Gap.

THE CAUSES OF THE 'DEVELOPMENT GAP'

■ Western money markets contribute to underdevelopment in Africa ¹³

Global economic systems have a role to play in perpetuating African poverty. Financial speculation on the market price of crops by investors can be a cause of rising food prices and income instability for those involved in growing the crops. The World Development Movement has demanded that financial reforms are needed to curb this practice; some measures against 'hedge fund' trading have already been introduced in the USA.

Price rises which took place in 2010 included:

- 46% rise in the price of cocoa
- 45% price rise in Arabica coffee
- 22% price rise in maize and corn

The price rises have many causes but are made worse by the gambling of investors. This affects the livelihood of African farmers who are already suffering from the effects of poor harvests in recent years. Food price rises sometimes contribute to civil unrest, with food riots taking place in Haiti and Mexico in 2008 and in Mozambique during 2010.

■ Resource curse blights West Africa ¹⁴

Power and wealth struggles, linked with the ownership of **natural resources**, has frequently been a cause for conflict in West Africa. The issue gained a great deal of publicity during the 2010 trial of Charles Taylor, the former Liberian president, who was accused of war crimes while involved in the 2002 civil war in Sierra Leone. The troubles in Sierra Leone were linked with a struggle by different groups of people to take possession of the diamond trade.

West Africa is rich in natural resources. The soils contain gold, ores and gems; the valuable crops that grow there include cocoa, coffee and timber. Yet this is an area with a history of great unrest, with blood regularly split - as vying factions try to wrest control of the sources of natural wealth.

It has been suggested that Africa suffers from having a "resource curse". Boy soldiers, young girls made sex slaves and the severed limbs of war victims are symptoms of this curse. The struggle over control of Sierra Leone's "blood diamonds" produced no shortage of such collateral damage.

Violence has also blighted Nigeria's oil fields and those areas of the Sahara which are home to Niger's uranium stocks. The bid to control the area's uranium resulted in a coup in February 2010 against the authoritarian president of Niger.

Sadly, the economic and political conditions that breed this violence show little sign of changing in the western part of the continent. The social structure of West Africa has altered little since independence: there remains an unpredictable ruling elite, barely any form of middle class and a large majority of people who struggle to get by while living in poverty.

This is partly because in many countries minerals or oil make up 80 per cent of government income. Obtaining profit from the natural resources distracts governments from more demanding forms of taxation. It has been suggested that this undermines the relationship between the ruler and the ruled.

Leaders neglect to maintain the country's infrastructures and instead rely on their own cosy relationships with foreign mining and oil companies. This lack of balance allows corruption to flourish. Until the cycle is broken, unrest seems likely to continue.

In contrast, some countries in northern and southern Africa rely less on natural resources and have a more diverse range of exports, as the diagram below shows. It reveals that West Africa is extremely over-dependent on primary exports – and you will be familiar with conflicts in many of the countries shown.

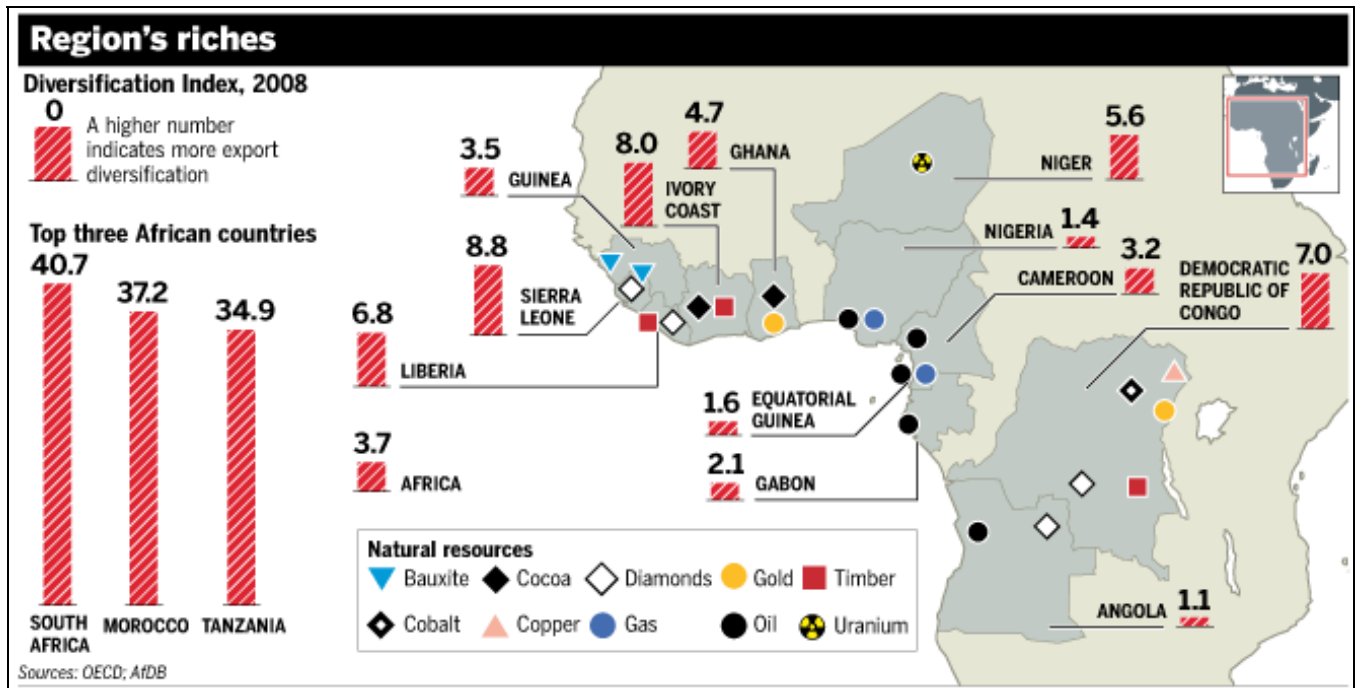


Image (c) Financial Times¹⁵

Activity

Study the graphic showing export diversification in Africa. Using this information and your own ideas, suggest how the availability of natural resources can influence the global development gap. (10 marks)

REDUCING THE 'DEVELOPMENT GAP'

■ Africa's trade isolation has multiple causes that still need tackling

As a result of the failure of a US-led plan, experts recently identified a list of obstacles to development in the poorest parts of the continent. These include:

- African countries suffer from systemic poverty
- African countries have extremely low wages
- Industry production costs are too expensive
- Intermittent power supplies deter investors
- Poor transport systems deter investors
- Government corruption deters investors and builds poverty
- African garment manufacturers struggle to compete with the efficiency of China

The findings come after the failure of a 10-year plan called the African Growth and Opportunity Act (Agoa). It extended access to the US market for producers in 40 African states. Initially it was thought that a lack of access to the US market could be one reason why development in Africa was taking place more slowly than in, say, China. However the experiment suggests that there are many other factors to consider too: problematic African infrastructure seems to be especially at fault.

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