

#### \* THEME 1 \* HUMAN GEOGRAPHY

Case Study Take 10 Sheets

# ake I St Ives

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

St. Ives is around 100km north of London and 8km east of Huntingdon



The majority of the land outside the town centre is rural farmland

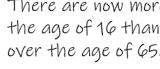


Many people live in St Ives to commute to London, It is much quieter



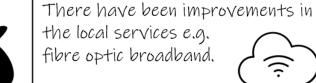
Commuting to London increased during the 1990s, now 25% of St. Ives commute to work in London daily.

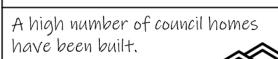
Traffic has increased at peak times and there are often traffic jams on the A14.



There are now more people under the age of 16 than over the age of 65.

House prices have risen from £130,000 in 2000 to £291,000 in 2010.





Many new houses have been built on the flood plains of the River Ouse.

# Stratferd

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Stratford was one of the most deprived communities in the UK.

The 2012 Olympic bid led to the regeneration of Stratford.

Sustainability and legacy were pillars of London's bid.

The Athlete's village has been converted into affordable housing.

It is now a well-connected area of London. With excellent transport links.

New jobs in construction and tourism have created a multiplier effect.

5 new neighbourhoods have been established around the park to include 11,000 residences.

TFL invested £.6.5 billion in transport infrastructure for the 2012 Games.



More than 98% of the demolition waste was recycled.

300,000 plants were planted in the Olympic Park's wetland area.

# Take 10

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

BedZED stands for Beddington Zero Energy Development and it is in Hackbridge, London.

It is a development of 82 homes, built between 2000-2002.

It was the first large-scale carbon neutral development.



Tree waste is burned to provide heating and electricity.

Energy comes from renewable sources such as solar panels.



The households use 45% less electricity and 81% less heating.

The houses face south to take advantage of the sun's energy.

There is a huge emphasis on recycling.

60% of their waste is recycled or composted - twice the UK average.

Residents are encouraged to care share or use eco-friendly transport.

# Take 10 East Anglia

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

East Anglia is at risk of flooding due to sea level rise.

Areas around Kings Lynn would be greatly affected by flooding.

7000 homes worth £1billion altogether will be lost to the sea within the next century.

Valuable agricultural land will be affected and lost to the sea.

22% of East Anglia's salt marsh will be lost by 2050.

The cause of sea level rise is thermal expansion and melting land ice.

The Norfolk Broads brings in £5 million in local tourism. This area will be badly affected.

The Thames Barrier protects £80 billion of Buildings in London.

The Thames Barrier will cost £3 billion to maintain until 2050.

Sea defences will need strengthening and this will be expensive.



# Nerthampten

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Northampton is well-known for its shoe industry with companies such as Church's.

In the last 5 years the high street has suffered with shops such as M&S and BHS closing.



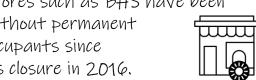
Rents are high in the town centre which is turning away independent businesses.

St Giles Street is well known for independent traders, however it is a high crime area.



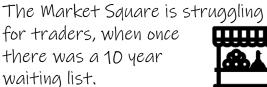
The opening of Rushden Lakes retail park has pulled customers away from Northampton.





There are a high proportion of charity shops, barbers and estate agents.

for traders, when once there was a 10 year waiting list.



Abington Street has a number of boarded-up shops, with doorways occupied by homeless people.

A number of new projects such as Northampton BID have しかか been set up to increase the popularity.



Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Lake District is in the north of England and it is a Honeypot Site.

At least 15.8 million visitors go to the Lake District every year.

89% of visitors come to the Lake District by car - often just for the day.

Congestion, traffic jams and parking are major issues as most towns aren't build for road traffic.

Footpath erosion is also a huge problem due to the vast number of visitors.

Bus schemes such as the Honister Rambler have been created to reduce road traffic.

There is also a Cross Lakes Shuttle which links Windermere and Coniston Water.

15% of homes are second homes and these are empty for the majority of the year.

Unoccupied homes can lead to an increase in crime and local services can be pressured to close.

Initiatives have cut 11,000 tonnes of carbon emissions :... and have eased congestion.

## Rugby World Cup

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The 2015 Rugby World Cup was held in England at a × variety of stadiums.

There were 466,000 international visitors.



£869 million was spent by international visitors.



41,000 jobs were supported directly and indirectly.



Roads and infrastructure were improved around stadiums hosting the event.

There was an increased participation in sports after the event the legacy.



There was an increased safety threat therefore an increase in security costs.

There was a lot of litter dropped and anti-social behaviour increased.



There was a cost to local people as taxes were spent improving the area around stadiums.



6000 people volunteered their time to help host the Rugby World Cup.

## Mumbai

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Mumbai is the largest city in India – it is on the east coast, in the state of Maharashtra.





7.5 million people commute in and out of Mumbai every day - - -- there are 465 km of \$**K**6:-6 railways.

Mumbai is an important global city. 40% of international flights to India land there.

Mumbai is the commercial and cultural heart of India home to Bollywood.

Housing is a problem - many

people live in overcrowded

chawls and slums or

as pavement dwellers.

The economy is booming with an emerging middle class who are employed in IT industries.

Vision Mumbai aims to improve air quality and sanitation, and replace slums with permanent housing.

It is a city of contrasts - home to Asia's largest slum (Dharayi)....

Mumbai is home to the world's most expensive residential property (\$1 billion).



# Dharavi

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Dharavi is a slum located in Mumbai, India. Slums are illegal settlements.

There are a million people crammed into one square mile.



Diphtheria and Typhoid are very common and there can be 4000 cases a day.

Water is rationed. Standpipes come on at 5.30am for 2 hours.



There are toxic wastes in the slum including hugely dangerous heavy metals.

85% of people have a job in the slum and work locally.

There is a real sense of community as chores are completed socially.



There is a lot of rubbish in the slums.

A \$2 billion redevelopment project

- Vision Mumbai aims to change Dharavi and create Apartments



The redevelopment has been criticised for damaging community cohesion.

#### ake Lenden

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

London is a global city, and it is one of the most globalised and well-connected cities on Earth.

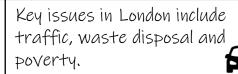
Rural-urban migration has played a key factor in the growth of London.

Following WW2 there was a baby boom - rapidly increasing the population in London.



The house prices are some of the most expensive in the UK.

Many people commute into London, rather than living there.



Huge steps have been taken to improve the sustainability of London e.g. the transport system and water fountains.

Gatwick, Heathrow and London City airport help London to be so well connected with the rest of the World.

There are many areas of deprivation including Tower Hamlets.



London is a city of contrast, with more affluent areas e.g. areas within Kensington and Chelsea.

## Ghana Fair Trade

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Ghana is a low income country (LIC) in West Africa.



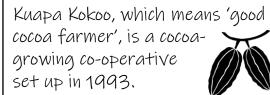
Fair trade is trade between HICS and LICS where producers are paid a fair price.

Cocoa is the second most valuable export for Ghana after gold.

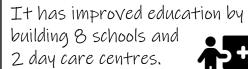


Cocoa production employs 3.2 million farmers in Ghana, and is the 2nd largest Producer 💆 🔇 after Côte d'Ivoire.

Ghana's cocoa beans aren On ranked no.1 in the world for quality.



Most Kuapa Kokoo members lack access to education, clean water, electricity and healthcare.



It has improved health by providing pump wells, pi latrines and mosquito nets and mobile clinics.

Farmers have been given new equipment and access to training programmes. 🏲

# Aid in Africa

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The 54 countries in Africa are mainly LICs so regularly need developmental or emergency aid.



WaterAid is an example of developmental aid - to improve access to safe water and sanitation.



WaterAid operates in 18 countries ٥ كيت in Africa, including Ethiopia, Niger, Mali and Senegal.

Goat Aid operates in many African countries - it gives goats to families to provide food and money.

Goats produce more milk than cows, which is a great source of protein and can be sold for profit.

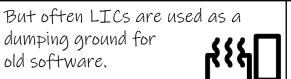


Goat manure can be used for farming, increasing crop yield.

However goats can trample the land, eat lots of crops and may need expensive vet care.



Computer Aid is a project that aims to increase access to education, healthcare and other information.



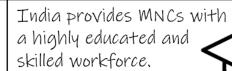
The Ebola outbreak of 2015 needed emergency aid in the form of medical staff and supplies.



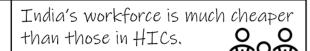
#### Take 10 MNCs in India

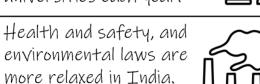
Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

India is ranked 7<sup>th</sup> in the world for big companies (56 out of the top 2000).



India produces thousands of IT and software graduates from its universities each year.







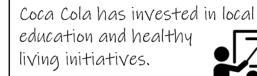
Jaguar Landrover and Tetley Tea are owned by Tata – it employs 50,000 people in the UK.



Coca Cola has invested \$7 billion into India, opening 57 bottling plants.



Coca Cola has been accused of taking too much water for production, leaving little for farming.



#### Take 10

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

#### Rural Cambridgeshire - Sustainability

Cambridgeshire is a county in East Anglia, UK.



The Cambridge Science Park and Addenbrookes hospital have led to a rise in population.

The longest guided busway in the world connects rural Cambridgeshire to the city centre.

The busway cost £181 million and is built on old railways tracks.



The village of Cambourne was built with a sustainable vision. There are many green spaces.

It has one of the biggest Morrisons, but not many independent shops.

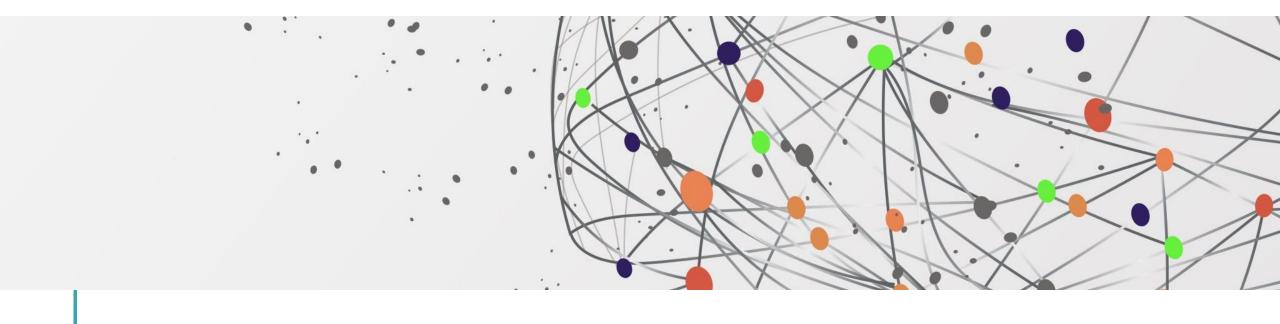


cambourne has its own schools and cycle lanes to decrease the use of cars. However many still own a car.

Only 20% of the houses were built to be energy efficient.

Large companies have set up, such as BMW and Regus - leading to increased traffic.

The majority of the population (71%) commute less than 12 miles to work.



#### THEME 2 – PHYSICAL GEOGRAPHY

## Typhoon Haiyan

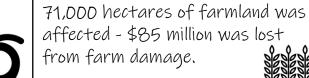
Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Location: The Philippines, Pacific Ocean.

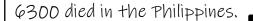
Date: 7 November 2013



Strength: Category 5 Gusts up to 235mph Landfall windspeed 195mph

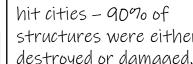


1.9 million were left homeless





Aid was delayed due to the port and airport being destroyed.



There was a 20ft storm surge which led to mass flooding and water pollution.

The overall cost of the damage was \$2.02 billion.

Tacloban was one of the worst

structures were either destroyed or damaged.

Hern of Africa

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Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Horn of Africa consists of Eritrea, Djibouti, Ethiopia and Somalia.

Drought frequently happen in the Horn of Africa.

Between July 2011 and Mid 2012 a drought caused a severe food crisis across the Horn of Africa.

There were 260,000 reported deaths in Somalia alone.

By 15th September 2011 more than 920,000 refugees from Somalia has fled to neighbouring countries.

More than 30% of children were suffering from acute malnutrition.

Humanitarian agencies requested US\$2,48 billion to address the crisis.

Terrorist groups such as Al-Shabab denied there was a famine and banned many Western Aid agencies.

Many people were negative about the response saying that it was too slow.

The UN declared the famine over in February 2012.



# Take 10 UK Weather

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

We have 4 distinct seasons of fairly equal length.

On average it rains 1 in every 3 days in the UK, however the amount of rainfall varies from region to region.

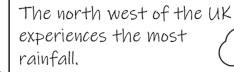
There are 6 air masses that bring different weather to the UK e.g. Polar continental and Tropical Maritime.

Scotland has shorter winter days and longer summer days than the rest of the UK due to its latitude.

Average temperatures in the UK range from 7°C in the Shetlands to 22°C in London in the summer.

Sunshine hours are greatest along the south coast of England – 1.750 hours on average.

The south east of the UK experiences the driest weather.



In the winter the daylight hours are shorter than in summer.

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# Take 10 Bescastle

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Boscastle is located in Cornwall, South West England.

It is located at a confluence – where the River Jordan meets the River Valency.

On the 16<sup>th</sup> August 2004 at 3.30m the river ////, breached its banks.

There was 20cm of rain in 4 hours. A wet summer meant that the ground was already saturated.

There was £50 million of damage including 60 buildings destroyed.

Bridges along the river acted as dams making the water levels rise faster.

50 cars were washed out to sea.

The village sits at the bottom of a steep valley – making infiltration hard, causing lots of surface run-off.



The flood was a 1 in 400 year flood event.

In 2008 a £4.6 million flood defence was created—flood walls, widening bridges and removing dead trees.

# Tuvalu

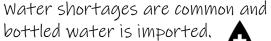
Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

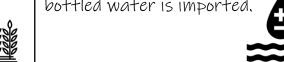
Location: A small atoll of 9 islands in the Pacific Ocean

They are low lying so susceptible to climate change. The average elevation is 2m -



It is a poor island nation. Residents rely on agriculture.





As temperatures rise, fish resources are decreasing.



Salt water is leached into the ground and is poisoning the soil.



Obesity is increasing as more food is imported. Leading to healthcare issues.

Livestock is suffering due to the lack of suitable food and the increase in saltwater.

Salt resistant plants are being introduced as a solution.

Mass migration may have to occur as sea levels rise.

## UK Climate Change

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Sea levels could rise, covering low lying areas e.g. East Anglia.

Scottish ski resorts may have to close to the lack of snow.

Droughts and flood become more likely as extreme weather increases.

There will be an increased demand for water in the hotter summers.

Crops such as oranges, grapes and peaches could be grown in a hotter climate.

London could be at risk as the Thames Barrier is unlikely to cope with sea level rise.

In 1997 the UK signed up to the Kyoto Protocol to limit carbon emissions.

In 2015 the UK signed the Paris Accord to keep global warming below 2°C.

National strategies: Investment in nuclear/renewables, public / transport upgrades, car taxation, etc.

Local strategies: park and ride, bike hire schemes, congestion charges, car sharing, etc.

### Sterm Desmend

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Storm Desmond was an extratropical cyclone that hit on the 5th-6th December 2015.



The storm killed two people in Cumbria and the Republic of Ireland.

Record-breaking amounts of rain fell in Cumbria. 341.4mm in 24 hrs on 4th December.

The strongest gusts were 81mph.

Estimated £500m of damage caused across Cumbria.



More than 1000 people were evacuated across Cumbria.

50,000 people were without power across Cumbria and Lancashire.

There were more than 100 flood warnings and more than ////, 70 flood alerts **\*\*\*** in North England.

The Army was deployed to aid recovery in Cumbria and Lancashire.

and renew scheme was announced for Cumbria and Lancashire.

After the floods a £50m repair

# Bangladesh

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Large floods are becoming more frequent - at least 1 ///// every 5 years. **~~~~ ~~~** 

50 million people live in flood prone areas.

80% of Bangladesh is a flood plain or delta.

3 large rivers flow through Bangladesh -**\\\\** The Ganges, Meghna & Brahmaputra

Flooding in 2007 made 9 million people homeless.

In 2007 approximately 1000 people died either from drowning or waterborne diseases.

Bangladesh is a very poor country and has little money to spend on flood defences.

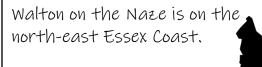
NGOs have tried to introduce cost-effective methods e.g. Cluster villages.

Short term response: Food aid, hospital care, water purification tablets.

Long term response: Building embankments, flood warning systems, raised flood shelters.

# Walton on the Naze mark questions.

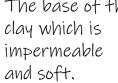
Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8

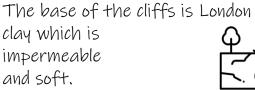


The area north of the tower is unprotected and it is low value farmland.



Rates of erosion are 1-2m north of the tower,





Above the London Clay is Red Craq which is soft and permeable. This slumps.

South of the tower is protected as the majority of tourists visit here and house prices are higher.

There are sea walls, groynes and offshore breakwaters in place.

Rip Rap has been placed at the base of the cliff near the tower.

WW2. Pillboxes on the beach are evidence of the rate of erosion since 1940.

The Craq Walk was built in 2011 and acts as a coastal defence and tourist feature. It Protects from slumping.

### Nerfelk Ceast

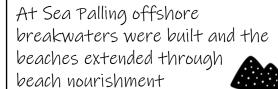
Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Norfolk coastline experiences frequent coastal erosion and multiple SMPs are in place.



At Overstrand there are sea walls and groynes as well as \_\_\_ cliff re-stabilisation to prevent further slumping.

The sea defences at Overstrand were experimental.



The offshore breakwaters at Sea Palling caused tombolos to form preventing LSD.



Sea Palling is protected as 6000 HA of farmland and broads could be flooded.

At Freiston Shore a saltmarsh has been created on old farmland and it now a RSPB nature reserve.

At Happisburgh the 'hold the line' approach has been taken and many properties have fallen into the sea.

At Happisburgh the coastline is eroding at an average of 2m per year due to rock type and powerful waves.

In 2015 9000 tonnes of rock armour were placed along the base of the cliff at Happisburgh.

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

#### Somerset Levels Flooding

The Somerset Levels are a coastal plain and wetland area of Somerset.



The area is very flat. The 2 rivers which flooded in 2014 were the Parrett and Tone.



In January 2014 the flooding was greater than any other in living memory.



Human causes: Type of farming, Infrequent river dredging & urbanisation.

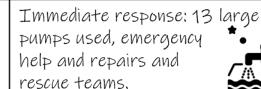


Physical causes: Persistent rainfall, saturated ground, high tides, low-lying land, impermeable soil.



50% of businesses in Somerset were affected.

Over 80 roads were submerged and the rail line between Taunton and Bridgewater was closed.





Medium term plans: Dredging, embankments, raise the roads, better planning and preparation.



Long term plans: Build a flood barrier, invest in a £16 million flood storage system

#### Storm Bella - Take 10

It was a low-pressure system which brought strong winds and heavy rainfall to the UK from Christmas

Eve to the 27th December 2020. Isle of Wight. Gusts there reached 106mph.

also flooded.

The highest winds were recorded at the Needles on the 

A yellow warning for snow and ice was issued by the Met Office.



1000 people were evacuated from Billing Aquadrome, Northampton. St James was

The railway between Bournemouth and Southampton was flooded. This led to severe delays.

A £363,000 Rolls-Royce was destroyed in Hove when a tree fell on it.



The Rockwater Hove Igloos were damaged by the strong winds and flying debris. They

cost £ 160,000 to build.



The River Ouse water levels rose by nearly 4m.



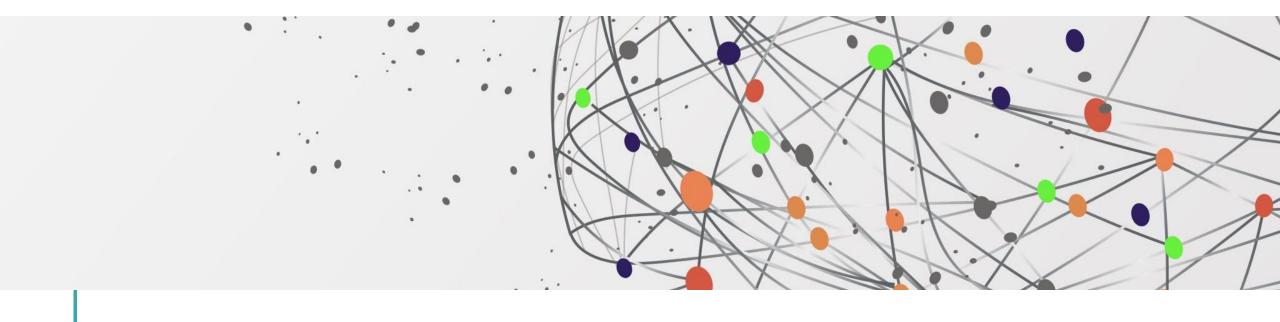
North Yorkshire firefighters had

to rescue people 2 people and 2 dogs from their car.



Pumps were deployed to Welches Dam and Soham Lodge to reduce water levels.





#### THEME 3 – ENVIRONMENT

# Amazon Rainforest mark questions.

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8

It covers around 40% of South America.

It is home to around 20% of species on Earth.

Mining and deforestation have dramatically changed the landscape.

90% of tribes have been wiped out in last 100 years.

Mining, Farming, Ranching, Industry, Logging and overpopulation cause deforestation.

Deforestation reduces biodiversity, changes hydrology and leads to soil erosion.

Sustainable management: Selective logging, ecotourism, protected areas, afforestation, monitoring.

Example food chain: Banana Tree ->Grasshopper ->Frog ->Jaguar

Soil type: Latosols - poor quality, shallow, acidic. Infertile but a lot of leaf litter on top.

Climate: 25-30°C temperature and rain almost every day.

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### The Serengeti

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

It is located in Eastern Africa - in Tanzania and Kenya.

The Maasai are a tribe that live on the Kenyan Serengeti. They are nomadic farmers.

The Serengeti is a national park which means it is protected.

Poaching is the illegal killing of animal e.g. around 150,000 wildebeest are killed a year.

Tourism has both +/- impacts. E.g. it increases income,

Commercial farming has led to mono-cropping and areas of infertile soil.

Deforestation is a issue as it can lead to desertification as wind erosion occurs.

but has environmental

impacts e.g. pollution.

Management: Education, mulching controlled burning, crop rotation, ... bunds, drip irrigation, intercropping, afforestation.

Soil type: Laterite - not very fertile and red in colour due to iron content.

Climate: Wet and dry season. Hot all year round. Little rain in dry season.

#### Take 10 The Sahel

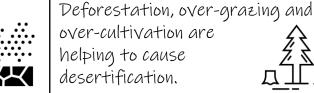
Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Sahel is south of the Sahara Desert and stretches from Senegal to Djibouti.

It is vulnerable to desertification.



The Sahel frequently suffers from drought.



Subsistence farmers struggle to grow crops and therefore are often forced to migrate.

Over-grazing strips the land of vegetation and over-cultivation takes all the nutrients.

Desertification is made worse by climate change and population pressure.

The Great Green Wall has been planted to reverse the effects of desertification.

The canopy of the trees provide shade and the roots hold the soil together.

Terracing slopes, bunds and rainwater harvesting are also used to halt desertification.



Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

10km North of Aberystwyth on the west coast of Wales.



Conservation begun in 1969. Wooden posts were sunk into the beach and a boardwalk was built.



In the 1980s areas were fenced off. Marram Grass was planted. Signs were put up.

In the 1990s the fences were removed. Bins were installed.



In the 2000s the bins were removed, areas were re-fenced and a rabbit-proof fence was installed.

In 2005 the visitor centre was enlarged and the boardwalk was improved.

In 2016 the biggest problem is dog poo. Dogs are banned in the summer months.

Stakeholders: Tourists, residents, RSPB, council, golf course owners.

Difficulties: Popularity, litter, conservation, land demand, trampling.

Benefits: Recreation, education, income, protection from flooding, increased biodiversity.

#### Take 10 Great Green Wall

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Great Green Wall stretches from Senegal to Djibouti.
It crosses 11 countries.

The wall was agreed in 2010.



It is hoped that it will stop soil erosion in the Sahel and enable farmers to earn a better income.

Native acacia trees and fruit and nut trees have been planted.

It is also hoped that agroforestry will develop.

In Niger the GGW has been a success but they started 25 years before 2010.

11 million trees have been planted across 27,000 acres.

Senegal wants to develop ecotourism to stimulate economic growth.

Some communities don't feel that they have been consulted across 9 of the countries.

In some locations low populations mean that the trees cannot be cared for.

# Take 10 Aral Sea

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Aral Sea is located across the borders of Uzbekistan and Kazakhstan.

Over-abstraction of water from the Aral has led to it almost drying out.

Cotton farms used large amounts of water for irrigation and a lot of water was diverted from rivers.

Fertilisers and pesticides poisoned the water.

Air pollution has increased due to evaporation leaving fertiliser behind.

The salt content of the remaining water poisoned and killed the fish.

In 2005 the Kokarai Dam was built, splitting the Aral Sea in 2. The northern part is now filling up.

The dam has reduced evaporation and increased water levels by up to 3m in places.

Mass migration away from the Aral Sea occurred.

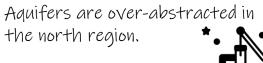
There was widespread poverty when industries moved away.

### China Water Transfer them to your 6 a

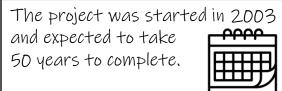
Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8



Southern China has a water surplus as it is a humid region where rainfall is more reliable.



The water transfer project is a set of 3 canals designed to move water from the south to the north.



The canals are 1300km long and link the 4 main rivers: Yangtze, Yellow, Huai and Han.



The project will improve irrigation and pollution treatment.



A mass relocation of 1.27 million people will be required.

The Han River will become polluted from the Yangtze River.

## Kielder Water

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Kielder water is located in the Pennines. It receives a lot of rainfall.

Water from Kielder reservoir is piped and run through rivers to cities in the east. e.g. Newcastle.

It is an example of a watertransfer scheme.

The main areas served by the reservoir are Tyneside, Wearside and Teeside.

Kielder supplements the River Derwent.

A HEP station can generate GMW of power from Kielder water.

The scheme includes 8 SSSIs covering 7,800 hectares.

The lake is 11km long and stores nearly 200,000 million litres of water

58 families were displaced from their homes by the dam.

£6 million is raised through tourism to Kielder every year.

# Lesethe

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

A small mountainous country entirely surrounded by South Africa.

The Lesotho Highlands Water Project transfers water to South Africa.

South Africa has a large Population but low rainfall -0so suffers frequent drought.

Lesotho has a low population but lots of rain - so lots of water to sell (around 75% of income).

The LHWP is the largest water transfer scheme in Africa -6 major dams and 200km of tunnels.

40% of water is transferred from the Sengu River 

Lesotho receives around \$1.5 million a month from South Africa for its water.

The dams use hydroelectric power to generate electricity for Lesotho.

The project has created # thousands of jobs and provides water for farming.

The building of dams displaced thousands of people, and farmers lost land.



# Ceca Cela

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

Coca Cola has the largest soft drink bottling facilities in India.

This is an example of overabstraction of water.

There have been numerous public protests about Coca Cola.

In Kerala 510,000 litres of water a day were taken from water sources by Coca Cola.

The water tables decreased from 12m to 35m below ground level.

Harvests dropped by 40% because the fields could not be irrigated properly.

Villagers complained that the water left was undrinkable and it burned their eyes.

Poisonous cadmium-laden waste sludge was given as free fertiliser to farmers.

Coca Cola say they have replenished approx 93% of the groundwater.



Coca Cola has invested in more than 500 water harvesting schemes in 22 states.

## Take 10 The Colorado River

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Colorado River is in west of the USA. It travels through 7 states.	It is the most heavily used source of irrigation water in the USA.
The river is so heavily abstracted that it no longer reaches the sea.	Thirsty crops such as rice and cotton are grown in this area.
A series of dams such as the Hoover Dam have been built to support the needs of 30 million people.	In 2012 the USA and Mexico signed a new water sharing deal.
Strict water conservation methods have been put into place.	Fishermen in Mexico have had to move elsewhere as the mouth of the river has dried up.
The water volume of Lake Mead has dropped by 60%.	There is ongoing conflict between Mexico and the USA.

## Take 10 The Aswan Dam

Case study knowledge is important. Learn these 10 facts and apply them to your 6 and 8 mark questions.

The Aswan Dam is 600km south of Cairo, Egypt. It is built across the River Nile.

It is 3600m long and 111m high.



Construction started in 1960 and was completed in 1971.

The dam was built to stop serious flooding in the Nile Valley and to provide water all year round.

The dam generates over 100 billion kw of electricity over year from HEP.

The reservoir behind the dam is called Lake Nasser.

90,000 people were displaced to create Lake Nasser. Valuable archaeological sites were also flooded.

Mediterranean fishing has declined due to the dam trapping nutrients.

Erosion has been caused downriver as sediment is
no longer being
deposited.

The HEP provided the first electricity connections to Egypt's villages.

