

Geography – Case Studies (condensed)

San Francisco Earthquake, 1989

- California is on a conservative plate margin
- Pacific plate west, north American plate east
- Earthquake - 7.1
- Struck at 5.04 pm, October 17th
- 63 deaths
- 1 million homes without electricity
- Damage estimated at \$7 billion
- Interstate 880 collapsed, trapping motorists
- SF and Oakland airport closed - damaged
- Marina district in Bay area extensively damaged, collapsed buildings, fires from ruptured gas mains

Mount St. Helen's Eruption, 1980

- Washington State, NW USA
- Part of Western Cordillera,
- Destructive plate margin
- Erupted early Sunday morning, May 1980
- Rumbled for 2 months - 5 mile exclusion zone
- Earth tremors triggered landslide
- Pyroclastic flow (rock, gas, steam)
- Ash cloud 12 miles high
- 57 deaths (low because Sunday morning)
- Rivers + lakes filled with mud
- 400m lost from top of volcano
- Logging camps, roads, bridges and houses destroyed

Holderness Coast, the

- NE England
- Retreats 1 or 2 metres per year
- Strong prevailing winds (to west) → strong longshore drift
- Soft clay cliffs → easy to erode
- Mablethorpe, south of Hornsea on cliff top is in danger
- 1991 – rock armour placed at cliff base, and rock groynes on beach
- Longshore drift moving south from Mablethorpe was stopped → more erosion south of Mablethorpe

China

- Had encouraged large families to increase workforce, but couldn't be sustained.
- 1975- families restricted to one child- at current rate
- Families with more than one child would lose benefits and be fined
- Forced abortions and sterilisations
- Incentives e.g. child care for one child families
- Birth rate 44 in 1950, 17 in 2000.
- In rural areas large families tradition - children provide labour/ look after elderly
- Compromise- if first child a girl, could have 2 kids

- China will not have enough workers in the future
- Girl babies undervalued, so killed so they can have a boy

Mexico → USA

- Land degradation leads to many abandoning their rural lifestyles and farms
- 40% of people are unemployed in Mexico
- GNI/capita \$8070 Mexico, \$31910 USA
- The closeness of the countries → migration = very easy
- Number of immigrants tightened therefore many (about 3 million) work illegally
- Some entered on visas, but remained when they expired
- Health conditions bad at the border; TB

Barriers

- Big fences
- Border guards
- Live in unsanitary camp before migration
- Have to pay to migrate
- In the hands of someone else

Merthyr Farm (MEDC)

- Snowdonia National Park
- 160 ha
- 1250- 1500mm rainfall
- Steep hills
- Hill sheep/suckler cow farm
- 3 full time family members
- 2 Tractors, big baler
- Inputs: 20 tonnes NPK fertiliser on grazing land, 6 tonnes NPK on silage
- Subsidies provide half of income
- Quota for 661 ewes and 32 suckler cows
- Outputs of 750 lambs, bullocks, cull ewes, barren cows, 1200 -1300kg of wood, 650 big silage bales, 15 mountain rams (£250 each)
- Alternative income from contract sheep shearing, camping facilities, opens to public/schools

Alcan Aluminium Smelter

- Near Blyth, near Newcastle
- Uses lots of electricity* → Has own power station 0.5km away
* Electricity used to make 1 tonne of aluminium = electricity a family uses in 20 years
- Coal mine adjacent to power station for fuel
- Bauxite is main material, very heavy/bulky, so producers make lighter/more useful alumina before shipping to smelters → save money
- Weight loss industry
- Alumina comes into port in Blyth, then brought by rail to Alcan
- Aluminium sent by road, and ports
- Provides for industrial and consumer markets
- Given a £28 million grant for redeployment
- Smelter, power station and Ellington Colliery has provided jobs for unemployed ex-coal miners
- Sited on a large area of flat land – easy building

Argos Distribution Centre, Stafford

- M6 and many other main roads such as the A513, A460 and are within about 1 mile of the site.
- 90% of the products transported by road, good transport links
- Large local workforce situated around 3 miles away from the site (Stafford/Penkridge).
- Reasonable amount of space for the centre to be built on and to expand.
- Its market has to be national, made easier because of the good transport links.
- Uses National Grid – cheap
- Materials are manufactured goods

Tourism in Menorca (MEDC)

- Main towns: Maó and Ciutadella
- Situated in Balearic Islands, in Mediterranean Sea
- Low annual precipitation; 450mm in autumn & spring
- Hot/dry summers
- Avg. summer temp.: 30°C
- Many family-friendly resorts and beaches
- Beautiful parks e.g. Es Freginal Park
- Placa Alfons III with good restaurants and cafés
- Cycling tracks & good views
- Families in summer
- Nature-lovers in spring
- Employment
- Monetary stability
- The area is developed and regenerated for tourism, and also helps local people
- There is no year-long employment, as there are very few tourists between November and April; paro (money) is given to tourism workers who have no job during winter

Tourism in Kenya (LEDC)

- Main towns/cities: Nairobi, Mombasa
- Situated in Eastern Africa
- Low plains in coastal area, which rise to central highlands, Great Rift Valley. Fertile plateau in the west.
- Mount Kenya 5199m
- Hot and humid at the coast (max. 30°C)
- Temperate inland (max 25°C)
- Sunshine all year round
- Rainy season: April-June
- Beach resorts with fine sand and coral reefs to explore
- Many national parks and game reserves
- A different culture
- Hiking and climbing on Mount Kenya

- Actors and film-makers visit during the dry season to film wildlife for movies
- Families visit, at any time of the year, to go on safaris and enjoy the beaches. Families are most likely during the long school holidays.
- Nairobi/Mombasa airports improved
- Many Kenyans have year long jobs in tourism
- Money invested into country
- High numbers of tourists in reserves puts animals under pressure, so numbers decrease. Leads to fewer tourists, and lower revenue
- Cultures threatened by tourism
- Capital leakage

Wirksworth

- In the largest area of limestone quarrying in UK in Derbyshire
- Southern part of park
- A6 within 5km
- Limestone quarried since Roman times for building stone , cement
- Very pure limestone
- Used in agriculture, lime kilns and for lead smelting
- Earth mounds used to reduce noise of explosions and machinery
- Water sprays used to prevent the spread of dust
- Forms large, white scars on the landscape
- Trains are used to transport the limestone, but a lot is transported by Lorries → congestion (with tourists), noise
- They contribute to air and noise pollution
- Prohibition orders used by local authorities control developments of the quarries

Braer

- Jan. 1993
- Shetland Islands
- Engine failure → Tanker ran aground at Sunburgh Head
- Storm force 10 winds
- Taking oil from Norway to N. America
- Taking accepted but potentially dangerous short cut between southern tip of Shetlands and Fair Isle, 35 km south
- 1000s of gallons of oil released into sea
- Toxic fumes blown inland by wind + deposited oil particles on crops/pasture
- Winds too strong to allow planes to spray dispersants
- Toxic fumes inhaled = nausea + headaches
- Salmon farms damaged → fish unfit for consumption
- Clean up costs high
- Airport at Sunburgh closed
- Crude oil covered beaches/cliffs
- Thousands of sea birds e.g. fulmar/puffin killed
- Subsequent use of chemical dispersants seemed to have more impact than the oil itself

Peak District National Park

- 1st national park in Britain - 1438km²
- 22 million visitors each year
- People go to walk, for scenery, to go to countryside.

- Bakewell for its market, Dovedale for limestone dale,
- Surrounded by many large cities e.g. Sheffield?

Benefits of tourism

- Employment: Up to 950 workers. Many work in shops/services related to tourism.
- Income: Fields opened for camping, lots of B&Bs.
Tourism keeps local shops going - 'honeypot' villages provide lots of jobs, £75 million made each year
- Preservation and conservation: Caudwell's Mill restored as a visitor attraction
Magpie mine preserved (industrial site)
Redundant farm buildings now accommodation
300 local and traditional events

Problems of tourism

- Congestion of villages and beauty spots ; Honeypot areas overcrowded – full car parks, blocked roads
- Erosion of paths and sensitive vegetation
3005 km of public right of way
Heavy use → major erosion, esp. on moorlands where made worse by loose peat, high rainfall and wind
Heavy wear caused by off road vehicles and mountain bikes
- Danger and disturbance to wildlife
Sandpipers nest on ground → sensitive to people passing
- Litter - unsightly, causes pollution, damages livestock/wild animals.
Broken glass dangerous to people. Cause of fire
- Damage to farmland - trampling crops + grass reduces animals' winter feed. Left open gates mean livestock escape. Sheep killed by uncontrolled dogs
- Tourist villages - gift shops + cafes for tourists make more money than shops for locals e.g. baker's, butcher's. Locals feel they are being pushed out by tourists/ they have more facilities