

<p>Hazardous earth; Tropical cyclones:</p> <p>Developed country: USA Name: Hurricane Katrina Date: 2005 Magnitude: category 3 at landfall</p>	<p>Developing country: Myanmar Name: Cyclone Nargis Date: 2008 Magnitude: category 4 at landfall</p>
<p>Forecasting:</p> <p>NHC used satellite imaging & planes to track the path of cyclones; good monitoring system</p>	<p>Forecasting:</p> <p>No radar network to predict storm surge or wave height</p>
<p>Warning:</p> <p>NHC issued a warning 72hrs prior, Mississippi & Louisiana declared states of emergency, 80% of New Orleans residents evacuated</p>	<p>Warning:</p> <p>Indian weather agencies warned 48hrs before it hit, rural communities didnt have access to TV & radio broadcasts, no evacuation plans</p>
<p>Defences:</p> <p>Levees failed in New Orleans = 80% of the city was underwater</p>	<p>Defences:</p> <p>Mangrove forests have been logged so no natural protection</p>
<p>Environmental impacts:</p> <p>Coastal conservation parks e.g. Breton wildlife refuge were destroyed, oil spills in Louisiana</p>	<p>Environmental impacts:</p> <p>38k hectares of mangrove forest destroyed, Irrawaddy delta saw 14k km² of land flooded = salination & erosion</p>
<p>Social impacts:</p> <p>1800k deaths, 300k homes destroyed, 3 mil without electricity, 230k job losses</p>	<p>Social impacts:</p> <p>140k deaths, 450k homes destroyed, 65% of rice paddies flooded = no livelihoods, disease outbreaks</p>

<p>Hazardous earth; Earthquakes:</p> <p>Developed country: Japan Magnitude: 9 Date: 2011 Name: Tohoku earthquake</p>	
<p>Prediction:</p> <p>JMA monitor seismic activity, immediate warning systems</p>	<p>Developing country: Pakistan Magnitude: 7 Date: 2005 Name: Kashmir earthquake</p> <p>Prediction:</p> <p>No monitoring systems</p>
<p>Preparation:</p> <p>Strict building laws e.g. steel reinforcement & shock absorbers, bullet trains & machinery automatically stop</p>	<p>Preparation:</p> <p>Wood & cements buildings easily destroyed, poor communication networks, no building law regulation</p>
<p>Long term planning:</p> <p>National drills e.g on National disaster prevention day, school drills, coastal communities practise getting to higher land</p>	<p>Long term planning:</p> <p>Poor remote settlements receive no education & poor transport network so no evacuation plans</p>
<p>Primary impacts:</p> <p>Severe liquefaction = 120k buildings collapsed</p>	<p>Primary impacts:</p> <p>80k deaths, 3 mil homeless, water & gas pipelines cut off</p>
<p>Secondary impacts:</p> <p>320k homeless, power shortages as Fukushima nuclear plant was cut off, TSUNAMI killed 16k, \$325 billion damage costs</p>	<p>Secondary impacts:</p> <p>Diarrhoea spread, landslides blocked roads & winter conditions made rescue efforts harder, \$5.2 billion damage costs</p>
<p>Short-term relief:</p> <p>International aid, search & rescue teams, infrastructure repaired in just weeks</p>	<p>Short-term relief:</p> <p>Pakistani army was slow to be mobilised, help from India was refused (political tensions), supplies took 1 month to reach remote settlements</p>
<p>Long-term planning effectiveness:</p> <p>Warnings let people flee to high ground, no buildings collapsed in Tokyo as strict building laws, no deaths on bullet train network as no derailment</p>	<p>Long-term planning effectiveness:</p> <p>Fault lines along the Himalayas were poorly monitored, no building laws so cement & wood properties were destroyed</p>

UKs evolving human landscape:

LONDON:

Location:

Global city in southern England on a flat floodplain where the Thames meets the sea

Over 20% of the UKs income comes from the capital

<1981, it was a major port now it's a transport hub with (namely) Gatwick & Heathrow airport & the Eurostar into mainland Europe

Home to the most foreign banks in the world

City's structure:

CBD: City of London; high land prices so high building density with commercial office blocks & historical sites

Inner city: Newham = low-class residential with high density terraced housing built in the 1960s
Chelsea = high-class residential, 80% of houses built <1919, large terraced houses with green space

Suburbs: Kingston on Thames = middle-class residential, semi detached 20th cent housing, restaurants & green space

Rural-urban fringe: Crockenhill = high-class residential, large detached housing with countryside

Migration:

Population = 8.5 mil & growing due to:

International + national migration & internal population growth (more young people = natural increase)

Low-paid migrants move to central London to work in the service sector (catering & cleaning) & highly skilled people migrate for higher paying jobs e.g. banking

Migrants settle & move to the suburbs: 50% of the outer London boroughs of Harrow & Hounslow are foreign born

Migration influences:

Age structure: the economically active young reside in inner London, with little 65+ population

Ethnicity: ethnic diversity is higher in the inner city e.g. 52% in Newham are foreign born

Population: high immigration rates of the young (of child bearing age) = high birth rate

Housing: low paid immigrants live in council tower blocks in the inner city

Services: big demand for services in inner London e.g. health & education but areas are rife with poverty so don't receive enough investment

Culture: very ethnically diverse, immigrants form ethnic enclaves e.g. in Chinatown

Inequality:

IMD = index of multiple deprivation (accounts for: education, crime, housing, employment, services ect)

IMD is highest in the inner city & in east London

The poor are limited by where they can live: they can only afford poor quality housing in the inner city & have to live close to work if they can't afford public transport

= cycle of poverty

Deprivation feeds the gap between the rich & poor:

Services: Rapid population growth, high turnover of people & no funding (less income tax) puts pressure on underfunded health & education services

Education: the best state schools e.g. Holland Park are oversubscribed so the poor perform worse academically, trapping them in the cycle of poverty (poor education = poor job)

Employment: manufacturing jobs on the outskirts = hard to find jobs, 25% of London live in poverty, Avg income in Kensington: £130k but in Newham: £35k

Health: drinking, smoking & poor diets = common in deprived areas -> the NHS is overwhelmed = lower life expectancy

CBD decline:

De-industrialisation & depopulation have led to decline in central LDN

Decline of docks & manufacturing industries in the East end = mass unemployment so people moved into the suburbs & satellite towns e.g. Milton Keynes so buildings were left derelict & services shut in the 1970s

De-centralisation = further decline as shops couldn't afford rent in central LDN so relocated to Lewisham & high-tech industries located on the outskirts e.g. North London business park (cheaper rent & good transport links)

E-commerce put pressure on high-street shops so they closed & moved their distribution centres to the outskirts of LDN

Central London's growth:

TNCs: City of London = global centre for banking, finance, law & insurance + TNCs locate their marketing departments in central LDN. Shell, HSBC & Virgin Atlantic have their headquarters in LDN, inducing more investment, so LDN is cemented as a global city

Gentrification: Islington has been gentrified (wealthy regenerate run down housing)

Studentification: Camden is overrun with students for the nightlife

The rural-urban fringe's growth:

Urban sprawl: large shopping centres are built on the edge of cities (cheaper rent, less congestion & more parking space), industrial sites also relocated = attracting people for the job opportunity

Leisure & culture:

2012 Olympic Games saw investment into London's east end: the athletes village was developed into housing estates & new transport links were built, helping reduce poverty as sporting events bring jobs

Regeneration of London dock lands:

1980s: was rebranded into a centre for finance & business with new office space in Canary Wharf

Pros:

Transport improved e.g. the Jubilee line expanded

More green space e.g. Thames Barrier park

Businesses e.g. Barclays in Canary Wharf were attracted back

Population increase as more jobs & more spending = local economy booms

Cons:

36% of locals were forced out of their council estates so communities were destroyed

Pubs + community centres closed & were replaced with services

Sustainability strategies:

Employment: the London living wage = employers pay fairly, relative to the living cost of LDN and skills programmes = people progress to higher paying jobs

Recycling: waste recycling schemes = fewer resources are used but only 33% of rubbish in LDN is recycled

Green spaces: 40% of LDN is green e.g. Hyde park & Hampstead Heath

Transport: congestion charges discourage drivers entering London during peak times, Boris bikes & 0 emission taxis reduce emissions

Housing: BedEZD developed a large scale sustainable community in south LDN (thick insulation, efficient appliances ect) with subsidised rent

Rural & urban LDN are interdependent:

Labour: lots of commuters from Kent to work in LDN

Goods: farmers sell goods to supermarkets & wholesalers who transport it into the city, rural people travel to the LDN high street e.g. to Harrods for luxury goods

Services: LDN has excellent private schools & specialist services so people in rural areas utilise them, leisure activities e.g. tennis & horse-riding attract Londoners to rural areas

Pros:

Local businesses see a rise in sales in rural areas as newer residents have higher incomes

Farmers sell land to businesses

Renovation of rural homes = less housing pressure in central LDN

Cons:

Commuter settlements e.g. Ivy Hatch mean services close

New housing estates effect wildlife

Commuters drive to Sevenoaks to catch trains into LDN, increasing congestion

Changes to rural areas:

Sevenoaks = rural area to the south east LDN, counter-urbanisation puts pressure on housing, raising property prices (by 250% since 1995), retired people migrate so lower economically active presence, LDNs population demands more leisure services e.g riding classes & golf, putting pressure on rural areas

Challenges to LDN's rural areas:

Employment: deprivation is concentrated in small pockets e.g. Swanley, more tech = less labour force needed in agriculture e.g. Kent saw a 30% drop in manufacturing

Housing: Sevenoaks district has high property prices so younger people can't afford to move & work there

Healthcare & education: Ageing populations need better healthcare (putting a strain on GP practises) & schools are closing due to a decline in pupil numbers e.g. no secondary school in Edenbridge = old people who don't drive struggle to access services & young people have to travel far for schooling

Rural diversification:

Farmers struggle making livelihoods (prices of their crops are forced down by cheap imports) so farmers are starting businesses:

Farm shops: selling produce (land is still farmed & less monoculture farming)

Accommodation: caravan & camping parks (more environmental pressure e.g. water & energy demand)

Leisure activities: rides & cafes (more air pollution due to traffic & land is built on to create car parks & visitor facilities)

Tourism: Leeds castle is a historic sight with a golf course but this increases congestion and thus air pollution

Urban change case study: Lagos, Nigeria

Lagos:

A megacity in Nigeria (emerging country), Africa with a population of 21 mil
Located on the outlet of the Lagos lagoon on the Atlantic western coast of Nigeria
(ideal for its port)
It's well connected to the capital (Abuja) by road & international ports & airport
support global trade
Functions as the main financial centre for West Africa, contains 80% of Nigerian
industry
Nollywood (film industry) features Afrobeat & hip hop (which is of cultural
importance)

Functions of Lagos:

Lagos island (oldest part of the city) is the CBD
By 1960, the city had spread along roads & rail links (Ikeja industrial estate is near
the airport)
By 1990, rapid urbanisation formed a conurbation, sprawling into the countryside
Slums developed on the outskirts but since the urban sprawl, slums are in the main
urban area of Lagos

CBD: Lagos island; high rise office buildings, expensive land, banks & capitol

Inner city: Mushin; high density, old houses

Suburbs: Victoria island; high class residential & commercial

Rural-urban fringe: Ojo has low density housing & Lekki is a new industrial zone
with a port

Rapid population growth:

Historic: was colonised by the British & acted as a centre for trade, ex-slaves came
to Lagos from Brazil & the West Indies

1960-90s: oil exports generated wealth (after Lagos claimed independence),
governments financed construction projects (ports & oil refineries) so job creation
lead to rapid urbanisation (induced migration from rural Nigeria to Lagos), high birth
rates & low death rates = natural increase

Recent: rural-urban migration (to leave the outskirts undergoing conflict with Chad),
national migrants from northern Nigeria (to escape religious conflict & poverty),
international migration (UK, China & USA) as TNCs operate in Lagos, high rate of
natural increase

Changes in land use:

Conurbation (due to the urban sprawl) means land is built on so people move to the rural-urban fringe (inner city houses prices are too high)

CBD land is valuable & in high demand, artificial islands e.g. Banana island are built on reclaimed lagoon land & house gated communities

Slums & wooden huts are built on wasteland

Slums have been upgraded, huts are removed & apartment blocks are built in their place

Makoko slum has been cleared (so the waterfront can be developed)

Middle class housing has been redeveloped into high class luxury housing

Employment in Lagos:

Higher incomes in informal economy with a high service demand (high population)

TNCs locate near ports & there are many banks & construction jobs

Better services e.g. healthcare & education (6 universities)

Better electricity & water networks

Challenges to Lagos:

Squatter settlements:

60% of population lives in slums (illegally built wooden huts, mass evictions when slums are demolished to clean cities)

Electricity comes from illegal connections & is often cut off

High crime levels & gangs patrol slums ('area boys')

Traffic congestion:

Very little infrastructure investment so limited public transport

CBD is on an island so only 3 bridges link it to the city

Limited service provision:

Lack of schools or health care facilities

Poor employment conditions:

60% of people work in the informal sector

Street sellers' stalls are destroyed for road widening & developments

People live on less than \$1.25/day

Waste disposal:

No widespread sewage, communal toilets are shared by 15 families, raw sewage is released into lagoons, leading to cholera

9000 tonnes of waste/day is produced

Only 40% of rubbish is officially collected so large dumps in Olusosun contain toxic waste (factory emissions aren't controlled either) = water & air pollution

Water supply:

Only 40% of the city is connected to the state water supply, old pipes rust & so sewage contaminates water supplies

Hugely inflated prices charged by informal water sellers

Wealth disparities:

Rich: high-class housing in gated communities e.g. Banana island, live closer to work, run their own electricity generators (limited capacity so frequency power cuts)

Poor: live in slums near pollution factories, reliance on petrol generators, no waste disposal

Leading to...

Different development priorities e.g. wealthy want more high class office investment (to relieve pressure on the CBD) but the poor need better housing & services

Corruption e.g. traffic regulation laws are ignored & the rich pay police officers off

Power of the elite stopped rail developments by owners of lorries

Sustainability:

Top-down:

\$2.5b investment into water treatment plants & distribution networks (kiosks offer cheap water whilst water plans are underway)

LAWMA ensure vans collect rubbish nightly (less congestion) & recycling banks are set up outside of estates

Governments banned the import of small generators (produce lots of pollution) & have set up community generators to reduce emissions

Light rail lines built along Lagos island & commuter routes to relieve congestion

Pros: large-scale projects (by 2020, water is available at a low cost), addresses economic issues sustainably

Cons: expensive (\$1b borrowed from World bank for light rail project), ban on small generators only benefits the rich who can afford cleaner generators, bus rapid transit is delayed (undermining communities)

Bottom up:

CHIEF (NGO) set up community healthcare centres in Lagos & education projects

SEAP (NGO) offers microfinance (small loans) to communities to pay rent (to avoid living in slums)

Oando foundation has renovated schools & trained teachers to improve attendance rates

Pros: support local communities, low cost to the people as funded by NGOs

Cons: small scale, limited funds (especially during recessions when demand for projects is highest) & lack coordination (different NGOs work on the same projects often)