ZNOTES.ORG

UPDATED TO 2021-22 SYLLABUS

CAIE AS LEVEL GEOGRAPHY (9696)

SUMMARIZED NOTES ON THE CASE STUDIES SYLLABUS

1. Food Shortages

1.1. Background information

- South Sudan is currently in a war torn state:
  - 1955 conflict between both Christian's and Muslim's
  - 2 civil wars=6 years and at the end of 2005, peace agreement established
  - 2018=new peace agreement
- South Sudan is landlocked + experiences periods of high precipitation
- Food insecurity
  - 60% could face food insecurity from May/June 2020 in presence of a food assistant
  - 2019 flooding increases weed, pests + diseases in crop field + limits forage available
- South Sudan's economy
  - 75% take part in agricultural production
  - Main crop: sorghum, maize, millet (48% population relies) + majority is rainfed
  - 80% liv in farms
  - South and NW dependent but SE dependent on fish and agropastoral production

Issues/constraints causing this:

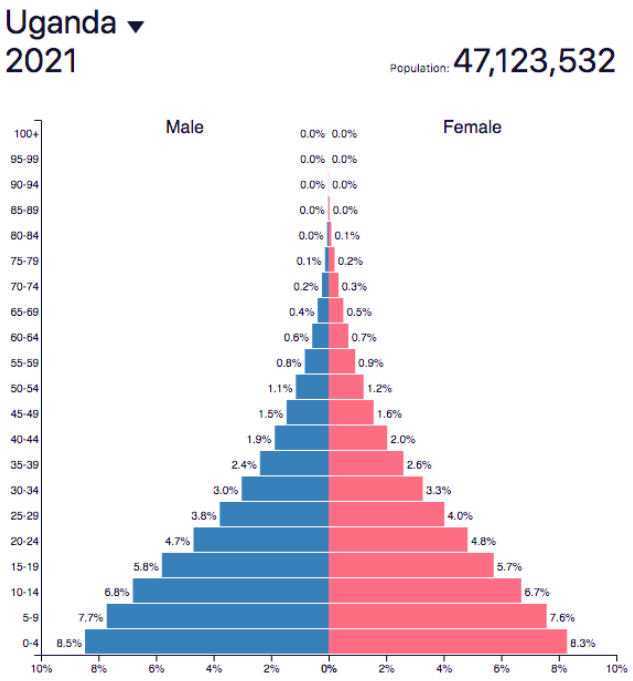
- South Sudan
  - HIV/AIDs=typically children are more vulnerable to this
    - 53/1000 death rate
    - 58 years old life expectancy
    - leads to high IMR and high youthful population=overpopulation (people give birth to more children as insurance for high IMR-also because people rely on subsistence farming, they typically need children as labour + as "pension" in old age)
    - Also harder to access medicine (ART-Antiretroviral treatment) + high amount of workers needed to manage and takes up workers
    - Average calorie intake: 1318 kilojoules (400 under minimum)
    - High rates of malnutrition means higher vulnerability to diseases (eg: HIV)
  - Natural disasters:
    - Flooding=leads to poisoning of water sources and spreading of diseases such as cholera
    - Early 2019-amyworm wiped out the amount of crops and reduced cereal needs
  - Refugee displacement (resulting from war)
    - Found themselves displaced because of poorly enforced land laws
    - Continuous eviction due to military confiscations of land and refugees don't have a reliable land plot to plant crops- this becomes more of an issue as a majority of South Sudan relies on subsistence farming
      - 90% South Sudan rely on subsistence in order to supply food for themselves
- War and conflict:
  - War has occurred constantly following the independence of South Sudan following assassination of their president in 2013-2015 between Nuer and Dinka tribes that were constantly broken
  - Cattle raids
    - Interrupts natural grazing patterns of cows especially between Nuer and Dinka tribes
  - Can lead to overpopulation which is a result from war-overpopulation leads to desertification and overgrazing of land
    - High amounts of people using their land + small amount of land available (resulting from poor land laws and confiscations + conflict over land)
    - Leads to land erosion
- Can usually inflate prices of food and reduces availability causing famine and unemployment (this can result from unreliable transport)
  - 5% roads accessible, remaining 95% is arable and usually muddied during winter
  - Double taxation and tolling→farmer's have reduce the amount of load delivered to urban areas and will have to increase prices in order to pay for transport fees
  - Also lack of urban-rural roads (some are bottlenecked due to conflict) so farmers unable to transport food or access agricultural inputs (eg: fertiliser) to properly optimise the amount of land
- *COVID-19 (good point, but don't include unless you're very familiar with this topic)*
  - Trading routes are bottlenecked especially between Ughanda and China
  - China is a major supplier for South Sudan but COVID 19 has lead to border closures, people may be forced to forgo food
  - Consequences/Impacts
    - Leading to famine + malnutrition which increases vulnerability to diseases (eg: HIV)
    - Malnutrition increases vulnerability to diseases
    - 4 million people (40%) are short of food in South Sudan
    - 70000 died from hunger/disease in the ivil war
    - Aid workers stopped WFP

2. Youthful Country Issues

2.1. Ughanda

Background stats

- LE=63
- 2050 it will become the 6th most populous country in Africa
- In early stage 2 of DTM
- Mean age of birth for mothers: 19
- 25% urban population
- Population density increased from 122 inhabitants to 551 in 2050



Problems

- Civil war
  - Countries with a very young age structure more likely to experience civil conflicts outbreaks
  - 1970-2007→80% new civil conflicts where
  - 90% of autocratic or partially democratic governance
- Demand of environmental resources
  - Increase land fragmentation and decrease in soil fertility causes crop yields to fall
    - Depletion of wetlands to expand agricultural lands and deforestation to gain land use for firewood for fuel
- Rural-urban migration
  - Annual urban growth is 5.2% (highest in the world)
    - 53m living in urban areas
    - 51m rural areas
  - 60% Ughanda living in slums + mobility of goods are restrained due to heavy congestion in cities
  - Youth migrate in urban areas for:
    - Lack of economic options in urban areas
    - Inadequate land access
    - Family access
- Housing
  - 24m housing deficit
  - Lack of sewage system
  - Over crowding, slum growth + deterioration
    - Very few people have access to electricity + safe drinking water
- Employment
  - High youthful population
  - Not enough money for education
- Poverty
  - 35.9% live in poorest wealth
  - Majority of people rely on subsistence + can't enough money for education
  - 1/3 population lacks purchasing power
  - Even if fertility rates dropped, Ughanda would still grow for 40-50 years
- Poor education
  - High costs needed to fund for education
  - Education rigid + highly disorganised
  - Don't know about family planning
  - High ration of teacher:student of 1:50
  - 1/4 don't reach end of primary school
  - 83% 10 year olds don't read text at the end of primary school
- Poor nutrition
  - Bottlenecking access especially between urban + rural areas due to war
    - Majority unable to afford agricultural inputs
    - Can't optimise land properly to plant crops
  - 16700 children die per year
  - Women worn out from birthing + have poorer higher costs + resources stretched thinly
  - Can't access agricultural inputs to optimise or HYV/GMO for larger families
  - 29% stunted children
  - 167,000 children under 5 years old die each year
- High IMR
  - Poor healthcare, nutrition, access,
  - In childhood prone to childhood diseases

Solutions

- Better family planning
  - Women have the decision to be able to have the amount of children they want
  - Lowered fertility and contributions to the economy improve Ughanda's potential for demographic dividend
  - Better access to contraception
    - 40% people don't use contraception
    - Northern region had 55% compared to Central region with 35%
- Education
  - Women with secondary education marry 3-4 years later than women with no education
  - Age at first birth affects final family size (younger marriage=more children vice versa)
- Family planning services
  - Reduce fertility levels and increase adults: young dependents
- Government incentives
  - Promote parenthood and limit subsidies to the first 2 children

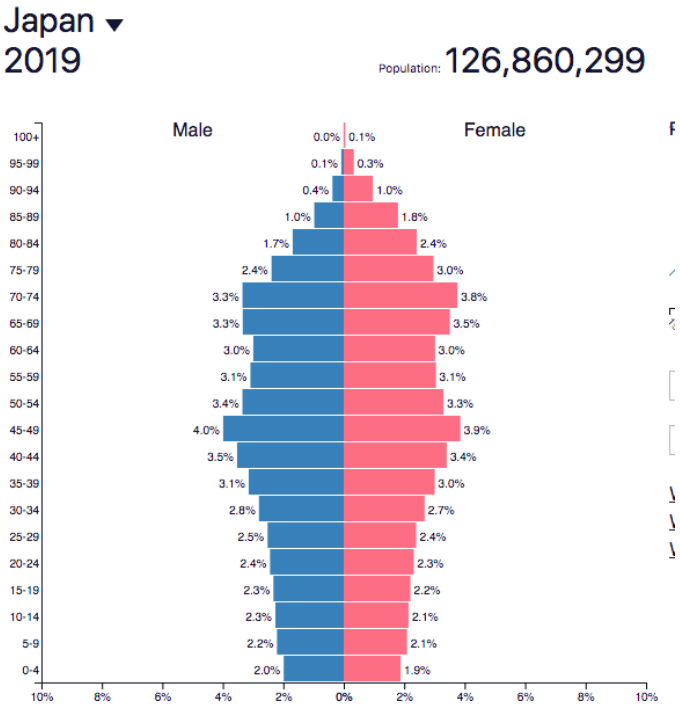
- Educating people on contraception can reduce issues associated with overpopulation in Ughanda

3. Ageing population issues

3.1. Japan

Background information:

- Stage 5 of the DTM
- 86 is the life expectancy
- 28% are 65 years
- 13% under 15
- 70/1000 total dependency ratio
- 1.4 FR, BR-7.1, DR 10
  - -3% growth rate



Burdens of the ageing population

- Shrinking of the working population
  - Fewer children born, more people enter retirement age
- Dwindling workforce detracts from economic growth and impacts financial markets via reduced savings + investment levels
  - Decline in quality of goods + services
  - Remaining working population has to bear the brunt of caring for ageing population (10% of income taken up by tax for old age which is 2x 2020)
- Labour forces shortages are associated with ageing
  - Greater caregiving needs for ill
  - Adults are more likely to require additional medication
- Healthcare cost containment with a high amount of GDP
  - Wrapped up in health spending (10.7% in 2017 + sixth highest share among all countries)
  - Social security take up 33.3% Japan in FY2017 + nearly double FY1990 share of 17.5%
- Benefit payments grow at a faster rate
  - Expanding gap between insurance costs + revenue
  - Makes it harder for govt to meet pension obligations to elderly

Solutions

- New Angel Plan (1999)
  - Housing children is easier
- Abenomics
  - Increase size of workforce by incentivising female labour force
- Raise ages for retirement + pensions eligibility
  - Slowly raising pension eligibility from 60 to 65 by 2025 for men and 2030 for women
- Promote healthier lifestyles
  - People can work longer and can lead to higher productivity and labour force participation
  - Higher saving rates, lower medical expenses and increased foreign direct investment
  - Can help with reducing medical expenses for lderly (improved diets, active lifestyles, reduced tobacco, vaccination and unsafe alcohol consumption)

4. Causes of Greenhouse Gases

4.1. China and the Amazon

Gases emitted:

- Carbon dioxide
  - Deforestation of the Amazon Rainforest:
    - The AF is a carbon sink used to absorb CO2 and convert it to O2 (traps CO2)
    - It is shown deforestation reduces the effectiveness of CO2 being absorbed (2 billlion tonne loss)
    - This will lead to an increase in CO2 (and other gas concentrations)
    - This is often cleared for mining (eg: Carajas Iron Ore Mine) or farming land
    - China produces 5th capita of CO2 and contributes to 30% of the world total
  - Enhanced green house effect (mainly resulting from increase in CO2, although there are other gases that can also increase/amplify the warming effect of CO2 as well):
    - CO2 has 2x the warming effect that water vapour has (eg: a 1 degree increase of water vapour, will lead to a 2 degree increase when CO2 is added onto it)
    - Partial transparency: 8-14 micrometers
    - Full transparency: 12-13 micrometers
    - CO2 full absorbance: 10 micrometers

- Sulphur dioxide
  - Also China's steel + iron industry contributes SO2 (Beijing produces 20,000 T of SO2 per year) . These produce aerosels which reflect and absorb sunlight, these form acid rain. These act as a condensation nuclei for clouds to form, also creating higher precipitation.
- Nitrous oxide
  - Steel/iron industry
  - 300 ppb in China
  - Nitrous oxide has 300x warming than CO2 and lasts in the atmosphere for 114 years
- Methane
  - CH4 (another harmful GH gas) is often produced from cow farts for farming as well (people in the Amazon Rainforest often clear land for diary farming)-these last for 10-20 years but they have a 86x more warming effect
- CFCs
  - 1000x more warming effect
  - Gases such as CFCs are shown to have 10x the warming effect compared to CO2. This is often produced in industry (especially in China's steel/iro industry) and lasts for 10000 years in the atmosphere

5. Flood Event

5.1. Yangtze 1998 Flood, China

- Background
  - 3rd longest river in the world – 6380km
  - Floods annually, 1998 was the worst
  - Valley is home to 400 million people
- Physical Causes
  - Each year, monsoon rains and Himalayan snow melt combine to produce higher river levels.
  - El Nino effect in 1998 made rain last an extra month. Trade winds weaken from S. America to China, less warm water pushed westward, less cold water upwelling eastward, causing cool water to warm. This changes wind, temperatures and rainfall.
- Human Causes
  - Reduced floodplain – rapid urban population growth
  - 1960 deforestation in the headwaters reduced interception, infiltration and transpiration. Surface run-off increased.
  - Overgrazing of deforested land, soil erosion led to more sediment in river - less room for water.
  - Channel straightening sped up channel flow. Reduced lag time and increased flood peak
  - Hard-engineering efforts constrained river. Provided more capacity, but more severe flood effects
  - Farmers reclaim polders, making lakes smaller
  - Global warming
- Effects
  - 45m high river
  - 240 million affected, 4000 drowned, 15 million homeless
  - 1000s farm animals killed; huge crop areas lost
  - Areas purposefully flooded to protect Wuhan
  - Productivity halted as factories flooded
  - Thick layers of sticky clay had to be removed to make fields fertile again
  - Economy damage
  - Increased landslides on slopes adjacent to river.

5.2. Solutions

- 3 Gorges Dam
  - Ideal site downstream of Chongqing, as valley is narrow but reservoir big.
  - 660km long and 1km wide reservoir. Completed in 2009, wall is 2.3 km long, 200m high. $38bn to build, 18,000 mW HEP station.

Positives	Negatives
50 million people protected from flood events	Flooded 150 towns/cities, 1300 villages, 1000s cultural sites destroyed
Millions of hectares of flood land protected and irrigated	1.2 million people displaced
13 million people in Shanghai have secure water supplies	Earthquake (or dam failure) would cause disaster
Produces 10% China's electricity	Silt laden Yangtze will clog reservoir, reducing capacity
10,000 tonne ships can navigate	Farmers must use chemicals, no natural silt fertilizer
	Landslides possible if water seeps into rocks

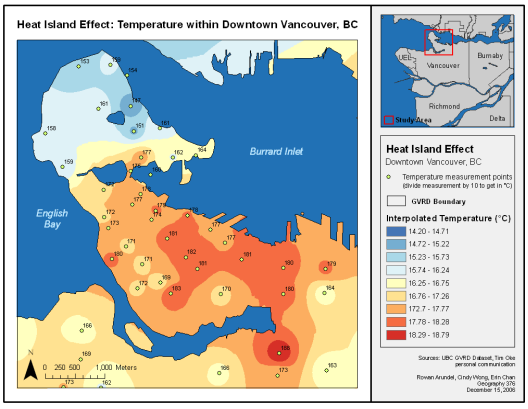
- Afforestation of headwaters

Positives	Negatives
Encourage interception, evapotranspiration and infiltration	Farmers lose arable/grazing land
Prevent soil erosion, reduce local and downstream flooding, promote terracing	Fast growing conifers are less useful compared to natural forest and do not stimulate biodiversity
Reduced erosion reduces downstream silt, so reduced sedimentation of 3 Gorges Dam	
Trees can be responsibly harvested	

6. Urban Area

6.1. Vancouver, Canada

- **Location:** Canada's 3rd largest city, West Coast, backed by mountains, Fraser River cuts through.
- **Temperature**
  - **Cool Areas:** Stanley Park, Fraser River, Fraser Valley farmland.
  - **Warm Areas:** airport, Urban Heat Island dome occurs where there is greatest building and skyscraper concentration.
  - **+10°C warmer** CBD compared to southern rural area (27°C vs 17°C).
  - Greatest difference on calm, cloudless, anti-cyclonic summer nights. No winds = no heat removed.
- **Humidity:** humid spots over Burrard Inlet and Fraser River, and higher humidity at night because moisture is deposited rurally. Perceived humidity is 2% less than Richmond.
- **Precipitation:** each 100m height gain results in 100mm precipitation increase. Vancouver is 10% cloudier than rural areas – because buildings force convection, there are more condensation nuclei present, storm cells intensify due to warm surface. 1 inch more rainfall in winter average than Richmond. Consistently higher daily percentage chance of precipitation too: 1% average.
- **Winds:** tall buildings scatter and reduce winds, 'wind corridors' exist where two buildings cause the venturi effect (air forced into a smaller space speeds up). Downtown winds are 6.6mph average in winter, and 7.1mph in Richmond – just south of CBD. In spring/summer difference is around 0.3mph.
- **Fog/Smog:** Fraser Valley experiences photochemical smog on warm summer days due to more ozone concentration. Calm winds, stagnant air and greater hygroscopic nuclei along with anticyclones causing a subsidence temperature inversion promotes fog/smog creation. 75% of pollution is from vehicles, 7x number of particulates, 200x number of gaseous pollutants compared to rural areas.



7. Human Activity on Slopes

7.1. Hong Kong Island

- Background
  - Hong Kong Island is densely populated; 7 million in only 1075km^2. 230 surrounding islands.
  - Long history of landslides due to rainy season (May - September) and steep slopes.
  - In the 60s and 70s (mass movements per 100km^2):

	Washouts	Landslips
Natural	26	187
Human-Related	160	371

  - 1947 – 1997: 470 deaths due to slips.
  - Sedimentary rocks formed in lowlands. Granite and volcanic rocks on high ground – prone to failure. Serious weathering occurs, especially to granite. Volcanic rocks are more resilient, less failure prone.

- June 1966 – rainstorms triggered landslides
  - 64 killed
  - 2500 homeless, 8000 evacuated
  - 1650mm rainfall in 15 days, causing 700 land slides
  - Vegetation partly to blame, as smaller slips were held back, causing larger washouts to occur instead
  - Triggered by excavation, building works and traffic
  - Rural slopes are up to 30° steep – naturally prone.
  - Other **human activities** were also at play.
- Attempts to reduce mass movement
  - **Geotechnical Engineering Office:** 700 workers manage and improve slope safety systems.
  - **Catalogue of Slopes:** records updated, maintained and disclosed for 57,000 manmade slopes. Helps planners and constructors assess risk and install precautions.
  - **Fines:** HK$50,000 and 1 year in prison if private owners do not comply with slope safety protocols.
  - Successful risk reduction, 50% drop since 1977. Risk and potential damage constantly increasing as developers build higher and higher on slopes.
  - **Drainage systems:** help to remove excess water from heavy rainfall that leads to slips. Some confusion exists over responsibility, so some poorly maintained.
  - **Manmade slopes:** main method of slope stabilisation. Slopes graded to reduce risk, drains built to intercept and direct water away. Impermeable hard covers added to protect slope from infiltration and erosive effects of water.
- Greening techniques
  - **Mulching:** provides a protective cover that vegetation can grow through, to hold it in place. High adhesive capacity on steep slopes, resistance to rain erosion, retains water, long lasting fertilisers, adaptable to rough surfaces.
  - **Long rooted grass:** hard cover placed with drilled holes – fertilisers and soil added to hole, and grasses planted in. Environmentally friendly, fast easy cost-effective installation, low maintenance, works on steep slopes.

- **Fibre reinforced:** polyester fibres mixed into soil to resist tension and hold soil stronger. Low maintenance, self-sustained, erosion prevented, restoration of natural habitats, visual improvement of slope, addition of plant species.

8. Management of Natural Increase

8.1. China's One Child Policy

- Strictest anti-natalist policy, from 1979 (after 10 years of a two-child policy) to 22nd July 2015.
- **Issues leading up to the policy**
- Mao has a strong identification with the pronatal movement + slogans/propaganda such as "the more people, the stronger we are."
  - High BR 44/1000
  - Population growth: 1.87% + by 1970 it reaches 2.6%
  - Population reached 600m
  - Death rate: 22/1000
  - Life expectancy is low: 41 years
  - 20m people dying of famines
  - Relationship between population and resources couldn't be maintained (Malthus theory):
    - As the population grows, the food production will not be able to keep up with the growth in the human population resulting in disease, famine, war and calamity-this conclusion was formed following after England become the first country to enter Stage 2 of DTM in industrial revolution→J curve
- Difficulties with this pronatal policy
  - Switch from agricultural to steel production + inefficient food production
  - **Privately owned plots are forbidden, centrally planned**
    - Issue: inefficient food production as people are unsure how to sort resources=starvation
    - Need to look after village + family (resulting from **high youthful population**=high costs for family)
      - High youthful population result from high IMR + children needed as insurance for high IMR
      - Working population bears brunt of caring
    - **Agriculture→steel** takes up productive workers + makes it harder for people to produce a large amount of food for a village (more workers need to produce a higher amount of food)=>couple this w/ poverty + lack of access to inputs makes it harder to optimise land
      - Steel produced is weak leading to a decrease in wealth in the economy (result from malnutrition/hunger)
  - **Over-reporting of grain production**
    - Given the illusion grain production was increasing even though it was decreasing
    - Officials unaware of starvation
- **Rules of the policy that was enforced by this:**
  - 1960's
    - Propaganda was set up emphasising virtues of late marriage + birth control officers are set up by the central government and provincial level governments in 1964
    - Birth rate cut in half in 1963-1966 period
  - 1970's→"late, sparse, few"
    - Mao identifies with family planning
    - Committee's establish at all admin levels
    - "Barefoot" doctors distribute info and contraceptives to commune members
    - Population growth target set (2 in city and 3/4 in country)
    - Outcomes:
      - Crude BR: 37/1000 to 21.5/1000 by 1979
      - TFR drop from 6-6.3
      - Growth rare from 2.61 to 1.48
  - 1979→Deng Xiao Ping's enforcement (longest lasting policy)
    - Made because children were seen as an economic burden
    - Fines, pressures + pressure to abort preganancy happens with additional children ($300,000 for one child)
    - 1980-birth quota used to monitor population growth
    - Black children can't get hukou (that has privileges such as free housing/education)
- **Successes**
  - BR fell (39/1000 in 1960. 12/1000 in 2015)
  - Population growth rate fell to 0.8%
  - Fertility rate reduced (2.9 in 1979 to 1.6 in 1995), so now below replacement level. 1.3 would cause population to half in next 80 years
  - Perks (free childcare, transport, employment...)
  - 250 million births prevented
  - Free contraception and family planning offered, increasing education
  - Relaxed. Initially to allow 2 children in rural areas. Scrapped in 2015, allowing 2 children per family across China.
  - To a extent, GNP decreased to 18,000 dollars more opportunities for gaining knowledge + more wages=improvement in living conditions
- **Problems**
  - 33.5 million extra males, men unable to marry
  - Female infanticide due to preference for sons (typically in rural areas)
    - 114 boys for every 100 girls
    - Need sons to carry out family name + parents expect sons to look after them in older age
  - 336 million abortions
  - 222 million sterilisations

- Emotional turmoil due to aggressive nature. Mental health issues, charity and nuns take on unwanted children
- Aging population
  - Shrinking workforce at a rate of 3 million each year – shortage of 140 million by 2030
  - Increased elderly population requires more healthcare, increasing taxes required
  - GDP has decreased by 5%-6% + economy is declining
  - Currently in stage 5 of DTM
- Working population bears the brunt of taking care of youth and elderly population
- Open to corruption=enabling bribery of government officials to falsify data
- Leads to the creation of a 2-3 child policy (enforced in 2021)=>creating doubt in people, given the demographic trend of aging population + harder for people to get used to pro-natal policy again
  - Living costs are too high + too large (191000 Yuan per child)

Reinforcing the policy

- Urban (more successful)
  - More gender equality than rural areas
  - 3.6m^2 per person in 1977 + shopping and cooking already time consuming efforts
  - At least one person already susceptible to government direction
  - Academic competition
    - Invest fully into extracurriculars + tutoring + children carry out gratitude in older age
- Rural
  - Children still need for labour
  - BR still 2-3 in rural areas but closer to one in urban areas
  - Female infanticide

Growth of internal migration (another barrier to the one child policy)

- Tight restrictions on movement especially rural urban movement + relaxed as demand for labour grew + regulation is partially successful
- 150m Chinese (20-30) form a migratory population
- Usually not eligible and no reason to draw official attention through temporary registration

9. Settlement Dynamics

9.1. Rural Settlement: St. Johns, Isle of Man

- Village Background: located in the parish of German, on the west of the Isle of Man. 3 miles away from Peel, 7 miles away from the Island's capital, Douglas. Originally developed as a crossroads between north (Ramsey), east (Douglas), south (Castletown) and west (Peel) coasts of the island.
- Population Structure: grown from 645 in 1999, but 6% population decline from 1024 in 2011 to 966 in 2015. High elderly population, 230 are retired. 464 residents are employed.
  - Provisions for ageing population: volunteer led community groups such as 'Live at Home Scheme' and 'AgeUK', to prevent the elderly feeling isolated**.** Bingo nights and village competitions held. Transport provided for elderly immobile residents, so they can attend events.
- Housing: limited but tend to be higher income style. Prices range from £200k-1mil. 344 private households in German parish; 261 detached (60%), 65 semi-detached, 17 terraced and 1 flat – and a council owned estate. Recent large-scale development of Slieu Whellian Park and Magher Vay sheltered housing estate for elderly. Potential for infill development.
  - Solutions: affordable housing can be bought from local council.
- Services: 1 of 2 local pubs and shop closed. No doctor's surgery or secondary school. 2 primary schools – traditional Manx language, and modern school. Civic amenity site. 2 restaurants; Tynwald Inn Pub and Green's Café. Tynwald Mills is commercial centre, with high-end shops, 2 cafes and a playground for children.
  - Solutions: compensated for with new mobile services (vans/buses) for banking, butchers, library and chip shop. Farmers given assistance to diversify their business during the island-wide Tourist Trophy Motorcycle event.
- Public Transport: situated on the island's main road, the A1, that runs Peel to Douglas. Linked to A3 road, running north to Kirk Michael and Ramsey, south to Castletown and Port Erin. Frequent bus services: every 30 mins East/West, and every 60 mins north. No southerly bus service, so travellers must take a service via Douglas. Railway station closed in 1968.
  - Solutions: 50% discount for under-16s or those in fulltime education. Free travel for over-60s. Bus Vannin launched 'VanninConnect' bus service in 2019, allowing people to order a minibus on demand for routes that aren't regularly serviced. 'VanninConnect' proved a failure as few people opted for the service. 3.7 million journeys occurred on Bus Vannin (Island's only bus service) in 2019. Bus Vannin operates modern, disability/elderly friendly buses.

9.2. Shanty Town: Rocinha, Rio de Janeiro, Brazil

- Rio Background: produces 5% of Brazil's GDP, home to 6% of Brazil's employment, is the cultural and financial capital. As of 2014: home to 6.5 million, with 12.5 million people in surrounding areas.
- Rocinha Background: home to an estimated 200,000. 2001 census states 60,000, but there are over 100,000 registered electricity meters, so figure must be higher.

Located in the Southern Zone, on a steep hill side, around 10 miles away from city centre.

- **Healthcare:** high infant mortality rate of 21/1000 (can be up to 50/1000), 45 years life expectancy, only 55% of Rio has access to healthcare services.
  - **Solutions:** in nearby shanty towns, health kits deployed to 8000 homes where people have no access to healthcare. Kits can detect 20 common diseases, such as malaria and hepatitis. Allows people to be treated on site, or referred to a health centre.
- **Education:** 50% of children leave school by 14, but most are not in formal education to begin with. Not enough places of education. Literacy rate of 92%.
  - **Solutions:** encourage volunteering in schools, give government grants to schools (to help families keep their children in education), build new schools. New university/school set up in Rocinha.
- **Service Access:** in 1998: 12% population had no clean water access and 30% had no access to electricity.
  - **Solutions:** 300km of pipes has reduced 12% to 5%. 60km of electric cables laid and new hydro/nuclear plants have increased electricity provisions by 30%.
- **Employment:** majority of residents earn less than $1 per day, through the informal sector. 20% unemployment rate, no tax received from informal sector.
  - **Solutions:** 'Schools of Tomorrow' project where practical skills are taught to poor/violent areas.
- **Waste:** 200 tonnes of sewage per day, and 50 tonnes of waste deposited in the bay each day.
  - **Solutions:** $68 million spent on new sewage works, 5km of new sewage pipes. New methane power plant consumes 30 tonnes of waste/day, produces power for 1000 homes.
- **Crime:** robbery, kidnappings, drug gangs and murder.
  - **Solutions:** in 2013, 'Pacifying Police Units' were sent into reclaim Rio's shanty towns from drug dealers.
- **Favela Bairro Project:** self-help scheme, where the local authority acknowledges shanty towns, and provides land and services to improve them.
  - + hill sides secured to prevent land slips.
  - + new health, education and leisure facilities built.
  - + access to credit and mortgages available.
  - - residents lack skills and resources to make repairs.
  - - further work still needed to improve literacy and reduce unemployment.
  - - rent has increased due to improved conditions, so poorest people are worse off.

9.3. Providing City Infrastructure: Manchester City, United Kingdom

Attempts to solve transport issues (such as: surges, mass transportation and private transport) in Manchester City, by looking at hard and soft engineering methods to solve speed, flow, safety, congestion and pollution.

- **Road:** using money from the Transport Innovation Fund, schemes to reduce private cars were proposed.
  - Manchester given £1.5bn from fund, and borrowed £1.2bn to fund schemes.
  - 120 school buses and 200km of cycle routes would be added to the city.
  - Drivers taxed to drive on inner and outer ring roads, or flat rate of £5 to drive on both each day. £100 per month. Disabled drivers/motorcycles excluded.
  - Taxing drivers faced heavy opposition. 79% and 270/430 businesses voted against. Additional pollution/congestion also cited, as people would simply drive elsewhere (Trafford Shopping Centre).
- **Railway:** north/south divide in UK's rail network was biggest problem.
  - Piccadilly served Liverpool/London, and Victoria served York/Leeds.
  - **Picc-Vic tunnel:** would have been an underground railway to connect both stations. Was too expensive, not enough support and not modern enough for 70s.
  - **Centreline/Metroshuttle bus route:** opened in 1974 as a direct link between stations, for a 2p flat fare. Fare is now free, and connects more parts of Manchester to the stations.
  - **Metrolink:** line eventually added to connect stations.
  - **Train changes:** Trans Pennine company shuffled some services around to blur north/south divide.
- **Metrolink:** first city centre light rail in UK, modernised public transport. Opened 1992.
  - Government couldn't afford, but with huge support, a campaign secured funding.
  - Flat fare of £2.50 for travel anywhere in city.
  - Through continued expansion and funding, capacity has doubled. Frequency reduced from 12 to 6 min.
  - 57 miles of tracks connecting the centre to Rochdale, Manchester Airport, Ashton and other major stops.
  - Crime is frequent. Increased police presence as ticket dodging is biggest problem (10,000 fixed penalties per year. 2000 random checks per day by police). Antisocial behaviour, assaults and robberies on the rise.
  - **Trafford Centre Link:** provides accessibility for 6,000 employees, 33 million customers. Reduces pollution (less cars on roads), helps night-time economy. Stops at Selfridges and Main Stop. To be completed 2020.
- **Buses:** deregulation in the 80s aimed to drive down fares. Instead, some routes became saturated while others weren't served. Steep fares and inconsistent.
  - **Problems:** 18 competing companies, only 15% of profits back to local economy, 45% service cut (3000 routes nationwide), 55% fare increase from big 5 (Arriva, First...), no uniform payment system (like Oyster cards), poorest areas left unconnected, health crisis from old polluting diesel buses.
  - 37% of jobseekers state public transport as a barrier.
  - **2017 Bus Regulation Act:** gives power to local mayor to bring bus services back into public ownership. Proven success in West Midlands and Brighton. Low

emission buses could be bought. Would lead to £340 million financial gains for local economy. However, hard to implicate as recently there has been a 40% cut in council funding.
- 67% of people and bus companies in favour of reregulation.
- Road improvements required for Bus schemes to be a success.
- One Bus proposal: £100 million partnership blueprint. Not strict enough & previous attempts in other UK locations led to bus companies suing local authorities.

9.4. Auckland, NZ-Urban Settlement

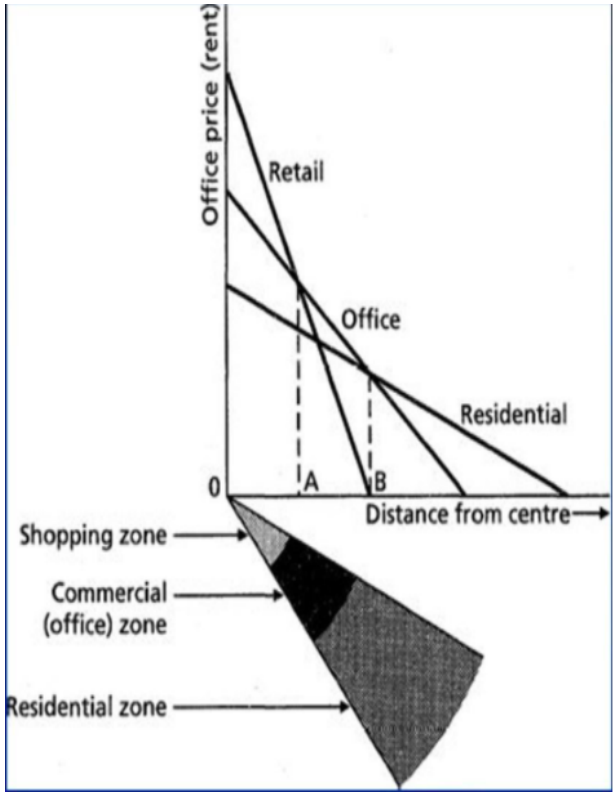
Functions of Auckland CBD

- Centre of commercial
  - Majority of activity takes place in the centre
    - Has 500 shops and is on 250 K Road
- Entertainment + cultural centre
  - Auckland Museum and Aotea Square
- Educational centre
  - Centre of city contains Auckland Uni and AUT
  - Flatting student dorms are also provided near Britomart Hub
- Recreational parks
  - Victoria + Albert Park
- Light industry
  - Areas of light industry located around the wharf
- Hotel + accomodation
  - Major area
- Residential
  - Home to over 4000 people
  - 2500 apartments

Models influencing the urban structure

Bid Rent Theory

- Basic theory: distance to CBD is dependent on how much people are willing to pay
  - Urban land uses have different demands thus attract different competition
  - General trend: financial areas tend to be closer to the cbd (banking), retailing and industry tend to be 2nd and 3rd away from cbd, housing is the furthest
  - Reason for trends: desirability to be close to cbd has decreased by housing buyers because of high cost (so they outbid)
  - This is because cost for cbd settlement is high and it is costly to rent in cbd esp. for apartment
  - Whereas industry: they need flat land for industry (to establish factories etc)
  - Banks, commercial, etc. are willing to pay the most to rent in the cbd (eg: ANZ is located in cbd)→high rise building is needed to maximise land and locate in the periphery in newmarket and some high order sectors willing to pay a high price (to ensure highest growth)



- Sector Model
  - Most people have access to cbd
  - Industry follow most attractive
  - Low class forced in less attractive areas and path pollution blown (link to housing market)
  - Clevedon
    - reurbanised area located outside commuter zone
    - Growth of services occurring as a result of people migrating outside of Auckland (more customers)
  - Onehaunga
    - unable to afford statehousing and are forced in pollution blown areas where industry work
  - Remuera/Mt Eden
    - high class residential away from state housing
    - people with high incomes can afford
    - resulting in residential segregation
- Functional Zones
  - Remuera/Mt Eden tend to be located away from industrial areas, away from pollution
    - Typically are high cost settlement areas near coastal/sea areas
    - Leads to residential segregation: only people with high earning jobs such as doctors or engineers usually live in these areas whereas people living in onehaunga or rosebank usually have more lower paying jobs in industry (leading to the creation of state housing)
  - Commercial activities want to be in cbd from accessibility
  - Certain activities group together and benefit from cohesion:
    - retail, commercial and industry⇒industry can produce materials for commercial,

- Also they can get more **business, retail and commercial** together=more customers visiting shops=more money
  - Example: Sylvia Park in Mt Wellington (clothing stores-H&M, cinemas-Hoyts, retail stores such as Warehouse are grouped together)
- Cost: warehousing=large cheap sites and low rent areas: second hand clothing shops and furniture shops
- State housing is provided in **onehaunga and rosebank** for people who are unable to afford expensive housing
  - often acting as a "buffer" between industrial and residential functional zone
  - often in the path of pollution

Multiple nuclei

- **What it is**
  - Low class housing around industry: state class housing surrounds onehaunga/otahuhu, it's easier for people working in industry to go to work
  - Housing tends to settle around new nuclei-eg: sylvia park since it is located in centre, many houses settle around mt wellington or howick/botany, many of houses settle around botany town centre
  - Higher class avoid industrial land
- **Examples in Auckland:**
  - **Manukau City**
    - Acting as a secondary growth that was established when the government was developing Auckland
    - Admin commercial/industrial growth area
    - Used to reduce congestion within the cbd
  - **Albany Shore**
    - Establishing industry
    - North Shore contain 50% of employees
    - Industrial area was established because there was flat land and agglomeration
    - There was also good transport networks
  - **Queen Street**
    - Located in CBD
    - Queen street established as centre due to historical factors
      - Earlier on, there was a tramway established at Queen Street at 1901
      - This was eventually demolished for Britomart Transport hub
      - The establishment of this tramway also allowed for the establishment of Epsom (another nuclei) as an urban area-previously, it was a rural area
        - Epsom also is established as a place of development (it has school's such as Epsom Girl's Grammar, restaurants, shops etc)
    - Even now, it is still established as a centre of development + it has restaurants, shops etc
  - **Viaduct**
    - Established as a centre of Auckland via. gentrification
      - reason: America's Cup + needed a venue to establish to cope with large amount of population for America's Cup
      - Now part of the centre of the city + contains services such as restaurants etc
    - **Gentrification + how it has changed Auckland**
      - Inner city suburbs have become younger (young couples, professionals and young families reside in Auckland)
      - There is a change in ethnicity from PI and Maori to European
      - Population density has fallen due to smaller families
      - Change in house prices
      - Increase in rates
      - Increase in median income
      - More retail and commercial businesses reflects increased incomes of new residences
      - Houses have been renovated, restored and painted
      - Area looks better, trees planted and gardens are landscaped, streets restarsealed and narrowed so traffic can be slowed don
      - Different income group→higher social + economic groups
      - Residents more politically aware and City Council aware of suburbs need's + issues
- **The housing market in Auckland (Akl)**
  - Housing prices in Akl are high ~$1,000,000 (due to the housing crisis and shortage of housing in auckland for the growing population)
  - Less people want to settle in Akl because they are no longer able to afford it
  - Also people want to move to other places outside of Auckland with cheaper prices⇒may be liked to counter urbanisation (people moving out from clevedon)
  - People might want to move away from CBD because it's more expensive and want to move to suburbs
    \

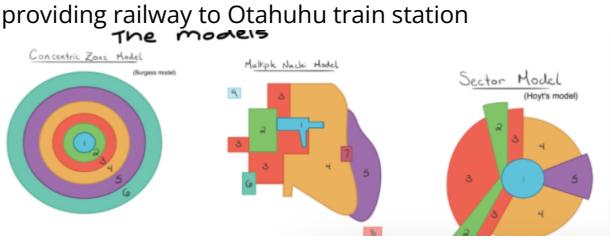
Hoyts model

- **What it is**
- **This model is based off the fact that concentric development sectors can afford the best routes for the delivery of supply**
- Modification of concentric development

Examples:

- **Albany**
  - Originally industry but change to commercial zone
  - Flat land, agglomeration (there were other industries established + they wanted to cluster that can attract a large amount of customers) + there were also other factors that came into play
- **Otahuhu**
  - Is an industry zone (partially)

- also **Britomart transport hub** allows for transport between Otahuhu + other parts of Auckland
  - Britomart + Vector Arena is **formed by urban renewal which has**
    - Attracted more businesses + employers into city + basin
    - Attracted shops
    - Attracted people to live in the city
    - Improved physical + human environment
  - **How did urban renewal take place?**
    - 1990's→ACC (Auckland City Council tries to reverse decline process through redevelopment of Viaduct + developed a plan to change land use of wharfs, ports, industrial land + warehouses
- **Onehaunga or Rosebank**
  - established near northwest motorway
  - providing railway to Otahuhu train station



Other factors influencing urban structure

- **Historical factors:**
  - WW2-Auckland develops
    - Rosebud Road in Wellington is being developed
  - Motorway development=South and Northwest highway is more accessible and there is more suburban development
  - ARC made a division for growth on the outer suburbs
  - Tram systems (1901) are built around Queen Street or are near Queen Street (typically the main or favoured area), eventually demolished for a Britomart hub
  - Establishes Epsom as an urban area (prior to this it was a rural area)

Economic factors:

- Desirability
  - Bid rent model (refer to answer)
  - High residential areas
  - Remuera, Mt Eden are located away from state housing and acts as a "buffer" between urban areas and industry
- **Access**
- Centrality-centre for a large amount of attraction for customers
  - Profitable and is the only place it can locate at
- **Transport**
  - Ring node around Queen Street,
  - nodal structure,
  - No ring roads
  - Easy for customers to access
  - Remuera and Queen Street has a high amount of access
  - Great South Road, motorway and Auckland transport
  - Remuera and Queen Street have a high amount of access

Agglomeration

- Similar land uses are clustered together
- Retail is with retail →eg: Sylvia Park
- Industry →East Tamaki are near transport routes
- **Political factors:**
- Decentralisation: need more space + area for the expanding population
  - 1950-1960 best access to port, rail
  - Includes cheap sites
- Access to a large amount of labour, pool and motorway access
- **Proximity**
  - Uni students rely on transport + move in to cut down on travelling
  - Centrality especially for retails
  - Centre attracts a large amount of customers and profitable=the only place that can locate there

10. # Forced migration (Rwanda)

Context leading up to the conflict:

- Tutsis favoured by Dutch
- Hutus rebelled against
- April-July 1994, Rwanda murders 800,000 people (Tutsi)
- Was started by nationalists in Kigali
- Rwanda Patriotic Front gained control by military offence in early July, hundreds of Rwandans were dead + victory created 2 million more refugees

Impacts (on camps):

- **Tanzania**
  - 10,000 hectares of land cut down in Tanzania
  - 600 metres per hectare in each camp
  - The population was outnumbered by a ratio of 4:1 and there were 700,000 refugees in a population among 186,000
  - Average volume of wood estimated to be 50m per hectare
  - 10,000m wood is consumed per year for cooking
  - Average refugee camp depletes 600 hectares and 400 hectares every year afterwards
  - People have to walk several hours to find bushes to cut
- **Zaire**
  - 85%-90% of refugees are dying of diarrhoea
  - Military is provided by the contingency + separated from youth population by the Zairean contingency
  - Cholera + other diseases broke out
  - Poor hygiene in camps at **Goma (in Zaire)**

    - Deaths occurs at 600/week and 2000/week when death rates are overwhelmed and worsened
    - Arrival and competes with citizens for resources such as land, H2O, housing, employment
    - Inflationary + cheap wages
    - Stimulates local economic activity for bananas or plantains
- **Destination characteristics**
- Political view
    - Accepting of Tutsis at the time
    - Saw Hutu as oppressors
    - **Kinshasa (another destination area for camps) refugees** were seen as a powerful force to help with reasserting control over eastern provinces?? and they often accepted the refugees into their own home
        - However, there were other locals that often disagreed with this and didn't enjoy having tutsis in their territory (often created competition)
- Perception
    - Tanzania often still had a large amount of refugee
    - Also had high amount of resources and education for Rwandans especially with UNHCR sponsored camps and NGOs that often supplied food + other resources ensuring survival
    - Seen as good place to escape especially because there was military guarding the camps (eg: in zaire camps, there were rwandan refugees that help with separating military from gen population and they also helped with the protection of refugees against any other attackers in the camps
- The ability to respond to genocide issues (general)
    - UNHCR also asked for armed military when RPF came in and murdered Rwandans
    - However, country initial response to this was very slow and wasn't very helpful in protecting refugee
    - Majority of destination countries were shocked and didn't know how to respond to the instability occuring within the camps as a result of the genocides
    - NGOs such as UNHCR helped with reestablishing order within camps with special forces that had international advisors
    - **overtime, refugees wanted to return back to rwanda as a result of poor security/militaria**
    - Also Zairean govt. attempted to force return (following issues as mentioned from above), but due to pressure they were told to halt the opertion
- Education and health
    - more widely available in refugee camps
    - local people may not have any
    - coping with potential vulnerability to civilian
        - during camps, military can't be distinguished from general population: civilians tend to be exposed to harassment and also forced them into many other things like infiltration, kidnapping etc.
        - UNHCR helps with separating by paying for a special Zairean contigent to help with separating military from gen pop
- **Management of these camps (Zairean)**
    - Zairean authority in these areas are weak
    - ex-FAR officers already established authority in these camps + former leaders of Rwanda amounted to a government in exile
- Repatriation
    - Tanzania
        - Ex-FAR officers influence is less in these area + easier for repatriation
        - Tanzania and UNHCR made an agreement that: "all refugees should be returned before 18th December 1996" but on the 12th the refugee leaders decided to move them further east but govt took action to prevent this and deployed troops to redirect refugees across the border in Rwanda

10.2. Rural Urban Migration (Rural NE, Urban NE, Sao Paulo)

General Pattern

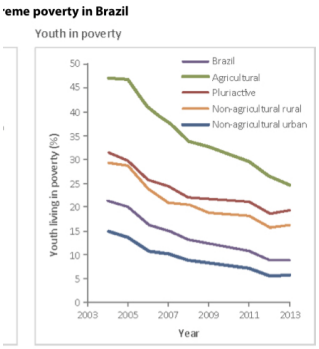
- 10m people from 1960-2001
- ne to se 4m 1960-2001 s to se
- follows a pattern of chain migration and distance decay (usually in short distances)

Sao Paulo-Impacts

- 65% **urban growth**
    - due to a high population and amt of migrants entering competition for space
    - high amount of population=more dense living in order to fit more housing in resulting in growth of favelas
    - also too little space=high amount of people=over population, poor living standards,
- Housing is **substandard**
    - In Sao Paulo corticos take up
        - 25% favela
        - 15% health problem: cholera is a major health problem
    - Also there is poor hygiene due to housing having a lack of sewage, running water, public services
    - High IMR 53/1000 + there is high IMF 7/1000
        - As a result health has deteriorated
- **High crime rates:**
    - high amount of gangs 900 thefts per day, 5500 murders, 360 bank robberies in 1998 highly unregulated so more possibility for robberies etc. people often partake in robberies in order to get necessities illegally and also cheaply as well (eg: food/water)
- **High growth of work/cumulative causation**
    - Brazil has 70% of labour in Sao Paulo, 300 000 migrants per year, over 300 000 businesses , this attracts investment, more migrants and industry, promoting growth in other industries, sao paulo has pop over 24m
    - **Sao Paulo has a high GDP** resulting from mainly industry,

- 744 million economically prosperous area
  - these areas are getting the best talent from work
  - meaning that in the urban NE there is a higher amount of jobs taken up
    Urban NE economy: agriculture (not subsistence but commercial) will lead to an increase in jobs that have high demand especially because they may have been left behind ("gaps") as a result of chain migration, mainly for commercial agriculture and people fill in these gaps also industry (but this is not as significant as Sao Paulo)
    - **More working population and higher wages there is more migration of working pop** from rural ne to ne most of them are migrating for better pay and want to get out of the cycle of poverty
      - this is seen as “last chance”=>they have the mindset that life can’t get any worse than what they have already experienced
    - **Most may decide to take on more tertiary jobs after furthering their education in urban ne** (people decide to migrate to urban ne in order to further education to allow them to pursue better more high paying jobs in sao paulo)
      - Average wages in Rural NE: $4500 + UrbanNE$:9000
      - **Higher pressure on education** (and other resources as well) **in rural NE due to the fact there is a high youthful population**
      - **Many people in rural NE, come to over to NE to increase education in order to ensure they have a better chance to get more higher paying degrees**
        - They may bring family as well through remittances and other factors as well
        - **Later on however, increase of workers in schools**=more money needs to be paid for the education cost for education 2000-10000 each year
          - Urban NE: 22% illiterate and there is 30.3% illiterate in rural areas
    - **More traffic/pollution people move to urban areas**, leading to higher wages and more wealth and they **become become more able to afford public transport**
      - Higher amount of **public transport** use
        - More congestion and pollution in urban area (4 out of 10 people choose a bus as a form of transport)
        - Eventually, people may be able to afford private transport as well if they carry on working in these areas, leading to even more congestion
- **Residential segregation**- people may choose to live near the coast of NE and more richer people choose to live away from state housing or favelas in Sao Paulo (which are located close to industry + near the path of pollution)
  - eg: people who are poorer cannot afford to live in high residential areas thus live in **state housing/favelas**
    - Due to the high amount of migration resulting from cumulative causation there is a high amount of people wanting to live in favelas, meaning that there is more competition for space in the favela + people are forced to live in smaller buildings with poorer conditions
    - It also becomes more costly to live in favelas as well (average cost: $700,000 and there is an average mor$ 724.10 R)
    - Because there is more competition for housing as well shanty town/favelas housing on side of mountains all around brazil often concentrated near affluent communities (easy access to work in the city) made of tin and cinderblock-prone to falling??
    - They have become so built up that it is hard to expand/develop favelas (and install new roading/transport) that are also not catered by govt black market and low living standards (resulting from competition for space)
    - 15% unemployment lead to under employment + 4m burden of people
  - **People who work in admin/clinical jobs or service sector jobs live in more high class residential areas** (such as Rio De Jainero which is located close to the coast and away from the path of pollution) depending on where each person/area is located
    - Depending on how much wages they have earned, there may be segregation within urban NE
    - There is already **segregation in NE (between rural and urban areas) as a result of migration**
      - People who are able to earn higher income at urban NE have higher education and have

higher paying jobs + less families are involved in subsistence agriculture (also youth living in poverty is significant lower in non-agricultural urban places which is ~~15% but has fallen to~~ 10% than agricultural families which is ~~47% in 2003 but has fallen over time to~~ ~33%) meaning they are more able to afford money to live in urban NE



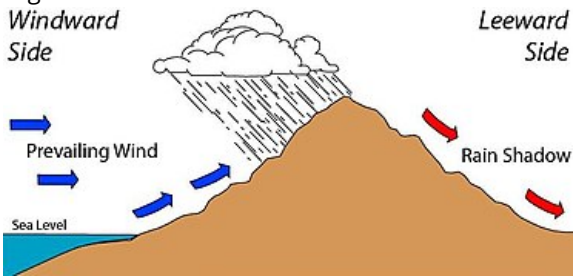
- In comparison to people in rural NE who mainly rely on subsistence farming (36% of subsistence farmers live in poverty and 67% of income in rural NE households really on subsistence agriculture)
- These people may eventually become able to live in Sao Paulo and *maybe* (rare) live in Rio

Ravenstein's Law + the pattern of movement

- People move to urban NE then they leave to SP and gaps left behind taken up by other workers in urban NE
- Work to get used to a new style of living
- Distance + cost another reason, poverty means people unable to afford costs to move to SE of Brazil

Push

- High amount of poverty
  - 60% of the population is in poverty + rely on subsistence farming
  - 30% of subsistence farmers live below the poverty line
  - Meaning that people are unable to access agricultural inputs allowing them to optimise the amount of crops being produced
- Can't access fertilisers or HYVs that allow them to produce high amounts of crops
  - Lack of agricultural inputs coupled with extreme physical conditions make it harder to produce enough crops so their family is self sufficient
    - there have been 7 droughts in the last 100 years and last 5-7 years (due to high temperatures)
  - Extreme physical conditions are caused by a rain shadow effect at the highlands at the Brazilian Highlands



- Overpopulation
  - There is a high amount of birth rates (30/1000)-there is a poor carrying capacity and biophysical capacity=not enough resources to be easily accessible to a large population
  - High BR=large youth dependency=working population has to bear the brunt of needing to produce enough food for their own family
    - Leads to high education + health costs=people move out to urban Ne then to Sao Paulo

Pull

- Cumulative causation->SP contains 300,000 businesses and 70% industrial employment, 70% of industrial employment + has high surplus of cheap labour=encouraging industries to take advantage of this labour=higher amount of growth in industry + higher amounts of jobs leading to more industry=24m population
- Higher wages (rural NE $4000, Urban NE$ =9500) + rural NE has less qualifications than people working
- Urban NE has a higher amount of higher degree jobs-half of the jobs are involved in service and trade
  - Urban NE has higher education opportunities (76% rural population is literate but 90% literate in urban areas in 2010)
    - People are able to seek higher end jobs instead in the agricultural sector instead + to seek better jobs
- Higher life expectancy for people living in South East than people living in North East (48 in North East and 63 years in South East)
- Higher amount of health services available=higher amount of medicine for preventable diseases that can be treated
- Higher standard of living (due to increase in income)
  - Climate also more ideal to farm crops
    - Brazilian highlands experience rain shadow and precipitation is blocked on the rural NE
    - Sao Paulo has a higher amount of precipitation and a higher amount of fertile soils + increase in living standards can access agricultural inputs
- Improved road + transport: rural -> urban makes it easier for people to migrate via. urban-rural migration

Constraints

- Physical environment

- Brazilian highlands make it hard to cross over
- Culture tends to alter with distance and knowledge of an area decreases with distance
  - People unlikely to go to an unfamiliar area + uneducated
  - May not know much about Sao Paulo (only has a brief idea about it from word of mouth)
  - Reason people first go to urban SE→still has + allow people the opportunity to get used to urban culture
  - May get used to urban area and gain knowledge Sao Paulo
- Distance
  - Can't afford costs to move (due to high amount of poverty etc)
- Economic status
  - Majority of people in Sao Paulo are in poverty
  - Subsistence farmers are unable to sustain + create enough agricultural inputs for commercial farming (90% live below the poverty line)
- Inertia + attitude to risk taking
  - People are reluctant to leave because they have family + old friends
  - Old people want to stay to support their children (many working people leave from rural NE to urban NE then to Sao Paulo) while their relatives leave
  - Eventually, (by chain migration), old people eventually move over (if remittances are provided by working population)

10.3. Counterurbanisation (Auckland to Clevedon)

What is Clevedon

- Mainly rural area established as part of Auckland's commuter belt
- Located in Manukau City + situated on a broad valley on Wairoa River
- Land surrounding is typically flat to gently undulating rural land
- Service center

Demographics/socio economic characteristics compared to Clevedon

- Socio economic characteristics
- Who typically migrates
  - Retired people who don't need to commute to the city
  - Long distance commuters who can afford high commuting costs
  - People who work from home
  - Families wanting an urban lifestyle
  - Population
    - Totals: 2583 clevedon, 1 million Auckland
    - Household composition: Clevedon, 70.9% occupied in private, 62% households in family trust
  - Wages
    - Higher wages in clevedon $27600 and auckland$ 29600, Clevedon tends to have a higher wage=more people want to move out
- Aged population
  - 11.5% Auckland, 12.5% Clevedon
  - Auckland has slightly less aging population
- Not too much of a change in urban settlement structure considering that the growth of clevedon is slow
  - only 2583 people live in clevedon, 5.5% increase from the previous census (this is a slow growth)
  - Why is there slow growth
    - Government is not willing to invest a high amount of money into investing in transport (262 million needed for investing) and other facilities in Clevedo

Why Clevedon is attractive to many people

- Benefits
  - Highway provided to Flatbush (20m to Manukau and 50m to city)
  - Can still access good quality of education (people can bus or board to Auckland schools->eg: King's College)
  - Southern Motorway provides road link to commuters to Akl City
  - Railway is 15 minute drive way + is accessible to Auckland City

Impacts of counter urbanisation

- Benefits
  - Less skilled workers in the area find it easier to find work as painters or decorators + won't be forced into traditional rural jobs such as farm labouring with long hours and low pay
  - Landowners and house sellers can sell at high prices
  - Rural services see an increase in demand and profits
  - Improved infrastructure due to roading
  - Commuting became so popular services have changed to meet the demands of new residents
  - Area still has low order services such as dairies, butcher's, bakers and hair stylists
  - High order services such as a restaurant have opened to meet needs in an area
  - Estate agents have been opened frequently over recent years + caused the primary school intake to rise
- Issues
  - Increased housing costs meaning locals can't afford to buy houses in the area
  - Services may be lost newcomers are more likely to shop in a supermarket in town that uses local shops
  - If too many houses are built in villages the rural character may be destroyed
  - Social-tension, a farmer in a village has different priorities to a local person
  - Village becomes a dormitory settlement
  - Community spirit is lost
  - Lack of local public transport

- Increased traffic volume
- Life style blocks leads to a fragmentation of land + farm land is made unproductive

CAIE AS LEVEL
Geography (9696)