

Year 12 Geography

Unit 4 : Overview

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Overview of places and their challenges

- *The process of urbanisation and its implications for world population growth and human wellbeing in urban and rural places*

Urbanisation: an increase in the proportion of the population living in urban areas as opposed to rural due to them migrating. This process has occurred en-masse since the industrial revolution and is occurring fastest in NICs as people seek a higher standard of living in urban areas

Urban Growth: an increase in the number of people living in urban places

- In Australia the ABS (Australian Bureau of Statistics) states any place with a population exceeding 1000 people = urban
- There for place with population less than 1000 = rural
- Any urban centre with pop. Above 100,000 = major urban area
- An urban centre is between 1000 and 99,999 people

Rural characteristics:

- Rural regions have lower population less density populated
- Settlements consist of hamlets and villages, distributed in a scattered or a clustered fashion (tend to be grouped)
- Economic activities tend to be based upon primary industries e.g. agriculture, fishing and forestry
- Environment hasn't been altered as much compared to urban, more vegetation and natural features

Urban characteristics:

(usually opposite to rural)

- More dramatic alterations, more built environments
- Economic activities tend to be based upon secondary (manufacturing) and tertiary (services) industry

Drivers of urbanisation

- Job opportunities
- Places for industry to expand
- technology: advancements & innovations
- Safer in cities
- Places to trade

	Europe	South America	North America	Oceania	africa	Asia
Level of urbanisation	74%	79%	81%	90%	40%	50%

Current world population = 7.8 billion

Projected that urban places are going to continue to grow in population due to the services they provide and a decrease in the proportion of the population living in rural areas.

As the world becomes more urbanised the majority of the population living in urban areas increase while in rural areas decreases

Human Wellbeing: wellbeing is a product of quality of life (people's happiness) and standard of living (people's access to goods and services and their wealth). It is essentially the ability of people to access the things they need in order to live happy and healthy lives.

If populations continue to rise rapidly, concerns are raised about the environmental, physical, social, economic and even political sustainability of cities and even nations. These factors all influence human well being. If populations exceeds 11 billion by 2100, there are a number of needs that will need to be met including roads, water supply, sewerage etc. and a number of questions that are raised to whether or not these can be provided for so many people.

- ***The economic and environmental interdependence of urban and rural places***

Economic interdependence:

Refers to how rural and urban areas trade resources and rely upon one another to support businesses and industries in the two regions e.g. rural regions produce the food in the country, the farmers here rely upon urban areas to see their produce where the majority of customers are. They also rely on the location of in such as ports in urban areas to export produce to overseas markets.

Meanwhile food processing firms such as Mrs Mac's, Steggle's, rely upon the production of raw materials/ agriculture produced in rural regions to make chicken schnitzel/sausage rolls etc. Some of which will be sold to rural markets and transported via rural infrastructure.

Employment: urban areas rely upon rural for employees but rural tourism industries can rely upon urban areas for education at uni e.g. secondary and tertiary education courses such as agricultural science and business management to up-skill rural populations and educate them upon how to run a viable business creating employment which in turn can then attract urban residents to visit for work and pleasure.

Environmental interdependence:

Rural areas are viewed as being far away from urban places, leading to both positive and negative interactions/outcomes in terms of environmental interdependence.

Short-term: desire to experience opportunities for an escape, reflection, recreation and reconnection with nature which is attractive to urban dwellers.

generally in pristine areas of the wilderness beside the ocean or in wide spaces

Long-term: urban dwellers may seek to relocate due to perceived or real benefits in terms of lifestyle, affordability, space and safety, e.g. Mandurah and Busselton.

- Vastness and remoteness of rural areas = Flow of wastes from urban to rural places
- Rural places often view as a dumping ground, air pollution and acid rain threaten both cultural and physical environments
- Urban places rely on natural places to manage environments effectively ensure needs of growing population are met
- Clean air and water, flood/drought mitigation, soils and soil fertility, pollution mitigation etc. all largely dependent on how rural areas are managed
- rural rely on research conducted by tertiary institutions located in urban areas e.g. to adapt to climate change such as the creation of genetically modified drought resistant crops.
- However urban rely on rural to provide ecosystem services such as food and places of recreation

- ***The historical, cultural, economic and environmental factors that have contributed to the spatial distribution of urban and rural places in Australia***

Population density: is expressed as the number of people within a given area of land

Population distribution: is how a population is spread over the surface of the land

Spatial distribution of Australia:

- the majority of urban places in Australia are located in a linear distribution along the coast line
- As you travel further inland the size/number of urban places decreases

- Urban places are spatially associated with the coast
- Expeditions to the usual pattern include the twins of Alice Springs and Kalgoorlie which are urban towns located further inland of Aus

Factors affecting settlement patterns:

- rural and urban settlements unevenly distributed across Aus
- High degree of centralisation of population in urban centres cover a relatively small area of the nation
- 8 large capital cities located in each state and territory all of which (except Canberra) are coastal
- Rural settlements increase in number and are closer together along the southwest, east and southeast of the continent and decrease in number and become more dispersed with an increased distance from the coast
- Rural and urban settlements form linear patterns along main transport facilities and the coastline

Eastern Australia:

- eastern seaboard has high population densities within 50km of the coast
- Moderate population densities between 200-400km inland
- Low density in the great dividing range

Western Australia:

- Perth has high population density, 310 people per km², while the rest of WA has an average of 0.2 people per km²
- Maximum population densities 3000p/km² in Tuart Hill, Joondanna, Scarborough, Innaloo-Doubleview, North Perth

Interior, north and north west of Australia

- extremely low population densities/some areas unheated
- Scattered populations associated with extensive agriculture/specialist functions/tourism
- Northern Territory contains approx 1% of the Aus total population

Historical factors: Past events

- Australia was six separate colonies between 1788-1859, six separate capital cities grew with their own government
- Each settlement was located on the coast, essential to the establishment of port facilities and infrastructure was centred around the main ports (the central hub)
- Main ports were reliant on importing and exporting goods for survival
- Eventually all rail transport was focused on this centre
- Sydney, Brisbane, Hobart and Perth were established as convict settlements
- Various laws and acts (NSW's 'limits of location') were in place to prevent settlers/ex-convicts from going too far inland, therefore, exploration of inland regions and creation of new urban places was limited
- Because of the strict laws, it meant development of the urban places was highly developed because people had no choice to go elsewhere
- However as colonies needed to become self-sufficient in food production they allowed exploration so rural hills were situated on suitable agriculture land (places such as Bathurst in NSW and York in WA)

Environmental Factors: how the natural environment has influenced the location of places and the population who reside there.

Climate

- southern half of Aus dominated by seasonal Mediterranean climate - this was favoured by early settlers
- Initial settlements were located in places with good seasonal rainfall which matched similar conditions that were seen in England
- Colonial capitals located centrally - would be able to support agricultural production

- More favourable agricultural regions along central QLD coast, southeast and southwest coast contain highest concentration of urban places
- Higher productivity of the land = high population densities therefore an increase demand in goods and services
- High summer temp and cold winter temps and unreliable rainfall = presence of fewer settlements with no association to mining and exploration

Hydrology

- first settlements were in locations where rainfall was plentiful and water supplies were available
- The amount of water supplies diminished inland = so did the size of urban places
- Inland irrigation schemes found along Murray, Darling and Murrumbidgee rivers led to establishment of larger rural service centres and urban places

Economic factors: Relates to resources - this refers to economic function of a place (what it does and what its main economy is based upon) and how settlements locate based upon economies

- focus of road/rail transport to port facilities and associated infrastructure has created a form of economic inertia = change resisted
- e.g. Perth - arrangements to consider moving freeo's port facilities to Kwinana = impractical, majority of infrastructure already exists along with experienced labor force, support industries, financial and banking services and access to government departments etc. new transport plan will reinforce dominance of freeo as major facility
- Industry and commerce always larger along coastal places
- Location of urban areas influences location of rural areas, which are often associated with primary industries
 - rural areas provide urban areas with agricultural products because of market demand from urban areas - the urban areas then also develop as a regional hub for rural hinterland e.g. Northam in WA's Wheatbelt region
- Economic development of Asia = increase demand for mineral deposits = increase job opportunities in mining towns e.g. Pilbara region of WA = growth and expansion of urban areas such as Port Headland to export mining minerals from smaller mine sites in rural regions and agricultural activities or rural settlements in Port Headlands hinterland
- Distance of settlements from one another and location can be related to consumer demand for resource and environmental conditions determining where these resources are.

• ***The process of urban sprawl, invasion and secession, renewal, planning land use competition, inertia and agglomeration that have contributed to the characteristics and functions of urban and rural places in Australia***

Urban sprawl: the outward growth of urban areas often in low density, residential, car dependant communities on the edge of the existing urban area on the rural urban fringe. The applies to new growth areas e.g. the suburb of Butler located east of marmot ave. approx., 40km NNW of Perth CBD.

Cause: increase population, more people moving to cheaper land areas

Effect: Increase traffic congestion, more people travelling to city in cars, also land cover change.

Invasion: When one land use function enriches into another land use function zone. Occurs in transition zones such as the rural urban fringe, cheaper land values act as a centrifugal factor and encourage first home buyers to purchase residences in the outer suburbs of new growth zones. e.g. butler located approx 40km NNW of Perth CBD, where residential land use has invaded agricultural

Centripetal forces: forces that pull or push functions to the inner zone e.g. higher petrol prices and traffic congestion result in more people moving closer to work and living in apartments resulting in more residential land use and a decline in industrial land use. Other examples include better services and transport, agglomeration economies and more prestigious areas.

Centrifugal force's: forces which push or pull functions to the outer zones e.g. limited space and high land values push first home buyers away from the city and beach and future away from city where land values and homes are cheaper resulting in urban sprawl and residential functions previously agricultural land. Other benefits of sites further from the CBD include greater room for expansion, less traffic congestion and pleasant environment.

Succession: This is when the invading land use becomes the dominant land use/function in an area. For example in east Perth, in the nine mix zone is now predominantly residential, used to be dominated by industrial land use.

Renewal: Large-scale redevelopment projects which often take places in areas the are heavily run down.
Cause: economic transmission, such as the renewal of east Perth with development of Claisbrooke village which changed from being originally an industrial zone to now mixed of secondary to tertiary industry.
The effect of this is Gentrification: Rich people moving into a new area

Inertia: When a function remains in an area even when the original locational advantages have gone
Cause: resistant due to high relocation costs, stay due to social, cultural, or historical significance.
Effects surrounded by high rise commercial buildings
E.g. Saint Mays Cathedral in Perths CBD.

Agglomeration: The grouping together of similar but not identical land use functions within a given location for mutual benefit. They group or cluster together due to benefits of using common infrastructure (e.g. transport links), sharing information and accessing each others operations/products.
cause; compatible functions
Effect: increase access of costumers to services
E.g. Kwinana industrial region, 35km SSW of Perth CBD

Planning: Determines what, when and how urban land uses are implemented. It attempts to group together compatible land uses, such as industry, establish the separation if incompatible land uses and ensure there is a disperse pattern of services throughout the urban area.
Cause: increase population and urbanisation
Effect: less traffic congestion
E.g. Perth and Peel @ 3 million is a strategic guide to plan for the future and make Perth a more liveable and sustainable city, the plan effectively sets out challenges and ways to counter them.

Land use Competition: This is where different land uses/functions compete for space. Determined by accessibility land value and areal extent of land required to make a profit. When more than one land use can benefit from a particular location, competition occurs.
Effects: Results in invasion and succession.
This is relevant of Perths CBD, the most desirable sites are located here because all. Major transport links converge at this pint. As land in the CBD is limited and highly desirable, land values are extremely high.

- ***The changing demographic, economic and social characteristics, including age, gender and socio-economic and cultural distribution, in urban and rural places in Australia.***

Demographic: Statical data about the characteristics of a population including age, gender, cultural diversity and income of the population within a defined region.
(Basically socio-economic data about a population - data could include choropleth maps, population pyramids etc.)

Australia statistics:

- approx 92.5% of people in Aus and new Zealand live in urban areas
- Around 75% of Aus population live in large urban areas in 16 cities over 100000
- Around 65% of Aus population live in the 8 state and territory capitals
- The rural population in most states ranges between 9.2-12.7% - But In Tasmania and northern territory over 25% live in rural places
- Inner regional areas also have a greater elderly population as retirees move away from urban to quite areas but are still close to urban areas to access the services from them

Push and pull factors of Australian migrants:

- economic - push - unemployment, people migrate to UK, USA , Aus for pursuit of jobs
- Economic pull - new economic and employment opportunities
- Political/Cultural - push - political prosecution, war, inter-ethnic conflict, civil wars forcing people to leave their home lands
- political/cultural - pull - political stability, along with greater economic and educational opportunities
- Environmental - push - natural disasters and climate change force people to move and live elsewhere
- Environmental - pull- environmental and natural amenity offers an attractive and healthier life style

Age and gender demographics:

- capital cities contain higher proportion of people ages 20-39 than the rest of Australia, this reflects centripetal forces such as education, employment, social and other opportunities for younger adults in capital cities
- Capital cities contain a smaller proportion of older adults 40 years and over than the rest of Australia
- Age 20-44 largest group living in large urban places / capital cities
- 3/4 of 25-29 reside in capital cities - pull factors such as tertiary education, employment, cultural and social opportunities also push factors from other places that make young people move include a lack of jobs, events and limited opportunity for social interactions
- 70-74 has the smallest population living in capital cities

Cultural demographics:

Refers to the information concerning religion, ethnicity, country of origin, and language spoken

- over 82% of Australia's overseas population live in urban areas
 - Moving to more rural areas would mean migrants would have to face many more challenges and changes due to isolation of these towns
 - In urban areas there are many support services that migrants can count on to make the move easier, such as: government agencies, immigration services, language and interpreter services, financial services, access to public transport, potential provision of public housing, health and medical services, and higher likelihood of finding a job.
 - Migrants are also more likely to move to urban areas because these are the places where their relatives, or people they know from their original location - this is known as chain migration, migrants have access to support from those they may know, they can show them the 'ropes'. This chain migration often ends up with groups of ethnic/. Cultural groups. For example
 - Those that speak English are more likely to locate to the smaller urban places due to being similar from where they were originally from and also that they are able to integrate into a new community, for example UK and NZ migrants
 - The largest urban places in Australia contain the greatest cultural mix or ethnic diversity, the provision of services and chain migration are the main factors for this

Socio-economic demographics:

Refers to the social and economic position of a given individual, families or group of individuals within society. Measures of income, wealth, education, occupation type and place of residence are used as indicators of socio-economic status.

Urban

- largest urban places/capita; cities have the highest average income compared to other places in each state
- These places offer more specialised, professional services e.g. financial, medical and legal services
- Providers of these receive high salaries for their skills and expertise
- Also contain majority corporate offices and government departments - where senior manager positions demand higher salaries and wages, in Perth for managers employed in government positions the average salary is approx. \$120k compared to the WA average of \$72k

Rural

- Contain fewer specialised services
- Many more retirees in these areas
- Higher proportion of people who wholly or partly rely on government social security payments
- Decrease in the range of jobs compared to urban places and also less number of income generating industries therefore average incomes tend to be lower
- A number of remote indigenous communities in WA have very low average incomes and higher than average reliance on government social security payments

Exceptions

- agricultural locations generate high average incomes, e.g. Salmon Gums, farming region 100km north of Esperance WA, consistently ranked as one of the highest average income locations in rural Australia
- Rural mining communities found in remote regions of the Pilbara and Kimberly are places where average incomes are also very high
- Whilst urban have highest average incomes - this can mask the extremes of wealth and poverty usually found in these places

- urban places contain increased number and proportion of residents with tertiary education qualifications
- Rural mining communities have increased proportion of workers with a trade qualification
- Housing values are higher in most urban places than most rural places
- Motorcar, motorbike and boat ownership per person is also higher in urban places therefore reflecting overall economic status of urban dwellers

- *An overview of the challenges facing rural and remote places in Australia, including indigenous communities. Challenges include: population loss, economic restructuring, employment, housing, service and water provision, concentrations of socially vulnerable populations, social inclusion and exclusion, transportation, resource degradation, land use conflicts, declining political influence, isolation and remoteness, fly-in/fly-out work patterns*

Population loss: the declining share of the population living in a place

Cause: rural to urban drift - younger people are moving to urban areas for better opportunities such as education and employment, it is also due to increased mechanisation of farming practices meaning employees are having to look for new work which is available in urban areas and also in urban areas there are better services and facilities compared to rural places.

Effect: falling demand for goods and services this leads to a decline in provision of services therefore further job losses in remote towns

- small remote businesses may close due to revenue loss this further more contributes to the loss of goods and services
- e.g. wheat belt region of WA extensive farming region which is sparsely populated. (one person for every 2km²) the median age here is 42, which is higher than the WA median age of 36, the proportion of people aged 15-24 is significantly lower due to this age group being attracted to what is offered in urban areas

Isolation and remoteness: relates to the lack of infrastructure leading to a lack of connection to services. Australian capital cities are densely populated, and only 2% of Australia's population live in remote areas

- Remote areas are connected to a lack of services such as education and healthcare, in these areas it is not economically viable to provide a variety of services due to such a low population
- Due to being not close to regional centres, those in rural towns rely on the transportation of food, this reduces the quality of the fresh food that they are receiving
- There is also a lack of investment and labour to build new infrastructure and houses, pushes up prices dramatically
- poor provision and high costs of services and housing can place individuals and families under financial and emotional strain

e.g. teller gold mine located in the great sandy desert, once supported a thriving rural mining town and used to have a strong live-in residential population over 1100

In 1996 the company reverted to fly-in/fly-out, this meant community services such as supermarkets, police station bank as well as family residences were removed

Fly-in/Fly-out work patterns: over the last 20 years many mining companies have moved to FIFO working patterns for those employed in rural and remote locations

- large economic leakage, loss of revenue to local businesses and government spending in rural communities declined
- This was seen at teller gold mine in great sandy desert which converted into FIFO in 1996 causing services such as supermarket, police station and bank to shut down.
- There is also a number of social challenges seen with FIFO, the employees have seen an increase in mental health issues, they struggle to deal with being removed from family and friends yet feel compelled to remain at work due to the large income they are receiving.

Economic restructuring: refers to the significant and enduring changes to the nature and structure of the economy, most evident in relation to employment patterns and levels

Social inclusion and exclusion: social inclusion refers to when a person has the opportunity to participate in society through employment, access to services, connect with family and friends and local community. Therefore social exclusion is when an individual does not have these opportunities, resulting in a lack of connections and participation which leads to mental health issues such as depression and suicide.

Concentration of socially vulnerable populations: social isolation and exclusion leads to people being more socially vulnerable, this refers to people who are unable to withstand repeated and adverse impacts from multiple stresses from life events to which they are exposed to. In indigenous remote communities they are more socially vulnerable leading to impacts on mental health.

Resource degradation and water supplies: resource degradation is when land use deteriorates the quality of the biophysical environment on which it is located or which it surrounds. 60% of Australia's land use is agricultural, 80% of this is livestock which overgrazing of this can lead to desertification and severe soil erosion.

Land use conflict: land use conflicts arise when land use is promoted for an area that may be viewed as incompatible with, intensive or outright threatening to an existing land use. This may lead to conflict between different stakeholders involved. Involve issues pertaining to mining companies, agricultural enterprises, conservation groups and aboriginal land

rights for example the recently forwarded proposal to undertake coal mining In the Margaret river region, the government banned mining in this region due to the risk it posed to groundwater and threat to the main land use, viticulture.

- *An overview of the challenges facing megacities and Australian metropolitan and regional centres. Challenges include: housing, economic restructuring, employment, transportation, congestion, environmental degradation, waste management, personal safety, land abandonment, urban-sprawl, socio-spatial inequality, social inclusion and exclusion, changing demographics.*

Megacity: is a large metropolitan area with a total population in excess of 10 million people

Urban sprawl: is the rapid outward growth of an urban area, as new residential developments are constructed, often lacking the facilities and services needed to support the new communities.

- often a result of the idea of the 'Australian dream', high value placed on lifestyles associated with living in low density suburbia, where people reside on in a detached house on a reasonably sized block.
- This has the consequences that we are prepared to live away from other points or nodes within the urban area where we spend time engaged with work, education and leisure activities.
- Significant cost to governments in development in these outer suburbs, on the outskirts of major cities. These areas also create further demand on energy supply, water and sewage infrastructure and transportation services plus damage to natural environment. Governments also have to cater for population growth as well as control urban sprawl =costly
- Move towards creating transport oriented developments (TODs), this is where residential, employment, retail and recreational decilitres plus public transport infrastructure are all located in close proximity to each other = Subiaco in Perth wa is an example of this

Transportation: Transportation challenges are linked to the adequate supply of transport services and infrastructure for different transportation networked within an urban area - including rail, road, bus, water and air

- due to Australia's sprawling cities most of Australia's population relies on the use of privately own vehicles, over 70% of all domestic passenger movement occurs via roads
- Creates challenge for Aus to support this transportation mode, expensive to provide the adequate infrastructure required
- There is also a need for improved public transport services as they have become a Political issue in metropolitan areas
- Aus has ageing population therefor in future will need to put spending towards this, means less spending towards transport services
- In Perth, rivers and waterways tend to be under utilised, so Perth's transport @ 3.5 million alludes to the fact Perth could increase the use of ferry services between a number of inner city locations
- Globally transportation is seen as a concern due to green house gas emissions and their contribution to climate change.

Congestion: is when the movement or flow of vehicles travelling along transport networks is slowed or stopped.

- become an issue when transport infrastructure of a city does not keep up with the demand of its population and economy
- Economically, congestion costs a lot for cities e.g congestion costs Australia \$15B per year
- It also results in a loss of productivity and other issues, like the cost of fuel and vehicle maintenance
- In mega cities, like Beijing, congestion is a major issue, which has resulted in restrictions being placed on the number of cars that can be registered
- Restrictions have also been placed on which days people can drive their car

