

World Cities

The global pattern of urbanisation: millionaire cities, mega cities and world cities

- At a global scale, rapid urbanisation has occurred over the last 50 years.
- Almost 50% of the world's population lives in towns and cities. 19% of the world's population lives in cities of more than 1 million people.
- The most urbanised continents are Europe, North and South America and Oceania and the least urbanised continents are Asia and Africa.
- The number of urban dwellers is by far largest in Asia, with 1.4 billion people living in towns and cities (40% of the population).
- Urbanisation is increasing most rapidly in Africa and Asia.
- This trend is expected to continue so that by 2025 almost half the population of these continents will live in urban areas and 80% of urban dwellers will live in developing countries.
- Increased global urbanisation has resulted in the development of many millionaire cities.
- There is also a significant number of enormous megacities, some of which are classed as world cities.
 - ❖ Millionaire cities are those with more than 1 million people. India and China have the most millionaire cities in the world.
 - ❖ Megacities are those with more than 10 million people, of which there are 20 (15 in the developing world)
 - ❖ World cities are those which have great influence on a global scale, because of their financial status and worldwide commercial power. Three cities sit at the top of the global hierarchy: New York, London and Tokyo.

Economic development and change related to urbanisation

- A consequence of the rapid economic development taking place in parts of China, India and southeast Asia is that the level of urbanisation will increase very rapidly here.
- Rates of economic development and rates of urbanisation are rising simultaneously in these countries.
- In Europe, Oceania and North America, the more economically developed areas of the world, urbanisation levels peaked in the 1970s and have fallen steadily since then.

Contemporary urbanisation processes

Urbanisation: characteristics, causes and effects

The causes of urban growth

Natural population growth

- Urban areas tend to have relatively low age profiles (young adults 15-40 years).

- These young adults who have traditionally migrated from rural areas are in their fertile years and so the rates of natural increase are higher in cities than in the surrounding rural areas.

Rural-urban migration

- Reasons for rural-urban migration are divided into push and pull factors.
- Push factors cause people to move away from rural areas.
- Pull factors attract them to urban areas.
- Push factors are largely due to poverty caused by:
 - ❖ Population growth, which means the same area of land has to support increasing numbers of people, causing over-farming, soil erosion and low yields
 - ❖ Agricultural problems, including desertification because of low rainfall, systems of inheritance that cause land to be subdivided into small plots, systems of tenure and debt on loans taken out to support agricultural change
 - ❖ High levels of local diseases and inadequate medical provision
 - ❖ Changes introduced to try to pay off the interest on national debts. Land previously used to grow food for local people is now used to produce cash crops for sale to more developed countries
 - ❖ Natural disasters such as floods, tropical storms and earthquakes – people flee rural areas and do not return
 - ❖ Wars and civil strife cause people to flee their land
- Pull factors include the prospect of:
 - ❖ Employment in factories and service industries, which is better paid than work in rural areas
 - ❖ Earning money from the informal sector, e.g. selling goods on the street, providing transport or prostitution
 - ❖ Better quality social provisions, from basic needs such as education and healthcare to entertainment and tourism
 - ❖ A perceived better quality of life in the city, fed by images in the media

URBANISATION IN SAO PAULO, BRAZIL

Introduction

- Sao Paulo is the largest city in the southern hemisphere. In 2008 the city had a population of 19 million people.
- The population density is 21,000 persons per km² (twice of Paris and three times Los Angeles).
- Between 1991 and 2001 the population increased by 16%.
- However, the rate of increase is slowing.
- There is reduced rural-urban migration and the rate of natural increase has slowed.
- The population of central areas is decreasing and that of peripheral areas is increasing.
- Sao Paulo initially grew as a centre of agriculture, exporting coffee and cotton but it is now a major industrial area with manufacturing and service industries.

The environment

- 25% of all vehicles in Brazil circulate in Sao Paulo.
- The levels of ozone, carbon monoxide and suspended particles are of concern.
- The city authorities spend \$1 million a day on rubbish collection (this is a major problem).
- In 2001 the city had only 2 landfill sites and so 2 huge waste incinerators, each burning 7,500 tonnes of rubbish a day came into operation that year.

Variations in the quality of life

- Sao Paulo has the highest unemployment rate in the country.
- There is a huge divide between the rich and the poor.
- The richest district (Moema) has an HDI equivalent to Portugal; poorest district (Marsilac) has HDI lower than Sierra Leone. In 1999 there were 11,500 homicides compared with 670 in New York.
- Three different housing types dominate:
 - ❖ Condominiums: luxury housing blocks
 - ❖ Cortices: inner city dilapidated rental accommodation
 - ❖ Favelas: informal settlements made up of small, poorly built dwellings
- Substandard housing occupies 70% of the area of the city. 60% of the population growth of recent years has been absorbed by favelas.
- Favelas occupy the most peripheral and hazardous areas (floodplains, steep hills).
- Heliopolis is the city's largest area of favelas (150,000 people live in a mix of absolute and semi-poverty).
- Basic favelas are densely packed informal settlements made of wood, corrugated iron and other makeshift materials.
- More established favelas are made from concrete blocks. In favelas services are poor, electrical power is limited, lack of services, diseases (e.g. typhoid, cholera), unemployment and under-unemployment.

Housing improvement schemes

- Large scale improvement in favelas has occurred as a result of:
 - ❖ Residents expecting to remain where they are
 - ❖ Changes in public policies during the past 20 years, from slum removal to slum upgrading
- A number of attempts have been made by the government to try and solve the situation by building new housing, upgrading slums, funding self-help projects.
- In the 1990s the city supplied funding directly to community groups allowing families to either build their own or to renovate existing housing.
- Also, authorities provided serviced plots for building with mains water, electricity, sewerage and roads.
- These schemes were a low cost solution.
- Since 2000 greater investment in such projects has been made.

Elsewhere in the world

When poor newcomers arrive to a city they:

- Move in with friends or relatives
- Sleep on the streets
- Squat

People squat on 3 main types of land:

- Land that is not suitable for building because it is too steep, too marshy or too polluted
- Land close to the city centre that has not been built on because no one knows who owns it
- Land on the edge of the city that was once farmland but was abandoned as the city spread

Around the world squatter settlements have a variety of names:

- In Spanish-speaking Latin American cities: barrios
- In Portuguese-speaking Brazil: favelas
- In Calcutta, India: bustees
- In Mumbai, India: zopadpattis

The brown agenda

- Cities in the less developed world are affected by the brown agenda.
- The brown agenda is a mix of social and environmental problems brought about by rapid growth and industrialisation associated with economic development.
- The brown agenda has two components:
 - ❖ Traditional issues associated with the limited availability of good-quality land, shelter and services such as clean water
 - ❖ Problems resulting from rapid industrialisation, such as toxic or hazardous waste, water, air and noise pollution, and industrial accidents owing to poor standards of health and safety
- Low-income groups in the cities are the most affected by the brown agenda.
- International bodies (e.g. UN) have proposed city-specific solutions to the brown agenda.
- This is a suggested management framework to enable these solutions:
 - ❖ A basic urban environmental profile should be undertaken
 - ❖ The risks, impacts and purposes of improvement strategies should be assessed
 - ❖ A cost-benefit analysis of all the available options should be undertaken
 - ❖ Action plans should be put into place
 - ❖ Local support groups should be established, with training for community leaders

CALCUTTA, INDIA

Introduction

Calcutta lies in the Ganges delta. It is at the centre of an area that has a dense, overcrowded rural population. Soils of the delta are fertile. The area suffers many natural disasters. The area is often flooded by monsoon rains or by cyclones. In the late 20th century the area suffered from wars and civil strifes.

Issues

The land is low-lying and so, many bustees flood easily. Floods bring disease in the polluted floodwater.

Solutions

The Calcutta Metropolitan Development Authority (CMDA) has tried to improve the infrastructure by:

- Reinforcing the banks of the river Hooghly
- Stopping people from squatting on lowest-lying land near the river
- Improving sewerage disposal (in the 1950s 1000 people died from sewerage related deaths; in recent years there have been very few deaths)
- Improving the water supply (there is now at least one tap for every 25 bustee houses)
- Replacing mud tracks between the shacks with concrete roads
- Installing street lighting in many bustees to improve security
- Widening roads and improving public transport from the bustees to the city centre

Additional information

The CMDA does not work on the bustee houses. It is the occupiers who must improve their homes themselves.

Suburbanisation: characteristics, causes and effects

Introduction

Suburbanisation is a term used to describe the growth of areas on the fringes of major cities. It has resulted in the outward growth of urban development that has engulfed surrounding villages and rural areas. Suburbanization can be linked to a number of different push and pull factors. Push factors include the congestion and population density of the cities, pollution caused by industry and high levels of traffic and a general perception of a lower quality of life in inner city areas. Pull factors include more open spaces and a perception of being closer to "nature", lower suburban house prices and property taxes in comparison to the city, and the increasing number of job opportunities in the suburban areas.

Causes

Improvements in transportation infrastructure encourage suburbanization, as people become increasingly able to live in a suburb and commute in to the nearby town or city to work. Developments in railways, bus routes and roads are the main improvements that make suburbanization more practical. The increase in the number and size of highways is a particularly significant part of this effect. Government policies can have a significant effect on the process.

Insurance companies also fuelled the push out of cities, as in many cases, it redlined inner-city neighbourhoods, denying mortgage loans there, and instead offering low rates in the suburban areas. More recently, some urban areas have adopted "green belt" policies which limit growth in the fringe of a city, in order to encourage more growth in the urban core.

Recent developments in communication technology, such as the spread of broadband services, the growth of e-mail and the advent of practical home video conferencing, has enabled more people to work from home rather than commuting. Although this can occur either in the city or in the suburbs, the effect is generally decentralizing, which works against the largest advantage of the center city, which is easier access to information and supplies due to centralization.

Industrial, warehousing, and factory land uses have also moved to suburban areas. Cheap telecommunications removes the need for company headquarters to be within quick courier distance of the warehouses and ports. Urban areas suffer from traffic congestion, which creates costs in extra driver costs for the company which can be reduced if they were in a suburban area near a highway. As with residential, lower property taxes and low land prices encourage selling industrial land for profitable brownfield redevelopment.

Brownfield sites

These are derelict sites in urban areas. The land is available but can be costly to reclaim if it has been polluted by industrial use. Housing is likely to be built at a high density to reflect the cost of the land. Infrastructure is normally present, though existing facilities can become overloaded. Sites tend to be small patches of land. The environment is generally improved.

Greenfield sites

These are new sites, usually on agricultural land in green belts around urban areas. Land is not available unless planning permission has been obtained so there is usually a public enquiry and a delay of several years adding to the costs. Housing will be relatively low density and there is a great demand for such housing as it is in fashionable areas. Infrastructure costs are high as new sewerage, water, gas and electricity supplies have to be considered. Sites tend to be larger. The environment is changed from rural to urban use.

Counter-urbanisation

Counter-urbanisation is the migration of people from major urban areas to smaller urban settlements and rural areas. Counter-urbanisation does not lead to suburban growth, but to growth in rural areas beyond the main city. The difference between rural and urban areas is reduced as a consequence of this movement. A number of factors have caused the growth of counter-urbanisation. One is that people want to escape from the air pollution, dirt and crime

of the urban environment. They aspire to what they see as the pleasant, quiet and clean environment of the countryside, where land and house prices are cheaper. Car ownership and greater affluence allow people to commute to work from such areas. Indeed, many employers have also moved out of cities. Between 1981 and 1996, rural areas gained more than 1 million jobs. Improvements in technology such as the internet have allowed more freedom of location. Someone working from a home computer can access the same global system as a person in an office block in the centre of the city. At the same time there has been a rising demand for second homes and earlier retirement. The former is a direct consequence of rising levels of affluence. Alongside this is the need for rural areas to attract income. Agriculture is facing economic difficulties and one straightforward way for farmers to raise money is to sell unwanted land and buildings. Counter-urbanisation affects the layout of rural settlements. Modern housing estates are built on the edges of small settlements, and small industrial units on the main roads leading into the settlement. Former open areas are built on, old properties and some agricultural buildings are converted and modernised. As with gentrified areas in inner cities, there is tension between the newcomers and the locals. One of the main areas of conflict is that, despite the influx of new people, local services often close down. Bus services to many rural communities have disappeared, schools and post offices have closed, and churches have closed as parishes are amalgamated into larger units. The main reason for these changes is that newcomers have the wealth and the mobility to continue to use the urban services some distance away. The evidence for counter urbanisation in an area includes:

- An increase in the use of a commuter railway station in the area, including car parking for commuters
- Increased value of houses in the area
- The construction of more executive housing in the area, often on newly designated building land, following the demolition of old properties
- Conversions of former farm buildings to exclusive residences

Counter-urbanisation is one of a number of processes contributing to social and demographic change in rural settlements, sometimes referred to as the rural turnaround. The main changes include:

- The out-migration of young village-born adults seeking education and employment opportunities elsewhere
- The decline of the elderly village-born population, through deaths
- The in-migration of young to middle-aged married couples or families with young children
- The in-migration of younger, more affluent people, which results in increased house prices

THE EFFECTS OF COUNTER-URBANISATION: ST, IVES, CAMBRIDGESHIRE

St Ives, in Cambridgeshire is about 100 km north of London and 25 km northwest of Cambridge. The town is close to both the A1 trunk road and the main east coast railway line. Regular trains to London make the area accessible. St Ives is a picturesque town on the Great Ouse. It has a narrow six-arched bridge with a central chapel (built in the 15th century), fine Georgian and Victorian houses in the Broadway and in Bridge Street and there are also other

splendid buildings, including the Corn Exchange and All Saints Church. The building styles contribute to the character of the place and add to the attraction of living there. The surrounding rural area is mainly farmland. In recent years there have been many housing developments on the periphery of the town. A substantial number of exclusive apartments have also been built in the heart of the town, particularly on the south bank of the Great Ouse.

Changing population and prosperity

The population structure of the town is changing. One section of the community is ageing, but another is becoming more youthful. A large proportion of the working population is now employed outside the town. There has been an influx of commuters from in and around London. Housing in the area is affordable and there has been a boom in demand for property. People in St Ives have higher incomes and higher standards of living than those in many other parts of the UK. Retired people are also moving in to the area. Their impact is noticeable in the increased demand for bungalows and small riverside apartments. Commuting to London increased during the 1990s. The main line was electrified and journey times were much reduced. It is estimated that 25% of St Ives working population now commutes to London each day. These people prefer living in a rural/small town environment and travelling daily to London. Although the prosperity of the town has increased there is an increasing gap between those who can afford the rising cost of housing and commuting and those on low wages, such as farm workers, who cannot. There is a demand for low-cost housing for young local families but few builders are prepared to provide it.

Services in the town

The shops and services in the town have changed as the population has altered. There are still supermarkets, butchers, bakers and greengrocers, but there are also high-status services such as restaurants, antique dealers, designer clothes shops and knick-knack shops. A number of estate agents have offices in the town, as do branches of banks and building societies. The secondary school roll is increasing. As in other rural areas, the bus service to St Ives is infrequent, although it is better than many others because the town lies on a route between Cambridge and Huntingdon. Bus services are available at priority times – the start of and end of the school day and on market days. Pressure to increase the housing stock has become greater, fuelled by demand from commuters. There is resistance to building more homes from the local residents, but many of these are new to the area themselves and do not want their newly chosen environment changed. If more house building takes place developers will be encouraged to make it blend in with the current urban landscape. Any development must make a positive contribution to the character of the area.

ECO-TOWNS IN THE UK

In 2008 the government announced plans to build up to ten eco-towns by 2020. These will be small new towns of between 5,000 and 20,000 homes. The developments are intended to produce zero carbon emissions and to provide sustainable living using the best new design criteria and architecture. The essential requirements of these new towns are:

- They must be new settlements, separate from existing towns but well linked to them

- They should provide a good range of facilities – a secondary school, a medium-scale retail centre, good-quality business space and leisure facilities
- Affordable housing should make up between 30% and 50% of the total through a wide range and distribution of tenures in mixed communities, with a particular emphasis on large family homes
- A management body must help develop the town and provide support and services for people and businesses moving there

Some of the proposed sites have met with opposition from local residents and councils. One of these is Weston Otmoor, southwest of Bicester in Oxfordshire. The local council has expressed concern at the loss of green belt land, and the effects that the new town will have on rural roads and nature conservation sites. It is also concerned at the impact it will have on the regeneration of existing towns in the area such as Bicester. A local action group – The Weston Front Action Group – has argued against the site on the grounds of loss of green belt and loss of a Site of Special Scientific Interest (SSSI), but this could be a case of `nimb-ysm`. The chairman of the Oxfordshire Campaign to Protect Rural England (CPRE) argues that the ministers view that the development would be on brownfield land is flawed. He says that only a small proportion of the proposed site could be classed as brownfield – that which would come from a Ministry of Defence airfield. The developers want to build a new settlement of the future, with a shopping centre over the A34. They also want to revitalise the public transport system, including building a new east-west rail link to Milton Keynes, and free tram and bus services around the town and into Oxford.

Re-urbanisation

Characteristics, causes and effects

Re-urbanisation is the movement of people into the city centre or inner city as part of urban regeneration. There are three main processes:

- In-movement by individuals or groups of individuals into older housing that was in a state of disrepair and the improvement of that housing – gentrification
- In-movement by people as part of large-scale investment programmes aimed at urban regeneration in a wider social, economic and physical sense – property-led regeneration schemes
- The move towards sustainable communities, allowing individuals and communities who live in city centres to have access to a home, a job and a reliable income, with a reasonable quality of life and opportunities to maximise personal potential through education and health provision, and through participation in local democracies

Gentrification

Gentrification is a process of housing improvement. It is associated with a change in neighbourhood composition in which low-income groups are displaced by more affluent people, usually in professional or managerial occupations. Regeneration of inner cities can take place by gentrification, but it is different from the other schemes (property led regeneration and sustainable communities) in that it is carried out by individuals or groups of individuals, and not by supported bodies. Gentrification involves the rehabilitation of old houses and

streets on an individual basis, but is openly encouraged by groups such as estate agents, building societies and local authorities. One of the positive outcomes of gentrification is that the social mix of the area is changed and becomes more affluent. The purchasing power of the residents is greater, which leads to a rise in the general level of prosperity. There is an increase in the number of bars, restaurants and other higher-status services. The refurbishment that takes place in each house leads to the creation of employment in areas such as design, building work, furnishings and decoration. There are, however, clear disadvantages of gentrification. Local people on low incomes find it increasingly difficult to purchase houses, as the price of refurbished property rises. Indeed, the size of the privately rented sector diminishes as more properties are sold off. Friction may arise between the newcomers and the original residents. Gentrification is taking place in the central parts of many towns and cities in the UK.

GENTRIFICATION IN NOTTING HILL, LONDON

Brief history

Notting Hill is now a bustling urban area but in the mid-eighteenth century it was a country hamlet, known for its gravel pits and roadside inns frequented by travellers. Later, industrialisation brought workers from the countryside, with landlords building tiny terraced houses to rent to them. Notting Hill was a rough, working-class area and by the 1950s it was an area of slums and inner-city deprivation. In 1958, it was the scene of race riots following continuous harassment of the newly arrived Afro-Caribbean community by the 'Teddy Boys' of the British Union of Fascists. A second riot during the Notting Hill Carnival of 1976 inspired the punk anthem, White Riot by the Clash.

Today

In the past 30 years gentrification of previously working-class neighbourhoods has sent property prices rocketing. Houses can cost more here than in upmarket Mayfair. Notting Hill's secluded communal gardens, sandwiched between the rows of houses and scarcely visible from the street, make it London's most desirable area for families. Movie stars, rock singers, media types and fashion designers (such as Stella McCartney) have moved into the area, which has acquired the sort of atmosphere associated with the Kings Road, Chelsea in the 1960s. The area possesses a number of fashionable places to eat and be seen such as Veronica's, the Westbourne Pub or Lazy Daisy Cafe. The Portobello Road, hosting a famous street market is also in Notting Hill. Since 1837, people have been able to buy almost anything here. The market has antiques and bric-a-brac to the south, fruit and vegetables in the middle and second-hand clothing and bedding to the north. On August bank holiday, Notting Hill hosts the famous carnival. It is the largest outside Rio de Janeiro, attended by over 1 million people, and lasts for 3 days.

Urban decline and regeneration

Characteristics and causes of urban decline

Urban deprivation

Inequalities occur in all urban areas – enormous contrasts in wealth can be found over relatively small distances. The wealthy and the poor seem to concentrate spatially - a form of social segregation. There are a number of reasons for this:

- Housing – developers, builders and planners tend to build housing on blocks of land with a particular market in mind. Wealthier groups can choose where they live, paying premium prices for houses well away from poor areas, with pleasing environments and services such as quality schools and parks. The poorer groups have no choice and have to live where they are placed in welfare housing, or where they can find a cheap place to rent.
- Changing environments – housing neighbourhoods change, over time,. Houses that were built for large, families in Georgian and Victorian times are now too big for the average UK family. Many have been converted into multilet apartments for private renting to people on low incomes, Conversely, former poor areas are being gentrified.
- The ethnic dimension – ethnic groups originally come to the country as new immigrants. When they first arrive they often suffer discrimination in the job market and may be either unemployed or employed in low-paid jobs. They are only able to afford to buy cheap housing (inner-city terraces) or they have to rent privately. Therefore, newly arrived migrants concentrate in poor areas in the city, of ten clustered into multicultural areas. Such ethnic groupings tend to persist into later generations.

The inner city

The characteristic features of the inner-city areas are:

- High population out-migration figures
- Many boarded-up shops
- Many empty and derelict properties
- The closing of schools, particularly primary schools, and low levels of education
- High levels of unemployment
- High incidence of crime, vandalism and graffiti
- Low levels of participation in local democracy

The causes of inner-city decline

More than 4 million people live in the inner cities of the UK. These areas are typified by economic decline, personal poverty, social problems and environmental decay.

Economic decline

Since the 1950s, there has been a widespread movement of employment away from the large conurbations to smaller urban areas and to rural areas. This fall in employment has been largely in traditional manufacturing industries, formerly based on coal, steam power and

railways. These industries were located in today's inner-city areas. Between 1960 and 1981, more than 1.6 million manufacturing jobs were lost in the major urban areas. This accounted for 75% of job losses nationally. This decline in manufacturing was accompanied by the growth of service industries. However, this growth did not compensate for the massive job losses in manufacturing. In addition, service industries did not require the same skills as manufacturing industries. In the late 1980s and early 1990s jobs in services in inner-city areas also fell, by 7% compared with a national increase in such jobs of 11%. Deindustrialisation in the inner cities was accompanied by the expansion of employment in rural areas and small towns. This shift can be partly explained by:

- The changing levels of technology and space requirements of manufacturing industry, which resulted in a shortage of suitable land and premises in inner cities. Investment moved from urban to rural locations.
- Globalisation of production, which led to declining profits and increased competition. To remain competitive, companies were forced to acquire other companies, introduce new technology and move to new locations in the UK and overseas.

Inner cities contained many of the types of workplace most likely to be closed – old plants with the oldest production techniques, lowest productivity and most unionised workforce.

Population loss and social decline

Between 1951 and 1981, the UK's largest conurbations lost 35% of their population and migration was the key cause. For example, in the 1970s, out-migration from the inner areas of Liverpool and Manchester led to a population decline of over 25%. Many of these people were looking for better employment opportunities. In the 1960s and 1970s the out-movement of people led to a growth in small towns around large conurbations. In the 1980s, a significant proportion of the out-migration from cities involved people moving to rural areas (counter-urbanisation). The key causes of population decline are changing residential preferences, job growth and improvements in accessibility of suburban and rural areas as well as the poor image of the inner city. The people who have left the inner-city areas have tended to be the younger, the more affluent and the more skilled. This has meant that those left behind are the old, the less skilled and the poor. Therefore, economic decline of these areas has led to social decline.

The poor physical environment

The physical environment of the inner cities is usually poor, with low-quality housing, empty and derelict properties, vacant factories and unsightly, overgrown wasteland. There are high levels of vandalism, graffiti and flyposting and few amenities such as parks, open spaces and play areas. Urban motorways, with flyovers, underpasses and networks of pedestrian walkways, contribute further to the bleak concrete-dominated landscape.

Inner-city high-rise developments

High rise flats were a common feature of both inner-city renewal and peripheral council estates in the 1960s and 1970s. Some were well built, but many were not. People hated living in them because:

- They lacked community feel
- They were poorly ventilated and suffered from damp
- They were expensive to heat
- The open spaces designed to develop a sense of community spirit belonged to no-one, so no-one cared for them and they were vandalised
- Poor design led to hidden places where hooliganism and criminal activity took place

Cities were therefore saddled with a nightmare combination of run-down old housing and unpopular new housing. Many councils have either already demolished these flats or are considering doing so.

Political problems

There has been concern that the problems of inner-city residents have been marginalised politically. Inner cities have the lowest election turnouts in the UK, reflecting the degree to which people feel rejected. Urban regeneration policies have done little to relieve poverty.

Urban regeneration

A number of governments since the Second World War have tried to regenerate declining urban areas. The main schemes that have taken place since 1980 are described below.

Property-led regeneration

Urban Development Corporations (UDCs) were set up in the 1980s and 1990s to take responsibility for the physical, economic and social regeneration of selected inner-city areas with large amounts of derelict and vacant land. They are an example of what is known as property-led regeneration. They were given planning approval powers over and above those of the local authority, and were encouraged to spend public money on the purchase of land, the building of infrastructure and on marketing to attract private investment. The intention was that private investment would be four to five times greater than the public money initially invested. The boards of UDCs, mostly made up of people from the local business community had the power to acquire, reclaim and service land prior to private sector involvement and to provide financial incentives to attract private investors. In 1981, two UDCs were established – the London Docklands Development Corporation (LDDC) and a Merseyside UDC. Eleven other followed, in areas such as the Lower Don Valley in Sheffield, Birmingham, Heartlands, Trafford Park in Manchester and Cardiff Bay. By 1993, UDCs accounted for nearly 40% of all urban regeneration policy expenditure.

Criticisms of UDCs

Some people argued that this amount of new employment was inadequate. There were two more significant criticisms. First, the UDCs were too dependent on property speculation and they lost huge sums of money through the compulsory purchase of land that later fell in value. Second, because they had greater powers than local authorities, democratic accountability was removed. Local people complained that they had no involvement in the developments taking place.

CENTRAL MANCHESTER DEVELOPMENT CORPORATION (CMDC)

CMDC is an example of a Development Corporation established after the LDDC, in 1988. A partnership between the local authority and private developers was created. Its aim was to regenerate 200 ha of land and buildings in the southern sector of Manchester city centre. The area contained decaying warehouses, offices, former mills and contaminated land, unsightly railway viaducts and neglected waterways. It had been declared a conservation area in 1979. Some of the buildings were refurbished into a range of uses including housing. The canals in the area were cleaned, and their banks were improved by the addition of lighting, seats and plants to upgrade the aesthetics of the area. This has now become a popular entertainment based area for young people. The CMDC engaged in widespread consultation and formulated a development strategy that complemented the plans of Manchester City Council. The area also developed its tourist potential and now attracts over 2 million visitors a year. Attractions included the world famous tour of Granada Studios (actually closed), the Manchester Museum of Science and Technology, the GMEX Centre and the Bridgewater Concert Hall complex. The CMDC was disbanded in 1996, and planning powers have now reverted to Manchester City Council.

Partnerships between local and national governments and the private sector

City Challenge Partnerships represented a major switch of funding mechanisms towards competitive bidding. To gain funding a local authority had to come up with an imaginative project and form a partnership in its local inner-city area with the private sector and the local communities. The partnership then submitted a 5-year plan to central government in competition with other inner-city areas. The most successful schemes combined social aims with economic and environmental outcomes. By 1993, over 30 City Challenge Partnerships had been established and another 20 or more bids had been unsuccessful.

How city Challenge worked

The City Challenge initiative was designed to address some of the weaknesses of the earlier regeneration schemes. The participating organisations – the partners – were better coordinated and more involved. This particularly applied to the residents of the area and the local authority. Separate schemes and initiatives operating in the same area, as had happened before, were not allowed – the various strands of the projects had to work together. Many earlier initiatives had concentrated on improving buildings, whereas City Challenge gave equal importance to buildings, people and values. Cooperation between local authorities and private and public groups, some of which were voluntary, was prioritised. All the City Challenge areas suffered from high long-term and youth unemployment, a low skills base, poor levels of educational attainment, environmental deterioration, increasing areas of derelict land and growing commercial property vacancy. Public-sector housing was deteriorating in almost all the City Challenge areas due to a combination of poor initial design and inadequate maintenance. The population of these areas usually had a higher than national average incidence of healthcare problems, high levels of personal crime and fear of crime, a high proportion of single-parent families and households dependent on social security.

Was the initiative successful

Overall, the competition between areas for funding was believed to be successful – improving the quality of proposals and encouraging new and more imaginative ideas. The private sector, in particular, found the competitive principle attractive and argued that competition had encouraged local authorities to suggest solutions as well as identifying problems. However, the competitive nature of the scheme was criticised by others on the grounds that large sums of money should have been allocated according to need, not competitive advantage. In some cases neighbouring authorities competed against each other when they could have worked together. By 1997 the Conservative government was able to publish statistics pointing to the success of City Challenge. Over 40,000 houses had been improved, 53,000 jobs had been created, nearly 2,000 ha of derelict land had been reclaimed and more than 3,000 new businesses had been established.

HULME CITY CHALLENGE PARTNERSHIP

The Hulme area of Manchester was redeveloped as part of a slum clearance programme in the 1960s and a number of high-rise flats were built. Of the 5,500 dwellings, 98% were council owned. Over half of the dwellings were part of a deck access system, with many of the poor design features of prefabricated construction. The area had a low level of families with children, and a disproportionate number of single-person households. There was also a high number of single parents, and other people with social difficulties. There was some evidence that the local authority had used the area to dump some of its more unfortunate residents.

Redevelopment

In 1992, under the Hulme City Challenge Partnership, plans were drawn up to build 3,000 new homes, with new shopping areas, roads and community facilities. A more traditional pattern of housing development was designed, with streets, squares, two-storey houses and low rise flats. By 1995, 50 ha of land had been reclaimed, the majority of the former deck access flats had been demolished, 600 new homes for rent had been built, and more than 300 homes had been improved and refurbished. The main shopping area was totally refurbished, including the addition of an ASDA supermarket. A new community centre, including crèche facilities and other social provision, the Zion Centre, was also constructed. Crime in the area has been greatly reduced, and there is more of a social mix of people living in the area. The appearance of Hulme has altered radically.

The partners

A number of agencies and organisations were responsible for this transformation, including the Guinness Trust and Bellway Homes. These worked in close collaboration with each other and with Manchester City Council. The company responsible for Manchester airport also invested capital in the project. Hulme is a good example of how the public and private sectors can work together to improve a previously declining and socially challenging area.

Schemes and strategies of the twenty-first century

In the early years of the twenty-first century, the Labour government moved in two main directions in its attempts to regenerate and redevelop urban environments in the UK.

- It created prestige project developments (flagship projects) such as the waterfront developments in Cardiff Bay
- It began to develop sustainable communities in a variety of UK towns and cities. In theory, urban economic sustainability should allow people who live in cities to have access to a home, a job and a reliable income. Urban social sustainability should provide a reasonable quality of life and opportunities to maximise personal potential through education and health provision, and through participation in local democracies.

SUSTAINABLE COMMUNITIES IN LONDON

The Labour government stated ensured to create communities that:

- Are prosperous
- Have decent homes for sale or rent at a price people can afford
- Safeguard green and open space
- Enjoy a well-designed, accessible and pleasant living and working environment
- Are effectively and fairly governed with a strong sense of community

There is an urgent need for more affordable homes all over London to accommodate its growing population and to reduce homelessness. It is also essential that workers who are key to the delivery of the capital's public services are able to afford to live and work within its communities. The Government Office for London (GOL) is working with the Greater London Authority (GLA), local authorities and relevant agencies to achieve these aims.

Examples

Holly Street estate redevelopment in Hackney

This scheme has transformed a whole community. In addition to the newly created neighbourhood of small streets, small blocks of flats and brick-built houses with pitched roofs and gardens, a sports and community centre, an elderly person's day centre and a health centre have been provided. Alongside the aim of redeveloping the housing on the estate, the project sought to remove fear of crime, improve security and improve the mental and physical health of residents, thus reducing the pressure on health services.

Coin Street Community Builders (CSCB)

This is a social enterprise that has built social housing and commercial developments, including Oxo Tower Wharf, on London's South Bank. CSBC does not distribute profits from its commercial activities but uses them to cross-subsidise activities which otherwise would not be viable, including an arts and leisure programme. Its four housing developments are run by fully mutual cooperatives and provide 220 affordable homes for people in housing need.

Greenwich Millennium Village

This is being developed on a brownfield site and is part of the larger Greenwich Peninsula development. Over a period of 5 years, 1,377 homes are being built, including homes for social

rent or shared ownership. Sustainability, energy efficiency, waste management and quality in design and construction are key features in this project.

Retailing and other services

Changing patterns in the UK

The traditional pattern of retailing is based on two key factors:

- Easy local access to goods such as bread, milk and newspapers which are purchased on a regular basis, often daily and particularly so if perishable
- Willingness to travel to a shopping centre for goods with a higher value which are purchased less often, such as household and electrical goods, clothes and shoes

For many years, these factors led to a two-tier structure of retailing. Local needs were met by corner shops in areas of terraced housing, and by suburban shopping parades. Higher-value goods were purchased in the town centre and required a trip by bus or car. In the last 30 years technology (motor vehicles) has had a major influence on the patterns of retailing. In the 1970s supermarkets and superstores began to be built in residential areas and town centres. These stores sold a full range of food and non-food items at the same check-out. This idea expanded into larger hypermarkets that also sold electrical goods and clothing and often had smaller specialist retail outlets under the same roof. An important factor in the development of these establishments was the use of the private car to load up once or twice a week with the family shop. In the 1980s non-food retail parks expanded. Many such parks were built on the outskirts of towns or cities with easy access to main roads, again to attract the car user. In the 1990s huge out-of-town shopping centres were built on the periphery of large urban areas and close to major motorways. They often had their own motorway junctions. Some of the best-known shopping areas in the country are in this category (e.g. The Trafford Centre near Manchester). In the twenty-first century e-commerce and e-tailers are growing – electronic home shopping using the internet and digital and cable television systems. The impact of this form of retailing on other types of shop has yet to be seen but it seems unlikely to affect existing shopping locations seriously. People still want to examine items before purchase and e-tailers depend upon mail delivery services, both road and rail based, none of which can guarantee next-day delivery. At the same time, more traditional farmers markets, selling local fresh produce, are growing in numbers for those customers who are willing to pay more than supermarket prices for healthier food with fewer food miles.

Factors affecting retail change

A number of factors have combined to produce the changes in retailing described above.

Increased mobility

Nearly all the changes described arise from increased ownership and use of private car. Car parking in city centres is expensive and restricted. Out-of-town retail areas have large areas of free car parking. Locations next to motorway junctions offer speedy access compared to the congestion of city centres. Petrol stations have become places for small level purchases at a local level. The local petrol station has become the corner shop of the twenty-first century.

The changing nature of shopping habits

People now purchase many items as part of a weekly, fortnightly or even monthly shop. The use of freezers in most homes means items that once had to be purchased regularly for freshness can now be bought in bulk and stored. This technology has dovetailed with the changing nature of employment. In many families the adults work and do not have time to shop daily. Retailers have responded to this by developing more ready-made meal products that can be stored in a domestic freezer.

Changing expectations of shopping habits

An increasing number of people see shopping as a family social activity. Consequently, many of the larger shopping areas combine retailers with cinemas, restaurants, fast-food outlets, crèches and entertainment areas. Such marketing messages are used to make the customer feel more at ease.

Out-of-town retailing areas

Large areas have been devoted to major retail parks and this has involved the following:

- Redevelopment and/or clearance of cheap farmland or a brownfield site
- The creation of extensive car parks
- The construction of a link to a motorway interchange or outer ring road
- The development of other transport interchange facilities – bus station, supertram, railway station
- The construction of linked entertainment facilities

Attitudes to the development of out-of-town retailing

The construction of such outlets has caused a lot of controversy. Those in favour of out-of-town believe it provides greater opportunities to shop without the need to travel into city centres. It also creates jobs for local people, especially for students at weekends or young mothers who want to work part time. Those opposed to out-of-town retailing believe it causes an increase in traffic in the area, which creates problems of safety, pollution, noise and parking in local residential streets. Twenty-four hour shopping means continual movement of both cars and delivery lorries, which may cause unacceptable noise levels at night.

THE TRAFFORD CENTRE, MANCHESTER

When the Trafford Centre was opened in 1998 many people were concerned about the effect it would have on Manchester's CBD. In 2005, 29.4 million people visited the centre, It was designed to be more than just a shopping centre, with a 1,600-seat food court, an 18-lane ten-pin bowling alley, a Laser Quest arena and a 20-screen cinema. Since its opening various additions have been made.

Advantages

The Trafford Centre offers the following:

- Good motorway links – it is close to junctions 9 and 10 of the M60

- 11,000 free car parking spaces in discrete segments, each of which has its own automatic capacity monitoring system that can relay messages to approach roads from the motorway network
- A bus station with the capacity to deal with 120 buses per hour
- Facilities for the disabled, regularly spaced within the complex. These include a shop mobility unit, offering scooters and wheelchairs
- A weatherproof, air-conditioned and safe environment
- Its own security system, with a tannoy and a meeting point for lost children
- A full range of services, such as a post office, banks and travel agents

Disadvantages

It has the following disadvantages, typical of out-of-town retail areas:

- Heavy build-ups of traffic on the access road network
- The atmosphere within the complex is artificial
- All the outlets are those of chain stores – it is too expensive for local or independent businesses to rent space in the centre
- Public transport services to the centre are restricted, though improving, which makes access difficult for elderly shoppers in particular
- It is difficult for poorer people to gain access to the centre – for example, the homeless are kept out by security staff

Redevelopment of urban centres

The central business district (CBD) of a city contains the principal commercial areas and major public buildings and is the centre for business and commercial activities. The CBD is accessible from all parts of the urban area and has the highest land values in a city. These occur at the peak land value intersection (PLVI). The CBD is not static. It can grow outwards in some directions (zones of assimilation) and retreat in others (zones of discard). In some CBDs, retailing is declining because of competition from out-of-town developments. This means there is a greater emphasis on offices and services. In a sizeable urban centre, there is often segregation of different types of business within the CBD, forming distinct quarters. Retailing tends to be separate from commercial and professional offices and forms a distinct inner core. The outer core is made up of offices and entertainment centres with some smaller shops. Beyond this, the outer part of the CBD (frame) contains service industries, wholesalers and car parks, among other features.

CBDs in decline

Through each of the phases of retail change described above, the traditional town centre has continued to exist. However, on several occasions this area of retailing has been said to be dying, and in some small towns there has been a general decline. There are three main reasons for this:

- The loss of retailing function to out-of-town shopping centres
- The loss of offices to suburban or peripheral locations in prestige science parks
- The increasing costs of upkeep and development of the CBDs themselves

Many decision makers are still worried that the CBDs are in decline. A major concern is that run-down city centres can become dangerous places, particularly at night. Most people visiting a city arrive in the centre and a run-down CBD can discourage investment. Dereliction, vacant buildings, increased numbers of low-grade shops and lack of investment all fuel decline. This situation is sometimes referred to as the dead heart of a city.

Factors influencing CBD decline

- Rise in car ownership leads to increased personal mobility and the rise of leisure shopping
- Planning policies can encourage urban expansion and provide developments out of town
- City councils, determine to attract inward investment offer Greenfield sites for development
- Companies find peripheral locations cheaper, and nearer affluent customers and staff in the leafy suburbs
- Investors and businesses are attracted by peripheral sites which have good access, pleasant environments and often lower costs
- The costs of development and upkeep of CBDs are high
- Investment in city centres has been largely in prestige projects
- Congestion means that accessibility of CBDs is reduced
- City centres are perceived as dirty, unsafe, with an ageing environment and poor infrastructure

Reversing the decline

A number of strategies are being devised to help reverse the decline of city centres, including:

- The establishment of business and marketing management teams to coordinate overall management of CBDs and run special events
- The provision of a more attractive shopping environment with pedestrianisation, new street furniture, floral displays, paving and landscaping
- The construction of all-weather shopping malls that are air-conditioned in summer and heated in the winter which often have integral low-cost parking
- The encouragement of specialist areas, such as attractive open street markets, cultural quarters and arcades
- The improvement of public transport links to the heart of the CBD, including rapid transit systems, park-and-ride schemes and shopper buses
- The extensive use of CCTV and emergency alarm systems to reduce crime and calm the fears of the public, particularly women
- The organisation of special shopping events such as Christmas fairs, late night shopping and Sunday shopping
- Conservation schemes, such as the refurbishment of historic buildings in heritage cities

Making CBDs safer for women

CBDs have increasingly been perceived as threatening environments. Individuals or groups in society, for example some women, whose movements and activities are constrained by fear

can be classed as disadvantaged. They suffer from reduced accessibility and a poorer quality of life. Solutions include things like segregated transport for women:

- Separate compartments on trains or night buses
- Priority taxis after 10 p.m.
- The formal licensing of mini-cabs in cities so that all private hire vehicles are registered and regulated

Improvements can be made to the street environment including:

- CCTV
- Better maintenance of street lighting
- Help points at key locations (e.g. subways with emergency alarms connected to local police)
- Smoother pavements and fewer obstacles
- More seating in public places
- Transparent bus shelters, to prevent people hiding behind them
- Cutting hedges at the top and bottom, to increase light and safety
- Multi-storey car parks are often seen as threatening environments. Here, suggested improvements include better lighting and the provision of ground-floor women only sections

Functions other than retailing

Many cities are encouraging the development of functions other than retailing to increase the attractions of a CBD, including:

- Encouraging a wider range of leisure facilities, including cafe bars, restaurants, music venues, cinemas and theatres
- Promoting street entertainment, such as Covent Garden in London
- Developing nightlife, such as clubbing, for example in Manchester and Leeds
- Establishing theme areas, such as the gay area in Manchester and the cultural quarters in Sheffield and Stoke
- Developing flagship attractions, for example the photographic museum in Bradford
- Constructing new offices, apartments, hotels and conference centres to raise the status of the CBD for business and to encourage tourists to remain near the city centre
- Encouraging residential activities to return to city centres, by providing flats to rent above shops, redeveloping old buildings or building new up-market apartments

Most CBDs are trying a range of these strategies and shoppers are being attracted to city centres. However, this can only happen in conjunction with planning controls to limit the number of suburban or out-of-town shopping centres.

The St Stephens Development, Kingston-upon Hull

Sustainability issues in urban areas

Waste management

The average person in the UK produces 517 kg of household waste every year. Waste disposal in the UK is efficient, so people are not generally aware of the problems that waste is creating. The UK has lagged behind many other countries, particularly some in the EU, in recycling, reusing and managing household waste. We need to change our attitude to household waste – to see it as a resource to be managed rather than as a nuisance to be disposed of.

Recycling and alternatives

There are a number of choices in how to manage waste. The least sustainable option is landfill.

Reduction

The best way of managing waste is to prevent it. Businesses are being encouraged to reduce the amount of packaging used. The government funded group Envirowise gives advice to commercial enterprises on how they can reduce waste, and costs. Consumers can play a part by refusing to accept plastic bags, or by opting for products that do not use excessive packaging. Governments too can act – in Ireland there has been a €0.15 levy on plastic bags since 2002.

Re-use

Some re-use of milk containers, soft drinks bottles and jam jars has been attempted. However, the most successful example of re-use is the sale of 'bags for life'. In some parts of the world shops charge cash deposits on glass bottles to encourage their return.

Recycling

Waste products such as paper, glass, metal cans, plastics and clothes can be recycled if they can be collected economically. However, the start-up costs of recycling schemes can be high and the market value of the material produced may be low. Householders may also be unwilling to sort recyclables from their other household waste. Although the proportion of household recycling in the UK is increasing, only 26% was recycled in 2005. This still falls short of the EU's 20% target by 2010. Large quantities of steel and aluminium cans and paper are recycled in the UK, but recycling of plastic bottles is difficult to achieve on a profitable basis. Recycling also has hidden costs – transport from collection points to processing plants and the hot water and other materials needed for cleaning and processing.

Energy recovery

Waste material can be converted into energy. The main method is incineration. In the past, many councils burnt their waste, but this adds to carbon dioxide emissions and releases pollutants into the atmosphere as well as concentrating harmful substances such as dioxins in the ash. Many old, polluting incinerators have therefore closed down. Some modern incinerators generate electricity or power neighbourhood heating schemes and are considered by supporters to be a sustainable option for waste disposal. There are 17 licensed municipal

incinerators in the UK. However, one of the best known incinerators, serving the Byker Wall flats in Newcastle-upon-Tyne, has closed.

Composting

On a small scale, organic waste (kitchen scraps and garden waste) can be used to make compost to fertilise gardens or farmland. On a much bigger scale, anaerobic digestion is an advanced form of composting that takes place in an enclosed reactor. Biological treatment of organic waste speeds up the breakdown process. The gases produced (mainly methane) can be burnt to generate electricity and the solid residue can be used as a soil conditioner. Germany, Denmark and Italy all have such plants. However, they are expensive to set up.

Landfill

Waste is dumped in old quarries or hollows, and this is convenient and cheap. However, it is unsightly and is a serious threat to groundwater and river quality because toxic chemicals can leach out and contaminate the water. Decaying matter at landfill sites also produces methane gas. This is not only explosive; it is also a strong greenhouse gas. A major problem on landfill sites is the disposable nappy. Once paper, glass and plastic have been removed, nappies account for 15% of household waste. It costs £40 million a year to dispose of an estimated 1 million tonnes of nappy waste, of which 75% is urine and faeces. Most nappy waste is taken to landfill sites where it adds to build-up of methane gas. Nappies take an estimated 500 years to break down. In addition we are running out of space for landfill. In 2006 it was reported that the UK had capacity for only 9 more years of landfill before shortages of available sites began to occur. Furthermore, current EU legislation binds the UK to reducing the amount of waste sent to landfill to 75% of 1995 levels by 2010. All of this means that landfill is becoming an increasingly expensive option. Councils have a growing interest in pay-as-you-throw schemes, under which households are charged according to the volume of waste as they produce. However, evidence from Ireland, where such charging has been in operation since 2003, suggests that this creates more fly-tipping and household incineration.

WASTE DISPOSAL IN NAIROBI, KENYA

In Nairobi, recycling is an important part of the everyday economy. It is common for people to collect and make use of other people's rubbish. Waste tips are scavenged for any recoverable or recyclable materials. For instance:

- Old car tyres are cut up and used to make cheap sandals
- Washing machine doors are used as kitchen bowls, and the drums as storage units
- Glass bottles are collected and returned to stores for refilling
- Food waste is collected and fed to animals or composted for use on vegetable plots
- Tin cans and old oil drums are used to make charcoal stoves, lamps, buckets and metal tips for ploughs

Transport and its management

The spread of houses into suburbs and small towns and villages of rural areas, while jobs remain concentrated in the central parts of cities, has created surges of morning and evening commuters. These surges are at their most extreme in London, but occur in most other large

towns and cities across the UK. They take place along roads (private cars and commercial buses) and railway networks. Other traffic flows, for shopping, entertainment and other commercial services, add to the overall problems of mass transportation. No matter how much money is spent on transport infrastructure, traffic jams, railway overcrowding and parking problems seem to get worse. However, despite mounting problems, government policy in the UK has continued to favour private road transport. Government figures show continued expansion of roads, road traffic and progressively heavier good vehicles. Alongside this, there has been relatively slow growth in railway usage. The number of railway passengers has increased, particularly in the London region, but this has been accompanied by problems of poor rolling stock, inadequate track maintenance, escalating fares, accidents and poor travelling experiences. It is difficult to persuade people to abandon their cars. As further road building is likely to release suppressed demand and quickly fill up the extra capacity, greater emphasis should be placed on upgrading the public transport system.

How and why is urban traffic increasing

Car ownership is increasing throughout the world. Globally it is anticipated that the total number of motor vehicles will be greater than 800 million by 2010. Most will be concentrated in developed countries, and in the urban areas within these. In the UK more than 30% of households own two or more cars. There are several reasons for this growth.

A large urban working population

A high proportion of people work in the urban areas of the country but live in rural or suburban areas. These people make regular journeys to and from their homes by road and rail. However, changes are taking place in this pattern. Many commuter journeys are now between one suburb and another, rather than from suburb to town centre. Most public transport systems were developed for travel from suburb to town centre, not across town. Suburb to suburb journeys therefore have to be made by private car, resulting in congestion of suburban roads. It is expensive to expand public transport networks to keep pace with suburbanisation and counter-urbanisation. The car continues to be more convenient.

Economic growth

Economic growth in retailing and other consumer services has led to more service vehicles on urban roads. Freight traffic, such as delivery vans, is likely to increase as e-commerce becomes more important in retailing.

The growth in urban incomes

Earnings in urban areas are usually higher than in rural areas and these higher incomes allow more car ownership. Incomes have risen faster than the relative rise in car prices, leading to multiple car ownership in many families.

The growth in the number of journeys

As the number of cars increases, so does the number of journeys that people make in them. There is a corresponding fall in the use of public transport. Research in the USA has suggested

that not only does the number of journeys increase with car ownership, but so does the distance travelled. Many of these extra journeys are for leisure purposes.

Urban transport solutions

There are four main approaches to dealing with these problems.

Road schemes and restricted access

London has had chronic road traffic problems for many years. In the 1970s and 1980s new radial routes around the city were thought to be the solution. The London orbital motorway, the M25, was built, but this increased the number of cars on the road. The m25 has been widened in places in response to demand. Plans for other new radial routes were abandoned in the 1990s, although work was completed on some. The Congestion Charge was introduced in central London in 2003 and extended to parts of west London in 2007. Those choosing to drive through these zones of the city on a weekday are charged a toll. This model is likely to be followed by other cities in the future though it was rejected by the people of Manchester in 2008. On a smaller scale, the creation of bus lanes with priority at junctions is an effective way of encouraging public transport use and decreasing car traffic.

Road traffic management schemes

Many provincial cities suffer from severe traffic congestion but do not have the option of a new ring road or new arterial routes. In towns such as Oxford, bypasses and inner ring roads already exist, in some cases formed by the amalgamation and upgrading of existing routes. Despite these, traffic problems continue. Some of the strategies being introduced in these smaller towns and cities are as follows:

- Strict on-street parking controls, and expensive car parks
- Restrictions on access for cars, for example, pedestrianisation of large areas of the centre
- Encouraging the use of public transport, for example, park and ride schemes

Streamlining of public transport

New mass transit systems

Mass transit systems have been used to provide low-cost public transport from the suburbs to the city centre. Two recent examples include the Supertram in Sheffield and the Metrolink in Manchester. It has taken a number of years for British traffic managers to recognise the benefits of modern electrified tram systems. They did not have to look far to see these benefits. In Germany, France, the Netherlands and Switzerland light mass transit systems based on trams have eased traffic congestion and provided an effective public transport system for years.

BANGKOK'S SKY TRAIN

The sky train opened in 1999 and runs from the east to the west and from the north to the south covering the whole city. The system is spotlessly clean, fast, efficient and relatively cheap. Previously a trip between two busy commercial centres would have taken at least an

hour by taxi. Now the sky train only takes one third of the time it took by taxi and costs a quarter of the cost of a taxi. However, this transport system has also got disadvantages. Suburban areas are not very well accessed and there is difficult access for disabled people.

THE A638 QUALITY BUS CORRIDOR (QBC), DONCASTER

The QBC stretches along the A638 York Road (from Green Lane to the North Bridge) to the north of Doncaster and along the A638 Bawtry Road to the south. Features include:

- New dedicated bus lanes on the approach to the town centre, in addition to existing lanes of traffic
- Upgraded bus stops along the route providing better waiting areas and information, including new shelters with lighting and seating to make waiting for the bus safer and more comfortable, textured paving to help people with visual impairments, raised kerbs to make it easier for people with mobility problems or pushchairs to get on and off the bus, electronic information about waiting times
- Two new park and ride sites at the north and the south with 400 car-parking spaces at each. Each has a ticket office, covered waiting facilities with seating, toilets and baby-changing facilities, security staff and CCTV
- State-of-the-art buses with the latest low-emission engines

The A638 QBC has been designed to integrate with Doncaster's new public transport interchange at Frenchgate in the centre of the town, which is close to the railway station.

CURITIBA: A SUSTAINABLE CITY

Curitiba is the capital of the Brazilian state of Parana. It has a population of 1.8 million people which is the 7th largest population in Brazil. Half of the population was not born in the system. Curitiba has planned a transportation system which is used by 85% of the population. It includes lanes on major streets devoted to a rapid bus transit system. The buses are long and stop at elevated tubes, with disabled access. There is only one price no matter how far you travel.

Curitiba Master Plan

The plan began in 1968 and the key features are:

- Controls on urban sprawl
- Reduction of traffic in the CBD
- Preservation of historic areas
- Convenient and affordable public transport systems

Transport

- Key roads have been pedestrianised
- Five major roads form a star that converges on the city centre
- Express buses have their own lanes
- In the 1980s, the RIT (Red Integrada de Transporte) was created, allowing transit between any point in the city by paying just one fare

- The system is used by 2 million passengers a day
- Curitiba's population has doubled since 1974 but the atmospheric pollution has decreased by 30%

Environment

- Curitiba has a network of 28 parks and wooded areas
- In 1970, there was less than 1 square metre of green space per person; now there are 52 square metres for each person
- Residents planted 1.5 million trees along city streets
- Builders get tax breaks if their projects include green space
- Flood waters diverted into new lakes in parks solved the problem of flooding; while also protecting valley floors and riverbanks, acting as a barrier to illegal occupation and providing aesthetic and recreational value

The green exchange employment program

- Low income families in the shanty towns unreachable by track bring their rubbish bags to neighbourhood centres, where they exchange them for bus tickets and food
- Children can exchange recyclable waste for school supplies, chocolate, toys and tickets for shows

Garbage that's not garbage program

- 70% of the city's waste is recycled by its residents
- The city's paper recycling saves the equivalent of 1200 trees a day
- Money raised from selling materials goes into social programs, and the city employs the homeless and recovers alcoholics in its garbage separation plant