Urban Issues and Challenges in Birmingham

Birmingham was first settled in Saxon times, when it was a small village on the banks of the River Rea. It only began to grow rapidly with the arrival of canals in 1769 – when the population was 24 000. The railways came in 1837 and the population had reached 240 000. In the 19th century the city was known as the 'workshop of the world'. The important industry was metal working – making steam engines, gun barrels, pen nibs, buttons and coins.

The city has experienced migration from Ireland in the 1850s after the potato famine and with Jews escaping persecution in Europe in the 1930s. After WW2 people migrated to Birmingham from India, Pakistan, Bangladesh, China, Jamaica in search of jobs and more recently refugees from wars in Somalia and Afghanistan have arrived. Some neighbourhoods in Birmingham, such as Ladywood and Hodge Hill are very multicultural. There is also an Irish Quarter and Chinatown in Birmingham.

Today Birmingham is the UK's second largest city with 1.1 million residents – compared to London with 8.2 million. It accounts for 4% of the UK's GDP (Gross Domestic Product). This is the value of all the goods and services produced. Birmingham is second only to London which accounts for 28% of the UK's GDP.

Today the main employers are Cadburys, Rolls Royce and Jaguar. Birmingham's residents can hear music at the NEC, Barclaycard Arena or Symphony Hall. They can experience culture at the new £189 million library or Hippodrome theatre – the UK's most visited. It has 5 universities and 60 000 students. Recreation opportunities include 500 parks, watching sports teams such as Aston Villa and shopping in the Bull Ring.

Deindustrialisation has created challenges for the city. Many old industries have closed and moved away from the inner city. This has left many inner-city areas, such as Ladywood, with high levels of deprivation. Here 13% are unemployed, 47% of children live in poverty, 54% of pupils get 5 GCSEs and the life expectancy is 76. By contrast in Sutton Coldfield is on the rural urban fringe. There, unemployment is only 1%, only 12% of children live in poverty, 83% of pupils get 5 GCSEs and the life expectancy is 83.

Deindustrialisation leaves many brownfield sites behind. These can be redeveloped – knocked down and rebuilt – or renewed – repaired and converted. Examples of redevelopment include Selfridges and the new library. Examples of renewal include the Mailbox and Gas Street Basin.

MG Rover closed in 2005 and 6000 people lost their jobs. This left a large site needing urban regeneration in Longbridge. A new college (£66 million Bourneville College) has been built, along with a shopping centre, a youth centre (The Factory) and the Longbridge Technology Park for new media businesses and a Business Park for industry such as a data centre. Urban greening improved this area with a new park (Austin Park) created along the banks of the River Rea. Also, green corridors have been created between buildings for open space.

Greenfield sites on the rural urban fringe are under pressure in Birmingham. In Sutton Coldfield, there are plans to build 6000 new homes on 175 acres of farmland. This is because Birmingham needs 89 000 new homes but only has space for 51 000 on brownfield sites. However, 11 000 people signed a petition against this development claiming that there are 5000 empty homes in Birmingham to use first. Also 80% of the new residents will drive leading to more congestion and pollution because these homes are commuter settlements.

A typical Birmingham household throws away 682kg of rubbish a year. Of that, food waste accounts for 34%, plastics 18% and paper & card 8%. Currently 70% of the city's rubbish is incinerated and electricity is generated for 40 000 homes. The city council is hoping to reduce this and the amount that goes to landfill -7%- by improving the recycling and reuse of materials. The council says 50% should be recycled by 2020.

Traffic congestion is a problem in Birmingham. Spaghetti Junction is 4th worst traffic hotspot in the UK and a typical traffic jam lasts 3 hours, stretches 5 miles and contains 3000 cars. It wastes £2 billion of time per year. Congestion leads to air pollution. Birmingham is in the top three most polluted UK cities along with Leeds and London. This contributes to 520 deaths per year. The new 13 mile long Midland Metro tram system transports 4.8 million people per year. Congestion is also reduced with new cycle routes along 50km of resurfaced canal towpaths.

Sustainable communities can be designed in urban areas. New homes and buildings can conserve energy with insulation in the walls and roofs. Rain water can be collected for use in flushing toilets and watering the garden. Solar panels create electricity for the home or recharging electric vehicles. Large south facing windows improve natural lighting. An example of such sustainable living is the BEDzed housing estate in London.