

Features of sustainable urban living:

Key words

Integrated transport systems - When different transport methods connect together, making journeys smoother and therefore public transport more appealing. Better integration should result in more demand for public transport and should see people switching from private car use to public modes of transport, which should be more sustainable. It may also lead to a fall in congestion due to less road users.

Urban sustainability - A sustainable city is one in which there is minimal damage to the environment, the economic base is sound with resources allocated fairly and jobs secure, and there is a strong sense of community, with local people involved in decisions made.

Sustainable urban living includes several aims including the use of renewable resources, energy efficiency, use of public transport, accessible resources and services.

Waste recycling - The process of extracting and reusing useful substances found in waste.

Urban sustainability is a massive issue both in the UK and globally. It is basically to do with ensuring that cities and towns have a minimal environmental footprint (they don't pollute too much and don't consume too many natural resources) on their surrounding area, allowing local people a say so that society and communities are sustainable and making cities pleasant places to live through the provision of adequate open spaces and recreation facilities.

Indeed, a sustainable city can be defined as;

"Improving the quality of life in a city, including ecological, cultural, political, institutional, social and economic components without leaving a burden on the future generations. A burden which is the result of a reduced natural capital and an excessive local debt."

Urban21 conference in Berlin 2000

You could consider the idea of urban sustainability as defined by the three "E's";

Economy - Economic activity should serve the common good, be self-renewing, and build local assets and self-reliance.

Ecology - Humans are part of nature, nature has limits, and communities are responsible for protecting and building natural assets.

Equity - The opportunity for full participation in all activities, benefits, and decision-making of a society.

Energy conservation

This is the reduction in the use of energy by;

1. Preventing use – stopping using energy for certain activities, for example, switching TVs off when not in use, not leaving on standby
2. Greater efficiency – using technologies that use less energy for the same function
3. Developing renewable sources of energy – using wind and solar power for example, rather than fossil fuels

Newcastle City Council gives advice to both businesses and individual home owners on how to save energy. They have a “warm up north” scheme which tries to improve the energy efficiency of homes across the North East. Schemes include insulation, UPVC windows or doors, a new heating system or boiler and loft or cavity wall insulation. The scheme has also been installing solar panels on homes across the city.

Water conservation

Water conservation involves is the preservation, control and development of water resources, both surface and groundwater, and prevention of pollution Water conservation should reduce water loss, waste and use.

It is important to conserve water because:

- 780 million people in the world lack access to clean water
- Only 1% of the world's water supply is available for human consumption
- The demand for water is increasing
- Each Briton uses about 150 litres of tap water a day

Schemes underway in Newcastle upon Tyne to conserve water including;

1. The Hospitals in Newcastle have a water conservation policy. This includes a commitment to use efficient technology to limit water use. Water saving devices such as push taps have been installed in all new builds and refurbished buildings, and water is measured per member of staff.
2. Northumbrian Water has launched a campaign called 'Every Drop Counts' in 2015 aimed at reducing water use through education. They also offer free products for the garden will also be provided, including a free water butt, trigger hose guns and water saving gel for compost. The company also work hard to prevent leaks which consume huge amounts of water.
3. Newcastle University has also developed a water strategy, the target is to reduce water use to 13 cubic metres per staff and students by installing push taps, dual flush toilets and aerated showers head in their buildings to reduce water use

Reducing and safely disposing of waste

Human beings create an incredible amount of waste, and the problem seems to be even worse within our cities. If you think about your own home, you can consider the amount of waste that needs to be dealt with. On a weekly basis you or the council needs to deal with:

- Your refuse and general waste from your bins, plastics, metals, food wastes;
- Waste water from cleaning, dishwashers, washing machines;
- Waste Water from your toilet;
- Emissions from your energy needs.

Imagine now that this needs to be repeated for thousands of people in your town, or tens of thousands/ hundreds of thousands/millions of people in your city!

This doesn't include any of the wastes from the industrial processes that take place in cities either. In HICs our cities are not growing so fast or their growth has slowed, and we have had many decades to establish organised systems to get rid of our waste. In LICs the problem is much more difficult to deal with, especially given the rapid growth of these cities and the informal nature of some of the development, where many people construct their own homes in squatter or shanty developments. One such LIC city is Cairo. All of this ties in with the issue of sustainability, can we continue to produce so much waste and not expect consequences?

Waste Facts

- 44% of waste in the UK was recycled in 2014
- Newsham in London was worst for fly tipping and recycling rates
- WRAP estimates that around 600 million tonnes of products and materials enter the UK economy each year... only 115 million tonnes of this gets recycled.
- Nearly 25% of waste electrical and electronic equipment (WEEE) that's taken to household

waste recycling centres could be re-used, worth around £200m gross a year.

- We throw away more than 7 million tonnes of food and drink every year from our homes - most of which could have been safely consumed.
- The amount of trash generated by the UK could fill Britain's largest lake, Lake Windermere, in just eight months.
- Reduce use of packaging (do apples need to be in plastic bags?) and use less plastic bags (bag for life carrier bags)

2 main options for getting rid of waste are landfill (burying the waste) and incineration (burning the waste). Landfill is used more but we are running out of sites and it can pollute the land and water sources near them. Incineration only accounts for 9% of household waste disposal but is unpopular as it can cause problems like air pollution.



How Newcastle has done this

- Every household in Newcastle has recycling bins, allowing local residents to recycle cardboard, plastics, metals and glass.
- Households in Newcastle can also pay for a brown bin, into which garden waste can be put, collected and then composted
- Local tips in Newcastle also force people to separate their waste whenever possible, further increasing recycling rates.
- However, huge amounts of waste generated in Newcastle still end up in either landfill sites or incinerated.

An example of how urban transport strategies are being used to reduce traffic congestion in one urban area.

A case study of sustainable urban living. Newcastle-upon-Tyne

Sustainability means living a life which meets your own needs without compromising the ability of future generations to meet their own needs. Newcastle-Upon Tyne is a large city in the North of England which has an unsustainable past. This city of 279 thousand people was a centre for heavy industry, ship building, coal mining and armaments works – all activities which can pose environmental problems. However, Modern Newcastle is restyling itself as a science city and a city whose economy is based upon information services and quaternary industries. A core foundation of this is environmental sustainability, and Newcastle offers a good case study of sustainable urban living. It was ranked as the UK's most sustainable city in 2009 (source).

Transport

Newcastle has a comprehensive public transport network, including a huge bus network and the well-known and used Tyne and Wear Metro. These are both more sustainable alternatives to the car. This network also offers park and ride facilities, such as at Four Lane Ends metro station!

In addition to this, Newcastle has a cycle network, some parts of which are off road, including through Jesmond Dene and the Wagon Way behind St Mary's school. In addition there are cycle routes running alongside the river including along the Quayside. The council also has a range of electric cars and vehicles, including those used in Jesmond Dene and Heaton Park, and the Quaylink bus service that connects Newcastle and Gateshead Quays.



Providing adequate open spaces

- Greenbelts or areas where local authorities choose to restrict building around cities offers open space for recreation purposes
- Many areas in cities have designated areas of open space in the form of parks, playing fields and individual gardens.

How Newcastle has done this

- Newcastle has a huge range of open spaces available for public use, including Jesmond Dene (above and below pictures) which was donated to the people of the city by Lord Armstrong and the Town Moor.