Sustainable Cities

Introduction

The idea of a sustainable city is not a new one. At the Rio Earth Summit of 1992, Leicester became one of five cities to receive a European Sustainable City Award. The outcomes of the Rio Summit, which included Local Agenda 21, were largely based on an early definition of sustainability:

‘Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’ (UN ‘Our Common Future’ (‘The Brundtland Report’), 1987)

Since the early 1990s, definitions of sustainability have become more complex and this has been taken on board by many city councils, especially in their planning for the 21st century.

Newcastle-upon-Tyne is on the north bank of the River Tyne and, with a population of over 280,000, is the largest city in the north east. Together with Gateshead, on the south bank of the river, it forms the administrative, commercial and cultural capital of the North East of England.

The environment

Newcastle-upon-Tyne City Council decided to lead the way in promoting sustainability by focusing on its own 15,581 staff. They signed up to the Eco Management and Audit Scheme (EMAS), which encourages all staff to consider ways of using less energy, fuel, water and paper on a daily basis. Part of the approach involves suppliers to the council, who were asked to look at their own environmental impacts as well. The underlying principle of EMAS is that, if the council is asking people who live and work in Newcastle to think about the environment, they must also be seen to be ‘doing their bit’. The council’s plans were set out in a ‘Charter for the Environment’ which sets out objectives for protecting the environment in the future, complying with current legislation and encouraging everyone living and working in the city to play their part in looking after the environment. (Publicity for Newcastle City Council’s plans for a sustainable city may be found at www.newcastle.gov.uk.)

A second important component of the city’s sustainable approach towards the environment came as a response to the Johannesburg Earth Summit of 2002, where many world leaders agreed on targets to reduce carbon emissions. The council’s publicity for this campaign, known as ‘Go Carbon Neutral’ acknowledged the fact that we cannot avoid CO2 emissions completely, but can do quite a lot to reduce and neutralise them both at home and at work. The idea behind the scheme is that, by following a few simple steps, people can save exactly the same amount of CO2 that they produce. Figure 1 shows some ideas for reducing carbon emissions and Figure 2 is the image used to advertise Newcastle’s Carbon Neutral programme.

The economy

Economic sustainability is just as important as sustainability for the environment for modern cities to be able to survive in the future as centres of housing and economic activity. In Newcastle, as in many other of the UK’s industrial cities, the disadvantages created by unemployment and poverty had to be addressed. In June 2000, unemployment was 6.8%, compared to a national average of 3.7%, and this inevitably led to increased levels of poverty and deprivation in parts of the city which had a low proportion of owner-occupied households and low levels of car ownership. By June 2005, unemployment had fallen to 4.6%. ‘Competitive Newcastle’ was the city’s Economic Development Strategy, which identified emerging economic opportunities based on sectors with high growth potential, mainly in service-based industries. Significant growth has occurred in the business services sector, such as accountancy and legal services, with new offices built on the Quayside and refurbished offices in Grainger Street, in the city centre. Manufacturing remains important, giving a broader-based economy

<table>
<thead>
<tr>
<th>Activity over 1 year</th>
<th>Saving (tonnes of CO2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person taking the train instead of driving a car for a year</td>
<td>2.9</td>
</tr>
<tr>
<td>A family taking the Channel Tunnel instead of flying to France for a holiday</td>
<td>2</td>
</tr>
<tr>
<td>Switch your home to ‘green’ electricity</td>
<td>1.42</td>
</tr>
<tr>
<td>Hanging your washing out to dry rather than using the tumble dryer</td>
<td>0.9</td>
</tr>
<tr>
<td>Working from home 1 day a week</td>
<td>0.88</td>
</tr>
<tr>
<td>Buying your potatoes from a local market rather than a supermarket</td>
<td>0.8</td>
</tr>
<tr>
<td>Car sharing for the school run</td>
<td>0.73</td>
</tr>
<tr>
<td>Installing thermostatic valves on 30 radiators</td>
<td>0.7</td>
</tr>
<tr>
<td>Your family doing your shopping over the internet rather than visiting the supermarket</td>
<td>0.7</td>
</tr>
<tr>
<td>10 families filling their kettle to just the level they need (one quarter) rather than to the brim</td>
<td>0.7</td>
</tr>
<tr>
<td>Replacing your old boiler with a condensed gas model</td>
<td>0.7</td>
</tr>
<tr>
<td>Double glazing two 3-bedroom houses</td>
<td>0.7</td>
</tr>
<tr>
<td>Going for a run rather than driving to the gym</td>
<td>0.6</td>
</tr>
<tr>
<td>Turning off your lights when you leave the room</td>
<td>0.367</td>
</tr>
<tr>
<td>Replacing your old fridge-freezer with a new model</td>
<td>0.14</td>
</tr>
<tr>
<td>Doing a single weekly shop rather than spreading out your shopping over the week</td>
<td>0.6</td>
</tr>
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Figure 1: Ideas for reducing carbon emissions

Figure 2: Go Carbon Neutral!
more able to survive and adapt to changing circumstances nationally and globally. The city has one of the most significant clusters of marine and offshore-related technology in the UK, based in the former shipbuilding yards at Walker. This growth reflects the city’s ability to adapt quickly and successfully to changes.

Elsewhere in the city, other developments are underway to secure the long-term economic sustainability of the city. One of these is the 80 ha Great North Park development for telematics and knowledge-based industries. This site is located to the north of the city in an area of land released specifically for this purpose from the green belt and lies three miles to the north-west of Newcastle City Centre. It is one of the biggest mixed-use developments in the UK at 240 ha and has been earmarked for business, residential and commercial development. A further 240 ha will be landscaped parkland and there are also good transport links locally, nationally and internationally.

The international software company Sage has built its £60 million flagship headquarters here, employing 1,000 people. Around 2,500 quality houses are to be built on the Great Park with the emphasis taken away from on street parking in order to provide a safer environment for children to play. 12 new houses are to be built with solar panels which will provide one-third of the occupying families’ annual electricity needs. Around 26 miles of footpaths, cycle ways and bridleways have also been included in the plans. Finally, work is planned on a fully sustainable town centre that will provide retail, hotel, leisure and healthcare provision and thus cater for both locals and visiting business people. Two schools will eventually be built on the park, including a first school which will cost around £2 million to build and a voluntary-aided school. Nexus, the local transport company, provide a free bus service for Sage employees from...
several stations on the Tyne and Wear Metro system. Figure 3 shows the location of Newcastle Great Park and Figure 4 shows some of the new homes which are planned for the development.

Brownfield land

Another highly significant site at Newburn Riverside is now being jointly developed in partnership with One North East as an area for high technology engineering and manufacturing. It will be one of Europe’s biggest reclamation schemes with over £40 million committed to providing high quality development space which will lead to the creation of an estimated 5,000 new jobs. The development of Newburn Riverside includes extensive landscaping and embraces two nature conservation areas. Along the perimeter of the site, new riverside walks are provided, together with a boat club and leisure facilities. The main features of this development include:

- 185,000 sq. m of industrial and commercial floorspace, surrounded by country park;
- £45 million public sector funding and £120 million private sector;
- Creation of 4,000–5,000 jobs;
- Access to a skilled local workforce;
- International air and rail communications within 8 minutes’ drive.

Unlike the Great Park, this development took place on a brownfield site, shown in Figure 5.

Transport

Major recent transport developments have focused on improving access from the south to the west of the city, by means of St James Boulevard which was designed to encourage a greater use of the Redheugh bridge and so reduce congestion on the Tyne Bridge. This was needed partly because use of public transport had decreased by 13% as car ownership grew in the late 1990s. In response to this the council, together with Nexus, the public transport provider, have developed plans to improve public transport in a variety of ways:

- a tram system for West Tyneside to link into current transport systems (the Tyne and Wear metro does not currently serve the west of the city);
- a Quayside Transit System to link the city centre with the Newcastle and Gateshead Quayside areas.

This is part of a much larger strategic transport plan for 2001–2006 which involves the five local authorities (Gateshead, Newcastle, North Tyneside, South Tyneside, Sunderland) and the Passenger Transport Executive, Nexus, as well as the bus and train companies, the ports and airport, haulage companies, taxi operators, plus cycling and pedestrian organisations. During the preparation of the plan many Tyne and Wear residents were also asked for their views on how the transport system should evolve. There are several strands to the transport plan:

1. Walking: advertising to encourage more walking for shorter journeys (during morning peak hours up to 20% of motor traffic is for the school run and 40% of trips are solely for the school run).
2. Cycling: the plan seeks to promote cycling as an attractive and sustainable means of transport for local travel through the development of networks of cycle routes and the provision of secure bicycle parking facilities.
3. Bus: the aim is to create a comprehensive network providing public transport access for all residents, with reasonable travelling times for employment, education, leisure and shopping. There is also a Dial-a-Ride service for people unable to access public transport.
4. Metro: a main focus of the transport plan has been to extend the metro service to Sunderland.

Figure 6 shows the recent extension of the Tyne and Wear Metro to Sunderland.

Community involvement

Local communities have been involved in six area-based regeneration partnerships within the city. These have secured funding from both the Single Regeneration Budget and the New Deal for Communities partnership. Since the mid-1990s the council has had a
resident's panel consisting of 1,000 people representing a cross section of the community. This enables the council to understand community views on a wide variety of management, performance and budget related issues. One example of this community involvement in action is the Benwell and Scotswood Action Plan which aims to change the perception of these areas. Strategies are based around the following themes: Community Planning, Community Infrastructure, Jobs and Employment, Environment, Transport and Accessibility, Education, Housing, Health and Social Care, Crime and Community Safety.

Bridging Newcastle, Gateshead is a very recent project which aims to look at ways of tackling problems caused by empty homes and properties that people do not want to live in. During the project’s first year the following achievements were completed:
• 2,000 properties benefited from environmental improvement;
• 1,407 properties benefited from neighbourhood management;
• 228 households were relocated;
• 387 properties were demolished.

The programme is scheduled to last 10 years and an important focus is on talking to local people to find out what they want in terms of housing. One of the main areas for development is the Walker Riverside Project which will provide at least 2,500 new homes for sale or rent over the next twenty years.

Conclusion – the future

According to the United Nations, a sustainable city is one where achievements in social, economic, and physical development are made to last. According to Agenda 21, a sustainable city is one which protects and enhances the environment, meets social needs and promotes economic success. The examples of activities from Newcastle-upon-Tyne have been selected to illustrate how attempts are being made to achieve this in one UK city.

Looking towards the future it is likely that further aspects of sustainability will be looked at and incorporated into many aspects of planning and policy within Newcastle-upon-Tyne. The Sustainable Cities Research Institute based at Northumbria University in the centre of Newcastle is currently looking at future challenges and opportunities to continue working towards making the city sustainable. They are looking at several important current issues:
• climate change and energy use;
• local governance;
• changes in the global economy;
• strengthening democracy and public participation;
• the importance of public services to society;
• embedding sustainability and inclusion in regeneration and economic policy.

Focus Questions

1. Research a city in an MEDC. Try and find out why many urban areas are perceived as being unsustainable.

2. Using the following grid, identify and assess the projects taking place within Newcastle in relation to different aspects of sustainability.

<table>
<thead>
<tr>
<th>Future sustainability</th>
<th>The environment</th>
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<table>
<thead>
<tr>
<th>Public participation</th>
<th>Equity and social justice</th>
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3. Research an LEDC city and compare ways in which sustainability issues are being addressed.