Cities, towns and greenspace

Most people in Scotland live in its towns, cities and city regions. A good-quality urban environment is a substantial factor in people's health and well-being.

Summary

Key messages

- Almost 70% of Scotland's people live in urban areas, and these areas account for just 2% of Scotland's land surface.
- Scotland's urban areas are the focus of economic and social activity.
- Our urban areas are significant: they take up resources, such as land, air and water; are the source of greenhouse gases and other emissions; and supply and consume goods and services, food, energy, heat and waste.
- The majority of people who live in urban areas rate their neighbourhood as a 'very good' place to live.
- Greenspace is a highly valued part of the urban environment.
- Development pressure within urban areas can threaten existing greenspace and the multiple benefits it provides.
- Although air quality in Scotland is generally very good, some parts of our urban areas have poorer air quality, mainly due to transport emissions.
- Contaminated land is mainly a result of industrial activity in the past, and is concentrated in and around urban areas.
- There is a strong legislative framework to deal with pollution of land, air and water.

State and trend

State: Moderate - high agreement, medium evidence

Trend: Stable/improving - high agreement, low evidence

There is an explanation of the diagram and further information on how we carried out the assessments on the summary pages.

- The state of our cities, towns and greenspaces has been assessed as being on the good side of moderate. Some urban areas are in a good state while others are in a poor state – the overall assessment is therefore a simplification, being an "average" of all the different parts.

- We have taken account of the scale of any damage to the urban environment in these assessments; impacts of some types of pollution in urban areas can be locally damaging (e.g. air pollution hotspots caused by traffic congestion), but may have little effect on the town or city as a whole.
- Some areas are improving more quickly than others. The overall trend is therefore assessed as stable / improving.
- We have stated how confident we are in the assessments based on the level of agreement between the specialists involved, and the quality and quantity of the supporting evidence.

Overview

The urban environment

We experience our environment most immediately in the neighbourhoods we live in. As most people in Scotland live in towns and cities – our urban areas – this topic looks specifically at the urban environment.

Scotland's settlements stem from the pattern of burgh settlement, which began in the 12th century. This was radically modified by industrialisation and the depopulation of rural areas in the 18th and 19th centuries, leading to poor living conditions in overcrowded major industrial centres such as Glasgow and Dundee. After the Second World War, many city slum areas were cleared and residents were moved to new housing estates on the outskirts; for example, Easterhouse and Castlemilk. New towns, like East Kilbride, were also built to deal with the housing shortages and create new centres of economic activity. This urban renewal led to significant improvements in living conditions for many people, providing more space, better sanitation and more access to greenspace.

Today almost 70% of Scotland's people live in urban areas (settlements of more than 10,000 people). These include the four key city regions, three smaller cities and a range of large and medium-sized towns. Most of the population and industry is concentrated in a small, highly urbanised area in the Central Belt and on the East Coast, which covers just 2% of Scotland's land area.

Table 1: Classification of urban and rural areas.

Category	Description	Area of Scotland covered by category (%)	Population living in this category (%)	Examples
Large urban areas	Population greater than 125,000	0.9	39.1	Aberdeen Dundee Edinburgh Glasgow
Other urban areas	Population between 10,000 and 125,000	1.0	30.4	Ayr Inverness Perth Stirling
Accessible small towns	Population between 3,000 and 10,000. Within a 30-minute drive of a settlement with a population of 10,000 or more	0.4	8.7	Cumnock Lanark Selkirk West Calder
Remote small towns	Population between 3,000 and 10,000. Outside of a 30-minute drive from a settlement with a population of 10,000 or more	0.2	3.7	Huntly Kelso Lerwick Oban

Source: Scottish Government 2011–2012 Urban Rural Classification. A map showing the different areas is available here.

Drivers of the economy

Scotland's towns and cities are the centres of economic and social activity. Cities drive Scotland's economy, and the wider city regions and town centres of Scotland support economic growth. These urban areas have the highest concentrations of population, commerce and industry; therefore, they use the most heat and energy, are the source of most of our waste and are a major source of traffic.

Greenspace

Greenspace, such as private gardens, parks, woodlands and playing fields, are the 'green lungs' of our towns and cities. Greenspace can help mitigate the environmental impacts of greenhouse gases and other emissions within our towns and cities. Oxygen levels can be much lower in cities than in the countryside; vegetation absorbs CO_2, produces oxygen, filters out particles from the air and reduces air pollution.

Urban areas, and particularly the green spaces within them, can be a home to nature and wildlife. They contain a wide range of habitats, some of which are unique, such as 'open mosaic habitat on previously developed land'. This refers to brownfield sites that support a range of habitats, including bare ground, which is important for warmth-loving invertebrates and basking reptiles. Soils on these sites tend to be low in nutrients, supporting plants that thrive in these conditions but would be out-competed in more nutrient-rich soil. At least 194 invertebrate species of conservation importance have been recorded in brownfield sites in the UK, including 50% of rare solitary bees and wasps, and 35% of rare ground beetles.

Greenspace can also reduce the risk of flooding in urban areas because it allows water to filter through the soil and slowly drain away, rather than flowing quickly over hard surfaces. Vegetation can also mitigate the 'urban heat island' effect, where the air temperature in cities reaches higher levels than in the surrounding countryside.

Greenspace is important for health: it provides space for outdoor activities in urban areas, a chance to connect with nature and a place for socialising. Greenspace Scotland's research reports on the links between greenspace and quality of life and the links between greenspace and health found that greenspace has a positive effect on physical and mental health; this includes reducing stress, improving some behavioural or emotional problems in children, and improving the ability to cope with problems.

State

Liveability

The Scottish Household Survey found that in 2011 more than half (55.9%) of adults in Scotland rated their neighbourhood as a 'very good' place to live. This varied with the type of neighbourhood: in large urban areas, 50% of adults said their neighbourhood was 'very good'. When asked about the things they like about their neighbourhood, people said that a sense of community is the most important factor, and a safe and pleasant environment was the second most important. The most prevalent problems are animal nuisance, such as noise or dog fouling, and litter. The 2009 Scottish Social Attitudes Survey found that people in urban areas with populations of more than 10,000 commonly reported the need to improve the quality of places for children to play.

Distribution and use of greenspace

The 2012 State of Scotland's Greenspace report found that the total area of greenspace in urban Scotland is 109,000 hectares. This is equivalent to one tennis court per person. Table 2 shows the different types of greenspace.

Table 2: Types of greenspace.

Type	Description
Public parks and gardens	Areas of land normally enclosed, designed, constructed, managed and maintained as a public park or garden. These may be owned or managed by community groups
Private gardens or grounds	Areas of land normally enclosed, associated with a house or institution and reserved for private use
Amenity greenspace	Landscaped areas designed to improve the appearance of an area or separating different buildings or land uses for environmental, visual or safety reasons. Used for a variety of informal and social activities, such as sunbathing, picnics and kickabouts
Playspace for children and teenagers	Areas providing safe and accessible opportunities for children's play usually linked to housing areas
Sports areas	Large and generally flat areas of grassland or specially designed surfaces, used primarily for designated sports, and generally needing to be booked. Examples include playing fields, golf courses, tennis courts and bowling greens
Green corridors	Routes including canals, river corridors and old railway lines, which link different areas of a town or city as part of a designated and managed network, or link towns and cities to their surrounding countryside or country parks. These may link green spaces together. Used for walking, cycling and horse-riding
Natural/semi-natural greenspaces	Areas of undeveloped or previously developed land which still retain their original (natural) habitats, or which have been planted or colonised by vegetation and wildlife, including woodland and wetland areas
Allotments and community growing spaces	Areas of land for growing fruit, vegetables and other plants, either in individual allotments or as a community activity
Civic spaces	Squares, streets and waterfront promenades, predominantly paved, that provide an area for pedestrian activity and can make connections for people and for wildlife
Burial grounds	Includes churchyards and cemeteries
Other functional greenspace	This depends on local circumstances or priorities

Source: Scottish Government: Planning Advice Note 65; Planning and Open Space

Figure 1 shows the proportion of each of greenspace found in Scotland.

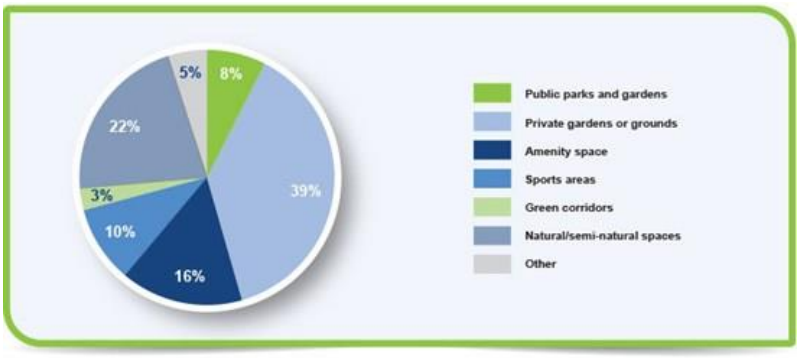

Figure 1: Proportion of different types of greenspace in Scotland

Greenspace Scotland with support from Scottish Government, Scottish Natural Heritage and Forestry Commission Scotland has also produced Scotland's Greenspace Map, which shows the distribution and type of greenspace in Scotland.

About half of the urban population uses public local greenspace. Forty nine per cent of people used local greenspace at least once a week in 2004, 63% in 2009 and 54% in 2011, according to Greenspace Scotland's greenspace use and attitude survey. The survey also shows a reduction in the percentage of people who felt that their local greenspace was a good place for play, physical activity and relaxation.

Over half (56%) of adults in Scotland have access to useable greenspace within a five-minute walk from their home (not including their own garden), according to the Scottish Household Survey. To a large extent, how often people use their nearest greenspace depends on how far away it is. Just under half (44%) of people who live less than a five-minute walk away visit every day or several times a week. When the nearest useable greenspace is more than 10 minutes away, this figure drops to 11%.

Air

Poor air quality can harm people's health and reduce their quality of life as well as damaging the environment. To date, 32 areas across Scotland have been designated as Air Quality Management Areas, due to breaching air-pollution limits. These areas range in size from city centres (such as Glasgow) to individual street junctions. The majority of them relate to transport emissions and are therefore close to or either side of busy roads. Green infrastructure, (the network of green spaces, including trees and green corridors), is particularly important for reducing exposure to poor air pollution by dispersing the pollutant or by removing it from the air.

Water

Water pollution from urban areas can happen when water runs off roads and other sealed surfaces, such as car parks and industrial yards. Run-off from roads can contain many pollutants, such as toxic metals, oils and salt. Chemicals emitted from vehicle exhausts can also be deposited on roads and pavements. All of these substances are washed off into the drainage system and into watercourses, causing water pollution.

Land

Across Scotland, particularly in parts of the Central Belt, the closure of manufacturing industries (such as steel works) has left degraded landscapes, poor-quality environments and significant areas of vacant and derelict land, some of which is polluted by dangerous contaminants.

Vacant land is land that is not being used for the purposes it is held for and is viewed as an appropriate site for development. Derelict land (and buildings) is land that has been so damaged by development that it cannot be redeveloped until it has been improved. The Scottish Vacant and Derelict Land Survey 2013 identified 11,114 hectares of derelict and urban vacant land; 2,355 hectares (21%) were classified as urban vacant and 8,759 (79%) hectares were classified as derelict.

Land is defined as 'contaminated' if concentrations of contaminants could harm human health, ecosystems or water bodies. Approximately 67,000 sites covering an area of 82,000 hectares have previously been used in a way that could result in the land being affected by contaminants. This is approximately twice the area covered by Greater Glasgow and comprises 1% of land in Scotland. However, only a small proportion is likely to be so polluted that it is classed as contaminated.

It is difficult to identify trends relating to contaminated land or the severity of contamination, as methods of recording data have not been consistent across the country. More information can be found in Dealing with land contamination in Scotland.

Pressures

Population and demographic change

Economic activity, inward investment, population change and demographic change all influence the development of our towns and cities. Place-making – how buildings and places are made, the quality of their design and of the built environments they help to shape – has a direct bearing on the environmental quality of our neighbourhoods.

According to the 2011 Census, Scotland's population is estimated to be at its highest ever level – 5,295,400 people. The population is predicted to continue to grow as a result of higher birth rates, longer life expectancy and immigration. The number of households in Scotland increased by 8% between 2001 and 2011. Population projections suggest a net increase of over 200,000 households in Scotland by 2020.

The Scottish government has estimated that each year 20,000 homes will need to be built just to accommodate this growth in households. Meeting the housing needs of a growing population is likely to mean:

- more development of brownfield sites (areas that have been built on in the past, some of which support rich and diverse habitats);
- greater pressure for development on greenfield (previously undeveloped) sites, including agricultural land and urban greenspace, such as playing fields.

Pressure on urban air quality

Increased demand for new housing to meet population and demographic change will place more demands on our existing transport and other parts of the infrastructure, including water and drainage. Emissions and congestion resulting from increasing volumes of traffic in urban areas have a major effect on air quality and human health, and the extra traffic also increases noise pollution. Air pollutants being deposited on land can damage the wider environment.

Climate change

It is becoming more and more important to consider climate change when planning for future development. Extreme weather is becoming increasingly frequent, which brings fresh challenges when designing and developing housing and urban infrastructure.

One result of extreme weather is the likelihood of more flooding. Existing drainage systems may become ineffective because of potential rises in the water table. Increases in sea level and coastal erosion are likely to affect coastal settlements.

The gradual change towards hotter, drier summers and milder, wetter winters is likely to lead to new pests and the spread of insect infestations, which may threaten urban wildlife and urban food production.

What is being done

Plans for Scotland's towns and cities are continuing to meet the needs of a changing society and the economy – offering people choice and meeting local needs, but not at the expense of the environment.

Our planning system is helping to balance the environmental costs and the social and economic benefits of development over the longer term. Rather than allowing development at any cost, planning aims to make sure that the right developments are built in the right places.

Good planning can create places to live that give communities culture, a sense of pride and belonging, and a sense of local and national identity. It can provide urban environments that function well, link well with surrounding towns and villages, and are attractive to socialise and work in.

Development plans and green networks

The Third National Planning Framework (NPF3) aims to make Scotland a successful, sustainable, connected place that businesses want to invest in, where greenhouse gas emissions are low and the environment is resilient. These national priorities will influence development plans for different cities, towns and rural areas, which are prepared by local authorities and National Park Authorities.

The Scottish planning policy (SPP) sets out national planning policies that reflect Scottish Ministers' priorities for developing and using land. The SPP influences the preparation of development plans, design of developments, and decisions about planning applications and appeals. Under the SPP, the planning system should protect and improve green infrastructure (the network of green spaces), provide easy, safe access to it and make sure it is managed well, now and in the future.

The Central Scotland Green Network (CSGN), established by the second National Planning Framework (NPF2), builds on the work of the Glasgow and Clyde Valley Green Network Partnership, the Lothians and Fife Green Network Partnership and other stakeholders across Central Scotland. CSGN aims to provide a high-quality 'green network', linking greenspaces in and around settlements to improve people's lives, promote economic success, allow nature to flourish and help Scotland respond to the challenges of climate change.

Sustainable and healthy places

The Scottish Sustainable Communities Initiative (SSCI), established in 2008, encourages the creation of settlements offering a high quality of life to their residents, including opportunities to live healthier, more active and environmentally responsible lives. It recognises the importance of landscape, cultural identity and high-quality design.

The Scottish Government's policy statement on architecture and place, Creating Places, also recognises the importance of good design in creating good places to live, building vibrant communities and benefiting the economy.

The environment of Scotland's towns and cities affects the physical and mental health of the population. This has been recognised by the Scottish Government in Equally Well, and in Good Places, Better Health. As part of the implementation of Equally Well, Glasgow City Council and its partners involved local people in place-making as a way of reducing health inequalities, and a toolkit was developed to help others apply the same approach.

Another important guiding principle for creating sustainable places is to use the 'ecosystems approach' in planning and development. Scotland's Land Use Strategy sets out how public organisations can use this approach in decision-making in order to provide wider benefits.

Regeneration and sustainable development

Regeneration is the process of reversing the economic, physical and social decline of places where market forces on their own are not enough. The Achieving a Sustainable Future: Regeneration Strategy aims to work towards supporting our most disadvantaged communities and making sure all places are sustainable and promote well-being.

Scottish urban regeneration companies continue to carry out physical, economic and social regeneration in areas like the Clyde Gateway in Glasgow, Irvine Bay in North Ayrshire and Inverclyde.

The Scottish Government published a Town Centre Action Plan in November 2013 following a national review of town centres. This sets out a number of actions to revitalise town centres, including providing a demonstration town centre housing fund to bring empty town centre properties back into use.

Land left vacant due to development projects being put on hold may be temporarily used for greenspace; thus, providing environmental benefits. These 'stalled spaces' projects are bringing sites across Scotland back to life.

Bringing vacant and derelict land back into productive use for housing, for economic purposes and to create attractive environments is another way of dealing with development pressures in a sustainable way. Major land reclamation in former mining areas, and projects such as the Central Scotland Forest and the restoration of the Forth and Clyde and Union canals, have improved the environment and opened up new opportunities for economic development and leisure. To support local authorities to deal with long-term vacant and derelict land the Scottish Government provides funding through the Vacant and Derelict Land Fund.

In Scotland, public agencies must assess, consult upon and monitor the likely impacts of their plans, programmes and strategies on the environment. This process is known as strategic environmental assessment (SEA) and is essential in sustainable development, protecting the environment and extending opportunities for public participation in decision-making.

Adapting to climate change

Scotland's Climate Change Adaptation Framework sets out a national co-ordinated approach to adaptation to ensure that everyone in Scotland understands the risks and opportunities that climate change presents and to provide guidance on adaptation. This includes action plans for the built environment and for spatial planning and land use. The framework will soon be replaced by the Scottish Climate Change Adaptation Programme, which addresses the risks identified for Scotland in the UK Climate Change Risk Assessment. All public agencies in Scotland have to contribute to adapting to climate change. Without measures to avoid and manage flooding and other effects, climate change may cause irreversible damage to buildings, houses and related infrastructure.

Green infrastructure, such as areas of urban green space, can help us adapt to climate change. For example, trees can provide shade and can slow the rate at which rainfall reaches the ground; ponds and wetlands can store water, reducing the risk of flooding elsewhere; and green networks can provide linked habitats, which allow plants and animals to migrate to more suitable areas as the climate changes.

Dealing with urban pollution and flooding

Sustainable Drainage Systems (SUDS) can be built to prevent water contamination and flooding caused by rainfall running off roads, car parks and other hard surfaces into rivers.

Permeable surfaces can also be used to reduce run-off from paved areas. This reduces the amount of pollutants entering watercourses, and allows some pollutants to be broken down. Blocks in permeable pavement systems are not sealed into the ground, but rest on a bed of coarse sand.

This allows water falling onto the pavement to trickle down between the blocks and soak away into the ground. Alternatively, the water can be stored in underground tanks and used on site. Porous asphalt has also been developed.

The Dunfermline Eastern Expansion (DEX) site is a major development area in Fife that has become a demonstration site for the implementation of SUDS in Scotland.

Much of the pollution from industrial areas could be reduced by preventing contaminants from getting into the environment. Such measures include keeping oil in sealed containers, making sure that clean and dirty water is kept separate and disposing of chemicals in the correct manner.