

## Description

Scotland's environment is perceived as being amongst the best in the world, and within living memory significant progress has been made in its protection and improvement.

Despite these successes, Scotland's environment still faces challenges; these are discussed further in the next sections, which cover:

- [air and climate](#);
- [built environment](#);
- [land](#);
- [freshwater environment](#);
- [marine environment](#).

In each section we summarise the condition of each aspect of the environment and the main pressures which face it.

**Improving the environment**



Severe river pollution caused by industry and sewage has been substantially reduced.



Woodland cover has increased from 4.5% (one of the lowest in Europe) to 18%, with the proportion of native woodland increasing over the past 10 years.



Air pollution from factories and domestic heating has been dramatically reduced, improving the quality of life within towns and cities.



Scotland's countryside has attracted [increasing numbers of visitors](#).



Human health impacts resulting from a poor environment have been reduced significantly as a result of investment in high-quality drinking water and the disappearance of urban smog.



Landfill sites have progressively been improved; operational landfills are lined where appropriate to prevent the leaching of pollutants, and many of them capture the methane emitted from the landfill for power generation or heating.



The food and drink manufacturing sector has grown strongly, and the value of high-quality food and drink [exported from Scotland has increased](#).



Recycling levels have improved; the amount of household waste recycled and composted has doubled since 2004.



The state of the marine environment has improved and its use increased.

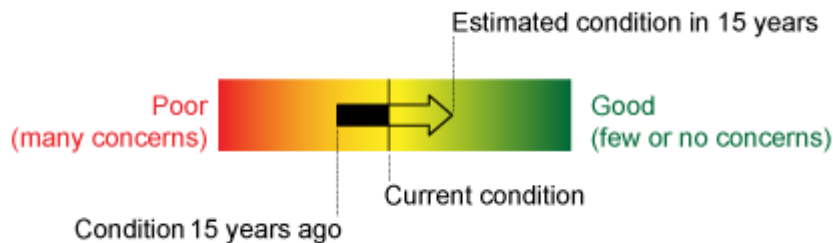
## Explanation of diagram

### How to understand the key

We have illustrated the condition of different topics using a diagram, placing each environmental topic on a spectrum from red to green which represents our current (2011) understanding of its state. The arrow represents the direction and extent of the potential change expected over the next 15 years.

We have defined both the position on the spectrum and the trend using judgement, based on available information. For some topics there is a good body of evidence to support the assessments, other topics rely more on expert judgement.

We aim to progressively improve the robustness of this process over the next year, including holding a [wider consultation](#) on the outputs.






The example above illustrates a part of the environment that is currently amber, but in 15 years' time will have improved to green.



The example above illustrates a part of the environment which is currently amber and we do not believe there is a trend.





## Air and climate

[Click for explanation of the diagram.](#)

Clean and safe: Air	Clean and safe: Climate
 <p><a href="#">Noise, light and odour</a></p>  <p><a href="#">Air quality</a></p>	 <p><a href="#">Climate change</a></p>
<p>There are detailed descriptions of these topics in the <a href="#">air and climate</a> chapter.</p>	<p>There is a detailed description of this topic in the <a href="#">air and climate</a> chapter.</p>
<p>Some forms of air pollution have improved dramatically, for example, smog caused by domestic burning of coal has disappeared and acid rain has reduced significantly.</p>	<p>Scotland's climate is changing. Temperatures are rising and rainfall patterns in some areas of Scotland have changed.</p>
<p>Some forms of pollution have remained high or increased in some areas. Health based standards are often exceeded in many urban areas. These are mostly caused by emissions from traffic.</p>	<p>Although there are natural causes for cycles of climate change, the changes currently observed are consistent with those predicted by global models and science suggests that our use of fossil fuels is one of the main causes of this change.</p>
<p>The most frequent causes of environmental complaints by the public are associated with noise, odour and litter. This affects the quality of life of people, primarily in our towns and cities but also increasingly in the countryside.</p>	<p>There is evidence of biological responses to climate change, with southerly species of insects, bird and marine plants and animals being recorded in Scotland more often. Some of these species are introducing pests and diseases to Scotland.</p>








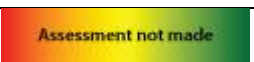

## Built environment

[Click for explanation of the diagram.](#)

Clean and safe	Healthy and biologically diverse	Productive
 <p><a href="#">Cities, towns and greenspace</a></p>  <p><a href="#">Historic environment</a></p>	<p>Assessment not made</p>  <p><a href="#">Cities, towns and greenspace</a></p>	 <p><a href="#">Waste</a></p>
<p>There are detailed descriptions of these topics in the <a href="#">built environment</a> chapter.</p>	<p>A detailed description of this topic is being prepared.</p>	<p>There is a detailed description of this topic in the <a href="#">resources</a> chapter.</p>
<p>We are justifiably proud of Scotland's cities and towns and their architectural and historic importance. They attract large numbers of visitors and enrich the lives of the people of Scotland. Social inequalities exist in our towns and cities; in some areas, access to good-quality greenspace is available, whereas some areas of deprivation have derelict or insufficient greenspace, which does not deliver its potential health and amenity benefits. There are problems associated with air quality and noise across our towns and cities, and localised problems associated with odour. Most people are happy with the condition of their neighbourhood although there are significant numbers of urban areas in which big improvements could be made to residents' quality of life.</p>		<p>Scotland's economy is dependent upon a range of non-renewable materials and in the longer term these will be used up. These materials include plastics and some metals.</p> <p>Other materials may be present in large quantities but their extraction; transport and processing have large energy demands.</p> <p>Scotland landfills less than half of the waste it did ten years ago. At present, approximately 40% of household waste is composted or recycled.</p> <p>Improving the way in which we handle waste material is an important environmental and economic objective.</p>

## Land







[Click for explanation of the diagram.](#)

Clean and safe	Healthy and biologically diverse	Productive
 <p><a href="#">Rocks and landforms</a></p>  <p><a href="#">Soil</a></p>  <p><a href="#">Landscape</a></p>	 <p><a href="#">Farmland and lowland</a></p>  <p><a href="#">Mountains and uplands</a></p>  <p><a href="#">Wetlands</a></p>  <p><a href="#">Woodlands and forests</a></p>	 <p>Crops and livestock</p>  <p><a href="#">Timber and forestry</a></p>
<p>There is a detailed description of these topics in the <a href="#">land</a> chapter.</p>	<p>There is a detailed description of most of these topics in the <a href="#">wildlife</a> chapter.</p> <p>The Farmland topic is still under development.</p>	<p>A detailed description of these topics is being prepared.</p>
<p>We have a good understanding of the different soil types across Scotland but a poor understanding of how our activities affect soils.</p> <p>There are a number of pressures upon soil (agricultural and forestry management practices, urban and infrastructure developments and climate change). Consequently, there are reasons to be concerned about the state of Scottish soils.</p> <p>Landscape changes over time and whether these changes are perceived to be</p>	<p>Our countryside has changed over the years as land management has developed to support food and timber production and recreation.</p> <p>Some high-value wildlife habitats have been particularly badly affected: wetlands by land drainage and uplands and wetlands by plantation forestry in the 1970s and 1980s. The result has been widespread reductions in the numbers of some bird and insect species.</p> <p>On farmland, changes in</p>	<p>The value of agricultural production and the associated food and drink industries have progressively increased over the past 60 years.</p> <p>This has made an important contribution to the Scottish economy.</p>

<p>good or bad depends on how society values the landscape.</p>	<p>land management to support increased food production have had particularly severe impacts, with some species becoming extinct over most of the mainland.</p> <p>Over the past 10 years the planting of native woodlands has increased and this has had benefits for landscape and wildlife.</p>	
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## Freshwater environment





[Click for explanation of the diagram.](#)

Clean and safe	Healthy and biologically diverse	Productive
 <p><a href="#">Groundwater</a></p>  <p><a href="#">River and canals</a></p>  <p><a href="#">Lochs</a></p>	 <p><a href="#">Rivers and lochs</a></p>	 <p>Water supply</p>  <p>Fisheries</p>
<p>There are detailed descriptions of these topics in the <a href="#">water</a> chapter.</p>	<p>There is a detailed description of this topic in the <a href="#">water</a> chapter.</p>	<p>A detailed description of these topics will be prepared. For information on fisheries trends see the <a href="#">UK NEA Scotland report</a>.</p>
<p>Generally, the freshwater environment is in good condition.</p> <p>Despite improvements in water quality, some problems remain in freshwaters.</p> <p>Plans are in place to deliver progressive improvements; the success of these plans is dependent upon tackling the effects of intensive agricultural land use, sewage pollution, water abstractions and changes to habitats (such as dams, and straightening rivers).</p>	<p>Freshwater wildlife is largely in good condition, reflecting the improving condition of rivers, canals and lochs.</p> <p>Some habitats and species remain adversely affected by pollution, changes to habitat and water abstraction.</p> <p>Climate change and invasive species have introduced new threats.</p>	<p>Public water supply is generally of very high quality; however the quality of some private water supplies gives cause for concern.</p> <p>Catches of salmon and sea trout have progressively decreased over the past 40 years. This is thought to be due to a decline in fishing effort in inshore waters and estuaries, and a combination of pressures (including fishing and climate change) on fish during the marine phase of their life cycle.</p>



## Marine environment

[Click for explanation of the diagram.](#)

Clean and safe	Healthy and biologically diverse	Productive
<p>Detailed assessment in Marine Atlas</p> <p><a href="#">Scotland's seas</a></p> <p>(0-200 nm)</p>  <p><a href="#">Coastal waters*</a></p> <p>(0-3 nm)</p>  <p><a href="#">Estuaries*</a></p> <p>* Based on WFD assessment</p>	<p>Detailed assessment in Marine Atlas</p> <p><a href="#">Scotland's seas</a></p> <p>(0-200 nm)</p>  <p><a href="#">Coastal waters*</a></p> <p>(0-3 nm)</p>  <p><a href="#">Estuaries*</a></p>	<p>Detailed assessment in Marine Atlas</p> <p><a href="#">Scotland's seas</a></p>
<p>There are detailed descriptions of these topics in <a href="#">Scotland's marine atlas</a> and in the <a href="#">water</a> chapter of this website.</p>	<p>There are detailed descriptions of these topics in <a href="#">Scotland's marine atlas</a> and in the <a href="#">wildlife</a> chapter of this website.</p>	<p>A detailed description of economic activities in Scotland's seas is available in <a href="#">Scotland's marine atlas</a>.</p> <p>Further information will be placed on this website in the future.</p>
<p>Scotland's seas are mainly clean and safe, although there are some localised areas where there is contamination or hazards to human health, from, for example, the legacy of past industrial discharges.</p> <p>Diffuse inputs of nutrients and bacteria have given rise to some localised issues.</p> <p>Concerns such as marine litter and underwater noise</p>	<p>Scotland's seas support a diverse array of habitats and species and nationally and internationally important populations of certain species.</p> <p>There is evidence that certain habitats have been impacted, for example shallow sediments.</p> <p>This stems largely from the effects of fishing over large areas of the seabed and</p>	<p>Scotland's seas are economically productive, and support a wide range of activities such as fishing, aquaculture, shipping, recreation and renewable energy generation.</p> <p>Official figures show that the core marine sector (less the extraction of oil and gas) contributed £3.6 billion of Gross Value Added (GVA) in 2008, about 3.5% of overall</p>

<p>have become more broadly recognised.</p>	<p>more localised impacts from activities such as aquaculture.</p> <p>The low abundance of some commercial fish species across the west coast of Scotland is a major concern and is being addressed through various initiatives.</p> <p>Populations of some seabirds, harbour seals and some fish species have declined. Possible reasons include climate change, a number of different human activities and competition from other species.</p>	<p>Scottish GVA.</p> <p>About 39,800 people were employed, 1.6% of Scottish employment.</p> <p>Fish stocks are a healthy source of food and support an economically and socially important industry.</p> <p>The population level of some fish species is of major concern; part of the reason for the reduction in some stocks may be related to climate change.</p>
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[Scotland's marine atlas](#) assessed the seas based on 15 sea areas, from shore to the maximum of 200 nautical miles. The Atlas draws on data from many monitoring programmes (including a range of European Directives and other obligations) and data sources to give a wider understanding of the seas in preparation for marine planning. For this each of the 15 areas are assessed but no overall colour given as this would over-simplify a complex picture. The assessments for estuary and coastal waters (within 3 nautical miles of shore) are based on detailed monitoring of 507 identified water bodies.