

Inquiry into Carbon Emission Reductions in Wales Submission from the Sustainable Development Commission

What is Sustainable Development?

The term sustainable development first came to prominence in 1987 when the World Commission on Environment and Development (the Brundtland Commission) produced a report for the United Nations called 'Our Common Future'. Its definition of sustainable development - "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" - is commonly referred to as the 'original' or 'classic' formulation of the term. It is from this definition that most interpretations of sustainable development emanate.

Differences in interpretation mostly stem from how each of the three goals or 'pillars' of sustainable development - environment, society, and economy - are emphasised. The concern with balancing the needs of present and future generations - the intergenerational dimension - is also a point of difference. Many, for example, consider it wrong to make assumptions about future human needs beyond basic biological ones.

Sustainable Development and Government

In the UK, the UK Government and Devolved Administrations have clearly set out in the new Shared Framework what sustainable development means for them and the approach they will take to pursue their goal.¹ They offer the following interpretation:

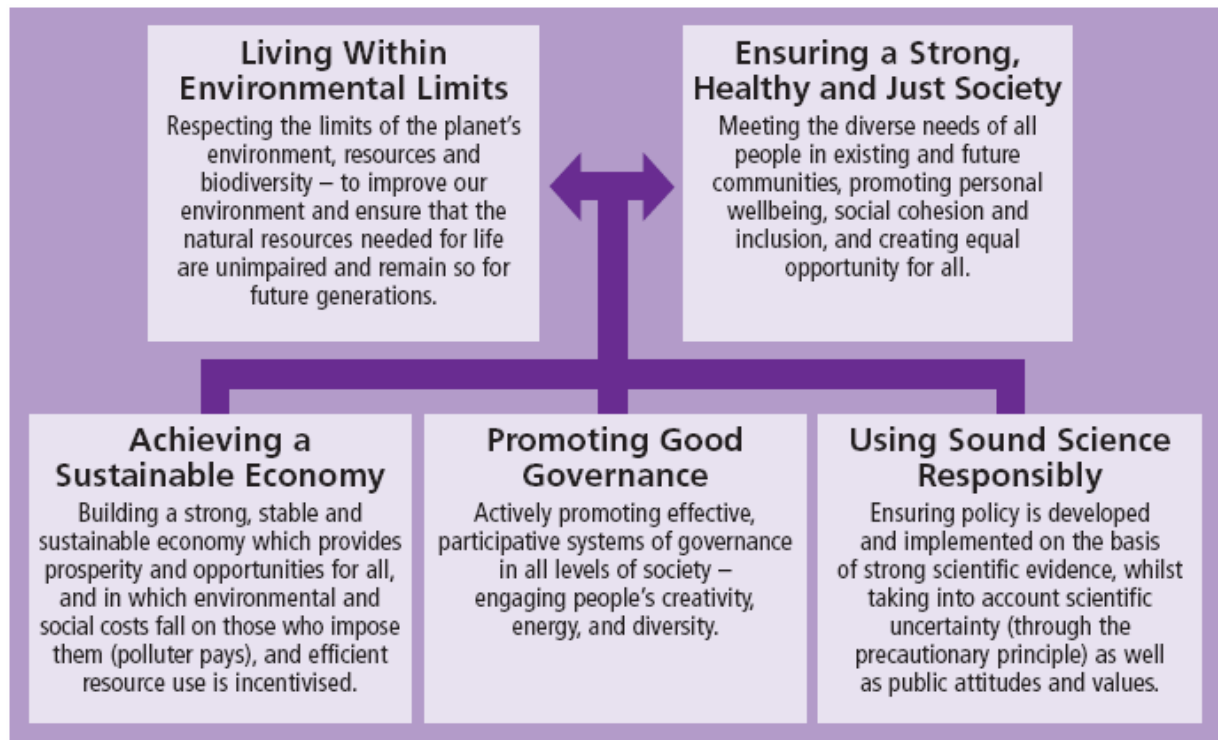
"The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations.

For the UK Government and the Devolved Administrations, that goal will be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment; and a just society that promotes social inclusion, sustainable communities and personal wellbeing. This will be done in ways that protect and enhance the physical and natural environment, and use resources and energy as efficiently as possible."

To provide a clearer picture of what they mean in practice, such definitions are often underpinned by key principles that serve to guide policy-making and decisions. As such, the UK Government and the Devolved Administrations have agreed to a shared set of guiding principles for sustainable development which must be respected in order for a policy to be sustainable. The UK Government's five principles for sustainable development, as set out in the 2005 strategy, are shown diagram.²

¹ UK Government, Scottish Executive, Welsh Assembly Government and Northern Ireland Office, 'One future - different paths. The UK's shared framework for sustainable development', March 2005.

² UK Government, 'Securing the future - delivering UK sustainable development strategy', March 2005.



“We want to achieve our goals of living within environmental limits and a just society, and we will do it by means of a sustainable economy, good governance and sound science.”

In Wales, sustainable development is further supported by the Sustainable Development Scheme published by the National Assembly for Wales stating how it will promote sustainable development in the exercise of its functions. The Assembly also produces an annual report on how the proposals in the Scheme are being implemented and reports on progress against a set of indicators.

The Role of the Sustainable Development Commission

The Sustainable Development Commission (SDC) is the Government's independent watchdog on sustainable development, reporting to the Prime Minister, the First Ministers of Scotland and Wales and the First Minister and Deputy First Minister of Northern Ireland. Through advocacy, advice and appraisal, we help put sustainable development at the heart of Government policy. The SDC founded in October 2000, and in 2005 expanded to take on a watchdog role. It is led by a board of 19 Commissioners, from a mix of academic, scientific, business and NGO backgrounds, chaired by Jonathon Porritt, and supported by a secretariat of around 50 staff, directed by Andrew Lee.

The Sustainable Development Commission (SDC) Wales is the Welsh Assembly Government's independent advisory body on sustainable development and Peter Davies is the SDC Vice Chair for Wales. The Commission reports direct to the First Minister for Wales on key policy areas including local government, regeneration and health. This ensures that the work which is going on over the breadth and depth of the sustainable development agenda is widely recognised. SDC helps government departments, local authorities and businesses put sustainable development at the heart of what they do.

The SDC does this by:

- Producing evidence-based public reports on contentious environmental, social and economic issues, such as tidal power
- Drawing on expert opinion to advise Ministers, policy-makers and stakeholders across Government
- Responding openly to Government policy initiatives
- Inviting debates on controversial subjects

Climate change and sustainable development

Climate change is the most graphic and pressing example of what happens when we breach environmental limits. There is now clear evidence that human activities have resulted in climate change. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change stated that “Warming of the climate system is unequivocal...” and that the scientific evidence leads to “... very high confidence that the globally averaged net effect of human activities since 1750 has been one of warming...”. The Stern Review on The Economics of Climate Change estimates that “if we don’t act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever.” Against this, the report estimates the cost of action to be around 1% of global GDP each year and notes that investment that takes place in the next 10-20 years will have an impact on climate for the rest of this century and beyond.

The UK government in 2003 set a target of reducing carbon dioxide emission by 60% by 2050. However, the Stern report notes that stabilisation of atmospheric concentrations would require annual emissions to be reduce at least 80% below current levels. UK Government is to ask the new Climate Change Committee to reconsider the 60% target, in the light of the IPCC and Stern Reports.

Our response to climate change must be based on the principles of sustainable development to provide lasting solutions. Sustainable development is about finding solutions that integrate each pillar - environmental, social and economic - to best effect. Actions which breach global environmental limits cannot be sustainable but neither can initiatives which respect environmental limits but are socially divisive or economically unviable. A well designed zero carbon development can foster community cohesion, improve health, reduce crime, minimise environmental impact and reduce the long term costs for its citizens.

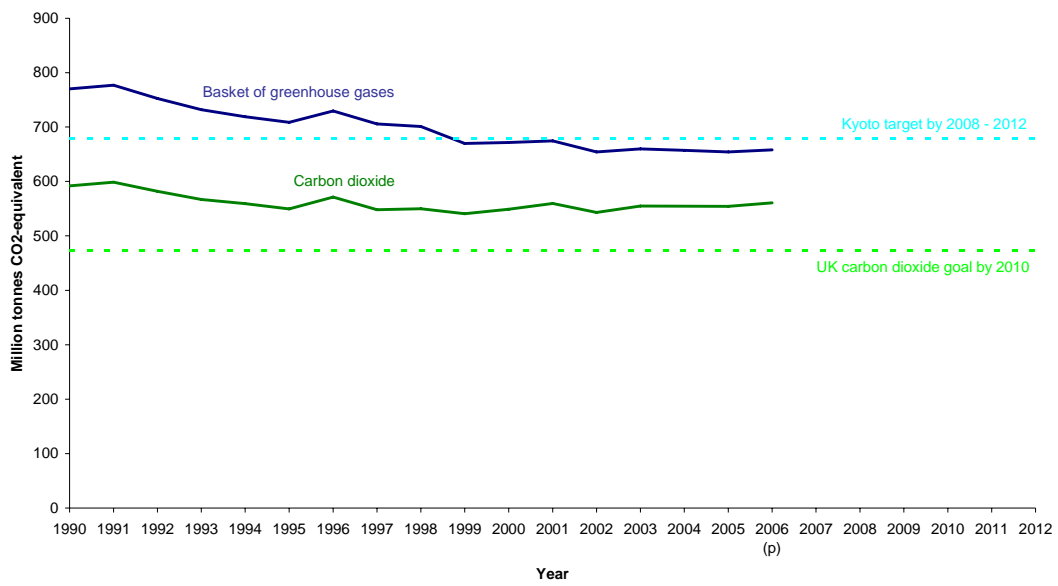
Trends in greenhouse gas emissions

In 1990, emissions of greenhouse gases in Wales were 55 million tonnes of carbon dioxide equivalent (MtCO₂e) and contributed 7.1% of total UK greenhouse gas emissions. In 2005, total greenhouse gas emissions in Wales were 50.1MtCO₂e, a reduction of 8.8%, which contributed 7.7% of total UK emissions. The decrease in absolute emissions between 1990 and 2005 from Wales is largely attributable to a decline in fugitive emissions of methane from coal mines. Carbon dioxide emissions were broadly stable over the same period. The increase in the proportion of UK greenhouse gas emission contributed by Wales is a result of a greater decrease in emissions between 1990 and 2005 in England and Scotland.³

Figure 1 shows emissions of all greenhouse gases and carbon dioxide for the UK as a whole while Figure 2 shows the same information for just Wales. The table below shows the major sources of greenhouse gas emission in Wales.

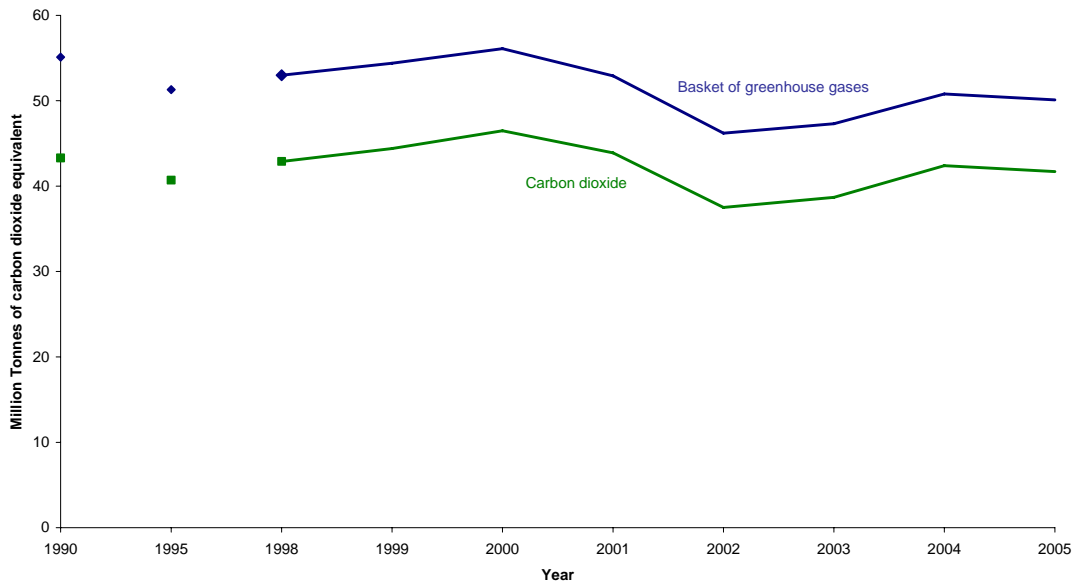
³ AEA, Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990 – 2005, August 2007.

Figure 1: UK emissions of greenhouse gases and carbon dioxide



Source: <http://www.defra.gov.uk/environment/statistics/globalatmos/index.htm>

Figure 2: Wales emissions of greenhouse gases and carbon dioxide



Source: AEA (2007)

Table 1: Main sources of greenhouse gas emissions in Wales (2005)

Sector	Gas	Emissions (kt CO ₂ e)	Proportion of Welsh total (%)
Power stations	CO ₂	14047	28
Iron and Steel	CO ₂	6332	13
Road transport	CO ₂	6027	12
Residential combustion	CO ₂	4488	9
Other industrial combustion	CO ₂	3719	7
Refineries	CO ₂	3344	7
Agricultural soils	N ₂ O	2648	5
Enteric fermentation – cattle	CH ₄	1468	3
Land converted to cropland	CO ₂	1046	2
Landfill	CH ₄	994	2

Source: AEA (2007)

Driving change

The 2006 UK Climate Change Programme sets out the overall framework and policies for tackling greenhouse gas emissions in the UK. Further policies were announced in the 2007 Energy White Paper, including the Carbon Reduction Commitment, which covers large non-intensive energy users such as supermarkets and local authorities.

The One Wales document included a commitment to achieve reductions in greenhouse gas emissions of 3% per year by 2011 in areas of devolved competency. This is an ambitious target and achieving this goal will require action on the part of government, businesses and individuals. Table 1 shows that industrial sources (electricity generation, steel manufacturing and refineries) are major contributors to emissions in Wales. These sectors are already covered by the EU Emissions Trading Scheme and some will be covered by Climate Change Agreements.

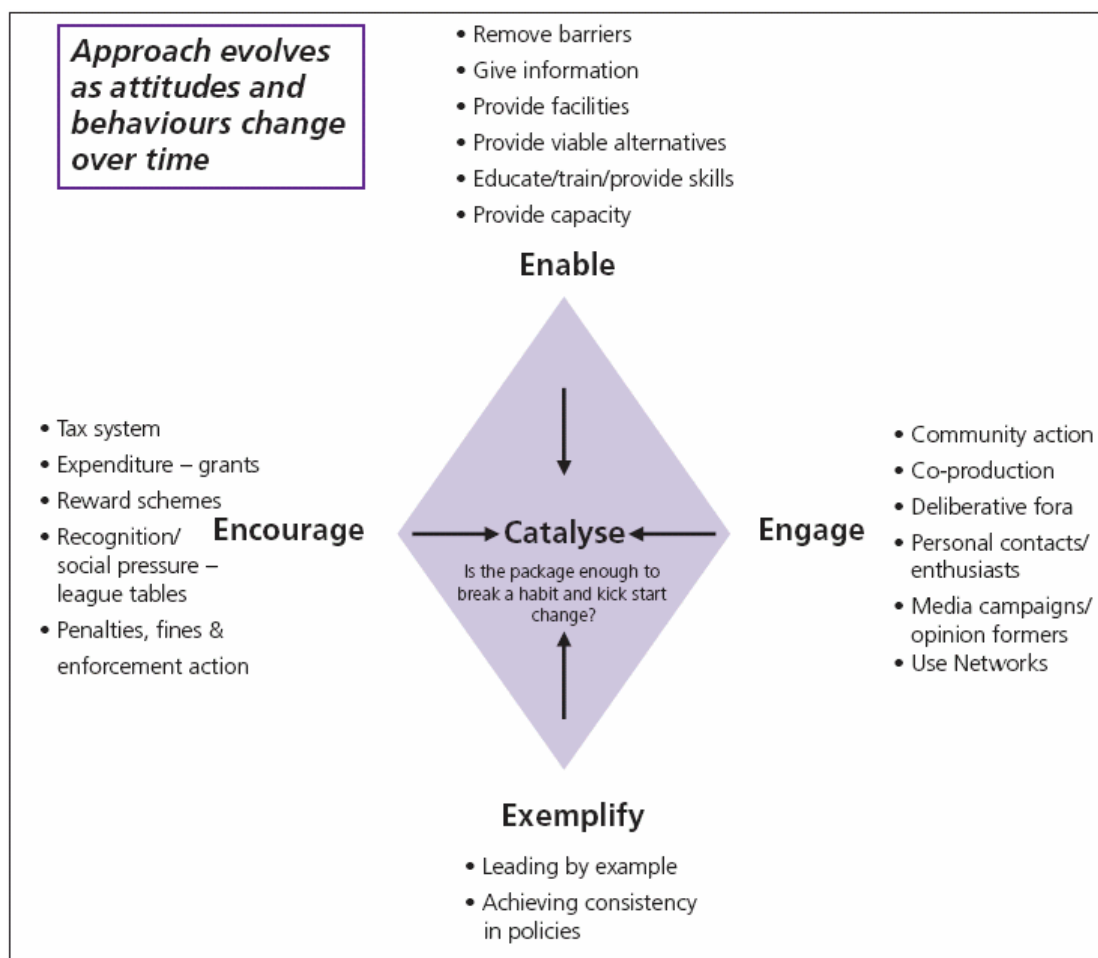
The three areas of devolved responsibility where the Welsh Assembly Government may have greatest scope to act are in road transport, the residential sector and agriculture. The main policies in the UK Climate Change Programme for each of these sectors are summarised in the table below.

Table 2: Climate Change Programme policies

Sector	Key Policies
Road transport	Renewable Transport Fuel Obligation Vehicle Excise Duty and Company Car Tax
Domestic sector	Building regulations to set minimum standards Code for Sustainable Homes Energy Efficiency Commitment A trial of smart energy meters and associated feedback devices Awareness raising through the Energy Savings Trust and Climate Change Communications Initiative
Agriculture	Promote resource efficient farm management Examine the feasibility of emissions trading for the agriculture and forestry sector

These three sectors are ones where behaviour change is likely to be a key factor in achieving emissions reductions, although this may well need to be supported through other measures such as carbon pricing, including emissions trading or taxation, and regulation.

The Sustainable Development Strategy recognised this and noted the need to “**enable, encourage and engage** people and communities in the move toward sustainability; recognising that Government needs to **lead by example**.” The figure below summarises the actions that might be needed at each stage in order to stimulate behaviour change.



Source: UK Government Sustainable Development Strategy

More recently, the Sustainable Consumption Roundtable’s report ‘I will if you will: Towards sustainable consumption’ (summary attached) highlighted the importance of co-ordinated action from people, business and government. Each of these occupy one corner of the ‘triangle of change’ and no one or two groups can lead on achieving sustainable consumption alone. In terms of the role of government, this report noted that it is “...government, at all levels, that is best placed to co-ordinate a collective approach to change, through an enabling policy framework.”

These then provide a structure for considering the policies needed to achieve emission reductions. A balance of policies that cover the four ‘E’s that require government, business and people to move together will be the most effective means of achieving a more sustainable society.