

Sustainable development is vital to ensure a better quality of life for everyone, today and for generations to come. Economic growth and social progress must be balanced with action to protect and improve the environment. The Government is using a range of economic instruments to address the many challenges posed by sustainable development, tackling local environmental threats and controlling and reducing emissions of the gases responsible for climate change and poor air quality. Budget 2003 describes the next steps in the Government's strategy, including:

- a package of **reforms to improve waste management**, including:
  - **an increase in the standard rate of landfill tax** of £3 per tonne in 2005-06 and increases of at least £3 per tonne in future years, on the way to a medium- to long-term rate of £35 per tonne. The landfill tax rises to £14 in 2003-04, to £15 in 2004-05, and to £18 in 2005-06;
  - **further detailed consultation on options to ensure that landfill tax increases are revenue neutral to business as a whole;**
  - **a Waste Management Performance Fund** in England to help local authorities improve waste performance for all households; and
  - **a sustainable waste delivery programme** to reduce waste volumes and promote recycling and new waste management technologies.
- **a freeze in the rates of the climate change levy**
- **new enhanced capital allowances** to promote business investment in energy saving new technologies and to encourage more sustainable water use and improvements in water quality;
- **detailed consultation on specific measures to promote household energy efficiency;**
- **deferred annual revalorisation of the main road fuel duties** until 1 October 2003, owing to the recent high and volatile level of oil prices as a result of military conflict in Iraq;
- **further steps to promote the use and development of cleaner road fuels**, including new duty incentives for sulphur-free fuels and bioethanol and an increase in the duty on red diesel and fuel oil;
- **a new lower rate of vehicle excise duty** for the most environmentally-friendly cars with very low levels of carbon dioxide emissions; and
- **a freeze in the rates of the aggregates levy.**

### INTRODUCTION

**7.1** The Government's sustainable development strategy aims to deliver a better quality of life for everyone, today and for future generations. Economic, social and environmental progress must go hand-in-hand, and policy should take account of the inter-relationship between different objectives. Energy, transport, waste and agriculture all have important environmental impacts as well as economic and social dimensions. The Government's strategy seeks to balance these factors to address the challenges of climate change, poor air quality and environmental degradation in urban and rural areas.

**A strategy for environmental taxes** **7.2** Taxes and other economic instruments can provide incentives for behaviour that protects or improves the environment, helping to achieve environmental goals at the lowest cost and in the most efficient way. By internalising environmental costs into prices, they help to signal the structural economic changes needed to move to a more sustainable economy. They can also encourage innovation and the development of new technologies.

**7.3** The Government's approach to environmental taxation was set out in *Tax and the environment: using economic instruments*, published alongside the 2002 Pre-Budget Report. In general, markets provide the best means of allocating an economy's resources in the private sector, and this is as true for environmental resources as for others. However, when markets do not price environmental costs properly, economic instruments, such as environmental taxes or tradable permits, can be used to improve price signals, recognising the dynamic and long-term nature of responses within markets.

**7.4** The Government's strategy document also reaffirmed its commitment to the 1997 Statement of Intent on environmental taxation. It provides a framework for developing and implementing environmental economic instruments, through extensive consultation before decisions are made and by giving early signals about the need to act so that households and businesses have sufficient opportunity to plan changes and invest appropriately. Wherever possible, the Government will explore the development of revenue-neutral proposals for reform to reduce excessive impacts on businesses and specific groups and reinforce responses.

## TACKLING CLIMATE CHANGE AND IMPROVING AIR QUALITY

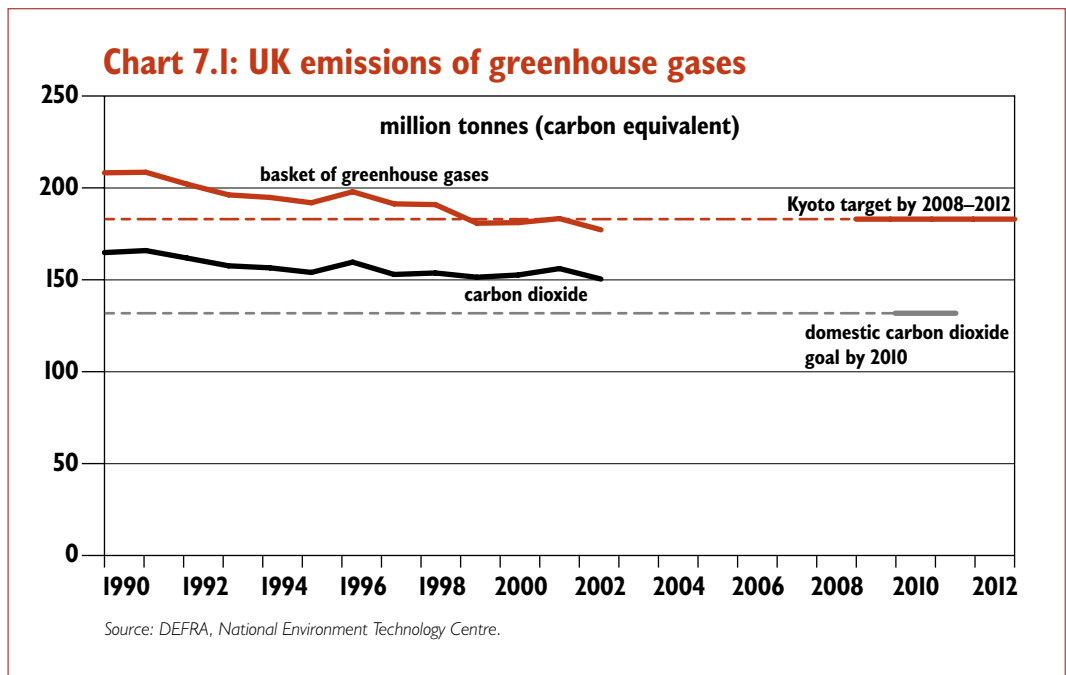
**Tackling climate change** **7.5** There is strong evidence that global temperatures are rising. 1998 was the warmest year since records began, while nine of the ten hottest years on record fell between 1990 and 2002. No country can be immune to these trends and there is already evidence that the UK's climate is changing. In central England, the 1990s were exceptionally warm by historical standards and about 0.6 degrees Celsius (°C) warmer than the 1961-1990 average. Climate change scenarios<sup>1</sup>, published by the Department for Environment, Food and Rural Affairs (DEFRA) in April 2002, show that average annual temperatures across the UK could rise by between 2 and 3.5°C by the end of the century.

**7.6** The UK Climate Impacts Programme provides an emerging picture of how a changing climate might affect lives and livelihoods in the UK:

- more severe storm surges could increase the risk of flooding in lowland areas. Use of the Thames Barrier has already risen in frequency, from once every two years during the 1980s to an average of six times a year in the past five years;
- increased water demand and more frequent droughts could generate water supply problems in several parts of England; and
- increased weather variability might impose new costs on business, while the insurance industry could face higher pay-outs due to property damage. Weather-related economic losses to communities and businesses have increased ten-fold over the last 40 years.

<sup>1</sup> Full details of the scenarios are available from the UK Climate Impacts Programme at <http://www.ukcip.org.uk/scenarios>.

**7.7** The Government is committed to controlling and reducing emissions of the gases responsible for global warming. The Kyoto Protocol commits the UK to reduce greenhouse gas emissions by 12.5 per cent below 1990 levels between 2008 and 2012. The Government's own Climate Change Programme is designed to take the UK well beyond its Kyoto target and towards the more demanding goal of a 20 per cent reduction in carbon dioxide emissions by 2010. Provisional data for 2002 point to a reduction of UK carbon dioxide emissions of 3.5 per cent between 2001 and 2002. Total greenhouse gas emissions in 2002 are estimated to have been between 14 and 15 per cent below the 1990 level, taking this provisional data for carbon dioxide into account. Chart 7.1 shows historic emissions of carbon dioxide and other greenhouse gases, set against the UK's Kyoto and domestic targets.



**Improving air quality** **7.8** Poor air quality poses risks to the natural environment and to human health. It continues to be associated with an unacceptable number of hospital admissions and premature deaths every year. UK air quality is generally improving, especially in urban areas, due to the introduction of European emissions and fuel quality standards for road vehicles and reduced emissions from industry. For example, provisional results show that the average number of days a year with moderate or high air pollution decreased from 24 to 14 at urban sites and from 30 to 23 at rural sites between 2001 and 2002. Nonetheless, further improvements are needed if the UK is to meet its National Air Quality targets.

**Box 7.1: The Energy White Paper**

The Government's Energy White Paper was published in February 2003. The White Paper defines a long-term strategic vision for energy policy and establishes four key goals for energy policy, covering the environment, reliability of supply, competitive markets and social factors. On the environment, the White Paper sets out the Government's ambition that the world's developed economies should cut emissions of greenhouse gases by 60 per cent by around 2050 and puts the UK on a path towards cutting carbon dioxide emissions by 60 per cent by 2050, with real progress by 2020. Consistent with the principles set out in *Tax and the environment: using economic instruments*, the Government will aim to achieve this reduction as efficiently as possible, using instruments such as emissions trading and tax measures which allow the price mechanism to signal environmental costs.

The White Paper also provided a further £60 million for renewable energy projects bringing total support for renewables to around £350 million between 2002-03 and 2005-06. It also announced a series of reforms to unblock planning obstacles to renewable energy, speed up changes to Building Regulations, and improve electrical equipment standards to encourage greater energy efficiency by businesses and households.

**Business**

**7.9** Business has an important role to play alongside government and households in helping to achieve the UK's emissions reduction targets.

**Climate change levy** **7.10** The climate change levy (CCL) and its associated measures seek to encourage business to use energy more efficiently and to reduce emissions of carbon dioxide. The package is broadly revenue neutral for business, with CCL revenues recycled back to business by means of a 0.3 percentage point reduction in employer national insurance contributions (NICs) and support for energy efficiency and low-carbon technologies. **Budget 2003 freezes the rates of the CCL.**

**Negotiated agreements** **7.11** Forty-four energy intensive sectors of industry that have entered into negotiated agreements to improve their energy efficiency and reduce emissions are eligible for an 80 per cent discount from the CCL. DEFRA has now completed its initial assessment of the performance of these sectors against their first targets and good progress has been made. The sectors covered by the agreements have reduced emissions by 13.5 million tonnes of carbon dioxide – 3.7 million tonnes carbon – per annum against a 2000 baseline, almost three times above target. Although the majority of this has come from one sector – steel – the remaining sectors have exceeded their targets by almost one million tonnes of carbon dioxide. The performance of the energy intensive sectors in meeting their targets was also indicated by a CBI/EEF survey<sup>2</sup> in 2002 which showed that 87 per cent of firms covered by the agreements had taken action to improve energy efficiency or were planning to do so.

<sup>2</sup> *The climate change levy: first year assessment*, Confederation of British Industry and Engineering Employers Federation, October 2002.

**7.12** As set out in the 1999 Pre-Budget Report, the Government is willing to consider alternative criteria for defining energy intensive sectors of industry eligible for entry into negotiated agreements. However, any criteria must meet the four tests which were set out when the levy was initially announced: they must have a clear rationale, and be administratively simple, legally robust, and consistent with EU state aid rules. The Government is currently exploring with business whether criteria can be identified which meet the four tests and which would enable agreements to be extended to other energy intensive sectors subject to international competition, as part of its strategy for developing and enhancing the levy to improve its environmental effectiveness.

**CCL exemptions 7.13** Sources of energy generation with environmental benefits are exempt from the CCL and a new exemption for electricity generated from combined heat and power plants sold via licensed electricity suppliers was introduced on 1 April 2003, following receipt of state aid approval. The Government is optimistic that its proposed exemption for electricity generated from coal mine methane will also receive state aid approval from the European Commission.

**Box 7.2: The EU Energy Products Directive**

Political agreement was reached on the EU Energy Products Directive in March 2003. The Directive will, from 1 January 2004, increase the existing Community minimum rates of duty on oils, with a second increase on diesel from 1 January 2010, and provide a Community framework, with minimum rates of duty, for the taxation of other energy products, including electricity, natural gas, coal and other solid fuels. Those Member States which do not currently tax these fuels will be required to introduce such taxes.

The Directive meets all of the UK's main objectives. In particular, the minimum rates in the Directive will not affect UK's rates of climate change levy and hydrocarbon oils duties, while the UK's right to exempt domestic and charity non-business use of energy from the climate change levy will be preserved. The Energy Products Directive will be formally adopted by the Council of Ministers once consultation with the European Parliament and with accession countries has been completed.

**Investment in energy-saving technologies 7.14** Enhanced capital allowances (ECAs) for investments in approved energy-saving technologies were introduced in 2001 and currently cover more than 2,500 approved products. Administration of the ECA scheme is managed by the Carbon Trust, an independent company funded principally from revenues recycled from the CCL. The Government is committed to the continued development of the scheme, and will **introduce further ECAs for investments in automatic metering and monitoring equipment. Further technologies are also being added to the existing boiler, compressed air and refrigeration categories.** Work to define precise performance standards for these technologies is continuing and the Government expects to add these groups to the lists of qualifying technologies during the summer, subject to state aid approval. The addition of these groups will be worth £5 million during their first full financial year, 2004-05.

**Emissions trading 7.15** The UK Emissions Trading Scheme (ETS) – the world’s first economy-wide scheme – was launched in April 2002 and has made an encouraging start. Thirty-two direct participants in the scheme have committed to reduce carbon emissions by 1.1 million tonnes overall in return for an incentive worth £30 million per year after tax. Over 1,000 groups of facilities covered by CCL negotiated agreements have also used the scheme to purchase allowances in order to meet their emissions reduction targets at the lowest possible cost. Nearly 600,000 allowances have been bought by companies covered by the agreements and around four million allowances have been allocated to companies that have beaten their targets, for sale or to be ring-fenced for later use, subject to verification. Companies participating in the scheme now face an economic cost for every tonne of carbon they emit and this will play an important role in ensuring that environmental impact is taken into account in future financial and investment decisions.

**7.16** The Government intends to develop further entry routes to the scheme during 2003. These include a ‘new direct participant’ route, which will allow organisations to join the scheme by voluntarily agreeing to meet absolute emissions targets, as well as a pilot project entry route to allow organisations to generate emissions allowances from specific emissions reduction projects.

**7.17** The Government strongly supports the introduction of an EU-wide emissions trading scheme and welcomes the fact that initial agreement has now been reached on the design and coverage of a scheme to begin in 2005. The Government envisages that the scheme will play an important role in helping to deliver the emissions reduction ambition set out in the Energy White Paper. Having gained valuable experience from the operation of the UK scheme, UK industry and the City of London will be well placed to take advantage of a wider emissions trading market.

**7.18** The Government will consider further the relationship between tax and tradable permit schemes as it prepares proposals for allocating emissions targets to installations covered by the EU trading scheme. The Government will aim to ensure that environmental costs can be internalised as efficiently as possible, irrespective of whether the instruments are international or domestic. It will seek to ensure a smooth transition to the new arrangements, with minimum compliance costs for business. It will also take account of the potential impact of combined measures on business competitiveness and fuel poverty.

**Renewable energy 7.19** The Government is committed to ensuring that 10 per cent of electricity is supplied from renewable sources by 2010 and, as announced in the Energy White Paper, an aspiration to double the proportion of electricity generated from renewable energy between 2010 and 2020. The Energy White Paper announced a further £60 million of funding for capital grants to support renewable energy. These resources are additional to those allocated in the 2002 Spending Review. Total renewables support is now worth around £350 million between 2002-03 and 2005-06. Most forms of renewable energy are also exempt from the CCL.

**7.20** The Renewables Obligation for England and Wales and the comparable Scottish Obligation require electricity suppliers to supply 4.3 per cent of their output from renewable sources in 2003-04. This is forecast to rise to 10.4 per cent of all licensed electricity sales by 2010-11, by which time the market incentive provided is expected to be worth around £780 million per year. Similar arrangements for Northern Ireland will be in place early next year.

## Households

**7.21** The Government recognises that energy-efficiency improvements in the domestic sector are key to reducing carbon emissions and alleviating fuel poverty. The Energy Efficiency Commitment, the Warm Front Scheme, the Affordable Warmth Programme and product energy labelling and efficiency requirements all provide help for domestic consumers to improve their energy efficiency and play an important role in ensuring that households contribute to economy-wide efforts to achieve the UK's emissions reduction targets.

**Economic instruments 7.22** The Government has introduced reduced rates of VAT on the installation of a range of energy-saving materials in the home, including insulation, hot water and central heating system controls and solar panels. The European Commission is expected to publish proposals for a review of the provisions in European law governing the use of reduced rates of VAT during 2003. The Government will continue to press for a reduced rate for DIY energy-saving materials.

**7.23** The Government also consulted on the potential for using additional economic instruments to improve household energy efficiency<sup>3</sup>. In the light of this initial consultation, **the Government will shortly undertake further detailed consultation on specific measures to encourage household energy efficiency.**

## Transport

**7.24** A safe, clean and efficient transport system is crucial to sustaining economic growth, generating higher productivity and safeguarding the environment. Over recent decades, rising economic activity and incomes have increased the demand for personal travel and the transport of goods and services. The Government has taken a number of steps to advance its environmental objectives, encouraging take-up of the best widely available fuels and vehicles and the development of greener forms of transport in the future. The Government's long-term goal is to support the switch to a low-carbon economy, including zero emissions transport.

**Fuel duties 7.25** Decisions on fuel duties must take account of environmental, economic, and social factors. Owing to the recent high and volatile level of oil prices as a result of military conflict in Iraq – oil prices have fluctuated between \$24 and \$33 per barrel in the last four weeks – **Budget 2003 defers the annual revalorisation of the main road fuel duties until 1 October 2003**, at which time the duty on ultra-low sulphur petrol and diesel will rise by 1.28 pence per litre.

**Sulphur-free fuels 7.26** Sulphur-free fuels offer further environmental benefits over ultra-low sulphur fuels, delivering greater long-term reductions in carbon dioxide emissions when used in new engine technologies, and further air quality improvements. The Government has discussed with representatives of the oil industry and vehicle manufacturers the optimum date of introduction of a duty differential to maximise environmental benefits. In the light of these discussions, **the Government will introduce a duty differential for sulphur-free fuels of half a penny per litre relative to the rates for ultra-low sulphur fuels from 1 September 2004**, to bring forward the availability of this fuel. Further details will be announced in due course.

<sup>3</sup>*Economic instruments to improve household energy efficiency: a consultation document*, HM Treasury and the Department for the Environment, Food and Rural Affairs (DEFRA), July 2002.

**Box 7.3: Delivering low-sulphur fuels**

The Government has frequently used duty differentials to encourage the take-up of more environmentally-friendly fuels. Budget 2003 introduces a new duty differential for sulphur-free petrol and diesel to encourage their early take-up. This will continue the progress the Government has already made toward lowering the sulphur content of fuels:

- between 1997 and 1999, and as documented alongside the 2000 Pre-Budget Report<sup>1</sup>, a duty differential in favour of ultra-low sulphur diesel persuaded oil companies to produce and supply this fuel and achieved an almost complete conversion of the diesel market in just two years – enabling the UK to meet the EU's proposed 2005 diesel standards six years ahead of schedule; and
- duty differentials in favour of ultra-low sulphur petrol encouraged oil companies to convert unleaded petrol sales to ultra-low sulphur petrol by June 2001, making the UK one of the first EU countries to complete this transition.

<sup>1</sup> Using the tax system to encourage cleaner fuels: the experience of ultra-low sulphur diesel, HM Customs and Excise, November 2000.

**Biodiesel 7.27** A new duty rate for biodiesel, set at 20 pence per litre below the rate for ultra-low sulphur diesel, was introduced in July 2002, to allow the UK to benefit from the reduced greenhouse gas emissions that this fuel can offer. Biodiesel production is continuing to increase strongly across the country; more than 400,000 litres are now being sold every month – a seven-fold increase in sales since the introduction of the duty incentive – and industry is making multi-million pound investments in biodiesel production plants. To maintain the current differential with ultra-low sulphur diesel, **Budget 2003 raises the duty rate for biodiesel by 1.28 pence per litre from 1 October 2003.**

**Bioethanol 7.28** The 2002 Pre-Budget Report announced that the Government would introduce a new duty differential of 20 pence per litre for bioethanol. This differential will help to offset the additional production costs of bioethanol and allow the UK to benefit from the reduction in greenhouse gases and local pollution that it can offer. To ensure that industry is in a position to take advantage of this incentive, and has sufficient time to make the investment needed, the Government has discussed with stakeholders the optimum date of introduction. Following these discussions, **Budget 2003 announces that the new rate of duty for bioethanol will become effective from 1 January 2005.** The Government is also considering how best to give further support to bioethanol produced from ligno-cellulosic feedstocks, which offer even greater environmental benefits, and would welcome views on how any such support might be structured.

**Road fuel gases 7.29** Road fuel gases offer reductions in particulates and nitrogen oxide emissions compared with conventional fuels. Following progressive duty reductions, liquefied petroleum gas is now supplied at over 1,100 forecourts, and a number of haulage operators are using lorries fuelled by natural gas. The Government is committed not to increase the duty on road fuel gases in real terms until 2004 and is currently considering how best to continue support beyond then. It will therefore **consult key stakeholders on how best to ensure that future support for road fuel gases continues to reflect environmental and other policy objectives**, with a view to announcing decisions on future duty rates and other forms of support in the 2003 Pre-Budget Report. **Budget 2003 freezes the duty on road fuel gases.**

- Hydrogen 7.30** Hydrogen has the potential to lead to zero-emissions transport and will be an important fuel for the future. **The Government will discuss with stakeholders the issues raised by the taxation of hydrogen fuel production for road transport**, with a view to taking decisions on the fiscal framework for hydrogen in the future. As announced in Budget 2002, subject to the outcome of a Green Fuel Challenge pilot project, **the Government also intends to exempt hydrogen from fuel duty for a limited period in the future to encourage further development and early take-up.**
- Red diesel and fuel oil 7.31** Budget 2003 increases the duty on rebated gas oil – red diesel – and fuel oil by one penny per litre above revalorisation from Budget day. Duty incentives have been effective in encouraging an early switch to environmentally-friendly road fuels, but rebated gas oil and fuel oil continue to contribute to local air quality problems. Rebated gas oil has a much higher permitted sulphur content than the main road fuels, but is taxed at a fraction of the road fuel rate. Fuel oil is taxed below the red diesel rate, but has an even higher permitted sulphur content. The Government will consult producers, distributors and users of red diesel and fuel oil, as well as environmental groups, to establish whether preferential duty rates for rebated oils with a lower sulphur content would deliver worthwhile environmental benefits.
- Vehicle excise duty 7.32** The Government has reformed vehicle excise duty (VED) to provide incentives to motorists to choose the least polluting vehicles. To strengthen incentives for motorists to choose the least polluting cars, **Budget 2003 introduces a new low carbon VED band for cars with carbon dioxide emissions of 100 grammes/kilometre (g/km) or less. Car and van VED rates are revalorised and rounded up to the nearest £5**, in line with established practice. These changes will take effect on licences that start on or after 1 May. Motorists will now be able to save up to £110 in VED each year by choosing the most efficient and least polluting cars. An evaluation of the impact and effectiveness of the graduated VED system will be undertaken shortly. To ensure that consumers have access to information about the fuel-efficiency and environmental impact of cars on sale, the Government is also piloting a comparative colour-coded environmental label for cars based on the EU A-G banded energy label. **Budget 2003 freezes VED rates for motorcycles and lorries.**
- 7.33** The Government aims to introduce e-licensing and telephone licensing by 2005, enabling vehicle keepers to pay their VED in more convenient ways. E-licensing for cars and vans less than two years old will be introduced in February 2004. Electronic links with insurance and MoT databases will ensure that valid insurance and roadworthiness certification remains in place. Existing counter services through Post Offices and DVLA Local Offices will also remain.
- Company car tax 7.34** Since April 2002 the system of company car taxation has been based on carbon dioxide emissions. Budget 2000 announced the levels of emissions qualifying for the minimum charge in 2002-03. It also announced that this level would be reduced by 10 grammes per kilometre (g/km) each year until 2004-05. **The Government has decided that the level of emissions qualifying for the minimum charge in 2005-06 will be 5 g/km lower, at 140g/km.**

**7.35** A comprehensive Government evaluation programme to establish the environmental impact of this reform is underway. The evaluation will inform decisions on the level of future reductions and the Government aims to use the results to provide longer-term certainty of the charge. Early findings from the evaluation show that the reform is already having a positive influence on behaviour. Over half of employers who provide company cars have already changed their policies as a result and 85 per cent of employers providing company cars have said that they support the environmental principles behind the reform. Most company car drivers are aware of the reform and the majority of these understand that the charge is now based on carbon dioxide emissions. Independent surveys and opinion polls support the conclusion that the reforms are leading to significant reductions in carbon dioxide emissions from company cars.

**Fuel scale charges 7.36** As announced in Budget 2002, the fuel scale charge that applies to employees who receive free fuel for private use in a company car was changed on 6 April 2003. The charge is now related to carbon dioxide emissions and includes the same discounts for cleaner fuels and premiums as the company car tax system. This change is revenue-neutral and will make the system more environmentally-friendly. The reform allows a proportionate reduction in the annual charge if an employee receiving free fuel decides to opt out during the course of the year.

**Company vans 7.37** Budget 2002 also announced that the Government would review the tax treatment of the private use of vans provided by employers, taking into account environmental benefits, fairness and modern working practices. Following initial discussions with industry and other key stakeholders, **the Government will now consult formally on the tax treatment of company vans**, with a view to deciding how best to simplify the legislation for shared vans and to encourage use of more environmentally-friendly vans. A consultation document will be published shortly after the Budget.

**Lorry road-user charging 7.38** Road haulage plays an important role in a successful and high-productivity economy. The Government is committed to helping the haulage industry become more competitive and less environmentally damaging. It believes that all lorry operators using UK roads should make a fair contribution towards the costs they impose, irrespective of nationality. As announced in Budget 2002, and subject to the outcome of discussions with potential suppliers, **the Government aims to introduce, by 2006, a lorry road-user charge based on distance travelled**. An initial progress report was published in April 2002 and a second report will be published towards the end of this month, setting out further details of the administrative arrangements for the charge. This report will also describe the nature of offsetting tax cuts for the industry, which will be introduced alongside the introduction of the charge itself.

**Review of bus subsidies 7.39** The Government believes that buses have a crucial part to play in delivering its transport objectives. Buses also help to achieve environmental and social inclusion objectives and improve the productivity of the economy, by helping to tackle congestion, increase labour market flexibility, and widen employment opportunities.

**7.40** Budget 2002 announced a review of bus subsidies to consider how best to use the over £1 billion of annual revenue support for local bus services in England to achieve the Government's objectives of reducing the impact of transport on the environment, bus patronage growth, modal shift from cars to buses, increasing social inclusion and improving the quality of bus services.

**7.41** As part of the wider review of the Transport Ten Year Plan, now in progress, the Government will continue this work, with the aim of ensuring that public funding delivers the best possible local bus services and targets the Government's transport objectives as effectively as possible. Further work will be guided by the need to:

- ensure that bus services better meet the needs of local people and communities;
- make effective use of public subsidy to deliver public aims; and
- not reduce the level of Government support for bus transport overall or for older and disabled bus users.

**7.42** In the meantime, in order to provide certainty to local authorities and bus operators, **the Government will extend the Rural Bus Subsidy Grant until 2005-06**. The scheme will also be modified so that the grant is available to a wider range of services, including demand-responsive and taxi-based services.

**Aviation 7.43** Aviation offers significant economic benefits to the UK and global economy. Thousands of jobs depend on the industry and businesses rely on air links to provide access to markets and to bring in investment. The Government is currently consulting<sup>4</sup> on the implications of future demand for air travel on air services and new airport infrastructure. The Government's objective is to maximise the economic benefits of aviation, while meeting its environmental objectives in the most efficient way possible.

**7.44** The 2002 Pre-Budget Report announced that the Government would discuss with stakeholders the most effective economic instruments for ensuring that the aviation industry is encouraged to take account of, and where appropriate reduce, its contribution to global warming and to local air and noise pollution. A Government discussion document, *Aviation and the environment: using economic instruments*<sup>5</sup>, was published last month, setting out details of the environmental impact of aviation and describing the principles of the Government's approach in this area. A series of discussion meetings with key stakeholders will take place from April and the Government intends to set out its views in the Air Transport White Paper, due to be published later in the year. **Budget 2003 freezes the rates of air passenger duty.**

<sup>4</sup>The future development of air transport in the UK, the Department for Transport, July 2002; South East consultation document, second edition, February 2003.

<sup>5</sup>*Aviation and the environment: using economic instruments*, HM Treasury and the Department for Transport, March 2003.

**Box 7.4: Aviation and the environment**

Aviation imposes a series of negative environmental impacts. The recent Government discussion document, *Aviation and the environment: using economic instruments*, describes the nature of these impacts in more detail:

- greenhouse gas emissions from aircraft have a significant and growing impact on climate change. Estimated in monetary terms, the cost to climate change of flights to and from UK airports amounted to £1.4 billion in 2000, and could rise to £4.8 billion by 2030. These costs take account of aviation's largest impacts on climate change – the release of nitrogen oxides at altitude and contrail formation – as well as emissions of carbon dioxide. Aviation's share of total UK carbon dioxide emissions alone is projected to increase from 5 per cent in 2000 to 10-12 per cent in 2030;
- noise from aircraft is an important public concern and can affect the quality of life around airports. Current valuations imply that the total cost of noise disturbance at all UK airports amounted to £25 million in 2000; and
- local air quality is affected by emissions produced by aircraft during take-off and landing. Independent research puts the total cost to local air quality of flights to and from UK airports at between £119 million and £238 million.

**IMPROVING WASTE MANAGEMENT**

**Waste strategy** 7.45 Efficient use of resources and the effective management of waste are essential features of an environmentally-sustainable economy. The waste stream contains resources which can be reused or recycled to deliver economic value, resulting in greater resource efficiency. Waste also has important impacts on the environment, both at a global level, due to emissions of greenhouse gases, and at the local level. The UK needs to reduce its dependence on landfill for disposing of waste.

**Landfill tax** 7.46 The landfill tax encourages efforts to minimise the amount of waste generated and to develop more sustainable waste management techniques. It contributes to the achievement of the Government's waste strategy targets through the diversion of waste away from landfill. In line with the five-year escalator announced in 1999, **the landfill tax rate for active waste was increased from £13 to £14 per tonne on 1 April 2003 and will be increased to £15 per tonne from 1 April 2004.** As announced in the 2002 Pre-Budget Report, following consultation, **the standard rate of landfill tax will subsequently be increased by £3 in 2005-06 to £18 per tonne, and by at least £3 per tonne in the years thereafter, on the way to a medium- to long-term rate of £35 per tonne.**

**Recycling revenue to business** 7.47 As stated in the 2002 Pre-Budget Report, increases in the standard rate of landfill tax will be introduced in a way that is revenue neutral to business as a whole. Discussions with business and other stakeholder groups have indicated that there is broad support for a package of measures, including some tailored support to those sectors facing the greatest waste management challenges. **The Government will pursue this through further development of options and further consultation with stakeholders. Decisions on a package of measures will be announced in the 2003 Pre-Budget Report.**

**Improving local waste management** 7.48 The 2002 Pre-Budget Report also announced the creation of a short-term Ministerial group, chaired by the Economic Secretary to the Treasury, to oversee work on waste across government. Reporting to the Chief Secretary to the Treasury and the Secretary of State for the Environment, Food and Rural Affairs, the group was specifically asked to focus on options to reform the central-local government performance framework. In doing so, the Group

considered a range of issues, including how best to ensure that landfill tax increases are revenue neutral to local government while providing incentives for landfill diversion, and the work needed to build a more effective municipal waste performance framework in cooperation with local government, and consistent with the Government's new localism agenda. The group has also contributed to the finalisation of the sustainable waste delivery programme of additional public spending, and agreed the terms of reference of the review of the health and environmental effects of waste management and disposal options.

**7.49** As a first step, and consistent with its commitment to empowering local government, **the Government has decided that the Waste Minimisation and Recycling Fund should be reformed into a local authority Waste Management Performance Fund in England.** The new Fund will provide non-ringfenced incentives for local government to deliver a step change in sustainable waste performance for all households. Final decisions on the start date of the Performance Fund, and its operational details, will be announced following further consultation with local government stakeholders. Decisions on how the landfill tax increases will be made revenue neutral to local government will be taken at the same time.

**Landfill Tax Credit Scheme** **7.50** The Government is committed to ensuring that sustainable alternatives to landfill disposal are widely available. As announced in the 2002 Pre-Budget Report, **the Landfill Tax Credit Scheme has been reformed, and a proportion of the funding for the scheme – £100 million in 2003-04 and £110 million in 2004-05 and 2005-06 – redirected to public spending on a new sustainable waste delivery programme.** The spending programme in England, to be managed by DEFRA, will seek to help households reduce the amount of waste they produce, increase access to doorstep collection of materials for recycling, promote the development of new and viable waste management technologies, and provide local authorities with the support they need to deliver best practice. Details of the programme will be announced by DEFRA.

**7.51** To minimise disruption to existing waste and recycling projects under the Landfill Tax Credit Scheme, and ensure that planned project work can be completed during the coming year, funding in 2003-04 includes transition funding for ongoing waste projects in 2003-04.

**7.52** A successor tax credit scheme will maintain funding at current levels of around £47 million per year for local community environmental projects. Following discussion with stakeholders, the Government will introduce regulations by the summer to extend the scope of the scheme to include habitat creation projects on land that need not have public access, in order to support biodiversity. The Government will also continue work with Entrust, the regulator of the scheme, and other stakeholders to improve the scheme's operation. Administration of the scheme will be simplified through a reduction in the level of information required from projects and through the use of common systems wherever possible. Better information will be recorded on project funding and audit processes will be improved. The Government will also improve monitoring and evaluation of the scheme and develop measures of value for money. These changes will be finalised by the summer.

**Review of environmental and health effects** **7.53** The Government has commissioned a review of the environmental and health effects of all waste management and disposal options. It aims to report on the findings of this review later in the year. The case for using economic instruments for incineration will be considered in light of this work, and in consultation with other stakeholders. The Government is also considering how the use of economic instruments could be extended further.

**Household incentive schemes** **7.54** The Government has ruled out a national tax on household waste. Further work is needed before any decision can be taken on whether to extend the powers of local authorities and introduce pilot household charging schemes. In cooperation with the Local Government Association and other stakeholders, work will be undertaken to consider the practicalities of operating any such schemes and how potential disadvantages might be overcome. This will take account of international experience on the operation and effectiveness of such schemes.

## PROTECTING BRITAIN'S COUNTRYSIDE AND NATURAL RESOURCES

**7.55** The Rural White Paper and the recently published Strategy for Sustainable Farming and Food<sup>6</sup> set out the Government's rural policy framework for delivering a countryside that is sustainable – economically, socially and environmentally. In tackling environmental threats to the countryside, the Government is applying the same principles as those which underpin its wider environmental strategy, addressing market failures through a range of economic instruments. This section describes the action the Government is taking to:

- reduce the environmental impact of aggregates extraction;
- reduce water use and improve water quality; and
- minimise the environmental impact of agriculture.

### Aggregates extraction

**Aggregates levy** **7.56** The extraction of aggregates imposes a range of environmental costs. Introduced in April 2002, the aggregates levy seeks to incorporate these costs into the price of virgin aggregate and encourages the use of alternative materials, such as wastes from construction and demolition, that would otherwise be disposed of to landfill. It also promotes greater efficiency in the use of virgin aggregate and the development of alternative materials, such as waste tyres. In the light of independent research, the levy was initially set at a rate of £1.60 per tonne on virgin aggregate commercially exploited in the UK. **Budget 2003 freezes the rate of aggregates levy.**

**7.57** The Government is also examining industry proposals for delivering additional environmental benefits through the aggregates levy by encouraging the positive use of aggregates waste. A consultation exercise ended on 10 March, and the Government is now considering the responses it received, with a view to announcing decisions later in the year.

**7.58** The levy for aggregates used in processed products in Northern Ireland is being phased in, given the special circumstances of this sector. The rate for aggregates used in these products has been set at zero for the first year of the levy, and will be 20 per cent of the full rate in 2003-04. It will continue to rise by 20 percentage points each year until the full rate is reached. The Government is continuing to review the impact of the phasing-in of the levy in Northern Ireland.

<sup>6</sup> *The Strategy for Sustainable Farming and Food*, DEFRA, December 2002.

**Sustainability Fund 7.59** To support businesses and communities affected by aggregates extraction, the introduction of the aggregates levy was accompanied by a new Aggregates Levy Sustainability Fund (ALSF) and a 0.1 percentage point reduction in employer NICs. The ALSF in England was launched in April 2002 and its work to date has concentrated on reducing the demand for primary aggregates, promoting environmentally-friendly extraction and transport, and reducing the local impact of aggregates extraction.

## Water quality

**7.60** Despite significant improvements in recent years, further effort is needed to enhance the ecological and microbiological quality of water, especially where this is affected by diffuse pollution. The Government's strategy for water policy takes account of economic, social and environmental objectives and seeks to ensure effective integration with other policies. Details of the Government's priorities for water policy in England were published recently and the views of stakeholders are now being sought<sup>7</sup>.

**Enhanced capital allowances 7.61** The Government has received a series of proposals under the Green Technology Challenge for tax incentives to encourage more sustainable water use and improvements in water quality. Following detailed consideration of these proposals, **Budget 2003 introduces enhanced capital allowances for investments in five groups of technologies**. The Government anticipates that the list of eligible technology groups will be published following Royal Assent of the Finance Bill and that capital allowances may be claimed for qualifying investments made on or after 1 April 2003.

## Agriculture

**7.62** Agriculture, like many other forms of business, is associated with a range of environmental issues, including nutrient and microbiological pollution of water. An initial review of the environmental impact of agriculture and the case for using economic instruments to tackle them was published in December 2002<sup>8</sup>. The Government is considering the options for using economic instruments to address the most pressing environmental issues associated with agriculture and will consult further with stakeholders in 2003. As part of this work, DEFRA is currently conducting a review of diffuse water pollution from agriculture and will consult on this issue during the coming year.

**7.63** The Strategy for Sustainable Farming and Food sets out the Government's vision for the future of the farming and food industries in England alongside proposals to help realise this vision. The 2002 Spending Review allocated £500 million over three years to implement the strategy, including through pilots of an entry-level agri-environment scheme, a new network of demonstration farms, and new structures to encourage cooperation in agriculture and the dissemination of research results. These measures will help to deliver productivity increases in the farming industry and improve environmental performance.

<sup>7</sup> *Directing the flow: priorities for future water policy*, DEFRA, November 2002.

<sup>8</sup> *Using economic instruments to address the environmental impacts of agriculture*, DEFRA, December 2002.

**Pesticides 7.64** The Government is committed to reducing the adverse environmental impact of pesticides use, and to discouraging use of those pesticides with the greatest potential to cause harm, consistent with adequate crop protection. An industry-led voluntary initiative on measures to reduce the environmental damage caused by agricultural use of pesticides was launched in April 2001. The Government values the work already completed by the signatories and will continue to press for more rapid progress. Provided this voluntary initiative is fully implemented, the Government believes it should be the most effective way of reducing the environmental impact of pesticides and remains committed to this approach.

**7.65** The Environmental Audit Committee published a report on the initiative in November last year. In its response, the Government agreed the need for more rapid progress, especially on the issuing of targets, the development of Crop Management Plans and increasing farmer take-up of the initiative. The Government also announced details of work to develop a national plan for pesticides. In taking this forward, the Government will assess those policies that can contribute to the sustainable use of pesticides, including the role of the voluntary initiative, and identifying ways in which policies can most effectively be used together. The Government is also pursuing work on options for a tax or other economic instrument, should the voluntary initiative fail to deliver its agreed objectives within a reasonable timescale.

**Sustainable forestry 7.66** As announced in the 2002 Pre-Budget Report, the Government has commissioned a review of the economic rationale underpinning policy goals for forestry in England and the role of forestry in the Government's sustainable development strategy. An independent analysis of the economics of forestry policy has now been completed and the review steering group will shortly produce provisional recommendations for institutional structures and relationships to deliver forestry policy more effectively and efficiently. The recommendations will be considered alongside Lord Haskins' wider review of the delivery of environmental and rural policies.

**Housing 7.67** As described in Chapter 2, Budget 2003 also launches a new review of the factors affecting the supply and responsiveness of housing. The review will consider, among other issues, the interaction between housing supply and sustainable development objectives. The Government will also continue to consider the use of economic instruments to support regeneration and encourage brownfield development

## ENVIRONMENTAL APPRAISAL OF POLICY MEASURES

**7.68** The Government is committed to appraising the environmental impact of Budget measures and will continue to make available the methodology underpinning the figures presented in the appraisal tables. Table 7.1 shows how Budget measures sit alongside other policies as part of the Government's approach to the environmental elements of sustainable development. Table 7.2 sets out the environmental impact of measures introduced in recent Budgets which have a significant effect on the environment or which serve an environmental purpose. The Government aims to ensure that policy design, appraisal and evaluation take account of costs and benefits, the precautionary principle, and the need to internalise costs by making the producer pay.

**7.69** To increase transparency and public reporting of key performance indicators, the environmental appraisal tables are now available on the Treasury website. The tables will be updated regularly to reflect ongoing monitoring of environmental indicators and further evaluation of specific schemes.

Table 7.1: The Government's policy objectives and Budget measures

Policy objective	Sustainable development indicator <sup>1</sup>	Data indicating recent trends	Recent Government measures
Tackling climate change and improving air quality.	Emissions of greenhouse gases.	Based on provisional data for 2002, carbon dioxide emissions decreased between 2001 and 2002. Since 1990, total greenhouse gas emissions are estimated to have been between 14 and 15 per cent below the 1990 level <sup>2</sup> .	<p><i>Other Government measures</i></p> <ul style="list-style-type: none"> <li>• Climate Change Programme, DETR November 2000.</li> <li>• Emissions Trading Scheme, DEFRA August 2001.</li> <li>• Air Quality Strategy for England, Scotland, Wales and Northern Ireland, DETR January 2000 and Addendum, February 2003, DEFRA.</li> <li>• Ten Year Plan for Transport, DETR July 2000.</li> <li>• Powering Future Vehicles, DfT et al July 2002.</li> <li>• Energy White Paper, DTI February 2003.</li> </ul> <p><i>Budget measures</i></p> <ul style="list-style-type: none"> <li>• Climate change levy package.</li> <li>• Reduced rate of VAT on the installation of energy saving materials.</li> <li>• Road fuel duty.</li> <li>• Green Fuel Challenge.</li> <li>• Reforms to car, lorry, van and motorcycle VED.</li> <li>• Company car tax and fuel scale charge reform, and authorised mileage allowance payments.</li> <li>• 100 per cent first-year allowances for cars with low carbon dioxide emissions, and hydrogen and natural gas refuelling infrastructure.</li> <li>• Green travel plans – using tax incentives to promote their development.</li> </ul>
	Days when air pollution is moderate or higher.	Number of days with moderate or high air pollution decreased from 24 to 14 in urban sites and from 30 to 23 in rural sites between 2001 and 2002.	
	Road traffic.	Between 1998 and 2002, total traffic volume rose by nearly 6 per cent, however, road traffic intensity (vehicle kilometres per GDP) fell by 4 per cent between 1990 and 2001.	
Improving waste management.	Household waste and all waste arisings and management.	Household waste not recycled or composted rose from 435 to 447 kilograms per person, or by 3 per cent, between 1997/8 and 2000/1. However, the proportion of household waste being recycled was over 11 per cent in 2000/1, an increase of 1 per cent over the previous year <sup>3</sup> .	<p><i>Other Government measures</i></p> <ul style="list-style-type: none"> <li>• Waste Strategy 2000, DETR May 2000.</li> </ul> <p><i>Budget measures</i></p> <ul style="list-style-type: none"> <li>• Landfill tax and landfill tax credit scheme.</li> <li>• Landfill tax increases.</li> <li>• Reforms to the Landfill Tax Credit Scheme.</li> <li>• New spending programmes on waste.</li> </ul>
Regenerating Britain's towns and cities.	New homes built on previously developed land.	In 2001, 61 per cent of new housing was on previously developed land, increasing from around 54 per cent in the early 1990s.	<p><i>Other Government measures</i></p> <ul style="list-style-type: none"> <li>• Urban White Paper, DETR November 2000.</li> <li>• Package of measures to tackle abandoned vehicles.</li> </ul> <p><i>Budget measures</i></p> <ul style="list-style-type: none"> <li>• Capital allowances for flats over shops.</li> <li>• Tax relief for cleaning up contaminated land.</li> <li>• Stamp duty exemption for disadvantaged areas.</li> <li>• Reforms to the VAT treatment of conversion and renovation activity.</li> </ul>
Protecting Britain's countryside and natural resources.	Populations of wild birds.	In 2000 the decline in farmland birds – almost halving since 1977 – continued to level off. Woodland birds increased to their highest level since 1990.	<p><i>Other Government measures</i></p> <ul style="list-style-type: none"> <li>• Rural White Paper, DETR November 2000.</li> <li>• Strategy for Sustainable Farming and Food, DEFRA December 2002.</li> </ul> <p><i>Budget measures</i></p> <ul style="list-style-type: none"> <li>• Aggregates levy and Sustainability Fund.</li> </ul>
	Chemical river quality and biological river water quality.	By 2001, 95 per cent of UK rivers were of good or fair chemical quality and about 95 per cent were of good or fair biological quality in 2000.	

<sup>1</sup> Achieving a Better Quality of Life, DEFRA January 2002 – latest data from [www.sustainable-development.gov.uk](http://www.sustainable-development.gov.uk).

<sup>2</sup> The main six greenhouse gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride.

<sup>3</sup> Municipal Waste Management Survey, 2000-01, DEFRA. As the headline waste sustainable development indicator has not yet been updated this currently relates to the core indicator on household waste.

**Table 7.2: The environmental impacts of Budget measures**

Budget measure	Environmental impact <sup>1</sup>
<ul style="list-style-type: none"> <li>Climate change levy package and rates.</li> </ul>	Freezing the CCL will reduce savings by 0.05 MtC <sup>2</sup> per year. Overall, the CCL package is estimated to lead to savings of around 5 MtC per year by 2010 <sup>3,4</sup> .
<ul style="list-style-type: none"> <li>Road fuel duty differentials<sup>5</sup>.</li> </ul>	<p>Deferred revalorisation until 1 October 2003 will lead to a small increase in carbon dioxide emissions and local air pollutants in England of 0.01 to 0.2 per cent in 2010.</p> <p>The duty differential for sulphur-free fuels will lead to a reduction in emissions of carbon dioxide and local air pollutants.</p> <p>The shift to ultra-low sulphur petrol from ordinary unleaded is estimated to have reduced nitrogen oxide emissions by 1 per cent, carbon monoxide emissions by 4 per cent and emissions of volatile organic compounds by 1 per cent per year between 2001 and 2004.</p> <p>The shift to ultra-low sulphur diesel from ordinary diesel is estimated to have reduced emissions of particulates by 8 per cent and nitrogen oxides by up to 1 per cent per year between 2001 and 2004.</p> <p>The reduced rate for biodiesel could save up to 0.2 MtC per year by 2010<sup>6</sup>.</p> <p>The reduced rate for bioethanol could save a total of 0.5 MtC by 2010.</p> <p>The road fuel gas differential will result in a reduction in emissions of particulates and nitrogen oxides.</p> <p>The increase in duty on red diesel and fuel oil will lead to improvements in air quality and some reduction in carbon dioxide emissions.</p>
<ul style="list-style-type: none"> <li>Green Fuel Challenge.</li> </ul>	Identify fuels which could result in reductions in emissions of carbon dioxide and local air pollutants. Potential waste policy benefits.
<ul style="list-style-type: none"> <li>Reforms to car, lorry, van and motorcycle VED.</li> </ul>	Reductions in emissions of carbon dioxide and local air pollutants.
<ul style="list-style-type: none"> <li>Company car tax reform.</li> </ul>	The reduction in the level of emissions qualifying for the minimum charge in 2005-06 is expected to lead to a reduction in carbon, increasing, over time, to around 0.1 MtC <sup>7</sup> .
<ul style="list-style-type: none"> <li>Fuel scale charge reform.</li> </ul>	<p>Programme of five-year increase in the fuel scale charge is estimated to have reduced the number of drivers in receipt of free fuel by over 150,000<sup>8</sup>. Expected to reduce carbon dioxide and local air pollutant emissions.</p> <p>Restructuring the fuel scale charge in 2003 to relate it to carbon dioxide emissions and to include the same discounts and premiums as in the company car tax system will reduce emissions of carbon dioxide and local air pollutants.</p>
<ul style="list-style-type: none"> <li>100 per cent first-year allowances for cars with low carbon dioxide emissions, and hydrogen and natural gas refuelling infrastructure.</li> </ul>	Reductions in emissions of carbon dioxide and local air pollutants.
<ul style="list-style-type: none"> <li>Air passenger duty (APD).</li> </ul>	The freeze in rates will lead to a small increase in emissions of carbon dioxide and local air pollutants.
<ul style="list-style-type: none"> <li>Capital allowances for flats over shops.</li> </ul>	Bringing empty space over shops back into the residential markets, helping to create greater urban diversity while reducing the pressure for new greenfield development.
<ul style="list-style-type: none"> <li>Tax relief for cleaning up contaminated land.</li> </ul>	Increases in the clean up of contaminated land.
<ul style="list-style-type: none"> <li>Stamp duty exemption for disadvantaged areas.</li> </ul>	Regeneration and improved functioning of property markets in Britain's most disadvantaged areas.
<ul style="list-style-type: none"> <li>Reforms to the VAT treatment of conversion and renovation activity.</li> </ul>	Reduced pressure on greenfield site development due to the better use of existing buildings.

**Table 7.2: The environmental impacts of Budget measures continued**

Budget measure	Environmental impact <sup>1</sup>
• Aggregates levy and Sustainability Fund.	Reductions in noise and vibration, dust and other emissions to air, visual intrusion, loss of amenity and damage to wildlife habitats.
• Landfill tax including increase in the standard rate to £35 per tonne in the medium- to long-term; new Waste Management Performance Fund in England; and new sustainable waste delivery programme.	Encourages waste producers and the waste management industry to reduce dependence on landfill and encourage greater waste minimisation, reuse and recycling and the development of alternative disposal methods.
• Landfill tax credit scheme.	A scheme aimed at improving the environment in the vicinity of landfill sites.

<sup>1</sup> These estimates are subject to a wide margin of error.

<sup>2</sup> Million tonnes of carbon.

<sup>3</sup> There are a number of difficulties involved in estimating the emissions savings from the individual components of the climate change levy, including the need to avoid double counting. Of the 5MtC per year by 2010; the levy and exemptions account for 2.0 MtC, the negotiated agreements account for 2.5 MtC and energy efficiency measures account for 0.5 MtC. A related measure, the emissions trading scheme, is forecast to save 1.1 MtC per year by 2006.

<sup>4</sup> Based on the DTI energy model.

<sup>5</sup> Using NETCEN emissions models – further detail on the methodology used is provided in NETCEN's January 2000 report UK Road Transport Emissions Projections. Between 1997 and 1999, the fuel duty escalator is forecast to have reduced emissions by 1 to 2.5 MtC per year by 2010. The reductions in fuel duty in Budget 2001 are estimated to have increased emissions by between 0.1 and 0.2 MtC per year by 2010.

<sup>6</sup> DfT modelling.

<sup>7</sup> Based on Inland Revenue modelling.

<sup>8</sup> Based on Inland Revenue modelling.

