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The natural environment white paper for England has swiftly followed the national ecosystem assessment. Paul Suff on the implications for business



In the first of a new series tracking the syllabus of the Institute's associate certificate, IEMA Fellow Paul Reeve looks at sustainable development



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Nuclear conundrum

What to do about nuclear power following the Fukushima disaster in Japan is challenging politicians worldwide. Germany is closing all 17 of its nuclear reactors by 2022, while Switzerland has decided not to replace its existing five nuclear power plants. And Italians have voted heavily (94%) in a referendum against proposals to develop new nuclear power stations. Japan itself is halting the planned expansion of its nuclear capacity. By contrast, Britain and France are each pushing ahead with a new generation of nuclear plants.

> Some environmentalists will cheer the decision by the German and other governments to phase out nuclear power. Others will support the approach of the UK and France, believing that it is the most sensible option as we move to decarbonise electricity generation. In the absence of a technically adequate, commercially viable energy-storage solution for renewable energy, such as wind power, we need sufficient baseload supply to keep the lights on, which in

> > Closing all 17 of its nuclear power stations could increase Germany's emissions by 493Mt by 2020 as it ramps up production from fossil-fuel plants to make up the shortfall

the low-carbon economy was to be provided by nuclear power. If there is no nuclear, another source of power will have to supply the baseload.

Germany shut seven of its nuclear power stations in the immediate aftermath of Fukushima, and kept another plant, which was already offstream, closed. To offset the shortfall, it increased the amount of electricity from existing coal-fired power stations and started to import it from France – where, ironically, 74% of electricity is from nuclear. Analysts estimate that shutting all 17 plants could increase Germany's carbon emissions by 493Mt by 2020. Even if Germany succeeds in achieving its 2020 targets - to double, from 17% to 35%, the amount of electricity from renewables and reduce electricity consumption by 10% – there will still be a gap between supply and demand. Gas- or coal-fired power plants are likely to fill the void.

That is the conundrum now facing policymakers and environmentalists: nuclear power or, at least in the short term, rising emissions.



Paul Suff. editor

Short cuts

Valuing nature

Protecting the UK's natural environment is to be placed at the heart of the government's ongoing strategic and economic approach, according to the natural environment white paper, recently published by Defra. Commitments in the paper (see also pp.26-29) include creating a body to advise the government's Economic Affairs Committee on the best way to protect the environment in economic decision-making and ensuring that all government departments incorporate the value of the natural environment in impact assessments on the likely effects of any proposed policies. Actions that will impact businesses include the promise of developing new government guidance on measuring and reporting environmental impacts and an agreed method for water footprinting.

Microgeneration pledges

The government has outlined plans for how it will encourage the uptake of small-scale renewable installations generating less than 50kWh of electricity by homeowners, businesses and communities. Its "Microgeneration Strategy" focuses on barriers to the wider adoption of microgeneration technology, including removing "red-tape" for micro-hydro electricity generation and improving the Microgeneration Certification Scheme to make it more effective for small businesses. Other actions include revising the Building Regulations and the Standard Assessment Procedure to better quantify the benefits of renewables, and ensuring installers have the right skills. Meanwhile, the Scottish government has unveiled its Renewables Routemap, outlining the steps required to meet its target to supply all electricity demand from renewable sources by 2020. The map sets new targets to meet 30% of overall energy demand from renewables by 2020, and to deliver 500MW of community and locally owned renewable energy by 2020.

Waste review rubbished

Waste Defra's long-awaited review of waste policy has been strongly criticised as lacking ambition and for failing to outline concrete measures to help move England to a zero-waste economy.

The 80-page review confirms the end of the Landfill Allowance Trading Scheme in 2013, outlines a pledge to remove barriers to the uptake of anaerobic digestion and commitments to promote "life-cycle thinking in all waste policy and waste-management decisions", but it has been derided by some as not moving beyond rhetoric.

"There was nothing in the review about economics, little about the links to end-markets and energy, very little on planning or on the problem of defining when waste ceases to be waste and becomes a commodity. How can you have a strategy when you don't know what it is you are dealing with?" said waste industry expert and independent adviser Peter Jones. He says that the review fails to tackle the issue of waste as part of an economy-wide approach to improving resource efficiency and lowering carbon emissions.



Others criticised the government for not taking the opportunity to increase England's recycling commitments beyond the EU's target of 50% by 2020, and match those of the devolved governments.

Following the publication of the waste review, Defra and the Environmental Services Association announced the signing of a joint Responsibility Deal, under which both organisations will take action to promote the principles of the review and help businesses to prevent waste and increase levels of recycling.

Growth put before environment

Planning The government's proposed approach to sustainable development in local planning has been criticised as promoting the economic agenda ahead of protecting the environment.

The draft "Presumption in favour of sustainable development" confirms that the planning system's default position should be to approve developments, unless they fail to meet key sustainable development requirements listed in the forthcoming new national policy planning framework. Planning, according to the presumption, should help to stimulate economic growth, maximise wellbeing and protect the environment, without harming future generations' ability to do the same.

The wording was condemned by the Campaign to Protect Rural England (CPRE) as "a fig leaf for a pro-growth agenda regardless of the environmental consequence". "This proposed policy is as insidious as it is misleading ... [It] could open the floodgates to environmentally damaging development across the country," warned the CPRE's Paul Miner. The Town and Country

Planning Association, while agreeing that planning had an important role in ensuring growth, questioned whether the presumption would truly ensure sustainable communities. "The definition places economic growth as the driver, contradicting the principles of a balanced approach between economic development, environmental concerns and social justice," commented chief planner Hugh Ellis.

Announcing the presumption, decentralisation minister Greg Clark argued that the change of policy will speed up development, enabling the construction of new homes, renewable energy plants and transport links. "By insisting on sustainable growth we can help make sure that what we build today leaves a positive legacy for future generations," he said.

Liz Peace, chief executive of the British Property Federation, also defended the presumption, saying it wasn't a green light for development. "Planning will still have to be exercised with the protections afforded by the national planning policy and community-led local plans."

Support for mandatory GHG reporting rises

IEMA response to consultation is critical of Defra's impact assessment

Emissions Support for mandatory greenhouse-gas (GHG) reporting has increased from 80% to 90% among the almost 900 environment professionals responding to the latest IEMA survey.

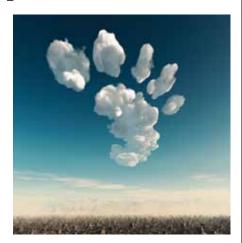
Survey respondents overwhelmingly back "option 3" in the Defra consultation on reporting, which closed on 5 July. More than 86% support this option, which will place an obligation to report on between 17,000 and 31,000 companies.

Option 3 is also the preferred choice among companies participating in the workshops and meetings held by Defra officials during the consultation period. Lindsay Harris, the environment department official leading the team looking at mandatory GHG reporting, told a recent roundtable on the issue held by the environmentalist and consultancy WSP (full report next month) that "the majority view is that the government should be regulating all large companies, which is option 3 in the consultation." He acknowledged that a fairly significant minority are not convinced that GHG reporting should be mandatory, however.

The IEMA research also uncovered some of the potential business and environmental benefits of requiring companies to disclose their GHG emissions. More than two-thirds (69%) of respondents say that GHG reporting will deliver cost savings, while more than three-quarters (77%) claim it will lead to environmental benefits – those reporting benefits indicate an average of 4.5% CO₂ savings a year. And 92% say a legal obligation to disclose will provide a simplified reporting framework and level playing field for businesses to report on their carbon emissions.

"IEMA's research clearly demonstrates that the long-term savings and environmental benefits of reporting on GHG emissions clearly outweigh the initial costs needed to establish reporting systems within companies," says Martin Baxter, policy director at IEMA.

IEMA has also submitted its response to the consultation. It is critical of the



regulatory impact assessment (RIA) that accompanied the consultation document. IEMA says that the RIA wrongly assesses the costs of GHG reporting and does not give sufficient weight to "intangibles", such as improved reputation and enhanced competitiveness, when estimating the benefits.

"The RIA allocates a standard annual cost to reporting over a 10-year period. In reality, the costs are larger at the outset, as systems are set up, before declining as processes become embedded. So, over time, costs will fall and net benefits will follow. Defra's own research on the resource efficiency shows no-cost/low-cost annual savings opportunities from greater efficiencies of about £23 billion for UK businesses," says Baxter.

The CBI has also given its backing to mandatory reporting. As the Defra consultation closed, the employers' body reiterated its call for its introduction, arguing that mandatory carbon reporting would help firms monitor and manage their emissions effectively.

"Mandatory carbon reporting is a great way of making boardrooms aware of the savings possible through energy efficiency," said director of business environment Rhian Kelly. "To be effective, it is important that the government phases in the introduction of mandatory reporting and makes the process simple for companies to follow."

Short cuts

SEPA gets support for new regime

Respondents to the consultation on Scotland's environmental protection regime have generally endorsed the changes planned by the Scottish **Environment Protection Agency** (SEPA). In December 2010, SEPA launched a consultation setting out its proposals for a new, simpler and more effective way forward for environmental regulation in Scotland. The consultation closed in February. SEPA reports a high level of support for its main proposals, including measures to: reduce the complexity and improve the effectiveness of environmental regulation; simplify permits (including working up proposals for single-site, operator or network licences); place an assessment of risk to the environment, and the performance of operators, at the centre of SEPA's approach; target environmental "harms" and work with partner organisations and local communities to solve these; and deal with non-compliance through stronger and swifter forms of enforcement. The regulator now plans to work with respondents and others on the details of the proposed changes and how the alterations will work in practice.

Transparent data

MEPs have approved legislation on "environmental growth accounts", paving the way for greater disclosure of environmental information by member states. From 2012, they will have to provide Eurostat – the EU statistical office – with information on air quality, material flows and any environmental taxes that are levied. Following a review, water usage and forestry resources may be added to the list of information that member states must submit each year. "Environmental accounts are a missing piece of the puzzle in terms of better understanding of economic activities," commented Jo Leinen, chair of the European Parliament's environment committee.



IN PARLIAMENT

Fish need sex!



Chris Davies is the Liberal Democrat environment spokesperson in the European Parliament

Out of sight, beneath the surface of the waters, a massive exercise in environmental destruction has been going on. Fish stocks are in many cases down by 90% compared with their numbers a century ago. Modern, large vessels equipped with the latest tracking technology hunt down what remains. Too often the fish they catch have not even had a chance to breed. Still more often, they may be discarded, dead, because they are of little commercial value or landing them would exceed the permitted quotas.

The new EU fisheries commissioner, Maria Damanaki, is a gutsy Greek woman who fought the army dictators in her country and is prepared to fight anyone who gets in the way of the radical policy reforms she has proposed. She says things that some do not like to hear. Too many boats are chasing too few fish. Overfishing must cease. Long-term plans based on good science must replace annual quotas. Discards must not be permitted.

Reform will cost jobs in the short term but if there are no fish there will be no fishing industry. She faces stiff opposition from the industry and from the governments they influence. Many will think her approach long overdue. These are the reforms the EU must make, she says. If it does not make them, then there will be no fish left. She seems, at least, to have strong support from the UK government, and in the European Parliament the cross-party Fish for the Future Group.

The vicious circle of decline can be broken. Our seas are capable of supporting many times more fish than exist at present. Stock recoveries could be swift. If we get this reform right we could have more fish in the sea and more jobs for fishermen. But first the fish that remain must be given a chance to live, and to reproduce.

New generic structure for ISO 14001 on the cards

Standards The next version of ISO 14001 is likely to be written in line with a new high-level structure under consideration for all ISO management system standards.

The proposed format outlines identical text for use across management system standards covering common coremanagement activities and requirements, such as defining the scope of the management system and ensuring top management commitment, and then provides a structure for the inclusion of topic-specific needs.

"If a company wants to manage its environmental impact, its quality and security, it only needs one system for document control and one process of competency evaluation," explains Martin Baxter, director of policy at IEMA. "The proposed new structure recognises that businesses only need one management system, one that has the flexibility to allow them to manage different issues."

ISO's national member bodies, including the British Standards Institute, are currently scrutinising the structure and have until 5 September to vote on its adoption.

The intention has been to provide simplification for companies that are using several different standards, but the structure could also lead to the greater integration of environmental measures in organisations, believes Baxter. "Rewriting the standard using this structure will force businesses to look at this standard in a different way and will really test how effective the systems they have in place are in managing their environment impact," he says.

The proposal to adopt the new structure was considered at a meeting of the ISO technical committee on environmental management (ISO/TC 207/SC1) in Oslo last month, where the scope of the current revision of 14001 was also debated (www.lexisurl.com/iema8396). The development of ISO 14046, a water footprinting standard, was also discussed and the debate over the communication elements of the carbon footprinting standard ISO 14067 continued.

The Oslo meeting followed the publication of ISO 50001, the international



energy management system standard based on EN 16001. There has been a mixed reaction to the new standard, with supporters claiming it offers organisations a more comprehensive approach to managing energy consumption, while critics have questioned whether there is a need for such a system with very few 16001 certifications, and with 14001 providing a framework to manage all environmental impacts of an organisation, including energy. The German Federal Environment Agency found that only 150 sites worldwide had 16001 at the start of May.

"There is a fundamental question of why create a single-issue management system at all. In any organisation where energy consumption is significant, it should be managed through an environmental management system, and if a business is managing its energy consumption, it should be managing waste and water too," argues IEMA's Baxter. "Focusing only on one issue stops an organisation from realising the benefits that can be derived from taking a holistic approach to environmental management."

According to Paul Reeve, head of environment at the Electrical Contractors' Association, the emphasis on cost savings in 50001 may be its saving grace. "If the rationale for this standard was solely to manage carbon impacts, then 14001 has shown time and again that, when backed up with top management support, it is well suited to tackling such selected environmental impacts," he said.

A copy of the proposed new ISO structure is accessible by IEMA members at www.lexisurl.com/iema8410.

The revision process is unlikely to be completed – including drafting new text, balloting, and translation into different languages – until 2014/15.



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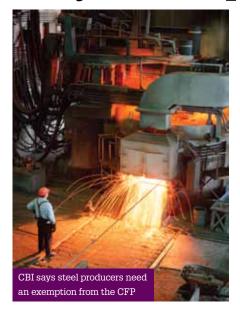
Industry floored by carbon price

Energy Energy-intensive sectors should be exempt from the proposed carbon floor price (CFP), CBI directorgeneral John Cridland told the organisation's recent energy conference.

He expressed concern that even if the price of carbon in the EU emissions trading scheme (ETS) rises, as it has done recently, the CFP will not necessarily fall correspondingly.

"It risks tipping energy-intensive industries over the edge. We have to see exemptions for those industries most at risk," Cridland said. He told delegates that the CFP put at risk the ability of UK companies to manufacture goods essential for the transition to a low-carbon economy.

"We're already seeing warnings from companies like Ineos that its chlorine plant in Runcorn could become uneconomical under the sudden introduction of the proposed CFP. Tata Steel is facing the same problem. One major construction company is now finding it will soon cost less to import its cement from Spain than to produce it at its UK plant. Yet, Tata makes the steel that goes into the turbines. Ineos makes the lubrication that helps the blades turn. And we need up to 150 tonnes of cement to generate every megawatt of offshore



wind," said Cridland. Other speakers also criticised plans for a CFP.

Rupert Steele, director of regulation at ScottishPower, described the CFP as the "worst of both worlds" for energy companies, saying that it would not provide sufficient certainty for new developers to invest, while its introduction could scare existing energy providers into closing plants earlier than planned.

Responding, energy minister Charles Hendry promised that before the end of the year the government would announce a package of measures for the energy-intensive industries whose international competitiveness is most affected by its energy and climate change policies, such as the CFP.

"It would be madness to end up in a situation where big companies in the UK moved overseas, we lost the jobs, and carbon emissions would still be emitted in other parts of the world. We would have to re-import those products, there would be no climate change benefit, simply an economic loss to Britain," he told the audience.

In the March Budget, the chancellor announced that the CFP would be £16 a tonne of CO_2 from 1 April 2013, rising to £30 by 2020.

The CBI's call for CFP exemptions comes as Sandbag reports that energy-intensive sectors stand to make millions from huge surpluses in ETS allowances. Using publicly available data, the analysts calculate that at the end of 2010, 10 firms manufacturing steel and cement in Europe held more than 240 million surplus allowances under the scheme, worth approximately £3.6 billion.

Environmental standards 'good' for growth

Regulation Reducing "red tape" must not be at the expense of the vital role regulation plays in correcting market failures, promoting fairness and protecting the environment, says the Aldersgate Group in a new report, which argues that effective regulation is essential to economic growth.

"Effective green laws create a level playing field which drives efficiency, early action and the innovation in UK companies that will be the engine for future growth and jobs," claims the group's chair, Peter Young.

The government is currently asking for views on all 278 existing environmental regulations as part of its Red Tape Challenge, before deciding which should stay, be merged or scrapped.

But the Aldersgate Group, which consists of some of the UK's largest companies and environmental bodies, including IEMA, says the deregulation initiative threatens to lock in polluting industrial processes for decades to come, jeopardising future competitiveness and damaging the UK's attractiveness for green investment.

"A crude deregulation drive risks damaging competitiveness and severely threatens the prime minister's commitment to a green industrial revolution," says Young. "The regulatory framework should encourage a rapid shift to a sustainable economy rather than being held back by vested interests or the lowest common denominator."

Speaking at the launch of the report, which examines how regulation can help to reduce the UK's environmental and financial debts, climate change minister Greg Barker said he accepts that regulation is necessary to protect the environment, but believes some existing legislation is outdated and in need of reform, and this can be achieved without risking environmental protection. The Aldersgate Group agrees that by

streamlining legislation and adopting a smarter approach to implementation, it is possible to achieve "greener" outcomes and reduce administrative burdens. It recommends adopting a "best value" approach to regulation, which seeks to protect essential economic, social and environmental objectives at the least cost.

Meanwhile, the government is calling on businesses and inspectors to "blow the whistle" on inconsistent and over-zealous enforcement of rules and regulations. It wants people to use their experience of different regulators and say where tick-box regulation, multiple inspections and conflicting advice is getting in the way, harming their business and preventing economic growth.

A survey of UK manufacturers by insurance firm Zurich reports that the regulatory environment remains a significant barrier to growth, with 20% of firms claiming that red tape is a key factor holding back their expansion.



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Business leaders vital to cutting carbon

Management Board-level representation is essential for progress in environmental sustainability, according to new research from the Carbon Trust, which found that only 59 of the FTSE 100 companies have clear, robust targets to cut carbon emissions, and that just eight firms can be described as "leaders".

It says carbon reduction targets should be precise, accurately measured, stretching and aspirational, and appropriate for the sector. British Land. BSkyB, BT, Diageo, Kingfisher, M&S, Tesco and Unilever all have high-quality targets measured against these criteria, found the trust. These companies regard stretching environmental goals as a catalyst to generate longer-term returns to the bottom line and share price. British Land told the trust that its targets enable the firm to develop strategies that provide it with lasting business benefits and competitive advantage, while Diageo reports that its targets are designed to drive business value.

The trust says that as well as setting ambitious targets, leading companies are also seeking to exploit revenuegenerating opportunities from the low-carbon economy. It reports that



Kingfisher, which trades as B&Q and Screwfix in the UK, has increased its sales of independently verified "eco products" to £1.1 billion, and that these sales now account for 10.5% of total retail sales across the company.

Kingfisher is one of 15 companies to achieve Platinum Plus status in the latest Business in the Community (BitC) corporate responsibility (CR) Index. The company scored 97% in the 2011 index, up from 95% the previous year. "Kingfisher has created a vision and strategy that

is clearly articulated by the senior management team and convincingly describes an evolution in the company's market positioning which will drive a number of environmental and social benefits," reports BitC.

Companies achieving the highest ranking in the index must demonstrate business strategies that are underpinned by

thinking around long-term sustainability. The Platinum Plus group also includes Anglian Water, EDF Energy, Heineken UK, KPMG and Wates.

Thirty companies – ranging from Alliance Boots to WH Smith – were rated as Platinum for demonstrating that CR is embedded in strategic decision-making and incentive structures. A further 34 firms were ranked in the Gold category for displaying a high level of transparency by publicly reporting CR performance.

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CASE LAW

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Wind farm wars

The Court of Appeal (CA) has upheld the decision of an inspector concerning appropriate "amplitude modulation" (AM) or "blade swish" noise levels in *Hulme v Secretary of State for Communities and Local Government* [2011] EWCA Civ 638.

Renewable Energy Systems (RES), a global wind-farm developer, initially applied in 2004, to construct a wind farm in Devon. The proposed wind farm in the Den Brook valley, near North Twarton, was to consist of nine three-bladed horizontal access wind turbines, each 120 metres high, plus electricity transformers, access tracks, train hardstandings, a control building, a substation, a meteorological mast, and a temporary construction compound.

The appellant, Mr Hulme, owned land near the appeal site and originally applied for an order quashing the

granting of planning permission. The battle between the parties was the subject of the recent television series *Windfarm wars* on BBC2.

In August 2010, following a renewed oral hearing, the High Court dismissed the appellant's challenge. The appellant sought a further appeal. The CA subsequently allowed a challenge to alleged defectively drafted conditions dealing with the aerodynamic noise caused by passage of air over the wind turbine blades. The CA accepted the evidence brought before the inquiry: that excessive AM noise could interfere with local residents' sleep.

The principal issue was whether the conditions as drafted were capable of securing the objective of preventing inappropriate AM noise levels.

"There is no doubt, as indeed all counsel agree, that condition 21 is not easy to interpret. The meaning of the last

sentence ... is particularly opaque," said Lord Justice Elias.

The CA decided that it was the inspector's clear intention to impose an obligation to comply with defined AM limits and, as a matter of construction, that the obligation could be treated as implicit in the language of the conditions. Consequently, an enforceable obligation was imposed on RES to keep noise levels to an acceptable level throughout the 25-year duration of the planning permission. The appeal was therefore dismissed.

Applications for wind farms are divisive. While Mr Hulme was unable to block construction of the wind farm, the noise conditions that have been imposed will set a new standard for power companies.

Colleen Theron and Deirdre Lyons, LexisPSL

Shell fined £1 million over Bacton gas blast

Prosecution Energy giant Shell has been fined £1 million for environmental and safety breaches that resulted in a dangerous explosion at a Norfolk gas terminal.

Managers at the Bacton plant repeatedly ignored warnings from staff about the problems that eventually led to the blast in February 2008, which blew the concrete roof off a tank and caused 850 tonnes of contaminated water and chemicals to flow into the sea.

Only good fortune stopped anyone from being harmed in the explosion, which could have killed 10 people, prosecutor Andrew Marshall told the Crown Court.

The blast had been caused by the leak of a highly flammable liquid into a part of the plant responsible for treating wastewater before discharging it into the sea. A corroded vessel allowed water contaminated with the flammable liquid to enter a storage tank where it was heated by an electric heater, ultimately causing the explosion and fire.

Staff had reported the high levels of the contaminated water many times, but the management failed to take steps to



address the problem, "sleepwalking into danger", Marshall told the court.

The environmental impact of the blast was compounded by an hour's delay in raising the site's sea wall gate, which the Environment Agency (EA) had labelled unsatisfactory in 2004, allowing fire water, firefighting foam and gas condensate to enter the sea. The company also failed to contact the EA immediately, as it is obliged to do.

Shell pleaded guilty to seven charges brought by the EA and the Health and Safety Executive covering safety, environmental control and pollution-prevention failures.

Carbon budgets in doubt

Emissions The UK will not be able to meet its first four carbon budgets if emissions continue to rise as they did in 2010, warns the Committee on Climate Change (CCC) in its third progress report.

It confirms that during 2010, UK CO_2 emissions rose by 3%, mainly as a result of the cold winter weather. But even after adjusting for weather impacts, the underlying trend in emissions reductions is flat, and well below the 3% annual cut necessary to meet carbon budgets up to 2027. The data reveal that only transport emissions fell in 2010 compared with 2009 levels, whereas discharges from power stations and industry increased by 3.9% and 1.3% respectively, and emissions from residential buildings soared by 13.4%.

The CCC called on the government to significantly accelerate the pace of

emission reductions. It says the planned electricity market reform (EMR) and Green Deal is key to driving down emissions. It wants the forthcoming white paper on EMR, due in July, to include a commitment to long-term energy supply contracts – so-called "contracts for differences" – to help avoid an investment hiatus in renewables.

The CCC also says the Green Deal should include support for ambitious targets to insulate all lofts and cavity walls by 2015, and two million solid walls by 2020.

The recommendation comes as the latest figures indicate that the popularity of wall insulation is declining, with the number of cavity wall installations falling by 300,000 between 2009 and 2010, while there were 2,000 fewer solid wall installations.

Short cuts

Water firm fined £145k

United Utilities has been ordered to pay more than £170,000 for illegally discharging partially treated sewage into the River Mersey. In January 2010, sewage was released into the river through an unmonitored emergency overflow pipe when the company's Liverpool wastewater treatment works was unable to treat all of the effluent coming into the site. The firm was fined £145,000 and ordered to pay £28,428 costs by Liverpool Magistrates' Court after pleading guilty to a string of environmental offences under the Urban Waste Water Treatment Regulations, the Water Resources Act 1991 and the Environmental Permitting Regulations (England and Wales) 2010. The company has since announced a £200 million investment to extend and further improve the works. Tony Conway. United Utilities' director of asset management, commented: "We reported the breach ourselves and have since done everything possible to put things right."

Environmental rankings

A UK-based research body, the **Environmental Investment** Organisation (EIO), has unveiled its Environmental Tracking (ET) Index Series, which aims to help businesses drive down emissions and tackle climate change. EIO describes the index as a hybrid between traditional Socially Responsible Investment (SRI) indexes and mainstream index models, such as the UK FTSE 100. Unlike traditional SRI indexes. where only the "best in class" are included, the ET index also applies an environmental scoring method, supporting the share prices of companies with the lowest greenhouse-gas emission intensities and greatest levels of transparency, while penalising those with the highest emissions and lowest levels of disclosure. EIO hopes the additional scrutiny will encourage large emitters to take action to reduce their carbon emissions.

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CRC plans fail to meet demand for change

Energy efficiency Climate change minister Greg Barker has unveiled plans to further streamline the Carbon Reduction Commitment Energy Efficiency scheme (CRC), which he claims is overly complex and bureaucratic.

"I believe the principle of the scheme is right, which is why I am proposing to make the CRC simpler while still protecting its strong environmental integrity to cut emissions in large organisations and businesses," said Barker. "Energy efficiency is a no-brainer. It saves money and cuts carbon. Our proposals will make it easier and simpler for businesses to feel the benefits of using less energy as well as supporting jobs in the energy savings industry."

The proposals, which will be issued for consultation early next year, include:

- reducing the number of fuels covered by the CRC from 29 to four (electricity, gas, kerosene and diesel);
- removing the auctioning of allowances by introducing fixed-price sales, twice a year from 2014 (the start of phase II);
- abolishing the need for large organisations to participate in groups;



- introducing a "one-step" qualification process; and
- exempting from the CRC sites that are covered by a Climate Change Agreement or the EU emissions trading scheme.

The plans follow earlier changes, including the decision last year to scrap the revenue recycling payments, which was heavily criticised by business groups and effectively turned the scheme into a tax on business.

Those critics have not been appeased by the latest proposals.

The CBI described them as "tinkering around the edges". Director of business environment, Rhian Kelly, said that the government should either reinstate the revenue-recycling element, or scrap the CRC altogether and look at other ways of increasing energy efficiency among businesses.

The manufacturing body EEF, another critic of the scheme, also said the planned changes did not go far enough. "The government could have gone further," commented Gareth Stace, head of climate change and environment policy. "In particular, it could have scrapped the 'league table', a name-and-shame list that will not, in any way, reflect the ongoing performance of an organisation and will send the wrong signal to investors, supply chains and the consumer."

WSP Environment and Energy calculates that the CRC will cost businesses about £165,000 each next year and the consultants warn that the continuing uncertainty over the scheme is preventing companies from investing in measures to improve energy efficiency.

EIA UPDATE

iema

New IEMA report

IEMA's report on the state of environmental impact assessment (EIA) practice in the UK will be published shortly, following a two-year research project. The report – available for members to download from www. lexisurl.com/iema8431 – covers:

- the basis of EIA practice in the UK;
- its current state, from screening and scoping through assessment to outputs and outcomes; and
- its future, setting out IEMA's vision for UK EIA practice.

Regulatory front

On 1 June, the Scottish government launched the Environmental Impact Assessment (Scotland) Regulations 2011. These replace those aspects of the 1999 EIA Regulations (and its 12 amendments) that relate to planning applications. The parts of the 1999 EIA Regulations related to roads (Part 3)

and land drainage (Part 4) remain in force, however. The main changes focus on the approach to assessing multistaged consents and on screening, in particular determining whether an EIA is required for changes or extensions to development. The Scottish government has also published a new EIA circular (3/2011) and a quick guide to the main changes in the 2011 Regulations (www.lexisurl.com/iema8380). New English EIA Regulations are expected to be laid before parliament shortly and come into force in early August. IEMA understands that the Regulations will be accompanied by a new 30-page "Guidance on the EIA Regulations 2011 for England", which will replace the existing circular 02/99. IEMA has also learned that the new English EIA Regulations will take a different approach to the screening of changes or extensions compared with Scotland (above). Consultation is expected to

begin during this summer on new EIA Regulations in Wales, with the Welsh Assembly government aiming to bring them into force by the end of 2011. In Northern Ireland, consultation on revised EIA Regulations is due to begin in the autumn, with the new Regulations coming into force early in 2012.

Revised Directive

The European Commission has indicated its intention to codify the existing EIA Directive (85/337/EEC) and its three amendments into a single new text during 2011. The process is designed to make the EIA Directive easier to read and is one of the steps being taken as part of the commission's ongoing review. The only anticipated consequence of the consolidation for UK EIA practice is that practitioners will need to refer to the Directive under its new number once it becomes available. IEMA will keep members up to date on progress.



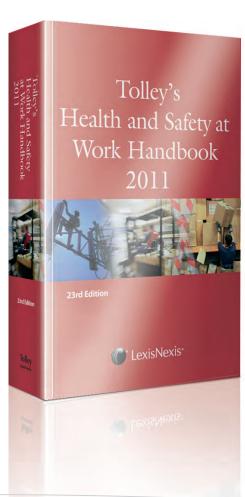
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In force	Subject	Details
1 January	Pollution	EU Regulation 537/2011 on the mechanism for the allocation of quantities of controlled substances allowed for laboratory and analytical uses in the EU under Regulation 1005/2009 (on substances that deplete the ozone layer) was approved on 1 June, but applies from 1 January 2011. As it is a Regulation, 537/2011 applies directly in all member states. www.lexisurl.com/iema8264
18 May	Energy	The Electricity (Individual Generation Exemptions) Order 2011 exempts three companies (three generating stations) from the requirements of s.4(1)(a) of the Electricity Act 1989 (which prohibits the generation of electricity for supply without a licence). The companies and power stations are: Devon Wind Power Ltd (Fullabrook Wind Farm in Devon), Riverside Resource Recovery Ltd (Riverside resource recovery energy-from-waste facility in Bexley) and Teeside Offshore Wind Farm Ltd (Teeside Offshore Wind Farm). www.lexisurl.com/iema6983
30 May	Energy	The Feed-in Tariffs [FITs] (Specified Maximum Capacity and Functions) (Amendment) Order 2011 modifies and refines the 2010 Order to try to ensure that the FIT scheme is delivered in the way it was intended. Specifically, the Order clarifies when FITs can be combined with public grants following the European Commission's state aid approval of the scheme. www.lexisurl.com/iema6982
1 June	Planning	The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 revoke Part II of the 1999 Regulations, changing the definition of "application for multi-stage consent"; introducing a requirement for the reasons for negative screening decisions to be provided in writing when requested; and clarifying the circumstances when a Scottish minister is required to make a screening direction. The Regulations are also amended to include sites and installations that may store and capture carbon emissions (required by the Directive on the geological storage of ${\rm CO_2}$ (2009/31/EC)). www.lexisurl.com/iema8261
3 June	Pollution	EU Regulation 510/2011 has come into force setting emission performance standards for new light commercial vehicles as part of the bloc's integrated approach to reducing CO_2 emissions from such vehicles. The European Commission says the targets for eligible new road vehicles provide manufacturers with more planning certainty and more flexibility to meet the CO_2 reduction requirements than would be provided by separate national reduction targets. www.lexisurl.com/iema8268
8 June	Carbon trading	EU Regulation 550/2011 restricts the use of international credits from projects involving industrial gases under Directive 2003/87/EC – the EU emissions trading scheme (ETS) Directive. The inclusion of industrial gas projects in the Kyoto Protocol offsetting arrangements – the joint implementation and clean development mechanism – and its use by organisations covered by the ETS has raised environmental concerns, particularly the high rates of return from the destruction of HFC-23, which stimulates the continued production and use of chlorodifluoromethane (HCFC-22), a potent ozone-depleting and greenhouse-gas substance. www.lexisurl.com/iema8272
22 June	Pollution	Directive 2011/63/EU amends the analytical methods used to test the quality of petrol and diesel fuels that are in Annexes I and II of Directive 98/70/EC on the environmental specifications of such fuels. Member states have until 21 June 2012 to transpose the Directive into domestic legislation. www.lexisurl.com/iema8263



LATEST CONSULTATIONS

Closing date: 29 July

Water

The Northern Ireland Department of Environment is consulting on revised guidance for "run-of-the-river" hydropower schemes in the six counties. The guidance will be used by the Northern Ireland Environment Agency to determine applications relating to hydropower schemes, and aims to help developers to meet their legal obligations.

www.lexisurl.com/iema8271

4/5 August

Air quality

Defra and the devolved governments are consulting on updated draft air-quality plans. These set out the action to be taken and being planned at national, regional and local levels to meet the annual and hourly EU nitrogen dioxide (NO₂) limit values as soon as possible. They will form the basis of the UK notification to the European Commission that the UK will submit in September 2011. The notification will seek, for those parts of the country where there is sufficient evidence, to postpone for up to five years (from January 2010) the compliance date for the NO₂ limit values. Around 40 zones in the UK are expected to have exceeded the limit values in the Ambient Air Quality Directive (2008/50/EC) in 2010. www.lexisurl.com/iema8270 www.lexisurl.com/iema8275

5 August

Renewable heat

Ofgem, the energy regulator, has produced draft guidance on the planned renewable heat incentive (RHI) for consultaton. The proposed guidance sets out how Ofgem intends to administer the £860 million scheme, due to start this month. The are two parts to the guidance: volume one describes the eligibility requirements of the RHI and how prospective participants can become accredited or registered; volume two describes the ongoing requirements for RHI participants.

www.lexisurl.com/iema8369 www.lexisurl.com/iema8372

9 August

Waste

The European Commission is consulting on options to reduce the use of plastic carrier bags across the EU as well as measures to improve the requirements of biodegradability in Directive 94/62/EC on packaging and packaging waste and the visibility of biodegradable packaging products to consumers.

www.lexisurl.com/iema7079

24 August

Hazardous substances

Under the Water Framework Directive (2000/60/EC) and groundwater daughter Directive (2006/118/EC), the UK environment

agencies are responsible for considering whether or not a potential pollutant is hazardous. The legislation applies a different method to determine the classification of substances than was used under the old groundwater Directive (80/68/EEC). JAGDAG, the body comprising the UK environment agencies and Defra, is now consulting on the proposed new methodology.

WWW.lexisurl.com/iema8262

31 August

Energy

HM Revenue & Customs is consulting on proposed legislation to clarify the appropriate capital allowances treatment of expenditure on plant or machinery that could qualify for payments under either the feed-in tariffs (FITs) regime, which was introduced in April 2010, or the renewable heat incentive, due to be implemented shortly. www.lexisurl.com/iema8265

Land remediation

HM Treasury is consulting on ending tax relief in 36 areas, including the abolition of relief from corporation tax on qualifying expenditure (both capital and revenue) for companies involved in cleaning up land in the UK in a contaminated state that is acquired from third parties. Under the plans, relief will no longer be available on or after 1 April 2012. www.lexisurl.com/iema8266

EVENTS CALENDAR Location and details Date Course University of Southampton European wave and tidal energy conference September 2011 www.lexisurl.com/iema6975 Landscape ecology and ecosystem services Wolverhampton University, Telford September 2011 www.lexisurl.com/iema6970 The Energy Event 2011 **NEC** Birmingham 13–14 September 2011 www.lexisurl.com/iema8279 13-15 **RWM 2011 NEC** Birmingham www.lexisurl.com/iema8278 September 2011 Efficient ICT, greener government 2011 QEII Conference Centre. London September 2011 www.lexisurl.com/iema6971 20-21 The Carbon Show 2011 Business Design Centre, London October 2011 www.lexisurl.com/iema8277



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15 years of

Auditor **John Marsden** assesses the environmental management standard, first introduced in 1996

ost people involved in environmental management will regard 1996 as a key year in raising the standard of management systems and processes. That was the year ISO 14001, the international standard for environmental management, was first published. Now, 15 years later, about 230,000 organisations worldwide have the standard.

The 1996 blueprint contained management techniques, requirements and guidance on how to systematically improve the environmental performance of an organisation and was based on the earlier British standard, BS 7750. Fifteen years on, how have organisations interpreted and implemented these requirements, and has the standard been successful in improving environmental performance?

Going forward

Back in the early 1990s, environmental concerns were largely confined to heavy industry, where evidence of visible pollution was all around. Steelworks, chemical factories, foundries and coking plants

dominated the industrial skyline of the UK and other developed nations. In some areas of the UK, the recessionary hangover from the previous decade had left a significantly degraded industrial landscape marred by spoil heaps, coloured rivers and grimy buildings. Scientists were also aware of other, less visible, yet serious manifestations of pollution arising from chemicals, such as polychlorinated biphenyls, chlorinated solvents and pesticides. In addition, the far-reaching implications of greenhouse-gas emissions were becoming recognised within the global business community.

The scale, power and impact of the commercial sector provided the ideal platform with which to start the process of improving the environment. National governments set out requirements in the form of legislation, fiscal policy and other means that could be applied to industry by regulators and this process has been ongoing.

Environmental management system (EMS) standards, such as 14001 and the European ecomanagement and audit scheme (EMAS) were developed to provide the necessary guidance that would help the business sector understand what it had to do. The links between the EMS and environmental legislation clearly needed to be strong and 14001 was designed to facilitate the implementation of these laws.

From the point of view of its creators, 14001 required a carefully worded document that would be seen by environmentalists as a standard that could deliver significant benefits and improvements. On the other hand, users wanted to see a mechanism that could fit



progress?

with existing management system frameworks, such as the quality standard ISO 9001, together with a format that was not too difficult to understand and implement. A balancing act between these two sides had to be maintained because 14001 is not a legal requirement in itself and could not be forced on organisations.

The huge carrot dangled in the face of industry was that a certificate of conformity to 14001 would be a desirable and coveted prize, and a reward for the effort required to develop a management system aimed at satisfying a relatively uncharted business driving force – the environment. Some degree of financial payback to participating organisations could also be regarded as part of the incentive framework. Energy efficiency and waste minimisation are two commonly cited benefits from having 14001, although measures to improve these issues would probably have been implemented anyway, especially during regional and global recessionary cycles.

The activities of the accreditation and certification bodies also had a part to play, providing a level playing field on which the certificates of conformity to 14001 could be distributed and managed. Their role as referees should also be considered when judging the overall effectiveness of the standard.

The numbers game

Answers to the following broad questions can be used to measure the degree of success of the standard and provide guidance on the future direction of EMS developments.

- Has 14001 been widely accepted by industry and commerce?
- Has it enabled significant improvement of environmental performance?
- Has it improved compliance with applicable legislation?
- Has it encouraged cooperation between business and the local community?

From the point of view of its creators, 14001 required a carefully worded document that would be seen as the standard to deliver benefits and improvements

Over the past 15 years of implementation by organisations, the acceptance of 14001 as a business standard has been widely acknowledged. ISO – the international standards organisation – now feels confident enough about the level of uptake to claim that "14001 has achieved a truly global status and is thoroughly integrated with the world economy."

Not only is the number of certifications globally edging towards a quarter of a million, the pace of the uptake appears to be accelerating: the total number of certificates awarded rose from 150,000 at the start of 2007 to 225,000 in spring 2010. So something must have hit the mark. Some certificates include a number of operational sites within the scope of a single certificate and this may increase the actual number of sites towards the 250,000 mark. Compared with the European standard, EMAS (just under 8,000 sites

225

thousand The total number of 14001 certifications worldwide in spring 2010 were EMAS certified at end of March 2011), the 14001 numbers are impressive.

However, compared with the more than one million certificates now issued to the quality standard 9001, the uptake of 14001 still has a long way to go. Regardless of this, the potential anticipated in 1996 for 14001 seems to have been realised, especially when it is noted that most of the big corporate organisations of the world now see the standard as a "must have". For them, the need for a management system based around 14001 provides a clear and consistent framework for employees who may be spread across the globe. Communications, documentation management, training and internal auditing are important processes and 14001 helps to provide a degree of consistency in their applicability to environmental issues.

Smaller organisations

Further down the supply chain, the small and medium-sized enterprises (SMEs) of the world have been less willing to develop an interest in accredited certification. The most probable explanation for this is that time, cost and a low perceived environmental impact have all played their part in dampening a desire to develop a full EMS. Many decisions are made by just a few managers and staff who are in close contact most of the time, so for them environmental aspects such as waste management, energy efficiency and packaging tend to be controlled within informal procedures rather than a formal system.

Over the years, other standards have arisen that provide their own twist to the specification for EMS, aimed in particular at the SME sector.

In the UK, the Acorn Scheme based around BS 8555:2003 – seems to be popular with some companies. About 640 companies have subscribed to this approach, with 160 currently on the register. However, these numbers are hardly likely to impress the impartial observer, especially when it is realised that they include companies that have just started the journey, or have stepped off on the way. So much for staged

implementation. Yes, there are examples of effective improvement of environmental performance, but what is worrying is the number of companies registered only in phase 1 (setting policy) to phase 3 (setting objectives) of 8555. This means that they do not have to implement anything or achieve actual improvements to their environmental performance to gain a level of approval. At least the presence of a 14001 accredited certificate demonstrates that the organisation has all elements operational at the same time, much like a fully functioning website without any broken links.

The publication of ISO 14005:2010 provided the somewhat bemused global SME sector with an internationalised version of the above standard. This in itself has generated negative comment and rejection by CEN, the European standards board. All this seems to fly in the face of the original concept surrounding the development of a single, internationally acceptable standard for environmental management.

Back in the 1990s, the proliferation of different national standards provided the logic for developing a unified and consistent approach, yet, 15 years on, the pendulum seems to have swung in the opposite direction.

The clarity of 14001 is being eroded by the confusion generated by the standards industry and its political machinations. On a personal level, the knowledge that 14001 could be applied to organisations of different sizes, sectors and complexity helped me to realise that underlying business processes are largely very similar. I still believe that the adaptability of 14001 has played a major part in its success.

Environmental success?

So, has the presence of a certified EMS in an organisation resulted in a significant improvement in environmental performance? It is almost impossible to provide a clear answer to this question as the development of environmental regulation and non-legislative initiatives have taken place at the same time. However, without the structure and framework that is provided with a full EMS, organisations would find it difficult to coordinate and manage these improvements.

Again, from a personal perspective, the large number and variety of organisations that have been audited indicates that improvements need to be tracked and managed in a coordinated manner in order for them to stay on track. One recent example involved an audit of a component manufacturer that had not developed a proper strategy to address its packaging compliance requirements. The whole system was in disarray because responsibility had not been set at board level. Further down the hierarchy, personnel on the shop floor were carrying out haphazard monitoring of packaging weights and, although the information was communicated to the relevant compliance scheme, it had been very difficult to obtain. The certification audit assisted them to address the issue and quickly get back on track.

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MANAGEMENT



John Marsden is an independent management system auditor who works for a number of international certification bodies

compensation claims; the loss of corporate reputation can sometimes be devastating to the credibility of a business or brand. This potential risk has probably increased since 1996 and the introduction of 14001. The standard has been revised only once during its lifetime – in 2004 – and mainly to create a separate clause for the evaluation of legal compliance. In other words, this requirement has become even more important than before.

Experience shows that many 14001-compliant organisations really do understand how to identify legal requirements and include them in their legal register (clause 4.3.2). They also periodically evaluate their degree of compliance to the laws specified (clause 4.5.2). However, there are also many other companies that do not understand this process. For them, the legal register remains a jumble of current and outdated legislation. Some applicable requirements are missing and the relevance to the organisation is sometimes vague and unspecific. Responsibility for legal issues cannot be set and the threat of legal non-compliance remains as high as ever. So, after 15 years and one revision, why has 14001 performed below expectations in such a critically important area? One reason may be the lack of emphasis on legal training for key personnel involved in the running of an EMS.

The same could be said of the certification auditors who periodically visit the organisation to carry out an audit. The accreditation system seems to work reasonably well, but how many auditors would be weeded out during a rigorous assessment of their understanding of environmental law? It is all too easy for auditors to steer themselves away from the

Greater demands should be placed on the auditor community to demonstrate its understanding of environmental law

complexities of environmental permitting, hazardous waste management or the packaging regulations and onto more familiar territory, such as management review and setting objectives and targets.

UKAS – the UK accreditation body – does have a system in place for shadowing the work of auditors while a certification audit is being conducted, but somehow the number of issues relating to environmental legislation is still higher than expected.

Greater demands should be placed on the auditor community to demonstrate its understanding of environmental law – and not just in the comfort zones they may specialise in. After all, if the auditor is not firing on all cylinders, how can the organisation?

The interface with local communities on environmental issues seems to have made significant improvements in recent years, although, again, it is difficult to tease away the strands that contribute to this improvement.

14001 demands that communication processes with outside agencies and bodies are sufficient to enable a dialogue to take place. Pressure groups, local community groups and individuals are now able to

exert an influence on the relevant business activities of a 14001-certificated company. One recent visit revealed the extraordinary lengths to which a manufacturing business went to address a problem with a nearby property with respect to a connected sewer pipe. That would have been unlikely several years ago. A publicly available environmental policy, together with auditable communication procedures, contributed significantly to this process.

Sum of its parts

So, after 15 years of implementation, what is the current position of 14001? Certainly on the world stage, the standard has developed an impressive track record in terms of numbers of certificates. It has also probably influenced the development of numerous unregistered EMSs, together with other standards offering broadly similar outcomes. Regulatory recognition has developed over the years as the Environment Agency now includes any company that can demonstrate a "robust EMS" in its compliance assessment plans.

However, this success is tempered by the need for improved standards of certification, better auditors and a greater focus on legal compliance and improvements in environmental performance. Still, there is no reason why the standard cannot continue to offer a fair and reasonable framework for improving the environmental performance of organisations well into the future (see p.6). At least for the next 15 years!

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What to do with

Are Scotand's plans to order separate food waste

he starting point for this discussion has to be recognising that food waste is a major environmental issue. Scottish households waste more than half a million tonnes of food and drink a year, most of which can be avoided. Significant food waste also occurs in the commercial and industrial waste stream, notably in the grocery supply chain.

The embedded carbon and water associated with food waste are costs we cannot afford to bear, so our first priority must be to reduce avoidable waste.

However, where food waste is unavoidable this needs to be seen as an untapped resource that can be used to benefit the Scottish economy.

The Scottish government has a vision of a lowcarbon future in which renewable energy and sustainable agriculture are essential elements. Food waste, when captured separately and processed through anaerobic digestion (AD), can be used to support both of these aspirations.

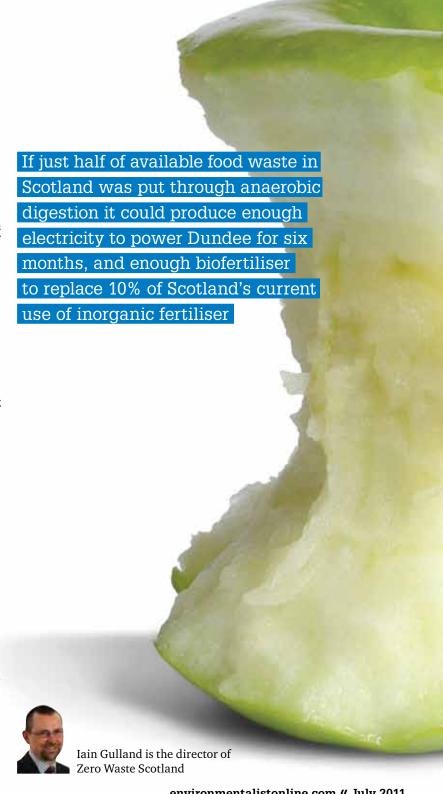
If just half of the available food waste in Scotland was put through AD it could produce enough electricity to power a city the size of Dundee for six months, and enough biofertiliser to replace 10% of Scotland's current inorganic fertiliser requirements for arable use. Given the rising costs of power and fertiliser, this is an opportunity to provide a competitive advantage to Scottish farms and longer term there is potentially an even bigger prize in terms of biogas injection to the gas grid.

Alternatives to mandatory collection, including using macerators or other food waste-disposal units, do not provide the same opportunities to create added value from the material. Waste collected via these alternatives will not meet quality standards that enable them to be applied to land, for example. This means carrying all of the cost of collection without the economic gain.

Additionally, disposing of and treating food waste via the sewer adds stresses to the infrastructure for which it was not designed. This carries an environmental cost via leaks, blockages and the energy used in treatment works, and will lead to increased effluent charges to businesses.

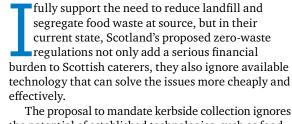
In developing the draft regulatory framework for zero waste, the Scottish government has consulted widely with businesses. On the whole, while the logistics of food waste collection may prove challenging for some smaller businesses, there is agreement on the benefits of the proposed approach, including the longterm savings to be made by businesses through avoiding rising landfill costs.

The proposed approach to food waste, separate collection and AD, is absolutely the right one. It will enable the creation of much-needed products and help households and businesses become part of a zero-waste society.



our waste food

collections the best way to achieve zero waste?



the potential of established technologies, such as food waste disposers and composters, to achieve zero-waste objectives and could cost affected businesses £1,500 a year, according to our estimates.

Furthermore, the "one solution" model of kerbside collection of food waste for treatment is a barrier to innovation in developing waste-recycling and disposal technologies. Technologies that separate, pre-treat or process food waste before it leaves premises significantly reduce the volume of food waste transported by road. By improving the management of dry, solid waste, such technology can help to provide the energy efficiency that is being sought.

Another worry is that health and security could be compromised under the proposals. On-site equipment for food waste disposal already plays a crucial role in Scottish hospitals, where the immediate treatment of food waste offers significant hygiene benefits.

More worryingly, if collection of the food waste is disrupted, for example by weather or industrial action, then a significant health hazard would be created.

The proposals would also render redundant the on-site food waste-treatment equipment already in use at 2,700 Scottish businesses, despite the fact it does a more efficient job at a lower cost. Meanwhile, the taxpayer will have to fund the creation of new food waste-processing plants.

Moreover, the concerns raised in the zero-waste proposals about the potential adverse effects of food waste disposers are misleading and incorrect. CESA - the Catering Equipment Suppliers Association has provided the Scottish government with robust, international scientific evidence to prove that these technologies deliver an effective, environmentally sound solution.

In larger kitchens, on-site food waste equipment can actually contribute to the establishment's income. An award-winning composting system at Imperial College, London, for example, achieved payback in less than a year, by recycling more than 50 tonnes of food waste from the campus.

The bottom line is that established food wastetreatment technologies are a better way to achieve the zero-waste targets and position Scotland at the forefront of innovation in waste reduction. What's more, they provide a solution that's more environmentally sound, and at a lower cost.



What price nature?

The natural environment white paper for England has quickly followed publication of the national ecosystem assessment. **Paul Suff** examines the implications for business

conomic growth and the natural environment are mutually compatible, claims the government's natural environment white paper (NEWP). "A healthy, properly functioning natural environment is the foundation of sustained economic growth, prospering communities and personal wellbeing," it states.

However, the national ecosystem assessment (NEA) found that much of the natural environment in the UK is declining or in a reduced or degraded state. "The UK's ecosystems are currently delivering some services well, but others are still in long-term decline," it concluded.

In part, that is because nature is generally taken for granted and undervalued. "Too many of the benefits we derive from nature are not properly valued. The value of natural capital is not fully captured in the prices customers pay, in the operations of our markets or in the accounts of government or business. When nature is undervalued, bad choices can be made," explains the NEWP.

The lack of a proper way of valuing ecosystems services is what the NEA – which covers the whole of the UK – addresses, providing a way of assessing more accurately the value of the natural world. The NEWP – although it applies only to England – sets out how the government aims to translate the work of the more than 500 academics that contributed to the NEA into actions to mend existing damage to the natural environment, while maintaining economic growth.

It sees a key role for business in improving and protecting ecosystems. Defra says that the NEWP aims to help businesses take practical action to protect and improve natural capital.

The state we're in

The NEA looks back 60 years to map how ecosystems have changed in the UK, and forecasts how – through six scenarios – they might alter again over the next half-century or so. It warns that continued population growth and climate change are likely to put additional



pressure on ecosystems, and that actions taken now will have consequences far into the future.

The analysis reveals that more than 30% of the services derived from the UK's ecosystems are declining, while others, including marine fisheries, urban ecosystems, wild species diversity, pollination, enclosed farmland and soil quality, are degraded.

Soil quality, for example, has suffered from atmospheric deposition and inappropriate management, and although there is ongoing recovery due to large decreases in sulphur deposits since the 1980s, there is continuing loss of soil carbon in arable systems and little or no decline in elevated levels of contaminants from industry and transport.

Atmospheric pollution and poor land management may also be causing a decline in pollinating insects, which provide ecosystem services estimated to be worth hundreds of millions of pounds annually.

Parts of the UK fare better than others (see panel, p.28). Ecosystems in industrial areas or in those with an industrial legacy tend to be in a poor state.

Welsh freshwater ecosystems are still suffering from the country's history of coal mining, although there is evidence of improvement following remediation interventions, while sulphur emissions from industry and power plants, which peaked in the 1980s, have resulted in the acidification of soils in many areas – 54% of seminatural areas remain at risk of damage despite major reductions in emissions.

Heavy metals emissions from a range of industrial uses and transport are generally not declining in the UK, and while contamination by a range of hazardous substances has been lessened through reductions in industrial effluent and improvements in sewage treatment infrastructure, new concerns are emerging, including the recent introduction of chemicals, such as nanoparticles and pharmaceuticals, which pass through sewage treatment plants.

Monetary value

Putting a value on natural capital is key to ensuring it is properly considered by policy makers and business leaders, encouraging them to use it in a sustainable way. "In the past we have undervalued what our natural environment gives us. This white paper changes that, because we cannot afford to make the same mistakes again," said the environment secretary, Caroline Spelman, unveiling the NEWP.

Lead NEA author and economist Professor Ian Bateman emphasises this point. "Why would we want to put economic values on environmental goods and services? It's very simple: it's to ensure their incorporation on equal footing with the market-priced

BUSINESS PLANS

The government's natural environment white paper (NEWP) – the first such document for 20 years – includes the following measures to improve how businesses interact with ecosystems and the natural environment.

Payments – Environmental stewardship schemes already exist, where, for example, the government pays farmers on behalf of the public for the benefits that environmentally friendly farming generates. The NEWP says there are now real opportunities for land managers to gain by protecting nature's services, and trading nature's benefits with businesses and others. Payments for nature's services are also a means of opening up markets and establishing a better market value for ecosystem services. The NEWP offers the example of a water company paying a farmer for protecting the ability of uplands to naturally clean and filter water. This provides a cheaper option to the water company and the customer than building an expensive water-cleaning plant downstream, says Defra.

Reporting – The NEWP says businesses need to measure their environmental impacts in order to compete. Defra will publish new guidance for businesses next year on how companies can measure and report corporate environmental impacts. It will follow the same step-by-step approach as the environment department's existing guidance on reporting greenhouse-gas emissions to ensure consistency and encourage those not already reporting. Defra believes that once businesses have measured their own, and their supply chain's, impacts on natural capital, they will be in a better position to take action, harnessing, for example, their purchasing power to demand higher environmental standards from suppliers. The government also plans to update the Business Link website to provide information on natural capital, including guidance on tools, such as the Corporate Ecosystem Services Review (www.lexisurl.com/iema8239), and resources businesses can use to assess their dependencies on environmental assets and services and identify growth opportunities. Also, an agreed approach to water footprinting will be established by December 2012.

Taskforce – The government is to create a business-led ecosystem markets taskforce, headed by Ian Cheshire, chair of Kingfisher, to review the opportunities for UK business from expanding the trade in green goods and the market for sustainable natural services. Examples of its focus include examining the potential for the financial sector to market new products that invest in natural capital and services to provide a return for both investors and nature. It will report back in 2012/13 via the Green Business Council, which was established in February to advise the government on green growth policy initiatives and includes business leaders from a cross-section of industries and sectors, including Ford, Centrica and IBM. A separate, and independent, Natural Capital Committee, reporting to the Cabinet's Economic Affairs Committee, which is chaired by the chancellor, is also being established. It will advise the government on the state of England's natural capital.

Taxes and regulation – Greater use of environmental taxation and further regulation to deliver improved environmental outcomes is under consideration. The NEWP says market-based instruments, such as taxes and trading systems, are an efficient and cost-effective way of pricing in the value of environmental resources. However, when the environmental risks are large, or when options for tackling a problem are limited or the problem is fairly specific, regulation might be the preferred option. Voluntary agreements will also be explored.



THE UK PICTURE: A SNAPSHOT

The national ecosystems assessment adopts a similar approach to that of the 2005 millennium ecosystems assessment, applying the same broad definition of ecosystem services and their classification to provisioning, regulating, supporting and cultural services. It also applies more recent methodology, such as that used by The Economics of Ecosystems and Biodiversity study to evaluate ecosystem services (the results of which were published in 2010).

England

Biodiversity – 26% of species are still depleted or on the UK list of priority species and habitats.

Climate change – England is a net source of greenhouse gases, but this trend is diminishing.

Coastal/marine – 30% of the coasts are subject to erosion and 46% are protected by engineering.

Landscape – natural cover of mountains, moorlands and heaths has significantly decreased over the last 60 years.

Water – biological and chemical classification of what were formerly the most polluted rivers in England has improved since 1990.

Northern Ireland

Biodiversity – generally a lower level of terrestrial species diversity than in Great Britain, although marine biodiversity is rich.

Coastal/marine – about 75% of the coast is protected, much of it by multiple designations; however, the quality of individual sites is highly variable.

 ${\bf Landscape}$ – mountains, moorlands and heaths cover just 17% of the land area.

Water – levels of pollutants and changing patterns of temperature and rainfall are all having impacts on water bodies.

Scotland

Biodiversity – 39% of species were stable or increasing, 21% were declining, but trends were unclear for 40% of species.

Climate change – peatlands store about 1,620 megatonnes of carbon, vitally important for the UK's soil carbon storage.

Coastal/marine – many marine habitats are of bad and deteriorating status, damage being caused by climate change, human activities, pollution and infrastructure development.

Landscape – mountains, moorlands and heaths account for 44% of the land

Water – the quality of the water environment is generally good.

Wales

Biodiversity – 59% of priority habitats declined in 2005, compared with 46% in 2002.

Climate change – the total carbon stored in Welsh forests and their soils is equivalent to more than 10 times the annual emissions from industry and services.

Coastal/marine – 23% of the Welsh coastline is eroding; marine habitats exhibit the greatest deterioration.

Landscape – 60% of upland habitats (mountains, moorlands and heaths) are in an unfavourable condition.

Water – Welsh freshwater ecosystems continue to suffer from their industrial legacy.

goods, which currently dominate decision making. Without such representation, we will get a persistence of the situation where we have these services being used as if they were free and had no value," he said at the launch of the report.

The NEA is a first attempt to assess the UK's natural ecosystem resources and, where possible, assign an economic value. According to the study, the contribution that ecosystem services make to the national economy in terms of a sustained flow of income is very substantial. It also acknowledges that the continued maintenance of this natural capital stock is critically important for the future prospects of a future thriving "green" economy.

It is not possible to put a total value on ecosystem services in the UK, as Bateman acknowledged. "Without the environment, we're all dead – so the total value is infinite," he said. "What is important is the value of feasible, policy-relevant changes – and those you can put numbers on."

The analysis did, however, estimate that pollination by bees (and hoverflies) contributes £430 million a year to the UK economy and that the total annual value of net carbon sequestered by UK woodlands is £680 million. And it calculates what the benefits that inland wetlands bring to water quality are worth in monetary terms, putting the figure at about £1.5 billion a year.

The NEA also calculates the cost of the depletion of ecosystem services. For example, the value of climate-change-induced loss of water availability could be as high as £490 million a year, while the annual cost of more frequent and intense flooding – a likely impact of climate change – may be more than £20 billion (in 2010 prices) by 2060.

Business reality

The NEA underpins the NEWP and many of its proposed actions. Indeed, the NEWP is entitled *The natural choice: Securing the value of nature.*

The government makes it clear in the NEWP that, so they can identify priorities for action, there is scope for businesses to improve their performance in relation to managing their impacts on natural capital. It says sustainable management of resources is central to environmental protection, pointing out that UK businesses could save about £23 billion a year by reducing waste and minimising resource use.

It also highlights how the use of some natural materials causes serious problems, either because of extreme pressure on their availability or because the commodity causes huge environmental damage where it is sourced. Disruption or degradation of the natural environment comes at a cost and poses a risk to the security of supply for natural resources, requiring businesses to switch to more costly alternatives or deal with the damage to corporate reputations, explains Defra.

Improving the management of ecosystems can also provide opportunities, and the proposals in the NEWP aim to expand and accelerate new UK business opportunities for green products and services that enhance nature.

The proposals to ensure businesses better manage natural capital (see panel, p.27) include: developing an action plan to expand markets and schemes in which payments are made by the beneficiary of a natural service to the provider of that service; and encouraging businesses to measure and report their environmental impacts.

Businesses will also be affected by many of the other plans set out in the NEWP. Water is one area that will see a higher profile. The government is planning to launch a water footprinting tool by December 2012 to help businesses better measure their water impacts, so that they can identify priorities for action. The NEWP acknowledges that the value of water will differ across the country, depending on supply and demand. "For example, the natural capital cost of water taken from southeast England during a drought is greater than that for water taken from northern Scotland in a wet winter," it explains.

Planning is another area that will attract further attention. The NEWP claims that the natural environment will be protected by its intended changes to the planning process. The system will continue to facilitate coherent and resilient ecological networks in association with local partners and reflect the value of natural systems, it states. Measures include establishing the national planning policy framework (NPPF), which will set out the environmental, social and economic objectives for the planning system document.

The top priority for the NPPF will be to support long-term sustainable economic growth, with a new presumption in favour of sustainable development.

However, there is concern that this "presumption" may place economic growth higher than environmental protection (see p.4).

Corporate response

Some businesses are already pursuing strategies that value ecosystem services and are designed to prevent disruption and degradation.

Sportswear company Puma, for instance, uniquely calculates the value of its impact on the natural environment, putting a monetary value on its carbon emissions and water use. The environmental cost of its carbon discharges and water use in 2010 − from raw materials to production − had an economic value of €94.4 million, says the firm's first "environmental profit and loss" account. Puma worked with PwC and Trucost to estimate the cost of these impacts across its supply chain, and they calculated a tonne of carbon dioxide (equivalent) at £57 and each cubic metre of water at 69p.

The NEWP wants more companies to follow Puma and M&S and identify their use of natural capital, and take measures to rein in any adverse impacts

According to its chief executive, Jochen Zeitz, Puma's environmental profit and loss account is crucial to its sustainability. "Gaining a better understanding of the source of the natural goods and services Puma relies on and the declining availability of the basic resources required for our business growth will help Puma build a more resilient and sustainable business model and ultimately better manage its impacts on the environment," he says.

Others have set ambitious targets to reduce their impacts on the natural environment. Marks & Spencer (M&S) is one such company. The retailer's Plan A strategy, first adopted in 2007 and updated in 2010, contains 20 commitments to sustainable sourcing, for example. Among its targets are sourcing six vulnerable raw materials – palm oil, soy, cocoa, beef, leather and coffee – from sources that do not contribute to deforestation by 2015; ensuring that by 2012 all of its wood is sourced responsibly, which means that it

is either Forest Stewardship Council certified, recycled or from sources that "otherwise protect forests and communities"; and, also by 2012, that all of its wild fish products will come from the most sustainable sources available, such as those certified by the Marine Stewardship Council.

Such examples are too rare, however. The NEWP wants more companies to follow Puma, M&S and other leading businesses and identify their use of natural capital and take measures to rein in any adverse impacts. Those that fail to take into account the value of nature are likely to recognise that they are using natural resources beyond their capacity for renewal only when these become scarce, by which time it may be too late – both for them and for the natural environment



Knowledge maintenance

Chartered environmentalist

Paul Reeve begins his journey
through the syllabus of the
IEMA associate certificate course by
looking at sustainable development

ustainable development (SD) is a process on the way to a crucially important goal: sustainability. Achieving sustainability requires supporting action from all sectors of society, including business and other organisations.

The so-called "Brundtland definition" is the most commonly used meaning of sustainable development. It was devised by the UN's World Commission on Environment and Development, which in 1983 was chaired by Gro Harlem Brundtland, then prime minister of Norway. It states that SD is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

The sum of human-related environmental impacts affecting the earth's systems can be thought of as a function of:

- total and growing human population;
- the average consumption level of each person which varies widely across the globe; and
- the technologies servicing that consumption.

Society places huge and increasing demands on the earth's resources. The earth is our source of land, raw materials and energy, in addition to providing "sinks" for the disposal of gaseous, liquid and solid waste.

Agenda 21 – the Rio Declaration on Environment and Development (www.lexisurl.com/iema8245) – is a complex plan of global and national action to achieve SD. It has been adopted by 180 governments since the UN Conference on Environment and Development in the Brazilian capital in June 1992.

In 2005, the UK government adopted a revised framework for SD. This acknowledged that SD must recognise environmental limits, and that these limits influence all the other actions in support of sustainable development.

A strategic issue for organisations

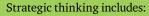
Although the term "sustainable development" is very widely used, it is not always clear what it means for specific organisations, or what they need to do. Businesses have two basic goals: survival and success. The sustainability agenda can have a major bearing on both these goals and it tends to present organisations with both challenges and opportunities.

Organisations that understand the sustainability issues that matter most to them, and why, can modify their practices to survive and be more successful. The vital role of sustainability becomes obvious when the implications of unsustainable activity are considered. Essentially, an organisation that has unsustainable needs, or that is operating unsustainably, will need to modify its behaviour if it is to survive. This points to using sustainable resources, using resources much more efficiently, having sustainable products and services, and innovation. Many organisations have already experienced the direct effects of major environmental sustainability issues, such as energy taxes, higher waste disposal costs or end-of-life recovery obligations.

Strategic thinking can be incorporated into environmental management, to support the identification and evaluation of activities, policy goals and corporate objectives, and management reviews that lead to effective action.



Paul Reeve is head of environment at the Electrical Contractors' Association. He originally conceived and produced the IEMA Associate membership course and exam with Paul Hyde, and they are the joint authors of the popular textbook Essentials of environmental management, on which this "in training" series is based



- considering the future so that emerging issues are understood and assessed in terms of opportunities and threats; and
- life-cycle analysis so the implications of emerging issues are understood in terms of immediate operations, the supply chain and future markets.

An example is the availability of, and access to, resources such as raw materials and sources of energy, or sinks for wastes. These may become increasingly constrained through depletion (eg non-renewable resources), degradation (polluted resources), overexploitation (of renewable resources), regulation (bans and restrictions), stakeholder concerns (eg customer avoidance of certain products, protests at planned new facilities) or economics (eg increased costs due to supply issues or through eco-taxes). Alternatively, other resources may become more attractive (eg renewable energy or recovered materials).

SD is the framework for the future "operating space" of any organisation - determining what it can (and cannot) do and, for the commercial organisation, what it can continue to supply.

THE ENVIRONMENT – BACK TO BASICS

Release into the environment

- physical/chemical state
- quantity/concentration
- duration
- interaction with other releases

Nature of environment existing ambient levels

- other sources
- dispersion sensitivity
- at risk receptors

On/into land

Key issues include:

- hazardous substances
- chemical transformation migration
- pathways to groundwater
- nuisance eg visual
- land use

Into water

- Key issues include:
- hazardous substances
- impact on ability of water to sustain aquatic life
- amenity value of water course
- use as source of drinking water

Into air

Key issues include:

- contribution to air pollution
- local
- regional
 - global (includes climate)
- nuisance
- air quality and public health

Environmental management deals mainly with the impact of organisations on the environment. For simplicity, the surrounding environment can be subdivided into three main components - air, water and land (also known as environmental "media"). These three media are part of a series of complex and dynamic biological, physical and chemical interrelationships, such as ecosystems, and the water and carbon cycles. Society processes the earth's resources to provide a vast, and increasingly sophisticated, range of goods and services. These processes and associated activities lead to various environmental impacts.

Pollution results from the introduction of substances or energy into the environment. In addition to substances, outputs can also be energy such as noise, vibration, heat and light. Once released, outputs can follow natural pathways – eg air, flowing water, permeable ground, the food chain – and affect parts of the environment that are sensitive to them ("receptors"). Harm can occur over the short or longer term, depending on the nature of the pollutant and the sensitivity of the receptor. There is not always a clear-cut distinction between receptors and pathways. For example, environmental media such as water can be both pathways and receptors, as can organisms in a food chain.

Although the environment is the "sink" for our waste products, there are limits to what can be sustainably emitted into the air, sent to landfill, or how much resource can be taken from the environment.

Landing the 2011 graduate award

Graduates Do you work with a graduate environmentalist who has made a real difference to your organisation? Do you think they deserve some recognition for their skills and achievements? If so, why not nominate your colleague for the IEMA Graduate Award 2011?

The judging panel for the award – sponsored by Land Securities – is now seeking entries from managers, mentors and clients of graduate practitioners who have made cost savings, added value and achieved change in their current role.

The winner of this year's award will receive a £2,000 cash prize, free attendance at the IEMA conference in November, a trophy and one year's free IEMA Graduate membership. One runner-up will receive a £1,000 cash prize, a free place at the conference and one year's free Graduate membership.

A profile, professional photographs and short article about the winner and their achievements will appear in *the environmentalist*, the December issue of *IEMA Downloaded*, the IEMA website and in IEMA's award and conference PR and media materials.



Last year, Sherry Palmer, environment officer at building and civil engineering contractors McLaughlin & Harvey in Northern Ireland, won the award.

How to enter

To enter the competition graduates must have completed a degree course within the past two years and be nominated for the award using a nomination sheet, which can be found at the IEMA Graduate Award 2011 website: www.lexisurl.com/iema8321.

The nomination must also be accompanied by supporting information. Details of the type of information to submit is available at the award website.

The award entry period closes on Friday 30 September. Good luck!

The Guardian Sustainable Business Quarterly

Networking Senior IEMA members are invited to apply for a place at the next Guardian Sustainable Business Quarterly (GSBQ) event. GSBQ is a free evening event for corporate sustainability professionals. Following an initial panel session, attendees will join sector discussion groups to engage with other sustainability professionals on specific challenges. The evening will then conclude with informal networking with peers over refreshments.

GSBQ is a series of thought-provoking evening events giving sustainability

professionals the opportunity to engage in the latest thinking on driving business sustainability, participate in cross-sector problem solving and connect with other sustainability professionals. The next GSBQ event takes place in London at One America Square on 22 September and will address the rapidly changing role of brands. A panel of experts will be exploring brands, sustainability and the empowered citizen.

For more information and to apply for a free place at the next GSBQ, please visit www.lexisurl.com/iema8322.

Conference sponsorship opportunities

Exhibition The IEMA "Sustainable business: environmental professionals driving change" conference is now less than five months away, with more and more names being added to the workshop, exhibition and sponsor list each week (see pp.34–35).

There are still some sponsorship and exhibition opportunities available which will profile your organisation to more than 300 environment professionals and business decision-makers. The remaining openings are across several formats with varying levels of marketing exposure and delegate interaction.

To find out more and to discuss your options, contact David Bain at d.bain@iema.net or 01522 540069.

Procedure update

Conduct As required by its articles of association and in order to uphold its code of conduct, IEMA requires a disciplinary procedure. IEMA's Professional Standards Committee has reviewed and updated the procedure for 2011. It is available at www. lexisurl.com/iema8323.

More successful IEMA members

IEMA would like to congratulate the following individuals on the success of their Full (MIEMA) and Dual (MIEMA and CEnv) membership applications.

Full

John Barraclough, JB Enviro **Ben Coombes**, London Borough of Bromley

Robert S Duncan, Mabbett and Associates

Amy J Gray, University of Aberdeen Nicholas Pincombe, UE Associates Caroline Thomson, Fine Organics Andrew Townsend, Bristol City Council

Dua

Maria Kolodnytska, Magnox Alan Krailing, Magnox Jackie Lavender, Royal Haskoning Rachael Riley, Network Rail Sarah White, Jacobs Engineering

Passionate about the profession

Results of the IEMA environmental skills and talent survey

Survey The environment profession is certainly one that is on the move. As the environment makes its way to the centre of decision making in organisations and the rising cost of resources continues to present challenges and opportunities for organisations, the role of practitioners is evolving.

IEMA has recently established that the profession is attracting individuals from a range of backgrounds who boast a winning combination of valuable, transferrable skills. At the start of June, IEMA surveyed all UK Graduate, Affiliate, Associate, Full and Fellow members to assess the key reasons for choosing the environment as their field of choice and the skills and experience required to succeed. Through the responses, IEMA has been able to reveal the number of those who have always worked in environment roles and how many had joined the profession from another sector.

More than four in 10 respondents (42%) have always worked in an environment role, while 36% describe themselves as a "career changer"*. The survey results reveal that the latter had left another sector to take up an environment role, some after a period of retraining. Those entering the profession left roles in a variety of sectors, including engineering, manufacturing and IT, to enter the environment profession – 44% of whom switched after more than 15 years in their previous role.

What remains consistent throughout these two largest groups of members lifelong environment professionals and career changers – are the "hearts and minds" motivations for joining the environment profession in the first place. More than 55% of all respondents declared that they entered the profession because they either wanted to make a difference or had a personal interest in the environment and sought a job that reflected this. A further 12% stated that they found themselves in an environment job because the "environment became vital to the development of an existing role", while an additional 7% said that they chose an environment career because the environment is "central to the future of the economy".

The creation and launch of the competency framework (as featured in *the environmentalist* last month) demonstrates that knowledge, skills, learning and experience go hand-in-hand in the career development of anyone working in the environment profession.

Because the profession in general has high standards of environmental knowledge – previous research has found that more than four out of five have a bachelor's degree or higher – there are a number of different qualifications available to those wishing to move into an environment role, from GCSE all the way up to doctorate. Many career changers responding to the survey undertook a vocational course of study to upskill and assist their transition, with more than one-third doing a masters degree, postgraduate certificate or PhD.

The survey – generated only by IEMA members' experiences – demonstrates the dynamic nature of the profession from many angles. Claire Lea, IEMA's director of membership services, commented: "This latest survey of our members reflects what members have previously told us in our day-to-day contact with them: that environment practitioner

roles are on the move, providing new and exciting career opportunities. People entering and progressing through the profession are bringing a wide range of management and leadership skills to complement their sound environment knowledge.

"It is these environment practitioners – IEMA members – who are uniquely positioned to identify opportunities to add value, drive cost savings, and, ultimately, deliver change."

The survey findings have enabled IEMA to further inform the media about the environmental profession (see www. lexisurl.com/iema8409 to find links to several articles). This is only the start of more work in this area on the topic of environment talent and skills.

IEMA would like to thank the 1,622 members who took part in the survey. If you were unable to take part this time, please take the opportunity to add your voice to our next round of research.

* The remaining respondents were either recent graduates who had yet to take up a practitioner role or were unsure how to define their career history.

IEMA EVENTS

Date	Region	Topic
Regional ev	ents	
26 July	Midlands	EIA workshop
26 July	North West	Green drinks (Chester)
27 July	South East	EIA workshop
28 July	Republic of Ireland	EIA workshop
29 July	Northern Ireland	EIA workshop
3 August	Scotland Central	EIA workshop
3 August	South East	Social networking
4 August	Scotland North	EIA workshop
5 August	Yorkshire & Humber	EIA workshop
11 August	South West	Social (Southampton)
CPD worksh	ops	
17 August	South East	Data management

Conference: putting environment professionals in the driving seat

Conference The skills, talent, knowledge and thought leadership of environment professionals are helping to lead business change.

Last month's launch of the IEMA competency framework (www.lexisurl. com/iema8398) enables employers for the first time to see the depth, complexity and value of an environment professional's skills. But the business community and environment professionals still face many challenges, from the transition to a low-carbon economy to understanding the limitations of operating within the natural capacity of the planet.

In November, IEMA's "Sustainable business: environmental professionals driving change" conference will focus on how environment professionals can play a vital role in helping business and organisations meet these challenges and develop sustainable solutions.

The conference will attract more than 300 IEMA members, environment practitioners, business leaders and public sector decision-makers to Savoy Place, situated on London's Victoria Embankment, on 15–16 November.

IEMA chief executive Jan Chmiel will chair this year's conference and he will be joined by a distinguished list of speakers from the business world and government.

With less than five months to go before the two-day conference and just two weeks before the early bird booking discount expires, *the environmentalist* profiles the programme and the session speakers (with more to be announced) that members and other delegates can look forward to seeing in November.

Reserve your seat now The Early Bird Discount expires on 31 July!

IEMA wants to see you there in November as there is much more at the conference than the pages of *the environmentalist* can contain. So go to www.lexisurl.com/iema8324 to find out more and book your place.

Conference p	programme			
Day 1 – Tuesday 15 November				
9:00-9:45	Registration and refreshments			
9:45-10:00	Chair's welcome			
10:00–11:15	Session 1: Breaking the link between growth and impact Peter Young – Green Economy Council, Aldersgate Group Sarah Eppel – Defra			
11:15–11:45	Refreshments and networking			
11:45–13:00	Session 2: Resource management: the challenges and opportunities Miles Watkins – Aggregate Industries Andrew Bloodworth – British Geological Survey Morning workshops, seminars and case studies			
13:00–14:15	Lunch and networking			
14:15–15:30	Session 3: Optimising infrastructure within environmental limits Steve Wallace – National Grid Richard Aylard – Thames Water Afternoon workshops, seminars and case studies			
15:30–16:00	Refreshments and networking			
16:00–19:00	Contemporary issues session including VIP address, chair's comments, presentation of the IEMA Graduate Award 2011 (sponsored by Land Securities), further networking and drinks reception			
Day 2 - Wed	lnesday 16 November			
9.00-9.45	Registration and refreshments			
9:45–10:00	Chair's welcome			
10:00-11:15	Session 1: Sustainability in practice Peter White – P&G Paul Turner – Lloyds TSB			
11:15–11:45	Refreshments and networking			
11:45 – 13:00	Session 2: Reducing the impacts of products and services Professor Steve Evans – Cranfield University Fiona Ball – BSkyB Morning workshops, seminars and case studies			
13:00–14:15	Lunch and networking			
14:15–15:30	Session 3: Embedding sustainability in business Henrietta Anstey – BAE Systems Afternoon workshops, seminars and case studies			
15:30–16:00	Refreshments and networking			
16:00–16:30	Closing session with chair's comments			

Speakers at this year's conference



Jan Chmiel – Chief executive at IEMA. Jan previously held a number of senior roles in large international organisations

including Shell, the BG Group and the Energy Saving Trust.



Peter Young – Strategy director at SKM Enviros, chair of the Aldersgate Group and a member of the government's



■ Miles Watkins – Director of sustainable construction at Aggregate Industries, and an ambassador for the UK Green

Building Council.

Green Economy Council.



Steve Wallace - Global head of environment at National Grid Properties, corporate office, where he leads operations in both

the UK and US.



Andrew Bloodworth – Head of science, minerals and waste at British Geological Survey (BGS). He is responsible for all BGS

research related to mineral and metal resource security.



Henrietta Anstey - Head of environment and sustainability at BAE Systems. She is responsible for shaping strategy and direction across the global business.



Peter White – Director for global sustainability at P&G (formerly Procter & Gamble). He was a key architect of the firm's long-term sustainability vision.



Fiona Ball - Head of environment at BSkyB, where she developed and manages the communication company's environment and carbon strategy.

Paul Turner - Head of sustainable development at Lloyds Banking Group's wholesale division and a tutor

on the Programme for Sustainability Leadership.



Steve Evans - Professor of life-cycle engineering at Cranfield University and director of the EPSRC Centre for Innovative

Manufacturing in Industrial Sustainability.



Sarah Eppel - Head of sustainable products and consumers at Defra. Sarah leads work on behavioural change and

embedding sustainability into procurement.



Richard Aylard – Director and special adviser to the chief executive at Thames Water. Richard was previously director

of external affairs and sustainability.

Workshops, seminars and case studies

Sessions	A	В	С	D	Е	F
Day 1 Morning	Seminar	Seminar	Case study	Workshop	Cross-cutting core skills workshop	Professional development
11:45– 13:00	PAS 2050 revision update <i>Karen Fisher</i>	Sustainability in austerity: the way forward for the public sector Philip Monaghan	Natural England reduces its carbon emissions Paul Hinds	Getting value out of your certification body Sally Goodman & Ben Vivian	Changing behaviour in your organisation for better environmental outcomes Mark Yoxon	Hints and tips on writing your full membership paper Simon Cordingley
Day 1 Afternoon	Seminar	Case study	Workshop	Case study	Cross-cutting core skills workshop	Professional development
14:15– 15:30	Policy update Martin Baxter	TBC	TBC	Sustainable events at Croke Park Ana Inacio	Avoiding greenwash – effective marketing of goods and services Lucy Shea	Introduction to IEMA mentoring scheme Mike Lachowicz & Samual Okoreta
Day 2 Morning	Workshop	Case study	Seminar	Seminar	Cross-cutting core skills workshop	Professional development
11:45– 13:00	The future of EMS – a roundtable	Mainstreaming environment into business Airbus	Biodiversity offsetting <i>Defra</i>	Revisions to ISO 19011 Nigel Leehane	Environmental law and the polluter pays principle – does it drive sustainable business performance? Colin Malcolm	The IEMA competency framework Claire Lea
Day 2 Afternoon	Seminar	Workshop	Case study	Workshop	Cross-cutting core skills workshop	Professional development
14:15– 15:30	Standards update Martin Baxter	TBC	Incorporating biodiversity in business Aggregate Industries	Introduction to auditing Tim Watts	Environmental law and the polluter pays principle Colin Malcolm	Full membership – hints and tips Simon Cordingley

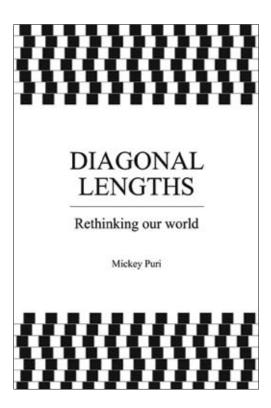


Embedded sustainability

Chris Laszlo and Nadya Zhexembayeva / Greenleaf Publishing / Hardback: £30 / ISBN: 978–1–9060–9358–7

BOOK The subtitle for this book is *The next big competitive advantage* and the issue of how to maintain profitability and economic growth in an era of rising ecological and social pressures is at its heart. The way to achieve such goals is to embed sustainability – defined as social, economic and environmental stewardship – into core business activities, with no trade-off in price or quality. The authors say that business "reality" is being shaped by three major trends: declining resources, the growing demand for transparency, and increasing expectations from investors, customers and others that businesses adhere to high levels of social and environmental performance. How to develop and implement a sustainability strategy is covered in depth, with examples from (mainly US) organisations that are already embedding sustainability. The authors make a compelling case for something that should become the norm for any organisation wanting to succeed in the future.

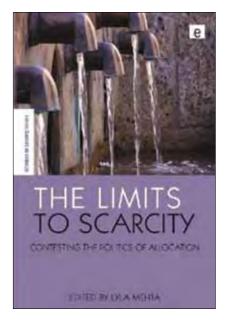




Diagonal lengths: Rethinking our world

Mickey Puri / Matador / Paperback: £14.95 / ISBN: 978-1-8487-6609-9

issues that separate human beings, analysing religious, racial, political and national divides, then suggesting bold ways to bridge them. Depending on your perspective, his solutions are either refreshing or naïve. Not that Puri is any kind of Forrest Gump; the chapter on climate change ranges across topics such as personal carbon taxes and realistic costing of the world's emissions with some confidence. His big plan here to curb warming is the creation of a global Climate and Atmosphere Stabilisation Executive, licensed by, but independent of, the world's governments, which would "own" the atmosphere and take over its stewardship. It's heady, idealistic stuff and it would be sad if the idea with the most impact in the book is the one that inspired its title, that alone in a small swimming pool you get more value swimming diagonally.

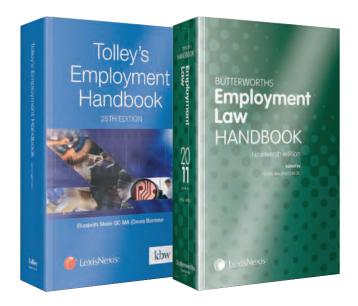


The limits to scarcity: Contesting the politics of allocation

Edited by Lyla Mehta / Earthscan / Paperback: £19.99 / ISBN: 978–1–8440–7542–3

BOOK Media sound bites raise the spectre of the looming scarcity of food, oil and water resources, leading to images of famine and ever increasing prices for commodities – but are these scenarios inevitable? The authors of this book provide an alternative view to the seemingly all-pervasive concept of resource scarcity, which they imply is contrived by the monetising of once common goods, such as water, by corporations and governments in an effort to manage the distribution of resources effectively – in most cases without the acknowledgment of pre-existing rights and arrangements of local groups or individuals. Gently introducing the concept of scarcity and its historical link with economics, the book explores its influence on issues from energy policy in the US to water management in Nepal. In the process it convincingly debunks the myths underlying our contemporary view of scarcity.

Review by Lowellyne James



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Sylvie Sasaki

Environment manager, Royal Mail Group

Why did you become an environmental professional?

I became an environmental professional because it is relevant, interesting, innovative and the future. The environment puts professionals in a position where they can influence an organisation to reduce, stop or reverse its negative impacts on the planet and be more thoughtful about its actions.

What was your first environment job?

My first assignment was with ICI Paints, where I helped the innovation team design a streamlined life-cycle analysis tool. The tool was a quick (and cheap) way of understanding the unsustainable parts of the paint life cycle.

How did you get your first environment role?

I had an intense period of seeking opportunities through job hunting, networking, making use of contacts etc. I was also clocking up as much experience as I could by volunteering for environmental charities. I even recorded my household waste for three months for an audit study my local authority was undertaking.

How did you progress your environment career?

I think it's important to be able to offer breadth and depth of experience. I got involved with new projects that would build on my knowledge and experience and lead to further opportunities. It's important to take yourself out of your comfort zone to achieve progress.

What does your current role involve?

I work in-house as a carbon management expert. It means turning my hand to everything and anything carbon-related, such as offsetting, life-cycle analyses, and footprinting. Right now one of my responsibilities is looking after Royal Mail Group's Carbon Reduction Commitment Energy Efficiency scheme compliance, ensuring we don't pick up any fines!

What's the best part of your work?

I love the variety, people and new concepts. I work with a range of teams – for example, procurement, finance and commercial – across the different Royal Mail business units on a number of projects. As an environmental expert, I need to keep my knowledge constantly topped up because the postal sector is changing rapidly.

What's the hardest part of your job?

Seeing potentially unsustainable projects gain approval – in this day and age! The cluttered and changing policy landscape can also make it tricky to sell the message.

What was the last development/ training course/event you attended?

A "PeopleProfitPlanet" breakfast seminar run by InterfaceFlor, the US multinational that manufactures carpet tiles and which has a mission to put sustainability at the heart of its business. Its sustainability strategy – "Mission Zero" – aims to eliminate by 2020 any negative impact the company might have on the environment.

What did you bring back to your job?

Three main things:

- 1. You need a powerful mission.
- 2. Give sustainability status.
- 3. People have different doors to sustainability.

What is/are the most important skill(s) for your role, and why?

Project management, managing risks and stakeholders, communications, budgeting, and strategy and planning are just a few of the skills I need in my job. Being able to create a compelling sustainable business case is key these days too.

Where do you see the environment profession going?

At the moment I see the profession going through a period of redefinition



CAREER FILE

QualificationsBSc (Hons), MSc, MIEMA

Career history

2008 to now:

Environment manager, Royal Mail Group

2006-08:

Waste and environmental policy officer, Spelthorne Borough Council

2005-06:

Recycling officer, London Borough of Richmond upon Thames

2004-05:

Project officer, ICI Paints

and emerging more integrated into business. There's going to be a need to put words into action and demonstrate how sustainability can really add value.

Where would like to be in five years' time?

At the heart of new sustainable technology and innovation.

What advice would you give to someone considering going into the environment profession?

Pick up as much experience as possible, make contacts and know what the latest issues are for the area you want to get into.

Tell us about your career

The "my career" page aims to inspire other environmental professionals by showing how an individual has progressed her/his career. If you have a career story you'd like to share with your IEMA colleagues, please contact sarah.russell@lexisnexis.co.uk

Waste Management... Minerals...

Renewable Energy... Landscape & Ecology...

Crestwood Environmental Ltd.
The Technology Centre
Wolverhampton Science Park
Wolverhampton
WV10 9RU

Tel: 01902 824 037





The Company

Crestwood Environmental Ltd. is a well-established multi-disciplinary environmental consultancy, with a small friendly team of professionals, serving a number of sectors in the UK, Ireland and beyond, from our centrally-located base in Wolverhampton.



Particular expertise is held for the waste management, minerals and renewable energy sectors, with the Company regularly working on various survey, environmental planning, assessment, design, aftercare and monitoring projects.



Projects and Services

The Company provides a number of services including:

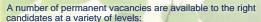
- Planning Applications and EIA Co-ordination
- Environmental Permit Applications
- Landscape and Visual Impact Assessments
- Landscape Design and Management Plans
- Ecology Surveys and Assessments
- Environmental Monitoring
- High Quality Presentation Drawings
- Visualisations and Photomontage
- Contract Administration and CQA
- Environmental Training





Current Vacancies

The Company is expanding its skill base in a number of areas allowing the provision of a wider range of services relating to land development, EIA and environmental management.



- Mineral/Waste Planner (Senior level)
- Waste Management Specialist (Senior level)
- EIA/SEA specialists
- Ecologists
- Hydrologist/Drainage Engineer (Senior Level)
- Environmental Engineers
- Environmental Consultants (Odour, air, noise)
- Landscape Architect (Mid level)
- Geotechnical Engineer
- 2D/3D CAD and Visualisation Specialist

information, please call us on the above number



A full driving licence will be required. An attractive package will be made available to the successful candidates, commensurate with experience. To apply, please send a c.v. and covering letter for the attention of Sid Lambert or, for more

Closing date: 15th August 2011

Web: www.crestwoodenvironmental.co.uk



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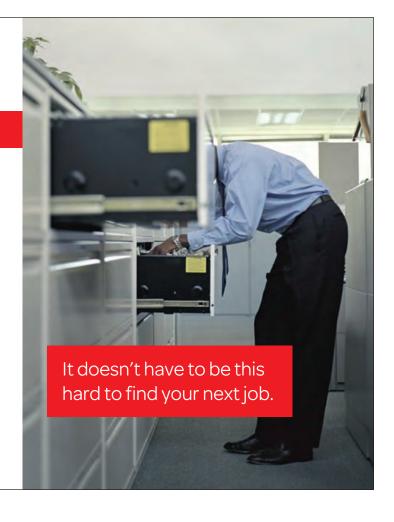
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