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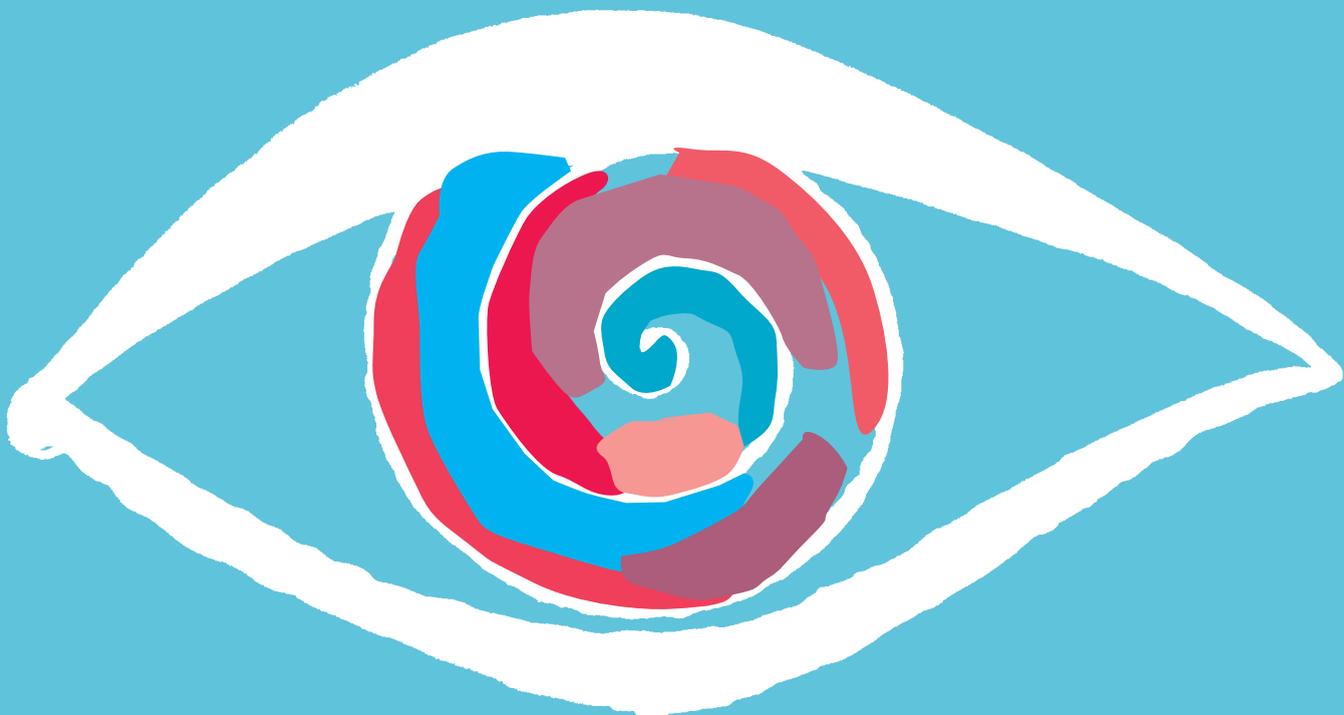
learning
and skills
development
agency

research report

sustainable development in the learning and skills sector

national baseline survey

Stephen and Maureen Martin, Judith Cohen and Rodrigo Correo



sustainable development in the learning and skills sector: national baseline survey



Sustainable development is about enabling people to satisfy basic needs and enjoy a better quality of life without compromising that of future generations. This survey sought to assess how education and training providers are dealing with the sustainable development agenda. The report is a snapshot, rather than a detailed review, of current policy and practice, but it provides the first assessment of how LSC-funded providers are tackling sustainable development, and a benchmark for stimulating further development.

If this report is relevant to the work you do, you may also be interested in:

Contributing to sustainable development: Centres of Vocational Excellence (041695)

This 2004 report assesses the contribution that the CoVE programme is making to sustainable development.

CoVEs focus on future skills (052270)

The project built on the work analysed in the above publication. The CoVEs chosen were those that had established strong employer links and developed business contributing to sustainable development, featuring work in partnership with employers, Sector Skills Councils, professionals, trade organisations and other sector groups.

LSDA Reports: Opportunities for sustainable development in the learning and skills sector: a policy analysis (041679)

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Executive Summary

This report outlines the results of a national survey on current practice in sustainable development in the learning and skills sector. The survey was carried out following the publication of *From here to sustainability* – the Learning and Skills Council strategy on education for sustainable development. The survey assessed how sustainable development was being addressed in four key areas:

- leadership and management
- buildings and estates
- teaching and learning programmes
- community and business.

There is evidence that the learning and skills sector is making progress on implementing the sustainable development agenda in most areas.

Leadership and management

Over half of the providers responding have a policy for sustainable development, and many more carry out audits of resource use. Where there is evidence of good practice it is supported by visionary leadership. Sustainable development champions or advocates make a significant contribution to managing change processes. Few providers report on their overall performance in putting sustainable development into practice, particularly in their self-assessment reports on quality.

Buildings and estates

Most providers are attempting to incorporate more environmental features into new build and refurbishment projects. Cost remains a major challenge, and very few have been able to incorporate more innovative alternative energy generating systems. Many providers are proactive in seeking solutions to more sustainable procurement processes, recycling and travel plans. Few providers have adopted a formal environmental management system.

Teaching and learning

Almost 70% of respondents say that they are embedding sustainable development into teaching and learning programmes. Awarding bodies could aid progress by reforming accredited courses to include sustainable development.

Community and business

Few of the respondents are collaborating with environmentally and socially responsible employers in their areas. Most providers had limited awareness of how local businesses were taking the sustainable development agenda forward.

Ten case studies highlight good practice drawn from providers across the learning and skills sector – general further education colleges, work-based learning providers, specialist colleges, sixth form colleges and adult and community education providers.

Introduction

A national survey on current practice in sustainable development (SD) in the learning and skills sector was initiated in December 2005. The survey was conducted by the Learning and Skills Development Agency (LSDA) on behalf of the Learning and Skills Council (LSC) and in response to the LSC Strategy on Education for Sustainable Development – *From here to sustainability*¹, published in September 2005. The strategy sets out a challenging agenda, along with targets and milestones for education and training providers and the LSC relating to the key areas of: positioning the sector, buildings and estates, curriculum and community.

Sustainable development is about enabling people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. It is about achieving economic, social and environmental objectives at the same time.

The UK's sustainable development strategy, *Securing the Future*², published in 2005, sets out a clear commitment by government for '*improving the knowledge and skills base of everyone, including professionals and others in the workplace, to make "sustainability literacy" a core competency*'. In addition, the government is committed to implementing the United Nations' strategy for Education for Sustainable Development (ESD), which underpins the UN Decade for ESD, running from 2005 to 2014.

¹ <http://readingroom.lsc.gov.uk/lsc/2005/ourbusiness/strategy/from-here-to-sustainability-lsc-strategy-for-sustainable-development.pdf>

² <http://www.sustainable-development.gov.uk/publications/uk-strategy/index.htm>

Why carry out a survey?

The survey sought to assess how education and training providers are dealing with the sustainable development agenda. In particular, it focused on how SD is being implemented in the following areas:

- governance, leadership and management processes
- managing building and estates
- embedding sustainable development into teaching and learning programmes
- engagement with the wider community.

By undertaking this survey, the LSC wished to identify and disseminate good practice in approaches to embedding SD into the policies and practices of LSC-funded organisations as well as identify emerging issues in respect of its implementation. It assessed what support might be required to widen and deepen the embedding process. The report is a snapshot of current policy and practice, and not a detailed review. Nevertheless, it provides the first assessment of how LSC-funded providers are tackling the challenge of SD, and provides a benchmark for stimulating further development.

Methodology

The survey questionnaire (see Appendix) was sent to 1244 institutions, and 151 were returned. In addition, 10 institutions or organisations were selected for follow-up visits. The visits were largely in proportion to the responses received by *category* of institution and aimed to achieve a geographic spread. The selection process entailed analysing the returned questionnaires using key words to indicate a range of emerging good practice. The visits fell into the following categories:

- 5 General FE colleges
- 2 work-based learning providers
- 1 specialist college (land-based)
- 1 sixth form college
- 1 adult and community learning provider.

During these visits, elements of good or emerging good practice in SD were explored in a number of broad areas:

- organisational policy, practice and governance
- building and estates, design and management
- staff development
- curriculum development
- health
- procurement
- engagement with employers
- engagement with local community groups and initiatives.

The visits explored innovative practices which can contribute to reducing greenhouse gas emissions from the operations of the institution (eg energy conservation, building design, travel plans and local procurement). It also explored the integration of sustainable development principles and practice into courses and course materials. Some examples of emerging good practice in Centres of Vocational Excellence³ (CoVEs) were identified in the LSDA Research Report – *Centres of Vocational Excellence: contributing to sustainable development (2004)*⁴.

Survey results

1) Distribution of responses

The overall response rate to the survey was just over 12%.

The response rate of the major categories of provider is represented in the table below.

Category Type	Total Number	Respondents	Response Rate %
General FE	417	87	21
Sixth Form College	109	19	17
Adult & Community Learning	209	19	9
Work based Learning	509	25	5
Not identified		1	
	1244	151	12

Specialist colleges (eg land-based and art and design colleges) fall within the General FE (GFE) category, and in some instances, through merger, some GFE colleges provide both specialist provision as well as sixth form college provision. Hence the categories in a few instances overlap.

³ CoVEs aim to develop the skills and careers of those already in work, and to enhance both the employability of new entrants to the labour market and the employment prospects of those seeking work (including self employment).

⁴ See <https://www.lsd.org.uk/cims/order.aspx?code=041695&src=XOWEB>

2) Responses to key questions

A. Leadership & Management		
	% Yes	% No
Do you have an SD policy or plan?	52	48
Does your organisation report on its performance in SD?	30	70
Does your organisation have SD champions?	33	67
Have you undertaken audits of consumption & management of energy, water and waste?	69	31
Are you planning to implement an environment management system (EMS)?	41	59
B. Buildings, estates & procurement		
Do some of your buildings through their design and operation demonstrate good practice in SD?	50	50
Are your sites designed to encourage biodiversity?	45	55
Does your organisation implement procurement practices that reflect social & environmental as well as economic aspects?	49	51
Does your organisation support local markets and/or promote Fair Trade?	62	38
Does your organisation have a travel plan to reduce the environmental impact of travel?	51	49
C. Curriculum		
Are you embedding any SD concepts or approaches into any of your organisation's courses and programmes?	67	33
Do you use currently available SD learning materials or are you developing SD programmes and modules?	34	66
Have you implemented, or are you considering implementing any aspects of a 'healthy college' programme?	69	31
D. Employer relations		
Does your organisation actively seek to work with socially and environmentally responsible employers?	31	69
Have employers adopted an environmental management system?	15	85
Have employers adopted corporate social responsibility policies?	17	83
E. Community relations		
Have you developed networks at local or regional level specifically designed to promote SD?	28	72
Do you share facilities with local community agencies or groups?	75	25
Do students undertake volunteering activity as part of their learning programmes?	77	23

Leadership and management

Overall, 52% of institutions have an SD policy, and while 69% have undertaken audits of resource use, only 30% report on performance.

*Of the 48% who **do not** have an SD policy, 61% of those have undertaken audits of resource use.*

Where there is evidence of good or emerging good practice it is firmly underpinned by strong and in some instances visionary leadership at executive level, and within the governance of the

institution or organisation. Most policy documents emphasise the environmental aspects of sustainability with less emphasis on an integrated approach to the environmental, social and economic dimensions of SD. Few institutions report on their overall performance in putting SD into practice. For example, there was little emphasis on SD in self-assessment reports on institutional quality. In most institutions there is a significant and understandably pragmatic emphasis on cost. Hence, any new build or refurbishment is rigorously scrutinised for both environmental and occasionally SD performance, but in all cases the cost imperative wins. There is now wide recognition of 'invest to save' particularly in energy resource use, but current funding constraints and regimes do not encourage some of the 'investment' identified. All new build and refurbishment meets legislative requirements – building regulations, health and safety and disability discrimination legislation.

In a few instances, the strong support from individual governors has led to a significant reinforcement of the organisation's progress in implementing sustainable development – in one case supporting a partnership with a national company seeking to implement a biomass energy system and in another in seeking support from the local authority in securing more effective recycling and waste management opportunities.

In nearly all institutions there is a growing recognition of the need to measure consumption of non-renewable as well as renewable resources. Energy, water and waste are now being regularly monitored, and in some instances in some detail. In one case, energy costs 2% of total budget and is growing. However, because baselines have not been defined and are, in many instances, difficult to define because of the huge changes taking place in the sector, their current use as a management tool is relatively limited. Nevertheless, most institutions visited have an energy and resource use committee with wide-ranging representation (in one case 27 representatives) which takes an active role in mitigating the impact of waste and water use and seeks to reduce energy use through positive awareness-raising campaigns and signage.

Communication has a key role to play in making sustainable development approachable and understandable. It is clear from this survey that informed, motivated and committed people can progress their sustainability goals more effectively. Communications need to reflect content, timing, the medium, style and the messenger conveying the message. Messages should be inspiring and make sustainability fashionable and even 'cool'.

How many of you report leaking taps in the college? Recently a tap in the college that had been dripping for a while worsened to a very slow trickle. The tap wasting half a pint of water per minute and left unnoticed or not reported for a year would waste 33,000 gallons of water. This quantity of water in pint bottles would stretch over 20 kilometres and for the athletes among you this is almost the distance of the Great North Run. You can make a difference.
(Derby College, Environmental News)

Some institutions use newsletters to report on energy and resource use and savings, another uses 'green' email alerts. This reinforces the message that conservation is a shared responsibility, and highlights what staff and students can do individually.

Few of the institutions or organisations have adopted a formal environmental management system. Indeed, there is some reluctance to adopt ISO14001 because it has no clear targets, milestones or endpoints. Some informal systems of environmental management are beginning to emerge. In some cases, building management systems (BMS) have been installed, but these are still in their infancy in terms of monitoring, evaluation, target setting and improving performance as an *integrated management approach*. In a few instances, the executive leaders are taking external university programmes in SD as part of their own staff development, but most supported the idea of a national programme which incorporated the principles of SD, along with examples of integrated management approaches.

33% of all respondents have SD champions.

Sustainable development champions have been recruited or appointed in a number of instances. One college currently has 32 – two from each division or service – who act as advocates and activists, and are undertaking an accredited staff development programme offered by a local university to assist them in this role. In some cases the role of champion is within the senior management team and a number are in the estates team. In one college, the union questioned the role of champions and wanted to ensure that additional resources would accompany additional responsibilities.

Buildings, estates & procurement

Overall, at least 45% of all respondents are addressing aspects of SD in this area.

*Of the 48% of respondents who **do not** have an SD policy, there is evidence that some aspects of the agenda are gaining prominence. For example, 43% of these have travel plans; 56% of these support local markets and/or Fair Trade.*

Most colleges are seeking to incorporate more environmentally sustainable features into new building and refurbishment. In several Centres of Vocational Excellence (CoVEs) a range of new

technical and general teaching facilities have been built in the last few years. These buildings have been built to exacting and high-energy efficiency standards and hence comply with current building regulations. Orientation of buildings has been considered to maximise natural lighting; underfloor heating and natural ventilation is incorporated into some new builds. However, in large part, due to cost, few of these new builds have been innovative in applying new technology in the form of alternative energy systems. A number are considering biomass energy converters, but few have considered wind generators or solar alternatives. Rainwater harvesting had been installed in one new build. Many institutions have a legacy of older buildings, and many are taking the opportunity through grant aid and loans to refurbish these buildings to a higher standard and ensuring accessibility for those with disabilities, thus enabling improved social inclusion from among their wider community. In some instances, double-glazing has been installed for energy saving; in some cases motion sensors instead of switches control lighting. In one case, energy use in a particular building was being monitored in an attempt to see if reductions could be made through a revision in timetabling (eg could all evening classes be conducted on one or two floors instead of over three, as at present). Another college is seeking ways to accommodate those wishing to use its buildings for weekend use into one building rather than opening and heating a range of buildings.

Reducing the environmental impact of buildings and estates:

- use of water-based paints in all refurbished and redecoration programmes (New College Durham)
- managing up to 24 waste streams and recycling many (Commando Training Centre Royal Marines)
- choosing green energy sources (Sparsholt College and Bucks. Adult Learning)
- integrating energy management into the management structure and clearly delegating responsibility for energy use (Derby College)
- opening formal and informal channels of communication between energy management and staff at all levels (Hull College, Shipley College).

Nearly all institutions are taking a pro-active and in some cases creative approach to procurement of a wide range of materials and equipment. Innovative practice in one college using online bidding, resulted in the purchase of high-spec IT equipment valued at £50K for £250 (plus shipping). Some colleges are also working with a global company in catering to encourage purchase of local food produce. A number of institutions are using or seeking to use the Office of Government Commerce (OGC) for energy purchase, and at least one is a member of the Crescent Purchasing Consortium organised by the Environmental Association of Universities and Colleges⁵ (EAUC). One college outlined the policy for acquiring flat-screen monitors (TFT) for computers, as new purchases or replacement, as these use 30% less energy than the traditional cathode ray tube (CRT) monitors. The environmental impact of TFTs is much less, as the lead

⁵ www.eauc.org.uk

component consists of a few grams of solder and not up to the 2 lbs of lead contained in some CRTs. Another college is investigating the purchase of non-directional carpet tiles which can be moved around to distribute wear and thus extend their life. The carpet tiles are made from recycled materials and 100% green energy, sourced from a company with a significant reputation in the sustainable development field.

In most institutions, paper recycling is a dominant theme. Bottles and cans are also routinely recycled. There is still very little emphasis in most on other waste streams such as batteries, food waste, plastics, etc. There is overall concern to reduce waste going to landfill. Innovative practice in one college with a refurbishment and new build programme was to retain construction waste on site, hire a stone crusher and use the resulting aggregate in the new build, thus saving £40K. In respect of the disposal of its IT equipment, one college contracts with a local company which collects and refurbishes the equipment for further use.

Most institutions have or are beginning to develop and implement travel plans; many actively support car sharing by providing car parking incentives. Others are working in wider local authority transport initiatives to reduce car use and promote either cycling or use of public transport. Many of these initiatives are still in their infancy, and are subject to variations in pricing by the local authorities. One college has negotiated a bus service for its students over a wider area, and as a result this has provided transport for nearby villages which otherwise would not have a bus service.

Some car sharing schemes are making use of sophisticated software packages linked to Global Information Systems (GIS) to identify potential sharers. Some schemes are district-wide and web-based. The most effective green travel plans involve significant promotion through a range of channels as well as holding promotional events such as 'Try a bike' day or 'Leave the car at home today' or 'Ride for health'.

Curriculum

Overall, 67% of respondents report that they embed some SD concepts or approaches into some of their courses & programmes.

*Of the 48% of respondents who **do not** have an SD policy, 62% of these report that SD concepts or approaches are embedded into some of their programmes; and 67% are implementing or considering a 'healthy college' programme.*

A high proportion of respondents (nearly 70%) said they were embedding concepts or approaches to SD into existing courses and programmes. A rather more mixed picture emerged

from the institutions visited. In a few instances, the process of integration was clearly under way, and in some specialist land-based colleges the emphasis on environmental sustainability through countryside management courses, agriculture and horticulture programmes and some construction programmes was clearly evident in course handbooks, learning materials and library resources more generally. However, even here the wider concept on which the sustainability agenda is based was less evident. There were generally fewer examples of taking a wider and more holistic approach to sustainable development in the institutions visited. Some colleges are addressing the agenda through Citizenship Programmes, group tutorial work, and Personal and Social Development (PSD) programmes. One college had used the NCFE programme as a cross-college approach and had found the approaches useful, but, as a Level 1 award, generally less applicable for high-level provision. The absence of higher-level generic provision is a barrier to a wider adoption of SD in most institutions. In addition, the awarding bodies have an important role to play in changing their accredited curricula.

Employer relations

Overall, 31% of respondents actively seek to work with socially & environmentally responsible employers.

*Of the 48% of respondents who **do not** have an SD policy, 25% of these actively seek to work with socially & environmentally responsible employers.*

The survey revealed a generally limited response to the question of whether institutions were actively seeking to work with environmentally or socially responsible employers. This was also confirmed in the institutions visited. Hence, while there were a few institutions who could identify some employers in this category with whom they had some engagement, in many instances there was limited awareness of which employers in their area were taking a more pro-active stance in response to environmental or social issues.

Community

Overall, 28% of respondents have developed networks to promote SD. Many more (75%) share facilities with the local community and 77% of students undertake volunteering activity.

*Of the 48% of respondents who **do not** have an SD policy, 71% share facilities and 76% have student volunteering activities.*

Many respondents to the survey said that they shared facilities with local organisations. Some of these were organisations responsible for local nature reserves or local environmental groups and therefore the institution was able to contribute to the debate about local and regional

conservation issues. Some colleges visited were members of the Environmental Association of Universities and Colleges (EAUC), and most were positive about the benefits of belonging to a wider network which could offer mechanisms for sharing good practice. Nevertheless, there was some discussion about how the EAUC might help lead the sector in offering baseline energy consumption data and more generally benchmarking frameworks for different types of provider.

Emerging issues and recommendations

Curriculum

Many institutions visited commented on the greater awareness of the SD agenda in their student recruits. Many courses had yet to develop sufficiently to maximise the opportunities offered by this raised awareness. This reflects the limits placed on the curriculum by external examining bodies. LSC-funded providers are not wholly free agents in deciding what they teach, and must meet requirements laid down by national examining, validating and accrediting bodies.

It is therefore essential that all parties concerned with current and future qualifications in the learning and skills sector should ensure that systematic consideration be given to the inclusion of sustainable development issues affecting all taught programmes and that these are set within an appropriate theoretical and practical context.

Monitoring, measuring and management of resources

Few institutions seem to have the capacity and in some instance the expertise to manage resource flows (energy, water, waste, materials, etc) through the institution. Managing resources is taken to mean monitoring consumption over time and mitigating the environmental, economic and social impacts of some of their activities. One institution has a planned spend of £3m to replace heating systems in a number of its buildings and to include effective controls, monitoring and reporting systems.

In order to support the wider adoption of more sustainable energy and resource use within organisations, it is important that adequate priority and resources be allocated to develop integrated energy and resource management systems which set demanding but achievable targets.

Employer engagement

This area of potential activity is generally very limited, and general awareness of the environmental or social performance of local employers is low.

If LSC-funded providers are to meet the government's skills agenda of greater engagement with employers, then there will need to be a greater emphasis on understanding the current drivers of business strategy and practice. Nowhere is this more evident than in the drive by businesses to develop more sustainable production and consumption processes⁶. In part this is driven by environmental legislation, but there is also a positive correlation between good environmental and social performance and company financial performance.

Leadership

There is no common route to leadership in those institutions in which substantial progress has been made on the SD agenda. Most leaders are self-selecting, because of a personal interest, and so continue to champion the SD agenda, often without formal professional development. Nonetheless, there are individual examples where the leadership is well informed, and effective in leading the implementation of a complex process of change.

There is no recognised leadership programme aimed at staff in the learning and skills sector. The Centre for Excellence in Leadership is starting to take a lead in addressing this issue to support the embedding of sustainable development in the way envisaged in the LSC SD strategy. This programme should be based on a shared conceptual understanding of the principles of sustainability and draw on the growing number of examples of good practice emerging in the learning and skills sector (see case studies) as well as from the corporate and voluntary sectors.

Conclusions

This survey highlights some of the emerging good practice in implementing the sustainable development agenda in LSC-funded organisations. Most of those visited exhibit elements of good practice which is set out in more detail in the case studies which follow. However, it is important to note that all of those visited stress that they are still at an early stage in their implementation of their respective strategies on sustainable development. Hence this report can only provide a snapshot of a dynamic process. In most of those institutions in which progress is making a real difference there are a number of defining characteristics:

- a strong emphasis on explicitly shared values and vision
- a commitment to the process being inclusive, involving all stakeholders – staff, students and the wider community
- well-informed and visionary leadership who themselves are part of a ‘learning process’
- clear and inspiring communication, including sustainability champions
- strong emphasis on sustainable energy and resource management, including transport

⁶ Martin, Cohen, Martin (2004). *Opportunities for sustainable development in the learning and skills sector: a policy analysis.*

- regular and rigorous appraisal of progress
- an integrated and systemic approach across the whole institution.

This audit has given the LSC a basis for:

- exploring activity that is within the reach of the sector
- exploring ideas about extending this reach
- providing a snapshot of sector activity at the moment, so that comparisons and distance-travelled can be analysed after an appropriate time period.

Case Study 1: Commando Training Centre Royal Marines

Key features:

- encouraging biodiversity
- community engagement
- energy and waste management.

The Commando Training Centre Royal Marines (CTCRM)⁷ is located in one of the most beautiful areas in South Devon. It occupies 38 hectares on the Exe Estuary. Its role is to train regular and reserve new entry personnel for service within units of 3 Commando Brigade and other operational units of the Royal Marines Command, as well as providing an extensive package of continuation courses which enhance infantry and commando skills. There are over 2000 personnel on the site on a daily basis, including permanent staff, new recruits, and other service personnel on short training courses, many in residence on the site. In addition, there are contractors working on the site.

The Exe Estuary is a Site of Special Scientific Interest (SSSI), one of the Ministry of Defence (MOD) estate's 179 SSSIs. Training exercises take place on Woodbury Common, and have done so since Napoleonic times. The Common is another SSSI, and designated an Area of Outstanding Natural Beauty. Military training in such sensitive and important sites poses major challenges to the staff and the local community.

Sustainable development leadership and commitment in managing the biodiversity, environmental and conservation issues and community relations is demonstrated in a number of ways at CTCRM:

- Sustainable development champions are designated.
- A biodiversity corridor within the perimeter fence along an old lane and hedgerow has been created; the 'Tarzan Course' has been created within this area.
- Nesting boxes are sited within this area and other strategic locations.
- Mature trees are maintained on the open spaces within the site.
- A site conservation dossier is maintained.
- Bat hibernaculums have been created on Woodbury Common through conversion of World War II buildings.
- There are links with the Cat Protection League to monitor feral cats on the site.

⁷ lscrmcat@btconnect.com

- There is a partnership project with the Royal Society for the Protection of Birds (RSPB) to install a webcam to view the breeding colony of kittewakes at Straight Point on MOD ranges to raise awareness and understanding of these important gulls.

A Conservation Group has been set up with representatives from a range of local interests:

- county archaeology department
- birdwatching, and moth and butterfly preservation groups
- Plymouth University
- Devon biodiversity records office.

Staff from CTCRM meet regularly with local conservation groups, particularly the Exe Estuary Users Group, and staff and recruits take part in the Clean up of 'Exe'.

Training for all new recruits includes a session on the conservation issues on Woodbury Common and their responsibilities in restoring and maintaining these sensitive sites during and following training exercises. Trainers observed that their recruits are already sensitive to these sustainability issues when they arrive, and this addition to their training programme builds on and enhances their existing awareness. Their training also includes NVQ Modern Apprenticeship in Public Service, which includes 'Working with Others' together with basic skills.

There is an effective energy and waste management strategy and operation. The 'Energy Efficiency' committee, with a wide-ranging membership from building managers, IT manager to welfare officers and emergency services, ensures a wide buy-in to the agenda. The institution manages 24 separate waste streams, including batteries, used oil, printer cartridges, metal, photographic paper, furniture, IT equipment, light tubes, fridges, building waste, cardboard and green waste. A number of streams are recycled, and a composting area is on site.

Case Study 2: Somerset College of Arts and Technology

Key features:

- values-led institutional approach
- leadership and management
- sustainable construction.

Somerset College of Arts and Technology⁸ (SCAT) has developed a wide-ranging and innovative strategy for sustainable development. The principles of the strategy are clearly articulated in the college environmental policy and its strategy for Sustainable Development Education:

The college recognises that its business activities result in both direct and indirect environmental impacts and that our responsibilities extend beyond the education and training of learners and include responsible environmental management. We are therefore committed to... reducing our direct and indirect environmental impacts. The college also has a key influencing role in promoting sustainable development through the education process.

Its policy statement includes:

- applying sustainability criteria to subcontractors and suppliers
- minimising waste
- compliance with environmental legislations
- working with key stakeholders inside and outside the institution to manage environmental impacts
- learning from and share good practice
- reporting annually on progress.

These objectives are also reinforced through the college's statement of values which is given prominence throughout the campus on notice boards, and in the prospectus and website, which states that Somerset College is a learning community that:

- encourages all its members to embrace challenging learning goals to realise their full potential as citizens in a global world
- recognises, honours and reinforces the self-worth of all

⁸ <http://www.somerset.webhoster.co.uk/index.html>

- strives for excellence
- recognises the dignity of difference and our dependence on one another as citizens in a global setting
- promotes the principles of sustainability
- respects the rights and responsibilities of individuals within the college and the wider community
- affirms the spiritual, moral, social and cultural dimension of the college experience
- is committed to ensuring that fairness and integrity underpin everything that the college does.

These strategies are promoted and led by a team of 32 self-selected sustainability champions, two for each department or service. The champions have been divided into two categories: communicators (aptly designated Tree Frogs) and activists (designated Friends of Genesis). Communicators act as primary disseminators of information to help raise awareness of how the institution is progressing the SD agenda, and participate in discussion groups and act as role models of 'sustainable behaviour'. Activists support wider college sustainable development activities, including active support for community events in the Genesis Centre, and make a personal commitment to become more aware of sustainable development issues through reading and discussion group activities. They also help other staff to make changes, and advise others.

All the champions participate in two 160-hour continuing professional development modules in sustainable development education (Levels 1 and 3) offered by the University of Plymouth. The learner outcomes of the modules include:

- an ability to demonstrate an understanding of the concepts of sustainability and SD
- an ability to demonstrate knowledge and understanding of sustainable natural, social and economic systems and their interdependence
- an evaluation of current notions of economic growth, standards of living, equity, justice and quality of life
- development of pedagogy, curriculum and assessment skills within a sustainability framework.

Central to the college's strategy is a major new initiative – The Genesis Project. This project features an innovative resource centre which demonstrates the use of sustainable construction materials and methods (see also *Contributing to sustainable development – Centres of*

Vocational Excellence). The Genesis Centre⁹ is a recognised CoVE in sustainable construction with separate 'pavilions' built from environmentally-friendly materials such as straw bales, timber, earth & clay, traditional cob and using recycled denim for insulation. The Centre draws its energy from solar panel and a biomass boiler.

The Centre provides a one-stop venue for all aspects of sustainable construction education and training and product demonstration and advice. The Genesis Project has stimulated a wide-range of curriculum activity both with the college and in partnership with local schools, and a joint foundation degree in sustainable construction with Plymouth University.

Local schools visit the centre to learn more about sustainable construction and use of alternative materials. Pupils have the opportunity to try their hand at building using mini straw bales and cob blocks. Such opportunities provide new and challenging ways of raising awareness of the current contribution that construction makes to waste (about 25% of total waste in the UK) and to greenhouse gases through energy use; buildings account for a full 50% of total energy consumption. In nursery education, children participate in activities such as digging in their garden and growing different vegetables.

They talk about saving energy in their playroom and recycle used paper. They also visit the Genesis Centre and learn about sustainable construction materials, which helps develop their environmental awareness and enhances their language skills.

⁹ <http://www.somerset.webhoster.co.uk/genesis05/>

Case Study 3: Derby College

Key features:

- energy and water management
- waste management
- building design
- green travel plans.

Derby College¹⁰ estates team provides a significant practical focus for the sustainable development agenda within the college. The environmental policy aims include:

- the development and maintenance of the environmental management system to conform to ISO14001 and to comply with relevant environmental legislation and regulations and to prevent, minimise and control pollution through the application of programmes for waste and resource minimisation
- the management and monitoring of significant environmental aspects and minimising environmental impacts arising from the activities of the college.

In practice, the college seeks 'to make sustainable development an everyday reality'. Its sustainable development policy aims include:

- the development and delivery of learning and research such that all learners are exposed to concepts of social, ecological and ethical stewardship
- investing in personnel development, valuing stakeholders involved and promoting social inclusion, equity and diversity.

The challenge of energy and water management is tackled in a systematic and effective manner. A baseline survey was undertaken in May 2004 to cover all three campus sites. The survey identified a number of areas of potential energy reduction across the three sites. A 25% reduction in energy across the college was identified as a target for 2004-05, and this was coupled with an awareness-raising campaign and staff training. Targets included: turning off computer equipment, improved lighting controls and introduction of a range of heating controls and pipe work insulation, all of which sought to save over £40K. The closure of one of the sites during this period has not made it easy to monitor and manage the consumption of energy.

¹⁰ <http://www.derby-college.ac.uk/>

From June 2003 to May 2004, the college used 45,835 cubic metres of water, costing over £30K. A further £44K was spent on sewerage. A communication campaign to raise awareness was started by the Estates team. This has focused on getting across the key message of quantity of water used – one leaking tap left unreported was estimated to be wasting half a pint of water per minute; if left for one year this would equate to 33,000 gallons of water.

Waste management

The waste budget for 2003/2004 was over £60K, since at this stage the majority of the waste went to landfill. Paper waste was a ‘staggering’ 36,500 reams, weighing in at about 90 tonnes. Following a detailed survey, the college is now introducing a ‘total waste management package’ with one contractor taking waste from all sites as well as introducing a recycling and re-use programme for paper and cardboard. The college has reduced packaging waste from suppliers of furniture and IT equipment by requiring suppliers to assemble the items at the college and remove the packaging from the site.

Building design

The Estates team recognises the effect that the college estate has in terms of its environmental, economic and social impacts. Hence, sustainable design is a key consideration in any new build project. Some of the considerations being explored in a new development at the Roundhouse complex, one of the oldest remaining railway works in the world, and a Grade II listed building, include:

- a 30% reduction in CO₂ emissions
- rainwater harvesting
- low water consumption sanitary ware
- high-efficiency biomass or condensing boiler
- passive solar heating
- investigation of ground source heat pump.

This development, like the recently opened Joseph Wright Sixth Form College building, will bring economic sustainability benefits to this area of Derby, with students and staff supporting local shops and businesses.

Green travel plans

In 2005, the college carried out a staff and student survey of current travel arrangements to and from its three sites. From the detailed survey a fully-costed comprehensive travel plan for the college has been developed with a number of benefits in mind:

- reduced environmental impact of travel by staff and students
- improved health and fitness
- reduced congestion
- cleaner air
- lower noise levels
- improved community relations.

The plan will seek to reduce the staff use of cars (81% to 65%) by 2010 and the student car use from 30% to 25% over the same timescale.

This college, with multiple sites and extensive inter-site movement of staff and students, is making a serious attempt at mitigating its environmental impact, while maintaining its social and economic viability.

Case Study 4: Sparsholt College

Key features:

- biodiversity
- energy management
- procurement and life-cycle of IT equipment.

Ancient woodland, a lake, hedgerows, plantations and various water habitats provide a bio-diverse context to the sustainable development activities of Sparsholt College¹¹. The 156-hectare estate uniquely features a Stone Curlew plot to provide a habitat for this bird, which remains one of the rarest and most vulnerable bird species in Britain. The college offers a wide range of courses in game and wildlife and countryside management at sub-degree, and degree level. It is the venue for three Centres of Vocational Excellence (CoVEs): in Fishery Studies, Game Wildlife and Countryside Management, and Leadership and Management, all of which place a strong emphasis on environmental conservation and management. The college provides an environmental studies centre for local schools which derives some of its energy requirements from solar panels.

The college grounds and estates are an excellent backdrop for its courses. The college buildings vary in age, but many have been expertly managed and recently refurbished to a high standard. Refurbishment has included double glazing to improve energy efficiency, access for the disabled to comply with the DDA, and lighting control to switch off lights when a room is unoccupied. Over the past few years about £9m has been spent on new buildings and refurbishment. New buildings are of a high specification, with many excellent energy-saving features, such as double glazing and enhanced insulation.

Sparsholt has recently begun to monitor its use of electricity, oil, water and liquid petroleum gas (LPG). Over the past year, the cost of these resources has increased substantially, in the case of electricity by over 50%. Meter readings are taken monthly for electricity, water and LPG and then compared with invoices to ensure accuracy and to provide benchmark data to compare with published data from the Energy Efficiency Office. Overall, the college has begun to manage down some of its energy and water requirements. Significantly, new buildings such as the aquatic centre and the dairy unit are supplied with energy from 'green sources' and as such are exempt from the Climate Change Levy, a considerable saving on tax. The new aquatic centre's water

¹¹ <http://www.sparsholt.ac.uk/>

consumption has also been reduced by over 50% when compared with the previous building, even though the new building has 62% more floor area.

The Environmental Policy and Practice Advisory Group have developed an effective action plan to implement a college-wide energy consumption reduction strategy, which includes:

- communicating through all channels to all occupants about good housekeeping measures
- publishing energy consumption and cost in major buildings and student hostels
- continuing to monitor electricity supply contracts
- installing integrated plant controls
- continuing to monitor temperature and meter data in all major buildings.

The college farm is well managed, and part of the national Countryside Stewardship Scheme (CSS). This scheme is a key part of the England Rural Development Programme (ERDP) and a total of £500m has been allocated to the scheme over the period 2000 to 2006. Since 2000, all ERDP targets for the scheme have been met, including the introduction of an additional 525,000 hectares of land to the scheme in advance of the target date of 2007. With nearly 17,000 agreement holders, over 44,500 miles of grass margins have been established, over 17,500 miles of hedgerows and over 1,300 miles of dry-stone walls restored, and previously declining numbers in farmland bird species have increased.¹² In this context, the college is attempting to reduce the amount of nitrogen fertiliser being used so that ground water levels of nitrates and nitrites are kept to a minimum.

The college provides subsidised transport for about 650 students from around the county. In the absence of a local bus service, this service is used by local residents for transport into Winchester. The college encourages car sharing as part of its transport strategy.

A unique feature of the college's procurement strategy is the online purchasing of expensive but redundant servers from the corporate sector and their refurbishing for use in the college IT network. The IT section also maintains and refurbishes all PCs, and seeks to extend the life of most PCs to six or seven years. Flatscreen monitors (TFTs) are now being introduced as part of a wider energy-saving measure. Flatscreens use 30% less energy compared to traditional CRT monitors, and they emit less heat.

The sustainability activities of the college are underpinned by a clear environmental policy which is monitored quarterly by a college-wide policy and practice group, and monthly by a college

¹² <http://www.defra.gov.uk/erdp/schemes/css/default.htm>

management team and resource utilisation and planning group. An annual report is produced on progress for wider dissemination and comment.

The college is well connected with local and national environmental groups, including the Farming and Wildlife Advisory Group and Association of South East Colleges Environmental Group. These networks provide the staff with up-to-date information on current and future environmental legislation, as well as contributing to course development.

Case Study 5: Buckinghamshire Adult Learning

Key features:

- travel planning
- carbon management, energy reduction in buildings
- re-using and refurbishing furniture.

Buckinghamshire's Adult Learning¹³ service is mainly provided through 21 adult learning centres, many of which are school premises, owned and operated by Buckinghamshire County Council (BCC). The county council's strategies (LA21 and Community Strategy) set a framework for the adult learning services activities. The structure plan of the county council states:

We help facilitate sustainable development by balancing the provision of new housing, employment, transport and other community needs with the protection and enhancement of the environment and the local quality of life.

A key feature of this strategy is the objective of achieving a general reduction in trip-lengths and the need to travel in order to counter global warming, save energy and reduce pollution.

Hence the provision of knowledge, skills and life-choices to meet the individual, social and economic needs of people in Buckinghamshire is set within this wider county council strategic context. While much of Buckinghamshire is prosperous, and there are good levels of participation in the adult provision offered, this is not the whole picture for the county. In Aylesbury and High Wycombe there are areas of specific disadvantage, and in some wards with predominantly Asian or Afro-Caribbean residents there are complex social, economic and environmental issues. Some of the provision offered helps to support widening participation, and is supported by links and partnerships with other community services and groups such as Citizens Advice Bureaux, Healthy Living Centres, careers organisations, residential hostels for ex-offenders and recovering alcoholics. The service offers an innovative language-learning programme, including a unique family-focused Russian programme in Princes Risborough to help them speak with children who visit every year through the Chernobyl Children's Life Charity.

¹³ <http://www.adultedbucks.org.uk/>

Carbon Management and Energy Reduction in buildings

BCC was selected in June 2004 to participate in the Carbon Trust's Local Authority Carbon Management Programme, with the objective of becoming a leading local authority in carbon management to minimise its impact on climate change. This process initially started by considering emissions from council buildings and schools, but has since been extended to include street lighting, transport, staff, community and waste. This has led to a detailed action plan to reduce carbon emissions by 3.8% over the period 2004–2008. In March 2005 the baseline emissions were:

	Buildings	Street lighting	Transport	Total
CO ₂ emissions (tonnes)	34,546	5201	23,410	63,157
% CO ₂	55%	8%	37%	100%

Currently, over 20 schools have been targeted for refurbishment to reduce their energy use, and many more schools are targeted for further development over the four-year period. Many of these premises are being used for adult learning, and this 'invest to save' initiative will bring significant cost savings over time. Other initiatives include:

- erecting wind turbines in three local schools
- erecting a solar panel array at County Hall office complex – this houses the adult administration support – with a display in the reception area showing how much energy is being generated
- securing a high proportion of 'certified' green electricity for its property portfolio
- undertaking energy audits and awareness-raising programmes.

Travel planning

BCC started work on travel planning in 1998 and over the years the work has evolved into an innovative series of measures called 'Travel Choice'. The measures include:

- a county-wide car sharing scheme with guaranteed ride home and exemption from parking charges
- discounts for bus and rail travel
- extensive publicity and promotion
- improved cycle parking
- lockers and showers for cyclists
- car park management.

This wide-ranging programme has had a significant impact over the past seven years on BCC's employees' car use, as shown in the table below:

Mode	1998	2001	2003	2005
Car Driver	71.3	56.4	49.4	44
Car Share	0	0	7	12
Car Passenger	7.7	8.6	5.1	3
Motorcycle	0.6	0.4	0.6	0
Bus	5.5	10.2	9.4	11
Train	2	3.6	2.4	4
Cycle	2.1	3.2	3.9	4
Walk	10.8	16.9	20.6	18
Work from home	0	0.6	1.7	4

This travel programme is now a key element of the council's carbon mitigation strategy and its structure plan.

Refurbished Furniture

The adult learning service makes good use of standardised – and hence easily integrated and flexible – furnishings for most of its centres. Furniture from other departments is re-used, including in its newly refurbished Learndirect suite.

Case Study 6: Working Herts Ltd

Key features:

- Entry to Employment
- employer engagement
- home energy use.

Working Herts¹⁴ is a small training provider based in Borehamwood, Hertfordshire, and in Luton. It is operated under charitable status with a board of trustees from the local community.

The organisation was established in 1997 as a means of providing training opportunities in this part of Hertfordshire for low-achieving young people who are disengaged, and in some cases homeless. Its mission is two-fold:

- to be the best hands-on training provider in the East of England
- to make Hertfordshire (& South Bedfordshire) the warmest place in England.

These twin objectives are met by providing up to 40 trainees at any one time, with a 22-week Basic Skills programme integrated with an Open College Network (OCN) work-based programme in loft insulation. In addition, the trainees are given driving lessons and obtain an accredited First Aid certificate. On completion of their training, they are supported into jobs.

The varied backgrounds of these young people is a major challenge to the programme organisers, but they have met this challenge with an innovative and highly stimulating work-based programme which raises the awareness and understanding of the trainees to a wide variety of sustainable development issues and their resolution. The focus on home insulation provides the trainees with an understanding of energy use and efficiency, and its impact on climate change. Supplying loft insulation to poorer households with the help of grant aid helps alleviate fuel poverty.

The trainees work in teams of six with a trained, experienced supervisor and can carry out two–three installations per day. Overall, they insulate about 1500 houses each year. They carry out assessments of each household to determine the requirements for insulation materials, as well as health and safety risk assessments – including checking for the presence of pests (wasps, woodworm, mice, etc). They work in collaboration with British Gas, which provides grant aid on a

¹⁴ <http://www.hertsdirect.org/comdirectory/comvol/employ2y/emplyservice3/534025>

sliding scale, depending on the type of house and status of householder. Hence, the provision is supported by LSC funding as well as funding from the business sector. This training programme is being adopted as a model in Birmingham as part of a new venture called Birmingham Social Enterprise Energy Network (B-SEEN). It aims to add value to energy efficiency programmes through local procurement and spend, to take energy efficiency to the 'hard to reach' and to create sustainable job opportunities in disadvantaged communities.

In addition to loft insulation, the trainees carry out household water consumption surveys. This entails visiting householders and collecting information on a range of questions – from number of residents, number of taps, to water use, range and types of appliances, etc. These surveys are commissioned by a local multi-national utility company to support their strategy for water conservation.

Working Herts provides an excellent example of taking young trainees with limited interest in environmental issues, raising their awareness and practical skills as well as generic social skills, including team-working and communication skills, to give them a broader platform for them to enter the workforce better qualified, and more able to develop a successful career in a range of occupations. Many will undoubtedly carry with them many of the social and environmental skills and apply them in their chosen careers.

Case Study 7: New College Durham

Key features:

- building design and sustainability
- green transport plans
- contractor appointments and sustainability
- access audit.

New College Durham¹⁵ has recently completed a major £35m redevelopment programme. A phased new building programme has transformed the college, which is a successful provider of courses ranging from basic skills to full honours degrees for some 3000 full-time and 17,000 part-time students.

The new facilities at its Framwellgate Moor campus are situated on a 28-hectare site close to Durham city centre. The building design is both visually compelling and technically sophisticated in terms of innovative use of space, energy management and information technology infrastructure.

The facilities comprise a technology centre for vocational courses and a large (18,000 M²) teaching block organised around two large 'malls' with shops, a food court, a travel agency which is a (CoVE), hairdressing, a podiatry suite and an internet café. The naturally-lit mall provides a substantial space for students and staff to socialise, to access shops and other facilities. This space is also used for graduation and award ceremonies, and for the college's annual public meeting. There is a dedicated higher education building, and a sports and music and performing arts block. There is an extensive hard and soft landscaping programme involving the planting of an avenue of deciduous trees, bulbs and flower borders. During the weekends, local residents use these facilities for leisure activities, walking and cycling with children. These new developments are open for use by local schools, adult learners and community groups. The new campus is a highly visible statement of the value the college attaches to teaching and achievement for all kinds of learners.

Building Design

The design specification of the new buildings features a wide range of environmentally-friendly features, which include:

¹⁵ <http://www.newdur.ac.uk/>

- high thermal insulation and acoustic standards
- minimum energy consumption
- minimum water consumption, including rainwater harvesting¹⁶
- minimum CO₂ and other greenhouse gas emissions
- maximum use of daylight while minimising solar gain.

The design has an energy consumption target which is significantly lower than a standard general further education establishment, and achieves an *Excellent* BREEAM¹⁷ rating.

The energy efficiency of the building is largely determined by the following features:

- use of passive engineering techniques to reduce building heat gains
- heat recovery systems
- use of condensing boilers and dry air coolers
- use of low-energy high-frequency lighting
- use of presence detection and perimeter daylight detection for lighting control; this system reduces or switches off the artificial lighting adjacent to windows when the level of daylight is sufficiently high.

All of these features are controlled through a remote energy centre, incorporating dynamic thermal simulation software, which analyses and reports the energy performance of the building. The sustainability criteria for the building also reflect the objective of enhancing the quality of life of staff, students and visitors by providing a quality working environment.

Green transport plan

The green transport plan is to encourage alternative means of travel to and from the college to reduce the environmental impact of the car. The plan seeks to introduce practical initiatives based on a continuous appraisal of staff and student travel patterns. The campus is currently well served by up to 26 buses per hour travelling into and out of the city, and the college provides a well-used free bus service to a range of locations outside the city. It also actively promotes all bus services on notice boards and in conspicuous locations, as well as on the college website.

¹⁶ This system comprises 2 x 15,000 litre underground storage tanks.

¹⁷ Building Research Establishment Environmental Assessment Method (BREEAM) has been used to assess the environmental performance of both new and existing buildings. It is regarded by the UK's construction and property sectors as the measure of best practice in environmental design and management. <http://www.breeam.org/>

The college has developed a database of those willing to car-share, and operates a guaranteed ride home in case of emergency. Cycling is promoted with well-lit cycle storage facilities, as well as the provision of shower and changing facilities. The college operates two environmentally-friendly vehicles on-site: one is an electric vehicle for general transport of materials and the other is a bio-diesel cleaning tractor for general grounds maintenance.

Contractor Appointment

All building or major services contractors must meet a rigorous range of financial, quality and technical criteria. In addition, the college appointment questionnaire also seeks answers on the contractor's environmental policy or sustainability statement in respect of:

- materials used
- biodegradable products
- CFCs
- recycling
- waste management for both hazardous and non-hazardous materials
- energy conservation.

Access audit

The new facilities are fully compliant with the Disability Discrimination Act (DDA) regulations and yet staff in the Sensory Support Team (SST) have recently piloted an 'access audit' of facilities available to disabled students. The SST included two blind students in the audit process.

Recommendations following the audit included the following small adaptations to the building:

- support pillars painted blue to contrast with the white background, aiding visibility
- wall-edges are now covered with coloured plastic – colour-coded to conform to the colour-coded malls
- implementing a campaign to raise awareness of how discarded chewing gum can be a significant distraction to guide dogs.

Such measures, often at relatively little cost, are helping the more disadvantaged students to take a more participative and inclusive role in the ongoing development of the college estate and buildings. This all contributes to the college's overriding objective of widening participation and

access to all learners – a key social objective of the institution’s engagement with the sustainable development agenda.

Case Study 8: Hull College

Key features:

- leadership and sustainable development champions
- staff development
- communicating sustainability
- citizenship programme for sustainable development
- new build design for sustainability.

Hull College¹⁸ has embarked on its sustainable development journey with informed and committed leadership, and extensive participation and inclusion which characterises much of what it does. The 'Sustainability Group' consists of sustainable development champions representing many facets of the college activities from senior management, estates, curriculum, and community. Sustainability champions are encouraged to be role-models for behaviour changes required to promote this agenda. The college values contributions and thinking from its stakeholders, and is not seeking 'ready-made' policies and solutions but rather, it seeks to develop and share its own thinking and learning. The group meets regularly to discuss and develop policy and practice. Policies are developing and evolving with governor involvement and support. Work is progressing on embedding sustainability principles into strategies for energy and water conservation, waste and recycling, transport and procurement. The implementation plan is monitored and reviewed.

A whole-college staff development day in 2005 was devoted to the sustainable development agenda. This generated considerable interest throughout the college, and a further development day is planned for 2006. To harness the enthusiasm and facilitate college-wide conversations and involvement, a 'sustainability' forum and resource area is posted on 'Moodle' – the college virtual learning environment (VLE). Access is available to all staff, students and governors, who can access policy and development plans, and minutes of the Sustainability Group. Links are available to other resources, such carbon footprinting from the Centre for Alternative Technology. The Forum invites suggestions from students and staff, and shows much awareness and concern for such issues as recycling, reducing resource usage – especially paper – transport issues, healthy eating, sustainability in buildings and energy use and many other issues of a micro and macro nature.

¹⁸ <http://www.hull-college.ac.uk/>

Sustainability issues are covered in the curriculum through the Citizenship Project and group tutorials. Opportunities for sustainability learning are sought and delivered through the main programme areas in construction, motor vehicle and catering, as well as through the citizenship programme. Students in each school design and work on projects and have the opportunity to present their work at a celebration day. Some examples of these projects for 2006 are:

- dance performance on pollution (performing arts & media)
- recycling in the college, sculptures from waste materials (health, social care and child studies)
- recycling and global warming in Hull with models to illustrate effects (business & computing)
- survey of energy use with the catering department & wider college (catering)
- designing an 'eco house' and building sustainable construction into design (construction)
- examining renewable energy sources (motor vehicle).

The college estate is undergoing considerable development, both in refurbishment and new builds. Energy and water use is monitored and compared with benchmark figures provided by the Carbon Trust. The college has seen its energy and water costs increase from 0.89% of income in 2004/2005 to 1.54% in 2005/2006, and with energy costs rising, a major investment is planned for replacing heating systems in a number of its existing buildings. The college is considering mini combined heat and power (CHP), and condensing boilers to improve efficiency and improvements in zonal control through upgraded building management systems (BMS) so that occupants in one side of a building do not freeze while others throw open windows to cool down.

In line with the college policy and strategy, sustainability issues feature strongly in the design elements of the proposed new build for the construction skills centre. It is intended that this building be an exemplar in terms of innovation and sustainable development, and it is being designed to meet the highest level of compliance under the Energy Performance of Buildings Directive and revised Building Regulations. The design includes alternative energy sources.

Transport plans and policy are being developed in partnership with Hull City Council. To reduce travel by car, the college and city council are discussing bus routes and an extension to the hours that the park-and-ride scheme operates. Covered and lockable bike sheds are provided to encourage cycling. In the interests of inclusiveness, no member of staff has a reserved parking space.

Case Study 9: Esher College

Key features:

- leadership and champions
- Eco Schools Project
- transport policy
- Carbon Trust energy-saving audit
- community & stakeholder engagement.

Prominently displayed in the reception area of Esher College¹⁹ is *EcoEsher Environmental Policy*. This introduction to the college gives an indication of the significance placed on this agenda.

The Environmental Policy incorporates the college's commitment to sustainable development principles; the policy has been in place since 2004. Key features are to:

- reduce the environmental impact of the use of consumables (especially paper, energy and water)
- promote the positive ecological use of the college grounds
- implement a sustainable environmental purchasing policy
- seek ways of reducing the environmental impact of travel
- develop ways of raising the environmental consciousness of the whole college community.

The college has taken a major step in informing itself about its energy use by commissioning the Carbon Trust²⁰ to carry out an 'assessment of energy-saving opportunities' in 2005. The college knows where it stands not only in terms of the cost of its energy, but in terms of consumption of electricity, gas and gas oil, and its CO₂ emissions. The report identifies opportunities for the college to reduce its energy consumption by 33% and its CO₂ emissions by 34%, representing cost savings of 38% (on energy costs in 2005). The College Environmental Sustainability Committee is using the Carbon Trust report and its recommendations to develop its action plan.

The Environmental Committee includes a wide range of stakeholders:

- staff, both teaching and non-teaching

¹⁹ <http://www.esher.ac.uk/Default.aspx?tabid=78>

²⁰ <http://www.thecarbontrust.co.uk/energy/pages/home.asp>

- students
- governors
- co-opted members – eg from Surrey County Council
- and expressly welcomes applications to membership from any member of the college or local community committed to the aims and objectives of the committee.

A college transport policy is also in place, and is summarised on the college website. Surveys for SRS (safe routes to school) were carried out for staff and students to obtain information and data on travel mode and travel choices. A significant feature of the college travel policy is a commitment to ensure that the start and end of lessons fits with the arrival and return of trains from the nearest station. This entails regular contact with South West Trains, and an initiative to research ways in which the college and train company can work together to encourage greater use of the train service. Another development is the provision of safe and secure bicycle racks, and giving priority for lockers to those who cycle.

As part of its commitment to sustainable purchasing, the college is considering procurement of carpet tiles from an innovative company that leases carpet services. The college would get the benefit of new carpet tiles which are regularly inspected and replaced when they become worn. The company continues to own the carpet and any recovered worn carpet is rejuvenated or recycled into new carpet without the need to call upon virgin resources.

Through the initiative of the environmental champion, Esher College has embarked on the Eco Schools Project. It is using the framework from this to introduce an Environmental Management System (EMS). Student involvement is a key part of the Eco-Schools programme, and participation in this activity is a part of the students' extension studies. An Action Team has been established with wide-ranging membership, to support and work with the Environmental Sustainability Group in implementing the Environmental Management System. Sessions have also been run for local primary and secondary schools to share Eco Schools experiences and learning. This group is also working with the Environmental Committee to design and implement an environmental garden on the campus.

The sustainability and sustainable development agendas are delivered through the curriculum in a number of ways. In subject areas such as geography, biology, economics, environmental science and health and social care, many of the issues are addressed directly. Extension and complementary studies and tutorial programmes are used to address a number of other sustainability issues such as health and Fair Trade, and students participate in the Eco Schools programme. A college-wide health fair takes place annually, run by health and social care

students, addressing many issues such as healthy eating, stopping smoking, and fitness. Students at Esher College raise money to pay for education for AIDS orphans at a school in Zimbabwe, giving the students insights and connections to global issues in line with the policy statement.

Working collaboratively with the S7 consortium (the Sixth Form Colleges in Surrey), the ELM Partnership, a consortium of education providers within the Borough of Elmbridge, and the Elmbridge 14–19 Consortium, reflect the wider engagement of Esher College. In the spirit of sustainability, when IT equipment is replaced, the old equipment is devolved to the partner schools. Its strong links with the County Council and District Council further reflect the ‘learning together’ ethos encouraged and promoted within the college.

Case Study 10: Shipley College

Key features:

- values-led institutional approach
- integrated curriculum development
- energy management and operation.

Shipley College²¹ is located in the beautiful UNESCO world heritage site of Saltaire, a village built by Sir Titus Salt, a 19th century wool baron, to house his mill workers. Sir Titus Salt built the village to provide self-contained living space for the workers at his woollen mills. The village was built in sharp contrast to the dirty and polluted cities of 19th century Leeds and Bradford. The college occupies a number of these historic buildings, which have been sympathetically refurbished, and adapted to maximise their use and efficiency, and to provide a quality learning environment to its 550 full-time and over 5000 part-time students.

Shipley College is within the metropolitan area of Bradford, with a population of nearly 500,000. Bradford ranks among the most deprived 10% of areas in the country (DTLR index 2001). The population has a rich cultural and ethnically-diverse heritage, with minority ethnic groups accounting for 19% of the population and approximately one third of the population in schools. Asian heritage students comprise 43% of Shipley's learners.

Both the Ouseley and Cattle reports (2001) on race relations in the city refer to different ethnic groups increasingly segregating themselves from one another, a situation which is vividly reflected in many Bradford schools. It is in this context that Shipley College articulates its mission and values.

The core values of the college – quality, equality and relevance – are widely owned, and are reflected throughout the institution's policy and practice. There is both a 'Sustainability and Environmental' policy and a 'Learning for Sustainability' policy. The 'Learning for Sustainability' policy identifies the strong links between the college's own values, the key themes of sustainability and the five principles of 'Every Child Matters²²':

- Be healthy.
- Stay safe.

²¹ <http://www.shipley.ac.uk/site01/content.asp?id=15>

²² <http://www.everychildmatters.gov.uk/>

- Enjoy and achieve.
- Make a positive contribution.
- Achieve economic well-being.

These values are woven through each student's 'learning journey' from initial enquiry to final destination. The 'Learning for Sustainability' policy seeks to offer learners the opportunity to develop new ways of thinking and a set of values which include:

- global citizenship
- social responsibility
- social and economic justice
- inclusiveness
- needs and rights of future generations
- environmental limits to human activity
- the intrinsic value of all life.

This agenda is being taken forward at senior management level, through curriculum planning, enrichment, learner entitlement and personal and social development (PSD). The curriculum is 'mined' for opportunities to transmit, develop and integrate these values into good practice in teaching and learning. All major programme students participate in environmental week, and students on environmental courses produce a display and information material in the refectory. Shipley College students developed the 'Bradford Learner Entitlement' booklet as an integrated Key Skills project. This has been adopted by the Bradford District for 14–19 year olds, and by a range of LEAs. Shipley College students also devised the website 'The Big LE' the electronic embodiment of the 'Bradford Learner Entitlement', thus making another positive contribution. Active citizenship is promoted, and is exemplified through work with youth groups to reclaim small pockets of derelict land for community use, work with the Volunteer Bureau to introduce the BBC neighbourhood gardening project, combining gardening and sustainability programmes with local gardening groups, and an inter-generational mentoring scheme for IT.

Staff development and continuing professional development feature strongly in the college, reflecting the continuous 'learning journey' of these major stakeholders. Following the 7/7 bombings in London, a keynote staff development day was focused on 'Respect, Solidarity and Security' to reaffirm the mission to ensure that all learners feel valued, and that diversity is cherished. About 40 staff members have completed a Basic Counselling Skills qualification to develop their confidence in their skills of supporting learners.

A cross-college Sustainability Implementation Group (SIG) is in place, and its members are the college sustainability champions. The SIG includes academic and non-academic staff. They are undertaking an audit of current SD activity in order to develop a SMART Action Plan.

Energy and environment audits began in 1999. The report included information on the current state and proposal for improvement of a wide range of issues, including:

- electricity, gas & water
- good housekeeping
- space and water heating, lighting & ventilation
- building fabric
- equipment, meters
- weekend and holiday use of building holidays.

The recommendations and proposals in the initial report resulted in the development of an action plan, which continues to be monitored and reviewed. It is noted that implementing many of the proposals involved no additional cost. The college has applied to the Carbon Trust for an emissions audit. Paper consumption is monitored, and waste paper is sorted and recycled. The 'Learning Line', a new initiative, reflects the 'learning journey', and seeks to facilitate access to students through establishing a number of Learning Line connections in workplaces and community venues, or through links with schools and homes. The Bingley Connection is a new venue on this line, and offers a general information point for people in the Bingley area about college courses. It provides accommodation for some special-purpose short courses, enjoys good IT connections to the main campus in Saltaire through a broadband link, continues good connections to personal support through links to members of Student Services and Marketing Teams; and benefits from good transport connections through its close proximity to Bingley railway station and major bus routes. The college has bought into the West Yorkshire Travel Plan Network to promote better public transport, and actively promotes its excellent public transport links throughout the college.

This 'Learning Line' features in the regeneration strategy for Airedale. The college has been actively involved in the creation of the Airedale Master Plan²³, with its vision of the 'Creative Corridor' which recognises:

²³ [http://www.airedalepartnership.org/pdf/Airedale%20Summary%20Document%20\(ebook\).pdf](http://www.airedalepartnership.org/pdf/Airedale%20Summary%20Document%20(ebook).pdf)

Education, skills and training are vital foundations to the long-term economy of Airedale, with specialist schools focused on future skills and raising standards. New accommodation and premises for Keighley and Shipley Colleges are planned and integrated around transport links to and from the Airedale Learning Line. Stronger links with higher education and universities are being established to create a presence within the principal towns.

The metaphor of a learning journey with its 'Learning Line' is evidenced frequently in conversations in the college, and is reflected in the language used to describe the college's approach to sustainable development and learning for sustainability.

Appendix: National baseline audit questionnaire



THE LEARNING AND SKILLS COUNCIL'S STRATEGY FOR SUSTAINABLE DEVELOPMENT

NATIONAL BASELINE AUDIT

We would like to learn more about the current activity on Sustainable Development within the Learning and Skills sector and we would be very grateful if you would complete this questionnaire and return it to us by 15 December 2005.

1. Positioning the Sector			
1a	Does your organisation have a Sustainable Development Policy or Plan? If so, please give details.	Yes	No
1b	Does your organisation monitor and report on its performance in Sustainable Development? If so, please give details.	Yes	No
1c	Do you have any 'Sustainable Development champions', i.e. do you have staff whose role it is to promote SD or who receive or offer training in SD? If so, please give details.	Yes	No
1d	Are there any particular features of leadership and management which you would identify as good practice? If so, please give details.	Yes	No

2. Buildings and Estates			
2a	<p>Have you undertaken any audits of your organisation's consumption and management of energy, water or waste?</p> <p>If so, please give details.</p>	Yes	No
2b	<p>Is your organisation implementing any national or international environmental management system such as:</p> <p><i>EMAS (Ecological Management Audit System)</i></p> <p><i>Promoting good SD design in new builds and refurbishments</i></p> <p><i>Other (please specify)</i></p>	Yes Yes Yes Yes	No No No No
2c	<p>Have you implemented or are you thinking of implementing environmental management systems (EMS)</p> <p>If so, please give details.</p>	Yes	No
2d	<p>Do some or all of your buildings, through their design and operation, demonstrate good practice in sustainable development?</p> <p>If so, please give details.</p>	Yes	No
2e	<p>Does your organisation implement procurement practices that reflect social and environmental as well as economic costs?</p> <p>If so, please give details.</p>	Yes	No
2f	<p>Is, or are, your site(s) designed to encourage biodiversity, i.e. retention of unique habitats for plant and animal life.</p> <p>If so, please give details.</p>	Yes	No
2g	<p>Does your organisation have a travel plan in order to reduce the environmental impact of travel?</p> <p>If so, please give details.</p>	Yes	No

3. Curriculum			
3a	<p>Are you embedding any SD concepts or approaches into any of your organisation's courses and programmes?</p> <p>If so, please give details.</p>	Yes	No
3b	<p>Do you use any currently available SD learning materials or are you developing any SD programmes and modules?</p> <p>If so, please give details.</p>	Yes	No
3c	<p>Have you formed any links or networks between your organisation and external partners in order to specifically deliver education for sustainable development within your organisation?</p> <p>If so, please give details.</p>	Yes	No
3d	<p>Have you implemented, or are you considering implementing any aspects of a 'healthy college' programme?</p> <p>If so, please give details.</p>	Yes	No

4. Business and Community			
4a	<p>Have you developed any networks at local or regional level specifically designed to promote sustainable development?</p> <p>If so, please give details.</p>	Yes	No
4b	<p>Does your organisation support local markets and/or promote and encourage fair trade?</p> <p>If so, please give details.</p>	Yes	No
4c	<p>Do you share any of your facilities with local community agencies or groups?</p> <p>If so, please give details.</p>	Yes	No
4d	<p>Does your organisation actively seek to work with environmentally and socially responsible employers?</p> <p>If so, please give details.</p>	Yes	No
4e	<p>Have the employers adopted:</p> <p><i>Environmental management systems</i></p> <p><i>Corporate responsibility policies</i></p>	Yes Yes	No No
4f	<p>Do any of your students undertake volunteering activity as part of their learning programmes?</p>	Yes	No

Please use the space below to add any further comments:

Finally, would you or a member of your organisation be willing to take part in a follow up discussion of good practice in sustainable development?

Yes No

Thank you for taking the time to complete this questionnaire. The answers you have given will be very useful in helping us to assess the current sustainable development practices within the learning and skills sector.

Please return this questionnaire by 15 December.