



CaSPr

**Campus Sustainability
Programme**

**Baseline report
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SCOTTISH EXECUTIVE

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EXECUTIVE SUMMARY

The Campus Sustainability Programme (CaSPr) is a programme being delivered by the Environmental Association for Universities and Colleges which aims to promote sustainable production and consumption within universities and colleges in Scotland. An important objective of this programme is to construct an annual baseline of the sustainability performance of participating further and higher education institutions. This report describes the outcomes from the initial baseline questionnaire which was issued to all partner institutions in January 2006.

The survey gathered information about:

- The extent to which environmental and sustainability issues were embedded in institutional practice;
- Institutional awareness of the legal requirements relating to the environment and sustainability;
- The quality and quantity of the information about the environment and sustainability that was available within institutions illustrating consumption and production patterns;
- Opportunities for further improvement; and
- Performance indicators that could be used at an institutional or a sector-wide level.

Of the 30 institutions that were sent the questionnaire, 16 (53%) responded, the majority of which were from the further education sector. Some of the more interesting findings were:

- Only one institution was accredited to an environmental management system (EMS₁); and one other was beginning to implement an EMS₁;
- Nine institutions had a sustainability policy or were in the process of developing one;
- Nine institutions had undertaken an energy audit, six an environment audit and a few had undertaken audits of waste transport and fair trade. No institution had undertaken an audit of ethical investment;
- More attention seemed to be given to issues which have statutory underpinning such as equal opportunities than those with limited or no legal status such as sustainability, environment, and energy;
- About half the institutions provided environmental training of some kind for some staff. Most training was focused on general environmental awareness, energy and waste and was targeted at senior management or administrators;
- Only seven institutions acknowledged that they required to comply with the Environmental Protection (Duty of Care) Regulations 1991; and
- Between 60% and 70% of institutions could readily provide information about the costs of water, gas and electricity, but fewer could provide information about the costs or use of other resources.

The results showed that many institutions did not have the systems needed to manage environmental and sustainability issues. Some that had relevant policies lacked the documented procedures and human resources needed to implement related environmental improvements. Waste, energy and travel appeared to be the environmental topics which were of greatest significance with many institutions having separate policies for each of them. In comparison to issues such as health and safety or equal opportunities (required by law) environmental and sustainability policies were of lower priority across the sector.

The survey also revealed that many institutions appeared to lack awareness of the environmental legislation that applied to their institutions. Ignorance of the relevant environmental legislation is a significant risk for an institution and may lead to financial, legal, reputational and environmental damage.

The responses to the questions have provided guidance for the creation of potential sustainability and environmental indicators which are given in draft at the end of this report. The findings from this study have enabled some key areas for training and development in the sector to be identified and are being used to guide the future work of CaSPr and the EAUC in Scotland. A further questionnaire will be issued early in 2007 to obtain more information and to establish whether any improvements have been achieved.

ABBREVIATIONS

BREEAM	Building Research Establishment Environmental Assessment Method
BS8555	British Standard - Guide to the phased implementation of an environmental management system including the use of environmental performance evaluation
CaSPr	Campus Sustainability Programme
EAUC	Environment Association for Universities and Colleges
EAUC-S	Environment Association for Universities and Colleges – Scotland Branch
EFQM	European Framework for Quality Management
EMAS	Eco Management and Auditing Scheme
EMS ₁	Environmental Management System
EMS ₂	Estates Management Statistics
FE	Further Education
FEI	Further Education Institution
FHE	Further and Higher Education
HE	Higher Education
HEI	Higher Education Institution
ISO14001	International Organisation for Standardisation Environmental Management Systems Specification with Guidance for Use
KPI	Key Performance Indicator
OHSAS 18001	Occupational Health and Safety Assessment Series
QMS	Quality Management System
SHAW	Scottish Health and Work

PART 1 - BACKGROUND

1 INTRODUCTION

1.1 Background

In 2005 the Environment Association for Universities and Colleges Scotland (EAUC-S) Branch was awarded funding from the Scottish Executive to deliver a programme aimed at helping the Scottish Further and Higher Education (FHE) sector improve its sustainability performance. This programme has been given the title Campus Sustainability Programme (CaSPr). The aim of the project is to promote sustainable production and consumption within universities and colleges in Scotland. The project intends to focus in particular on reducing the resources used in energy, travel and waste.

30 institutions are now participating in the programme with a further three on the mailing list (Appendix 1). A key objective of this programme is to construct an annual baseline of performance which will enable CaSPr to identify:

- The state of sustainability in the sector;
- Areas needing action;
- Improvements year to year; and
- Opportunities for providing support both to the sector as a whole, and to individual institutions.

This document is the report of the first baseline survey which was undertaken between January and March 2006. Baseline data was obtained by sending out a questionnaire to the 30 institutional partners. The report contains information about:

- The extent to which environmental and sustainability issues were embedded in institutional practice;
- Institutional awareness of the legal requirements relating to the environment and sustainability;
- The quality and quantity of the information about the environment and sustainability that was available within institutions illustrating consumption and production patterns;
- Opportunities for further improvement; and
- Performance indicators that could be used at an institutional or a sector-wide level.

1.2 Format of questionnaire

The baseline questionnaire¹ was split into four sections:

Section 1 Contact details

This Section requested information about the institution and the respondent. Material from this Section is not presented in this report so as to prevent individual institutions being identified.

Section 2 General management

Section 2 requested information on the extent to which institutions were integrating the environment and sustainability into existing practice. Information was sought on the following issues:

- | | | |
|-----------------------------|--------------------------|----------------------------|
| 1. Sustainability | 7. Transport/Travel | 12. Equality |
| 2. Environment | 8. Equal Opportunities | 13. Widening Participation |
| 3. Ethical Investment | 9. Access and Disability | 14. Customer Care |
| 4. Fair Trade (Procurement) | 10. Race Relations | 15. Social |
| 5. Energy | 11. Health and Safety | 16. Legal compliance |
| 6. Waste | | |

This report mainly focuses on the first seven of the issues set out above.

Section 3 Legislation, compliance and other requirements

Section 3 requested information about the environmental legislation which an institution was required to comply with.

Section 4 Costs, amounts, KPIs and other

Section 4 requested data on the consumption and production of key resources such as energy, waste and travel. We anticipated that institutions might have had difficulty in completing this section, either because data was not being collected or because institutions lacked the time to collate and report on it. The questionnaire was designed to identify why data could not be provided.

¹ The questionnaire is available on the EAUC website

PART 2 - RESULTS

2 INSTITUTIONAL PRACTICE

2.1 General

Questionnaires were e-mailed to the 30 institutions that had signed up to CaSPr. Of these, 16 (53%) responded to at least some of the questions. 12 of these institutions were from Further Education (FE) and four from Higher Education (HE).

2.2 Management Systems

Of the 16 institutions responding, only one reported that it was accredited to an Environmental Management System (EMS₁) (ISO14001) (achieved in 1995) and another reported that it was working towards accreditation. The institution that was accredited to the EMS₁ was also accredited to the Wildlife Trust's Business and Biodiversity Benchmark. 12 of the institutions were accredited to Investors in People and nine to the Scottish Quality Management Systems Standard (SQMSS). The Scottish Health and Work Award (SHAW) had been achieved by one institution and another had achieved accreditation to CharterMark (Customer care). Those with accreditation to Investors and People and SQMSS achieved this status between 1995 and 2006. In most of the institutions these systems had been applied to the whole institution and not to selected activities.

Table 1 Numbers of Institutions with accredited management systems and awards

Name of System	Number of institutions with accreditation
Environment	
ISO14001 (EMS ₁)	1
EMAS (EMS ₁)	0
BS 8555 (EMS ₁)	0
Green Tourism Business Scheme	0
Wildlife Trust's Business and Biodiversity Benchmark	1
Quality	
EFQM (QMS)	0
ISO9000 (QMS)	0
Scottish Quality Management Systems Standard (QMS)	8
Health and Safety	
OHSAS18001	0
SHAW	1
Customer and staff	
Investors in People	11
CharterMark	1

One institution responding to the questionnaire had achieved accreditation to an environmental management system (EMS₁); another one was beginning to implement an EMS₁.

The rest of the questions in Section 2 gathered data which would have been required for an EMS₁ and so we did not ask the one institution with an EMS₁ to complete the remainder of the Section.

2.3 Policies, objectives and management oversight

2.3.1 General

A large group of questions in the remainder of Section 2 explored the policy and managerial context of issues relating to sustainability. A summary of the responses relating to these is shown in Table 2 below. It should be noted that in some cases institutions stated they had a separate policy and an integrated policy, where this occurred the figures were adjusted to state they had only a separate policy.

Table 2 Number of institutions with policies, objectives and management arrangements in place to deal with different sustainability-related issues

INSTITUTIONAL ACTIVITY	ISSUE												
	Sustainability	Environment	Ethical Investment	Fair Trade/Procurement	Energy	Waste	Transport/Travel	Equal Opportunities	Disability	Race Relations	Health and Safety	Equality	Widening Participation
POLICY ISSUES													
Separate policy	3	3	1	2	3	2	4	13	10	11	13	11	8
Integrated policy	3	3	1	1	2	3	1	0	2	1	0	2	2
Developing a policy	3	3	1	1	4	5	2	2	3	2	2	2	2
Total with or developing policies	9	9	3	4	9	10	7	15	15	14	15	15	12
Approved by senior management	5	6	2	3	4	4	5	9	10	9	10	10	7
Publicly available	6	6	2	2	5	5	5	9	10	9	10	10	7
Policy reviewed annually	3	5	1	1	4	3	4	8	8	9	8	8	5
OBJECTIVES													
Developed objectives/targets	3	4	0	2	6	4	3	7	8	7	8	8	9
Objectives incorporated in policy/strategy	2	3	0	1	4	2	3	3	4	3	4	4	4
Objectives included in other documents	0	0	0	0	0	0	0	3	3	3	4	3	3
MANAGEMENT													
Developed operational plan	3	5	2	2	4	4	2	9	9	8	10	9	8
Established a working group	3	3	2	1	2	2	1	5	6	5	7	6	5

2.3.2 Policy (question 2b and 2c)

The questionnaire sought information about institutional policies dealing with sustainability. The first four rows of Table 2 show that there is a great variation in the extent to which different kinds of issues have been the subject of policy – ranging from ethical investment, where just three institutions (20%) have developed policies, to equality and health and safety where 87% have policies in place.

The occurrence of sustainability and environmental policies fall in the middle of this range, with 60% either having them in place or developing them. Because some institutions had both an environment and a sustainability policy, the total number of institutions with either one or other or both was 11.

Some institutions had separate policies for waste (ten institutions), energy (nine) and transport/travel (seven). Ethical and Fair Trade policies were lower down the agenda with only two institutions committed to ethical investment and one developing a policy.

The number of institutions with senior level commitment to other policies such as race relations, health and safety was far higher than those relating to environment.

Most sustainability or environmental policies had been approved by senior management and were publicly available.

Institutions were integrating their commitments into the following types of documents:

Commitment to:	Document in which commitment stated:
Sustainability	Environment Policy and operational plan
Environment	Strategic plan and operational plan
Ethical Investment	Operational plan
Fair Trade	Operational plan
Energy	Operational plan
Waste	Operational plan and environment policy
Transport/Travel	Operational plan
Equal Opportunities	Strategic plan
Access and Physical Disability	Strategic plan, Access statement, Inclusiveness and Disability statement
Race Relations	Strategic plan, Equal opportunity, race relations, and annual report
Health and Safety	Strategic plan and H&S Manual and procedures
Equality	Strategic plan and Equal opportunities statement/policy
Widening Participation	Strategic plan, Inclusiveness, Admission statement and Wider Access Policy
Customer Care	Strategic plan

Most institutions already possessed policies for areas that had a strong legal underpinning such as equal opportunities and health and safety. Where policies related to the environment and sustainability did not exist, some institutions were developing them; more institutions are developing sustainability, environmental, waste, and energy policies, than ethical investment, fair trade and transport/travel policies.

Nine institutions have a sustainability policy or are in the process of developing one

2.3.3 Objectives and targets (Question 2g)

Objectives and targets for policies which are legally required such as equal opportunities tended to be integrated into existing documentation, indicating that these issues were being given a higher priority than issues such as sustainability, environment, and energy which had no legal status.

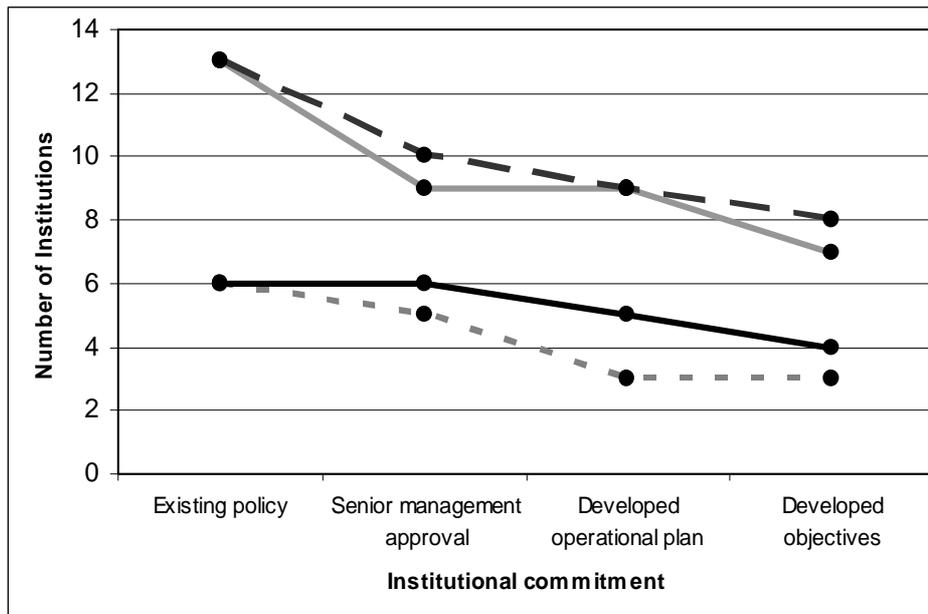
Not all institutions with a policy statement have established objectives/targets in the same area.

2.3.4 Management programmes (question 2H)

Management programmes² set out how objectives and targets are to be achieved, specifying actions, responsibilities and timescales. Few institutions had management programmes in place for environmental issues, though most had management programmes established for those issues which were underpinned by statute. Fewer institutions still had established working groups to engage a range of staff with implementation. Figure 1 compares the number of institutions that had four different kinds of commitment to four sustainability-related topics. This shows how issues with legal backing such as equality and equal opportunities had much higher levels of commitment across all four of the indicators than general sustainability and environment.

² Management programme is the term defined by British Standards for a document setting out the way in which objectives and targets will be achieved, including timescales and responsibilities; this could also be referred to as an operational or implementation plan.

Figure 1 Comparison of four different sustainability related topics General sustainability (dotted grey line); Environment (black line), Equal opportunities (grey line), Equality (dotted black line) and the numbers of institutions which have different kinds of commitment to each of them



Some institutions have established working groups without having policies and objectives; others have policies and objectives but don't have working groups to implement them.

2.4 Audits (Question 2d)

Table 3 shows that audits had been undertaken by a number of institutions. Energy audits had been given greatest priority followed by environment and waste, with fewer audits of transport/travel, fair trade and ethical investment. The table also shows that there seems to be little relation between the existence of policy and the presence of an audit.

Table 3 Number of institutions that have policies in place and have undertaken audits for different environmental and sustainability topics

Type of audit	Number of institutions that have;			
	Responded to question	A relevant policy	Undertaken an audit	Undertaken an audit and have relevant policy
Environmental	10	6	6	4
Waste	12	2	5	2
Energy	12	3	9	2
Transport/Travel	11	3	4	1
Fair trade	11	2	1	1
Ethical investment	11	1	0	0

Energy audits are the most frequent type of audit to have been undertaken, followed by environment, waste, transport and fair trade with no institution having undertaken an audit of ethical investment.

2.5 Risk Register (Question 2e) & Register of Legislation (Question 2f)

Four institutions had integrated environmental related risks into a wider risk register for their institution. None of the institutions returning the questionnaire had developed a separate risk register for environmental issues.

Table 4 Number of institutions that have environmental risk registers

Responded to question	Number of institutions that have;	
	A separate environmental risk register	Environmental risks incorporated into existing register
12	0	4

Environmental risks have been incorporated within four institutions' risk register; no institution has developed a separate register of environmental legislation.

2.6 Resources (Question 2i) Staffing

We asked for information about the number of part-time and full-time posts on which staff were working on sustainability and environmental related issues. Tables 5 and 6 show the results. 13 institutions responded of which only six had any full-time posts and five had part-time posts. Amongst those which had staff deployed, there was great variation in the amount of resource deployed - with one institution having eight full-time staff and two having less than half of a post each. Potentially this is a useful baseline measure, if the measure can be clearly defined.

Table 5 Number of institutions with different numbers of full time and part-time staff who have environmental and sustainability responsibilities.

	Number of posts									
	None	0.1-0.9	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Number of institutions with part-time posts	4	2	2	1						
Number of institutions with full time posts	7	n/a	4		1					1
Number of institutions in total	4	2	4	1	1					1

Table 6 Number of institutions responding that employ full-time and part-time staff with environmental and sustainability responsibilities and average number of full and part-time staff in these institutions

	Type of staff		
	Full-time	Part-time	Total - Full and Part-time together
Number of institutions with staffing	6	5	9
Number of institutions with no staffing	7	4	4
Total numbers of institutions responding	13	9	13
Total number of FTE staff in these institutions	15	3.5	18.5
Average FTEs of all responding	1.15	0.39	1.42

We also examined the relationship between the number of institutions with policies for the environment or sustainability and the presence or absence of full-time environmental/sustainability staff (Table 7).

Table 7 Relationship between number of institutions with policies for the environment or sustainability and the presence or absence of full-time environmental/sustainability staff

Presence of full-time staff	Presence of sustainability/ environmental policy	
	At least one policy	No policy
No posts	6	1
At least one post	2	4
Total	8	5

Though the numbers are small because not all the institutions returning the questionnaire completed both the questions necessary to undertake the analysis, there seems to be a strange inverse relationship between the presence of staff and the presence of policies. That is, only two (25%) of the institutions that had full-time posts had policies in place for sustainability or the environment whilst 80% of those with full-time posts had no policies. The reasons for this relationship need exploration and if confirmed by a larger sample would have implications for the kinds of actions needed to promote sustainability. The reasons for this might be that;

- Although senior management are aware of the need to demonstrate high level commitment, they find difficulty in providing the resources to implement such commitments; or
- Staff resources are put into the implementation of environmental measures rather than into the development of policies.

Only 25% of institutions that have full time posts for environment or sustainability have policies for sustainability or the environment; conversely, 80% of institutions with at least one post have no policies

2.7 Training (Question 2k)

Table 8 indicates the types of training provided and the numbers of institutions providing training for different groups of stakeholders. About 50% of institutions that sent back the questionnaire gave answers to these questions and of these most provided training of some kind. Most training was focused on general environmental awareness, energy and waste and was targeted at senior management. Training was also quite frequently provided for other internal groups but only one instance was given of training being provided for suppliers or sub-contractors.

Table 8 Types of training provided and numbers of institutions providing training for different groups of stakeholders

Type of training provided	Total number of institutions responding	Total number providing training	Number of institutions providing training for different groups					
			Senior management	Academic	Admin	Student	Suppliers	Sub-contractors
General environmental awareness	8	7	4	4	3	4	0	0
Energy	8	7	4	3	2	3	0	0
Waste	8	6	4	2	2	3	0	0
Transport/Travel	6	4	1	1	2	2	0	0
Social responsibility*	6	3	3	2	2	2	1	1

*ie social inclusion and citizenship

Internal training has been given by some institutions mostly on general environmental awareness, energy and waste.

2.8 Communication (Question 2l)

Institutions reported that commitment to environment/sustainability and their performance had been communicated internally and externally using a number of mechanisms. Table 9 provides the details. Nine out of the 11 institutions that responded to this question used their policies and strategies as a vehicle for communication. Newsletters, meetings and training were also used frequently.

Table 9 Number of institutions that have used different kinds of communication directed internally or externally

	Focus of communication	
	Internal	External
Number of institutions responding to question	11	8
Number of institutions using some form of communication	10	6
Type of communication used:		
Policy statement /Strategy	9	3
Using formal reports	4	2
Website	4	4
Training	5	2
Marketing	4	3
Campaigns	4	1
Newsletters	6	2
Meetings	6	2
Newspapers	3	3
Working with the community	3	2

Only four institutions responded to the question on the nature of the groups that were targeted for communications. Their responses are set out in Table 10. Students and Staff had been targeted the most.

Table 10 Number of institutions that have targeted information at different groups

Total number of institutions	Targeted groups						
	Students	Staff	Clients	Suppliers	Public	Government	Community
5	2	4	2	1	2	3	1

2.9 Procedures (Question 2m)

Although some institutions had policies for environmental or sustainability-related issues, few possessed written procedures setting out how policies were to be implemented. This is a serious gap. If staff lack guidance on how to undertake their work in a way that minimises risk to the environment and on how to integrate sustainability into their work, they are likely to find it difficult to improve environmental performance.

Table 11 Number of institutions that have and have not got procedures in place for dealing with particular sustainability and environmental related issues

Area	Number of institutions that:			
	Responded to this question	Have no procedures developed	Have developed new procedures	Have integrated within existing procedures
Energy	12	10	2	0
Waste	12	10	1	1
Transport/Travel	12	9	2	1
Legal compliance	11	9	0	2
Ethical investment	11	11	0	0
Procurement	12	10	1	1

Many institutions have no separate or integrated operational procedures describing how to undertake activities with consideration for the environment/sustainability.

2.10 Reporting (Question 2n & 2o)

All three of the universities responding to the questionnaire submitted data annually to the SFC as part of the Estates Management Statistics (EMS₂) exercise. Seven of the colleges submit data to the E-mandate scheme, the equivalent to the EMS₂ for the FE sector. Other external reports are made to UK ETS and on utilities performance. Table 12 provides information on internal reports. Less than 50% of institutions make internal reports. Senior management was the most usual audience for internal reports, but few reported to governing bodies.

Table 12 Number of institutions that report internally on activities related to the environment and sustainability

Issue being reported on	Number of institutions that			
	Responded to these questions	Report annually to governing body	Report annually to senior management	Reporting annually at Departmental level
Strategy	8	3	4	0
Energy	7	2	4	0
Waste	5	2	2	0
Transport/Travel	5	1	2	0
Legal Compliance	6	1	2	0
Ethical	3	0	0	0
Procurement	4	1	0	0

2.11 Budget (Question 2p)

We asked for information about the presence of budgets for environmental and sustainability issues. The results are set out in Table 13 which shows that most of the institutions responding to this question had budgets for most of the issues. The one issue which lacked a budget was “sustainability” – with only two institutions claiming to have a budget.

Table 13 Number of institutions with a budget related to the environment and sustainability

Issue	Number responding	Number of institutions with a budget
Sustainability	9	2
Environment	11	5
Energy	10	8
Waste	11	8
Transport/Travel	11	6
Legal Compliance	9	7

Examples of what budgets were used for include:

- Boiler replacement
- Building Management Systems replacement
- College course
- Disposal costs/waste collection
- Health and Safety
- Organisational insurances
- Organisational waste
- Professional fees
- Public transport
- Replacement windows
- Signage
- Sustainable Development and college services
- Utilities costs and services

Understandably, the budgets tended to be spent on routine activities and not on development projects that would support improvements in performance or the uptake of new/more efficient technologies. Such development projects may genuinely be very infrequent or may have been under-reported in the questionnaire because their costs have been absorbed within capital projects.

2.12 Opportunities for further improvements

The answers given in Section 2 have enabled us to identify areas of support that are needed to help institutions improve their performance. These include:

Environmental Management Systems

- Identifying opportunities to integrate environmental and sustainable development within the management systems being used by the sector, for example, Investors in People or the Scottish Quality Management Systems Standard;
- Encouraging and supporting more institutions to develop environmental and sustainability management systems to improve performance;

Policies

- Providing guidance and templates to assist with the integration of sustainability into policy documents;
- Encouraging institutions that had been focusing on waste, energy, travel to look at ethical investment and fair trade;
- Encouraging colleges to focus on waste, energy and travel;

Audits

- Providing guidance and support on the undertaking of audits;

Risks and legislation

- Encouraging institutions to integrate environmental risks into their main risk register;
- Develop a register of legislation that feeds into the risk register;
- Providing examples and templates of risk registers and registers of legislation;
- Working with SEPA to raise awareness of legal requirements in the sector;
- Working with SEPA to develop NetRegs as a source of information relevant to the sector;

Objectives, targets, management programmes

- Encouraging institutions to develop objectives and targets for policies;
- Providing examples of management programmes/operational plans;
- Providing examples of how working groups have been established;

Responsibilities

- Providing examples of organisational charts and job descriptions;

Training and communication

- Developing training opportunities for the sector;
- Sharing training programmes between institutions;
- Providing support for institutional staff that providing training and development;
- Integrating environmental training into existing staff development schemes;
- Providing examples of communication strategies and awareness programmes;

Procedures

- Providing examples of templates and procedures used by other institutions for reducing risks and improving performance;
- Providing training on how to integrate and implement procedures within existing practice;

Reporting

- Encouraging institutions to submit data annually to Estates Management Statistics and E-mandate; and
- Providing support, examples, and templates on how best to gather data to enable it to be easily accessed.

3 LEGAL COMPLIANCE

Table 14 shows that few of the responding institutions demonstrated awareness of the need for permits of authorisation. For example, it is likely that most institutions are required to comply with the Environmental Protection (Duty of Care) Regulations 1991 and yet only seven claimed that this was a requirement. The responses also show that many FHE institutions had potentially as many compliance issues as businesses, yet the amount of support and information that is available for business considerably outweighs that available to the FHE sector.

Table 14 Number of Institutions reporting the need for compliance with specific legislation

Legislation referred to	Number responding that authorisation required	Number responding that authorisation not required	Number responding "Don't know"	No response	Total
Waste Management Licencing Regulations 1994 as amended (e.g. waste management licence for storing waste)	3	11	1	2	17
Environmental Protection (Duty of Care) Regulations 1991 as amended (e.g. for transferring/transporting waste materials)	7	7	1	2	17
Greenhouse Gas Emissions Trading Regulations 2005 as amended (e.g. for emissions of CO2 from combustion installations greater than 20MWth)	3	10	2	2	17
Pollution Prevention and Control Act 1999 (e.g. for releasing emissions to air, land, water)	2	12	1	2	17
Control of Pollution Act 1974 (e.g. for discharging wastewater containing certain levels of chemicals into the foul sewer)	4	9	1	3	17
Producer Responsibility Obligations (Packaging Waste) Regulations 1997 as amended (e.g. reporting on quantities of packaging passed on to the end user)	1	13	1	2	17
Planning agreement (Section 75) (e.g. Local Authority requirement to develop travel plan for new development)	7	7	1	2	17
Radioactive substances Act 1993 (e.g. for storing radioactive materials)	6	7	2	2	17
Special Waste Regulations 1996 as amended (e.g. for transferring/transporting special waste)	9	6	1	1	17

Other legislation that institutions identified as being relevant included:

- Environmental Information Regulations 2004;
- Nature Conservation (Scotland) Act;
- Scottish Outdoor Access Code;
- Food and Environmental Protection Act; and
- Animal By-products Regulations.

In addition, six institutions reported that they had undertaken an Environmental Impact Assessment for campus developments. Institutions also indicated that different local authorities interpreted regulations differently.

3.1 Opportunities for further improvements

There is clearly a need to provide support for the sector on legislative compliance to ensure that institutions are aware of the legal obligations and how to comply with them. The kind of support that could be provided includes:

- Work with SEPA to develop NetRegs and other information sources specifically for the education sector; and
- Provide workshops and support on complying with relevant environmental legislation.

4 CONSUMPTION AND PRODUCTION

The questionnaire asked for information about the availability of data on costs and amounts of different kinds of resources. The summary of responses is given in Table 15 (costs) and Table 16 (amounts).

Table 15 Number of institutions that have data available about the costs of different resources

Issue	Total replying	Not applicable	Balance that use resource	No data	Data collected but difficult to access	Data provided	% Providing data	No answer given
Landfill tax	12	1	11	5	5	1	9%	10
Office furniture	12	0	12	5	5	2	17%	10
Paper	13	0	13	3	7	3	23%	10
Office stationery	12	0	12	4	6	2	17%	10
Recycled material	11	1	10	6	3	1	10%	9
Petrol	11	2	9	1	6	2	22%	7
Commercial waste	13	1	12	2	5	5	42%	7
Special waste	11	3	8	3	4	1	13%	7
Clinical waste	12	4	8	2	5	1	13%	7
Compost	10	4	6	5	1	0	0%	6
Fertiliser	10	4	6	4	2	0	0%	6
Pesticides	10	4	6	4	2	0	0%	6
Water	13	0	13	1	3	9	69%	4
Wastewater	12	1	11	1	3	7	64%	4
Natural gas	10	1	9	1	2	6	67%	3
Electricity	10	0	10	1	2	7	70%	3
Diesel	11	5	6	1	1	4	67%	2
LPG	10	7	3	2	0	1	33%	2
Biofuel	10	10	0	0	0	0	0%	0

Table 15 shows that between 0% and 70% of those responding to the question could provide data on costs. At least 65% of institutions were able to provide individual information about the costs of wastewater, natural gas electricity and diesel, but only 42% could provide data on the costs of commercial waste. The table also shows that few institutions were using alternative fuel sources such as LPG and Biofuel. Table 16 shows that in general, much less data was available on the amounts of materials used.

Table 16 Availability of data held by institutions on amounts of materials

Issue	Total replying	Not applicable	Balance that use resource	No data	Data collected but difficult to access	Data provided	% Providing data	No answer given
Office furniture	8	0	8	4	4	0	0%	8
Paper	8	0	8	2	6	0	0%	8
Office stationery	8	0	8	2	6	0	0%	8
Commercial waste	10	1	9	3	4	2	22%	7
Petrol	8	2	6	1	5	0	0%	6
Special waste	8	2	6	4	2	0	0%	6
Recycled material	8	1	7	5	1	1	14%	6
Waste to landfill	8	1	7	2	4	1	14%	6
Water	10	0	10	1	4	5	50%	5
Wastewater	10	2	8	1	4	3	38%	5
Natural gas	10	0	10	1	3	6	60%	4
Electricity	9	0	9	1	3	5	56%	4
Clinical waste	8	4	4	1	3	0	0%	4
Fertiliser	7	3	4	2	2	0	0%	4
Pesticides	7	3	4	2	2	0	0%	4
Diesel	10	4	6	1	2	3	50%	3
LPG	8	4	4	2	1	1	25%	3
Compost	7	5	2	2	0	0	0%	2
Biofuel	7	6	1	1	0	0	0%	1

Again, more information is available on some utilities with the greatest numbers providing answers on gas, electricity, and water/wastewater consumption. Answers were also provided for diesel, LPG, Commercial waste, recycled material and waste to landfill.

We did not get comprehensive information about why data of costs and amounts were lacking. Some of the reasons were likely to be:

- Failure to measure or collect the information in the first place;
- The difficulty of accessing the data, as a result of the storage format used; and
- A lack of staff time to gather or analyse data.

Institutions were asked whether they had set targets or KPIs for the issues listed above. The responses are in Table 17 and indicate that very low numbers were actively monitoring these issues; even those with data were not actively improving performance by setting targets.

Table 17 Number of institutions with targets or key performance indicators for specific types of resource or impact

Natural gas	2	Petrol	1	Landfill tax	1
Electricity	2	Commercial waste	1	Fertiliser	1
Water	2	Special waste	1	Pesticides	1
Wastewater	2	Recycled material	2	Office furniture	0
Diesel	2	Clinical waste	0	Paper	1
LPG	2	Compost	1	Office stationery	1
Biofuel	0				

Most of the questionnaire sought information about the availability of data rather than the data itself. There was however a section gathering actual data on the costs and volumes of a number of resources. The data provided on the use of gas and electricity by individual institutions is given in Appendix 2. Individual institutions are not named in this table but each has been assigned a unique reference number that will enable institutions to make comparisons with others.

In addition to the issues discussed earlier, a wide range of other issues were raised by institutions. These are set out in Table 18. Some of the more interesting conclusions to be drawn are: few institutions included renewable energy in their utilities contracts; institutions know the number of parking spaces but few implement parking permit schemes; there was little information on single occupancy car journeys and business miles, but some institutions were able to provide details of air journeys; institutions were more likely to have information on the number of procurement contracts at a national level than at regional level; projects about sustainability were being undertaken with staff, students and the community.

Table 18 Availability of data held by institutions on other issues

Issue	Type of data	Total replying	Not applicable	Balance for whom relevant	No data	Data collected but difficult to access	Data provided	% Providing data	No answer given
Renewable energy	%†	7	2	5	2	0	3	60%	2
Parking spaces	N	13	0	13	0	2	11	85%	2
Parking permits	N	11	7	4	0	1	3	75%	1
Single occupancy Car Journeys	N	12	0	12	10	1	1	8%	11
Number business miles per annum	Miles	9	0	9	4	5	0	0%	9
Air journeys within UK	n.p.a	12	0	12	4	4	4	33%	8
Air journeys outwith UK	n.p.a	11	1	10	3	4	3	30%	7
Environmental related incidents	n.p.a	11	1	10	3	1	6	60%	4
Suppliers used for food and drink	N	9	0	9	1	4	4	44%	5
Scottish food and drink suppliers	N	9	0	9	1	5	3	33%	6
Regional food and drink suppliers	N	9	0	9	2	5	2	22%	7
Miles food travels to reach you	N	9	0	9	8	1	0	0%	9
Peat-based products used p.a.	Amount	11	2	9	4	2	3	33%	6
Sustainability projects* involving the community	N	11	3	8	3	0	5	63%	3
Sustainability projects* involving staff	N	11	3	8	2	2	4	50%	4
Sustainability projects* involving students	N	12	3	9	3	2	4	44%	5
Courses with sustainability included	N	12	1	11	3	2	6	55%	5
Research projects leading to more sustainable technologies	N	12	3	9	3	1	5	56%	4
Buildings with a BREEAM rating	N	10	3	7	3	1	3	43%	4

†% of all supplied

N Number of

n.p.a Number per annum

*e.g. recycling, biodiversity, voluntary support

4.1 Opportunities for further improvements

Most institutions responding could provide data only for a few of these categories. Hence there are a large number of areas for potential improvement. We believe that it is necessary to focus on two areas that should be a particular priority;

Use and costs of water, natural gas and electricity

- Data on the amounts of water, natural gas and electricity being used and their cost were not provided by several institutions either because data is not being collected or not readily available. There are strong financial and environmental reasons to help institutions put in place the procedures necessary to gather and report this data; and

Waste

- Data on the costs and volumes of several different types of waste is also lacking. This lack has not only financial and environmental implications but also legal ones.

PART 3 – THE WAY FORWARD

5 RECOMMENDATIONS

5.1 Performance indicators

The questionnaire was designed to gather wide-ranging data relevant to sustainability from Scottish further and higher education institutions. From the responses, we are in a position to set out proposals for indicators. The indicators that we propose for consideration are:

INDICATORS AT LEVEL OF INDIVIDUAL INSTITUTIONS

Presence and absence data:

1. Presence of an EMS₁;
2. Presence of policy statements for sustainability/environment/waste/travel/energy);
3. Have undertaken an audit (sustainability/environment/travel/energy)
4. Have set objectives and targets;
5. Have reported to Estates Management Statistics or E-mandate (linked to specific components e.g. electricity, gas, water/wastewater/parking spaces etc);
6. Have breached legislation;
7. Amount of alternative fuel sources;
8. Environmental risks integrated within risk register;
9. Possess register of legislation;
10. Possess organisational charts showing persons responsible for environment;
11. Have provided training and staff development in the environment and sustainability
12. Presence of operational procedures to ensure that the environment or sustainability is given proper consideration - for example in procuring goods or disposal of waste
13. Possess budget allocated for environmental improvements.

Quantified indicators

14. Utilities use and spend per m² and per student and staff;
15. Tonnes of commercial waste per staff member;
16. Tonnes of recycled material per staff member;
17. % single occupancy car journeys;
18. Business miles/staff member;
19. Number of UK flights;
20. Quantities of pesticides used per m² green space;
21. Quantities of fertilisers used per m² green space;
22. Quantity of paper purchased per staff member;
23. % of buildings with BREEAM rating;
24. Number of Scottish suppliers used for food and drink; and
25. Percentage of renewable energy purchased by an individual institution.

SECTORAL INDICATORS

Sectoral indicators can be developed from the data gathered from individual institutions. This can be presented in the following forms:

- Numbers of institutions that have or do not have one or more of topics set out under the “Presence and absence data” listed above;
- Distribution tables produced from the quantified data gathered from institutions; (e.g. number of institutions using different amounts of pesticide per m² green space); and
- Creation of indicators for the whole sector based on the data collected from individual institutions (e.g. total number of UK flights taken by the sector per annum; or average quantity of fertiliser used per m² green space across the whole sector).

5.2 Priority areas for CaSPr and EAUC

It is clear that a number of institutions do not have the data needed to help them to improve their performance and we believe that a priority should be providing guidance to help institutions put the necessary data gathering processes in place. We recommend that CaSPr/EAUC should:

1. Encourage institutions to collect and collate data on the costs and levels of use of gas, electricity, water, wastewater, and commercial waste and to set targets for these;
2. Encourage institutions to report data through EMS₂/E-mandate;
3. Provide information about alternative fuel sources;
4. Encourage institutions to record data on the amount of recycling being undertaken;
5. Provide examples of how recycling and composting schemes have been implemented;
6. Provide guidance on the procurement of renewable energy through electricity contracts;
7. Provide examples on how institutions had implemented parking controls to encourage shift in travel patterns;
8. Encourage data collection on single occupancy car journeys and on business travel;
9. Provide guidance and support on sustainable procurement;
10. Provide examples of sustainability projects;
11. Provide guidance and support on sustainable construction;
12. Encourage colleges to focus initially on gathering data on core utilities such as waste, energy and travel;
13. Provide information about the legal requirements relating to the environment; and
14. Provide information about systems that can be introduced to get improved performance.

6 APPENDIX 1 CASPR INSTITUTIONS

Name	EAUC member?	CaSPr partner?
Aberdeen College		Yes
Anniesland College		Yes
Ayr College		Yes
Banff & Buchan College of Further Education		Yes
Barony College		Yes
Bell College	Yes	
Borders College		Yes
Cardonald College	Yes	
Clydebank College	Yes	Yes
Dumfries and Galloway College		Yes
Dundee College	Yes	Yes
Elmwood College	Yes	Yes
Glasgow Caledonian University	Yes	Yes
Glasgow Metropolitan College		Yes
Glasgow School of Art		Yes
Heriot Watt	Yes	
James Watt College	Yes	Yes
John Wheatley College	Yes	Yes
Lauder College	Yes	
Langside College	Yes	
Moray College		Yes
Napier University	Yes	Yes
Queen Margaret University College	Yes	Yes
Reid Kerr College		Yes
Scottish Agricultural College	Yes	Yes
South Lanarkshire College		Yes
Stevenson College		Yes
Stow College	Yes	Yes
The Adam Smith College	Yes	Yes
The Robert Gordon University	Yes	
University of Aberdeen	Yes	Yes
University of Dundee	Yes	
University of Edinburgh	Yes	Yes
University of Glasgow	Yes	Yes
University of Paisley	Yes	
University of St Andrews	Yes	Yes
University of Stirling	Yes	Yes
University of Strathclyde	Yes	Yes
Newbattle Abbey College		Currently on CaSPr mailing list
Shetland College of Further Education		as above
Orkney College		as above

7 APPENDIX 2 COMPARISON OF INSTITUTIONAL RESPONSES FOR SECTION 4 OF BASELINE QUESTIONNAIRE

Note: "1" in the columns below indicates agreement with the statement in the relevant column

Natural Gas costs

Ref	n/a	No data	Data available but not easily accessible	Total cost (£) p.a.	Cost (£) p.a. residential properties	Cost (£) p.a. Non-residential properties	Period data provided for	Source of information	Is data > 75% accurate?	Reporting mechanism
2				72081						
4				24450			2003/2004	Supplier	1	
8				122000			2003/2004			
10	1									
13		1								
14				36487	0	36487	Aug 04-Jul 05	Gas Bills	1	
15			1							
18			1							
21				142774	11545	131229	2004/2005	Utility Invoices	1	EMS
25				2922033	403983	2515642	2004/2005	Meter readings	1	EMS
Total	1	1	2	3319825	415528	2683358	-	-	4	-

Natural Gas £

Natural Gas amounts

Ref	n/a	No data	Data available but not easily accessible	Total amount p.a.	Total amount p.a. residential properties	Total amount p.a. other properties	Period data provided for	Source of information	Reporting mechanism	Units
2			1							
8				9521953			2003-04			kwh
10				2622831			year			kWh
13		1								
14				1492991	0	1492991	Aug 04 - Jul 05	Bills		Kwh
15			1							
18			1							
21				8053671			2004/2005	Utility Invoices	EMS	s
25				58440660	8127820	50312841	2004/2005	readings	EMS	kWh
Total		1	3	80132106	8127820	51805832	-	-	-	-

Gas

Electricity costs

Ref	n/a	No data	Data available but not easily accessible	Total cost (£) p.a.	Cost (£) p.a. residential properties	Cost (£) p.a. Non-residential properties	Period data provided for	Source of information	Is data > 75% accurate?	Reporting mechanism
2				77618						
4				45310			2003/2004	supplier	1	
8				131000			2003-2004			
10				82777			year	audit	1	ISO14001
13		1								
14				87772	0	87772	Aug 04 - Jul 05	Electricity Bills	1	
15			1							
18			1							
21				136925	7309	129616	2004/2005	Utility Invoices	1	EMS
25				1692302	260099	1432203	2004/2005	meter readings	1	EMS
Total	0	1	2	2253704	267408	1649591	-	-	5	-

Electricity amounts used

Ref	n/a	No data	Data available but not easily accessible	Total amount p.a.	Total amount p.a. residential properties	Total amount p.a. other properties	Period data provided for	Source of information	Reporting mechanism	Units
2										
4										
8				3045670			2003-04			Kwh
10				1222831			year			kWh
13		1								
14				1254698	0	1254698	Aug 04 - Jul 05	Bills		Kwh
15			1							
18			1							
21				2432780			2004/2005	Utility Invoices	EMS	m3/tonnes
25				36019630	5201981	30817649	2004/2005	readings	EMS	kwh
Total		1	2	43975609	5201981	32072347	-	-		-

Electricity