

THE SOUTHERN EDUCATION & LIBRARY BOARD

ENVIRONMENTAL IMPROVEMENT PROGRAMME

ANNUAL REPORT 2005/2006



THE SOUTHERN EDUCATION & LIBRARY BOARD ENVIRONMENTAL REPORT 2005/2006

1.0 INTRODUCTION

- 1.1 This is the sixth annual report on greening operations in line with the adoption by the board of an Environmental Policy Statement in July 2000.
- 1.2 The purpose of this report is to focus on the board's performance in 2005/06 in respect of greening its operations related to the management of the estate and travel. In particular it focuses on two main aspects –

The management approach and systems including procurement and education, and its operational environmental impacts covering energy consumption, transport, waste, recycling, water, paper and bio-diversity.

- 1.3 In order to show progress in each area; each section of this report begins with the relevant target or objective and a comment about achievement and/or performance. The targets and objectives are drawn from the Environmental Policy Statement and/or current public sector targets in the relevant area of activity.

- 1.4 The key to the use of graphics is –

Smiling Face 😊 - Objective/target met.

Normal Face 😐 - On course to meet longer-term objective/target or performance is variable across the Board.

Sad Face ☹️ - Evidence of only limited progress across the Board.

2.0 MANAGEMENT APPROACH AND SYSTEMS

2.1 HEADLINE INDICATOR

| | |
|---|---|
| Establish Accredited Environmental System |  |
|---|---|

SUMMARY OF ACHIEVEMENTS AND PERFORMANCE

- Publicly available Environmental Policy Statement and Improvement Programme.
- Publicly available Annual Report.
- Energy Efficiency Accreditation.
- Accredited ISO 14001 Environmental Management System.

2.2 POLICY AND APPROACH

- 2.2.1 The board has continued to develop its approach to environmental management and the systems used to support it since the adoption of a policy statement in 2000. Annual reports have been published and made publicly available over a six year period and the Environmental Improvement Group chaired by a member of the Senior Management Team continues to meet to assess progress.
- 2.2.2 Most organisations whether in the public or private sectors now wish to be assured with regulating authorities and their customer that they operate in accordance with sound environmental principles. Failure to comply with the ever increasing raft of legislation could be both embarrassing and expensive.
- 2.2.3 The risk of accidental or even unrecognised damage to the environment is high in an organisation which not only builds schools but also provides many varied services to a range of customers.
- 2.2.4 In a joint first for education in the province Dromore High School and the SELB have both been awarded the ISO 14001:2004 Certification for their environmental management systems by the International Standards Organisation "Moody International". This joint Certification enabled the assessors to examine links between the board and the school to ensure both parties were compliant with ISO 14001 communication requirements. There are currently two available standards suitable for all sectors. The Eco-Management and Audit Scheme (EMAS) which is European in scope and application and the International Standard ISO 14001. Both standards are targeted on continued and verifiable performance and share similar objectives and approach. With the intention of extending accreditation to further business premises, the board opted for the international standard rather than EMAS which is generally more site specific.
- 2.2.5 Other systems and mechanisms that assist delivery of improved environmental performance include –

- The requirement for each department to incorporate key environmental targets within service development plans.
- Energy monitoring and benchmarking which assists customers to validate and monitor energy performance.
- Participation in Department of Finance & Personnel's benchmarking of public sector buildings, which enables comparisons across the education sector.
- Partnership with Councils, Northern Ireland Environment Link and the Environment & Heritage Service in promoting a province wide schools waste awareness and action programme.

2.2.6 The Southern Education & Library Board was again placed in Quintile 1 of the 8th Arena Network Environmental Management survey aimed at examining the environmental impacts of 200 leading companies and 26 local authorities, 19 Health Trusts and the Education sector in Northern Ireland. Participation in this ongoing survey will enable the board to benchmark its position, further developing awareness of the issues involved.

2.2.7 The board has representation on the sustainable Construction Group (S.C.G) which is chaired by C.P.D. and was set up in December 2004 to action recommendations of the Aggregates Recycling Task Group report and the Government's Sustainability Action Plan. To date a number of guidance notes have been issued –

Guidance Note 1 – General roles and responsibilities.

Guidance Note 2 – Targets for recycling.

Guidance Note 3 – Construction, demolition and excavation waste materials.

Guidance Note 4 – Bulk inert materials/aggregates – re-use and recycling.

Guidance Note 5 – Demolition Protocol.

Site waste management plans as a concept are likely to form part of future commercial Planning Applications.

2.3 FOCUS FOR FUTURE ACTION

Current focus is on low carbon design of buildings.

- Revise policy and procedures in line with ISO 14001 Accreditation requirements and Improvement Programmes.
- Continue to produce a publicly available annual report.
- Seek to develop an ISO 14001 accredited system at other Out Centres within the 2006/2007 financial year.

3.0 ENERGY

3.1 HEADLINE INDICATORS

| | |
|--|---|
| (Cross government target) – reduce energy emissions (CO ₂) by 1% from 1999-2000 level (and each year thereafter) | ☺ |
| Initiate programme to obtain 10% of the board's energy from renewable sources | ☺ |

SUMMARY OF ACHIEVEMENT AND PERFORMANCE

- 92% of all electricity from renewable sources.
- 38% overall savings in CO₂ emissions since the base year.
- Energy Efficiency Accreditation awarded to the board.
- Major renewable energy investment in solar water heating and photovoltaics.

3.2 BACKGROUND

3.2.1 The European Commission Directorate General for Energy & Transport is the driving force behind European Energy Policy. European Energy Policy is built on three basic points –

- Enhancing competitiveness.
- Protecting the environment (sustainability).
- Ensuring security of supply.

3.2.2 In 1977 under the Kyoto Protocol the UK agreed to a legally binding target to reduce greenhouse emissions by 12.5% below 1990 levels by 2008/2012.

3.2.3 The board has over a number of years been involved in a public sector initiative within the province to meet these targets. Achievements in this area have been significant, however longer term government targets released in a recent white paper may be more challenging. This white paper entitled “Our Energy Future – creating a low carbon economy” represents a shift in government energy policy to place environmental issues above both security and competitiveness of supply.

3.2.4 Key targets include –

- To work toward cutting emissions of carbon dioxide by 60% by 2050.
- To maintain reliability of energy supplies.
- To promote competitive energy markets in the UK and beyond.

3.2.5 The key to achievement of these targets is a range of practical measures which include significant investment in renewable energy technologies, reforming planning, speeding

up of changes to Building Regulations, incentives for suppliers to help customers improve energy efficiency, promotion of a carbon trading system and working with EU and car manufacturers to improve vehicle efficiency.

- 3.2.6 In Northern Ireland, DETI has responsibility for setting the strategic framework for energy, with the overriding objective of "achieving a competitive, sustainable, reliable energy market at the minimum cost necessary in all island, UK and European context".

3.3 CORPORATE POSITION

- 3.3.1 The board's Annual Report on energy consumption at Appendix 1 shows a reduction in CO₂ emissions by 39% since the base year of 1999/2000, together with a 1% improvement in energy performance against 2004/2005.

3.4 SPECIAL INITIATIVES

- 3.4.1 A funding initiative with the Programme for Building Sustainable Prosperity (BSP), DARD, Northern Ireland Electricity and the Northern Ireland Education Boards which aims to facilitate and install solar photovoltaic panels (PV) and small wind devices at approximately 16 schools located throughout rural Northern Ireland has been announced. In addition the board invested in photovoltaic systems equivalent to 20kWp at Rathfriland High School, Drumadonnell Primary School and Annalong Primary School.
- 3.4.2 Following a statement by the Minister which recommended the development of shared services the NEELB & SELB established collaboration arrangements which involved the board's Energy Officer taking responsibility for energy and environmental services across two boards.

3.5 ENERGY BENCHMARKING AND ACCREDITATION

- 3.5.1 Following improvements in energy monitoring and benchmarking of buildings over a considerable period the board was awarded Energy Accreditation by the Energy Foundation. This process looked at all the current energy management procedures and awarded points in relation to –

- Monitoring and targeting.
- Communications.
- Management commitment.

The board has been accredited until 2009 following a further accreditation visit by an Assessor.

3.6 FOCUS FOR ACTION

- Action areas highlighted during the Energy Accreditation and ISO 14001 processes.
- Review and act on results of annual benchmarking activities.
- Explore and consider the scope to introduce further alternative power sources (such as solar or wind) at sites across the estate.
- Promote more cross-board commonality in monitoring and targeting procedures.

4.0 WASTE AND RECYCLING

4.1 HEADLINE INDICATORS

| | |
|--|---|
| Set target to reduce solid waste produced from the board's premises | 😊 |
| Monitor and audit waste disposed of from premises to ensure effective management and adherence to regulations. | 😐 |

SUMMARY OF ACHIEVEMENTS AND PERFORMANCE

- Recycling rates improved across a range of schools.
- Partnerships with Environment & Heritage Service and Councils' have initiated a programme of waste recovery across the education estate.
- Duty of Care procedures implemented board wide.

4.2 BACKGROUND

- 4.2.1 The Northern Ireland Waste Management strategy sets out the long term vision for the future development of waste management in Northern Ireland. This strategy which is currently under review by the Environment & Heritage Service lays down targets in relation to the land filling of industrial, commercial and biodegradable municipal wastes, and outlines the need for promotion and awareness of the issues involved. A review of environmental governance in Northern Ireland by an independent panel of experts has recently been announced, following a scathing report by nine environmental organisations which highlighted failures to implement European Directives on waste. Currently one of the more likely options is the transformation of the Environmental Heritage Service into a non-departmental body similar to the Environment Agency and SEPA in Britain.

4.3 MEASUREMENT

- 4.3.1 Measurement of waste remains difficult across a large property portfolio such as the board operates. Currently the board relies on data in relation to the number of bins collected at a site together with their relevant size and estimated weight. There is an obvious anomaly in that bins may not always be full, however in the absence of on site sampling and more accurate weighing techniques, figures provided by the six councils are utilised to provide comparisons.

4.4 RECYCLING

- 4.4.1 As a primarily office based organisation the board's waste streams are similar to those of other service sector organisations and include paper, glass and can, catering waste, human hygiene waste, office furniture, computers and electronic equipment. In addition to reductions in office waste the board objective is to reduce all types of waste, including hazardous waste, as well as dealing with hazardous substances according to the law and best practice.
- 4.4.2 Recycling systems operate throughout the board's estate for a wide range of materials including paper, cardboard, glass, cans, toner cartridges and fluorescent tubes. All six Councils whose areas are encompassed by that of the board now promote various schemes, which are supported to a significant extent by schools.
- 4.4.3 In an effort to promote a comprehensive waste recycling and education programme within schools, the board has been involved in discussions with the Environment & Heritage Service and the Councils' in its area. Following discussions dry recyclable schemes at all schools had been implemented with funding having been provided by the Environment & Heritage Service to all Councils. Unfortunately this funding has not been renewed in recent years. However most Councils' have continued with the programme. Most of the Councils incorporate dry recyclable collections with their current Blue Bin schemes.
- 4.4.4 In the past cardboard waste has proved to be problematic with large quantities going to landfill. Baling machines are being installed at a number of schools as the need arises.

4.5 WASTE ARISING

- 4.5.1 Waste arising from premises in each Council area are as follows –

| COUNCIL AREA | SCHOOLS (tonnes) | MEALS KITCHENS (tonnes) | RECYCLING (tonnes) |
|--|------------------|-------------------------|--------------------|
| Armagh City & District Council | 210.16 | 373.36 | 143.36 |
| Banbridge District Council | 325.26 | 168.94 | 166* |
| Cookstown District Council | 276.6 | 151.56 | 64.8 |
| Craigavon Borough Council | 560.52 | 483.86 | 140 |
| Dungannon & South Tyrone Borough Council | 432.19 | 338.9 | 130 |
| Newry & Mourne District Council | 116.24 | 443.32 | 106 |
| TOTALS | 1920.97 | 1959.94 | 750.16 |

* Assumed same as 2004/2005 – no up to date figure for schools in that Council area available.

- 4.5.2 Waste charges are now incorporated in annual benchmark figures published for schools to make comparisons and to highlight the issue.

4.6 FOCUS FOR ACTION

- Continue to encourage schools and out centres to extend and refine waste and recycling monitoring.
- Work with Councils to establish methods of improving on recycling rates.

5.0 PAPER

5.1 HEADLINE INDICATORS

| | |
|---|---|
| Review all operations with a view to maximising the use of IT and electronic media to replace the use of paper. | ☺ |
| Identify the quantity of printer/copy paper purchased and introduce programmes to save paper through – eg double-sided printing and copying. | ☺ |

SUMMARY OF ACHIEVEMENTS AND PERFORMANCE

- In-house photocopying facilities reviewed with new multi faceted machines facilitating double sided copying.
- Maximum use of e-mail for in-house circulars, minutes etc.

5.2 BACKGROUND

5.2.1 The need to reduce paper and actively promote the use of recycled products was recognised by the Environmental Management Group at an early stage. In-house and following a recommendation by the Group the board had been purchasing significant amounts of recycled paper for its own use with no noticeable difference in quality or machine maintenance requirements. Unfortunately, due to present budget difficulties the use of recycled paper has been temporarily halted. There is a price differential between virgin and recycled paper, the latter being more expensive making it a difficult issue to promote on a board wide basis. The SELB acts as procurement centre of excellence for paper procurement across the Northern Ireland Public Sector. This should reduce the cost of recycled paper and make the purchasing option more attractive in the long term.

5.2.2 Another key element in the drive to reduce paper is the installation of a new PC infrastructure, which enables increased on-line form completion and electronic messaging. With the completion of Classroom 2000 more direct electronic communication will be enabled with schools and the establishment of the board's Intranet and electronic data management system are key to further developments.

5.3 CORPORATE POSITION

5.3.1 Paper procurement at board headquarters amounted to 8861 reams of which 25% approximately was recycled.

5.3.2 Following a major upgrade of photocopying and printing facilities in board headquarters, double sided copying is now the norm. Teachers Centres' that provide a range of support services to schools have also agreed to promote the concept of using recycled paper and where appropriate will use them in documents produced for schools. These centres are among the largest users of paper within the organisation and are important in disseminating the recycled paper message to schools.

5.4 FOCUS FOR ACTION

- Through the Cross-Board Environmental Group encourage the purchase of recycled paper.
- Continue to circulate best practice and maximise the use of IT infrastructures to reduce paper use.

6.0 WATER

6.1 HEADLINE INDICATORS

| | |
|---|---|
| Draw up a programme to monitor water use at metered sites | ☺ |
| Establish a reduction target for water consumption. | ☹ |

SUMMARY OF ACHIEVEMENTS AND PERFORMANCE

- Water monitoring procedures improved.
- Water consumption data utilised in benchmarking process for targeted reduction.

6.2 Water management is conducted through the active targeting of excess consumption using Water Service supplied data to highlight anomalies which occur on an individual site basis.

6.3 POLICY & OBJECTIVES

6.3.1 The board's aim is to reduce water use by –

- Following the best practice guidance in the Government's "Conserving Water advice for Government Departments".
- Installing urinal control and spray taps where practicable and where they will improve value for money.
- Specifying water efficient appliances and equipment.

6.3.2 The board has not set a corporate target for water reduction as benchmarks are in the process of being issued by the Department of Finance & Personnel for all public sector properties including schools. It is anticipated that these benchmarks will be in the form of litres/m³/pupil or per metre. It is intended to apply these benchmarks as they are produced.

6.3.3 Water Charges & Consumption

| 2002/2003 | 2003/2004 | 2004/2005 | 2005/2006 |
|----------------|----------------|----------------|----------------|
| 371,188 cu mts | 286,719 cu mts | 162,930 cu mts | 265,171 ci mts |
| £220,176 | £254,184 | £141,948 | £236,804 |

6.4 FOCUS FOR ACTION

- Continue to explore opportunities and introduce actions, to apply target benchmarks upon their production.
- Encourage property centres to monitor water on a weekly or monthly basis.
- Take action where appropriate to reduce standing charges and excessive consumption.

7.0 TRANSPORT

7.1 HEADLINE INDICATORS

| | |
|---|---|
| Compile green transport plans to minimise adverse impacts on the environment. | ☹ |
| Encourage staff to use more environmentally preferred means of travel and communication. | ☹ |

SUMMARY OF ACHIEVEMENTS AND PERFORMANCE

- Preference given to car sharers in headquarters parking.
- Five Board Transport Officers Committee undertaking the compilation of "Green Travel Plans".

7.2 TRAVEL PLANS

- 7.2.1 In order to reduce congestion and pollution from commuting, official travel, fleet management, visitors and deliveries, the government recommends the compilation of green travel plans for all major public buildings. In an initial step at compiling green transport plans staff were surveyed to assess current home to work travel arrangements. In order to address the issue of the large number of single occupancy car journeys taking place a system was initiated which gives preference to car sharers for parking at headquarters.
- 7.2.2 In light of the considerable use by the board of transport in various forms such as school buses, fleet vehicles, leased cars etc it is deemed appropriate that the Transport Sections have specific responsibility in compiling green travel plans in each board area. To this end the five boards' Transport Officers Committee has now adopted the issue and anticipate completion of plans in due course.
- 7.2.3 The board's Environmental Officer is currently involved with the Craigavon Cycling Forum initiative and also with Sustrans safe routes to schools initiative which aim to improve levels of uptake in both cycling and public transport generally. In addition the board is represented on the Sustainable Transport Advisory Group chaired by the Road Service Transportation Unit.

7.2.4 **Board Buses** – Every effort is made to reduce consumption of fuel by our transport fleet in order to reduce environmental emissions. Comparisons over the past four years are as follows-

| YEAR | TOTAL FUEL (LITRES) (INTERNAL) | COST (INTERNAL) | DISTANCE TRAVELLED (MILES) (HOME TO SCHOOL) |
|-----------|-----------------------------------|--------------------|---|
| 2001/2002 | 876,314.3 | £529,806 | 3,056,880 |
| 2002/2003 | 612,803 | £445,097 | 2,908,672 |
| 2003/2004 | 483,458 | £339,744 | 4,187,260 |
| 2004/2005 | 556,749 | £355,694.88 | 4,352,104 |
| 2005/2006 | 707,622 | 522,627 (est.) | 4,586,621 |

7.3 OTHER TRAVEL STATISTICS

| | MILEAGE 2001/02 | MILEAGE 2002/03 | MILEAGE 2003/04 | MILEAGE 2004/05 | MILEAGE 2005/06 |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| Board's own vehicles | 20,937 | 24,712 | - | - | - |
| Teachers | 278,193 | 339,816 | 464,199 | 545,181 | 473,166 |
| Essential users | 1,187,267 | 1,195,700 | 1,235,316 | 1,210,458 | 1,182,830 |
| Casual users | 186,384 | 225,967 | 254,360 | 253,586 | 262,271 |
| Public transport (used for courses etc) | 397,813 | 325,004 | 336,172 | 271,277 | 230,382 |
| TOTAL | 2,070,594 | 2,111,129 | 2,290,047 | 2,280,502 | 2,148,649 |

7.3.1 In order to assess alternative fuel sources boards' have also joined together to trial Biofuels and LPG vehicles. It is hoped that from these trials boards' can assess the possibilities of reducing costs and emissions over coming years.

7.4 FOCUS FOR ACTION

- Transport Departments to develop "green travel plans" for headquarters and other major buildings.
- Develop travel information for staff to raise awareness of green travel issues.
- Aim to capture better information on business road mileage and introduce effective measures to reduce it in coming years.

8.0 PROCUREMENT

8.1 HEADLINE INDICATORS

| | |
|--|---|
| Introduce training and awareness programmes on environmental issues for purchasing staff and develop systems and procedures for implementing green procurement. | ☹ |
| Review contract terms and conditions to ensure that they do not prevent the purchase of re-manufactured refurbished and recycled products and refined mineral oils and vegetable based lubricating oils. | ☺ |

SUMMARY OF ACHIEVEMENT AND PERFORMANCE

- E-procurement initiative trial for catering establishments.
- SELB Centre of Expertise public sector procurement.

8.2 JOINT BOARD PROCUREMENT

- 8.2.1 The joint board procurement strategy has as one of its key objectives the promotion of environmental awareness among suppliers and contractors encouraging them to provide environmentally preferable products and services at competitive prices. To this end the procurement service has continued to assess its systems, procedures, contract specifications and auditing arrangements to ensure that they comply with best practice. In an effort to initiate e-procurement requirements, an inter-board pilot project has been completed for school catering establishments at five different locations. Currently e-procurement is developing as the standard method for catering procurement throughout the service.
- 8.2.2 The purchase of timber is now also a high profile issue and more and more contracts now require suppliers as a term of contract to produce evidence of sustainable and legal timber sourcing. This is also the case in sustainable construction of new school buildings.
- 8.2.3 The board has been selected as paper procurement centre of expertise for the public sector as a whole. With Environmental Procurement now an essential part of the process the procurement of more environmentally friendly products is more likely in the future.

8.3 FOCUS FOR FUTURE ACTION

- Incorporate all CPD Guidance as standard within procurement decisions.
- Continue integrating environmental factors into purchasing decisions (eg making contractors aware of the board's Environmental Policy, obliging contractors to follow the policy).
- Strive to improve monitoring and reporting of timber purchasing.
- Consider on a case by case basis, opportunities for environmental gains in other procurements.

9.0 EDUCATION

9.1 HEADLINE INDICATORS

| | |
|---|---|
| Compile index of relevant information, resources and projects as well as links to agencies. | ☹ |
| Development of guidelines for schools and identification of where and how specific subjects might contribute. | ☺ |

SUMMARY OF ACHIEVEMENT AND PERFORMANCE

- Examples of policies for schools produced.
- Issues promoted through CASS Service.

9.2 BACKGROUND

9.2.1 In Northern Ireland CCEA identified environmental responsibility as a core value in their recommendations for a revised curriculum in 2001. The proposals state that teachers should help pupils –

- Think globally act locally.
- Cut down on waste and prevent pollution.
- Save energy and natural resources.
- Look after the local environment.
- Encourage bio-diversity.

9.2.2 It is envisaged that these issues will be encouraged through science, geography and more significantly in a new subject called citizenship.

9.2.3 The Southern Education & Library Board supports environmental education by-

- Promoting and facilitating the flow of information and educational materials to schools and the youth service.
- Networking with outside agencies through the Educational Sustainable Development Group.

9.2.4 The Interboard ESD Group has now produced an Education for Sustainable Development (ESD) Good Practice guide for Primary, Secondary and Special Schools which specifically addresses the relevant areas in the new curriculum. This group are also spearheading the promotion of the ECO schools programme throughout the province with significant success.

- A major element in the process of Eco Schools within the SELB area has been the establishment of four Eco Cluster Groups in Armagh/Dungannon, Banbridge, Craigavon and Newry & Mourne in partnership with Councils in each area the board facilitates sharing of best practice between schools which promote the scheme.

9.2.5 ECO SCHOOLS IN SELB AREA

The NI Sustainable development strategy sets specific targets in regard to the adoption of Eco schools and aims for a 25% registration of all schools by 2008.

A number of schools registered in the past and did not develop the programme. These schools were again invited to last year's cluster meetings.

Many schools are already well on the road in terms of environmental work when it comes to joining the programme, but are slow to access their bronze and silver awards.

| YEAR | NUMBER REGISTERED |
|---------|-------------------|
| 2000/01 | 2 |
| 2001/02 | 4 |
| 2002/03 | 23 |
| 2003/04 | 19 |
| 2004/05 | 24 |
| 2005/06 | 103 |

| COUNCIL AREA | NO OF REGISTERED ECO-SCHOOLS | ECO SCHOOLS AS % OF TOTAL SCHOOLS IN COUNCIL AREA |
|----------------|------------------------------|---|
| Armagh | 19 | 27.5 |
| Banbridge | 19 | 45.2 |
| Cookstown | 3 | 10.3 |
| Craigavon | 15 | 27.3 |
| Dungannon | 23 | 32.9 |
| Newry & Mourne | 24 | 29.3 |

10.0 CONCLUSION

10.1 This report presents a broad account of the main greening operating issues for the board's estate. Some gaps still exist, however and will be addressed through the ISO 14001 Accreditation process and cross board environmental initiatives within ESA.

10.2 In many areas much of the basic planning is complete and focus should now shift to planning the achievement of demonstrable reductions in consumption and improved resource efficiency.

10.3 Education and awareness together with the effective use of partnerships will be of significant importance in the future ongoing campaign as we move through RPA and the formation of the new Education & Skills Authority.