



Forestry Commission Scotland
Coimisean na Coilltearachd Alba

Annual Sustainability Report

Financial Year 2011/12



Annual Sustainability Report 2011-12

Overview

Forestry Commission Scotland (FCS) is committed to reducing the environmental impact of its business activities, and in line with the Public Bodies Duties as set out in the Climate Change (Scotland) Act 2009, has published an [Environmental Policy](#) and developed and implemented an effective Environmental Management System (EMS). Key features of FCS's EMS include publishing a comprehensive environmental policy, setting annual targets for reducing carbon emissions from travel and energy use; maximising recycling and minimising waste; and reducing water consumption.

To ensure the highest standards of environmental practice, following a period of management systems development, our EMS is now independently certified to the ISO14001 Environmental Management Standard.

The purpose of this report is to summarise FCS's environmental performance during 2011/12 in line with recent SG guidance¹.

Our Environmental Management System (EMS) & Governance

Under our EMS procedures, all FCS Cost Centres have now conducted reviews of their offices and work premises to identify ways in which the environmental aspects of our business can be improved. As a result local EMS Action Plans have been prepared to allow progress to be monitored.

A regular programme of internal and external audit is also in place to support staff in identifying areas for improvement and to help ensure any issues are addressed.

A total of twelve internal audits were carried out during 2011-12 involving visits to the Forest Enterprise Scotland Head Office in Inverness, sites in seven Forest Districts, two mechanical engineering workshops, a Conservancy office, and our Northern Research Station near Edinburgh.

¹Public Sector Sustainability Reporting – Guidance on the Preparation of Annual Sustainability Reports 2011-12. (Scottish Government, January 2012).



Opportunities for improvement were identified in the following areas, and we will focus effort on these aspects of our business over the coming year:

- Audit trails, authorisations, correct completion of waste transfer notes, etc.
- Secure storage of waste, oil and other hazardous substances.
- Maintenance of relevant Emergency Plans covering all areas of high risk.
- Communications on environmental issues between departments and at shared sites

ISO14001 Certification

2011/12 saw the culmination of a period of concerted effort by FCS to further enhance its environmental management practices to incorporate current best practice. Central to this was the assessment and successful independent certification of our EMS under the ISO14001 Standard by Lloyds Register Quality Assurance (LRQA) in May 2011. The auditors were particularly impressed by the dedication and enthusiasm of all our staff in striving to follow best practice.



Gaining certification is a great step forward and, alongside the certification of the national forest estate under the UK Woodland Assurance Scheme, now means FCS can demonstrate our environmental credentials across all its activities and confidently say that all our business operations are run on a sustainable footing.





Environmental Performance Monitoring & Reporting

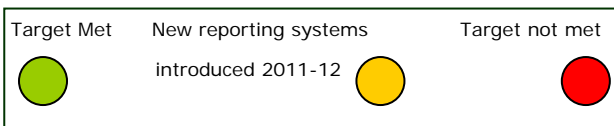
During the year we continued to monitor our travel emissions and energy use using established management systems. Thanks to a range of initiatives by FCS staff, our targets for both these aspects were successfully met.

Alongside monitoring travel and energy, new reporting and metering systems were developed and introduced for waste and water management. Improvements to metering has involved the installation of more than 100 new automatic meter reading systems for electricity, and 137 new water meters. Reports from these systems have allowed initial assessments of waste arisings and water consumption in 2011/12, and will ensure accurate baseline information can be reported from the coming financial year onwards.

Further details of our performance are given in tables 1 & appendix 1.

Table 1: Summary of Our Performance

| Area | Performance in 2011/12 | Status |
|-------------------------------|---|--|
| Energy | Emissions from energy use have been reduced by 8% compared with 2010/11 |  |
| Waste | New metering & reporting system introduced during 2011-12. The baseline year will be 2012-13. |  |
| Transport & Travel | Co2 emissions from travel have been reduced by 6.3% compared with 2010/11 |  |
| Water | New metering & reporting system introduced during 2011-12. The baseline year will be 2012-13. |  |



Actions Taken During 2011-12 to Improve Sustainability

Video & Telephone Conferencing

Video Conference (VC) facilities have now been installed in seven of the twelve main Forest Enterprise Scotland (FES) offices. The remaining five await the outcome of a re-tendering exercise for provision of further communications IT.

As a result of the culture change within FCS a second VC unit has been installed at the FES Head Office in Inverness to accommodate demand. The majority of functional lead meetings and all senior staff meetings are now held via VC along with an increasing number of meetings with external bodies.

In addition, telephone-conference 'pods' have been installed in all permanently staffed FCS offices which has continued to encourage the de-centralization of meetings. All of the above has lead to significant savings (especially time) and positively impacted upon the total miles travelled by FCS staff.

Fleet Management & Introduction of Fuel Efficient Vehicles

FCS aims to run the lowest CO2 emitting vehicles suitable for the work we do. Our Light Vehicle Policy provides vehicle selection guidance and shows indicative CO2 emissions in g/km. Consideration of the most efficient vehicle is a central part of our business planning process and helps us introduce lower emission vehicles in a planned and managed way.

Following a two year trial of vehicles using 100% bio diesel and 100% vegetable oil we have increased the % of bio diesel we use in our bulk tanks to an average of 25%. In agreement with Citroen we are now able to use up to 30% under vehicle warranty.

During 2011-12 we trialed three hybrid (petrol/electric) vehicles and 1 fully electric vehicle in the FCS fleet. The fully electric vehicle operated well mechanically and we are now reviewing its potential from an operational perspective. As we operate predominantly in rural areas, limitations to the effective range of electric vehicles are not easy to overcome.



Electric vehicle test at Inverness, Ross & Skye Forest District.

Improvements to the Energy Efficiency of Our Offices & Business Premises

Energy surveys have been carried out at 124 of our offices and business locations. The results are enabling us to plan further work to improve the energy efficiency of our premises, eg. by increasing insulation levels, updating heating systems and replacing the most inefficient & outdated buildings.

We continue to carry out improvements to the insulation levels of our buildings. During 2011-12 significant refurbishment has been carried to the main offices for two of our Forest Districts at Torlundy near Fort William and Lochgilphead in Argyll. Works are also underway at the main Forest District Office at Creebridge; and are being planned for the David Marshall Lodge Visitor Centre near Aberfoyle in 2012-13. As part of the works new wood pellet biomass heating systems were installed at Torlundy and Creebridge with a similar installation planned for the Lochgilphead office in 2012-13.



Biomass heating boiler installation at Torlundy.

Environmentally Sustainable Construction

Sustainability has been at the forefront of major new building developments at Glentress Forest near Peebles to create a new office, café & shop. [Glentress Peel](#), which opened in summer 2011, is now the top visitor attraction in the Scottish Borders, with extensive mountain bike and walking trails plus opportunities for horse riding and orienteering. A key feature has been the installation of a biomass heating system serving the whole site. An application for BREAM rating is currently being prepared.

Extensive improvements incorporating new more sustainable construction techniques and high levels of energy efficiency are also being planned at our visitor centres at Kirroughtree, Glentool and Clatteringshaws in Galloway.

Procurement of Goods & Services

During the year our key procurement staff received update training in sustainability principles and these aspects of our procurement have been reviewed and our operational guidance revised. The guidance now incorporates a new 'sustainability module' which can be used for every procurement exercise. Specific guidance and example questions help to ensure sustainability is properly considered in the delivery of all contracts, goods & services.

Our procurement procedures also include the application of appropriate Government Buying Standards; building in sustainability requirements to our specifications; and awarding contracts using sustainability as part of the award criteria where pertinent to their delivery. Further details of our sustainable procurement policy are available at:

[Sustainable Procurement Policy](#)

Long Term Sustainability - Our Approach to Climate Change Adaptation

Forestry Commission Scotland's Climate Change Action Plan

FCS's [Climate Change Action Plan](#) sets out what the Commission will do to increase the contribution and response of Scottish forestry to the challenges of climate change, and focuses on what needs to be done both as early actions and to increase future preparedness. The plan will be reviewed during 2012-13 to incorporate policies and proposals that emerge from the Scottish Government's Climate Change Adaptation Programme (see below).

Scotland's Climate Change Risk Assessment

Work to assess the risks that a changing climate will bring was carried out during the year, and was published in the [Climate Change Risk Assessment](#) (CCRA). Detailed reports look at the overall risks to Scotland, and to the forestry and other sectors.

The Scottish Government's Climate Change Adaptation Programme

The Scottish Government's [Climate Change Adaptation Programme](#) is being developed collaboratively with input from all eleven sectors identified in the CCRA. The forestry sector's input will focus on the policies and proposals needed to adapt to the risks from:

- Windthrow and other extreme events
- Pests and diseases
- Changes in species suitability
- Wildfire

In addition it will also look at:

- Risks to native woodland biodiversity
- Developing synergies between mitigation and adaptation.

Forest Sector Guidance on Climate Change Adaptation

Guidance on the suitability of a range of alternative conifer species was published by Perth and Argyll Conservancy and this will help forest managers who wish to diversify their species as a risk management strategy. Also published this year was a new FCS Practice Guide: [Achieving Diversity in Scotland's Forest Landscapes](#)



Appendix 1: Summary of Performance

| Area | Actual Performance 2011-12 | Target |
|---|---|--|
| GHG emissions (Scope 1, 2 & 3 Emissions) | 4184 tonnes Co2 [2,344tCo2 from travel + 1,840tCo2 from all energy use] | ----- |
| CRC related expenditure | Nil [CRC allowances to be paid from 2012-13] | ----- |
| Total travel emissions | 2,344 tonnes Co2 [reduction of 6.3% on 2010/11] | 2% per year reduction Target Met ✓ |
| Total travel expenditure | £3,966k [saving of 2.8% on 2010-11] | ----- |
| Total energy consumption | 4.58MkWh [8% reduction on 2010-11] | 3% per year reduction Target Met ✓ |
| Total energy expenditure | £395k | ----- |
| Total waste tonnage | Estimated¹ at 1298 tonnes [Performance against target to be reported from 2012-13] | 2.5% per year reduction |
| Office waste recycling | 65% recycling rate¹ | |
| Total waste expenditure | Estimated¹ at £88k | ----- |
| Water consumption | Estimated¹ at 105km³ [Performance against target to be reported from 2012-13] | 5.5m³ per person per yr in our key office buildings by 2020. |
| Water expenditure | Estimated¹ at £59k [key supplies only] | ----- |

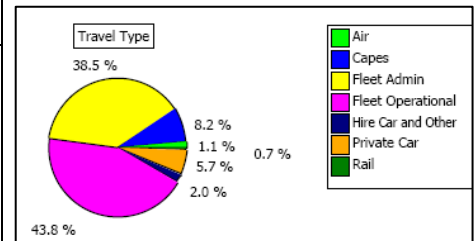
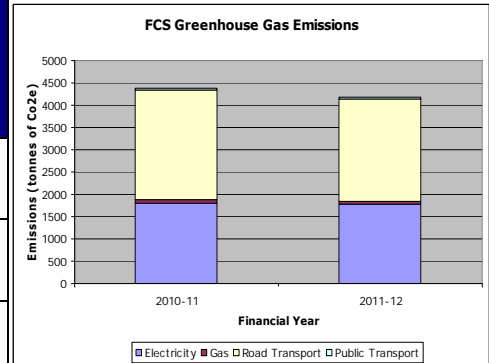
Notes:

¹Estimated in 2011-12 due to the introduction of new metering and reporting systems during the year.



Appendix 2: Core Sustainability Information 2011-12

| Greenhouse Gas Emissions & Energy | | 2010/11 | 2011/12 |
|--|--|----------------------|----------------------|
| Non Financial Indicators (tonnes Co2e) | Total Gross Emissions | 4386 | 4184 |
| | Total Net Emissions | 4386 | 4184 |
| | Gross Emissions Scope 1 | 2041 | 1929 |
| | Gross Emissions Scope 2 & 3. (indirect impacts) | 1885 +460 | 1840 +415 |
| Related energy consumption (kWh) | Electricity non-renewable | 3,434,691 | 2,947,866 |
| | Electricity Renewable | 381,632 ¹ | 327,541 ¹ |
| | Gas | 501,855 | 362,474 |
| | LPG | 176,235 | 11,328 |
| | Other (Gas Oil) | 1,030,202 | 1,170,077 |
| Financial indicators (£k) | Expenditure on Energy | 340,511 | 395,043 |
| | CRC license Expenditure | - | - |
| | Expenditure on business travel – official travel & fleet costs | 4,081,199 | 3,966,092 |



¹based on the average % of renewable electricity supplied



| Waste | | 2010/11 | 2011/12 | |
|-----------------------------------|--|-------------------|-------------------|------------------|
| Non Financial Indicators (tonnes) | Total volume of waste (not incl. construction) | - | 1298 ¹ | |
| | Hazardous /special waste | - | 29 ¹ | |
| | Non-Hazardous waste | Landfill | - | 560 ¹ |
| | | Re-used /Recycled | - | 686 ¹ |
| Incinerated /energy from waste | | - | 23 ¹ | |
| Financial indicators (£k) | Total waste disposal cost | - | 88 ¹ | |
| | Hazardous/special waste disposal cost | - | * | |
| | Non-Hazardous Waste – total disposal cost | Landfill | - | * |
| | | Reused /recycled | - | * |
| Incinerated /energy From waste | | - | * | |

¹Estimated in 2011-12 due to the introduction of new metering and reporting systems during the year.

* absorbed in total waste figure. Disaggregation of costs for individual waste streams to be reported from 2012-13.

| Water | | 2010/11 | 2011/12 |
|--|--------------------|---------|----------------------|
| Non Financial Indicators (m ³) | Supplied | - | 105,000 ¹ |
| | Disposed | - | * |
| Financial indicators (£k) | Water supply costs | - | 59 ² |

¹Estimated in 2011-12 due to the introduction of new metering and reporting systems during the year.

²Cost of supplies to key buildings only.

* unknown.