



The Initiative for Carbon Accounting



Annual Report 2011

ICARB Annual Report 2011

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Figure 1. Workshop leaders at the 4th International Conference on Carbon Accounting in Edinburgh.

1. Background

ICARB members are a loose affiliation of diverse stakeholders seeking to build a common accounting language, assumption sets and accounting systems for Scotland that are Relevant; Complete; Consistent; Transparent and Accurate.

The headline driver for ICARB is that carbon reduction policies and programmes will work most effectively if the accounting systems are balanced and fair and do not unjustly favour one group's interests over those of another. In order to achieve this the above properties of universally acceptable accounting systems are necessary. See Appendix 2 for a full background.



Figure 2. David Wilson of the Scottish Government and Sue Roaf of ICARB at the 4th International Conference on Carbon Accounting.



2011 IN NUMBERS

Number of carbon accounting workshops organised by ICARB **13**



BUILDINGS



WASTE



TOURISM



ICT



AGRICULTURE



ENERGY



FORESTRY



SME'S



BOUNDARIES



COMMUNITY GROUPS



GRID CARBON INTENSITY

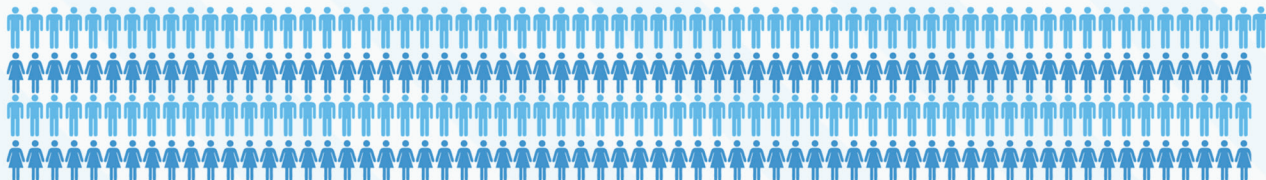


LIFE CYCLE ANALYSIS



FREIGHT TRANSPORT

Number of attendees at ICARB workshops **253**



Number of organisations represented at workshops

60

Number of visits to the ICARB website

6,592

Attendees at the 4th International Conference on Carbon Accounting

97

Carbon accounting presentations made available online

85

Number of times ICARB presentations have been viewed online

16,384

2. 2011 Programme of ICARB activities

ICARB had four main activities in 2011

1. Establishing the organisational structure of ICARB.

A preliminary Steering Group Meeting was held on the 11th April 2011 with Karen Turner (Stirling University), George Tarvitt (Sustainable Scotland Network), Keith Baker (Glasgow Caledonian University) and Susan Roaf and Sam Chapman (Chair and Hon. Secretary of ICARB from Heriot Watt University). The ICARB structure was discussed and in the subsequent meeting on the 16th February 2012 where it was agreed that a special meeting will be convened in late April 2102 to set up the terms and conditions for ICARB and set in motion establishing the statutes for a more formal organisation to be incorporated. The Co-Chair of ICARB, Sarah Boyack MSP, was kept informed on the development of the organisation.

2. Developing the ICARB Website

The ICARB Website (www.icarb.org) and the ICARB Conference website (www.icarbconference.org) was developed in 2011 Richard Roaf of www.alter-eco.co.uk. It has proved to be an excellent website, well structured, highly functional and filled with the presentations of previous ICARB meetings since 2007 (see also Appendix 2).

3. Sectoral Carbon Accounting Workshops

13 Sectoral Workshops were hosted over 2011 and supported by a wide range of ICARB members from very different stakeholder organisations. Over 300 people attended these workshops and minutes and presentations of them are available on <http://icarb.org/events/>).

The workshop schedule was as follows:

- | | |
|--|---|
| • Energy Workshop April 18 | • Forestry Workshop Sept 28 |
| • Buildings Workshop May 17 | • Tourism Workshop Oct 5 |
| • LCA Workshop June 1 | • ICT Workshop Oct 12 |
| • Agriculture Workshop June 7 | • Boundaries Workshop Oct 19 |
| • Grid Carbon Intensity Workshop June 13 | • Freight Transport and Logistics Workshop Oct 26 |
| • Waste Workshop August 24 | |
| • Small and Medium Enterprises Workshop Sept 7 | |
| • Community Groups Workshop Sept 14 | |

4. The 4th International Carbon Accounting conference

The 4th International Carbon Accounting conference was held on the 25th November 2011 to report back progress from the 13 Workshops, discuss progress and work towards the 2nd year of our ICARB Scottish Carbon Accounting programme in 2012. Over 120 people attended the events. All the presentations from the Conference are available on: <http://icarb.org/conference-presentations/>. The afternoon of the conference included a roundtable event, Chaired by Rachel Dunk of the Crichton Carbon Centre, at which the feedback from the 13 workshops were reviewed, deliberated on and recommendations for ways forward made. Appendix 1

includes a review of these comments by Keith Baker of Glasgow Caledonian University and the actual workshop review reports excellently transcribed and provided by Rachel Dunk and Lisa Gibson, again of the Crichton Carbon Centre.

The full programme of the conference is available on: <http://icarbconference.org/programme/>



Figure 3. A panel debate at the 2012 4th International Conference on Carbon Accounting.

3. Budget for 2011

The 2011 ICARB events were largely funded by a grant of £7000 from the Scottish Government with a single further contribution of £1000 sponsorship by the Chartered Institutions of Building Service Engineers to support student and community group attendance at the conference. The £7000 from the Scottish Government was spent in line with the original request for support as follows:

1. £1400 was spent in providing some support for work of the Steering Committee members in organising, collating meeting minutes and reviewing workshop outputs.
2. £900 was spent on consumables including workshop flyers, refreshments, a banner and other hardware.
3. £3000 was spent on development of the website, its management, organising and contacting workshop lists, travel and correspondence and uploading power point presentations and Workshop Reports.
4. £2700 was spent on the Conference including building and managing of the conference website, organisational and publication costs, hiring of the Conference Space, hardware eg. badges, signage and reporting media.

Susan Roaf, Chair of ICARB
School of the Built Environment
Heriot Watt University, Edinburgh EH14 4AS
2012-03-06

4. Reports of the 2011 ICARB Workshops

The presentations from all the 13 2011 Workshops have been uploaded onto the ICARB website and recommendations for further work are recorded in the Workshop minutes on the websites. The major review of the 2011 Workshops outcomes was undertaken at the afternoon workshop session of the ICARB Conference.

Building on the ICARB workshops that have taken place in 2011 there were 10 workshops running in parallel providing an in-depth overview of carbon accounting in the 10 sectors listed below. The whole workshop review event was ably managed by Rachel Dunk of the Crichton Carbon Centre. The exact focus of each workshop differed but each workshop to cover:

- An overview of common methodologies in the sector
- The challenges to accurate carbon accounting for that sector and best practice for overcoming these challenges
- The latest tools, data and resources for accurate carbon accounting
- The outcomes of the ICARB workshop for that sector
- A discussion of the future of carbon accounting in that sector

List of Workshops and Facilitators and links to related resources

Carbon Accounting for Buildings

Keith Baker, Glasgow Caledonian University

View the [details](#) and [minutes](#) from the recent ICARB Buildings Workshop.

Carbon Accounting for Waste

Professor Jim Baird, Glasgow Caledonian University

View the [details](#) of the recent ICARB Waste Workshop.

Carbon Accounting for Energy

Samuel Chapman, Heriot-Watt University

View the [minutes](#) from the recent ICARB Energy Workshop.

Life Cycle Analysis and Carbon Accounting

Gillian Menzies, Heriot-Watt University

View the [details](#) of the recent ICARB LCA Workshop.

Carbon Accounting for Agriculture

Gary Lanigan, The Agriculture and Food Development Authority, Ireland

View the [details](#) and [minutes](#) from the recent ICARB Agriculture Workshop.

Carbon Accounting for Freight Transport and Logistics

Professor Alan McKinnon, Heriot-Watt University

View the [details](#) of the recent ICARB Freight Transport and Logistics Workshop.

Carbon Accounting for Small and Medium Enterprises

Lisa Gibson, Crichton Carbon Centre

View the [details](#) of the recent ICARB SME Workshop.

Carbon Accounting for Community Groups

Osbert Lancaster, Change Making

View the [details](#) and [minutes](#) from the recent ICARB Community Groups workshop.

Carbon Accounting for Forestry

Vicky West, Forestry Commission

View the [details](#) of the recent ICARB Forestry workshop.

Carbon Accounting for Tourism

Rachel Dunk, Critchton Carbon Centre

View the [details](#) of the recent ICARB Tourism workshop.

During the workshops Rachel Dunk and Lisa Gibson facilitated and collected the feedback sheets for each table. They are appended to this report rather than included in them to avoid making it too bulky. The follow is a headline summary of the findings across the Board by Keith Baker of Glasgow Caledonian University:

Headline Findings

- A variety of sectors have requested sector specific case studies.
- There is a recognition that carbon accounting methodologies should aim towards 'sufficient consistency' rather than 'standardisation'.
- There is a need to link resource efficiency with carbon accounting – water foot-printing, cost benefit analysis etc.
- There is a high demand for a “carbon accounting databank” on the ICARB website. Students around the world have an interest in the data and could also help to develop it. An invitation to supply data could be put out and this data could be collated and managed on the website.
- A high level aim is to develop further the inventory refinement and uncertainty analysis.
- Accounting approaches for behaviour change should be explored.
- There is a need for better integration, communication and knowledge. Public outreach for the whole field is needed.
- There is interest in mentoring and a need to review the potential role of ICARB in developing this.
- Carbon accounting should be integrated into operational processes/structures, annual reporting from procurement to post occupancy etc.
- There is interest in the role of technology and related reporting. There is a high potential in active systems.

APPENDIX 1: BACKGROUND TO ICARB

In 2005 a group of us involved in the 'Solar Cities' movement' (www.isci.org) in Oxford started looking for robust and compatible accounting systems for carbon at the city level and beyond. What we found was a confused patchwork of accounting systems that were not compatible horizontally across sectors, or vertically through the 'scopes' of the accounting processes. Thus for our building level counting on biomass we had not data from the forestry accounting groups that we could use in our building and city level accounts. We could not compare the carbon impacts of energy from the Nuclear Industry to that say of Wind or Solar Energy because they all used very different methods, assumptions, boundaries and data bases. There were top down systems accounting systems used by governments and corporations and bottom up systems used for buildings and cities and it was impossible for the ordinary student or consultant to relate the outputs of one to the other.

The ICARB idea was to create a system whereby the emissions from a region or country could be divided into realistic sources of which ownership could be apportioned, for which action plans could be developed and to which proven reductions could be attributed. The need was for a Common Language, a Carbon Accounting language that was comprehensible to both bottom up and top down accountants, and for that we needed Rules and Resources that were beyond the reach of any one individual or organisation. The Ultimate aim of this initiative is consensus, and a universally agreed language and set of assumptions for carbon accounting against which stakeholder accounting systems could be measured, validated and evaluated.

The Westminster Carbon Accounting Group was established under the joint Chairmanship of Colin Challen, MP and Prof. Susan Roaf, with a loose affiliation to the All Party Parliamentary Group on Climate Change (APPGCC) of the House of Commons, Westminster. Between October 2005 and January 2008 some 12 meetings were held of this UK Carbon Accounting Group, a cross-disciplinary group of stakeholders in the carbon accounting process.

The Westminster Group organised and hosted the 1st UK Conference on Carbon Accounting at the Institution of Civil Engineers at 1 George Street, Westminster, on 24 January 2008, with a following reception in the House of Commons. This event was sponsored by the APPGCC, Royal Institution of Chartered Surveyors (RICS), Energy for Sustainable Development (ESD) and The Open University and was extremely well attended by over 120 delegates from a wide range of stakeholder groups. The success of this meeting prompted the expansion of the scope of the group's activities and its geographical reach. Subsequently the Scottish Carbon Accounting Group (SCAG) was formed, based for the time being at Heriot Watt University and The Scottish Assembly at Holyrood under the joint chairmanship of Sarah Boyack MSP, and Prof. Susan Roaf, now at Heriott Watt University.

With sponsorship from the Chartered Institution of Building Services Engineers (CIBSE) the 2nd Conference on Carbon Accounting was held on the 8th of April 2008 in the Scottish Parliament where over 70 delegates contributed to the lively discussions following 12 presented papers. The 3rd, now International, Carbon Accounting Conference was organised in conjunction with SCAG and sponsored by the Carbon Trust on the 11th march 2009 at Heriot Watt and was attended by 65 delegates from the UK and abroad. On the 25th November 2011 the 4th International Conference on Carbon Accounting was held at Heriot Watt University

with support from the Scottish Government and sponsorship from the Chartered Institution of Building Services Engineers (CIBSE).

A core function of the group has been the organisations of Workshops on individual sectors and issues and a library of the presentations and deliberations of each of these groups can be found on this websites. Working groups and Conferences have covered accounting for sectors as diverse as ICT, Energy, Buildings, Finance, Water, Forestry and Cities. New areas we wanted to explore in 2011 included Transport and Tourism.

Who attends ICARB events?

ICARB people come from a wide range of interested parties including international corporations, governments, accounting bodies, consultants, academics, students, businesses, local councils and members of very different professions and interested individuals. All are welcome and meetings and working groups are completely open.

How is ICARB going to Count ?

- By providing a forum for the development of a consensually agreed Language and Rule Book for Carbon Accounting that is relevant, complete, consistent, transparent and accurate and enables compatible of approached across sectors and through scopes to emerge over time.
- By identifying, discussing and resolving issues and barriers that inhibit the development of such a Language and Rules for Carbon Accounting.
- By Lobbying relevant organisations where necessary, to remove barriers to the development of such a Language and Rules for Carbon Accounting.

The Need for ICARB

Scotland has the most ambitious carbon reduction targets of any country to date. On March 14, 2011 the Scottish Government published the report Low Carbon Scotland: Meeting the Emissions Reduction Targets 2010-2022.

This fulfils the duty placed on Scottish Ministers by Section 35 of the Climate Change (Scotland) Act 2009, to lay before the Scottish Parliament a Report on Proposals and Policies setting out specific measures for reducing greenhouse gas emissions to meet Scotland's ambitious statutory targets. A Technical Appendix to the Report provides more detail on the figures used.

Meeting the targets will require a range of actions throughout Scotland's economy and society - by central government, local government and the public sector, businesses, individuals and communities alike. Some of these actions will be strategic, such as new energy, agriculture or planning policy; others will be targeted, such as increasing the number of homes with insulation. Innovation will be essential in this.

If the citizens of Scotland are to rise to the challenge of meeting these stringent targets they will have to believe in the veracity of the people accounting for the reductions and the methods

they use to do so. The pace of publicity for corporate carbon emission reductions may have slowed in the past year but that doesn't mean people believe the hype any more, at least in the UK. Based on a survey by Carbon Trust in published March 2011, a mere 7% of people there believe the claims made by companies that they are taking tough action to do their part to blunt the impact of climate change .

Citizens were shown to want corporations to do their part: 90% of people wanted companies to commit to at least a 3% reduction per year (which would allow the UK to meet its national emission reduction target for 2050). 70% of people think businesses should be mandated to report their emissions. However two-thirds of people in Britain questioned whether corporate emissions are being reduced at all, with just over half being concerned that companies are going for a PR coup, making big claims and then going back to business-as-usual. What made people believe a carbon emission reduction claim? Third-party verification. 60% of people surveyed required this before believing a claim.

So the need the dual need for ICARB is for:

- 1) A clear set of accounting rules that people can adopt and that facilitate the meeting of Scottish targets
- 2) A trusted process / body that will verify, validate, assist, lobby and promote a correct accounting system.

It is the ambition for ICARB to sort out clear, well-defined and achievable aims for the activities over the next 2 years.

APPENDIX 2. THE ICARB WEBSITE

Who is the audience of the ICARB website?

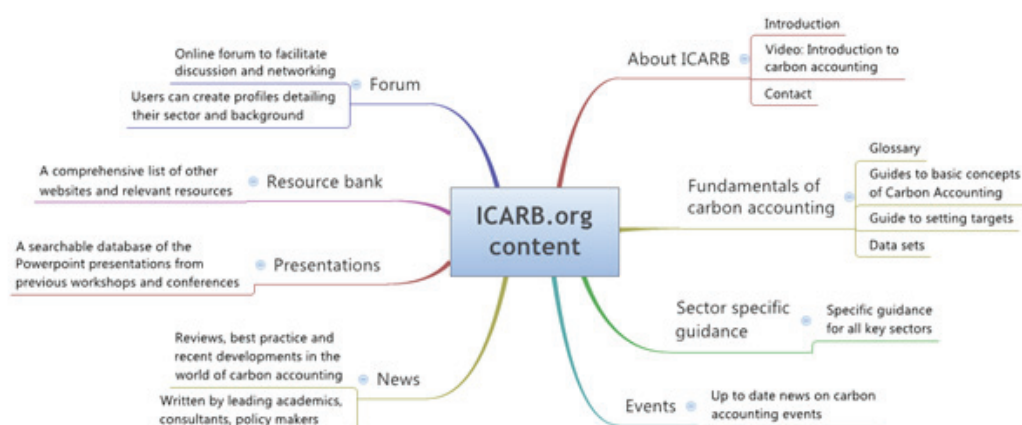
ICARB will be used by anyone with some involvement in carbon accounting including:

- Policy makers
- Academics
- Environmental managers
- Environmental consultants
- Community groups

They will be interested in:

- Learning from best practice
- Practical advice that they can apply in their work
- News on carbon accounting

ICARB.org Content Map



What resources are available?

- Powerpoint Presentation from conferences
- Related papers and Discussion pieces
- Several interested academics to blog
- Regular news updates

How will we know if it is a success?

- Good number of hits
- Being linked to from a number of other crucial sites
- Positive feedback on the usefulness of the site
- Level of interaction (people posting replies to others blogs and sending us articles and slides)