

<b>Institution: The University of Edinburgh</b>
<b>Unit of Assessment: B7 – Earth Systems and Environmental Sciences</b>
<b>Title of case study: DEVELOPMENT OF PROFESSIONAL PRACTICE FOR THE FINANCIAL ACCOUNTING OF CARBON</b>
<p><b>1. Summary of the impact</b></p> <p><b>Impact:</b> Improved awareness and development of professional practice related to the financial accounting of carbon, including: its addition to the Climate Disclosure Standards Board (CDSB) work programme and its designation by the International Accounting Standards Board (IASB) as a priority research project (both during 2012).</p> <p><b>Significance and reach:</b> The CDSB is a consortium of eight business/environmental organisations (including the World Economic Forum and the World Resources Institute). The IASB is the independent standard-setting body of the International Financial Reporting Standards Foundation.</p> <p><b>Underpinned by:</b> Research into corporate carbon accounting practices, undertaken at the University of Edinburgh (2008 onwards).</p>
<p><b>2. Underpinning research</b></p> <p>Numbered references relate to research outputs in Section 3.</p> <p><b>Key researcher</b></p> <p>The key researcher is Lovell, Reader in Human Dimensions of Environmental Change at the School of GeoSciences, University of Edinburgh. Lovell has been continuously employed in the School of GeoSciences since 2007.</p> <p><b>Research overview and context</b></p> <p>Research by Lovell at Edinburgh has sought to better understand how financial accountants classify and disclose greenhouse gas emission allowances, why there has been so much variation in how they do this, and where they seek advice and guidance in the absence of an existing international financial accounting standard. The research centres around two inter-related projects. Firstly, <i>'Fungible Carbon'</i> a Nuffield Fellowship (2008 - 2013) held by Lovell with Prof. Mackenzie (School of Social and Political Science), which involved 20 expert interviews plus documentary and pod-cast analysis of the International Accounting Standards Board (IASB) Board Meetings and reports of professional accountancy bodies. Secondly, <i>'Accounting for Carbon'</i> (2009 - 2010), which was funded by Association of Chartered Certified Accountants (ACCA) and the International Emissions Trading Association (IETA) and led by Lovell with project partners in the UK and Spain. This project principally involved a survey of major European companies participating in the European Union Emissions Trading System (EU ETS). Across these two projects, Lovell has established an international reputation for pioneering research on the financial accounting of carbon, exemplified by the 2010 publication of a high-profile report of the <i>Accounting for Carbon</i> project [1].</p> <p><b>Key research findings that underpin the subsequent impact</b></p> <p>The research identified six important new findings, as described in four peer-reviewed studies published over the period 2011 - 2013.</p> <ul style="list-style-type: none"> <li>• There is significant variation in European financial accounting practices for emission allowances and that this diversity hampers the effective functioning of the EU ETS because market-relevant information is not being disclosed by companies [2].</li> <li>• There are low levels of corporate disclosure of emission allowances amongst the companies surveyed in Europe (ranging from 23% to 77% non-disclosure across different accounting categories), despite the fact that such differences are material (i.e. financially significant) to these companies – with emission allowances calculated as worth between 14% and 85% of profit/loss before tax for a subset of eight European companies [2].</li> </ul>

## Impact case study (REF3b)

- In the continued absence of an international standard for carbon financial accounting, accountants are seeking advice and guidance from a number of different sources – specialist industry groups, national accounting standard setters, and auditors. The proliferation of regional and sectoral standards has the potential to undermine the authority of the IASB and makes international standardisation difficult [3].
- There has been limited engagement by financial accounting professionals in the early years of carbon market design and operation [4].
- There has been little communication between the professional sectors of financial accounting and carbon markets and that this has been shown to be a key explanation for the lack of progress towards the development of a workable international carbon financial accounting standard [4].

**3. References to the research**

Comments in bold on individual outputs give information on the quality of the underpinning research and may include the number of citations (Scopus, up to September 2013) and/or the 2012 Thomson Reuters Journal Impact Factor (JIF). The starred outputs best indicate this quality

**[1]\* Peer- and practitioner-reviewed report summarising the Accounting for Carbon project, launched in London in 2010 and again in Brussels in 2011**

Lovell, H., Sales de Aguiar, T., Bebbington, J. and Larringa-Gonzalez, C. (2010). *Accounting for Carbon*. ACCA and IETA Research Report 122. London, The Association of Chartered Certified Accountants (ACCA) and the International Emissions Trading Association (IETA), ISBN: 978-1-85908-469-4, <http://tinyurl.com/B7-11-S3-1B>

**[2]\* Peer-reviewed journal article, Lovell as lead author with project partners from the Accounting for Carbon project**

Lovell, H., de Aguiar, T., Bebbington, J., Larringa-Gonzalez, C. (2013) 'Putting carbon markets into practice: a case study of financial accounting in Europe', *Environment and Planning C: Government and Policy*, 31(4), 741-757, DOI: 10.1068/c1275

**[3] Peer-reviewed journal article**

Lovell, H. (2013) 'Climate change, markets and standards: the case of financial accounting', *Economy and Society* (publication pending), available upon request.

**[4]\* Peer-reviewed journal article, >10 citations in two years, JIF: 2.4**

Lovell, H. and MacKenzie, D (2011) 'Accounting for Carbon: the role of accounting professional organisations in governing climate change', *Antipode* 43 (3), 704–30, DOI: 10.1111/j.1467-8330.2011.00883.x

A further metric of research quality is given by the peer-reviewed grants that have contributed to the preceding outputs, which include:

- *Fungible Carbon* (2008 - 2013), sponsor: Nuffield New Career Development Fellowship, value £167k, awarded to Lovell with support from Mackenzie.
- *Accounting for Carbon* (2009 - 2010), sponsor: ACCA and IETA, value £20k, awarded to Lovell with J. Bebbington (St. Andrews), C. Larrinaga (Burgos, Spain), T. de Aguiar (Herriot-Watt).

**4. Details of the impact**

Lettered references relate to corroboration sources in Section 5.

**Improved professional practice related to the financial accounting of carbon**

**Pathway:** The underpinning research findings have had major implications for regulatory practice, audit and common agreement on how carbon accounting is to proceed in governmental and industrial contexts. Pathways to impact were generated through interactions with stakeholder institutions, development of international standards and policy, and through facilitating communication between financial accounting sectors and the carbon markets. These include:

## Impact case study (REF3b)

- The interview research on the *Fungible Carbon* project led to an invitation in 2009 for Lovell to join the Climate Disclosure Standards Board (CDSB) Technical Working Group, an international group of accounting and climate change experts drawn from industry, accountancy firms and academia [A]. In the aftermath of the *Accounting for Carbon* report, the Executive Director of the CDSB notified Lovell that they were interested in formally adding financial accounting issues to their agenda. A factual statement provided by the Executive Director states that the subsequent (2012) incorporation of financial accounting into their work programme was directly underpinned by the Edinburgh research [B].
- Lovell has been instrumentally involved in bringing together key stakeholders across the CDSB, IETA and IASB over the period 2009 – 2013, to resolve the confusing diversity of financial accounting practices and to agree best practice standards in the future. Following interest within CDSB for developing a voluntary carbon financial accounting standard, Lovell contacted the Emission Trading Schemes (ETS) project leader at the IASB and in December 2011 led meetings between the IASB and the CDSB to discuss such a standard. Lovell also led the submission from the CDSB to the 2011 IASB Agenda Consultation, providing research-led evidence from the *Accounting for Carbon* project of significant (material) diversity in carbon financial accountancy practice and reporting [C]. Following this consultation, in May 2012 the IASB signalled its renewed support for the ETS project, identifying it as a 'priority research project' [D]. Further corroboration of the underpinning role of the Edinburgh research can be provided by the IASB Project Manager [E].
- Lovell also coordinated an Expert Workshop in Edinburgh, held in January 2013, for the first time bringing together representatives from CDSB and the IETA and also attended by one of the sixteen IASB Board Members, as evidenced in the meeting schedule and list of attendees [F]. The workshop discussed objectives in carbon financial accounting, with the aim of resolving uncertainty in standards for carbon financial accounting. The workshop led to the notification of the European Financial Reporting Advisory Group (EFRAG) of the importance of variability in carbon financial accounting. Corroboration of this interaction and the influence of the Edinburgh workshop can be seen in the May 2013 joint response of the CDSB and IETA to an EFRAG draft comment paper on ETS, an output agreed at the Expert Workshop [G].

**Significance and reach:**

The organisations impacted by the research are of international reach and great significance for professional practice in the field of carbon accounting. In particular:

- The incorporation of carbon financial accounting into the CDSB work programme influences its eight consortium members (drawn from international business and environmental organisations and including the World Economic Forum, World Resources Institute, The Climate Registry and the CERES investment group) and beyond, as the CDSB has a growing international presence. A factual statement provided by the Executive Director of the CDSB states that Lovell played a "key role in facilitating impact via institutional take up of issues associated with the financial accounting of carbon" [B].
- The IASB is the independent standard-setting body of the International Financial Reporting Standards Foundation and consists of sixteen international experts. The IASB Board Member who attended the Edinburgh workshop noted in their summary/reflections that the evidence presented points to a standard being required. The IASB also requested digital recordings of the workshop to use for their Emissions Trading Schemes research for standard development [E].
- The European Financial Reporting Advisory Group provides technical advice to the European Commission on accounting matters and is highly influential (for example advice from EFRAG in 2004 led to the withdrawal of the first IASB guidance on carbon financial accounting, called 'IFRIC-3').

**5. Sources to corroborate the impact**

Where two web-links are given, the first is the primary source and the second an archived version.

**[A] CDSB Technical Working Group web-page**

<http://tinyurl.com/B7-11-S5-XA1> or <http://tinyurl.com/B7-11-S5-A1>

Provides corroboration that Lovell is a member of the Group, with influence on professional standards and guidelines, including authorship of the CDSB Reporting Framework (v1.1, October 2012): <http://tinyurl.com/B7-11-S5-XA3> or <http://tinyurl.com/B7-11-S5-A2>

**[B] Factual Statement from the Executive Director of the CDSB**

Provides corroboration that: I) Lovell played a key role in facilitating impact via institutional take-up, and II) the 2012 incorporation of financial accounting of carbon into the CDSB work programme was underpinned by the Edinburgh research.

**[C] CDSB submission to the IASB Agenda Consultation process (November 2011)**

<http://tinyurl.com/B7-11-S5-XC1> or <http://tinyurl.com/B7-11-S5-C1>

Provides corroboration of the citation of the 'Accounting for Carbon' report (Page 2) in the CDSB submission to the 2011 IASB consultation process.

**[D] IASB web-page on Emissions Trading Scheme (Research Project)**

<http://tinyurl.com/B7-11-S5-XD1> or <http://tinyurl.com/B7-11-S5-D1>

Provides corroboration that in May 2012, the IASB decided to add Emission Trading Schemes to its agenda as a research project, following the stakeholder input phase of the Agenda Consultation.

**[E] Emissions Trading Project Manager, IASB**

Can provide corroboration that: I) the Edinburgh research contributed to the IASB consultation process, through the CDSB submission and that the decision to add Emission Trading Schemes to its agenda as a research project arose from this consultation, and II) the IASB requested digital recordings of the 2013 Edinburgh workshop to use for input into their ETS project.

**[F] Programme and List of Attendees for January 2013 Edinburgh Expert Workshop**

<http://tinyurl.com/B7-11-S5-F> The list of registered participants (Page 3) provides corroboration of the attendance of representatives of the IETA, CDSB, IASB and the European Commission. The Schedule information (Pages 1-2) provides corroboration of the scope of the Workshop and Lovell's organising role is evidenced by delivery of the 'Welcome and Introduction' to the event (Page 1).

**[G] CDSB and IETA Response to EFRAG Emission Trading Schemes Draft Comment Paper, co-authored by Lovell (May 2013)**

<http://tinyurl.com/B7-11-S5-XG1A> or <http://tinyurl.com/B7-11-S5-G1>

Provides evidence of the use of I) the material discussed in the Expert Workshop in Edinburgh (January 2013) (Pages 2-4), and II) the Accounting for Carbon report specifically (cited on Page 2) in the notification of the EFRAG of the importance of variability in carbon finance accounting. The response is directed to a Draft Comment Paper on EFRAG ETS (April 2001, which highlights the IASB project on ETS: <http://tinyurl.com/B7-11-S5-XG2> or <http://tinyurl.com/B7-11-S5-G2>