

Natural capital and the accountancy profession: applying traditional skills to new thinking and practice

This paper focuses on the role that accountants are playing in the development of thinking, practice and frameworks for accounting for and reporting on natural capital by businesses.

Aims

To help readers understand:

1. the different subgroups of the accountancy profession and their main roles
2. how accountants are involved in the major natural capital accounting initiatives that focus on the corporate sector
3. the issues, opportunities and challenges accountants are considering in relation to natural capital accounting and reporting by businesses
4. the value accountants can and do contribute to addressing challenges with natural capital accounting.

Key findings

1. Accountants are playing an important role in the development of natural capital accounting.
2. Accountancy participation is seen as valuable, owing not only to accountants' expertise but also to their influence within business.
3. Understanding corporate needs and different perspectives is vital in supporting the development of useful reporting standards.
4. More could still be done by the accountancy profession. For example, different subgroups of the profession could:
 - integrate natural capital issues into mainstream decision making, accounting and advisory work
 - continue the evolution of traditional assurance techniques (and expressions of opinion) to support the credibility of reported natural capital information
 - help individuals to increase their understanding of natural capital.

The challenge

Growing interest, among businesses, investors, governments and wider society, in the concept of natural capital accounting is driving a range of initiatives developing tools and frameworks for entities and advisers. Natural capital impacts and dependencies, risks and opportunities are being seen increasingly as potentially material issues that businesses and investors should manage.

This has direct relevance for the accountancy profession. Not only can members of the profession play a part in developing common approaches to natural capital accounting, but they can also help to embed its application in business decision making. Such participation is already taking place, and presents a real opportunity to improve performance in relation to natural capital, but could the various subgroups of the accountancy profession be doing more?

To help support effective engagement among policymakers, natural capital specialists and accountancy professionals, this paper sets out the key roles and spheres of influence of the different subgroups within the accountancy profession.

It describes where and how the different parts of the accountancy profession are already involved in natural capital accounting initiatives and applications, and highlights the value that such involvement can bring. Suggested next steps are outlined to further embed natural capital considerations within the accountancy profession and business.

Natural capital defined

Natural capital is 'the stock of natural resources (eg ecosystems, species, air, water, land, soil, etc.) from which people can derive benefits'.

Source: Natural Capital Coalition¹

Methodology

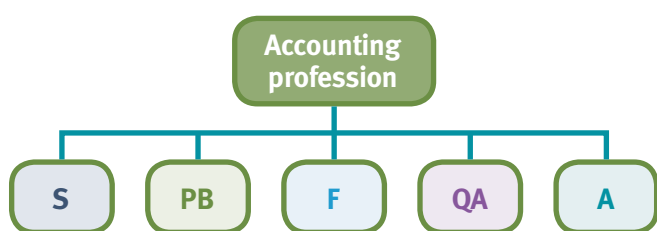
The findings in this report are based on a combination of desk-based research, a roundtable discussion with qualified accountants, and interviews with representatives from each subgroup of the profession and from those working on some of the main natural capital initiatives currently under way.

What do we mean by natural capital accounting?

The term 'accounting for' can be interpreted in different ways. For example, it could just mean 'taking something into consideration', so it is important to define 'natural capital accounting' clearly. In this report the term 'natural capital accounting' is used to mean the process of systematically recording a business's natural capital impacts and dependencies, assets and liabilities in a consistent and comparable way. This does not necessarily involve any attaching of value to these factors.

1. The accountancy profession in focus

Though often referred to as a homogeneous entity, the accountancy profession can be divided into distinct subgroups. This report identifies five: standard setters, professional bodies, professional firms, qualified accountants and accounting academics. Each group has a different role in the traditional accountancy landscape, and is also helping to develop thinking and practice in natural capital accounting.



S – Standard setter, **PB** – Professional body, **F** – Professional firm, **QA** – Qualified accountant, **A** – Academic.

(a) Standard setters

41 | the number of IASB accounting standards being used in well over 100 jurisdictions globally

(Source: IASB⁹)

80 | the number of industry-specific voluntary sustainability accounting standards being developed by the Sustainability Accounting Standards Board (SASB)

(Source: SASB¹⁰)

The role of the standard setters encompasses:

- in financial accounting, setting the rules and guidance that professional accountants follow when preparing financial statements
- in sustainability reporting, creating a framework for reporting sector-specific information.

Key participants¹

The International Accounting Standards Board (IASB)

The IASB focuses on setting standards related to the accounting for and reporting of financial information – called International Financial Reporting Standards (IFRSs) and International Accounting Standards (IASs) (older standards). The IASB follows a rigorous due process when developing new standards, typically issuing discussion papers and exposure drafts for public comment before publishing the final standard. The process generally takes several years.

The Sustainability Accounting Standards Board (SASB)²

SASB is developing industry-specific sustainability accounting standards designed for use primarily by companies listed on US stock exchanges in mandatory filings with the US Securities and Exchange Commission. The aim is to provide material information relevant to investors. SASB sees itself as complementing other sustainability-related initiatives such as the Global Reporting Initiative (GRI) and the International Integrated Reporting Council (IIRC). It also has a memorandum of understanding with CDP (formerly Carbon Disclosure Project), the body that runs the Climate Disclosure Standards Board, dedicated to the integration of climate-change-related disclosure into mainstream corporate reporting.

Natural capital has not traditionally been addressed in the financial reporting standards applied by the accountancy profession. Nevertheless, the development of SASB's industry-specific sustainability standards suggests that this could change in future. The development of such (currently voluntary) standards to encourage corporate reporting on natural capital is seen as important for enabling greater analysis of associated risks and opportunities.

Core or non-core?

The impacts of business and its dependency on natural capital do not generally feature in financial statements, and are therefore outside the core focus of the IASB. That said, a number of standards touch on natural capital issues, such as IAS 41 *Agriculture*.

The IASB is undertaking a comprehensive project looking at the feasibility of developing one set of reporting requirements for a wide range of investigative, exploratory and developmental activities seen as having qualitatively the same characteristics. For example, this could encompass drug development as well as exploration for natural resources. The IASB also currently has on its agenda a project on 'pollutant pricing mechanisms' (formerly emissions trading schemes) and is considering taking a fresh look at the accounting issues involved. Natural capital may come within the IASB's remit more directly in future if monetary values are applied to it and momentum behind its inclusion in financial statements grows.

¹ By 'participants' here we are referring to key players in this area of activity, rather than organisations whose representatives were interviewed for this report. The information provided in this and later 'Key participants' sections is based on publicly available data at the time of writing (May 2015).

² Members of the accountancy profession view the IASB and SASB very differently. This is because many jurisdictions around the world require mandatory compliance with the IASB's standards, whereas compliance with the SASB standards is only on a voluntary basis. Nevertheless, SASB is included in this section on standard setters (rather than the later section on natural capital initiatives) because the board sees itself as a standard setter and aims to support SEC filing requirements.

“Financial accounting information does not provide a complete set of information for investors. They always need other elements. At the IASB our focus is essentially on financial information. Our standard setting is generally limited to things that entities control or have acquired or manufactured in some way. We are not worried about other bodies setting standards on areas where they have the expertise.”

Alan Teixeira, Senior Director, Technical Activities, IASB

Filling information gaps

Given that the traditional financial reporting model does not encompass most natural capital issues, steps are being taken to fill the resulting information gaps. The framework developed by SASB is divided into five categories of capital. Natural capital issues arise mainly in the ‘Environment’ category, but could also occur in other categories such as ‘Business model and innovation’, (eg in relation to operational efficiency) or ‘Leadership and governance’ (eg in relation to raw material demand and protection of the environment). These categories are considered in the context of specific industries to provide companies with targeted guidance. Accountancy firms have been (and are expected to continue) providing support to SASB in its work, through donations of professional resources and financial grants.

Borrowing from financial accounting practice and expertise

SASB standards, designed for the voluntary disclosure of material sustainability issues in mandatory SEC filings, borrow many concepts from financial accounting. For example, the board has adopted the concept of materiality used by accountants when determining items that should be disclosed in annual reports and financial statements. SASB also recognises the need to try to ensure that sustainability data reaches the same high levels of quality as are expected of financial data.

Providing relevant, integrated data

SASB’s sustainability standards are based on the belief that financial analysts should take account of sustainability risks and opportunities. In the natural capital area, this translates into the possibility that companies may have to pay in the future for (currently free) natural resources used in production processes, or for their impact on natural capital (externalities). SASB seeks to give analysts the data and conceptual methods they need to include natural capital risks and opportunities in their valuation models. Accountants are seen as playing a key role in this process.

“Accountants provide the tools for the financial community to analyse a firm objectively. Similarly, natural capital has to be accounted for in a correct, comparable, credible way so that it can be analysed. Accountants hold the key to the system. They have been at the forefront of the sustainability agenda and they will be at the forefront of the new era we are trying to encourage – the integration [of natural capital] into financial analysis.”

**Jerome Lavigne-Delville,
Director of Standards Development, SASB**

(b) Professional bodies

175+

(Source: IFAC⁹)

the number of professional accountancy bodies worldwide who are members of IFAC

165,625

(Source: FRC¹⁰)

the number of individual members of ACCA worldwide

The role of the professional bodies encompasses:

- promoting the role of professional accountants in modern economies
- providing a route for trainees to gain professional accountancy qualifications
- representing the interests of qualified accountant members
- performing some regulatory and disciplinary activities
- supporting standard-setting activities, eg through commenting on proposals
- sponsoring and originating research into business and accounting issues
- generally acting in the public interest (eg commenting on proposed legislation and tax rules).

Key participants

International Federation of Accountants (IFAC)

IFAC is the global organisation for the accountancy profession, dedicated to serving the public interest by strengthening the profession and contributing to the development of strong international economies. IFAC also supports a number of standard-setting boards (eg on ethics, auditing and public sector accounting).

Association of Chartered Certified Accountants (ACCA)

Established in 1904, ACCA has members and students in 180 countries, supporting them through a network of over 90 offices and active centres around the world. ACCA’s members work in business, professional firms and non-profit organisations.

UK-based bodies

Many jurisdictions have their own professional accountancy body or bodies. Alongside ACCA, the UK accountancy profession is represented by a number of other professional bodies, notably:

- Institute of Chartered Accountants in England & Wales (ICAEW) – members work in business, professional firms and non-profit entities
- Chartered Institute of Management Accountants (CIMA) – the vast majority of members work in business, though some are also in the public sector and a few in professional firms
- Institute of Chartered Accountants of Scotland (ICAS) – most members work in business and professional firms, as well as in non-profit entities
- Chartered Institute of Public Finance and Accountancy (CIPFA) – members work mainly in the public sector.



Natural capital does not yet come within the daily job remit of most professional accountants. Nonetheless, professional accounting bodies recognise that natural capital accounting and reporting will become increasingly relevant to members: both those in businesses who need to help management and boards understand their dependencies and impacts on natural capital, and those in professional services firms advising corporate clients on how to operate efficiently and sustainably. Professional bodies are therefore supporting natural capital accounting developments in a variety of ways.

Support for global and local initiatives

Professional bodies are supporting a number of the current global initiatives (eg the Natural Capital Coalition – see Section 2), providing facilities and expertise as appropriate. Initiatives of a more local nature are also supported. ICAS, for example, is one of the founding members of the Scottish Forum on Natural Capital.

“ICAS believes that it is important for us as an organisation, and for our members, to embrace and support developments in natural capital accounting. Corporate reporting is changing and modern accounting methods need to go further than the traditional bottom line approach and so must also evolve to incorporate our consumption of the earth’s natural assets.”

Anne Adrain, Assistant Director, Sustainability & Assurance, ICAS

Research support

Support for the development of thinking about natural capital issues is provided through sponsorship of events, surveys and research. ACCA, ICAEW, ICAS and CIMA have all been active in this respect, eg in May 2014 CIMA published a well-regarded report titled *Accounting for Natural Capital: The Elephant in the Boardroom*. Research and reports produced by accounting bodies are shared globally by the umbrella organisation IFAC, which promotes such material online through its global knowledge gateway.

Accountancy bodies are also developing relationships with academics in the natural capital accounting field and sponsoring conferences. For example, the ICAEW’s ‘Rethinking Capitals’ conference in December 2014 looked beyond financial capital, addressing issues such as whether it is possible to put a value on nature.

“We are involved in natural capital because not only is it a matter of public interest but also because it is a major business issue. In the end our economic success depends on environmental sustainability. If businesses are going to take account of their dependencies and impacts on nature, they need to have a flow of information about those dependencies and impacts. That’s what accountants can help provide. You need the right information going to the right place so the right decisions can be made at the right time.”

Richard Spencer, Head of Sustainability, ICAEW

Raising awareness

The professional accounting bodies are trying to raise awareness of natural capital issues among members, and business leaders more widely, through the publication of articles in member magazines and journals. They have also set up forums to look specifically at issues related to natural capital. ACCA, for example, runs a Global Sustainability Forum chaired by Mike Kelly, Head of Corporate Social Responsibility at KPMG and Chair of the Living Wage Foundation.

“Professional accountants working in business and the public sector influence corporate behavior and decision making from operations to the boardroom. To ensure their organisations are more resilient, they need to help organisations take into account natural capital in decision making. It is time for professional accountants to engage with relevant natural capital challenges as a strategic, competitive, and financial issue and facilitate debate about how natural capital relates to their organisation’s strategy, business model, performance outlook, and social licence to operate.”

Stathis Gould, Head of Professional Accountants in Business Service Delivery, IFAC

Education

Natural capital is not yet included in the exam syllabus of the typical accountancy body, though it may be alluded to in relation to the development of Integrated Reporting or in case study exam questions where students are encouraged to show understanding of wider business issues. Once qualified, professional accountants are expected to undertake Continuing Professional Development (CPD). Again, natural capital does not currently feature in CPD materials produced by professional bodies, though this could change in future if members begin demanding such material.

ACCA

As a respected global professional body, ACCA has an important role to play in advancing thinking and practice in natural capital accounting. ACCA supports multi-stakeholder initiatives to develop common frameworks and approaches, and is a member of the Natural Capital Coalition and a supporter of the Natural Capital Declaration.

ACCA is also trying to build its members’ understanding and skills in relation to natural capital. ACCA believes that, as trusted business advisers, they are in a prime position (and have a responsibility) to help businesses understand the risks and opportunities associated with natural capital. For several years ACCA has therefore been working with KPMG and FFI to help ACCA members and the profession in general to understand the challenges connected with natural capital, and what professional accountants’ role could be in addressing them. ACCA has produced briefing papers on topics such as risk and materiality, and publishes articles on natural capital in its magazines: for members, *Accounting & Business*, and for business leaders, *Accountancy Futures*.

Although natural capital does not feature in ACCA's current exam syllabus or CPD content, this could change in future. Over time, as natural capital accounting migrates from being a high-level, theoretical concept to a practical activity, ACCA and the other professional accounting bodies will reassess their professional learning and CPD materials.

Rachel Jackson, former Head of Sustainability, ACCA

(c) Professional firms

\$181.7bn

fees of the top 52 international accounting networks and associations in 2014

(Source: International Accounting Bulletin's 2015 World Survey⁹⁰)

566,797

people employed by the Big Four accountancy firms internationally

(Source: www.statistica.com⁹¹)

The role of the professional firms encompasses:

- providing regulated services such as the audit of financial statements
- providing tax advice and compliance services to clients
- offering additional advisory and assurance services in relation to mergers and acquisitions, fund raising, risk management, finance operations, business processes, etc
- participating in research and thought leadership on emerging accounting and business issues
- supporting professional bodies and standard setters through participation in committees and working groups
- training professional accountants.

Key participants

Big Four firms

Deloitte, EY, KPMG and PwC – the 'Big Four' – dominate the accountancy profession in providing audit and other services to international businesses and other large organisations.

Other accountancy firm networks

Many mid-sized and small accountancy firms – some being just sole practitioners – work with business, non-profit and individual clients providing many accountancy and tax services.

Accountancy firms already provide their clients with services that address natural capital risks and opportunities. Firms are willing to share their expertise in developing a common framework for natural capital accounting, but emphasise that it must be based initially on the information needs of business.

Working with business

Professional accountancy firms provide services to help clients meet any external reporting needs in relation to natural capital, but this is not the main part of their work. Firms see their role as primarily supporting clients in meeting their

internal natural capital information needs. Organisations are interested in natural capital initially from the perspective of how they can manage their interactions with natural capital better for the benefit of their business, though also to get better outcomes for natural capital through reducing impacts. They are interested in understanding their dependencies on natural capital and the associated risks and costs, and more recently their impacts, both positive and negative, on society.

"When we value dependencies we are thinking about the potential impact on the bottom line. For example, if a business didn't have access to water from a groundwater source, what would it cost to replace that? Whereas when we think about impact on society, we think about the cost to society of the change the company is making. The cost to the business might be nominal or zero, but the cost to society might be significant. The techniques we use when looking at dependency or impact might build off the same resource consumption data set, but then diverge very quickly."

Will Evison, Environmental Economist, PwC's Sustainability and Climate Change team

Developing methodologies and tools

Accountancy firms, in response to client demand, have been developing their own methodologies and tools to help businesses understand their natural capital risks and opportunities. For example, PwC has developed a Total Impact Measurement and Management (TIMM) framework to help organisations understand how different activities have an impact on the environment, and contribute to the economy, tax revenues and society. The firm has also recently made public its methodology for valuing corporate environmental impacts and creating environmental profit and loss accounts⁹².

KPMG

KPMG has developed a True Value methodology, of which natural capital forms a subset alongside social and economic capital. The methodology looks at the changing drivers of business to help organisations understand their impacts and dependencies on both social and natural capital, as compared with their financial impact. It is a risk-based approach designed to help companies assess both where they are most at risk of experiencing a financial cost and opportunities for new areas of business as a result of (currently) non-financial costs or benefits associated with social or natural capital.

"Our True Value methodology puts a monetary value on specific things in such a way that it gets buy-in from people with a financial background. That's important because environmental economics uses a number of techniques to estimate non-market value and some are more accepted than others. If those are not accepted by a financial community, then the decision making won't change. So you have to be careful how you use those techniques and how you explain what you are doing to your financial audience."

Dr Stephanie Hime, Manager and Lead Specialist – True Value, KPMG in the UK's Sustainability Services



Support for a harmonised framework

Big Four firms are providing support to major initiatives focusing on developing thinking and practice in natural capital accounting, for example by sharing their methodologies with those developing the Natural Capital Protocol (see Section 2). Firms are also aware of the ‘interesting dynamic of competition versus collaboration’ – they are competing to provide specialist natural capital services to businesses, but also see value in collaborating to achieve common approaches. This tension also arises within industry sectors – organisations can seek competitive advantage by gaining better understanding of their natural capital dependencies, but could also gain insight by sharing data with competitors.

“We take a practical and business-focused approach to help companies build natural capital accounting into their operations as a way to improve and protect margin; and also to enhance their risk resilience with the objective of supporting business growth in the long term. Some companies are already beginning to account for their impact on natural capital. Many methodologies already exist. What organisations need now is to be presented with a common approach for assessing impacts or inputs. We are using so many tools and companies find it complex to understand the core issue. So developing a generally accepted corporate natural capital accounting is a crucial step.”

Helen Ding, former Senior Economist, Centre for Innovation and Excellence in Sustainability Services, Deloitte

A new understanding of corporate value

It’s important we recognise that natural capital accounting is different fundamentally from financial accounting. Financial accounting is accounting for the fact that I do not own the assets of this business, but I steward them on behalf of a shareholder. Natural accounting should therefore be about the fact I do not own the asset of natural capital that I have influence and control over but that I steward on behalf of the natural world. What companies need to be thinking about and measuring accurately, in a way that is compatible and comparable and reportable and meaningful, is their ability to steward the natural environment on behalf of all of us.

My vision is that we get to a point where how investors think about corporate value and how business leaders think about corporate value becomes aligned. And it becomes aligned around a far more sophisticated understanding of the broad depths of what business leadership has stewardship over, that embraces financial stewardship and raises up social and environmental responsibilities to a level of equivalency. So when I am making decisions, I am making them based on the best impact I can have on all those things. And as the investor community, you respect that and reward me for being a good steward of the broad spectrum of my responsibility, rather than just because I managed to squeeze an extra quarter of a percentage point out of the bottom line.

Vincent Neate, Head of KPMG in the UK’s Sustainability Services practice

Putting management needs before reporting standards

Firms have some concern that reporting standards for natural capital could be developed before fundamental issues are addressed – such as establishing the important building blocks of data that companies need for making management decisions. The two need to go hand in hand, but the information needs of companies should be the dominant factor. Such a development path for natural capital accounting and reporting would follow that taken over many years by financial reporting – internal data needs are established first, aiding decision making, with any potential for external reporting standards and requirements explored following on from this.

“In reporting, I see four building blocks. First you need data. Data then leads to management information, from which management can make decisions. You can communicate those decisions and can then finally conform that into public reporting. Public reporting – at the top of the hierarchy – needs consistency of measurement and disclosure to give comparability and accountability. But it’s not for standard setters to define data – it’s for companies to do that because they are the ones making the decisions. Many companies haven’t yet got to the point of determining what data they need for their decision making, let alone whether the data will be measured in a way that can be conformed for public reporting. But we are pressing ahead with the reporting standards - it feels like we have got the cart before the horse.”

Malcolm Preston, Global Sustainability Leader, PwC

(d) Qualified accountants

2.5m | the number of accountants worldwide represented by IFAC

(Source: IFAC³)

80,442 | the number of ACCA members in UK and Ireland

(Source: FRC³)

The role of qualified accountants encompasses:

- working in professional firms to provide audit and advisory services to clients
- working in business, preparing management accounts³ for internal control and decision making or preparing financial statements for external reporting, eg to investors
- working in the finance teams of public sector or non-profit organisations

³ Management accounting (used to provide information to help management in running the business) and financial accounting (used to prepare financial statements that are reported externally, eg to shareholders) are distinct activities. The financial numbers used to run the business are not always the same as those reported externally, which need to comply with generally accepted accounting principles so that information reported by different companies can be compared.

- performing many other roles (eg as independent consultants, academics, writers)
- participating in the development of accounting and tax rules, etc through membership of committees or by responding to consultations.

Qualified accountants are beginning to experiment with natural capital accounting and to consider the challenges associated with it. They see value in developing an approved international framework for natural capital accounting, emphasising the importance of building this so as to meet business needs as opposed to external reporting expectations. Qualified accountants believe they have relevant skills that can be applied to the natural capital area, but also see need for specific training to enhance their understanding.

Business experimentation

Utility company SSE is aiming to quantify the environmental, economic and social impacts of one of its electricity infrastructure projects in the north of Scotland. Applying a materiality lens has been essential for engaging the interest of internal accountants and management on the main issues. The key to the project's success has been the involvement of internal staff from a range of disciplines – accountants, environmental specialists and project managers, and external consultants – “a mixing pot of ideas”.

“It's key to have the materiality aspect of natural capital because that's how you make inroads with accountants. They understand materiality from financial reporting. Looking at it from a materiality lens allows you to prioritise a number of key aspects.

Our business covers different sectors: networks, wholesale and retail. We focused on networks – that was our biggest capex area going forward. Then it took a number of decisions to get to key aspects, key risks, and then prioritising the biggest impacts for a project. Then we looked at environmental, economic, social factors – what have our stakeholders told us, what have been the problems we have faced as we go through projects. We have set down a detailed, tight scope, defined timeline and said that's what we will do. We will consider other things at the fringes, but we will focus on one project just now.

That's been a really useful process. It's kept people engaged. There have been a number of quick wins we have been able to show sceptics and bring them along too. Overall we have been able to make good progress to quantify natural capital impacts and that has capitalised on people's interest for the project.”

George Cobb, Sustainability Accountant, SSE

Developing thinking

Accountants in business are helping to develop thinking about natural capital and to raise awareness of its importance for business success. The Prince's Accounting for Sustainability Project (known as A4S) aims to catalyse action by the

accounting and finance community to support a fundamental shift towards resilient business models and a sustainable economy. The A4S Chief Financial Officer Leadership Network, launched in December 2013, brings together a select group of leading CFOs from large European businesses seeking to embed the management of environmental and social issues into business processes and strategy. The network undertakes a range of projects. For example, In May 2015, A4S issued a guide developed by its CFO Leadership Network, entitled *Natural and Social Capital Accounting: An introduction for finance teams*.

The importance of an agreed framework

As businesses begin to experiment with natural capital accounting, they look to see what external frameworks are available to support them. They also call in external expertise from a range of specialists, including professional accountancy firms that have developed their own methodologies. This can lead to a confusing variety of approaches being applied across different businesses and make it hard for external stakeholders to understand the outputs. As interest in natural capital grows, so does the importance of creating an agreed framework for companies to use.

“Accounting for natural capital could have great value, but it has to be transparent and it has to be through protocols that are broadly agreed, stakeholder inclusive and credible from a scientific perspective as well as the business perspective. A failure to be transparent and inclusive could significantly undermine the credibility of these approaches.”

Annelisa Grigg, Consultant, Global Balance

Prioritising business needs

While there is a need for an agreed natural capital accounting framework, qualified accountants understand that this needs to be developed in such a way as to encourage and support business consideration of natural capital risks and opportunities. Their views therefore align with those expressed by professional firms. Any framework should be based on enabling business to access the information it needs to take management decisions, with any external reporting requirements following on from that. This is the best way to ensure that material issues are emphasised and business leaders' attention secured. Trying to impose external reporting requirements first could turn natural capital accounting into a compliance exercise seen as having little value by internal management – losing senior management commitment and killing off what could otherwise have been a useful initiative.

Value debate

Qualified accountants understand there is a debate about whether one could or should value natural capital, but consider some form of quantification useful for internal management purposes. This can help businesses to track increases and decreases in natural capital, and to trigger action if the change is perceived to be indicating the emergence of a critical risk to the business. Sensitivity analysis could be usefully applied, reflecting the fact that there are many unknown and uncertain factors involved in the field of natural capital.



Events triggering interest in natural capital

Natural capital is not embedded in the decision-making processes of most businesses. Nonetheless, when an event such as a merger or acquisition occurs, such issues become important because of their potential impact on business valuation. Qualified accountants see the importance of changing business processes so that natural capital risks and opportunities are addressed as part of routine management operations.

“Many day-to-day decisions are made on the basis of their impact on the profit and loss or cash flow statement. But when you come to M&A [mergers and acquisitions], suddenly everything changes to a business valuation perspective. Risks and opportunities that previously might get talked about once a year and disclosed in the accounts suddenly have value – value is attributed to them in that business valuation. And that’s where natural capital can sit, both as a risk and an opportunity. But how do we create the tools to enable us to think about their impact on the valuation during the day-to-day decisions?”

**Gordon Wilson, Senior Manager,
Sustainability Services, KPMG in the UK**

Auditor perspective

Natural capital issues are beginning to arise in audit assignments, but not typically in relation to the financial statements. Questions are more likely to be asked about the front, narrative section of the annual report, eg the strategic report. Auditors will be reviewing environmental or natural capital disclosures to see if they are fair, balanced and understandable although, in practice, few entities are currently making any detailed statements about natural capital in their annual report and accounts.

Investor interest

Qualified accountants believe that increasing interest from investors and analysts will increase pressure on companies to identify risks and opportunities associated with natural capital. Management teams will therefore need to begin accounting for natural capital internally when managing their businesses, and be prepared to report externally on their actions. Those that fail to do so risk losing investor support.

“I am now seeing analysts discuss stranded assets – whether a liability or potential liability exists within a particular company from stranded assets. This risk is starting to feed into share prices on a long-term basis. Some institutions have investment strategies where they will not invest in a share that has the potential risk of stranded assets or dealing in a value chain that results in high carbon emissions. I think this is starting to become a control from the external investment environment on a board of directors. This pressure will become the driver for the introduction of new frameworks of thinking and accounting within companies, because it involves real hard cash and long-term investment valuations by analysts.”

Ian Dowson, Principal, William Garrity Associates

Developing expertise

While qualified accountants have many skills that can be applied to the area of natural capital accounting and reporting (such as an understanding of the importance of data quality and comparability), they could benefit from additional training in the issues involved. At the moment, such specific natural capital content is not included in the examinations accountants must pass to gain their professional qualifications. Today’s qualified accountants – certainly those who are already aware of the importance of natural capital – see value in including natural capital in the exam syllabus.

“It’s obvious accountants are going to be more and more involved in valuing sustainability and natural capital, so to be forward thinking we could be building more of this content into the exam papers. If we want to encourage creativity and innovative thinking, our examinations could be used to develop that.”

Trusha Lakhani, FD, Elmhurst Energy

Qualified accountants also believe they could benefit from the inclusion of natural capital issues in material made available for Continuing Professional Development, which professional accountants are required to undertake. For example, Massive Open Online Courses (MOOCs) could perhaps help accountants access the information they need, helping them to develop and maintain skills in emerging areas of material impact for business and society.

‘We are on the cusp of something really interesting with CPD. There’s a huge move now to have digital CPD, online CPD and MOOCs. If I need CPD, I would rather get it in something relevant to me, eg fracking. Say I could go online to a university that has a fracking module certified for CPD. That’s a real step change, but it’s so logical.’

Steve Bailey, NED, Carbon Architecture

(e) Accounting academics

136 | the number of UK universities offering degrees that include accountancy

(Source: www.whatuni.com)

The role of accounting academics encompasses:

- conducting research into current issues in accountancy for submission to academic journals or for reports produced in collaboration with professional bodies and others
- providing degree courses (undergraduate, post graduate, MBA) for university students
- participating in standard setting (eg as members of standard-setting bodies)
- sharing insights with professional accountancy bodies and other associations through membership of working groups, expert groups and forums.

Some accounting academics are becoming increasingly interested in areas of research that extend beyond traditional



accountancy to encompass sustainability and natural capital issues. Individuals are keen to work with others to examine new accounting concepts and approaches, while also exploring how university courses can be expanded to provide a broader education to the next generation of business and finance leaders.

Building relationships

Accounting academics are keen to develop relationships with all parties involved in the development of natural capital accounting – international initiatives, accountancy bodies, accountancy firms working in the area and businesses and financial institutions, to help them understand sustainability risks. These relationships are often informal and based on discussions of ideas, opportunities and challenges. More active or structured working relationships would be welcomed by the academic community. Academics are involved in some formal research projects, however, for example, writing a background study of the various forms of capitals recognised by the IIRC in collaboration with colleagues from ACCA, Big Four firms and others.

Understanding conceptual differences

Accounting academics appreciate the differences between financial accounting and natural capital accounting. Financial accounting is market oriented and designed to meet the information needs of shareholders and other stakeholders, whereas natural capital embraces broader concepts such as value to society. Accounting academics are interested in the relationship between the two and in exploring ways that natural capital could be brought into mainstream corporate reporting.

They are also interested in exploring differing approaches to value – which can be monetised, quantified or considered in purely qualitative terms – and how the term ‘capital’ is used differently by different (non-accounting) disciplines.

“There’s a backlash in academia to the use of the word ‘capital’ for social or environmental issues because there is a fear it will lead to pricing, to monetising, when it is inappropriate. Across the disciplines there’s a huge range of difference in terms of how people conceive capital, and accountants have to recognise this. For accountants, financial valuation underpins their conception of what capital is. In other disciplines, it might be about a store of value but without necessarily seeking to monetise the value.”

**Dr Andrea Coulson, Senior Lecturer in Accounting,
University of Strathclyde**

Collaboration will be needed

The development of natural capital accounting should be a collaborative effort, in the view of accounting academics. Those developing frameworks and guidance could make use of traditional accounting expertise and systems for capturing information, measuring, reporting and establishing accountability. Nonetheless, accountants’ skills are not sufficient on their own – they need to be combined with those of other experts, such as environmental economists.

‘Accountants have the skills of measurement, data collection and getting processes in place for collecting and reporting data and they know how to present information. They also have central roles in any organisation as the preparers of reports and collectors of data for decision making. So it’s good they are involved in the development of natural capital accounting – as long as they work with others and recognise their own limitations.’

**Carol Adams, Professor of Accounting,
Durham University Business School**

Education

The inclusion of natural capital in MBA and accountancy courses is rare, but this could change. The Oxford MBA has just introduced a new module on ‘Responsible leadership’, which will include discussion of the nature and purpose of the corporation. The core MBA accounting course has also been updated to include consideration of broader corporate reporting issues – including the possibility of accounting for natural capital. Student demand for such content is growing strongly.

“For me, natural capital is the key issue in broader sustainability reporting. The challenge is figuring out how to take a background of financial accounting and financial reporting and standard setting and transfer that into this space. Contrasting natural capital with mainstream financial reporting raises all kinds of issues around who you are reporting to, and why, and over what time horizon.”

**Richard Barker, Professor of Accounting,
Saïd Business School, University of Oxford**

Challenges

One of the challenges for academics concerned with natural capital accounting is that the topic falls under several disciplines. Opportunities for publishing papers on interdisciplinary subjects in academic journals are relatively limited. Some academics also believe that academic papers lack influence because they are not written in a way that will attract the attention of those working to develop frameworks for natural capital accounting or trying to apply such approaches in business. Their influence in practice may therefore be limited.



2. Major business-focused natural capital initiatives: accountants play an important part

A wide variety of natural capital initiatives are under way around the world, some focusing on national accounts and government reporting, others directed at the business community. This report focuses on the major natural capital initiatives that are primarily designed to help businesses address their natural capital impacts and dependencies, risks and opportunities.

Accountancy involvement

Members of the different subgroups of the accountancy profession are involved in major business-focused natural capital accounting initiatives, as shown in the table below.

	S	PB	F	QA	A
Natural Capital Coalition		✓	✓	✓	
Natural Capital Declaration		✓	✓	✓	
International Integrated Reporting Council	✓		✓	✓	✓
Global Reporting Initiative		✓	✓	✓	✓
Climate Disclosure Standards Board		✓	✓	✓	✓

S – Standard setter, PB – Professional body, F – Professional firm, QA – Qualified accountant, A – Academic.

Initiatives dedicated to natural capital

Natural Capital Coalition

The Coalition's role encompasses:

- forming a global, multi-stakeholder platform to build the business case for and support the uptake of natural capital measurement, management, reporting and disclosure in business and investor decision making
- developing a Natural Capital Protocol (NCP) to provide a single methodology for businesses to understand the impacts they make and the extent to which they are dependent on the natural environment, its finite natural resources and functioning ecosystems.^{xii}

Support from the accountancy profession

- Professional bodies IFAC and ICAEW were founding organisations.
- ICAEW is represented on the Coalition's board and is hosting the Coalition's project to develop a Natural Capital Protocol, providing office facilities.
- Various professional bodies are also members and represented on the Coalition's advisory group.
- Professional firms Deloitte, EY and KPMG are members of the Coalition and are also on its advisory group.
- Deloitte and PwC are members of a consortium formed to develop the NCP.

- EY is a member of a consortium developing sector guides and pilot testing the NCP.
- KPMG's lead specialist in natural capital is seconded to the Natural Capital Coalition's operations group, guiding technical input and managing stakeholder engagement.

Natural Capital Declaration (NCD)

The role of the NCD encompasses:

- managing a finance sector initiative, endorsed at CEO level, to integrate natural capital considerations into loans, equity, fixed income and insurance products, as well as in accounting, disclosure and reporting frameworks
- hosting Working Group 3, which focuses on accounting for natural capital and is seeking to develop a methodological system for accounting for the impacts, benefits and dependencies on natural capital at the company and portfolio level in order, ultimately, to apply it to a financial institution's own balance sheet.

Support from the accountancy profession

- Supporters include ACCA, ICAEW and CIMA.
- KPMG is providing project management for the Working Group 3 on accounting for natural capital.

Global reporting frameworks with a natural capital aspect

International Integrated Reporting Council (IIRC)

The role of the IIRC encompasses:

- developing, and now promoting, an Integrated Reporting <IR> Framework covering six capitals – including natural capital – on which organisations depend to create value.

Support from the accountancy profession

- Qualified accountants hold a number of senior positions in the IIRC and have played important roles in developing the <IR> Framework.
- Accountants have conducted research related to the capitals.
- Accountants are participating in the Corporate Reporting Dialogue, an IIRC initiative to support the alignment of corporate reporting frameworks and standards; accountancy members include the IASB, SASB and US standard setter, the Financial Accounting Standards Board.

Global Reporting Initiative (GRI)

The role of the GRI encompasses:

- developing a Sustainability Reporting Framework – a reporting system that provides metrics and methods for measuring and reporting sustainability-related impacts and performance
- requiring organisations to report on material natural capital issues through indicators that consider materials used (eg renewable and non-renewable materials used in producing products and services), water (eg volumes of water drawn from various sources), biodiversity (eg impact of constructing manufacturing plants) and waste (eg weight of waste by type and disposal method).



Support from the accountancy profession

- ACCA, EY and KPMG are organisational members.
- Deloitte is represented on the GRI's Stakeholder Council.
- Accounting academic Professor Carol Adams is also a member of the Stakeholder Council.

Climate Disclosure Standards Board (CDSB)

The role of the CDSB includes:

- developing the Climate Change Reporting Framework and guidance to provide a voluntary reporting framework designed to elicit climate-change-related information of value to investors in mainstream financial reports. The Framework is based on existing standards, research, analysis and good practice, working in close partnership with leading professionals in accountancy, business, standard setting and regulation.
- developing the CDSB Framework for reporting environmental information & natural capital, designed to help organisations prepare and present environmental information in mainstream reports for the benefit of investors. The aims of the Framework include enabling and encouraging investor decision making on the allocation of financial capital to activity that supports environmental protection.

Support from the accountancy profession

- All Big Four firms are represented on the CDSB's Technical Working Group.
- Professional accountancy bodies are also members of the Technical Working Group (eg ACCA, ICAEW, IFAC, Japanese Institute of Certified Public Accountants, CPA Canada).
- Accounting academic Professor Carol Adams is a member of the Technical Working Group.

Natural capital initiatives require input from a range of disciplines – including members of the accountancy profession. Their involvement is considered highly valuable, though they need to be open to different ways of thinking.

Process, presentation and reporting expertise

The accountancy profession has developed expertise in all aspects of financial and management accounting – including how to draft robust reporting standards, establish controls over data and present financial information so as to represent the activities of an organisation appropriately. This expertise can usefully be applied to natural capital accounting and reporting.

“The long and proud history of accountancy practice has resulted in a rigorous system for the measurement, characterisation, reporting and assurance of financial information. Accountants have a vital role to play in sharing and adapting that history for application to natural capital accounting and reporting so that it enjoys the stability and principles with which business is already familiar, but also imports thinking from other disciplines including measurement science, systems thinking, natural sciences and environmental management.”

**Lois Guthrie, Executive Director,
Climate Disclosure Standards Board**

At this early stage of the development of natural capital accounting, it is vital that accountants work with other experts to develop the right tools to support the production of relevant, reliable information.

“Accountants and economists have different views and approaches to valuation, so having both professions involved is important to ensure we get the right set of tools for natural capital accounting and valuation. If natural capital related information is to be included in financial reports, then we need support and engagement from the world of financial accountants, as this will involve changes to financial accounting standards in the longer term. In order to enable natural capital accounting and valuation, we need to bring together the technical people who understand biodiversity and valuation, and the accountants who can assist in translating this information into an appropriate form for inclusion, where relevant, in financial reports. I don't think all natural capital accounting and valuation information will be appropriate for inclusion in financial reporting. Other forms of reporting and information provision will continue to be required. And at the moment, there is still a lot of work to do to get to a point where there are agreed methodologies and standards for natural capital accounting and valuation that would generate the numbers that a director could sign off on. What this means is, that the accountancy profession is a critical group of stakeholders that need to be engaged in the methodology and standards development process.”

**Rosemary Bissett, Chair of NCD Working Group
3 and Head of Sustainability Governance & Risk,
National Australia Bank**

An understanding of materiality

Establishing what aspects of natural capital are relevant to individual businesses and society involves the concept of materiality. Organisations need to be able to identify the issues that could affect them in a significant way, so that time and resources can be applied for maximum benefit. Materiality is a key principle underpinning financial accounting, so accountants can share their knowledge and experience when applying the concept to natural capital frameworks.

“A key focus of the accountancy profession is around drawing out information that is material to the business.

So from the perspective that there are a number of natural capital issues that are material but probably still hidden and not thought about enough – that's where I see the accountancy profession has a key role to play.”

**Helen Dunn, Senior Economic Adviser, Department
for Environment, Food and Rural Affairs**

Assurance – an important future role?

As external reporting of natural capital begins to develop, reported information will need to be subject to some form of assurance. The accountancy profession has expertise in



providing audit and assurance services covering financial information, so there is some expectation that those skills could potentially be applied to natural capital information. New techniques or approaches to checking such data may be required, depending how the latter is reported. The nature of the opinion given on the reliability of that data may need to evolve as well, because information on natural capital is likely to have more inherent uncertainty than financial information.

“Companies and society expect the future of reporting to be a digital future. So everybody expects information to be available at any time, much more frequently than in an annual report, but at the same time checked by auditors. It’s very difficult to imagine how auditors – using the methodologies they use now – would be able to audit this information. So they will need to create new ways to do that. Society expects them to play a role to help understanding of which information is reliable and which is not.”

Nelmara Arbex, Chief Advisor on Innovation in Reporting, GRI

A staged development, multi-discipline approach

At some point there may be a need for specific financial reporting standards to be developed – for example, if natural capital risks (or assets) begin to be addressed in financial statements with values attached. In the meantime it makes sense to involve accountants in the process of developing a more general natural capital accounting framework to help to standardise approaches, encourage businesses to take action and support the creation of data that contributes to business decision making and aids comparability. There is some concern, however, that, perhaps as a result of accountants’ influence, monetisation and an over-simplification of a complex natural environment into one index or score might be introduced into natural capital accounting without providing the necessary context to allow for better-informed decisions to be made. It is important, therefore, that accountants understand the views of other disciplines and do not assume that traditional accounting measures (such as monetary values) will always be appropriate or sufficient on their own.

“There is a great opportunity to make significant progress towards future natural capital accounting by getting traditional financial accountants to become more familiar with the logic behind the measurement and valuation of natural capital; and allowing natural capital experts, in particular environmental economists, to become more familiar with accounting. Together we can explore what needs to happen on the road towards a natural capital accounting standard. The involvement of representatives from the accounting profession in the development of the Natural Capital Protocol is hence very positive. Natural capital measurement and valuation is complex, which is a direct reflection

of the environment we all live in. While we cannot be paralysed by this complexity, we need to help distill this area into manageable information. As we do this, we also need to be conscious that over-simplifying it prematurely could lead to mis-informed decisions – for business, people and nature.”

Eva Zabey, Director, Redefining value – Natural Capital, World Business Council for Sustainable Development

Duty to act

The better understanding accountants have of the issues around natural capital, the more effectively they can help businesses and others understand the risks that they and society face. Accountants, as professionals, are seen as having a duty to alert the wider public, business and policymakers to the financial risks associated with damaging the world’s natural capital.

“We can’t have stable economies in future unless we get a handle on stabilising the natural world. We are in danger of not doing that. If we could have seen the 2007/2008 financial crisis coming a few years before, we would have had a responsibility to speak up in an effort to stop it. We can reasonably foresee that climate change will dramatically affect our economies – we have a responsibility to loudly and clearly tell the world’s decision-makers that’s the case.”

Michael Nugent, Technical Director – Framework Development, IIRC

“This [natural capital] is increasingly having an impact on the financials, so if the CFO and their team don’t understand the overall risks and opportunities going forward, they could be missing out on something that could affect the bottom line in a considerable way, particularly as global resource scarcity increases.”

Sarah Nolleth, Director, The Prince’s Accounting for Sustainability Project



3. Key findings

Accountants are playing an important role in the development of natural capital accounting

Many subgroups of the accountancy profession are involved in the development of natural capital accounting and reporting initiatives – professional bodies, accountancy firms, individual accountants and academics. This takes the form of:

- support for initiatives such as the Natural Capital Coalition and its development of the Natural Capital Protocol, through the provision of professional expertise and operational support
- development of professional services by firms to help companies address impacts and dependencies on natural capital
- sponsorship of research, publication of articles and organisation of conferences and global forums
- development of academic courses (eg MBAs) that include natural capital accounting aspects.

There will come a time when material impacts on natural capital are considered in mainstream corporate decision making and therefore relevant to accountants’ roles. Natural capital is not yet included specifically in the training syllabuses of professional accounting bodies or in formal Continuing Professional Development resources. Natural capital appears only on the periphery of traditional financial reporting standards, though it is addressed in voluntary, non-financial, sustainability reporting standards.

Accountancy participation is important

Members of the accountancy profession and others believe it important and useful for accountants to participate in developing thinking and practice in relation to natural capital accounting. Accountants often hold influential positions in business and so can encourage the directing of management attention to natural capital issues. As understanding of the importance of sustainable businesses increases, accountants increasingly recognise they need to build expertise in natural capital accounting in order to maintain relevant skills.

Traditional professional accountancy skills can be applied to natural capital accounting and reporting and the development of frameworks and standards. In particular, accountants bring skills in:

- translating important issues into a language that business understands
- gathering and analysing corporate data for internal management decision making and for external reporting
- establishing controls and processes around internal and external reporting
- applying the materiality concept to highlight the most important issues for businesses to address
- managing risk
- valuing assets and liabilities
- reporting corporate information in a fair, balanced and understandable way
- providing assurance on reported information
- writing accounting and reporting standards.

Understanding corporate need and differing perspectives is vital

Companies are still grappling with the information they need internally to understand and make decisions about their natural capital impacts and dependencies. A rush to formalise external reporting too soon could jeopardise corporate interest in natural capital and hamper valuable innovation in this area. Accountants need to make sure they support this focus on high-quality management decision making, which needs to go hand in hand with the development of external reporting standards.

Accountants also need to accept that professionals from other disciplines, such as environmental economists, may hold different views on accounting for and reporting on natural capital. They may have a different perception of ‘capital’, what is meant by ‘natural capital accounting’ and how ‘value’ can be represented. Some natural capital experts, for example, have concerns about the potential monetisation of natural capital and how this could influence behaviour by turning natural capital into a commodity.

Next steps

Although the accountancy profession is already playing an important role in the natural capital accounting arena, more could still be done. Various subgroups of the profession could:

- continue helping companies to meet their internal information needs to enable understanding of their natural capital impacts and dependencies
- address themselves to the reporting of non-financial natural capital information in a fair, balanced and understandable way
- learn more deeply how other disciplines approach natural capital issues, consider new ways of thinking about value and identify opportunities for collaboration
- continue the evolution of traditional assurance techniques (and expressions of opinion) to support the credibility of reported natural capital information
- integrate natural capital issues into mainstream decision making, accounting and advisory work
- help professional accountants to increase understanding of natural capital, eg through learning resources made available for Continuing Professional Development
- seek the specific inclusion of natural capital in professional accountancy qualifications, as it becomes increasingly important to accountants’ roles
- encourage support networks between academia, professional firms and others interested in natural capital accounting and reporting
- be open to considering the weaknesses of capital markets and financial systems, eg in their ability to protect natural capital and to encourage sustainable business activity
- work towards the inclusion of natural capital in traditional financial accounting standards.

4. Calls to action

Natural capital accounting and reporting are in the early stages of development. For those now looking at the issues involved, this is clearly seen as an area of high importance for the accountancy profession. Five contributors to this report share their views on why natural capital matters to accountants, why they need to be involved, and the part they can play in developing an approach to natural capital accounting that really meets the needs of business and society.



Rachel Jackson, former Head of Sustainability, ACCA



Current accounting systems are not designed to account for natural systems. As a result, natural capital is being eroded and no one is accounting for it. As a professional body ACCA has a vital role to play in finding the solution.

ACCA's members are professional accountants who are expected to act in the public interest. It is important that ACCA should help its members meet those expectations and support initiatives under way to develop common approaches to accounting for and reporting on natural capital. By working alongside other disciplines ACCA members can help to ensure a high-quality, holistic, multi-stakeholder output.

Accountants have a commercial imperative to act if today's businesses are to be able to operate long into the future. All businesses have impacts and dependencies on natural capital. So how do they identify what those are? How do they measure them? How do they report on them? And how do they reduce their impacts? All ACCA's work on natural capital is centred on those questions, aiming to equip members to help businesses find the answers they need.



Gordon Wilson, Senior Manager, Sustainability Services, KPMG in the UK



I see the role of the accountant as a crucial one as natural capital accounting and reporting develops. This role is to connect the complex world of natural capital accounting and align it to how business leaders think, make decisions, operate and report their performance to their investors and wider stakeholders. This provides a platform for trust between capital owners and capital users. Natural capital accounting and reporting will become important tools for business leaders to articulate how they are performing from an economic, social and environmental perspective, and their impacts in these areas.

Accountants, given the way in which they are trained to think, provide the right balance of critical analysis (for example, is this report fair?), a search for completeness (is it balanced? – ie not just 'positive stories'), relevance and materiality (does the report contain the right matters, and are those matters right?). Above all, accountants are trained to consider whether the reader will understand the information being presented.

In short, accountants can connect natural capital accounting with the world of finance in a way that providers and owners of capital can understand – in a clear, concise, comparable and consistent manner.



Paul Herbertson, Director Environmental Markets, Fauna & Flora International (FFI)



FFI's vision is a sustainable future for the planet, where biodiversity is effectively conserved by the people who live closest to it, supported by the global community.

The accountancy profession is part of that global community, and FFI is proud to be part of this initiative, which is supporting accountants to understand the vital role they will play in achieving a sustainable future.

It is clear that business-as-usual is leading to the depletion of natural capital and to significant losses to the ecosystems on which business and society depend. To correct this downward trajectory requires a more integrated approach to business that acknowledges the costs associated with environmental damage and harnesses the opportunities offered by a greener way of doing business. This requires new ways of accounting that will drive change in boardrooms and innovation in business, not only to minimise impacts but also to develop new opportunities to protect and enhance natural capital.

FFI believes that the accounting profession has a critical role to play in realising this vision. As shown in this report, the skills, knowledge and experience are certainly available within the accountancy profession, and steps are already being taken towards a new culture that incorporates natural capital as well as other sustainability issues. All that is needed now is for these activities to be scaled up and further embedded, and FFI hopes that this report will play a part in driving this much-needed change.



Stathis Gould, Head of Professional Accountants in Business Service Delivery, IFAC

It is now clear that the present industrial economy is inefficient and environmentally detrimental. Inefficient processes consume excessive natural resources and produce waste and environmental pollution. In the running of organisations, natural capital is consumed in the form of oil, wood, minerals and natural gas, and returned to the environment in the form of waste, most of which does not naturally degrade and cannot be reused.

Reducing waste and making effective and efficient use of resources requires accounting. Accounting for where a company's money came from, where it went, and where it is now will continue to be important. But accounting for a broader range of drivers of business performance, and business dependencies, is essential in enabling organisations to create and preserve value over time and, from a reporting perspective, to ensure that the value creation story is useful to stakeholders.

The business models of many organisations need to adjust if they are to continue creating value. Accountants have the professional skills and toolkit to account for natural capital. They must seek to apply these for the success of the organisations and societies that they serve.



Carol Adams, Professor of Accounting, Durham University Business School

With climate change and increasing scarcity and price volatility of natural resources, everything we thought we knew about how to do business is being turned on its head. As architects of the framework for business decisions, accountants are reinventing themselves.

The stereotypical geeky guy accountant of the past with a short-term thinking horizon, a fixation on numbers, poor social skills and low emotional intelligence – is dead. The accountant for tomorrow thrives on complexity, thinks long term, has developed relationships with people in functions across the organisation and understands the perspectives of a broad range of stakeholders.

Corporate boards need help quantifying the financial risk of climate change, stranded assets and the divestment movement. They need to understand the value of natural capital to their business so that they can figure out ways to protect it and identify different ways of doing things in order to minimise its depletion. Accountants need to work with people across the organisation to provide answers so that boards develop a strategy that finds competitive advantage and minimises risk in a resource-constrained world.

Notes

- i <http://www.naturalcapitalcoalition.org/js/plugins/filemanager/files/Natural_Capital_Protocol_An_Overview.pdf> accessed [1 July 2015]
- ii <<http://www.ifrs.org/IFRSs/Pages/IFRS.aspx>> accessed [1 June 2015]
- iii <<http://www.sasb.org/>> accessed [1 June 2015]
- iv <<http://www.ifac.org/about-ifac>> accessed [1 June 2015]
- v Financial Reporting Council, Key Facts and Trends in the Accountancy Profession (2014), <<https://www.frc.org.uk/Our-Work/Publications/FRC-Board/Key-Facts-and-Trends-in-the-Accountancy-Profession.pdf>> accessed [1 June 2015]
- vi <<http://www.internationalaccountingbulletin.com/news/iab-world-survey-deloitte-holds-on-to-top-spot-for-second-year-running-4500849/>> accessed [1 June 2015]
- vii <<http://www.statista.com/statistics/250503/big-four-accounting-firms-number-of-employees/>> accessed [1 June 2015]
- viii <file:///C:/Users/Sarah/Downloads/pwc-environmental-valuation-methodologies.pdf> accessed [1 July 2015]
- ix <<http://www.ifac.org/about-ifac>> accessed [1 June 2015]
- x Financial Reporting Council, Key Facts and Trends in the Accountancy Profession (2014), <<https://www.frc.org.uk/Our-Work/Publications/FRC-Board/Key-Facts-and-Trends-in-the-Accountancy-Profession.pdf>> accessed [1 June 2015]
- xi <www.whatuni.com> accessed [1 June 2015]
- xii <<http://www.naturalcapitalcoalition.org/natural-capital-protocol.html>>

Acknowledgments

We would like to thank all roundtable participants and individuals interviewed for this report. We are also grateful for the hard work of all members of the project team, including Rachel Jackson, formerly at ACCA, Dr Sian Morse-Jones, formerly of FFI, Dr Zoe Balmforth, formerly of FFI, and Sarah Perrin, Redhouse Media.

Further information

Faye Chua, Head of Business Insights, ACCA
faye.chua@accaglobal.com

Dr Stephanie Hime, Manager and Lead Specialist – True Value, Sustainability Services in KPMG LLP (UK)
stephanie.hime@kpmg.co.uk

Paul Herbertson, Director Environmental Markets, Fauna & Flora International
Paul.Herbertson@fauna-flora.org

See also: *Is Natural Capital a material issue?* (2012), <<http://www.accaglobal.com/content/dam/accaglobal/PDF-technical/environmental-publications/natural-capital.pdf>>

Identifying natural capital risk and materiality (2013), <<http://www.accaglobal.com/content/dam/accaglobal/PDF-technical/sustainability-reporting/natural-capital-materiality-paper.pdf>>

Business and investors: providers and users of natural capital disclosure (2014), <<https://www.kpmg.com/UK/en/IssuesAndInsights/ArticlesPublications/Documents/PDF/Audit/natural-capital-reporting.pdf>>