Costing the earth

Natural capital accounting is a new discipline which highlights the impact of business activities on the natural world, writes Richard Spencer.

CAPITAL IS A word we are hearing a lot about these days, particularly in discussions about the impact of business on the natural and social environment. It is used to capture areas previously beyond the purview of business, in a language managers will understand.

We now talk of 'natural' and 'social' capital; and yet, until recently, capital had largely disappeared from the accountancy lexicon, even though central to the discipline is the idea of capital maintenance.

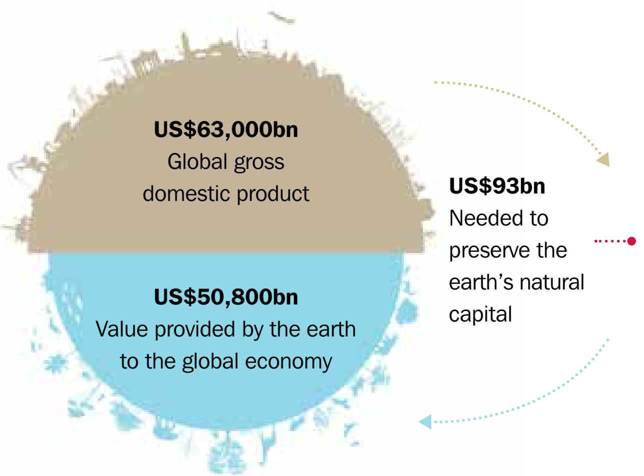
The fundamental question accounting seeks to answer is: Did this business maintain, create or deplete value (ie is the capital stock at the end of the period better off, worse or unchanged)? So why are we talking about capital again, and why in these new forms?

It is important to think about the macro-level context before coming back to accounting. Back in the eighteen and nineteenth centuries, when modern economic thought was born with Adam Smith and his successors, like Ricardo, Malthus and Marx, the limiting factors were labour, capital (financial) and technology (this was the start of the industrial revolution).

> "We are depleting the world's resources at an alarming rate"

The environment was essentially a limitless resource to the eighteenth and nineteenth-century mind. Now, however, nature has become a limiting factor – it is a constrained resource – and we need to build considerations of this into our business decisions.

figure 1: Costing the earth



Source: Image design by the Information is Beautiful Studio for the Prince's Accounting for Sustainability Project (A4S). All figures are in 2011 prices, derived from Costanza et al, World Bank, and Earth Policy Institute.

Figure 1 shows the importance of the environment to the global economy. The upper semicircle is the GDP of the entire world – US$63tn – and the lower semicircle represents the value provided by the earth to the global economy – US$51tn.

The small dot on the right shows the investment needed to maintain that natural resource – the much smaller figure of US$93bn.

It all seems so simple: just invest that relatively tiny amount to preserve the natural resources on which all our prosperity depends.

And yet, of course, we aren't doing that. Instead we are depleting that resource at an alarming rate.

As WWF points out: "If everyone in the world consumed natural resources and generated carbon dioxide at the rate we do in the UK, we'd need three planets – not just one – to support us."

This quite clearly doesn't make any sense. We are growing, and consuming, at rates that are not sustainable.

Leadership from charities

Much of the leadership in highlighting the environmental problems we face, and making the case for business action, has come from charities. For instance, WWF-UK, the International Union for Conservation of Nature (IUCN) and Conservation International, among others, worked with the Institute of Chartered Accountants in England and Wales (ICAEW), the World Business Council for Sustainable Development and the Prince's Accounting for Sustainability Project to set up the Economics of Ecosystems and Biodiversity (TEEB) for Business Coalition, which is focused wholly on the impact of business on nature.

Many charities form partnerships with businesses to develop capacity and change thinking about environmental impact. The good news is that there are businesses out there which recognise these arguments, albeit they are a small pioneering group, and they are focusing on natural capital management.

A pioneering group

A recent study in the US, commissioned by the TEEB for Business Coalition, looked at 26 early adopters of natural capital management (NCM) – over 75 per cent of which are companies with more than US$1bn in annual revenues – and their business cases for doing it.

This group expect to embed NCM in their core business practices within the next three years. Their rationale is that they will be much better positioned than other companies to manage and thrive in a resource-constrained world that is already here, and which will hit business increasingly hard over the next five years.

These pioneering organisations also argue that delaying the measurement and management of natural capital usage carries a significant business risk for companies, regarding the availability of key raw materials and maintaining competitive advantage. The most significant risks were identified as: the continuing availability of fresh water; renewable energy; climate regulation; and food security.

> "Business decisions are misinformed because nature remains largely invisible"

These businesses argue that the barriers to change on NCM are at both the macro-level (eg the lack of government regulation requiring such an approach, and customer demand for it) and also at the level of individual organisations (eg establishing the relevance of NCM to the business and a lack of harmonised methods to measure, prioritise and integrate natural capital management into business decision-making).

As a result of these developments, we are now hearing the term 'natural capital' appear in the world of accounting as well. Accounting is the language of business; it enables people to make informed decisions about companies, whether they are managers, investors, regulators, legislators or other stakeholders.

If we accept that the environment is now an important consideration for businesses, then the existing array of data available to decision-makers is incomplete, and the decisions they make will be misinformed because in them nature remains largely invisible.

For this reason it is necessary to start to build a picture that includes nature; hence the term 'natural capital accounting' (NCA).

Natural capital accounting

So what does NCA look like? In some respects environmental impact is already finding its way into company accounts.

For example, Lois Guthrie writes on pages 20-21 about the fact that, from this month, all listed companies in the UK are now required to publish their greenhouse gas (GHG) footprint in their directors' report, and information about the impact of the company's business on the environment in their strategic review.

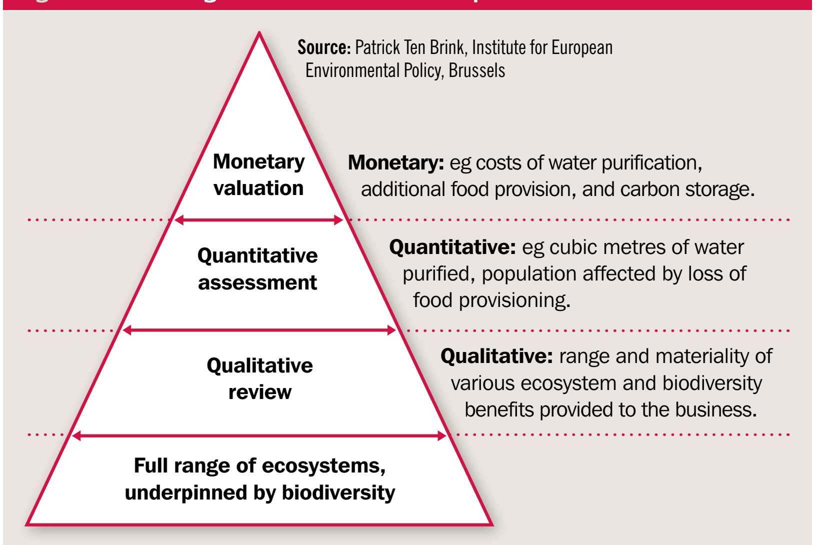
Furthermore, the International Integrated Reporting Council identifies six 'capitals', including natural capital, that need to be the basis of corporate disclosure in the future.

It is worth noting that if we see GHG reporting as a subset of NCA, we should also acknowledge that it is far more advanced in terms of measurement and disclosure.

NCA is a very new discipline and there are differing interpretations of what it is and how it should be done.

As a working definition we could say that 'corporate NCA' is "the practice of measuring and reporting

figure 2: Costing the use of natural capital



a company's use of, and its impact on, natural capital assets". However, one of the paradoxes of NCA is that as we attempt to quantify natural capital so we lose elements of that which we are trying to capture, as illustrated in figure 2.

As we progress towards monetary capture, so the range of natural capital that can be assessed narrows; for example the complexity and the interdependencies of the natural environment are lost.

Environmental P&L account

Probably the most well-known corporate response to these challenges is that of the sportswear manufacturer Puma, and its environmental profit and loss account, the 'EP&L' (see figure 3). Puma is the first major company in the world to attempt to produce an economic valuation of the environmental impacts of its activities across its entire value chain.

In 2011 Puma first quantified, and then costed, its physical impacts on the environment by five categories along its supply chain, and in four tiers (the fourth being the furthest from its operations).

The cost, US$145m, is the externalised sum that Puma doesn't have to pay for, because it is provided by the natural world, and this compares with an operating profit in 2010 of approximately US$500m. It would be incorrect simply to net these two figures. There has been no calculation, for example, of the value that has been created but not recognised. Nor does it include an assessment of other social impact.

Nevertheless, given that the majority of the environmental impact is at the production end of the supply chain – rearing cattle to make the leather for training shoes – the EP&L is a useful indication of how the natural resource base of the company is being depleted, and therefore how vulnerable the company could become in the future.

It could also be a good proxy for political risk: what if the governments of those countries from which Puma products are supplied start to charge for water, ration it or tax it?

figure 3: Puma's environmental profit and loss account

	Water use $m	GHGs $m	Land use $m	Other air pollution $m	Waste $m	Total $m	% of total
	33%	32%	26%	7%	2%	100%	
Total US$m	47	47	37	11	3	145	100%
Puma operations	·	●	·	·	·	8	6%
Tier 1	•	●	·	·	•	13	9%
Tier 2	•	●	·	·	•	14	10%
Tier 3	●	•	·	•	·	27	19%
Tier 4	●	●	●	•	·	83	56%

Source: Trucost

> Natural capital accounting is leading Puma to rethink its business model

This information has led Puma to rethink the way it does business; not stopping it doing business, but encouraging the company to make improvements in the way it is doing things. This is driving staff innovation – for instance, developing truly recyclable products – and in time will help change consumer behaviour.

Another example of NCA in action is the water accounting system developed in Australia. This looks very much like something an accountant would easily recognise: there is an independent standard-setter and a conceptual framework with accounting standards. However, the unit of account is not financial but litres of water (see www.bom.gov.au/water/standards/wasb).

Serious global support

Natural capital accounting is a new subject. The TEEB for Business Coalition I mentioned earlier aims to drive the uptake of NCA and to support the development of generally-accepted open-access methodologies for quantifying and valuing the business impact on nature.

There will be a need, sooner rather than later, for consensus-building so that – like financial accounting – everybody is 'doing it' in the same way, thus driving consistency over time, and between organisations.

In truth we are some way off that position at the moment. Nevertheless, it is clear that natural capital accounting is an important development that is attracting serious support around the world.

Finance leaders, including in the charity sector, have an opportunity to ensure that their organisations do more to preserve the natural resources on which we all depend. ■

Richard Spencer is head of sustainability at ICAEW