

THE CAMBRIDGE NATURAL CAPITAL PROGRAMME

Building a leadership narrative for business
relating to ecosystems and natural capital



UNIVERSITY OF
CAMBRIDGE

PROGRAMME FOR
SUSTAINABILITY LEADERSHIP

About the Cambridge Natural Capital Programme

It is increasingly accepted that we need a step change in the level of practical actions and policy that can deal with long-term risks to business, customers and wider society from the destruction of the natural resource base on which our global economy relies. This major new business-led programme brings together a cross-sectoral group of leading companies to explore how to bring about these transformational changes.

Phase 1 of the programme, between September 2010 and June 2011, explored four areas that programme members identified were critical for delivering progress through collaboration and system-wide actions. These were:

- Developing a boardroom narrative
- Examining long-term business risks and opportunities
- Mainstreaming natural capital investment
- Building resilient value chains

Phase 2 of the programme is acting on key recommendations from this first phase, including a number outlined in this report. For more details of the second phase of work visit www.cpsl.cam.ac.uk

The programme has been developed by the University of Cambridge Programme for Sustainability Leadership and is a business-run initiative.

Acknowledgments

This report was written by Tony Juniper, Senior Associate, CPSL Adviser and Martin Roberts, Director of the Cambridge Natural Capital Programme, CPSL.

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Language and Leadership Collaboratory Members



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1. Background

During 2010, the Cambridge University Programme for Sustainability Leadership (CPSL) established a new process to help businesses engage more effectively with the unfolding challenges linked to the depletion of natural capital¹.

One aspect of this work focussed on developing a new narrative and lexicon to provide a framework for what was perceived as a rather fragmented and disparate agenda. Embracing everything from deforestation to freshwater resources, from soil conservation

to the degradation of biodiversity and ecosystem services, the purpose of this work was to generate the ideas, concepts and language necessary for a structured programme to unfold.

2. The Collaboratory Process

Initial research

During the summer of 2010, initial research examined the state of the debate in relation to views and action on natural capital among private sector organisations. A short research phase found a wide range of existing activity. This varied from certification of natural resources, such as timber and fish, to water foot-printing, payments for ecosystem services and collaboration with suppliers. There was no clear or consistent narrative to unite these positive but fragmented interventions. There was also no clear or structured statement of the business case for the deeper and more cohesive actions necessary to address the implications of the recent science on the state of natural capital.

This early work noted how there had, by contrast, been rapid and positive progress in the development of a business narrative on climate change. Low carbon growth, emissions reduction targets and carbon foot-printing are now all familiar terms. They are embedded in a relatively clear narrative that recognises the implications of the science and sets out a coherent response.

Several reasons for seeking a comparable level of clarity in relation to natural capital emerged early on. The science that describes the rapid loss of natural capital is not being translated into new policy or behaviour change. For example, the work of processes such as the Millennium Ecosystem Assessment (MEA) and The Economics of Ecosystems and Biodiversity (TEEB) has led to powerful conclusions about the need for change, and yet has not galvanised the level of action required.

Another reason identified by the research was to inspire positive change through broadly setting out what steps might sustain long-term business activity, while at the same time as meeting social and environmental goals. At present, such a vision is absent. This stifles the collective ability to make progress. It was believed that a new narrative that addresses both these and other barriers could enable more rapid progress.

¹**Natural Capital:** the sum total of nature's resources and services, underpinning human survival and economic activity (e.g. agricultural crops, vegetation, wild life, fossil fuels, mineral deposits). **Ecosystems:** A dynamic complex of plant, animal, fungal, and micro-organism communities and their associated non-living environment interacting as a unit. **Ecosystem services** are the benefits that we gain from the many resources and processes supplied by ecosystems e.g. clean drinking water and processes such as decomposition of wastes. --

The initial meetings of Collaboratory members set out to agree the need for a clearer narrative and to generate ideas to what such a storyline might include. These meetings helped identify the shape and structure of the narrative.

Creating the narrative

A first draft paper, based on the initial research, was circulated. This was designed to stimulate thinking and encourage participants to form views on the scale and nature of the challenge at hand. It encouraged participants to consider what kind of narrative might work best in shaping a suitable cross-sectoral business response. This stimulated a wide ranging, deep and rich discussion which was used to create an initial draft of a possible narrative, using language proposed by the Collaboratory members.

After several iterations, a narrative for a wide multi-sector business audience *The Value of Environmental Infrastructure – Business Briefing* was finalised (see section 3 below). This narrative was further developed to produce a specific CEO briefing document, *Valuing Natural Capital – CEO Briefing* (see section 4 below), for use in the boardroom to make the case for action.

During the process of developing the narratives, suggestions and contributions were received from the wider business community. This consultation culminated in

the sharing of Valuing Natural Capital, the CEO briefing document, with 30 senior executives at an event and dinner to discuss the business response to ecosystem and natural capital decline, hosted by HRH the Prince of Wales in February 2011.

The Value of Environmental Infrastructure - Business Briefing sets out the nature of the challenge and the need for a collective response. It explains why companies need to act and explores the advantages that might be garnered through leadership. The Briefing examines the need for a process to realise these benefits and the steps that might be taken in moving toward effective action, including the need for strong cross-sectoral collaboration.

Valuing Natural Capital – CEO Briefing presents a similar narrative but from a slightly different perspective. It covers the business challenge posed by the loss of natural capital, why businesses should act, and the advantages of leadership and collaboration. It urges CEOs to join the CPSL process that sets out to lay the foundations for an effective response.

3. The Value of Environmental Infrastructure – Business Briefing

The Business Challenge

From crop pollination to the provision of fresh water, from soil fertility to the growth of timber, our future development is inextricably linked with the world's natural 'capital'. The entire spectrum of global activity relies on the maintenance of this environmental infrastructure that both underpins and supports our global economy.

In the past, business has taken for granted that the natural environment will provide a complex infrastructure of goods and services for little or no financial cost. As the exploitation of the world's natural capital continues to escalate, business is becoming increasingly aware of damaging and far-reaching consequences across all sectors.

The long-term impact on global productivity

As our natural capital declines, so too will global productivity. Companies now find themselves exposed to material risk, particularly in their supply chains. For those depending directly on natural resources for their products, the risks are clear. For others, pressure on natural systems is already causing economic impacts, though these may not be immediately obvious. For instance, one knock-on effect of the decline in the insect population is that almond growers in California now spend millions of dollars on importing bee hives to pollinate their crops.

The world's attention is now turning to the task of maintaining nature's vital functions. Meanwhile, a clear imbalance has emerged between private benefits gained by companies from the exploitation of our natural capital and the decline of the public goods that this capital provides.

A collective business response

These pressures, and efforts by governments to manage them, create an array of risks and opportunities for business. The international policy agenda is currently exploring how business can be required to pay for services provided by environmental infrastructure. Since every sector will be affected by changes in policy, this will have a direct and material impact on operational, business and corporate risk. Public expectations are rising that these risks will be well managed, which multiplies the potential exposure of companies.

The response from business requires effort and innovation. Although action by individual businesses is vital, no one company can meet this challenge alone. The way forward lies in a collective business response which requires collaboration and engagement with key stakeholders and policy-makers.

Why should business act?

Recent high level international studies² have examined the impact of economic activity on the Earth's natural capital stock of environmental infrastructure. These studies confirm that regional security and the global economy are already being undermined. As commodities become scarce, the sourcing of natural raw materials such as water, agricultural produce and minerals, will become more costly and problematic.

A comprehensive scientific assessment³ published in 2005 concluded that 60 percent of natural systems analysed were being degraded or used unsustainably. Air quality, climate, water, erosion, water purification, waste, disease, agricultural pest and natural hazard regulation are all affected, creating additional costs for business. We will not meet the Millennium Development Goals on

poverty reduction if the loss and degradation of environmental infrastructure continue. This will inevitably affect the size of future markets.

Building competitive advantage through leadership

Business is a significant contributor to the degradation of environmental infrastructure. A recent authoritative study⁴ calculated that in 2008 the world's top 3,000 companies by market capitalisation were responsible for \$2.15 trillion worth of environmental damage. The cost of annual environmental damage from water and air pollution, greenhouse gas emissions, general waste and depleted resources could reach \$28.6 trillion by 2050. These findings challenge conventional economic thinking and highlight significant reputational risk for many businesses.

Many stakeholders, including employees, policy makers, investors and customers recognise the value of action. Businesses demonstrating leadership in this emerging area are already building competitive advantage and enhancing their ability to grow. Positive leadership generates brand strength, customer advocacy and loyalty; it provides access to new market opportunities and enables better management of costs. New business models build business resilience (in supply chains, for instance) and create the basis for communicating a convincing long-term strategy to investors. Forming a clear view of these complex areas is vitally important. It helps business make its case in a credible and informed manner to the policy-makers who will be vital partners in developing the tools and approaches that sustain our environmental infrastructure.

A growing body of evidence shows that the benefit of halting damage to global environmental infrastructure far outweighs the costs of maintaining it. A recent international study on The Economics of Ecosystems and Biodiversity (TEEB) confirms that natural areas which are protected deliver economic returns that are 10 - 100 times greater than the cost of their protection and maintenance. An earlier estimate suggested an annual value of the services provided by global environmental infrastructure of around US\$33 trillion per year. This figure was nearly twice that of global GDP of US\$18 trillion (1997 figures⁵).

Shared responsibility

Economists, ecologists, non-governmental organisations (NGOs) and formal international processes are now focusing on how to correct the market failures which contribute to these statistics. The debate is gaining weight and high-profile discussions are taking place at national and international government levels. The impact of the TEEB study, and international undertakings on legally-binding frameworks and policies on biological diversity (which underpins the Earth's resilience to environmental disruptions and change), suggests that the issues of valuing and maintaining natural capital is here to stay.

To manage risks and opportunities effectively, businesses must be at the core of the response. Companies are pivotal in innovating, in shaping consumer demands, and in influencing the policy environment in which business operates. By gaining a clear strategic view of the challenge and its solutions, companies will be able to shape the vital discussions that lie ahead, at national, regional and global levels.

²See TEEB (note 1 above) and also, for example, the Millennium Ecosystem Assessment (MEA, 2005, <http://www.maweb.org/en/index.aspx>).

³The Millennium Ecosystem Assessment, 2005

⁴UNEP/Trucost, 2010. Putting a price on global environmental damage

⁵Costanza, R. et al. 1997. The Value of the World's Ecosystem Services and Natural Capital. Nature; 387, 253-260.

The way forward

For businesses to remain competitive they will have to identify their impact and dependencies on environmental infrastructure, both current and future. With this deeper understanding, they can then take steps - individually and collectively - to manage and protect the natural capital that supports the global economy. Recent initiatives have highlighted the business role in delivering solutions, although no initiative has yet emerged that is led by business.

Insights from businesses engaging on the climate change agenda are enormously beneficial to business-led initiatives focussing on environmental infrastructure. With climate change, traction came from the development and adoption of measurable targets and timetables (such as percentage cuts in carbon emissions by specified dates) backed up by measures to meet them. A coherent business voice helped to shape policy that, in turn, supported investment in positive business action.

The emerging agenda on environmental infrastructure is broader and has lagged behind the debate on carbon and climate change. Some companies are already demonstrating strategic leadership, but the overall business response remains fragmented and piecemeal despite recognition of the importance of addressing these critical issues.

A huge opportunity exists for businesses to develop more strategic actions through collaboration. Business collaboration across sectors will enable a more effective response using the many tools already available, for instance relating to the life-cycle analyses of products and services and the management of carbon and water. Collaboration enables the development of more comprehensive approaches that embrace the full range of environmental infrastructure. Development of new tools also supports companies to

better understand the business risks and help with challenges such as the development of resilient supply chains.

Strength in numbers

No one company or sector has the means to meet the challenges ahead. The complexity and breadth of the issues is so great that business opportunities will only be fully realised through a cross-sectoral response. Success not only requires consensus about how our environmental assets are being depleted, but also an understanding by individual companies of how to respond with positive strategies.

Individual responses will be more effective if conceived through collaboration not only within sectors but also between them. The response to these challenges requires leadership from governments, companies, and consumers. Collaboration is not just prudent – it is essential.

The Cambridge Programme for Sustainability Leadership

This Platform is a business-led initiative to deepen understanding of the business implications of valuing environmental infrastructure, and the practices and policies required to create a step change in the current level of action. The Platform draws together a cross-sectoral group of companies to share analyses, compare best practice, collaborate with other stakeholders and demonstrate leadership. The Leaders Platform provides a leadership voice to a wider audience including policy makers, consumers and other businesses.



4. Valuing Natural Capital – CEO Briefing

The Business Challenge

As supply chains become more complex and interconnected and commodity prices become more volatile, businesses and investors need to review their risk management strategies. Many businesses have already developed climate change strategies which manage risks, but also enable them to seize new business opportunities.

Progressive businesses have become increasingly aware of the damage that rapid industrialisation, consumption patterns and population growth are causing to a wide range of natural resources and ecosystem services. Recognising the risks ahead, they also welcome the value creation opportunities for their businesses.

The impact of changes to global and local environmental infrastructure⁶ can already be directly linked to price increases and declines in productivity. These pressures, and the efforts by governments to manage them, create an array of risks and opportunities for business. The international policy agenda is currently exploring how business can be required to pay for services provided by environmental infrastructure. In effect, this is an attempt to make businesses internalise what is currently a market externality. Changes in policy will have a direct and material impact on operational, business and corporate risk for every sector. Meanwhile, public expectations are rising that these risks will be well managed, multiplying the potential exposure of companies.

The response will involve effort and innovation. Action by individual businesses is vital, but no one company can meet this challenge alone. The way forward lies in a collective business response requiring collaboration and engagement with key stakeholders including policy-makers.

Why should business act?

The perception of business as a significant contributor to the degradation of natural resource infrastructure is growing. Businesses are exposed to reputational risk.

A recent study⁷ calculated that the world's top 3,000 companies by market capitalisation were responsible for \$2.15 trillion worth of environmental damage in 2008. The study calculated that the cost of annual environmental damage from water and air pollution, greenhouse gas emissions, general waste and depleted resources could reach \$28.6 trillion in 2050. These figures pose a challenge to conventional economic thinking.

A growing body of scientifically robust evidence shows that the benefit of halting the damage to global environmental infrastructure far outweighs the costs of maintaining it.

The recent report (The Economics of Ecosystems and Biodiversity 'TEEB') highlighted that protected natural resources deliver economic returns that are 10 - 100 times greater than the cost of their protection and maintenance.

The advantages of positive leadership

Businesses that have demonstrated leadership in this emerging area are building competitive advantage. Through their actions they have already enhanced their companies' ability to grow. Positive leadership generates brand strength, customer advocacy and loyalty; it provides access to new market opportunities and enables better management of costs. New business models build business resilience (in supply chains, for example) and the ability to communicate a convincing long-term strategy to investors. Forming a clear view of

these complex areas is vitally important. It helps business make its case in a credible and informed manner to the policy-makers who will be vital partners in developing the tools and approaches needed to sustain environmental infrastructure.

To effectively manage risks and opportunities, businesses must be at the centre of the response. Companies have a pivotal role in innovation, in shaping and meeting consumer demands, and in influencing the policy environment in which business operates. By gaining a clear strategic view of the challenge and its solutions, companies will be able to influence the vital discussions that lie ahead, at national, regional and global levels.

Competitive businesses need to identify their current and future impact and dependencies on environmental infrastructure. With this deeper understanding, they can then take steps both individually and collectively to manage and protect the environmental infrastructure that supports the global economy.

Collaboration – the way forward

The issues at stake are complex and wide reaching. No one company or sector has the means to meet the challenges at hand. Business opportunities will only be fully realised through collaboration within a cross-sector business response.

The experience of the climate change agenda is of great value here. Their insight and understanding would be of enormous benefit to a business-led initiative focussing on issues relating to the decline in environmental infrastructure. In the climate change agenda, traction came from the development and adoption of measurable targets and timetables (e.g. percentage cuts in carbon emissions by specified dates) backed up by measures to meet them. A

coherent business voice helped shape policies. These policies have now begun to support investment in positive business action.

The response requires leadership from governments, companies, and consumers. If the private sector is clear about the nature of the challenge and the most effective strategies to meet it, the contributions of other participants will be more effective.

The Cambridge Programme for Sustainability Leadership is launching a business platform⁸ to further understand the business implications of valuing the environmental infrastructure. The platform draws together a multi-sector group of companies with an international reach. It will support business leaders working together to share analyses, compare best practice, collaborate with other stakeholders and demonstrate leadership. The platform will provide a leadership voice to a wider audience including policy makers, consumers and other businesses.

Become a member

We invite you to become a member of this platform to secure competitive advantage as a first mover. By acting now to identify and adopt appropriate adaptation and mitigation measures to protect environmental infrastructure, your company will realise material benefits and prevent excessive future business costs.

⁶Environmental Infrastructure (often referred to as ecosystem services) provides food, fibre, water and genetic resources as well as regulates air quality, climate, water quality, erosion, water purification/ waste treatment, disease, agricultural pest, pollination and natural hazards.

⁷UNEP/Trucost, 2010. Putting a Price on Global Environmental Damage

⁸For more information contact Martin Roberts at CPSL martin.roberts@cpsl.cam.ac.uk Tel: +44 1223 768838, Mbl: +44 7921 799928

5. Next steps

Developing specific narratives

Collaboratory members recognised the need to convey the complexity of ecosystems and natural capital and the impact of its degradation on business to a wide audience within their companies and to other stakeholders. This required a range of diverse narratives for various purposes. Building on the CEO narrative from the first phase, it is proposed that narratives be developed for specific Board Members such as Marketing Directors, Finance Directors and Non-Executive Directors. An investor narrative is also needed and will draw on the contributions from senior decision makers from the investment community to the Market Risks Collaboratory phase one report.

A new Natural Capital Leaders Platform

The first phase has provided a solid foundation narrative for action. There is now a clear opportunity for business leaders to work with CPSL to deepen their engagement with the natural capital agenda. This should include a stronger emphasis on ways to move toward more significant action.

To this end a new Natural Capital Leaders Platform will be established. This will develop a basis for future actions that more clearly reflect the scale and nature of the challenge ahead. One focal point that offers the potential for effective collaboration and high level influence is the preparations for the meeting that will mark the 20th anniversary of the Rio de Janeiro Earth Summit. This will take place in Brazil in 2012 and a series of events and discussions are proposed to enable a clear and strong business voice to shape core agenda items from Governments – namely the development of credible strategies to conserve natural capital.



The University of Cambridge Programme for Sustainability Leadership (CPSL) works with business, government and civil society to build leaders' capacity to meet the needs of society and address critical global challenges. Our seminars and leadership groups and our partnerships with those who make or influence decisions are designed to transform public and private sector policies and practices and build greater understanding of our interdependence with one another and the natural world. Our network of alumni brings together the most influential leaders from across the world who share an interest in and a commitment to creating a sustainable future.

CPSL is an institution within Cambridge University's School of Technology. We work in close collaboration with individual academics and many other departments of the University. HRH The Prince of Wales is our patron and we are also a member of The Prince's Charities, a group of not-for-profit organisations of which His Royal Highness is President.



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For full details, visit our website or call us on + 44 1223 768841

www.cpsl.cam.ac.uk

In the UK

1 Trumpington Street,
Cambridge CB2 1QA, UK
T: +44 (0)1223 768850
F: +44 (0)1223 768831
E: info@cpsl.cam.ac.uk

In Brussels

48 rue de Stassart
1050 Brussels
T: + 32 (0)2 894 9320
E: info.eu@cpsl.cam.ac.uk

In South Africa

PO Box 313
Cape Town 8000
T: +27 (0)21 469 4765
E: info.sa@cpsl.cam.ac.uk

In Australia

Level 5, ACA Building
118 Queen Street
Melbourne VIC 3000
T: +61 (0)3 96 42 0220
E: info.aus@cpsl.cam.ac.uk

In the United States

3440E Spruce Street
Seattle, WA 98111
T: +1 (206) 792 9984
E: info.usa@cpsl.cam.ac.uk