

# THE CAMBRIDGE NATURAL CAPITAL LEADERS PLATFORM

NATURAL CONVERGENCE: INTEGRATING BUSINESS AND  
GOVERNMENT STRATEGIES TO MANAGE NATURAL CAPITAL

EXECUTIVE SUMMARY



UNIVERSITY OF  
CAMBRIDGE

PROGRAMME FOR  
SUSTAINABILITY LEADERSHIP

# About the Cambridge Natural Capital Leaders Platform

The Platform is a major business-led initiative focusing on practical action and policy influence.

Influential companies with a global reach are working to address the impacts of ecosystem and natural capital loss and degradation on business, their customers and wider society by:

- Triggering significant changes in the business response to sustaining ecosystems and natural capital globally and thereby delivering quality and sustainable lifestyles
- Demonstrating business support for progressive government policy and action to sustain ecosystems and natural capital, both nationally and globally
- Stimulating new ways of thinking so that the future direction taken by business and government addresses risks and grasps opportunities in relation to natural capital.

The Platform offers an exciting portfolio of laboratories, workshops and partnerships for business, incorporating the very latest content and practice, and with access to leading-edge thinking. The Platform delivers practical reports and outputs around critical issues defined by business in order to inform business strategies and feed into the Platform's policy agenda. The Platform is developed and run by the University of Cambridge Programme for Sustainability Leadership (CPSL) [www.cpsl.cam.ac.uk](http://www.cpsl.cam.ac.uk)

## Collaboratory Members



## This report

Between December 2011 and July 2012 two groups of diverse business leaders from across the UK wood and dairy industry value chains met with policymakers and academics. They explored how business manages its impacts and dependencies on natural capital through procurement and how this relates to the way government influences natural capital through land use policy. This summary report is the output of that process and the full report can be downloaded here: <http://www.cpsl.cam.ac.uk/natcap>

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# Foreword

Given the challenging economic backdrop for businesses, one might be forgiven for being uncertain about where sustainable land use fits in.

What is clear already, however, is that there are pressures and concerns, readily identified in this report, which we are going to have to tackle in order to have any kind of long-term economic future. Businesses are increasingly realising that in order to operate sustainably they must protect and enhance all the environmental resources and services that are used or affected by their operations.

Put simply, businesses depend on the availability of natural resources to make the products and supply the services they sell. For example, timber is one of the most important resources for Kingfisher's business; B&Q alone stocks over 16,000 certified wood and paper products. A journey that began over 20 years ago with the dawn of responsible procurement policies has evolved into a need to demonstrate a resilient business model and secure the future supply of environmentally and socially beneficial raw material for our products.

Over the next two decades, the changes to our society and environment that we are likely to see as a result of resource constraints will require a paradigm shift in the economy and society. The companies that recognise and plan for it now will be the winners of the future.

This report looks at two important components of UK natural capital, grasslands and forests; combined they account for 51 per cent of the land surface and support hundreds of thousands of jobs whilst contributing billions to the economy.

Whilst all agree on the essential value of these resources, different demands are placed on them by industry, retail, local government authorities, energy sectors, conservation bodies and local communities. If we are to avoid a 'tragedy of the commons' in the UK, where poor use or decline of our natural resources arises from multiple individuals acting independently in their own self-interest, we will need to think now about how we can work together.

Responsible, forward-thinking business and effective, well-informed land use policy both play an important part in responding to these challenges.

In compiling this report, we embarked on a journey focusing on what we have in common, land as an indispensable natural resource. Together we looked at how we might balance future environmental, social and economic interests by engaging the stewards of the land, stakeholders in the market, and policymakers, to participate globally in a collaborative manner. The Cambridge Natural Capital Leaders Platform is a great example of just the sort of positive, productive collaboration that is needed to find solutions to the world's resource challenges. The UK land use collaboratory offered a timely model to find ways to maximise the environmental, social and economic potential of working woodlands and grasslands across the UK.

The result is potentially transformative. By working together, we have a great opportunity to create the means to restore and preserve the UK's natural resources, create resilient supply chains, and respond to clean energy demands and the needs of our communities, by using and improving our country's core natural assets.



**Ian Cheshire,**  
Chief Executive Officer,  
Kingfisher

## A role for business in addressing the natural capital challenge

**'Natural capital - the biodiversity and ecosystems that comprise our natural resources - provides a range of benefits to society.'**

From the provision of food to the pollination of crops to the views we enjoy and the regulation of our climate, natural capital underpins almost all aspects of economic activity. But unlike its financial analogy, many of the benefits from natural capital are unrecognised and externalised from economic decision-making, leaving society to consume the products of natural capital at unsustainable rates. Today, natural resources are being consumed on average 50 per cent faster than the biocapacity of the planet for regeneration. Consumption in excess of production means eating into the capital and a third of global ecosystems have now been damaged or destroyed. Regionally, this imbalance can be even more extreme and many national economies rely heavily on the natural capital of other nations to thrive. Over time this overshoot between demand and regenerative capacity continues to grow as populations rise and the underlying capital continues to diminish. The natural capital challenge society now faces is how to produce more with less.

As political institutions struggle to address the problem, exemplified most recently at the UN Rio20+ conference, a clear role for business is emerging. Most companies have significant impacts and dependencies on natural capital which can translate into major risks or major opportunities. As the natural resource consumption overshoot intensifies, companies are facing increasing challenges to their resource



security and costs, increasing regulatory and reputational risks, and, in some cases, new market prospects. Responses to these challenges are often required faster than the political process is able to deliver. The University of Cambridge Natural Capital Leaders Platform is a global business initiative that was set up in recognition of these needs, working with a select number of leading edge companies with a global reach to identify where business leadership can respond to the challenges and opportunities natural capital presents. In 2011, members of the Natural Capital Platform explored the need to re-engineer supply chains to ensure demands could be met within the capacity of natural systems, but also highlighted the need for complementary action from the supply side.

The 2012 Natural Convergence report explores this interface further. It reports the findings of two cross-sectorial 'collaboratories' in which companies from across a given natural capital-reliant value chain came together to recognise the challenges natural capital presents to their organisations and wider society, and identified responses with representatives from Government and academia. Both collaboratories focused specifically on the UK, where data were available and where the Government had committed to incorporate the value of natural capital into its future policy. The first collaboratory brought together representatives of businesses reliant on wood production from the UK's forest natural capital, including forest managers, wood board and paper manufacturers, bioenergy suppliers, and retailers. The second collaboratory brought together representatives of businesses reliant on dairy production from the UK's grassland natural capital, including seed producers, farmers, processors and retailers. Together, each explored the way their businesses managed their impacts and dependencies on natural capital from a demand perspective, how this related to the way government influences natural capital supply through land use policy, and where potential for improvements lay.

## Working towards a new 'natural capital compact' between wood-reliant industries and Government

**Forests are an important component of UK natural capital, accounting for 13 per cent of the land surface.**

Almost all are shaped by human intervention to some degree, with a third classified as semi-natural and two thirds as plantation forests. Most forests are privately owned, but these are predominantly on agricultural land or private estates with few owned by commercial forestry companies. In contrast to most other forms of natural capital, public ownership of forests remains significant. Over a third of the UK's forests are managed by the public sector, most of which are under the Government-controlled Forestry Commission. According to the UK National Ecosystem Assessment, the quality of the UK's forest natural capital, as measured by its biodiversity, is generally still good, even in many plantation forests. This capital provides a range of natural dividends. Wood provision is the key monetised ecosystem service provided to society with about 10 million tonnes harvested per year generating annual income in excess of £100 million, primarily from public sector forests. However, forests also provide a significant range of non-monetised services to society.

Insofar as they can be valued, many of these represent potentially higher values than the monetised values. Carbon uptake and sequestration are particularly important, with sequestration values alone estimated at double the value of wood production. Other regulatory and cycling roles with regards to water, pollution and soil management are also important, as are even more intangible cultural and leisure values, as illustrated by the 300 million visits to forests each year.

**The wood-reliant industries represent an important and historic sector that harvests and adds value to one of these forest ecosystem services: timber.**



Worth several billion pounds, employing several thousand people and supplying a range of products valued by society, the wood-reliant industries are an important part of the UK economy. Furthermore, these industries represent both a significant dependence and influence over UK forest natural capital. This is achieved in part by generating the economic demand for planting or maintaining forests in the first place but also through the impacts of wood harvesting activities. In the past, harvesting techniques have been damaging to other ecosystem services but modern wood production can now be largely compatible with other ecosystem services. This is partly due to various market-led initiatives that have established voluntary harvesting standards to ensure wood is extracted with minimal disturbance to other services. It is also due to public policy, both through regulation and through the management of public forests which have increasingly had remits extending beyond timber production and into the production of additional ecosystem services. The result is that most modern wood production and use in the UK retains a large degree of compatibility with other ecosystem services.



**Despite the importance of both forest as a natural asset and the industries that both rely on and support it, both are facing significant challenges.**

Although increasing over the last century, total coverage of UK forests is still very low compared to European averages. Fragmentation and poor management are also causing serious biodiversity concerns and potentially threatening resilience. Almost none of the services produced, including timber, are being generated at optimal levels, with around half of forests without recognised management for any ecosystem services. At the same time, wood-reliant industries are facing serious challenges to the continued supply of wood.

UK wood production only meets about one fifth of national demand, making most companies heavily reliant on imports from international ecosystems with associated risks to security of supply and prices. Policy interventions have helped some, but exacerbated the problems for others.

Better maintenance, management and enhancement of the UK's forest natural capital would be to the benefit of wood-reliant businesses and UK society as a whole. However, it has not happened largely because of a general failure to recognise the total value of forest natural capital and the full range of services it provides.

Forest-reliant businesses rarely collaborate across sectors to manage a common resource

or present a common voice to Government. Instead of a unified call to improve a common resource, Government is faced by conflicting demands from competing business sectors. Equally, Government policies rarely operate at a holistic level or fully recognise the non-economic benefits forests provide. Instead, of deciding how much forest we should have in order to maximise overall value, the UK's forest natural capital is driven by market forces acting on the few benefits that have monetary value, and instead of incentivising the provision of non-monetary services, forest managers are left to balance the provision of free services with those that generate a profit.

**The companies in the collaboratory recognise the challenges facing UK forest natural capital and accept a central responsibility for driving change in collaboration with policymakers.**

They now call for a new approach to UK forest natural capital management in which forest-reliant businesses collaborate in recognition of a shared reliance on a single resource and work with a Government that presents a holistic approach to the management of natural assets. In 2012 the Independent Panel on Forestry (IPF) made a set of recommendations to Government on the improvement of the national forestry sector. In a parallel set of statements the companies in this collaboratory commit to the following positions and recommend fellow wood-reliant businesses follow suit to:

**1. Further the understanding of forests:** The companies believe public perceptions of forest values, and the role wood-reliant industries play in providing them, are key and are committed to promoting the messages that 'forests provide multiple benefits' and 'forest management is beneficial for both wood and other ecosystem services'.

**2. Improve forest management:** The companies recognise a clear role for business in increasing the proportion of forests under recognised management and

developing new forest supply chains. They commit to increasing the proportion of wood purchased from forests under recognised management schemes and to working with suppliers to create new wood supply chains.

**3. Increase forest cover:** The companies believe economic forces are the only realistic way a significant increase in forest cover can be achieved, but that generating the economic conditions required is largely a role for Government. They commit to support such policies through provision of data or through purchasing commitments when economically viable.

**In support, the collaboratory companies request that the Government:**

**1. Recognise and support the role business can play in the provision of a range of ecosystem services:** The companies would like the role of forest managers in the provision of a wide range of

services to be better recognised and further incentivised through the creation of markets for non-monetised ecosystem services.

**2. Support wood-reliant industries through a holistic forest industry action plan:**

In line with the recommendations from the IPF, the companies support the creation of a wood enterprise action plan to encourage development of all wood-reliant industries.

**3. Define the role of forests as a key national natural asset and create the economic conditions to achieve this:**

Companies require clear guidance on the target for total forest cover as part of the national natural capital mix and for the economic conditions required to reach this to be created through purchasing guarantees, favourable finance and existing national and European subsidy schemes.



# Working towards a new 'natural capital compact' between dairy-reliant industries and Government

Grasslands are an important component of UK natural capital covering 38 per cent of the total land area.

These range from lightly managed, 'semi-natural grasslands' dominated by conservation areas and light agricultural production, to more heavily managed, monoculture 'improved grasslands' where most commercial agricultural production is focused.



Unlike forests, where state ownership and management is significant, ownership and management is almost entirely under the private sector. According to the UK National Ecosystem Assessment, biodiversity levels of grasslands vary widely, from highly biodiverse semi-natural grasslands to very low diversity improved grasslands. The ecosystem services generated also vary between grassland types.

Dairy provision is the key monetised service of value to society, with around 13 billion litres of milk produced per year, most of this being produced from improved grasslands. However, there are also a variety of non-monetised services of significant value. Some grasslands play a significant role as habitats for pollinators; some have a significant role in carbon storage and sequestration and some play an important role in water and nutrient cycles. Many grasslands, including improved grasslands, also

have important cultural, aesthetic and landscape values, with many considering the archetypal dairy farm an iconic component of the British countryside.

The dairy-reliant industries are also an important part of the UK economy, adding over £9 billion of gross added value as well as meeting nearly all of the national demand for an important dietary component that is consumed by 99 per cent of the population.

Like the wood-reliant companies they also access a single service from natural capital and have spent considerable effort in ensuring they do this with the minimum impact possible. Also like the wood-reliant companies, the dairy sector potentially plays a significant role in the provision of non-target services, both by driving the creation and management of grasslands and through specific activities by dairy farmers. However, methods of milk production can vary quite widely, from low yield, low input production which relies largely on local grass productivity to high yield, high input production with a heavier reliance on external fertilizer and feed. The net impacts of these production methods on natural capital vary widely and precise data are lacking.

However, in general low input systems have fewer negative impacts on ecosystem services whilst high-input systems can have significantly net-negative impacts on ecosystem services. Over time, a variety of factors have pushed the UK dairy industry towards higher yield, higher input production with associated higher impacts on ecosystem services. Costs of production are rising and, for many, milk prices have not kept pace. To continue to produce milk profitably in a global market the industry has been consolidating - individual farmer numbers have been declining, herd sizes and yields increasing.

A number of environmental initiatives are in place to address the subsequent impacts on



other ecosystem services, but these largely focus on mitigating the impacts of demand for dairy, not on increasing the supply of other ecosystem services. In contrast to wood-production from forests, the focus on milk production from grasslands is now so intense that it is often produced at the expense of other ecosystem services.

The dairy industry now represents an industry at an economic and environmental crossroads.

The economic implications generally grab the headlines, but the long term impacts of having a net-negative impact on natural capital could be even more serious. Dairy-reliant industries do not want to produce dairy products at the expense of other ecosystem services and indeed thrive on a reputation and responsibility for countryside stewardship.

However, they need to remain profitable if they are to continue to produce the dairy products UK society wants and needs. Society also needs dairy producers to play a natural capital stewardship role - few industries manage such a large proportion of the nation's natural assets. But modern dairy production methods and the economics driving them are increasingly difficult to reconcile with a natural capital stewardship role. Expecting dairy farmers to produce milk profitably, whilst simultaneously providing a range of other ecosystem services for free, is increasingly unrealistic.

The companies in this collaboratory recognise a shared dependence on a single ecosystem service, agree on the challenges facing the dairy sector and accept a pivotal role in addressing them.

They believe that addressing their impacts on natural capital and ecosystem services should go beyond damage minimisation and risk management and instead move towards a vision of a UK dairy industry with a net positive impact on natural capital. However, they believe that neither the information nor the economic and regulatory frameworks required to achieve this exist at present. To address the information shortage, the companies commit to the following actions, and recommend fellow businesses in the dairy value chain follow suit:

## 1) Continue to strive towards addressing the impacts of dairy production on ecosystem services:

The companies in this collaboratory commit to continued and improved engagement with natural capital impact mitigation initiatives to work towards a goal of dairy production with zero negative impacts on ecosystem services.

## 2) Commission, support, exchange and contribute to research:

Lack of data was identified as one of the key barriers to progress with regards to natural capital. The companies in this collaboratory commit to supporting research to identify the exact relationships between all economically feasible methods of milk production and ecosystem services; the options available to address the negative impacts; what they would cost to implement and the options available for how to pay for these changes. This research would need to include the relationships with international natural capital not covered in this report.

## 3) Consolidate the natural capital targets across initiatives:

With numerous dairy initiatives relating to environmental goals the companies in this collaboratory commit to working together to consolidate all of the targets addressing natural capital together with economic and

social targets into a single manifesto for the development of UK dairy.

**4) Be open to a variety of potential changes:**

The companies in this collaboratory recognise the scale of the challenge facing dairy with respect to natural capital and commit to considering the full range of evidence-based solutions, even if some of these potentially take the industry in significantly different directions to current practices.

At the same time, the companies request that the Government take a clearer position on the UK's natural capital as a whole, identifying the natural capital outcomes that are required, implementing the economic, regulatory and incentivising frameworks required to support them and allowing market forces to determine the optimal way for businesses to achieve them.

Specifically the companies request:

**1) Support for their request for additional data:**

Whilst the companies recognise a central role in addressing the lack of data available regarding the relationships between dairy and natural capital they also call for support from Government where possible, both in terms of

extending the work of the National Ecosystem Assessment and in terms of setting standards for the metrics required for businesses wishing to assess their own impacts on natural capital.

**2) Clearer policy frameworks for ecosystem services:**

The externalisation of many grassland ecosystem services from the economic decisions governing grassland management is key to the impacts of dairy on natural capital. The Government has taken steps towards identifying the potential for additional markets for ecosystem services and the companies in this collaboratory urge the Government to adopt policies that incentivise the creation of these markets.

**3) More targeted use of national and European subsidies:**

The companies recognise the current pressures on Government spending and highlight the reform of national and European subsidies as the key way Government can provide economic incentives for positive change. They urge reform to focus on providing the economic incentives for implementing proven natural capital management techniques.

## Synthesis - A Natural Capital Compact between business and Government

The two collaboratories identified a number of important parallels as well as differences with important implications for how different sectors can both improve their own performance and work better with Government to promote the maintenance, management and enhancement of natural capital for the benefit of business and society.

Firstly there was a universal recognition of a clear business need, role and responsibility for natural capital management. All companies agreed a vision to move from minimising impacts on natural capital (which generally still left a net negative impact) to active maintenance, management and enhancement of natural capital (achieving a net positive impact) and encouraged other companies to follow suit.

Secondly there was a universal recognition of the need for a new Compact between business and government. Whilst business has a clear role to play in natural capital, it also faces distinct limitations that can only be met through good governance. Business stewardship of natural capital is largely restricted to accessing natural resources in the 'best' way. Government needs to complement this by ensuring the natural resources they have access to are supplied in the 'best' way.

**The Compact would require that:**

Businesses take a new, collaborative approach to natural capital management whereby multiple, diverse business sectors recognise and value a shared reliance or impact on a given natural resource and collaborate to directly manage it and/or inform Government as a single, coherent voice of the policy support required.

Government take a corresponding, holistic approach to the management of national natural assets to maximise the benefits they generate in which the targets for natural capital are clearly articulated, the

expectations and roles for business are clearly described and the frameworks required to make changes economically feasible are put in place.

However, the collaboratories also illustrated the differences in the challenges facing different industries. For some, achieving a net positive impact on natural capital might be an achievable goal, requiring better coordination within the industry and between industry and Government and relatively minor changes to the economic frameworks to strengthen economic incentives. For others, the industry might be much further from a net positive position. In such cases, either large scale changes may have to be faced, or the natural capital costs need to be recognised and rationalised against the benefits of the services they provide.

Increasingly businesses are recognising the need to reform the way they engage with the external world, building sustainable operations that generate clear, net-positive value for society which translates into clear, long term competitiveness for the company.

For companies with a clear reliance on natural capital there are a number of compelling arguments for embracing wider natural capital stewardship into core business processes.

Potentially, wood-reliant, dairy-reliant and a host of other natural capital-reliant businesses could be playing a central role as stewards of UK natural capital, profitably and sustainably creating value from the services they require whilst simultaneously maintaining, managing and enhancing a range of additional services with value to society. The 'Natural Capital Compact' recommended by this report highlights the role of business leadership in achieving this goal, but also illustrates the essential role Government must play in ensuring the appropriate frameworks and safeguards are in place to enable this vision to be realised.



**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 in the world who share an interest in and a commitment to creating a sustainable future.

CPSL is an institution within the University of Cambridge'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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