



## Natural Capital Accounting for Business: Key outputs and conclusions from the EU B@B Platform (2014 to date)

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### Authors

James Spurgeon (Sustain Value), Lars Müller (European Commission), Jerome Kisielewicz (ICF International), Strahil Christov (European Commission) and Yann Verstraeten (ICF International).

### Abstract

The European Business and Biodiversity (B@B) Platform provides an EU level forum for dialogue about the links between business and biodiversity. Through three separate thematic workstreams the Platform is working with business to develop tools and approaches that integrate natural capital and biodiversity into business practice. This paper summarises the main outputs from 2014-2016 to date of the EU B@B Platform's Natural Capital Accounting for Business workstream, which have fed into the development of the Natural Capital Protocol.

After outlining the overall aims and approach we summarise the first year's output that investigated and identified 11 different approaches to natural capital assessments and developed a decision-tree matrix tool and accompanying guide to help companies decide what type of assessment is most suitable for their needs. The guide also identified tools and guidance documents available for each approach. We also summarise the second year's outputs, which investigated the links between business, government and financial institution approaches in relation to natural capital accounting and associated data needs/availability. In particular, the assessment included a comparison of corporate natural capital accounts with national natural capital accounts. We then highlight the on-going work that is investigating the concept of 'Net Impact' in relation to Natural Capital Accounting. Finally, we project the EU Business and Biodiversity Platform's achievements as a basis for the next phase.

### Introduction

The [EU Business and Biodiversity \(B@B\) Platform](http://ec.europa.eu/environment/biodiversity/business/)<sup>1</sup> provides an EU level forum for sustained and strategic dialogue about the links between business and biodiversity. Through three separate thematic workstreams (WS), the EU B@B Platform delivers tangible results by working with business to develop tools and approaches that integrate biodiversity considerations into business practice. The EU B@B Platform also raises awareness of innovative national and international initiatives and showcases business best practices at EU level.

Natural Capital Accounting (NCA) for Business is one of the workstream topics alongside workstreams focusing on innovation and financing. The overall objective of the NCA WS has been to build on existing initiatives, and consider methodologies establishing good practice principles in natural capital accounting in the private sector, with a particular focus on biodiversity and ecosystems. Since the launch of the WS in 2014, three questions have been tackled:

- Which NCA approach is the most suitable to different business' needs, and what guidance and tools are available to help implement them?
- What are the linkages and differences between NCA approaches used by businesses, governments and financial institutions?
- What are the links between NCA and the concept of 'Net Impact'?

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<sup>1</sup> <http://ec.europa.eu/environment/biodiversity/business/>



This paper provides an overview of how the NCA WS tackled these questions and the outcomes to date.

## Approach

In order to investigate these questions, the NCA WS has implemented a participatory approach, typically involving the following steps:

1. Consultation with businesses through an online survey or questionnaire;
2. Targeted consultation with key organisations such as the Natural Capital Coalition and World Bank Group to ensure the objectives and outputs were aligned with, but did not duplicate their initiatives;
3. Organisation of a workshop with business, government and financial institution representatives to discuss preliminary findings and recommendations;
4. Production of a guide or report;
5. Presentation of the key findings during the Annual Conference of the EU B@B Platform.

The output has particularly relied on technical contributions from full member status businesses of the EU B@B Platform for the WS, as well as useful contributions from many other WS members. To date, significant input from full members has been provided by: British American Tobacco, Desso, EDF/EIFER, Grupo Codorníu, HeidelbergCement, Interserve, Kering, LVMH, Royal Dutch Shell and VICAT.

## Which NCA approach is the most suitable to different business' needs?

### Challenges addressed

In recent years, there has been a proliferation of discussion and much confusion around the concept and meaning of natural capital accounting. Similarly, numerous different approaches to natural capital accounting have arisen, along with a plethora of tools and guidelines. So when a business decides it may want to go down this route, it faces several difficult questions: which of the many alternative NCA approaches is the most suitable to its specific needs, and which guidelines and tools are most suitable to help implement it? The objective of the first year's NCA WS was to help businesses answer these questions through development of a [decision tool](#)<sup>2</sup> and accompanying [Guide](#)<sup>3</sup> (Spurgeon, 2014). Both of these are accessible on the [EU B@B Platform website](#)<sup>4</sup>.

### Key results

For the purposes of the study, natural capital accounting for business was defined as: ***Identifying, quantifying and/or valuing environmental dependencies and impacts to inform business decision-making and reporting***. A more comprehensive technical definition was also provided. However, put another way, NCA for business is effectively 'environmental accounting for business'.

Through consultation with the WS full members, a multitude of business case arguments for undertaking NCA was compiled. These were categorised under six headings, comprising: general decision-making, operational, financial, risks, reputation and strategy.

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<sup>2</sup> <http://ec.europa.eu/environment/biodiversity/business/assets/pdf/b-at-b-platform-nca-workstream-decision-matrix-tool.xlsx>

<sup>3</sup> <http://ec.europa.eu/environment/biodiversity/business/assets/pdf/b-at-b-platform-nca-workstream-final-report.pdf>

<sup>4</sup> [http://ec.europa.eu/environment/biodiversity/business/workstreams/workstream1-natural-capital-accounting/2014-output\\_en.htm](http://ec.europa.eu/environment/biodiversity/business/workstreams/workstream1-natural-capital-accounting/2014-output_en.htm)



In addition, **12 principles to guide businesses** in selecting an appropriate NCA approach were proposed. These were grouped to cover four sequential aspects to consider: ‘Basics, Aims, Tips and Selection’, as set out below.

**Table 1.1 12 principles to guide businesses in selecting an appropriate NCA approach**

Sequential aspects	Principles
Basics	<ol style="list-style-type: none"> <li><b>1. Understand your company's relationship with NC and the environment.</b> This also applies to your product, project or value chain relationships (or whatever you are selecting to assess).</li> <li><b>2. Understand the level you want to apply NCA at.</b> NCA can be applied at a project/site, product, company, supply chain or regional level, and it is important to begin to narrow down the scope.</li> <li><b>3. Know your legal obligations.</b> It is essential to adhere to any legal requirement in terms of which approach (and potential guidance document) to adopt.</li> <li><b>4. Know your limitations and constraints.</b> It is important to recognise your company's constraints and select an appropriate approach, and/or supplement in-house skills with the right expertise.</li> </ol>
Aims	<ol style="list-style-type: none"> <li><b>5. Carefully define the issue to be assessed.</b> The more you can specify what is to be assessed the easier it will be to select an NCA approach. Ideally get it written down and agreed amongst those in the team selecting the approach. The selection process may be iterative and help define the problem too.</li> <li><b>6. Build a business case.</b> This is essential to get buy in to justify your approach, and will help refine the objective of your assessment.</li> <li><b>7. Consider complementing existing company approaches.</b> It can be more cost-effective to link any NCA approach with any existing company decision-making and data collection/reporting approaches and processes.</li> <li><b>8. Consider addressing forthcoming compliance requirements.</b> There are numerous new environmental regulations and market mechanisms that will increasingly affect businesses, so potentially align the approach with what is most relevant to your business.</li> <li><b>9. Consider aligning it with external initiatives.</b> There may be local stakeholder and/or industry natural capital initiatives where synergies can be gained.</li> </ol>
Tips	<ol style="list-style-type: none"> <li><b>10. Start simple.</b> Adopt a tiered approach by starting ‘simple’ (e.g. use a qualitative or quantitative approach focused on a project or product) and then grow in complexity, for example ultimately ending up undertaking valuation at a corporate level.</li> <li><b>11. Seek advice.</b> Accounting for NC and environmental issues is complex, especially when quantifying and valuing them, so make the most of industry colleagues, consultants, NGOs and/or academics for advice to help with understanding the issues, concepts and potential applications for NCA.</li> </ol>
Selection	<ol style="list-style-type: none"> <li><b>12. Select an approach that best meets business needs.</b> Ultimately, a company should choose an approach that best meets its needs, whether directly or indirectly. It is important to have used a balanced perspective from within the company (i.e. a balanced team) to go through the selection process (e.g. involve agricultural, environmental &amp; accountant perspectives if say in food/drink industry).</li> </ol>

Source: Spurgeon, 2014.

The consultation also resulted in 11 different NCA approaches for business being identified and categorised into three groups, as summarised in the table below. The Guide then sets out two alternative ways companies can select which of these approaches is most suitable for their particular needs. Firstly, a ‘high level method’ is based on a Summary Table that describes the 11 NCA



approaches and explains what each is good for doing. This alone may suffice to help companies make the right selection.

The second is a more comprehensive ‘Decision-matrix method’, based on an interactive matrix in an Excel spreadsheet (on the [EU B@B Platform website](#)<sup>5</sup>). This is explained briefly further below.

**Table 1.2 11 NCA approaches for businesses**

Approach	Short description
<b>Approaches used to help decision-making</b>	
Dependency analysis	Determines the nature and extent to which companies depend on NC.
Impact analysis	Determines the nature and extent to which companies impact NC and cause other environmental impacts
Risk/opportunity & materiality assessments	Involves identifying & quantifying NC and other environmental related risks and opportunities. The potential materiality may also be assessed.
Valuation (full cost accounting)	Involves valuing the importance of NC and other environmental related costs and benefits to society (i.e. stakeholders) & the company (i.e. shareholders) associated with a range of business aspects - for internal management purposes. It is a form of full cost accounting relating to management decisions.
<b>Approaches used for decision-making and reporting</b>	
Inventory	Documents information about the nature and extent of NC on a piece of land and/or other environmental outputs (e.g. pollutant/residuals) generated.
Indicators	Involves using physical units, indicators and indices for assessing NC and other environmental impacts (e.g. pollutants).
<b>Approaches used for corporate reporting</b>	
Environmental Profit & Loss Account (full cost accounting)	Applies societal monetary values to company NC and other environmental impacts along the value chain. It is a form of full cost accounting, which can be applied from product to company level.
Environmental Balance Sheet (full cost accounting)	Includes information (physical and/or monetary values) on the NC assets typically owned or managed by a company on landholdings. It is a form of full cost accounting at a site or corporate level.
Environmental Financial Accounting - Environmental components	Involves including and specifying financial components of a conventional financial profit & loss account and balance sheet that directly or indirectly relate to NC and other environmental impacts.
Environmental Financial Accounting - Site management costs	Involves assessing the financial cost implications of maintaining NC (i.e. habitats, species and ecosystem services) to a certain quality that are under company ownership or management on landholdings.
Integrated Financial NCA & reporting	Involves including physical units as well as societal and financial values within a fully integrated set of balance sheets and profit & loss accounts.

Source: Spurgeon, 2014.

The decision matrix tool starts with two ‘initial’ questions to check whether the business is ready to use the tool. Having passed this step, the user moves on to answer one or more of seven ‘main’ questions. For each question there is a set of potential answers that are linked to the 11 NCA approaches. Based

<sup>5</sup> <http://ec.europa.eu/environment/biodiversity/business/assets/pdf/b-at-b-platform-nca-workstream-decision-matrix-tool.xlsx>



on the responses, the decision matrix tool filters out NCA approaches that are not relevant, or are less relevant.

The 'main' questions are:

- What aspect of the business do you want to target for analysis?
- What is your business aspect's main relationship to natural capital (functioning ecosystems) and environmental issues?
- What is your company's main intended use of implementing NCA?
- What components of natural capital and the environment are you interested in assessing?
- What form of measurement are you most interested in considering?
- Whose perspective are you most interested in?
- To what extent do you want to limit the resources (e.g. time, budget and skills) to undertake the NCA approach?

Having selected an appropriate NCA approach, the Guide goes on to identify a selection of guidance documents and tools available to help companies with implementation.

## **What are the linkages and differences between NCA approaches used by businesses, governments and financial institutions?**

### **Challenges addressed**

As the topic evolves, there is increasing use of different NCA approaches not only by businesses but also by governments and financial institutions (both private and public FIs). The proliferation of seemingly similar and quite different approaches for these sectors is encouraging, but also confusing and of some concern. Little attention to date has focussed on the extent to which the approaches do align or should align. In its second year the members of the EU B@B Platform thus asked the NCA WS to focus on identifying the synergies and differences in NCA approaches between these sectors. The objective was to provide an initial comparison of NCA approaches, data availability and data requirements for businesses, governments and financial institutions. The outputs are detailed in a [report](#)<sup>6</sup> (Spurgeon, 2015), accessible on the EU B@B Platform website.

### **Key results**

The consultation and literature review led to a comparison of several different corporate and government reporting and accounting frameworks. This involved distinguishing which different environmental parameters are covered by each in either physical and/or monetary terms. The assessment divided parameters into three categories, comprising i) environmental 'outputs' (or residuals); ii) environmental 'inputs' (capital and flows from capital); and iii) environmental expenditures. The different reporting and accounting initiatives investigated are listed below, with the results of the comparison shown in the Table below.

- Carbon Disclosure Standards Board (CDSB);
- Global Reporting Initiative (GRI);
- Environmental Profit and Loss Account (EP&L);
- Corporate Natural Capital Accounts (CNCA);

<sup>6</sup> <http://ec.europa.eu/environment/biodiversity/business/assets/pdf/b-at-b-workstream-1-natural-capital-accounting.pdf>

- System of Environmental-Economic Accounts Central Framework (SEEA-CF); and
- System of Environmental-Economic Accounts Experimental Ecosystem Accounting (SEEA-EEA).

**Table 1.3 Comparison of parameters covered in physical and monetary terms**

Parameter		Business/Private FI				Government/Public FI		
		Reporting		Sets of accounts		Sets of accounts		
		CDSB	GRI	EP&L	CNCA	SEEA-CF	SEEA-EEA	
Outputs/ Residuals	GHG	P	P	M		P		
	Other air emissions	P	P	M		P		
	Waste and spillages	P	P	M		P		
Inputs (capital and/or flows from)	Renewable energy	P	P	n/a	M	M		
	Non-renewable energy (fossil fuels)	P	P	n/a	n/a	M		
	Land use & ecosystems	P	P	M	M	Partial	M	
	Renewable resources	Agriculture	P	P	n/a	M	M	
		Forests	P	P	n/a	M	M	
		Fish	P	P		M	Partial	M
	Non-renewable materials (minerals, metals)	P	P	n/a	n/a	M		
	Water	P	P	M	M	Partial	M	
	Soil				M	Partial	M	
	Marketed biological resources			n/a	M	M		
	Protected species & habitat status		P		Partial		Partial	
Other NC/ecosystem services	P		Partial	M		M		
Environmental expenditures			M		M	M		

P	Covered in physical/quantitative units
M	Covered in monetary values (and physical/quantitative)
Partial	Partially covered in monetary values
n/a	Not applicable because covered by financial accounts
	Not covered

Source: Spurgeon, 2015.

The analysis resulted in a series of conclusions regarding key differences, links and similarities between NCA approaches for the sectors. The report also explored a range of key challenges and issues regarding data access, availability and interpretation, and provided brief recommendations for improvement. A selection of the key findings is highlighted below.

#### Key differences in NCA approaches:

- Businesses and private financial institutions (FIs) generally seek to optimise financial profits whereas governments and public FIs generally seek to optimise societal benefits. However, there are exceptions to this, with a number of businesses increasingly looking to provide and demonstrate societal benefits too.
- In terms of NCA in general, businesses and private FIs have tended to be more interested in assessing flows of value and impacts related to their business (in monetary and non-monetary terms). However, some large land-owning businesses are becoming more interested in their natural capital asset base and the associated flow of benefits. Governments and public FIs tend to be interested in assessing and maintaining natural capital assets (i.e. stocks) as well as assessing flows of value and impacts.
- Although many of the NCA applications are similar for each sector, there are many slight differences too. For example, for businesses and FIs, the NCA approaches and methodologies cover aspects such as supply chain risk assessment (for businesses) and credit risk assessment (for FIs). For governments and public FIs, it was suggested that there is scope for exploring aspects such as the importation and exportation of ecological debt (if all countries adopt this process).



### **Key links and similarities between NCA approaches:**

- All sectors generally seem to be interested in using NCA for the same types of application, albeit from slightly different perspectives. For example, this includes: for reporting and developing accounts for aspects of natural capital they have responsibility for; option and investment appraisals; managing risks and opportunities; mitigating impacts; prioritising and screening options; assessing thresholds; and for developing and understanding environmental markets etc.
- All sectors recognise the need to develop more consistent NCA approaches and methodologies between them. In particular this is in relation to what parameters to assess, in what units, and which techniques should be used for monetary valuation.
- Ultimately, it would be ideal if company natural capital accounts aligned with (and in some cases potentially in the future fed into) sub-regional and national government natural capital accounts. This would be true for balance sheets (i.e. stocks of natural capital assets) and profit and loss accounts (e.g. for impacts and flows i.e. annual changes to stocks). However, great care would clearly be needed to avoid double counting supply chain related assets, flows of value and impacts.
- NCA can potentially play an important role in developing and implementing market-based instruments, such as payment for ecosystem services and biodiversity offset markets. This topic is of considerable relevance to all sectors, so they should have a strong interest and a clear role in working together to develop and apply NCA as appropriate to the topic. However, considerable thought is required to minimise any unintended consequences and to prevent inappropriate, unfair and harmful trade in biodiversity.
- Similarly, NCA has a powerful role to play in developing and implementing green infrastructure and ecological restoration, which is of considerable relevance to each sector. Each sector will have different interests and motivations, but will benefit from working closely together to take advantage of the potential synergies.
- All sectors would gain significantly from improved sharing of the data and information on natural capital and environmental impacts that they collect. However, issues over intellectual property rights; industrial secrets and competition; appropriate compensation and sharing of costs; and guarantees for not using the data to sue the provider need to be resolved.
- Businesses and governments must develop a consistent and comparable approach to measure changes in the status of natural assets that enables early detection of potential thresholds and safe limits.

### **Challenges in general data access:**

Some of the main challenges around data for all sectors relate to:

- Lack of sufficiently detailed datasets available for biodiversity.
- Problems over accessibility of existing available data and constraints such as intellectual property rights, competitive advantage and cost sharing in relation to the sharing of datasets.
- The relatively old age, and hence current inaccuracy of many existing datasets.
- The variability of datasets in terms of what parameters are covered in what detail and in different locations.
- Lack of data, for example, relating to the following:
  - Dose-response of impacts (understanding the cause-effect relationship between impacts such as pollutants and habitat loss and associated environmental changes as well as subsequent consequences for people).
  - Habitat restoration, maintenance and creation costs and outcomes.
  - Regional/country valuation of ecosystem services and biodiversity.



- Country level land conversion data of original biomes over time.
- Biodiversity at a site level (except for at specific sites).
- Annual quantitative data on ecosystem services at a national level.
- Complexity arising from trying to determine data associated with complex supply chains.
- Determining what best to monitor (particularly relating to biodiversity and ecosystem services) and how.
- The need to agree on terminology used, but not to get held back by semantics.

#### **Recommendations to improve general data access:**

The following recommendations were made in relation to general data issues:

- Explore ways of enhancing data sharing, and showcase good examples.
- Encourage and better incentivise more data collection and reporting of information.
- Find ways to enhance data consistency.
- Develop and promote integrated data and information hubs.
- Further investigate and document key dose-response effects.
- Explore and further expand use of big data and satellite imagery.
- Experiment with available models and tools; and in particular test the assumptions.
- Governments should set out more demands for businesses and FIs in relation to collating and reporting data.
- FIs should set out more demands on companies and governments they seek to invest in to better assess their natural capital impacts and dependences.

## **What is the link between NCA and the concept of 'Net Impact'?**

### **Challenge addressed**

Over the past few years there has been a growing interest in the concept of 'Net Impact' in relation to business and the environment. For example, the Forum for the Future has established a 'Net Positive Group', a group of companies that have come together with the aim of developing approaches to demonstrate that they are on a path to having a net positive impact in relation to some of their material environmental impacts. IFC, in their Performance Standard 6 on Biodiversity, has included the concept of 'no net loss; and 'net gain' in relation to biodiversity impacts for projects to be financed by Equator Banks for a number of years. The Natural Capital Protocol also includes 'Net Impact' as a potential business application for natural capital assessments. However, the links between 'net impact' and NCA have not as yet been fully explored.

### **Key results**

For its third year, the members of the EU B@B Platform asked the NCA WS to look into the concept of net impact and investigate how it links with NCA for businesses. At the time of publishing this paper, the WS is still in progress. However, it is currently exploring the following issues:

- Business, government and financial institution (FI) perspectives on 'Net Impact';
- Corporate level applications: This will cover non-financial reporting (e.g. links with the EU non-financial reporting Directive) and Environmental Profit and Loss Accounts;
- Product level applications: This will, for example, consider links between net impact and use of life-cycle assessments, and the relationship with the EC Circular Economy Strategy;



- Site/project level applications: This will consider links at a site/project level, covering topics such as offsetting (biodiversity, carbon etc.), cost benefit analysis (which effectively monetises the positive and negative impacts) and the potential use of environmental balance sheets (which seem more typically applied at a site level); and
- Available relevant guidelines, methodologies and tools.

To date a workshop with full members of the WS was organised in Brussels on 18 May 2016 to discuss an initial outline report on the topic. [Minutes](#) of the workshop are available online<sup>7</sup> and the main report will be published later this year.

## 2017 and beyond, and next steps of the EU B@B Platform

The key objectives of the next phase of the EU B@B Platform will be to further develop the B@B Platform in its role to promote integration of natural capital and biodiversity considerations into Business practice in particular through measuring and valuing direct and indirect business impacts and dependencies (positive and negative) on natural capital and thereby to contribute to the delivery of the targets of the EU biodiversity Strategy to 2020.

This will take into account the evolving range of business and biodiversity related methodologies such as the Natural Capital Protocol. The idea is not to duplicate ongoing work, but to work on identifying, sharing and promoting the use of the best possible approaches. The platform will be seeking stronger synergies with other relevant processes. The work intends also to contribute to processes under the CBD, for example in terms of efforts to support reporting from businesses and to take full consideration of and possible collaboration with existing initiatives in the field of natural capital accounting and measuring/valuing environmental externalities in the private sector including work carried out by the WBCSD, the Natural Capital Coalition, the Global Reporting Initiative (GRI) and others.

The platform will continue to:

- Work with Business to further develop approaches such as guidelines, methodologies or tools (e.g. indicators or ecosystem-based approaches) that will promote the integration of biodiversity considerations into Business practice. In particular identifying, quantifying and/or valuing dependencies and impacts (including international trade activities impact on biodiversity) to inform business decision-making and reporting.
- Support the business and biodiversity actions undertaken by Member States by encouraging and promoting potential synergies amongst national actions across EU Member States, and between the EU, national and the international level.
- Promote better communication, increased awareness and improved co-ordination in relation to Business and Biodiversity activities and thereby provide an EU level forum for a sustained and strategic dialogue on ways business contributes to the delivery of specific targets and actions under the Biodiversity Strategy to 2020.

The ongoing work towards a possible EU "Community of Practice" of financial institutions for integrating biodiversity into financial decision-making could become a further avenue for the EU B@B Platform contributing to the NCC. This would imply stronger and broader involvement from the sector of providers of financial services open for showcasing related financial products and for sharing with the Platform members the experiences with investing in ecosystem-based approaches and financing ecosystem services, conservation finance and biodiversity-related activities for the finance sector.

The launch of the Natural Capital Protocol will provide an essential input to this work.

<sup>7</sup> [http://ec.europa.eu/environment/biodiversity/business/assets/pdf/nca-minutes-20160530\\_en.pdf](http://ec.europa.eu/environment/biodiversity/business/assets/pdf/nca-minutes-20160530_en.pdf)



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