3. The role of business in Natural Capital Accounting and the Sustainable Development Goals

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Summary

Every business impacts and depends upon natural capital, and this relationship yields significant risks and opportunities to the business, and also to society around them. Understanding this relationship allows business leaders to make smarter decisions about the consequent risks and opportunities that they might face. To do so, many businesses have adopted systematic approaches to measuring, and valuing their relationship with natural capital. These approaches often differ to national accounting methodologies, but there is increasing demand to identify the synergies between them in order to better share results and insights across both communities. This paper introduces some key drivers and characteristics behind corporate approaches to natural capital, including a number of leading practical case studies, and explores the opportunities for how we might combine approaches in the future in order to advance our progress towards the Sustainable Development Goals.

3.1 Introduction to natural capital assessments in business

Every human enterprise on the planet depends on nature, or natural capital, in order to survive and thrive. Natural processes, such as water filtration, nutrient cycling, crop pollination, seasonal weather cycles, waste management and climate stability, all flow from the natural world, and their health underpins all human activities.

While businesses depend on these ecosystem services, and the stocks of natural capital from which they flow, their operations also have varying impacts upon the health of the natural world. Pollution, water consumption, conversion of natural habitats, industrialized agricultural practices and the production of toxic chemicals can all affect the health and availability of the natural processes that businesses and societies fundamentally depend on.

Many businesses are beginning to recognize this relationship, and to understand that the impacts they are having on the environment are directly affecting its ability to provide the goods and services on which they depend for continued operational success.

In the private sector, organizations are utilizing natural capital approaches in order to **inform their *internal* decision making** relating to these relationships**.** If a farmer recognizes their dependence on the services provided by pollinating insects, and a natural capital assessment

demonstrates that their practices (perhaps an overuse of pesticides, or extensive habitat destruction) are damaging the ability of insects to provide these services, then the farmer is in a position to make a decision that provides benefits to both their business model, and to the local ecosystem.

Businesses might use this natural capital information to help them to assess significant risks and opportunities at either a product, project or organizational level. Conducting these assessments allows organizations to decide which areas of their business are in need of better management or increased investment.

Unlike the SDGs, **most natural capital work in the private sector does not necessitate reporting**. However, businesses may choose to report on the outcomes of their assessments or on the decisions that these assessments inform, if they wish.

More recently, there has been an important evolution in the way that we think about natural capital. We are realizing that it adds much more value to businesses than simply managing risks through the identification of externalities, as many have previously believed.

The metaphor of capital provides three clear attributes that considerably advance existing thinking and allow us to make better informed, as well as more integrated, decisions by generating meaningful information.

From impacts → to dependencies
Most businesses can measure their impacts, but few look systematically at their dependencies. Without understanding how they rely upon nature, businesses are failing to identify risks that, in extreme cases, may fundamentally undermine their business models. Some organizations may find for instance that they have significant exposure to resource or biodiversity-related risks because of their aggregate exposure to specific geographies, sectors or markets.

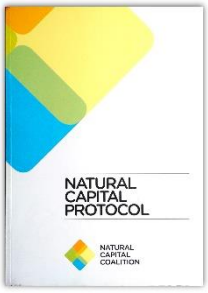
From measure → to value
We have become adept at measuring our relationship with nature through metrics such as tons of carbon, m^3 of water consumption, hectares of land area, etc. However, impact measurement alone often fails to lead to better decision making. This is because it only provides us with a number and one that is often largely devoid of context. Being told that you are using x million liters of water or emitting x million tons of CO_2, without any idea of what this means for your business, for society or for the planet, is unlikely to galvanize any serious action. *Valuing* impacts and dependencies provides an understanding of the bigger picture that works to contextualize these relationships. The way that organizations value their relationships with the natural world will depend on many different factors and will be extremely context specific; just as individuals would place a larger value on a glass of water if they were in the middle of a desert than if there were standing in a stream, business values similarly vary widely. For a farmer cultivating wheat in the UK, using x liters of water per ha may be perfectly sustainable, while to use the same measure to grow a ha of wheat in California, or South Africa, may strain the water table, threatening future supply and increasing the cost of access, while limiting availability to other stakeholders. In these different scenarios, learning that you're using x liters of water per ha, will result in very different decisions by managers.

Importantly, 'value' should not be confused with 'price'. The price of water may be the same in both the UK and in California, but the relative value of this water is not.

From separate issues → to a connected system

By considering values, stocks and dependencies, and moving beyond traditionally siloed issues (e.g. climate, water, biodiversity), natural capital allows businesses to understand fundamental inter-dependencies, tipping points, carrying capacities and thresholds. For instance, if Californian farmers deplete the local water table, this may have an effect on the health of local vegetation, which may lead to a decrease in insect populations, affecting the provision of the pollination services necessary for the success of their crop. Without an integrated approach in this instance, farmers may assume unnecessary risk or fail to identify relevant opportunities for resilience, efficiency and innovation.

To provide businesses with the tools necessary to operationalize this integrated approach to decision making, the Natural Capital Coalition – a collaborative network of 270+ organizations –developed and released the Natural Capital Protocol. The Protocol is a standardized decision-making framework that allows business to identify, measure and value their impacts and dependencies on natural capital.



The Protocol is not prescriptive, and it is not a reporting tool.

The Protocol was developed in a unique collaborative process, in which 38 diverse organizations came together and donated time and intellectual property to create a public good, which has been made freely available on a creative commons attribution license[28]. Over 450 organizations provided input over the 2-year project.

How do private sector natural capital assessments differ from national-level natural capital accounting methods?

As a generalized differentiation, the business approach is more often need-driven and designed around one intended application than national accounting approaches. For example:

- Businesses will use natural capital information specifically to answer a question or inform a decision.
- The aim is not about collecting a set of indicators, and it is uncommon to collect information without a specific application in mind.
- Businesses will focus on a specific scope; it would often be too intensive to collect information across the whole value chain.
- Businesses will usually conduct a materiality assessment, or prioritization process, before starting their natural capital assessment. This means they can focus clearly on the most important issues.
- Businesses will often use the information internally, without disclosing it externally. Some businesses are starting to disclose, e.g. in sustainability/integrated reporting, however there is a lot more standardization to be done until results can be meaningfully comparable.

The private sector requires methodologies to be simple and material to their operations. Often, corporates are applying retrofitted methodologies from the public sector, and therefore consultants are usually required to interface between the two.

While it's true that businesses and governments often have different aims when it comes to natural capital approaches, and are attempting to capture different kinds of information, it's

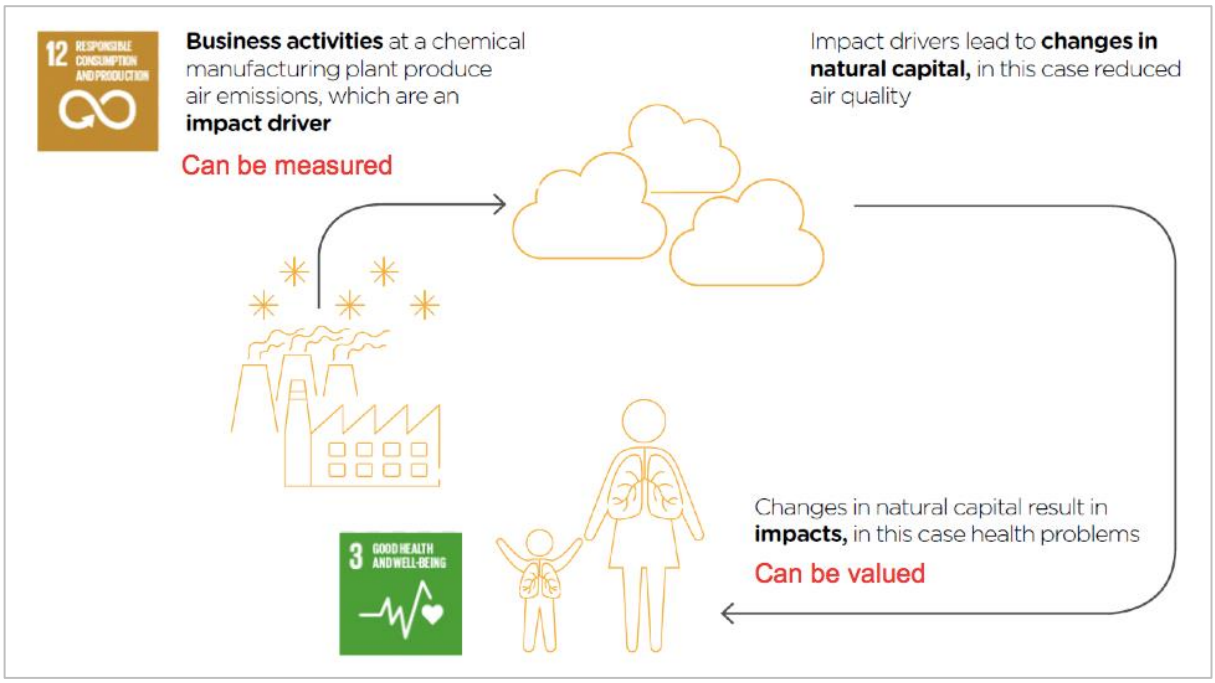
[28] The Protocol is freely available at: http://naturalcapitalcoalition.org/protocol/.

clear that the work undertaken by governments can be hugely useful to that of businesses, and vice versa.

Connection to the SDGs

By understanding how business activities can impact on society, and what this means to them, and to wider society (i.e. by valuing these relationships) we can better understand the positive or negative contribution of business towards the SDGs. *Figure 3.1* illustrates how an environmental driver (in this case air emissions resulting from production; SDG 12) can drive a change in natural capital which has consequences on human health (SDG 3).

Figure 3.1 An example of a natural capital impact pathway



Source: Natural Capital Protocol, 2016

Exploring business assessments in the regional context

As businesses begin to seriously experiment with natural capital thinking, many are beginning to recognize that they must take a systems approach, not only to their relationship with the environment, but also to their relationship with the other capitals as well.

The International Integrated Reporting Council (IIRC) has identified six capitals: financial, manufactured, intellectual, human, social and relationship and natural. In the same way that the different elements of the biosphere are all interconnected, so are the relationships between the capitals.

For instance, one clear interrelationship exists between natural and social capital. In many cases, a loss of functioning in natural capital can initiate or accelerate the degradation of social capital, and vice versa, and this recognition has led to the understanding that effective action can only be scaled if multiple stakeholders are brought in and consulted.

This is particularly true for site-based issues, for instance the development of public infrastructure such as roads and damns which can have wide-reaching impacts on local ecosystems and on the communities that depend on them. Local decision makers and policy

makers must be brought in to the process at the outset of these projects to ensure consistency, transparency and scalability.

If actions are isolated, fragmented or tokenistic, they risk being ineffective. For this reason, more business efforts around natural capital are actively engaging with local policy makers and are seeking ways to share information and insights.

3.2 Case study: Indonesia

Background and objective
Olam group is an international agri-business operating in 70 countries worldwide. Olam has long-term experience of natural capital valuation and has done previous studies on coffee in West Africa,[29] Columbia,[30] India,[31] and now Indonesia.

This study, delivered in partnership with the International Finance Corporation (IFC) Natural Capital Program and Indufor, looks at coffee production in North Sumatra and was designed to:

- Identify and collect appropriate information to better inform decision making in Sumatra
    - Inform the future design of **effective farmer livelihood programs**, to enhance long-term yield security and resilience while reducing vulnerabilities related to natural capital.
    - Support the identification of **materially important Sustainable Development Goals** (and Targets) at a program/country level and measure Olam's contribution towards them.
- Build experience and improve Olam's technical approach
    - **Compare with previous work** done in other value chains at Olam to refine the capital and impact valuation model used.
- Refine the tools and findings needed to raise natural capital internally
    - Build **internal and external support** to mainstream capital and impact valuation across Olam's value chains
    - Support the development of **new accounting frameworks** to move capital and impact valuation out of the 'sustainability silo' and into our mainstream financial reporting systems.

Process and findings
Olam conducted a materiality assessment within the region to identify their largest impacts and dependencies on the local environment. The assessment identified the most material issues as: **soil quality impacts** (resulting from excessive fertilizer inputs), farm **dependence on water use** (through processing and irrigation), and a **dependence on pollination** (and the interactions with pesticide use and production regimes). Olam then worked to scope and conduct a full assessment to analyze these relationships in more detail. After in-depth exercises in the measurement and valuation of these pathways, both in terms of value to Olam as well as to other identified stakeholders, Olam learned:

- Negative soil quality impacts could be mitigated by adopting a 'semi-organic' approach that also bought economic gains for the farmers by achieving greater yield for lower input cost.

[29] http://olamgroup.com/blog/no-sustainability-without-balance-sheet/
[30] http://49tmko49h46b4e0czy3rlqaye1b.wpengine.netdna-cdn.com/wp-content/uploads/2013/10/Cameroon-Rice-Food-Loss-Waste-Case-Study-FINAL.pdf
[31] https://www.youtube.com/watch?v=QhKTmKrRIz4

- A dependency on water use could be managed by providing infrastructure and education to farmers, to allow them to adopt more efficient – often rain fed – water management practices. This makes farms more resilient and reduces water-purchasing costs.
- Agroforestry presents greater long-term value for the company in terms of its greater resilience to shocks, greater reliability of supply and other multiple benefits. However, the comparative value of these benefits in comparison with Net Present Value, may not be immediately visible to individual farmers.

Table 3.1 Natural capital valuation results, actions and implications in Indonesia

Actions	Implication
Valuation result 1: Adoption of proper semi-organic fertilizer application rates will enhance net profits from coffee production for both Olam and farmers.	
• Leverage Starbucks Farmer Support Center to provide farmer trainings across coffee sourcing areas on higher-yielding semi-organic soil amendments (can benchmark with new chemical to be piloted by Olam) • Provide a model for public sector agricultural extension services which reportedly refer to the private sector extension agents for guidance	**Business:** enhanced long-term yields and reliability of supply, reduced fertilizer and remediation costs, less disruption due to abiotic shocks **Environment:** enhanced soil health, reduced nutrient leakage/runoff and associated environmental impacts **Livelihoods:** increased net income for farmers, reduced human health impacts
Valuation result 2: Farmer coffee producers bear significant water costs, purchasing water for semi-washed processing (and sometimes irrigation) and still do not have enough water to achieve optimal coffee yields.	
• Provide technical assistance to enable widespread adoption of rainwater harvesting tanks and other water infrastructure, and training on ways to optimize water use for irrigation and processing, e.g. reducing water waste, exploring natural or honey processing • Inquire into public sector ability to improve reliability of piped water access and regulate water use, particularly considering drought risks	**Business:** enhanced long-term yields and reliability of supply, less disruption due to abiotic shocks **Environment:** uncertain, potentially less pressure on certain water supplies **Livelihoods:** increased net income for farmers due to higher yields, reduced cost to buy imported water
Valuation result 3: Agroforestry systems provide greater long-term value for Olam, particularly in weathering eruption shocks, whereas they provide positive but relatively less value for farmers given their higher risk aversion.	
• Design agroforestry program (locally suitable species, reliable cash flows, spacing) in order to protect coffee and other crop yields, reduce water and fertilizer costs, and mitigate any losses from drought and eruption shocks • Aside from lamtoro species included in model, can switch in other income-generating shade-tree **species** such as arenga (sugar palm) and avocado trees, and understory crops such as pepper	**Business:** enhanced long-term yields and reliability of supply, less disruption due to abiotic shocks **Environment:** enhanced soil and water quality, pollination, biodiversity, and carbon sequestration **Livelihoods:** lower NPV but more reliability in yields, diversification of income and food sources, reduced water and fertilizer costs, more reliable coffee and other understory crop yields cushioned from shocks

Source: Olam, 2017

Application and scaling

The company could look at using soil, water and agroforestry models to enhance ecosystem services and manage environmental stressors, and could then communicate and formalize these practices through relevant institutions such as the Olam Livelihood Charter[32] and Starbucks C.A.F.E.[33]

[32] http://olamgroup.com/sustainability/olam-livelihood-charter/
[33] https://www.starbucks.co.uk/responsibility/sourcing/coffee

Local stakeholders and policymakers should also be involved, for instance in the planning and design of more efficient water infrastructure in the region, and perhaps eventually through providing incentives and enablers for adopting more sustainable practices.

Olam is now in the position to use the above results in its coffee production decision making not only in Sumatra, but also in the wider region. Olam is also working to incorporate social capital valuation into its assessments and decision making, with the aim of achieving a further integrated understanding of how their business activities may work to create or to erode value across multiple capitals, and how these risks can be averted, and opportunities met.

3.3 Case study: Rwanda

Background and objective

The Wood Foundation is a philanthropic organization and social investor, working with smallholder tea farmers in Tanzania and Rwanda. The Foundation works with 17,000 tea farmers in Rwanda alone, and aims to catalyze systemic and sustainable developments in the wider tea industry.

This study focuses on the natural capital impacts and dependencies of the Foundation's Shagasha Tea Factory in southwest Rwanda, and is an early summary of some ongoing work (Indufor, 2017). In this project, the Wood Foundation partnered with the IFC and Indufor. Through a systemic application of the Coalition's Natural Capital Protocol, the Foundation expected to inform their strategic planning based on an initial materiality assessment. Early prioritization with stakeholders identified the following value chain issues as the worthiest of more analysis:

- soil sedimentation affecting downstream water supply and water processing;
- soil sedimentation in local marshlands;
- flooding in local marshlands.

The study also considered how the Shagasha operation impacted, and was impacted by, the local landscape; this included trends in climate change, income security, food security and biodiversity among others.

Process and findings

The team benefited from existing WAVES national accounting data in Rwanda and was able to run this through InVEST spatial models[34] to build their analysis. When looking at the material issues identified above, the findings included:

- That converting annual cropland to tea plantations had clear positive effects in decreasing soil sedimentation and positive yet minor effects in decreasing flooding. The positive impact on soil sedimentation can further be amplified by introducing farming methods that plant along the land contours. Cropland conversion and contour planting are therefore considered opportunities.
- The issue of decreased water quality for downstream water processing does not have direct business implications for the Shagasha Tea Factory. Furthermore, the local water company has already started switching from surface water sources to groundwater sources to avoid dependence on upstream land users; this is therefore not considered a material issue at the time of assessment.

[34] www.naturalcapitalproject.org/invest

- Smallholders suffering from the effects of soil sedimentation and flooding also do not cause significant business implications for the Shagasha Tea Factory. Neither the factory's current or future tea production depends significantly on the vulnerable areas (which suffer from lower yields due to flooding and sedimentation), and so the direct value to the business of managing them is relatively low. On the other hand, for the individual smallholder tea growers the problems are very significant; the value to society is therefore very high.

Application and scaling

The study identified a number of possible opportunities, by working with local stakeholders, for The Wood Foundation to address some of these issues:

- Equipped with new insights, The Wood Foundation could make strategic decisions to prioritize their tea expansion into areas that are prone to soil erosion. Assuming a baseline of annual crop cultivation, the switch to tea production could encourage higher soil quality and reduced downstream sedimentation. Public sector actors could support this effort by providing or sponsoring training to farmers across all relevant sectors on sustainable soil management practices.
- The study also suggested a public-sector effort to better track and disclose water quality data (e.g. as part of WAVES water accounts), and to make this available publicly, to help inform water management decisions. Readily available data could help tea producers like The Wood Foundation to stay aware of trends.
- The Wood Foundation could implement a water management plan that 1) aligns with their initial natural capital findings, but also 2) accounts for increased future demand and possible climate change risks. If water quality and quantity data was made publicly available, then management could be more reactive and effective.

This natural capital approach could be replicated for planning other tea or agribusiness projects in Rwanda. Two other international tea brands are already exploring new tea plantations in the region and could benefit from this work. Depending on the siting of the plantations in relation to downstream hydropower or drinking water treatment plants, inVEST could be used to gauge the benefits from managing natural capital in the value chain upstream.

In theory, the larger-scale nature of the planned plantations would also entail natural capital impacts and dependencies of a larger scale, and would need careful monitoring. The significance of issues is sensitive to the geography of the local landscape and the overlap with other land uses; it would be necessary for the new tea companies to reassess key natural capital impacts and dependencies in their own unique contexts and adjust their strategies accordingly.

3.4 Case study: Urban Natural Capital Accounts in the United Kingdom

Background and objective

Eftec are an environmental consultancy based in the UK who have experience of delivering natural capital assessments in both the private and public sector. During the forum, eftec presented a selection of case studies conducted at different spatial scales for public-sector decision makers. These case studies were conducted against a specific scope with the purpose of informing specific decision-making needs. They demonstrate the links between national accounting approaches and organizational methods, akin to "business" applications using a "corporate" approach.

4. UK Urban National Accounts[35]

   Scale: National

   Scope: To value the benefits from natural capital in urban areas of the UK. Benefits covered included food provision, climate regulation, air quality regulation, noise regulation and physical health from outdoor recreation.

   Objective: Add to the evidence building up the UK national natural capital accounts by 2020. Provide evidence of relevance to city decision makers (e.g. City Mayors).

5. Greater Manchester, UK[36]

   Scale: City

   Scope: To value the benefits from natural capital in urban areas of Greater Manchester. Similar benefits as the national urban accounts are covered, plus investigation of further services at a local scale, such as the role of tree cover and green space in noise and urban heat-island regulation.

   Objective: Input into the spatial planning, environmental, health and other policies of a new city-wide authority with newly devolved budget and policy responsibilities.

6. London Borough of Barnet[37]

   Scale: Local (suburban borough)

   Scope: An account was constructed for the Boroughs open spaces gives a balance sheet showing that they are a health asset worth approximately £1.8bn over the next 100 years. The avoided health costs resulting from their use for recreation are over 10 times their management costs to the Borough. Benefits from enjoyment of recreation, local property premiums and climate regulation are also evaluated.

   Objective: To inform a Borough strategy for of 200 open spaces, including defending budgets for their management in the face of potential cuts.

7. Beam Parklands, London[38]

   Scale: Site

   Scope: An account was constructed to value the amenity of Beam Parklands following investment to enhance its natural environment. Benefits included flood water storage, biodiversity enhancement and local property price 'uplifts' (residential and non-residential) within the vicinity of the park. These benefits were significantly greater than the costs of investing in and maintaining the enhancements.

   Objective: Demonstrate the return on investment from investment in natural capital.

Process and findings

All four studies found the health and wellbeing benefits of their natural, recreational assets to be hugely significant. Through the use of monetary valuation, based on avoided health costs, local decision makers were able to understand urban natural capital as an asset, instead of a source of costs. The approach proved flexible and applicable across a range of different spatial

[35]http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=19843

[36]http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=19843

[37] https://www.eftec.co.uk/project/%20%09london-borough-barnet-corporate-natural-capital-account

[38]https://www.london.gov.uk/sites/default/files/beam_parklands_natural_capital_account_final_report_eftec_november_2015.pdf

scales. Each scale applied similar physical data and economic approaches, but the exact valuation approach varied with the different decision-making contexts involved.

Table 3.2 A summary of valuation results from studies across the UK

Scale	Location	Service(s) valued	Valuation method	Value (£)	
				Annual	Asset
National	UK	Physical health from outdoor recreation	QALY based welfare value Total avoided current health costs (= exchange value?)	£1.48bn £0.9bn	£44bn £27bn (over 100 yrs)
City	Manchester	Physical Health	QALY based welfare value Total avoided indirect and direct costs to society	£63m/yr £38m/yr	£1.1bn £0.8n (over 100 yrs)
Local	London Borough of Barnet	Recreation and Physical Health	Welfare value of visits Total avoided health costs	£40m/yr £19m/yr	Gross: £1.94bn Net: £1.81bn
Site	Beam Parklands, London	Local community benefits (recreation, amenity and health)	3% property price uplift (residential and non-residential)	£0.8m/yr	NPV: £26m

Source: eftec, 2017

Conclusion and scale-up

Once detailed national-level studies have developed accounting information, this evidence can potentially be re-applied cost-effectively at smaller spatial scales. This vastly increases the usefulness of accurate national research. At smaller spatial scales, public bodies can use this evidence within corporate natural capital accounting methods to inform organizational decisions. In particular, comparing values for benefits (including dependencies, such as on the natural environment as a health asset) to management costs, can be used to provide a balance sheet and justify continued management of natural capital.

3.5 How can public and private approaches of natural capital accounting combine forces to advance our shared objective of better natural capital management?

How can we promote harmonization between public and private approaches?

Participants at the 2nd Policy Forum on Natural Capital Accounting for Better Decision Making acknowledged that natural capital thinking is fast gaining momentum within the business community. Over 50 organizations piloted the Natural Capital Protocol in 2016, 100 business users signed up to additional training in 2017, and more case studies are following.

There is shared enthusiasm from both business and government users to start bringing experience together, to support each other, and to ultimately implement better solutions. Policy Forum participants identified the following “starting points” from which to begin a productive dialogue:

- **Decision making:** Corporate natural capital assessments are often conducted to answer a specific question, or to inform a specific decision. In contrast, national natural capital accounts are often conducted to identify states and trends, or to measure stocks, and are then applied in decision making retrospectively. Bringing both communities together around a specific issue, question, or decision that needs to be made, may allow us to efficiently focus both efforts on the end goal of better natural capital management.
- **Sector focus:** Many countries are developing detailed accounts for water, energy and others. There may be an opportunity to engage regulated sectors such as water, infrastructure and energy; these sectors are already working closely with policy in many areas and are also exposed to natural capital risks and opportunities. Input from these sectors could be valuable not only in analyzing the outputs of existing natural capital accounts, but also in the scoping of future work, and in discussion on how to implement better policy as an outcome.
- **Spatial focus:** Our response to the SDGs can be made more efficient and effective if we understand in greater detail where the need is greatest and who is affected; this requires more spatially explicit data and modelling. Businesses most often collect data and information at the site, project or catchment scale. There is an opportunity to leverage these spatially focused insights, to use them to complement the nationally aggregated accounts, and therefore gain a deeper understanding of issues at the spatial scale.
- **Data:** Data should not be the restricting factor it is sometimes understood to be; in many cases we already possess sufficient data to make responsible and informed decisions. Nevertheless, there could be a productive conversation around the accessibility and format of the national accounting data available to businesses, and how business can also contribute information to national accounting efforts.

What could be the next steps?

- **Need for a convening platform:** WAVES participants voiced the need to create platforms of expertise, to match-make the necessary skills, data and experience needed to implement better natural capital management. These platforms would be hosted by in-country representatives, with support from external bodies like the WAVES partnership, Natural Capital Coalition, and others.
- **Need for critical mass:** There is a responsibility on the business community to substantiate their commitment to natural capital thinking, and to demonstrate the demand for collaboration that the WAVES community can then respond to. Joint participation in events like Policy Forum on Natural Capital Accounting for Better Decision Making, and the World Forum on Natural Capital are a good first step to getting both communities in the same room.
- **Need for more case studies:** Both government and business practitioners could benefit from successful, illustrative examples of how national-level and business-level work can complement each other, and how this can result in real implemented solutions. We need first-movers!
- **Need for SME engagement:** A persistent challenge is how to make natural capital-related considerations relevant and accessible to small and medium enterprises. In many WAVES countries, SMEs represent the critical mass. It is possible that the value-chain approach presents the most practical option to “trickle down” best-practice management insights from larger businesses to the smallholders in the chain. Further discussion is needed on this issue.

3.6 Closing words

Carl Obst concluded the discussion at the 2nd Policy Forum by highlighting the universal and binding applicability of the SDGs in bringing public and private actors together around natural capital, particularly the longer-term goal towards consistency and comparability. He identified a range of opportunities for increased co-operation, including: a joint discussion among private and public land holders on stewardship of natural capital; the potential for incentives to promote improved management of natural capital and other policy settings that can generate clarity and stability for business; development of a common language to discuss natural capital; the potential to incorporate a consumer perspective on the provision of public and private goods and services from natural capital; and the capacity to better integrate and share relevant data.

There are, of course, challenges in securing such opportunities. Among these are the scale of work required to align the micro and macro perspectives on natural capital, to deal with data issues such as confidentiality and privacy, and to establish more harmonized definitions and methods. More broadly, recognition is needed of the different motivations of the sectors and actors, including likely different perspectives on the time horizons over which the sustainability of natural capital should be considered.

Notwithstanding these challenges, there are clear signs that the critical factor of engagement and discussion is underway. The presence of members of the business community at the 2nd Policy Forum is but one example of the increased discussion that is taking place. The success of the engagement will be based on understanding that this is not a "one size fits all" or single solution space. It will be fundamental to allow for different and changing context for natural capital management all over the world. Breaking down misconceptions and misunderstandings about the existing tools and frameworks will also be fundamental. In this regard, the SDGs and the substantive issue of sustainability provide an excellent platform for ongoing engagement.

Private sector applications are commonly demand-led and designed around each business' own context. Experimentation and adaptation of natural capital approaches (such as the Natural Capital Protocol) is critical to ensuring that results are fit-for-purpose and tailored to needs. Only through more testing and more experience will we progress towards consensus on the best-case metrics, valuation techniques, baselines and so on. Until then, private natural capital assessments will remain largely incomparable.

Addressing this issue is the role of collaborative networks like the Natural Capital Coalition and the WAVES partnership. By sharing experiences, best practice and challenges, and by bringing together dissimilar and sometimes disparate stakeholder groups, we can accelerate experimentation, application and improvement across the board.

In order to accelerate progress in this area, the Natural Capital Coalition and the Institute for Development of Environmental-Economic Accounting (IDEEA Group) have launched a program entitled "Combining Forces on Natural Capital." This program brings together many of the leaders in the development and implementation of both public and private sector approaches to natural capital.

The group released a public statement at the end of 2017, detailing their aim to "clarify how these [public and private sector] approaches overlap and combine, and to commit to producing materials that continue to support the inclusion of nature in public and private decision making."

You can read more about this program, and the chance to be involved, at: http://naturalcapitalcoalition.org/projects/combining-forces-on-natural-capital/

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