# THE CAMBRIDGE NATURAL CAPITAL LEADERS PLATFORM

## E.VALU.A.TE: LISTENING TO BUSINESS

UNIVERSITY OF CAMBRIDGE

25 YEARS

PROGRAMME FOR SUSTAINABILITY LEADERSHIP

# LISTENING TO BUSINESS
## THE MOTIVATIONS FOR ENVIRONMENTAL EXTERNALITIES ASSESSMENT

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### E.Valu.A.Te: A Suite of Resources

Members of the Natural Capital Leaders Platform came together to strengthen their understanding of, and to develop practical guidance around, how to undertake an evaluation of these un-costed impacts. E.Valu.A.Te (Externality Valuation Assessment Tool) represents a suite of resources that provides comprehensive guidance for environmental externality assessment, stimulated directly by business needs. This has resulted in the first online, step-by-step tool that guides users through the evaluation process for environmental externalities.

The work, driven by business, aims to generate the critical mass required to address the unintended impacts of business upon natural capital.

**Listening to Business** forms a part of this suite of resources and exemplifies some of the business motivations and drivers, as well as the barriers to assess environmental externalities. This ensured that E.Valu.A.Te delivered a tool that met those needs.

## Natural Capital Leaders Platform members

# 1 Introduction

In an era of environmental crisis, policy makers and businesses are increasingly seeking ways to manage their environmental externalities, driven by the need to avoid and/or reduce future operational, financial, and reputational risks.

Recognising, measuring, minimising and ultimately internalising these externalities are essential steps in achieving more sustainable ways of doing business. Many companies have recognised the importance of managing their externalities and there are numerous tools and methodologies to help companies account for these impacts, such as the UK's National Ecosystem Assessment[1], the Millennium Ecosystem Assessment[2], WBCSD's Corporate Ecosystem Valuation[3] and The Economics of Ecosystems and Biodiversity (TEEB)[4]. Yet there seem to be some barriers preventing effective response and action.

Companies are aware of the importance of addressing their environmental impact and are trying to inform themselves and take action. However, there is a gap between awareness and full engagement with the management of externalities and the use of of monetary valuation in strategic decision making. This gap can be attributed to a variety of factors, this includes: an absence of internal consensus; a lack of strong legislation; inadequate or erroneous evidence; and insufficient financial and market incentives and regulation.

Not all companies face the same gap between awareness of their externalities and engaging with strategic management and operational decisions to address them, as some are already managing their impacts. Others are grappling to identify and prioritise their externalities. Indeed, businesses are at different stages of engaging with externalities, varying across sectors and regions.

## 1.1 Report Structure

The report is framed around business risks and motivations associated with environmental externalities and how they drive business response.

This report discusses what businesses need to close the gap between understanding/identifying externalities and mainstreaming the response to address them (Section 3). Section 4 covers the different business risks associated with environmental externalities and provides different narratives to further explore business motivations and actions. Having established an overview of each business' actions and perception of risk, Section 5 discusses certain trends and commonalities between businesses, looking at the importance each give to addressing environmental impacts and how advanced they are in the process of addressing their environmental externalities.

# 2 The Business Voice

## Interviews were conducted with participating businesses to understand the drivers and barriers to fully engage with measuring and managing environmental impacts.

The interviews aimed to assess the motivations of businesses to conduct evaluations of their environmental externalities, as well as to identify actions and evidence of successful implementation, i.e. where change has occurred within the business.

The questions asked aimed to assess where the bottlenecks and major barriers lie, to determine what policy support or business strategy is required to enable change. The diversity of the companies and the fact that they are at different stages of the process in addressing environmental impacts provided a wide range of examples and strategies for businesses to learn from.

This report reflects the outcomes of interviews directed at those working on technical issues related to business sustainability as well as to their colleagues working in more policy-oriented roles. Eight multinational companies were interviewed. The names of the companies will not be revealed throughout the report but are coded from 1 to 8 (Business 1, Business 2, etc.), in no particular order.

*Companies are aware of the importance of addressing their environmental impact and are trying to inform themselves and take action.*

# 3 What Does Business Need to Progress

Businesses are beginning to understand their impacts and dependency upon the natural world. However, steps to address these impacts are often not mainstreamed in the strategic thinking of companies.

Businesses appear to be at different stages along an evolution pathway leading to an integrated business response to their externalities. The position of business on this pathway range from understanding their environmental impacts to starting to take action to address these (see Figure 1).

A clear need was identified for guidance on assessing the materiality and financial value of environmental externalities; this has been developed in the Practical Guide[a] and the Online Tool[b].

A barrier to action, expressed by some businesses, was the lack of evidence that long-term profits would be increased rather than diminished by addressing particular company externalities. They also identified the need for concrete business examples and 'narratives' which illustrate how companies have successfully addressed their externalities in specific contexts; these are exemplified in Section 4.

This report aims to help business progress, by providing evidence and guidance to assist companies in taking their next steps in accounting for their environmental externalities.

## 3.1 Progress in the Management of Environmental Impacts

Before considering what business needs to progress in addressing environmental externalities, they first considered their position along an evolution pathway (Figure 1).

Progressive companies aspire to address their environmental externalities by reducing their negative impacts and harnessing the positive outcomes.

As the materiality of these impacts grow and the motivation to address them increases, leading businesses are pushing for a critical mass to instigate change as well as deepen their understanding and ability to address their prioritised impacts.

The group of participating businesses represent a range of sectors. There was some commonality between the businesses in the the steps they take to manage their environmental impacts.

From this small sample, four stages along an evolution pathway were identified: understanding, identify/prioritise, measure/value and business response (Figure 1).

The position of business in this process varies according to different factors. These include the business sector, the level of leadership and the engagement of individuals.

a A detailed Practical Guide that provides the supporting information for the Tool and deeper dives into evaluation assessments with examples from case studies. It also offers guidance on scoping to identify and prioritise externalities. The Practical Guide can be accessed at www.cpsl.cam.ac.uk/natcap
b The online Tool that provides interactive, step-by-step guidance to help corporates complete a site-specific evaluation of environmental externalities.

The positioning of these businesses on this figure must be considered in conjunction with the importance they place upon addressing environmental externalities, as well as the motivations to assess externalities (this is discussed in Section 3.2). The variation in motivations depends upon the type of company and where in the supply chain it sits.

Particularly interesting is the difference between those that know their supply chains versus those that don't and what interventions they are able to make. Section 4 gives examples of the environmental standards that some customers require their suppliers to adhere to, as well as exemplifying the impacts governmental regulation can have on operations.

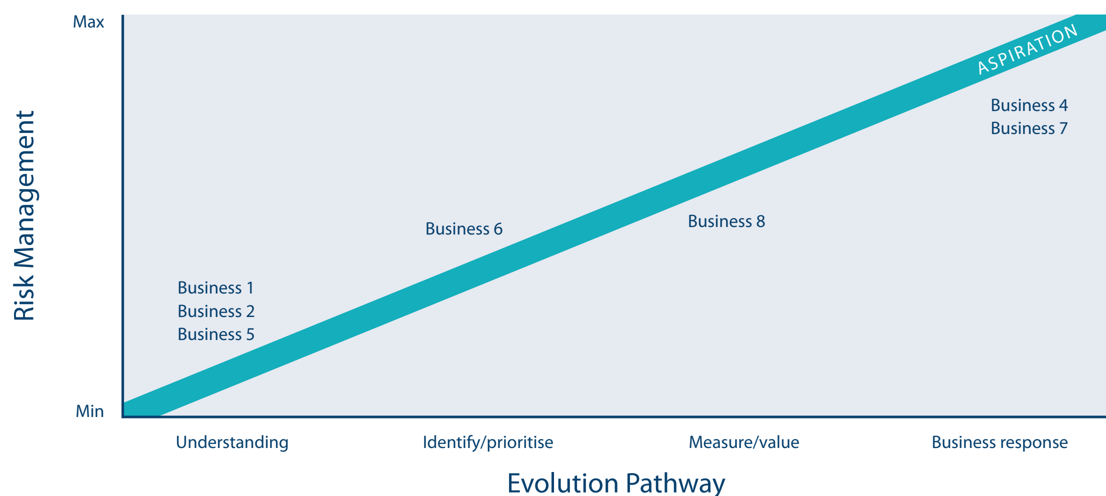



Figure 1: Assessment of where companies were positioned (at the start of the project) on the pathway to address environmental externalities

The stages along the evolution pathway are described here:

## Understanding

This is where the company realises that environmental impacts are important and significant for the longevity of the business, and can have negative, as well as positive, impacts on the business if not properly managed. At this stage businesses are aware of the risk of not addressing environmental issues but have not yet identified where to act.

## Identify and Prioritise

Once the company is aware of their risks, the next step is to identify and prioritise the environmental impacts to be addressed. During this stage a company can assess which risk will have the greatest effect on the business.This is part of the scoping phase that is detailed in the Practical Guide. At the end of this phase the business should have a list prioritising its environmental impacts.

## Measure and Value

This stage is where the business has a desire to quantify its environmental externalities. Part of this phase consists of quantifying and calculating the financial value of the environmental externalities. Valuation can be used to express different environmental impacts of business operations in the same unit, which allows for direct comparison and trade-offs.

The valuation stage was highlighted as being challenging since there are no clear guidelines on appropriate methodologies. This drive from the companies to understand how to undertake such an evaluation has resulted in the Practical Guide and an Online Tool which takes corporates through a 'how-to' process.

### Business Response

This last phase is where the data gathered and the results are used in a business case to create appropriate strategies for action. This requires internal engagement and likely the approval of the company's Board or senior management. A key step in this stage is the creation of a value proposition that includes both an assessment of risks and a realistic statement of opportunities. This last stage then requires the mainstreaming of the responses into business strategies in order to holistically address the business's environmental impacts.

## 3.2 Materiality of Environmental Externalities

In order to take action to manage environmental impacts, companies assess the materiality and importance of natural capital for their business.

As part of the interview process the businesses were asked whether they considered externalities to be important for their company and to what degree. They rated the importance of externalities for their business on a scale from 1 to 10 (1=not relevant, 10=very relevant).

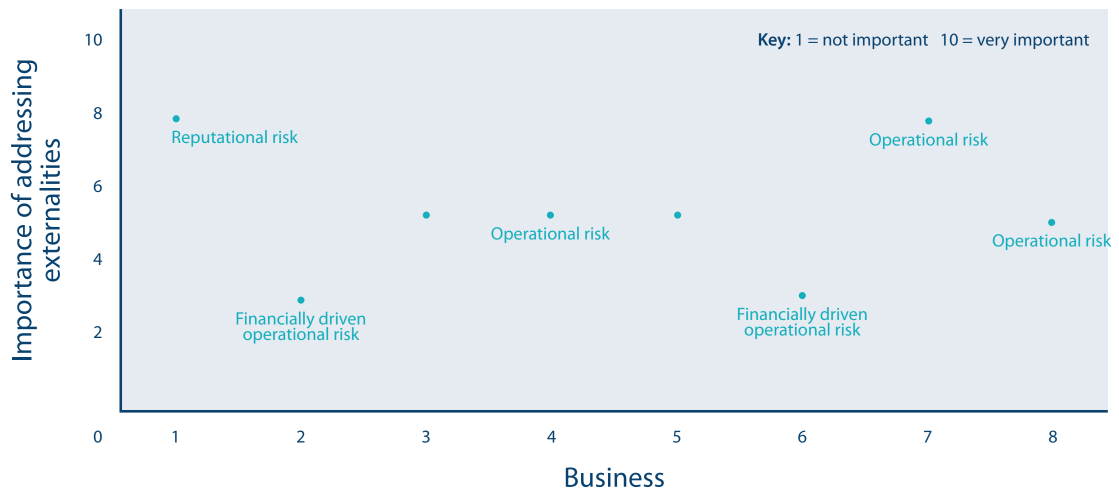



Figure 2: Do you consider environmental externalities to be important or relevant to your business?

Figure 2 illustrates the results of this question and its relation to companies' activities and perceptions. The results produced some interesting findings that revealed differences between sectors and how tangible business regard various risks. Some see environmental externality issues as fundamental to their business, in relation to their operations, whilst others associate this more strongly with reputational impacts. See also Section 4.

The interpretation of this question varied from business to business. Some attributed a low score to the importance of externalities to their business but, despite this low rating, recognised that the business is starting to address its environmental impacts. Others gave a high score but acknowledged that the company is less actively addressing externalities.

Reputational issues impacting Business 1 and Business 7 (see examples in Section 4.3) caused them to value the importance of addressing externalities more highly. Both businesses have been significantly affected by a damaged reputation in the past but have been able to recover and improve their image. As a result, their experience with reputational risk seems to have made them more aware of the importance of addressing environmental and social impacts.

Comments suggested that agribusinesses give higher importance to environmental externalities than retailers. Those that engage with the supply chain have a better understanding of how environmental impacts can become operational risks. Externalities can significantly affect access to raw materials which impacts business revenues. For example, if the soil is degraded, it becomes difficult to produce crops at the right quality and quantity; this can represent a loss for a company.

It is important to note that the 1-10 scale is very subjective. In many cases businesses would express that environmental impacts were 'very important' for the company, but one would give it a score of 4 and whilst another would allocate a higher score of 7. Consequently, the scores are not a rigid measure of the importance of environmental impacts, but is instead the result of the company's actions, how the interviewees perceived the company's position and their own opinion.

# 3.3 What is Missing?

The business motivations for managing environmental impacts are identified and exemplified in Section 4 and the different risks behind these motivations considered.

As outlined above, it was shown that businesses are still struggling to close the gap between awareness and taking action. The businesses interviewed identified four aspects that they consider key to implement an integrated business strategy to address environmental externalities: 1) understanding, 2) technical analysis, 3) internal engagement and 4) policy.

## 3.3.1 Understanding

Many of the businesses expressed the need for greater understanding of their environmental externalities and the materiality of these impacts upon their business in order to develop a strong case to take action.

Businesses 2 and 5, in particular, explained that in order to achieve internal buy-in they needed examples of where action to address environmental impacts had benefited a company and positively impacted their bottom line. Both businesses explained that they need to present the Board with business examples of where value (both monetary and environmental) can be identified through detailed analysis. This helps to show where positive return on investments can be achieved through the implementation of sustainable practices.

### Deepening Supply-Chain Engagement

Businesses 1, 2, and 5, those at the first stage of the process of addressing environmental impacts, explained that they need better understanding of their supply chains in order to move forward.

> “*There are many middle men in the production process so it is hard to track down what goes on.*” Business 2

Therefore, for these companies the main barrier is in understanding the impacts that their supply chain place on the environment and engaging with their suppliers more holistically.

### Engaging Farmers

Business 4 was able to successfully demonstrate engagement with their farmers and suppliers. They invited them to their main sites to show them, first-hand, how to carry out sustainable farming before requesting them to shift to these sustainable practices.

They also trained the farmers on simple data gathering exercises on crops, soil and water conservation practices, agricultural technology, work safety and others issues.

This approach represents a step towards engaging with the suppliers and ensuring a sustainable supply chain.

Businesses with deeper understanding of their externalities had more specific and technical needs. For example, business 4 needed a way to equate "abstract" externalities, such as carbon dioxide emissions, to farming efficiency so the farmers would understand the importance of measuring and reducing their emissions.

Business 4 explained to the farmers that by changing certain practices, not only would processes become more efficient and less resource intensive, they would also lead to a reduction in carbon.

> *"Farmers do not understand what they cannot touch. They understand they need to watch their water use or soil quality but carbon dioxide is something they cannot see and they do not see its impact."*
>
> Business 4

## 3.3.2 Technical Analysis

Those businesses not yet in the business response phase (see figure 1) expressed the need to map and quantify their externalities. They require guidance on how to undertake assessments.

Once a business is convinced of the importance of a particular externality they then require the tools to measure and quantify their environmental impact so that they can move on to designing appropriate strategies to address these. There are multiple methodologies available to help businesses measure their environmental externalities but ironically this widespread choice seems to make it harder to choose any one approach.

Before taking action business needs to know which externalities are most relevant and which to prioritise. This can be achieved through scoping and risk assessments (these steps are detailed in the Practical Guide).

> *"Where we strongly make the case is in water protection, presenting it by saying that if we don't do this, the cost for accessing this water could be even higher. This way it becomes tangible."*
>
> Business 8

The businesses highlighted the particular need for a valuation methodology to translate their environmental externalities into financial metrics which can be presented internally to support decision making. Financial values for externalities are seen by the sustainability team as a good tool to make a stronger case for action to the Board.

> *"They [sustainability managers] might feel this is the right thing to do but the fundamental we have to get back to is that businesses are still measured by financial prowess."*
>
> Business 8

It is more convincing for the Board to see, for example, the financial value of the water wasted in the company or how, in the long run, it would face higher costs to reduce its water use.

## 3.3.3 Internal Engagement

While the sustainability teams of the majority of businesses understand the risks posed by companies' environmental externalities and are keen to address them, executives in other teams (e.g. financial, operations) do not necessarily consider environmental issues a current priority.

This can be a barrier for some businesses to take action, particularly where this needs to be mainstreamed within the company. One strategy to achieve internal buy-in could be through the presentation of data and results of the company's environmental impacts and the risks that stem from them.

> *"Business executives need real values, accurate data. It is hard to get traction anywhere if we just come up with a theoretical number."*
>
> Business 8

## 3.3.4 Policy

All the businesses agreed that policy and regulation is fundamental in helping their progression in addressing environmental externalities.

The rigid and inflexible nature of regulation serves to create a level playing field where all businesses are beholden to the same environmental standards, meaning that companies can no longer free ride with impunity. This is exemplified by Business 5 in Section 4.4.

Some businesses also outlined the need for sufficient pressure from the market to shift practices towards those more sustainable.

# 4 Motivations

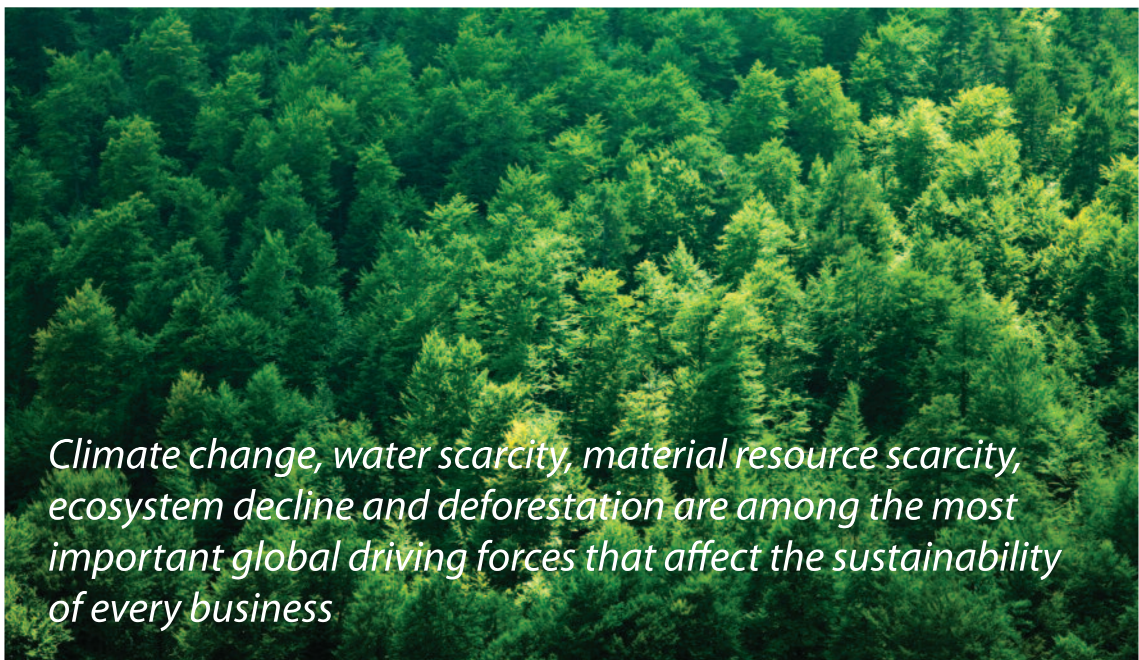
This section outlines the businesses' motivations to take action on environmental externalities. It explores the barriers and constraints restricting company responses.

Environmental impacts first need to be considered as a material risk to the business. The motivations to act are based around a variety of risks that present themselves to business.

Climate change, water scarcity, material resource scarcity, ecosystem decline and deforestation are among the most important global driving forces that affect the sustainability of every business[5]. An increasing population with higher levels of wealth, and urbanisation, will demand more energy and fuel and more food, and thereby increase the competition for water, materials and land, and lead to energy insecurity. There are therefore different types of corporate risk associated with environmental resources and natural capital [6,7,8,9] some of which are highly relevant to the agricultural sector and applicable to the work undertaken in E.Valu.A.Te.

From the interviews it was clear that the main kinds of corporate risks posed by externalities can be classified into four categories:

1) Operational risk (including financially driven),
2) Market risk,
3) Reputational risk and
4) Regulatory risk.



# 4.1 Operational Risk

Operational risk can negatively affect internal activities and the systems and processes through which a company operates. It affects productivity and impacts upon the supply chain of a company.

For the agricultural sector, the operational risks of climate change are considered to be high. Climate change is expected to cause high-impact events, including storms, floods, heat waves and droughts – and increase insurance costs in turn.

These unpredictable events increase the operational risk directly (physical risk) through damages, transport disruptions, energy insecurity and water supply risk. Changes in temperature and rainfall may significantly reduce the availability of resources/inputs, the potential for agricultural production, or yields. This may lead to product scarcity and price volatility at agricultural markets.

Operational risks also include supply chain continuity, downtime and disruption of operations. In the longer term, sea level rise, water scarcity and impacts on workforce may increase costs of operations, commodities and insurances. Lower water volumes threaten hydropower plants and increase energy costs. Technological innovations may also put increasing pressure on biodiversity. These changes will all affect operational risks in the short and mid-term.

Several of the businesses interviewed provided examples of how their environmental externalities constituted an operational risk:

**Business 5 exemplifies its operational risk**
*Practical Solutions*

Business 5 saw the high salt content occasionally discharged from its manufacturing operations – although within legal permit discharge limits – as a potential risk which could negatively impact nearby farming operations. This risk drove them to look for a practical solution to managing the potential impacts of their discharge, and avoid operational or local relationship problems in the future. Business 5 realised that the salt content of the water it was discharging could be high when manufacturing certain product mixes.

It was concerned about the river flow around its site and the potential for salt to impact local farms whose crops were not very tolerant of the salt and who frequently used the river water for irrigation during the drier months of the year. As a result the company worked with experts from one of the local universities and the government to develop a natural solution to manage their saline water discharge. The experts established the solution of planting a grove of highly salt-tolerant eucalyptus trees on the site and using the effluent water to irrigate the trees.

### Business 2 exemplifies its operational risk
*The Wider Impact on Ecosystems*

Business 2 undertook a study on fishing management. This study looked at the operational risks posed by the imbalance of the wild target fish in an ecosystem and the company's impact on the environment when trying to control this target fish population. The business knew that a way of increasing the target fish population would be to control its predators. By reducing the predatory fish population the number of target fish could increase and the company would be able to increase its production and sales. Of course, in such a scenario the wider food chain would have to be manipulated, which could have dire consequences on the ecosystem.

These could include target fish overpopulation which could destroy the ecosystem of the fish and the plants the target fish eats or new predators could emerge, replacing the predatory fish. As explained by business 2, at this point:

> "You're looking at the wider impact in the ecosystem, which compromises the conflict."

In this case business 2 is able to understand its environmental impact and how, by manipulating ecosystems, it could negatively affect its own operations and the wider ecosystem from which it takes its product.

### Business 7 exemplifies its operational risk
*Additional Costs to Rectify Environmental Impacts*

Business 7 considers environmental impacts as a large risk to its operations. It is in the food production sector and is highly dependent on agricultural products and natural resources, water in particular. In fact, business 7 illustrated its reasoning for addressing environmental impacts through an example of the importance of water:

> "If there's no water then there won't be crops. If the water is contaminated then we will have contaminated raw materials, and either we have to discard them or clean them, which would be an additional cost in time and resources, so it is better to prevent this situation."

Consequently, Business 7 has been able to understand the operational risk that its environmental impacts pose to its production and operations, and has taken action. It has been able to reduce water withdrawal by almost 30%, and at the same time increased its production by more than 50%. By recognising the operational risk that depletion and pollution of resources posed to its operations it was able to generate an effective business response to reduce its impact on water resources.

As seen in these examples, scarcity of resources or loss of resources can not only affect operations but can also increase the cost of operations, commodities and insurance. Therefore, in most cases, companies aim to address their operational risks because these risks will result in a specific type of financial risk in the mid-to-long term. For example, in water scarce areas the cost of water can be higher, and consequently so can the cost of production; the motivation stems from trying to avoid increasing costs in the future due to resource depletion. By quantifying environmental externalities and placing a financial value upon these, the business risk becomes more tangible which enables appropriate strategies to address the issues to be more readily implemented.

The way to avoid this risk is to take necessary action now rather than later. Some businesses shared this point of view and gave examples of avoiding the financial cost of operational risk:

**Business 8 incorporates the financial cost of operational risk**
*Valuation of Key Externalities*

Business 8 articulated that natural capital is core to its business operations, and how scarcity of resources, particularly water, would affect its supply chain. It is a business highly dependent on natural resources and its supply chain depends largely on agricultural crops. Business 8 explained that it is:

> “Focused on understanding externalities and their relationship to the business. The main one is water scarcity and the risks associated to that which can, for instance, result in increased cost of water.”

Therefore, by recognising the high risk that environmental impacts can pose for its business this company has decided to start collecting data on its environmental externalities, in order to be able to later use the data in a valuation methodology and to demonstrate the financial value of its environmental impacts. Acknowledging that several externalities are often interrelated, the valuation did not only focus on water but also took into account energy uses, fertiliser uses, land use change and farmers' income. The financial value will allow the operational divisions of the company to communicate the importance of taking action on externalities to the Board.

**Business 5 incorporates the financial cost of operational risk**
*Costing the Un-costed Resources*

Business 5 illustrated how future operational sustainability risk could gain traction when translated into financial risk. The business explained that it operates in a particular area/country where it is not charged for water use. Hence it is difficult to convince the company management to allocate resources or capital investment related to water conservation.

Of all the company's manufacturing sites in that country, only one was required to pay for water. By extrapolating the water cost from that one site across all manufacturing operations in the country, Business 5 was able to show the potential future cost of their current operational water consumption, thereby demonstrating a business incentive to reduce water usage. As Business 5 explained:

> “We determined a price for water and presented it as a future possibility. It was the first step in getting company management to think about the issue.”

**Business 6 incorporates the financial cost of operational risk**
*Prioritising Investments*

Business 6 is motivated by the financial and operational risk posed by environmental impacts. It is aware of the importance of environmental impacts to its business in the long run; the financial risk posed by its externalities is its main concern. The company explains that it wants to spend its money wisely, avoiding having to spend resources trying to address the same environmental impact later on:

> "I need to know I'm not putting money in the wrong place that I'm putting my effort in the externality where I can make a bigger impact."

Therefore, Business 6 is investing time studying and understanding its externalities and risks, before formulating a business response.

It is important to note that financial risk is not just about paying for the operational risk; it can also include paying taxes or fines as a result of new regulations, this is discussed in Section 4.4.

Key messages:

- Operational risk emerging from a company's environmental impacts can negatively affect the company's activities, its supply chain, and production
- There is a financial risk embedded in operational risk, which drives businesses to take action
- Agribusinesses tend to be particularly aware of their operational risk due to their high dependency on natural resources and proximity in the value chain to the manifestations of risks
- Given the importance placed upon addressing operational risk, quantifying the environmental externalities inherent to this risk and using valuation can help to formulate an appropriate business response.

## 4.2 Market Risk

Market risk refers to the risk of loss due to shifts in the market. Some of the companies interviewed explained how environmental externalities could become a market risk and how changing market pressures could push other companies to integrate environmental best practices.

Companies may have to adapt long-term strategies (location of suppliers) to climate change and water/soil availability. Increased competition over scarce resources will raise prices, may increase levels of interstate conflict and insecurity and destabilise markets with associated costs for doing business.

Climate change will have significant impacts on global agricultural production. Failing to meet food demand is expected to increase the protectionist regulations that countries take to ensure food provision for their population, and thereby reduce market access and global trade.

**Business 4 exemplifies market risk**
*Being the First Mover*

Business 4 explained how it became one of the first movers in the domestic market, by considering regulation and patterns in the international market. Many industries in the US and Europe were recognising the impact of soy crops on soil and water resources, and started to shift their demand to sustainable soy production. Consequently, Business 4 decided to be the first farm to be RTRS (Round Table on Responsible Soy) certified in the world and also started to work with its supply chain in a pilot project to meet the international market's new standards.

Business 4 is now responsible for more than half of the world's certified soy:

> " Our own agriculture division and our certified suppliers represents 56% of all the certified soy around the world. "

In addition, recognising other shifts in the international market for soy, Business 4 has also received recognition for other resources, such as, timber: 'the EU has a big impact on our market; timber produced in a sustainable way would impact our market, especially because our country is one of the main suppliers of timber and wood.'

**Business 4 exemplifies market risk**
*Market Leaders*

Business 4 has not directly financially benefitted from its shift to sustainable soy production. This is because it has not been receiving a premium as imagined from certified soy and has not sold all of it yet. In addition, the international market has shifted. With the financial downturn, the demand for sustainable soy has decreased and Business 4 has not benefitted from producing sustainable soy as initially expected. Yet its production of sustainable soy has been beneficial with regards to the environment, to the company's operations, and its image:

> " We're seen by the market as the leaders, as those who know how to do it. "

Key messages:

- Market risk, if managed well, can yield many positive results, allowing companies to take leadership in their sector
- As the market shifts to incorporate environmental pressures business will begin to address environmental impacts more quickly
- Changing market pressures towards sustainability and addressing environmental impacts also creates opportunities for companies to gain competitive advantages.

## 4.3 Reputational Risk

Clients, shareholders and consumers are increasingly concerned about buying from or investing in environmentally responsible companies.

Therefore, those companies not actively demonstrating their engagement in the management of environmental impacts risk losing market share, stakeholders, consumers and shareholders: 'A bad image can destroy your business' (Business 1). Conversely, public opinion of a company can attract customers and shareholders for example, if the company is able to demonstrate that it is successfully managing its environmental impacts.

With improved scientific understanding of ecology, external stakeholders will increase scrutiny of business use and impacts on natural capital. Protecting the company's reputation and its corporate brand requires companies to be more transparent about the sustainability performance of their operations as well as that of their suppliers.

Purchasers may progressively select suppliers based on environmental performance (for example, green supplier programs, Carbon Disclosure Project Supply Chain program), third-party certification or corporate sustainability rankings in financial markets (for example the Dow Jones Sustainability Index).

This may impact investment risk and commercial opportunity.

> *"The investors are not stupid, they want a company that does things that make sense for the business world."*
>
> Business 8

Environmental performance may also become a core element of consumer preferences. Non-compliance will hence lead to reduced market shares.

Conflicts over water and other natural resources (particularly for access and degradation) may increase community risks and lead to instable political and regulatory conditions as well as damaging a company's brand.

Three companies provided specific examples of improving their reputation, illustrating the impact of a bad reputation.

### Business 4 explains its reputational risk
*Taking Action*

Business 4's actions toward sustainability have not only been driven by market risk but also by reputational risk. The business had a prominent public figure as one of its main shareholders. That state had the highest rate of deforestation in the country. As a result, people started to associate the environmental situation in the state with that of Business 4. This association drove public opinion to assume that the company was having a large environmental impact and was probably causing deforestation where it was based. Business 4 found itself in a situation where it needed to prove that public opinion was wrong, the business had been environmentally sound, and it was not causing deforestation. One of the decisions was to create an initiative with other companies from the sector and some non-governmental organisations - a soy moratorium. Business 4 was also one of the founders of the roundtable of responsible soy.

> “We needed to show that someone external came and checked what we were doing.”

Business 4 also presented the ISO 14001 - environmental management systems on each company site – that was already implemented and collecting data and implementing environmental improvements, like the recuperation of deforested areas and water control.

Business 4 took this environmental management program a step further and started bringing in farmers to its sites to train them on sustainable agriculture: 'we needed to prove to producers that what we were asking them was do-able'. This significantly improved the reputation of the business, and the company was able to claim that all its products were farmed and processed sustainably because it was able to ensure that even its external suppliers were farming in a responsible way.

### Business 1 explains its reputational risk
*Community Conflicts*

Business 1 presented a case of reputational risk and the importance of relationships with neighbouring communities. It is important to be proactive in sharing business analysis of the potential environmental impacts of operations as well as the benefits. Business 1 realised that they need to make sure that this is presented in a form that the communities understand, explaining how the business operates, clarifying any assumptions about the company's operations and reaching agreement with the communities on a number of issues.

> “You need to understand the society you're dealing with... because after all you're going to change people's lives. They need time. We have projects that have been delayed in order to build a relationship with the community before starting operations.”

**Business 7 explains its reputational risk**
*Media Impacts*

Another example of reputational risk is the case of Business 7, where an NGO campaigned against the way a company extracted one of its raw materials. The NGO exposed Business 7's role in the destruction of forests when extracting a core commodity, with the campaign significantly impacting the image of the company. Approximately 78,500 people watched the video, condemning Business 7's unsustainable practices, within an hour of being posted.

This image crisis pushed Business 7 to seek advice to improve its image; it launched a media campaign announcing the company's new environmentally acceptable practices and advertising the use of the certified sustainable commodity. Business 7 has also signed a Commitment on Deforestation and Forest Stewardship. Nowadays, Business 7 is recognised for its more sustainable products and as a leading company in sustainability.

In the examples above, reputational crisis and opportunities drove businesses to take action and mitigate their risk. The cases demonstrate the importance of reputation and business image: how a bad image can damage the business financially and operationally, but also how a good image can benefit the business.

In the future, clients and shareholders might become more demanding of suppliers' environmental performance. It is therefore in the best interest of companies to start acting before being engulfed in a reputational crisis that might in turn result in unnecessary expenditure to restore a good image. Yet, those companies, like Business 4, that are able to foresee these trends can become leaders in the market gaining public recognition for their sustainable practices.

Key messages:

- Reputational risk demands the company's immediate efforts to change unsustainable practices and prove this change to the public
- A bad image due to the lack of sustainable practices can cost a company millions on marketing campaigns, certifications and new partnerships to regain a good image. Yet a good image, thanks to the integration of sustainable practices, can benefit the company and give it a competitive advantage among clients, costumers, and shareholders
- Customers are likely to become more demanding by choosing suppliers that have good environmental practice; those companies with a good environmental image are likely to take the lead in the market
- By evaluating externalities and the impacts this has on human welfare, as well as the environment, these risks can be better understood and addressed.

# 4.4 Regulatory Risk

Environmental regulations are expected to become increasingly stringent. New laws and regulations on corporate greenhouse gas emissions will increase pressure to comply with climate change policies.

Land allocation may be dependent on best practices, such as FSC or RSPO compliance and certification. Increased protected area coverage may restrict land availability.

Some countries, such as Australia, impose water quotas, and similarly fishing quotas will be imposed, which may reduce profit margins. New fines, user fees and pricing/compensation regimes may also emerge. These increasingly more stringent environmental regulations can increase the long term costs of operating a business, reduce its attractiveness for investors and change the competitive landscape of a business that is non-compliant. As a result, businesses are pressured by regulatory risks to take action, and to avoid fines and the loss of profit and clients. Several businesses illustrated the pressures and consequences of regulatory risks.

**Business 4 highlights regulatory risks**
*Inflexible Regulations*

Business 4 faces the problem of having to comply with regulations that do not account for the complexity and dynamics of environmental problems in each region. At the national level there is dust control legislation, with every production site emitting dust required to have a dust control system. Business 4 is a soy producer, and drying and processing soy produces soy dust, an organic dust. The company has a few warehouses in remote areas, far from communities, where the emissions of dust from the soy do not affect surrounding communities.

Yet, the legislation is inflexible and the company has to implement many control systems to control the dust, this can include the use of water. However, there are other environmental and social issues that are more pressing. A more constructive approach for environmental regulators would be to first understand the context in which companies are operating. In this case a better regulation would be to think about the water usage instead of controlling dust emissions.

> “They [regulators] need legislation to account for the unpredictability of nature and resources.”

This is an example of regulatory risk not necessarily driving business towards a more environmentally friendly use of resources. It demonstrates the complexity of dealing with environmental impacts.

### Business 5 highlights regulatory risks
*Strenuous Regulations*

Another example of regulations being too strenuous or incoherent and not considering the levels of natural resources available is provided by Business 5. Business 5 is obliged by food safety laws or requirements to wash products and/or process equipment. Water cost, water scarcity, and the cost of water services all have to be taken into account when determining where to put new facilities or in deciding what product mixes should be manufactured in existing facilities.

This pushes the business to consider where local environmental regulations may be somewhat at odds with food safety requirements or process limitations when expanding manufacturing operations:

> " In places with water constraints or unique environmental regulations we might choose to expand operations elsewhere because it is too difficult or costly to meet the environmental requirements. "

### Business 5
*Forward Thinking*

As well as reducing its operational risk, Business 5 was able to mitigate regulatory risk when the government put in place a regulation prohibiting the discharge of high salt content water into the rivers. This gave Business 5 a competitive edge.

> " By being a company that had a solution for not discharging water with a high content of salt years ago that put us in a competitive advantage with the local Thai businesses that are now trying to go back and find a solution to this problem. While we had one in place for half a decade or more. "

This is an ideal scenario, but it is hard to predict when regulations are going to be enacted:

> " The one example executives struggle with is trying to predict when exactly regulatory pressures will come in place? Why should I spend $5,000 now? Is that going to cost me $10,000 worth of problems down the road? "

This is the core of the materiality problem and the financial value of externalities: why should a company invest money managing environmental impacts when it might not see a return on that investment in the near future.

As demonstrated by the examples of Businesses 4 and 5, regulatory risk is inflexible in the sense that it can't look at individual cases. The only way to avoid the risk is to comply with regulations, which in some cases does not seem grounded in sustainability and resource availability.

The rigorous nature of this risk can make regulatory pressure one of the main options to shift the corporate world towards more sustainable practices, but it is slow to move. Many companies want a stable regulatory context which provides a level playing field for the corporate world, demanding high environmental standards from all companies. When regulations do not exist, there is less incentive for action. As exemplified by Business 5, it was not until legislation enforced the treatment of high salt water that other companies took action to manage their discharge.

Key messages:

- Change in environmental enforcement and regulations can negatively affect non-compliant businesses by increasing their cost of running the business and decreasing its competitive capacity
- Business' ability to manage regulatory risk is low. The only way of mitigating the risk is either by complying with the regulations, or moving production sites to a country where certain regulations are not in place
- The unflexible character of regulatory risk makes it a good tool to drive change towards sustainability in the industry and provide a level playing field across the market

# 5 Concluding Remarks

## Businesses are beginning to understand the importance of managing environmental impacts. Yet they are still struggling to design and embed strategies to address their environmental externalities.

Each business is at a different stage of progress and is motivated to act by a variety of corporate risks. Not all businesses are affected by the same kind of risks, which could partially explain the variance in business responses, and the lack of full engagement to mainstream environmental issues into strategic decision making.

It is difficult to draw universal generalisations from the findings, especially considering the multiple and diverse barriers that each business faces, depending on its location, regulations and internal dynamics. Yet, it was found that all are motivated to formulate a business response to avoid or mitigate risks to their operations, finances, reputation and legal status. Therefore, a strategy to generate a business response to environmental externalities should be structured around the potential risk to the company if action is not taken as well as the business opportunities that action taking can provide.

In order to achieve this, the companies demonstrated a strong desire to enhance business understanding of how to undertake an environmental externality assessment.

Evaluating environmental externalities can provide deeper insight into business risks. Translating environmental externalities into financial values can offer a stronger business case for action.

6

# References

1 UK National Ecosystem Assessment (2011). The UK National Ecosystem Assessment: Synthesis of the Key Findings. UNEP-WCMC, Cambridge.

2 Millennium Ecosystem Assessment (2003). Ecosystems and Human Well-being: A Framework for Assessment. Island Press, Washington DC.

3 WBCSD (2011). Guide to Corporate Ecosystem Valuation (CEV). Retrieved from http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=104.

4 De Groot, R. et al. (2012). Global estimates of the value of ecosystems and their services in monetary units. Ecosystem Services 1(1), 50-61.

5 KPMG (2012). Expect the Unexpected: Building business value in a changing world: Executive Summary. Retrieved from http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/building-business-value-exec-summary.pdf

6 Evison, W. and Knight, C., (2010). Biodiversity and business risk: A Global Risks Network briefing. World Economic Forum (WEF), Geneva. Retrieved from http://www.pwc.co.uk/assets/pdf/wef-biodiversity-and-business-risk.pdf

7 TEEB. (2011). The economics of ecosystems and biodiversity in business and enterprise ( Bishop J. , Ed.). Retrieved from http://www.teebweb.org/business-and-enterprise-report/

8 Ernst & Young (2010). Climate change and sustainability: Five areas of highly charged risk for supply chain operations. www.ey.com/climatechange

9 KPMG (2008). Climate change your business: KPMG's review of the business risks and economic impacts at sector level. Retrieved from http://www.kpmg.com/EU/en/Documents/Climate_Changes_Your_Business.pdf

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