

# THE CAMBRIDGE NATURAL CAPITAL LEADERS PLATFORM

THE (SUSTAINABLE) BUSINESS CASE  
FOR NATURAL CAPITAL VALUATION



UNIVERSITY OF  
CAMBRIDGE

25  
YEARS

PROGRAMME FOR  
SUSTAINABILITY LEADERSHIP

In 2012, members of the Natural Capital Leaders Platform developed the Natural Capital Leadership Compact<sup>1</sup> - a ground-breaking commitment by business leaders to properly value and maintain the Earth's natural assets.

### Business Leadership

The Compact resulted from practical collaboration between members to identify innovative business solutions to address global environmental issues and sustainability concerns.

Business leaders recognise that we are no longer living off the dividends of natural capital<sup>2</sup>, but off the capital itself. The signatories of the Compact are urging governments to commit to a global policy framework on the responsible and sustainable use of natural resources, and have also committed their companies to a challenging shared agenda to build a deeper understanding of the un-costed impacts on people and the environment associated with the production and consumption of goods and services.

By pledging to integrate externalities into the assessments of business risk and opportunities within their decision making process, signatories of the Compact are taking bold steps towards thoughtful business growth that considers the impacts beyond the purely commercial.

### Why Should Companies Value Externalities?

Valuing externalities can help businesses make better-informed decisions that take into account the degradation of (or benefits provided to) the environment and those that depend upon it as a result of their operations. By using a financial unit to assess environmental impacts, decisions can be made more compelling and comparable within a business context.

#### E•Valu•A•Te – Externality Valuation Assessment Tool

E.Valu.A.Te is a form of the practical guidance, developed by the Natural Capital Leaders Platform, which provides guidance on how to perform an evaluation of environmental externalities within a particular context:

- The Online Tool<sup>3</sup> provides interactive, step-by-step guidance to help companies complete a site-specific evaluation of environmental externalities.
- A detailed Practical Guide<sup>4</sup> provides supporting information for the Tool and dives more deeply into the evaluation assessments using examples from case studies; it also offers guidance on scoping to identify and prioritise externalities.

### What is an Externality?

Business activities can provide benefits but also place pressures upon the natural environment. The costs or benefits resulting from these activities are frequently not accounted for in market prices or otherwise compensated – they are called externalities.

They are borne or enjoyed by parties who did not choose to incur them. Since these externalities are often not perceived in economic terms, there is a need to quantify and value them. Various valuation methods have been developed for that purpose.

<sup>1</sup> [www.leadershipcompact.com](http://www.leadershipcompact.com)

<sup>2</sup> 'Natural capital' is an economic metaphor for the limited stocks of physical and biological resources found on Earth, and the limited capacity of ecosystems to provide ecosystem services (i.e. the direct and indirect contributions of ecosystems to human wellbeing).



### Undertaking the Case Study: a learning process

Working closely with the Natural Capital Leaders Platform and academics co-funded by the Valuing Nature Network, SABMiller developed its own valuation study, using a bottom-up approach. This study undertook a valuation of the environmental externalities of SABMiller's procurement of malting barley in Rajasthan, India. The analysis began as an exploratory desk-study using company experts as well as publically available datasets regarding the biophysical and socio-economic aspects of farming in Rajasthan.

Prior to the company's arrival in Rajasthan, very little malting barley was grown, but the company did not want to import all its raw material from abroad. In order to build a local supply chain, SABMiller India had to set up a farm extension service – providing local small-scale farmers with in-field advice on how to grow malting barley and offering them an attractive price.

Whilst all these farmers are independent and barley is only one of their crops, SABMiller was

still interested to develop a better understanding of the socio-economic and environmental effects of its engagement with the farmers. This interest was strengthened because SABMiller India is well aware that its operations are in a region where water scarcity is a growing concern.

During the process of desk research, some data gaps became apparent: information about actual farming practices, which is very relevant for valuing externalities, was understood but not collected systematically at management level within the company. Focus group meetings were held with the company's farm extension workers on the ground in Rajasthan to collect the required data. Whilst not as robust as an extensive survey of the farmers participating in barley growing, this focus group approach was quick, affordable and very effective. It yielded a wealth of data, enabling the academics working with SABMiller through CPSL to complete the valuation<sup>5</sup>, which supported the development of the E.Valu.A.Te guide.

<sup>3</sup> For access to E.Valu.A.Te: the Tool, please contact John.Pharaoh@cpsl.cam.ac.uk

<sup>4</sup> The Practical Guide can be accessed here.

<sup>5</sup> Bowe C., van der Horst D. & Meghwanshi C. (2013); Assessing the externalities of SABMiller's barley extension program in Rajasthan. This can be accessed here.

## Findings and Considerations

By assessing different scenarios, the study established both the background trends in agriculture in Rajasthan in the last 10 years (more fertiliser use, more fossil fuel use, minor reduction in water use) and the relative performance of barley farmers in comparison to that trend. The study was able to conclude that SABMiller's barley growing programme has helped participating farmers to:



Increase their barley yield by 55% and increase the quality of their barley which they sell to the company



Increase their income by \$1/day by following the best agronomic advice for malting barley



Achieve a four-fold reduction of irrigation water use compared to other farmers



Reduce their carbon emissions by 16% compared to other farmers

Across the 6000 participating farmers in Rajasthan, the annual reduction of water use and CO<sub>2</sub> emissions amounted to 3.4 million m<sup>3</sup> and 1980 tCO<sub>2e</sub> respectively. The total value of these externalities was estimated at \$300,000 per year. Despite these benefits, the study also highlighted two areas for potential improvement.

Firstly, it showed that the water use reductions achieved by farmers participating in SABMiller's barley growing programme are insufficient to address the unsustainable depletion of the aquifer in the area caused by the broader agricultural activities. Barley is just part of the picture and wider systemic changes to the entire agricultural system are needed to address the rapid fall in groundwater resources.

Secondly, it concluded that extension workers could potentially help farmers to increase their income by \$2/day if they systematically provided best-practice agronomic advice for all current crops, not just barley.





“ The extent of the inter-connections between resources means that issues such as water scarcity, food and energy security cannot be addressed in silos. As global populations continue to grow, managing the relationship and trade-offs between water, food and energy is only going to become more critical. SABMiller seeks to apply this kind of nexus thinking to our business decisions.

We share the risks related to these resources with local communities and other stakeholders, so collective understanding and collective action are key. In India, water scarcity is a major issue. We work with other stakeholders to understand and tackle it for the benefit of local communities, and ecosystems, as well as our business.

SABMiller is excited to have undertaken this study with CPSL. This approach to valuing the external impacts of our business activities is a valuable tool to support better resource management. It also represents an important step in the journey towards factoring natural capital into business decisions. ”

Andy Wales,  
Senior Vice President Sustainable Development  
SABMiller

## Final Remarks

Wasteful resource use and impacts upon natural capital can undermine long term economic and social stability, and therefore create a strategic risk for businesses. Yet assessing and pricing externalities is not an easy task, nor is it an established business practice. The Natural Capital Leaders Platform provides a unique forum for business leaders to build understanding of these issues, and benefit from the latest academic research.

The SABMiller India case study shows how natural capital impacts can be valued as part of the process of measuring and managing the things that matter for business performance.

## **Cambridge insight, policy influence, business impact**

For 25 years the University of Cambridge Programme for Sustainability Leadership (CPSL) has worked with leaders on the critical global challenges faced by business and society.

CPSL contributes to the University of Cambridge's mission and leadership position in the field of sustainability via a mix of executive programmes, business platforms and strategic engagement, informed by the University and other partners. CPSL is an institution within the University's School of Technology. HRH The Prince of Wales is the patron of CPSL and we are a member of The Prince's Charities, a group of not-for-profit organisations of which His Royal Highness is President.



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### **In the UK**

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

### **In Brussels**

The Periclès Building  
Rue de la Scinece 23  
B-1040 Brussels, Belgium  
T: + 32 (0)2 894 93 20  
E: [info.eu@cpsl.cam.ac.uk](mailto:info.eu@cpsl.cam.ac.uk)

### **In South Africa**

Open Innovation Studio  
27 Buitenkant Street  
Cape Town 8001, South Africa  
T: +27 (0)21 469 4765  
E: [info.sa@cpsl.cam.ac.uk](mailto:info.sa@cpsl.cam.ac.uk)

[www.cpsl.cam.ac.uk](http://www.cpsl.cam.ac.uk)