PROCEEDINGS OF THE
2016 NATIONAL BIODIVERSITY & BUSINESS INDABA

25-26 October 2016

Hatch Offices, Johannesburg

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The objective of this report is to provide a broad overview of the proceedings of the 2016 National Biodiversity and Business Indaba. The report content was sourced predominantly from the notes taken by Guro H. Kristiansen and Claire Relton (Endangered Wildlife Trust). The report was compiled by Guro H. Kristiansen with input from: Shelley Lizzio (National Biodiversity and Business Network), Michael Adams (Endangered Wildlife Trust) and Sam Page-Nicholson (Endangered Wildlife Trust).

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1 INTRODUCTION

The National Biodiversity and Business Network (NBBN) is a South African-based network of businesses, industries and related stakeholders including government, NGOs and academic institutions. The aim of the NBBN is to facilitate engagement amongst its members and to support the mainstreaming of biodiversity into business agendas and operations. The NBBN was established in 2013 by the Endangered Wildlife Trust (EWT) in collaboration with its founding partners including the Department of Environmental Affairs (DEA), Nedbank Limited, Hatch Africa, De Beers, Transnet, Pam Golding Properties and Pick n Pay.

The NBBN organized the second National Biodiversity and Business Indaba from 25-26 October 2016 at Hatch's offices in Modderfontein, Johannesburg, South Africa. The aim of the Indaba was to provide a platform for dialogue on mainstreaming of biodiversity considerations into business.

The audience included forward-looking CEOs, financial, sustainability and risk managers, corporate social responsibility directors, environmental economists and consultants, leading academics, students, professional advisors, sustainability leaders, natural capital experts, government officials, financiers and other influencers.

2 Day 1

2.1 Programme

TIME	TOPIC
07h30 – 08h30	REGISTRATION & LIGHT BREAKFAST
08h30 – 08h45	Welcome
08h45 – 09h00	Opening
09h00 – 09h30	Key Note Address
09h30 – 09h45	2016 Indaba objectives
09h45 – 10h15	Biodiversity and business – strange but promising bedfellows
10h15 – 10h45	TEA & NETWORKING
10h45 – 12h15	To what extent are the extractives, finance, tourism, agriculture, forestry and insurance sectors integrating biodiversity into their decision-making?
12h15 - 12h45	Biodiversity and business news from South Africa and abroad
12h45 - 13h45	LUNCH & NETWORKING
13h45 - 15h15	Learning through collaboration
15h15 - 16h15	How corporate South Africa is building business value by effectively managing biodiversity
16h15 - 16h30	Day 1 summary and closing
16h30 - 18h00	COCKTAIL FUNCTION & WINE TASTING – NETWORKING

2.2 Opening

Format: Presentation

Presenter: Kiruben Naicker, Director Science Policy Interface, DEA (on behalf of the Director General of DEA, Nosipho Ngcaba)

Biodiversity loss is one of the major risks for the world today. Governments across the world will need support (and action) from businesses in order to achieve global targets on reducing biodiversity loss and ecosystem degradation. Biodiversity has only recently become high on the agenda for businesses, and it's set to become the next big concern for businesses. An illustrative example is the invertebrate pollinator issue we are currently facing where 40% of the world's invertebrate pollinators face extinction. This will have large implications for the agricultural sector. The way biodiversity is being seen and used by business is now changing, and mainstreaming biodiversity into business is becoming increasingly common. However, there is still much work to be done, and we need to fully understand and communicate the complete economic aspects of biodiversity in order to improve its incorporation. There are several forums in South Africa that support this agenda:

- The NBBN
- The Wildlife Forum
- The Mining and Biodiversity Forum
- The Wildlife Economy
- The Rhino Lab

The aim for all of these forums is to push for rapid changes and improvements in the domain of biodiversity management. The Department of Environmental Affairs (DEA) is currently exploring options for a review of its National Biodiversity Act in order to encourage sustainable use of biodiversity, as well as resolving conflicting clauses for the protection of biodiversity. Further integration of biodiversity into business considerations will be an important contributor to conserving biodiversity resources, and it is one of the key reasons for the establishment of the NBBN network. Key aspects for companies to stay ahead of the curve in the biodiversity domain will be:

- Stay ahead of regulation in order to avoid later non-compliance issues.
- Apply modern technology in addressing key biodiversity and business risks.
- Focus on efficiencies.
- Build a strong sustainability reputation through supply chain management.
- Carry out due diligence.

Biodiversity has contributed greatly to building today's economy, and will continue to play an important role in transitioning towards a green economy. Reversing biodiversity loss will require effort from all parties of society - including business. The DEA encourages companies to see natural capital as a core value in their business spreadsheets.

2.3 Key Note Address

Key note speaker: Gina Downs, Sustainability Manager, Eskom

Gina Downs joined Eskom as a natural scientist about 20 years ago. At the time, this was not a common line of work. She first started in research and in her work she realised the complexities of the environmental issues, and also the challenges in communicating these succinctly. Biodiversity suffers the same challenges in that it is complex and interlinked, and it is a difficult topic to present in a succinct manner for decision-makers to make informed, yet swift decisions. One key learning in order to better communicate is that there is a need for getting the question right.

Eskom has recently revised its sustainability strategy, which has provided further learning to the company. One key take-away is that a great policy formulated idea is always more complicated (than initially thought) when implementing it on the ground. It is important to aim for bringing the conflicting aspects together in these situations.

Key messages for corporate environmentalists and biodiversity specialists today based on a life-long experience in the field include the following:

- You may not solve the environmental issue at hand. However, your personal commitment is equally important.
- Deadlines are important.
- Do not underestimate the value of taking time to talk to people about your learnings and experience.
- Management systems are empty shells without the people making them work.
- Stay one step ahead.
- Keep your own perspective and be critical.
- Do your best!
- Easy to become despondent when looking at current state, and where we are going. Just keep going.
- The race is now on; if won - we will come out as a better society. So run the race to the best of your ability.

2.4 Indaba objectives

Presenter: Shelley Lizzio, Manager of National Business and Biodiversity Network, Endangered Wildlife Trust

Business success is inextricably linked to the wellbeing and sustainable use of our natural resources or natural capital. But the growing scarcity of these resources presents significant risks to continued business success. To remain competitive in today's changing economic, social and environmental climates the management of natural capital has to become an essential component of businesses formal risk management and governance processes. By taking a pro-active and collaborative approach, business should also be able to identify opportunities related to the management of natural resources.

In response to this growing business imperative, the EWT, in partnership with the DEA, De Beers, Transnet, Hatch Africa, Pick n Pay, Pam Golding Properties and Nedbank launched the National Biodiversity and Business Network in May 2013. The aim of the Network is to facilitate the mainstreaming of biodiversity into business. Since its inception the Network has hosted of a number of well attended events and training sessions aimed at growing awareness and building capacity amongst business and related stakeholders.

Following the success of the NBBN to date, the Network and its partners are proud to present the 2nd National Biodiversity and Business Indaba. The aim of the Indaba is to provide a platform for business and it stakeholders to share their experiences in integrating biodiversity into business activities.

The objectives of the Indaba are to:

- Highlight emerging biodiversity risks and opportunities, focussing on how business can address these.
- Help business to better understand the business risks and opportunities related to biodiversity.
- Provide an opportunity to contribute to and learn from emerging practice.
- Help business to understand the value of natural capital and how to manage it for the benefit of business.
- Help business to incorporate biodiversity into strategic planning and decision-making.
- Showcase examples of how business has incorporated biodiversity into its activities
- Guide business on how to integrate biodiversity into its activities.
- Identify opportunities for businesses to make a net positive contribution to our natural environment, for the benefit of biodiversity, the economy and society.
- Facilitate networking amongst the delegates and the development of collaborations and partnerships.

2.5 Biodiversity and business – strange but promising bedfellows

Format: Presentation

Presenter: Steve Nicholls, Lead: Climate Change & Water, National Business Initiative (NBI)

Side Note: The CDP Climate Change Report was launched on 25th of October 2016. This is the first time a physical risk is emerging as an important risk (weather and drought).

Key messages:

- Biodiversity risk is not sufficiently recognised in South Africa.
- Communication and language are vital keys for change.
- Drive biodiversity into governance structures to get leadership attention**.**
- Think, prioritise and deliver on a few select aspects of biodiversity.

The World Economic Forum (WEF) issues a Global Risk Report annually. The report is based on 750 experts providing a view on key and emerging global risks over a 10-year period. The risk categories examined are: economic, environmental, geopolitical, societal and technological risks. The report results in a mapping of key risks, where risks identified as “high” will receive increased attention. The 2016 report includes a risk on biodiversity called “biodiversity loss and ecosystem collapse”. The risk is rated among Top 10 risks in terms of impact, i.e. a globally recognised high risk. Furthermore, the WEF has mapped the interdependencies between the risks where you get emerging clusters of risks. Biodiversity loss and ecosystem collapse is closely linked to climate change and extreme weather for example. This demonstrates that biodiversity is being recognised and identified by the global business environment. The Institute of Risk Management South Africa (IRMSA) issues a similar report focusing on risks for South Africa in a 2-year period framework. However, in this report the biodiversity aspect is not considered and other environmental aspects are also poorly reflected due to the short time frame applied. The report focuses more on social issues. There is a challenge for the environmental

and biodiversity community in South Africa to communicate the importance of biodiversity risks whilst not fully recognised by IRMSA, and highlight the discrepancy between the WEF assessment and the IRMSA risk assessment. There is a need for increased incorporation of biodiversity considerations in the areas of risk and strategy in South Africa.

NBI is partnering with the disclosure programme Carbon Disclosure Programme (CDP). The CDP is a global disclosure system for companies, cities, states and regions that focuses on climate change, forests and water. The disclosure programme is based on the participant filling out a yearly questionnaire. The programme encourages integration through its question formulation, and by the third year of participation there is generally an improvement in terms of how the participants are integrating these aspects in their business. The results of this disclosure exercise for South African companies have demonstrated that the water risk is often better recognised (as more immediate) than the climate change risk. However, the integration of water considerations in business systems is much lower than the integration of climate change. The survey does not include biodiversity directly, but it is expected that biodiversity would fare worse than water issues and climate change in terms of recognition and integration.

The key message is that the biodiversity risk is not sufficiently recognised in South Africa, so it must be even more difficult to see a strong focus on biodiversity as an opportunity. In NBI workshops across the country NBI has been asking the question: *if you were going to invest in an environmental project, what would it be?* The main answers to this question were smart grids and small-scale solar panels. The idea of biodiversity economy was raised by NBBN and DEA participants, but struggled to catch traction amongst the other participants. There may be room for further thinking as to how to make the concept of biodiversity as an opportunity more accessible to people. NBI's perception of its members is that they vary strongly in terms of their awareness and maturity towards managing environmental risks and impacts. Most of the members are aiming for compliance, as opposed to proactively seizing environmental (and biodiversity) opportunities. NBI is working to support and challenge its members in order for the companies to progress along the maturity scale on environmental management.

One of the greatest challenges in terms of mainstreaming biodiversity is simplifying the complexities to better explain how it affects businesses and their business models. Communication is the biggest opportunity, and current weakness, for the biodiversity community in order to drive integration into businesses.

When the complexity is too large, it is hard for businesses to know what and how to prioritise required actions. South African businesses currently lack strategic thinking in the biodiversity domain. The lack of applied process and strategic thinking results in ad hoc company approaches to biodiversity management. South Africa as a nation needs to identify exactly what to do in terms of biodiversity management with a focus on demonstrating impact. The selected priority areas should be followed by strong focus on implementation and delivery. In the case of biodiversity, it is not sufficient to just do our best. We need to know what to do, and then do our best. A part of the approach to drive a meaningful and structured change in the domain of biodiversity mainstreaming is connecting the finance sector to the issue through the introduction of pricing, similar to that done for South African water catchments. NBI/iWASP uMhlathuze project is an example. For biodiversity, South Africa could benefit from a smaller, tangible and relatively easy project. The project should demonstrate real

outcomes within a relatively short time frame in order to encourage further work in the biodiversity domain. The high level ideological fights will take us nowhere.

Coming back to the theme of communication, the biodiversity community should make use of risk and resilience wording rather than adaptation. The wording, and content, by the Goldman Sachs Reports communicate in a language that business can relate to. Their report conclusions have the ability to further the environmental agenda more effectively than an idealistic NGO report for example, as they have the credibility. Another approach to obtain the attention of business leaders is by including biodiversity on the risk register that the audit and risk committee review at their regular committee meetings. In addition, identify biodiversity champions at the board level. To further the biodiversity agenda, you need the attention of the business leaders. The message of the day is that if you drive biodiversity into governance - you will begin to see change.

A few ideas or considerations to further mainstream biodiversity were raised:

1. Have we sufficiently considered liabilities management?
    - Identify ways of reducing liability without spending money elsewhere. If reducing the liabilities results in spending money elsewhere, you need to demonstrate the impact of the measures taken. An example is connecting the liability of the government with the revenue holding municipality in the case of water catchment areas. We need to create a cashflow between the activity of maintaining the ecosystem and the activity of using or benefiting from the service, whilst establishing a price that is acceptable.
2. How to increase biodiversity transparency?
    - Biodiversity indicators depend on local context, and therefore standard indicators might be hard to develop. However, sector specific metrics might be an opportunity.
3. Consider price versus value
    - It might be worthwhile to consider how to integrate externalities to reflect the true value of natural products, or rather to get the government to incorporate true value of natural products through economic tools and incentive schemes. However, it merits checking whether identifying and incorporating the true value is worth it, as the exercise in itself might be a costly process.

2.6 To what extent are the extractives, finance, tourism, agriculture and forestry sectors integrating biodiversity into their decision-making?

Format: Panel Discussion

Facilitator: Dave Collins, Associate Director, Mac Consulting

Panellists:

Dr Theresia Ott, Chairperson of the South African Mining and Biodiversity Forum;

Brent Corcoran, Environmental Manager, Mondi;

Inge Kotze, Senior Manager: Sustainable Agriculture Programme, WWF-SA;

Thomas van Viegen, Associate Director: Climate Change and Sustainability, EY;

Kevin Mearns, UNISA, Sustainable Tourism Partnership Programme;

Side Note: FINEX Conference in London (by ICMM) 27th & 28th of October 2016. Conference on the global state of the industry and importance of stakeholder trust.

There is a comfort in discussing biodiversity and business with like-minded people. However, it is not necessarily very productive. The challenge for the biodiversity community is to reach out and open dialogues even when we realize it might be an uncomfortable conversation. Wayne Visser claimed that sustainability is not an effective strategy for change because it is not exciting enough. It is boring. To get the attention of people the message needs to be exciting. Therefore, there is a mission ahead for the environmental and biodiversity community. We need to get out there and talk to people – and keep the dialogue exciting!

Mining Sector: The South African Mining and Biodiversity Forum (SAMBF) works in close collaboration with DEA, the South African National Biodiversity Institute (SANBI), the Department of Minerals and Energy and the Chamber of Mines. Interestingly its membership base is made up of 25% mining companies and 67% consultants, NGO's and academics. This demonstrates the strength of the forum, and the emphasis on strong collaborations in the field of biodiversity management. The forum developed the Biodiversity and Mining Guideline, which was released in 2013. The purpose of the guideline was to provide a set of practical and easy steps to protecting biodiversity in the mining sector. The guideline is distributed freely online, and not just available for members. Historically, mining companies have been associated with a reactive attitude towards biodiversity management. This is now changing. The IFC Performance Standard 6 on biodiversity is for example pushing for a more progressive attitude in the sector. There is a growing sense of focus and emphasis on the need for collaboration in the sector. Biodiversity management is actually becoming a competitive space where the reactive companies lose out. There are close links between social aspects and biodiversity, and therefore these areas will need further integration to better manage biodiversity, as well as local community concerns.

Forestry Sector: Mondi, as a representative of the forestry sector, has incredible socio-economic programmes, and do very well on safety. However, they are not doing as well in the domain of environmental management. The key focus with regards to environment in South Africa is water. The company has been through an amazing exercise and development on the waterside, whilst struggle to understand the biodiversity aspects. There is a need for better linking biodiversity with tangible business risks in order to get the attention.

Agricultural Sector: The agricultural challenge is all about framing biodiversity management for the farmer, as opposed to the business. The farmers live and breath biodiversity, and also suffer the consequences of climate change. However, they may not be familiar with the business terminologies. There are, for example, many older practices that could be brought out with benefits to biodiversity, such as alien species management, wetland protection etc.

The wine industry is also an example of a sector that has done a lot on biodiversity and sustainability, and is quite a mature sector with regards to integrating biodiversity management. The wine industry

has seen biodiversity as an opportunity: an opportunity for marketing and diversification of products. The diversification referring to combining the farmland with tourism focusing on outdoor activities such as biking, hiking and running.

Turning biodiversity to an opportunity has been relatively easier for the wine industry as they are a luxury good. The case is rather different when dealing with an everyday commodity such as sugar. The sugar industry has a bad reputation in terms of environmental management. However, this sector is also demonstrating some good examples, such as the stewardship programme in Eastern Cape on small-scale farmers and communal areas in grasslands. It is important to highlight the opportunities rather than barriers. A few paramount approaches in the agricultural sector to biodiversity are:

- Put the farmer first. Make it relevant and understandable.
- There is great value in free advisory support.
- Collaborations are important. It will be important to share learning and experience within the farming communities, and to work together as a team as opposed to competitive. However, it may take 5-10 years to effectively change attitudes.

Finance Sector: South African pension funds are not sufficiently focused on the greener and environmental aspects of the funding activity. However, international sovereign funds are starting to ask about these aspects of funding activities, whilst mainly focused on the social aspects. The banks are demonstrating a growing awareness of biodiversity issues, and there are a few good cases such as a funding case for fisheries in Namibia where key concerns from the lenders were with regards to fish stock levels and over-fishing. Collaboration between the banks will be needed to further the integration of biodiversity in the sector. Big commercial banks are leading the way by initiating discussions on social return on investment, as well as environmental return on investment. An area where we can learn from is the water sector where there are several good examples to draw upon. The UNEP FI and natural capital declaration has been rolled out in four countries, including South Africa. The idea is to entrench biodiversity into finance decision-making. Today the programme is working with City Bank. This collaboration will result in various models to be deployed by the finance sector. The plan is that these will be finalized in February 2017.

Tourism Sector: The challenge for the tourism sector is that most people are not concerned about environmental issues when they go on holiday. We just want to be able to enjoy a little more luxury compared to normal through living a little more excessively; long baths, large meals etc. This attitude does not align with sustainability thinking. South Africa has a national standard for tourism. A major deliverable under this standard are performance indicators based on the three sustainability pillars: social, environmental and economic. Key environmental focus of this standard implementation is towards water and energy efficiencies. These aspects represent the low hanging fruit for the industry. Waste management is another key aspect as people produce three to four times more waste as a tourist than when at home! An example of a company that is doing good work on incorporating biodiversity is the Wilderness Safaris where they run a wilderness outreach programme towards children. A new trend that is emerging in the sector is benchmarking. The rhino monitoring programme is monitoring impacts from the lodges, and this becomes a driver for competitive improvement and advantage.

Question and Answers

1. How do you deal with the issue of the farmers' mind-set? And how do you deal with the challenge of selling the environmental conservation idea?

- Answer: Key approaches to drive change in the farming community is to build relations ship and trust, and you have to speak a language they can relate to. Outsiders are generally not trusted. How you communicate needs to link back to what the priorities of the industry group is whether a farmer or a mining company.

2. It is often claimed that the tourism sector is prone to green-washing. They sell the green image whilst it doesn't transform actual behaviour. What is your view on this?

- The issue of towels at hotels and resorts being re-washed can often indeed become more of a green-washing effort than a true case of environmental consciousness. In this case, it is important to make use of the consumer power and responsibility. Inform the organisation that this is not good enough. Some of these environmental initiatives are better driven by the consumer. Biodiversity, however, is a bit easier to drive as a business opportunity in the tourism sector, as degraded land areas, for example, will be less attractive for tourism.

3. Where do you see your biodiversity opportunities?

- Forestry: You have better opportunities to influence when involved in the earlier design and planning stages of a project. Integrated planning is key to achieve later delivery and performance. To obtain traction on biodiversity link it to other benefits and needs, like ecosystem services. Partnerships are essential for delivery in the biodiversity domain.

- Finance: Important to make use of the language of business, i.e. risk management language. In the finance sector there is an opportunity to better understand the costs and benefits aspects of the funding activity. South Africa needs to catch up with global trends in environmental and social governance practices. Sovereign funds like for example the Swedish and Norwegian ones are more conscious than many in the sector, whilst far from ideal.

4. What is the number one, primary biodiversity risk to each sector?

- Agriculture: habitat loss for agriculture and water loss.
- Mining: great differences in performance between the actors in the industry.
- Forestry: habitat loss and freshwater ecosystem damage.
- Tourism: conflict of land use. Tourism in an area with mining for example.
- Finance: habitat loss is the key contributor to biodiversity loss. The property boom in Gauteng in mid-2000 resulted in several species becoming red listed. The issue for the banks was that this entire development was funded through the banks yet still they have little understanding of biodiversity consequences of their funding activities. There is a need for greater support of the finance managers to get it right.

5. What are the principles, approaches or case studies driving for achieving biodiversity initiatives in poorer communities?

- Mining: An example from mining is Richard's Bay, and the eco-school programme with the Wildlife and Environment Society South Africa (WESSA). Another example is the Wildlands programme where unemployed women are supported in running indigenous tree nurseries. There are also several examples of waste recycling programmes amongst poorer communities.

- Tourism: The tourism industry lends itself to supporting poorer communities. The communities receive land payments on a monthly basis, and the industry provides job opportunities. The industry has initiatives where they are encouraging the community towards sustainable community farming.

6. Do you see investment in the agricultural sector becoming more sustainable, especially since it makes good investment sense?

- Nedbank is, for example, financing sustainable agriculture initiatives. However, there is room for sector wide improvements. Therefore, we need to champion sustainable financing with banking associations as opposed to individual banks in order to develop sectorial principles and standards.

Emerging theme from the discussion	Voting Results
The need to speak the right language	98%
Community development and biodiversity	85%
Reputation is a tool to get businesses' attention	80%
Measure what matters	80%
Understanding cumulative effects on biodiversity	75%
The biodiversity challenge is that we won't change before there is a crisis	70%
The business case for biodiversity	70%
Leadership is a scarce resource on this planet. We need biodiversity leadership.	70%
Finance sector could need a more targeted effort on managing biodiversity	50%
Collaboration between the right partners is essential	50%
See the opportunities rather than the downfalls	40%

Comments

There is a confusion of language between business impacts on biodiversity versus biodiversity risks to business. We need to be clear what we mean, and what we are discussing when talking about biodiversity risks and impacts for business.

2.7 Biodiversity and business news from SA and abroad

Format: Presentation

Presenter: Dr Marie Parramon-Gurney, Regional Technical Coordinator, Business, Economics and Biodiversity, IUCN

Key message: You need to know your risks to be able to manage them. If you have not done a biodiversity risk and dependency assessment, you do not fully understand your company's risks.

The planet is at a crossroads, and also at a tipping point. On top of having a financial crisis and a social crisis, both globally and nationally, in many different countries, the planet is also experiencing a biodiversity crisis. If we compare how society perceived smoking 20 years ago versus today, then we realize a change is possible. However, it requires a social systematic change. Today, we see that the finance sector finds itself in a position where it needs to diversify its portfolio to compensate for the increased risk profile that these various crises are creating. They also need to engage on questions related to, for example, climate change and societal issues. Therefore, indirectly, in many cases the investors (such as the World Bank) are starting to ask questions that also have relevance to biodiversity. They are even looking at nature to provide risk management solutions to some of our current issues such as drought and flooding.

The South African finance minister, as well as the environmental minister, agree that the biggest asset of Africa, and South Africa, is its natural capital. If the natural capital is managed unsustainably we will not capitalise on our development. Some of the big drivers of the biodiversity agenda are climate change and food security. Biodiversity and sustainable resource use will be an important element of the discussions around access to land, water and rural development and poverty alleviation that we see occurring internationally. These discussions may not again be directly linked to biodiversity, but they are interlinked with the biodiversity agenda. In this context green or sustainable entrepreneurship will be essential. Resilience to climate change will be an important part of these discussions and developments.

Another area where biodiversity is emerging as a topic is with regards to risk management for investment and development with a 10 to 20 years' perspective in Africa. In this context it would be unwise to ignore the biodiversity risks. Currently there is a trend where the larger and medium-sized investment players are having a considerable part of their portfolio with medium and small scale farming activities. This portfolio has higher biodiversity-related risks. This is one of the trends creating a tipping point with regards to understanding and integrating biodiversity considerations in business.

Another important trend in biodiversity management is the environmental evaluation referring to integrating the value of ecosystems in economic decisions. The launch of the Natural Capital Protocol (2016) has been a very important development for business and biodiversity. The framework supports companies in better understanding their biodiversity dependencies and risks in order to integrate the value of natural capital into corporate decision-making. Currently the framework is being piloted across the world, with a few pilot projects taking place on the African continent.

There is also a lot of work around the concepts of No Net Loss and Net Positive Impact, at both a company and a landscape level approach. These concepts link in with how to achieve practical and effective biodiversity offsets. A challenge for impact assessments going forward will be to integrate ecosystem services and functioning, as well as biodiversity related cumulative impacts. There have been numerous progressions made in the field of corporate biodiversity management. The IUCN

congress concluded with no less than 106 motions or key priority areas where about 50 of these motions are linked to business and biodiversity.

The business and biodiversity domain has historically seen a lot of work in terms of developing the strategic and managerial structure around biodiversity management. Going forward it will be important to focus on what this means in terms of real impact on the ground. What are the required tools for businesses in terms of implementation, and are these approaches practical and feasible? Key tools to drive actual implementation is reporting and disclosure. If the companies are not reporting on it, they are not likely to manage it closely. Therefore, public reporting on biodiversity will be a very important element to ensure implementation on the ground.

An emerging development seen in the investment community relates to *access to finance* or *innovative finance mechanisms* for either conservation or to mainstream biodiversity into developments. There are numerous conferences and guidelines being issues at the moment in this domain. There is a realisation that current financing approaches are not efficient or adequate, and there is a need to identify new and innovative approaches to financing conservation that integrate traditional commercial finance, impact finance and/or development finance. Biodiversity economy is also receiving much attention. The biodiversity economy refers to an economic sector linked to sustainable use of biodiversity resources. In this context Africa can have a competitive advantage. For example, a range of baobab derived products and other agroforestry products originating in Africa (Amarula, Rooibos etc.).

So what is the situation in South Africa? In the survey done by NBBN on business and biodiversity less than 40% of reviewed companies demonstrated a good understanding of biodiversity management. These companies were not sufficiently linking biodiversity to material risks and/or environmental management, and it was often just seen as corporate social responsibility. Furthermore, less than 40% of the companies understood the business' biodiversity dependencies and risks, and less than 20% (mainly from mining) had completed a biodiversity dependencies and risks assessment. The main reasons given for managing biodiversity aspects were complaints management and reputational aspects. Furthermore, the companies surveyed seemed to lack understanding of the links between biodiversity and ecosystem services and functioning. Their main concern was to understand direct physical impacts, as opposed to indirect and cumulative impacts.

<u>Questions and Answers</u>

1. What is the business case for investing in biodiversity offsets, over and above compliance, i.e. what is the business case for Net Positive Impact (NPI)?

- NPI is about conservation efforts, more than it is about offsetting. In a mining context, there is a vision for what happens after the life of the mine where NPI can be integrated. However, broader planning of the landscape is very important.
- The business case for NPI is that it may provide competitive and reputational benefits, as well as goodwill with authorities.
- Practical experience from mining sector is that there is a very weak business case for NPI commitments. Especially as the authorities have been even stricter for later permit applications due to wanting to push the corporate sustainability efforts even further.

2.8 Learning through collaboration

Format: Panel discussion

Facilitator: Leon Taljaard, Director, Talmar Sustainable Developments

Panellists:

Liz Metcalfe, Four Returns;

Erica Wicomb, Sustainability Specialist, Santam;

Leon Taljaard, Talmar Sustainable Developments

The panel discussion was on the restoration of land (mainly farmland) in the Baviaanskloof area (near Port Elizabeth, South Africa) where part of the land is arid and unproductive due to human over exploitation. Several parties including NGO's, companies and local authorities such as Living Lands, Four Return, Santam, department for water and sanitation and GIZ have come together to drive an initiative to restore the landscape. The main purpose of the landscape restoration project has been to reduce the region's water footprint and ensure the region's water security.

Four Returns: The Port Elizabeth water catchment was facing serious water shortages and a major drought in 2009. This led to a re-invigorated focus on water security for the region. About 70% of the catchment's water comes from three rivers, Koega, Kromme, and Baviaans rivers. The Baviaans area suffered from degraded land due to, amongst others, unsustainable farming practices. The area faced issues related to soil erosion and alien vegetation consuming a lot of the area's freshwater. Extensive research and modelling was conducted, looking into the amount of water that could be saved from clearing of alien vegetation in key areas, and the Nooitgedacht scheme was developed. There is a signed memorandum of understanding outlining an agreed vision for water security and restoration for the area.

Key success factors in arriving at this memorandum have been the development of strong collaborations and partnerships to join mutual capabilities and strengths, as well as build traction. Furthermore, there was a need for getting people's buy-in, which was obtained through a few successfully implemented initiatives on the ground. It is a lot harder to arrive at a memorandum of understanding than you would think. The main initiators of the collaborative efforts came from people and organisations on the ground (Common Land and Living Land), as opposed to the authorities, which in turn may have been an advantage for later development and success.

Santam: Santam runs a BAAM programme, which stands for Business Adopt A Municipality Programme. The programme recognises the importance of the private sector in turning around and supporting the local government in terms of improvement and implementation initiatives. The main purpose of these collaborations is to address physical risks and reduce systemic risk.

Santam also runs a P4RR programme, which stands for Partnership for Risk and Resilience that they have rolled out in several municipalities. The spend estimate for this programme is R15 million, and

they are looking to include an environmental component to this programme to better inform farmers on environmental aspects.

For Santam working in the space of biodiversity and water is equal to reducing risk levels, and the organisation is currently investigating how to better understand landscape level risks and impacts. Santam's main value in the Baviaanskloof collaboration is to bring a different perspective on risk management. Furthermore, Santam can function as an enabler and door opener for NGOs and researchers to local authorities through their partnership with municipalities programme. This project is also in Santam's best interest due to the fact that the organisations core business is providing corporate insurances for business interruptions (due to, for example, water shortage). Santam would welcome other parties to the table including insurance companies. They do not see it as a competitive field, but rather a collaborative field for development. Having said that, the programme is run by Santam, and will continue to be run under Santam branding.

Talmar Sustainable Developments: Talmar was commissioned to support the business development process of the landscape restoration with the aim of identifying more sustainable farming practices for the Baviaanskloof area. One of the key efforts to mobilise the landscape restoration was through stakeholder engagements and listening to the members of the community. The key to success was to build strong relationships, based on trust, which went further than the usual business meetings and communicational approach. It is important to engage with stakeholders outside of purely business meetings, even making time for a casual tea/coffee goes a long way in developing relationships. It was essential to not arrive with a pre-empted and developed plan but rather build the plan together with the community. Talmar deployed a community liaison officer who was constantly available for engagement work. Baviaanskloof now has a co-created plan for landscape restoration. This work in the Baviaanskloof has been going on for 8 years, and is just now starting see actual implementation on the ground.

One of the key farming practices in Baviaanskloof was goat farming, which resulted in complete overgrazing of certain areas. Unfortunately, new agricultural start-up ideas that are more sustainable than these traditional practices have a high failure rate. Therefore, it is not easy to raise the sufficient funds for new farming initiatives. Farmers have now managed to obtain funding from Europe, and first production will begin this year. Talmar has done extensive market research into potential new market opportunities, and they identified essential oils as a business opportunity for the Baviaanskloof region. The current pilot and production of essential oils is based on lavender and rosemary, which are very water efficient and drought resistant plants. The plan is to have 100ha of land under essential oil production by the end of 2017. The business case for the farmer is clear - goat farming will have a return of about R30 000 per hectare, whilst essential oil production has the revenue potential of R75 000 per hectare.

Questions and Answers

1. Can art be used in the process of engaging with communities?

- Yes, this can be a very useful tool for engagement.

2. What has been the collaboration's work with regards to leakage issues?

- So far the collaboration has not focused on the municipality and issues surrounding leaks. This is however something they intend to focus more on going forward.

3. How much work have you done with the supply chain as opposed to with the commercial farmers?

- Currently piloting small scale projects with out-growers, whilst also work on developing a central labour force, and value-adding elements to the supply chain such as processing (for example soaps and shampoos).

2.9 How corporate South Africa is building business value by effectively managing biodiversity

Format: Panel discussion

Facilitator: Shelley Lizzio, NBBN Manager, Endangered Wildlife Trust

Panellists:

Musi Chonco, Head of Environmental Management, SAB Miller

Deidre Lingenfelder, Head of Safety & SD, DeBeers;

Deidre Herbst, Sustainability Manager, Eskom

Alexander Haw, Sustainability Manager, Massmart

SAB Miller: The SAB Miller sustainability strategy has recently been updated to a sustainability ambition encompassing five elements:

- A thriving world; which focuses on improving local incomes and creating local content
- A sociable world; which focuses on responsible consumption
- A resilient word; which focuses on water
- A clean world; which focuses on pollution issues such as CO2 emissions and waste management
- A productive world; which focuses on efficiencies

Biodiversity is integrated in this vision as part of a resilient and clean world. There has also been a change of language moving from the term "a better world" to "a prospering world". Key sustainability effort linked to biodiversity is the alien vegetation removal. They have also established a programme supporting the local communities in amending their natural resource use with focus on water consumption, as well as participating in the save the rhino programme.

De Beers: De Beers make use of the vision statement "Building Forever". The Building Forever ambition is constructed on three pillars; women (as the market is mainly female), conservation and socio-economic development. De Beers conservation efforts are focused on collaborations and partnerships with, for example, the EWT and the NBBN, or with the government in both Namibia and

Botswana. Other biodiversity related initiatives are, for example, the Oppenheimer Conservation Research Conference and the Sustainability Professionals Conference that De Beers hosts.

A key area driving change in the business and biodiversity domain is being able to benchmark yourself against your peers. This context also allows for the development of more ambitious targets. Diamonds are a special commodity and they are a luxury good, and often bought to symbolise love between couples. Currently there is also the option to buy synthetic diamonds. Therefore, the product is only selling if mined and traded responsibly.

Eskom: Eskom has made significant progress from what was once considered general good practice in the 1960's. Many of Eskom's power plants are now dry-cooled and the organisations water footprint has been substantially reduced. Biodiversity considerations have been firmly integrated through clear criteria, including not building power plants on wetland areas, for example. Location and management of ash dumps has also changed.

Generally, the environmental management approach has moved from an ad-hoc approach to a planned approach. Eskom was among the first companies in South Africa to introduce sustainability reporting, and perform impact assessments. Eskom used to have about 100 environmental practitioners, and today have about 300 practitioners. Post 2000, the key focus areas became air quality and water, while biodiversity dropped somewhat off the agenda. Biodiversity issues, due to power line electrocutions of wildlife, were the original issues leading to Eskom's growing environmental awareness.

An example of biodiversity management initiatives undertaken was the Koeberg Nature Reserve proclaimed a natural heritage site and conserving a large wetland area. Eskom also focuses on partnerships and collaborations to drive the biodiversity agenda. They find there is tremendous value in collaborating with other organisations that think differently and have different capabilities. Current efforts in the domain of biodiversity for Eskom are focused on biodiversity offsetting, and developing positive key performance indicators (KPIs) for biodiversity. The biodiversity KPIs will be linked to the corporate incentives systems i.e. annual bonuses.

Massmart: Massmart is a general merchandise company. Direct environmental issues links to the running of the shops and storage facilities i.e. water consumption, energy efficiency and waste recycling and reduction. However, when looking at the supply chain the environmental and sustainability aspects are numerous and much more complex. Managing the supply chain is a big challenge when relying on a diverse portfolio and a large number of suppliers from various sectors.

One of the key challenges links to effective and meaningful auditing of suppliers. When challenged on environmental aspects, they often retort with challenges as to how well you know the issues and challenges of their particular industry or sector. For Massmart it has therefore been essential to build an environmental team with a diversified set of skills and capabilities. Massmart organises a self-assessment of the suppliers through a questionnaire survey. One of the questions relates to biodiversity management.

When analysing the results of this survey they found that the suppliers tended to do worse on biodiversity and climate change. Especially smaller companies who struggle to understand their roles

and responsibilities with regards to these concepts. Based on the results of this survey Massmart is engaging with the suppliers on issues relating to biodiversity. A challenge for Massmart is lack of in-house capabilities to efficiently engage with the supply chain on biodiversity.

Questions and Answers

1. How important is it to benchmark your sustainability performance against peers?

- SAB Miller operates with targets for all of the five pillars of the ambition.
- Massmart also operates with 2020 targets. However, need to be careful when setting the targets, as very ambitious targets risk leading you into a legacy of non-met targets. The targets need to be realistic.
- Eskom does not make the use of long-term targets, as performance is dominated by the energy mix. However, water use in Eskom is among the most efficient in the world due to local water shortage conditions.

2. What are the best approaches to influence your leadership?

- Experience from SAB Miller is that adequate information basis empowers your leadership to make better decisions. Once the leaders buy into your argument then they will become the driving force of the initiative.
- Experience from De Beers is that symbols and simplicity are important for leaders. Simplify the message down to key priorities and actions.
- Experience from Eskom is that reiterating is very important. Be consistent in what you highlight and ask for. You cannot expect the leaders to make it happen for you. You (as the environmental advisor) need to drive the initiative. A key message to become an effective influencer for change is to avoid settling with the comfortable role of being one of the "boys". You have to continuously challenge yourself and the team.

2.10 Summary of the day

Presenter: Dr. Harriet Davies-Mostert, Head of Conservation, Endangered Wildlife Trust

The first day of the indaba was a great session filled with information, interaction and excellent dialogues. A big thank you is extended to Shelley and her team for the organisation of the event. Approximately, 40% of the attendees at this year's event were at the Indaba last year. It is great to see the repeat attendance of people, as well as new interest. There have been excellent speakers and contributors today from governmental through to sectorial experiences, and down to on-the-ground examples in terms of biodiversity management. It is particularly pleasing to see how big corporates are taking the biodiversity challenge seriously.

A take-away from today is the need for a unified understanding of business and biodiversity, i.e. speaking the right language with the right people. There is a need for clarity on definitions and understanding. In one context we say water and climate change are different aspects, whilst in the next setting we emphasise that they are closely linked. This is an area that might need some further thinking to clarify. Another key message emerging from today's discussions is that we need to get the questions right, and measure what matters. It will be vital for the biodiversity agenda to develop

prioritised focus areas where we can deliver on a few tangible and practical projects. Once we have a few case studies that really worked, then we also will get more traction towards the biodiversity agenda.

The main message emerging from today is the importance of building trust and relationships, as well as developing a shared vision on business and biodiversity.

3. Day 2

2.1 Programme

TIME	TOPIC
07h30 – 08h45	REGISTRATION & LIGHT BREAKFAST
08h45 – 09h00	Summary Day 1
09h00 – 09h30	Doing business with biodiversity: what are the opportunities?
09h30 – 10h00	How the NBBN is assisting companies in managing their biodiversity business risks and opportunities.
10h00 – 10h30	TEA & NETWORKING
10h30 – 12h00	Parallel sessions: Gathering evidence - Session A: Implementing the mitigation hierarchy - Session B: Ecosystem services and ecological infrastructure
12h00 – 12h15	Plenary – feedback from round tables
12h15 – 12h45	Biodiversity and the UN 2030 Agenda Sustainable Development Goals (SDGs)
12h45 - 13h45	LUNCH & NETWORKING
13h45 - 15h15	Parallel sessions: Finding the right approach - Session A: Frameworks for business to manage natural capital - Session B: Corporate tools for managing natural capital - Session C: Institutional tools, policies and agreements for the management of natural capital
15h15 - 15h30	Plenary – feedback from round tables
15h30 - 16h00	Key Note Address
16h00 - 16h30	Closing and way forward

2.2 Summary of Day 1

Presenter: Shelley Lizzio, NBBN Manager, Endangered Wildlife Trust

There were numerous inspirational speeches and presentations yesterday. Many of the presentations dealt with risk understanding, where biodiversity management is going and specific sectorial issues. There was also a practical example on water scarcity and biodiversity issues in the Baviaanskloof, as well as practical examples from sustainability leaders on mainstreaming sustainability and biodiversity in the corporate agenda. There were five key messages emerging from yesterday:

- The need for a unified approach and language to biodiversity management.
- The biodiversity community should identify and measure what matters.
- The biodiversity agenda requires a focused effort: identify one or two priority areas, and ensure exemplary delivery and implementation in order to obtain traction.

- There are corporate competitive and reputational advantages to dealing with biodiversity issues.
- A key enabler to adequate biodiversity management is partnerships and collaborations.

2.3 Doing business with biodiversity: what are the opportunities?

Format: Presentation

Presenter: Peter Kimberg, Director, The Biodiversity Company

Corporate assessment of biodiversity issues is highly relevant and important to mitigate risks. This was demonstrated through a palm oil developer that intended to develop a plantation on government-designated area classified as degraded forest. However, the government's understanding of degraded forest turned out to be all forests not located in designated nature reserves. The key learning for this company was that complying with national regulation is not always going to meet international expectations and norms with regards to managing impacts to biodiversity.

One of the approaches to incorporate biodiversity in urban planning is through green infrastructure. Green infrastructure refers to natural or semi-natural systems that provide services and products (such as for example rain water and run-off collection and filtration). The green infrastructure therefore links to the ecosystem services concept. Green infrastructures can provide solution oriented thinking at various scales such as tree roots or wetlands filtering rainwater. It can also mitigate impacts from for example road construction through rope bridges to maintain canopy connection. Canopy rope bridges are basically the same as wildlife bridges built over highways. The business case for investment into green infrastructure is slightly limited by the lack of robust methodologies for valuating ecosystem services and functions.

There are a couple of international examples on urban green infrastructure developments such as the High Line in New York City. This is an elevated rail line through the city originally built in 1934. It has now been converted to a vegetated pedestrian walkway of about 2.3 km. The train lines were first abandoned in 1980 with the intention of being demolished. Through years of decay and abandonment they started attracting issues such as crime. Therefore, the initiative has also led to a revitalisation of the areas surrounding the rail line. Another example is from Texas and its application of the Clean Water Act. They have constructed a wetland area to treat wastewater. The wetland treatment facility meets all the water quality discharge requirements, and was relatively cheap to construct and operate compared to conventional treatment facilities. The wetland also supports thriving wildlife such as birds and alligators.

A third case study is Dow Chemicals investigating the use of a wetlands treatment facility as opposed to the conventional treatment facility for operational liquid waste. They conducted a Life Cycle Impact Assessment (LCIA). The assessment demonstrated that a conventional treatment plant had a larger footprint and higher potential impacts on environment than the wetlands option. They also estimated a huge savings when making use of a wetlands treatment approach.

In conclusion, there is an excellent quote from J.F. Kennedy: "there are risks and costs to a program of action, but they are far less than the long range of risks from comfortable inaction".

Questions and Answers

Comments:

- We often tend to focus our biodiversity conservation efforts and initiatives around pristine environments. It is though equally important to focus on urban areas. These areas have considerable potential in terms of integrating human society and wildlife.
- With regards to green infrastructure it is important to consider scale both for assessment and its implementation. It is all about scale, as animals will have varying needs in terms of range and territory requirements.
- There is a challenge that the Environmental Impact Assessment (EIA) is seen as a rubber stamp exercise, as opposed to an opportunity to get quality input and influence.
- Mining is the sector that receives a lot of heat for when it comes to environmental management. However, agriculture is the sector that "consumes" the most land. However, this sector often lacks internal knowledge, and rarely challenges internal processes and decisions. There are for example no sectorial standards for agriculture. There is though strict legislation on breaking up the land in South Africa. However, the legislation isn't always applied.

1. The example of the wetlands areas. Was it already a wetland or was it a built wetland?

- This information has not been identified.

2. Would it be useful to create a compilation of green infrastructure case studies in South Africa?

- It would be a great idea to create a database of green infrastructure examples in South Africa. The World Business Council for Sustainable Development (WBCSD) has started collating examples and case studies on green infrastructure on an international level.
- Water Resource Centre (WRC) might be a good starting point for references.

3. The conventional engineering skills pool is often sceptical of the green infrastructure concept. Would it be useful to identify champions of green infrastructure with clout and influence in the traditional engineering skill pool?

- Neil Macleod is an example green infrastructure champion.
- The issue of deploying green infrastructure may not necessarily lay with the engineers themselves. They have been given a remit to solve. Therefore, it is more the tasks the engineers have been given that may be the issue, as opposed to the engineers being against alternative solutions.
- Champion for Sustainable Urban Drainage Systems (SUDS) may, for example, be Geoff Tooley.
- There may be an option to engage with the educational sector in terms of incorporating green infrastructure in the engineering disciplines

2.4 How the NBBN is assisting companies in managing their biodiversity business risks and opportunities

Theme: An overview of the methodology and findings of the biodiversity integration assessments conducted for Nedbank, De Beers, Pick n Pay, Pam Golding Properties, Transnet and Hatch Africa.

Format: Presentation

Presenter: Shelley Lizzio, NBBN Manager, Endangered Wildlife Trust

The EWT was established in 1973, and its work is concentrated in South Africa whilst also supporting conservation activities outside the country. The focus of EWT is biodiversity conservation, whilst having a broader perspective on landscape and ecosystems. The EWT has issued an annual integrated report for the last four years. The EWT previously had a partnership with the Airport Company South Africa (ACSA) with regards to a site-specific bird and wildlife programme. The EWThas a strategic formal partnership with Eskom. In the earlier days of the partnership it focused on bird collisions with power lines, and today it has a stronger focus on mainstreaming biodiversity in their business systems and structures.

The NBBN was launched in 2013. The founding partners were De Beers, Eskom, Hatch, Pick n Pay, Pam Golding, Nedbank, DEA and Transnet. The main activities of NBBN are:

1. Drive national dialogue through organising various events across South Africa.
2. Organise training courses and development.
3. Facilitates benchmarking exercises, and sharing of biodiversity tools and best practices.
4. Perform business and biodiversity research, which is subsequently published.
5. Provides a monthly newsletter.
6. Produced a report on current approaches and practices with regards to business and biodiversity based on a preliminary baseline assessment.
7. Produced a guide to biodiversity for homeowners, which has been distributed for this event.

The NBBN is working with the founding partners on integrating biodiversity considerations into their operations, and recently conducted an assessment of the network founding partners. The aim of the assessment was to determine the readiness of the companies to incorporate biodiversity into their management systems and structures.

In addition to certain company specific recommendations, the assessment identified the following general recommendations:

- Be ambitious on no-net-loss targets. This commitment does not necessarily need to be across all activities, but can be set for specific sites.
- Build capacity and experience on ecosystem and externalities valuation.
- It could be beneficial to develop monitoring frameworks based on the mitigation hierarchy.
- Try to identify options to become biodiversity neutral

The hope is that at next year's Indaba the NBBN will be able to share experiences from specific on-the-ground impacts resulting from these assessments.

Comments

1. The NNL or NPI commitments can be very challenging. As a company it is very important to know what exactly you are committing to when making NNL or NPI commitments. It is essential for the company to do proper research prior to commitment. These commitments need to be realistic and practical to hold any value.
2. It may be better to start with an NNL commitment for a specific aspect or a part of the business. Best to base a company commitment on a piloted NNL attempt for a specific business segment.
3. The concept of NNL/NPI can be hard to apply in a retail context, as the focus is on responsible supply chain management.

2.5 Parallel sessions: Gathering evidence

- Session A: Implementing the mitigation hierarchy
- Session B: Ecosystem services and ecological infrastructure

Session A: Implementing the mitigation hierarchy

Facilitator: Dr Marie Parramon-Gurney, IUCN

Participants:

Dr Theresia Ott, Principal Advisor: Group Environment, Rio Tinto;

Paul da Cruz, Associate, Royal Haskoning DHV; (Sanral)

Kishaylin Chetty, Environmental Advisor, Eskom

The aim of this session is to contextualize what we mean in practice with regards to the implementation of mitigation hierarchy. What do we know and where are the gaps in the procedures? The previous NBBN workshop looked at the legislation and legal requirements, which are in place, but there is a gap between the context of mitigation in terms of biodiversity and EIAs in practice. Thus, we need to work on communication and specific focus.

1. Rio Tinto (Dr Theresia Ott, Principal Advisor: Group Environment)

Theresia has worked across industries, but is currently focused on mining, and is specifically interested in compliance, biodiversity and rehabilitation.

2002: The World Conservation Congress- Bangkok: Pilot studies were developed to incorporate the mitigation hierarchy into environmental procedure (Net Positive Impact).

2005: Determining sensitivity of specific sites.

2009: Goals were announced (Biodiversity Action Plan by 2015).

2014: Internal workshop (including companies such as IUCN, Birdlife, Flora & Fauna International & Site Practitioners): The feeling on the ground was negative (goals were too complicated and unachievable).

Thus, redefine the direction to be honest about what can be achieved on the ground, with a focus on the implementation of the steps of Mitigation Hierarchy. A challenge is that offsets are often in place before EIAs are even announced (e.g. Like-for like: same type of habitat). Other challenges are:

- Restoration: Often sites do not have the capacity to be returned to the condition they were before; this may be due to restoration time frames and natural climate change
- Net Positive Impact: Often companies are just "green washing" to get points
- Offsets are happening at the expense of avoidance, minimization and restoration
- Offsets are expensive and need an indefinite plan
- Offsets often don't drive local conservation goals (i.e. they don't contribute to the habitat you are having an impact on
- Colonial approach to conservation (the rural space and livelihoods of local communities are often ignored).

Biodiversity Action Panning works well. It has raised the bar on responsibility, forced momentum, enforced mitigation plans, increased availability of resources and tools, enabled investment in collaboration and provided an external view on lessons learned. There are some aspects of biodiversity action panning that are currently working less well:

- Need to be able to measure biodiversity
- Need to be able to track progress
- Nature doesn't like to be categorized
- It is difficult to quantify impacts

Trends emerging at a global level are:

- Rising public interest around environmental issues
- Increasing importance of business reputation
- Cross sector collaboration
- Increasing availability of guidance documents (e.g. how to implement the mitigation hierarchy)
- Regulations are being developed (even in developing nations)
- Sustainable Development Goals: It is important to consider that communities depend on biodiversity for their livelihoods, and we cannot stop nations from developing, we just need to encourage and support sustainable development.

It is important to note that environmental management should not be an extra add on: it needs to be managed within the governance process. We need to be honest about what can and cannot be achieved

<u>Questions and Discussions</u>

The concept of offset banking was discussed. It was suggested that well-managed trusts need to be formed for offsets, which cannot be managed by the regulator. Offsets should not be easy quick fixes; the mitigation hierarchy needs to be considered step by step. Pending question: Where should the trust be housed?

However, when global funding is required, you would still have to implement what the funders propose: i.e. they might require an offset; but this doesn't mean that the mitigation hierarchy should be abandoned. We need to get the mitigation hierarchy right before we try to do more. At all monitoring sites baseline data is required.

2. SANRAL (Royal Haskoning DHV) (Paul da Cruz: Environmental Consultant (Water and Wetlands):

The main thrust of this indaba is the need for developers to think about biodiversity from the start.

The Mitigation Hierarchy ensures that problems can be avoided as much as possible; which saves money.

Environmental screening needs to be done up front.

— Case Study 1: P166 Bypass Road (Mbombela):

The R40 is massively congested, thus a bypass road was proposed to relieve pressure. SANRAL took the decision to undertake the EIA:

Key issues:

- Along the servitude (White River area) presence of the critically endangered *Aloe simmii*. 20% of remaining global populations were found along the servitude. Development would have resulted in the loss of these colonies of Aloes. They are grassland Aloes, high flowering stems, highly habitat specific. Only grow on the peripheries of wetlands.
- Alignment of servitude ran along the course of wetland (Critical Biodiversity Area). Thus the project would have had a significant impact on wetland.

SANRAL undertook a technical assessment –

- Promoted on Offset.
- Trial relocation of Aloes to offset the loss of the colonies. This was opposed by SANBI and other conservation organizations. Reseeding studies were suggested, but the precautionary principle argued against this approach: it had never been tried before.
- Alternative was suggested, but SANRAL concluded that the alternative was not feasible.
- Aloes have been successfully reseeded in the Botanical Gardens, but not in the wild.
- Costs could have been saved by considering biodiversity issues before the EIA. Technical costs for alternatives. E.g. cost of the appeal, cost of the land acquisition, cost of servitude. If the environmental screening process had been undertaken initially, the costs could have been avoided.

— Case Study 2: Eskom. Supply LYD-MER:

The area included formally protected areas (PA) and informally protected areas, as well as critical habitats of bird and plant species, e.g. it was an important roosting site for Cape Vultures.

Alternative options: using existing servitudes (but this included stewardship sites, and PAs). There were biodiversity implications and landowner objections.

Additionally, there would be a delay in supply of electricity. Should they cancel the project, customers would lose electricity, or they could supply electricity from another area (e.g. Dullstroom)

Conclusions:

- Time = Money.
- EIAs = Greater costs.
- Biodiversity-related sensitivities should have been considered initially.
- Require upfront pre-development screenings: Early consideration of biodiversity issues.
- Avoidance, identification and minimization of issues.
- No guarantee that offsets would even work.

Questions and Discussion

Is SANRAL looking at seed replantation? Is it working? Can we use the offset as another project?

- SANRAL have publically stated that they are committed to engaging in a trial relocation anyway. But there is a high risk of uncertainty due to the species' specific habitat requirements. The ecological context and the pollinators also need to be considered.

Concluding lessons:

- Always look at best practice strategies.
- Use least cost models (a combination of technical and environmental least cost lines).
- Don't wait for EIAs rather perform upfront screenings. i.e. upfront costs will essentially save costs in the long run.

4. ESKOM (Kishaylin Chetty, Environmental Advisor)

The importance of mainstreaming biodiversity:

- Government structures
- Appropriate tools and mechanisms
- Effective partnerships
- Implementation

The 6 Cs:

- Continuity of electric generation Supply
- Cost to company
- Corporate Image

- Compliance
- Communities
- Conservation

Mitigation Hierarchy is a case for residual impact. Offsets should be considered a last resort:

— Case Study: Ingula Pumped Storage Scheme:

- This area hosted a number of threated endemic species.
- Recognized that while we are doing an offset we have the opportunity to look at Conservation Added Value initiatives (might not necessarily) contribute to the offset.
- Scientific research is necessary to contribute to biodiversity at national and international level.
- Ecosystem services assessment is necessary.
- Links between conservation and communities.
- Wildlife and power lines: risk to wildlife is expanding, in the form of collisions and electrocutions – but this is also a business risk to Eskom (e.g. repair costs; loss of supply to consumers).
- Promote the need for proactive strategies: how to avoid these risks completely?
- Putting a value to ecosystem services and resources: e.g. a vulture = R165,000 (ecosystem service value).

— Offset Case Study: Ankerlig Gas Turbine:

- Cells are within Critically Endangered Cape Fynbos.
- This was a “Like for Like” offset concept.
- But the habitat didn’t exist anywhere else.
- Thus, utilize the “Like for like” concept in terms of the threatened status (i.e. offset at another Critically Endangered habitat site.
- But this was in a prime beachfront property – i.e. this was not feasible.
- Thus, project was put on hold (may be practically impossible to implement).

— Case Study: Kusile Power Station:

- Requirement for an offset.
- The possibility of an offset inside the catchment was non-existent – there was not enough property to purchase.
- Gap between legislation and practicality of implementation.

— Case Study: Transmission Lines through the Karoo.

- Assess cumulative impact.
- Link the need for an offset with a socio-economic process.

— Offset implementation should be a last resort.

— There are reputational risks associated with driving offsets just to ensure the project goes ahead.

— We need to reconsider the framework around offsets.

— Often specialists will go straight to the offset option.

— Thus, there is a requirement to make sure that the mitigation hierarchy process is conducted appropriately – i.e. follow the stages.

— Ensure that project plans and outcomes contributes to provincial and national biodiversity targets.

Questions and Discussion

- There is a dilemma in terms of the consistency with which rules are applied. i.e. in some cases offset areas are already naturally pristine, and in other cases the offset area is completely disturbed by others (e.g. landowners).
- Thus, this procedure needs to be fair and practical.
- We need to consider who is responsible for the damage of certain offset areas in the first place.
- It should be possible to conduct joint offsets between industries (collaboration).
- Conserve sites which are currently pristine to avoid degradation (avoidance).
- We shouldn't only consider conservation value: but also the broader landscape, including social aspects.
- Landscape plans need to be integrated with what regulators are asking for with mitigation hierarchy.
- Moving away from short-sighted EIAs to a broader landscape approach.
- Pending question: How are we going to facilitate this?

Session A Summary: Implementing the mitigation hierarchy

- Go back to basics: implement mitigation hierarchy right from the beginning before offsets are considered. Not at the EIA stage. This will essentially save costs.
- Start as early as possible.
- Understand the NPI.
- Alignment of implementation (Clarity).
- Adaptive procedures.
- Must be part of the government framework and business framework.
- Terminologies need to be defined.
- Must be realistic.
- Offsets should be the last resort: first minimize, reduce and avoid.
- Offsets need to contribute in a uniform and transparent manner.
- Ensure flexibility and collaboration.
- Manage cumulative impacts – look at the broader context of the landscape.
- The role of regulators is important.

Session B: Ecosystem services and ecological infrastructure

Facilitator: Dr Lorren Haywood, CSIR (research economics)

Participants:

Anthony Edmonds, Donnovale Farming Company;

Duncan Hay, Executive Director, Institute for Natural Resources;

Kyle Harris, Ecologist, Prime Africa

1. Lessons from the uMngeni River Basin (Duncan Hay, Executive Director, Institute for Natural Resources)

The uMngeni River Basin has been extensively researched. However, it was discovered that there was not necessarily a compiled database of knowledge for the catchment. Researchers (especially students) also have a fairly low level of local knowledge upon arrival. Therefore, an information tool on the catchment has been developed. Key information illustrating the challenges and opportunities for the catchment area are provided below:

- 4.4 billion cubic meters of annual rainfall in Umngeni River Basin. This is about 18x that of Midmar dam.
- Umngeni dam stores 800 million cubic meters, which is a little more than a year worth of runoff.
- The soil has the largest water storage capacity with a potential of 1.6 billion cubic water. This represents a large opportunity for the region.
- Durban uses 78% of the catchment's total water usage.
- Commercial forestry uses 64 million cubic meter through licensed allocations.
- Agriculture uses 58 million cubic meter licensed allocations.
- The biggest consumer is urban development, and not forestry or agriculture.
- Alien invasive species utilise about 7.2 million cubic meter more than natural vegetation. This is not in itself large, whilst in a drought situation, this becomes a significant number. To obtain the same amount of water through development of hard infrastructure would cost 700 million rand. An exercise of clearing alien vegetation would cost 1/3 of the price.
- Durban loses 40% of its water consumption where leaks account for about 30% of that loss. Pietermaritzburg loses 40% of its water consumption where leaks account for about 20%. The remaining losses are revenue losses.
- If Durban halved their loss of water through revenue and leaks they would have an increased annual budget with 0.5 billion rand.
- The catchment area has received 64 millionn cubic meters from other catchments in a 6 months period due to water shortage. During the same between 46 and 76 million cube meter water was lost. Basically the increased infrastructure compensates for the leaks.

Key message: The catchment is therefore not experiencing a drought crisis. It is experiencing a management crisis. Need to improve the maintenance and operational aspects. One of the responses

to the challenge described above is the establishment of the Umngeni Ecological Infrastructure Network. It looks at conservation, species conservation. However, current results are demonstrating that we are losing biodiversity slower, but there is still a biodiversity loss. There is one realization with regards to the catchment water pricing system. It does not include the pricing of externalities. The water is fundamentally priced too low. A higher water price with subsequent reinvestment in the catchment system is essential in the drive for change. The network aims to:

1. Work with businesses to develop an investment strategy for the catchment.
2. Integrate parallel processes happening in the catchment.
3. Get the non-forestry business sectors to join the restoration efforts.

Question and Answers

1. How long has it taken to establish this partnership?

- This started in 2011, and has evolved over 5 years. A critical learning was the importance of getting Neil MacLeod on-board. He has been the ideal champion for change; good connections, could talk freely, and was influential in the region. It took 6-12 months to get him on-board, but once that was accomplished the journey was a lot easier.

2. How have you handled the issues of municipal investment?

- Durban has recognised that they do not need to spend the money in the municipality as long as the investment benefits the municipality. This has been a key enabler for their support.

3. What have you done with regards to learning and sharing?

- Through SANBI there is a learning partnership established. There has been one session organized so far. This catchment can definitely benefit from the experience in the Baviaanskloof and the Olifant's areas. Therefore, is potential for increased learning and sharing.

2. Implementing SUSFARMS 2018 (Anthony Edmonds, Donnovale Farming Company)

SUSFARM was originally developed 25 years ago by a group of farmers responding to the FSC certification trend in forestry. It was a collaborative effort between three milling groups or farmers: Illovo (Noodsberg and Eston) and the UCL mill. The mills started to require an annual progress tracking by the farmers. The SUSFARMS management system covers three aspects: people, planet and profit. Growers will have to provide information on consumption of energy, diesel, fertilisers, chemicals etc. The progress tracker is intended to inform corporate of strengths and weaknesses, and based on their analysis they will respond with support and requirements for the farmer. The aim of SUSFARMS is to encourage farmers to use the tool to assist in sustainable source targets. An integral part of the tool is land use planning, which is a blue print for developing and improving a piece of land. The land use planning is a mapping exercise that includes; contouring, cane areas, roads, and waterways. The SUSFARMS is aligned with the global BonSucro initiative.

The SUSFARMS is now starting to integrate biodiversity. The tool includes High Biodiversity Value (HBV) areas, and how farmers can contribute to the bigger conservation picture through understanding ecological connectivity and corridors, wetlands management etc. The tool creates a one-page summary or overview of key ecological and biodiversity resources, as well as key issues and challenges. It is a combined mapping exercise with priorities and action summary.

SUSFARMS would like to see retail chains such as Pick n Pay and Woolworth pushing this initiative forward. Currently, the downstream market is not particularly sensitive to these efforts, and the low-end consumer has very little insights as to how to choose its everyday supermarket products. Therefore, corporate pressure is what is needed to push this sustainability consideration further.

Comments

1. It will be critical to set continuous improvement targets and assistance perspective. You don't want to give people the feeling that they have failed before they have even started. A structured carrot approach more than applying the stick.
2. SUSFARMS have a coordinator role. In a farming landscape biodiversity related problems are often cumulative and at a landscape level. The farmers are not necessarily sufficiently aligned and coordinated to deal with cumulative aspects. There is an opportunity for SUSFARMS to provide that coordinated support to the individual farmers.
3. Nedbank is funding this initiative and it is refreshing to see the outcomes of the funding.
4. The sugar industry has a polycentric governance system. Therefore, once the mills require certain management initiatives of their suppliers the growers will either need to participate or sell their produce to a different mill.

3. Corporate Ecosystem Valuation (Kyle Harris, Ecologist, Prime Africa)

The presentation was based on a few case study examples. The model for valuation used was based on the following principles:

- Ecological infrastructure —> ecosystem services (benefits to people) —> benefits to business
- What are the assets? —> what are the benefits? —> what is the resource rent for businesses?

The models are based on the idea that business should pay a rent for resource use or benefits. The models therefore aim to establish a payment for ecosystem services. In practical sense these payments are not incorporated in a business context, and therefore constitutes externalities. Valuation of ecosystem services is an approach to integrate these externalities. A South African practical example is the payment for water licenses. The methodology applied is based on a methodology developed by the WBCSD and some of its members. It is called corporate ecosystem valuation. The aim of the methodology is to show a change in value, as there is a change in ecosystem services. Then the approach assesses the distribution of costs across the chain of ecosystem services.

Case study 1: Harbour development in South Africa. It was a project to increase the capacity of the harbour that involved dredging, as well as adding container terminals. The biodiversity related issues identified were: mangroves, estuaries, and impact on freshwater bodies. The project therefore did the following:

1. Identified the ecological infrastructure

2. Identified the benefits from ecosystem services through a mapping exercise with focus on recreation and food supply

3. Identified the cost of mitigation: over 1bln rand. This is substantial whilst if considering over the lifetime of the project (50 years) then a more acceptable price.

Key learning from this exercise was the importance of being early involved to provide input on location and adaption of site planning for ecosystem/ecological planning.

Case Study 2: Eskom and the Ingula Pumping Scheme. Eskom wanted to identify the ecosystem value of the Ingula site. The assessment included considerations for aspects such as regulation services, purification services, as well as genetic, cultural and touristic services. The value of the ecosystem was finally estimated to be about 125 000 rand/ha.

Case study 3: CoalTech had a wetlands infrastructure assessment conducted nearby the Highveld steel plant. They wanted to know whether a rehabilitated wetland could have the capacity to treat acid mine drainage. The wetlands could not absorb the full treatment process, whilst could handle the latter stages of the treatment. They identified that the last cleansing service could have a value between 2.5 and 11.4mln rand, and the value of the wetland infrastructure was estimated to be about 632mln rand.

The conclusion of reviewing these case studies is that valuation can improve businesses decision-making. It can be a very powerful management tool. It is particularly useful in the pre-feasibility stages where you can influence decisions early on. There is also an increased interest from DEA in the application of ecosystem valuation methodologies. One key challenge for the tool is data scarcity.

Questions and Answers

1. The first example only listed food and recreation services, whilst the other examples listed further aspects. Why is that?

- The first example was an earlier case and the methodology was not as far advanced at that stage. Therefore, did not include all aspects such as purification, genetic resources etc. However, the exercise served its purpose as it got the project planners and engineers to realise that they needed to include biodiversity and ecosystem considerations.

2. Can this methodology be applied to a marine/ocean context?

- This methodology can be applied to any aspects. The key is to obtain the right experts and people around the table so that all aspects are incorporated. These studies are massive, and you draw on everyone to incorporate their opinion.

4. Roundtable Discussion (all participants)

Woolworths: Woolworths have a Farming for the Future project where 90% of fresh goods are sourced locally. The programme is looking at farming from the soil and up, where water is a very important

aspect. The programme is intended to support Woolworths in its endeavour to source responsibly. Woolworths have also started looking further into the water management area moving from farm level to catchment level perspective. They have piloted some efforts in one catchment area, and are now looking to expand to other catchment areas as well, with a special focus on the dairy farmers. Woolworths first and foremost focus on local sources (i.e. South Africa). The imports are further down the supply chain and more difficult to follow (such as cotton for example). Woolworths realises the need for an integrated approach to sustainable and responsible sourcing, and is therefore including biodiversity considerations in its efforts.

Investment sector and ecosystem services: There is a lack of understanding from the finance sector. However, the presentation on ecosystem valuation is the language that banks can understand. Those kinds of tools create a direct intervention between investment and return. The focus of the finance sector is still very risk oriented, focusing on reducing the risk profile of investments. The sector is not driven by altruistic intentions, but by what makes good business sense. The ecosystem valuation approach can be a very interesting leaver in the investment sector context.

Discussion: Finance has a big incentive possibility. For example, they can implement economic incentives if certain performance levels are achieved. The bank can provide cheaper loan conditions for customers with lower risk profiles. If the customers have a better understanding of their biodiversity risks, dependencies and impacts they can manage it better and reduce their risk profile. This kind of initiative would certainly get traction in the agricultural sector. The investment sector globally does have considerable funds and there is a need for being smart about how to access it. Sometimes the perspectives in South Africa are too small and fragmented. Sometimes need to look at larger scale issues at a country level.

GEF6 projects demonstrate some gains from the partnership such as the Umngeni example. Part of the criticism from the development bank is that it needs to advance beyond a partnership, and get a broader perspective. Furthermore, they would like to see the actual impacts, and desires an ability to demonstrate clear benefits of the initiatives. There is a lack of knowledge whether these initiatives are actually making a difference in terms of biodiversity and ecosystem services. Need to be better at measuring the results and outcomes! However, there is an issue of scale when wanting to measure benefits to the partnerships. Need to understand the scale of the intervention required to make the change in order to design adequate KPIs. We can learn from pilot projects and look at measurable effects on smaller projects, whilst we need to also incorporate larger scale perspective and performance.

A challenge with the ecological infrastructure projects is that it is hard to measure actual impacts. A 5-year timeframe is not adequate to demonstrate the complete benefits from the initiative. It is difficult to demonstrate that a project or initiative is working, as you have not yet capitalised on the long-term effects of the initiative. There is a challenge with how to measure success, and how to provide the evidence of this success. DEA is in the process of developing a recognition system to facilitate the measuring of success and results over the last 25 years.

There is a lot of focus on how the biodiversity community needs to speak the language of finance and CEOs and engineers. However, there is less emphasis on how they can learn the language of the biodiversity community.

It is important to highlight that there seems to be confusion regarding the terms and language used. We seem to confuse the biodiversity risk to business with impacts from business on biodiversity. This same confusion is transferred to our discussion on business case. There is a difference between the societal economic case for action versus a finance business case for action. What makes economic sense for the society as a whole might not have a strong financial business case.

2.6 Biodiversity and the UN 2030 Agenda Sustainable Development Goals (SDGs)

Format: Presentation

Presenter: Alex McNamara, Programme Manager: Climate Change & Water, National Business Initiative (NBI)

The United Nations Sustainable Development Goals (SDGs) are important and relevant in a South African context. NBI has performed an assessment of South Africa's alignment with the SDGs. If implemented correctly the goals can have a profound impact on South Africa. The SDGs are supporting countries in forming a certain roadmap or ambition for development. NBI is seeing an important shift between the Millennium Development Goals (MDGs) and the SDGs. The SDGs have a greater recognition of the role and importance of business in order to achieve the goals. They for example recognise that the water target cannot be achieved without private sector involvement. The SDG's are intended to be a common language and not just a policy influencing tool, and therefore also relevant and understandable for businesses. The key tools identified to achieve the SDGs in South Africa are; financing, partnerships and capacity building. NBI aims to support these three aspects.

There are several of the SDGs that have direct relevance for biodiversity, such as: responsible consumption, climate action, life below water and life on land. However, biodiversity is such a cross cutting theme, and therefore there are several of the SDGs with indirect relevance to biodiversity. For example, the goal on economic growth is coupled with environmental degradation and therefore linked to biodiversity. The goal on making cities sustainable has cross-links with cultural heritage and green infrastructure for example. The goal with regards to fisheries has a strong link to biodiversity.

<u>Question and Answer:</u>

1. In terms of capacity building to deliver on the SDG. Could more work be needed to understand what does this mean on the ground?

- NBI is helping businesses to understand what it means to them, and what they should focus on. There are clear links to water and sanitation, especially water quality and preserving water ecosystems.

2. Do you see businesses buying into the SDGs?

- There is a certain understanding by the businesses of the SDGs, and the goals do resonate with the companies. Biodiversity, and payment for ecosystem services, has a significant opportunity for SME and entrepreneurial start-up.

- Finance has moved in on both the transport and energy sectors, whilst is still not very present in the water sector. The investment community needs to first understand the biodiversity context before they can become good/reliable investors.

2.7 Parallel sessions: Finding the right approach

Session A: Frameworks for business to manage natural capital

Session B: Corporate tools for managing natural capital

Session C: Institutional tools for the management of natural capital

Session A: Frameworks for business to manage natural capital

Facilitator: Dr Harriet Davies-Mostert, Endangered Wildlife Trust

Presenters:

Dr Marie Parramon-Gurney, Regional Technical Coordinator: Business, Economics and Biodiversity, IUCN

Dr Lorren Haywood, Senior Researcher: Sustainability Science and Resource Economics, CSIR

Chantal van der Watt, Senior Manager: Risk Assurance, PwC

John Dini, Director: Ecological Infrastructure, South African National

1. Landscape approaches to managing biodiversity risk and opportunity (Dr Marie Parramon-Gurney):

The landscape approach: looking beyond a small-scale footprint.

- SUSTAIN-Africa: Sustainability and inclusion strategy for growth corridors in Africa.
- Growth corridors are identified and need to be developed in light of climate change and maintaining biodiversity.
- Brings in all the complexities of the system.
- Relationships between ecosystems and ecosystem services, government, as well as other stakeholders in the landscape who may feel the consequences and be dependent on the ecosystem.
- Both business IMPACTS and OPPORTUNITIES.

Landscape approach versus Operations approach and Supply Chains.

- Landscape approach allows you to MANAGE RISK.

- Investigate the ecosystem holistically, the use of resources, access to resources, and the LINKS and RELATIONSHIPS between resources, ecosystem services and social aspects (these cannot be dealt with in isolation).
- For example: water use affects social issues.

The common goal is for everyone involved in a landscape to work together: Integrated Management Approach.

- For example: water in response to food security.
- This requires integrated thinking
- Allows for movement away from conflict
- Linking visions of stakeholders, local communities and national authorities.
- Then re-focus the priority issues (2 or 3 issues where we can have the most impact), rather than trying to accomplish everything (BE AWARE OF TRADEOFF).
- Needs to be a collective approach, directly linked to initial planning stages.
- Expand good practices.

Facilitate negotiation in a different way, i.e. with a specialized neutral negotiator.

- Minimize risk and provide opportunities collectively for all parties.
- Facilitate conversation between all parties.
- Landscape Approach will unlock multiple benefits.
- E.g. SUSTAIN-Africa looks at economic development, rather than just fund raising.

Natural resources need to be considered together (i.e. integration of land and water planning: requires both provincial departments to work together at an early stage.

Business perspective:

- Need to secure supply of resources (e.g. water quality).
- Decrease reputational risk.
- Ensure legal compliance (working together with stakeholders and government to ensure legal compliance).
- This allows for cost saving in the long run.

- Adding value for the landscape and communities e.g. expand what you are getting from one animal.

- Provide market opportunities, which are unique and localized (e.g. honey, baobab seeds).

- Ensures that money is coming into the community from different sources (resource mobilization).

Questions and Answers

1. How do you define the landscape?

- This need to be defined based on the objective of the business.
- Utilize natural / previous associations e.g. local farmer associations – these can be used as a vehicle to engage with the business.
- The scale will change depending on objectives and actions.
- We need to move beyond the isolated site-based approach, in order to unlock the benefits of additional resources.

2. How long has the program been running?

- Three years
- Progress has been made through various organizations utilizing this approach.

3. How does the program cater for more extractive procedures, where stakeholders and business have conflicting objectives?

- Require a common vision from the national government sector.

- A vision needs to be defined holistically, which requires discussion and engagement.

- Specialized neutral negotiators need to facilitate the discussion.

2. Resilient natural and social capital = resilient business (Lorren Haywood & Chantal van der Watt):

This is a TOOL for Building resilience into business strategy, management and reporting, and based on engagement between CSIR and PWC. The tool was developed to:

- Global statistics show we are consuming even more resources than before, regardless of the fact that sustainability has gone mainstream.
- We are not seeing the effects – such as reducing the use of resources and declines in socio-economic problems.
- The negative consequences of globalization, in association with climate change, instability of markets, scarcity of energy and resources, conflicts, new and emerging risks.
- The current practice is for businesses to try to be more effective and efficient just to maintain their license.

In light of this, a new perspective: Business should rather maintain systems and sustainability through resilience. This requires integrative thinking of the entire socio-ecological system, and the interconnections. Resilience has its origins in ecology (the ability to bounce back to an adaptive state, the ability to recover from and reorganize in response to crises.

There were 7 Principles introduced (ideally the business should be engaging with all of these concepts):

1. System Principle
2. Risk and Adaptation Principle
3. Decoupling Principle
4. Restoration Principle
5. Well-being Principle
6. Collaborative Governance Principle
7. Innovation and Foresight Principle

These principles are quite aspirational; thus it is unexpected that businesses would be considering all of these principles. Even leading companies need to think differently about how to embrace the resilience concept. Following a business investigation with CEOs they found that:

- The outcome is that the business environment is changing.
- Businesses require an understanding of who are the stakeholders.
- Profits should not be considered independently, at the expense of other goals.
- CEOs realize that change is coming.
- Business needs to report on more than just financial matters.
- Create value for stakeholders rather than just shareholders.
- Shift from a traditional business approach – to an interconnected approach (everything in the landscape) – contextualization.
- Risks and opportunities need to be viewed in the landscape.
- Shift to thinking about long-term viability.

Structure of the Report:

- For each of the Principles: 3 levels are identified (current status of the business in light of each principle):
    - Basic State
    - Evolving State
    - Leading State
- Identify where business sits on these criteria
- Identify where business wants to go
- What are the challenges that might be experienced moving forward?

- Where should the business prioritize?
- Moving from a narrow sustainability mindset to a more resilience mindset.

Questions and Discussion

What about the companies who are not concerned about sustainability? Are we targeting the wrong companies? – Companies who are already involved with biodiversity? How do we tackle this?

- The problem is that there are many more influencing companies, and missing stakeholders.
- There is no risk and consequences for these companies.
- Also companies may be doing well in one area (e.g. climate change, but not great in other areas).
- Superficial compliance: Who is going to enforce this mindset on those companies?
- The key is that this framework needs to be facilitated.
- It needs to be simple and uncomplicated.

3. Improve water security through integrating biodiversity and ecosystem services into infrastructure development in the water sector (John Dini):

Integrating biodiversity and ecosystem services into planning, finance and development in the water sector. It will be important to integrate water security (including quality, supply and water-related disasters) with business and biodiversity in order to identify emerging business risks. Central to this is the emerging concept of ecological infrastructure and naturally functioning ecosystems (that generate and deliver valuable services to people and the environment). Need to consider everything that happens upstream of the dam as well (water value chain), including upstream infrastructure. Water infrastructure services include (but not limited to):

- Improve the quality of water.
- Flood attenuation.
- Sustaining dry season (base) flow.
- Holding sediment.

There is a need for quantifying water related benefits, and identify specific interventions, for example:

- Reduce sediment = increase water quantity and increase stream flow.
- Alien plant control.
- Fire management.
- Keeping healthy ecosystems in a healthy condition, i.e. maintaining healthy grasslands (Grasslands are key in maintaining water quality). This is much cheaper than fixing the ecosystem once its already broken.

Some examples of this are:

- Katse Dam (Lesotho): Interplay between healthy catchments and infrastructure.

- Welbedacht Dam: eventually had a storage capacity of only 9% (91% sediment). Thus eventually had to build a new dam. (Mega-infrastructure projects are funded by the users, rather than the government).
- Spring Grove Dam (Mooi River): Already (3 years old). Full cost recovery. Funded through development. Already sedimentation is 4 times quicker than they thought it would, thus water related financial risk (including disaster risk).

What should have been done to prevent these problems?

- Mitigation of future risks.
- Assessment of what is changing further up in the catchment.
- Goal is to change the way we think and make choices.

Other aspects to consider:

- Natural capital accounting: Non-financial – According for stocks and flows.
- Policy & institutions: Easy for people to sit back and assume it's a government problem. But businesses have to get involved. Different sectors need to be represented. Catchment Management strategies (CMS)> Role for responsible land and water stewardship. Users pay to maintain resource.
- Financial mechanisms: working with development finance. E.g. impact and dependencies. Are the externalities being incorporated? i.e. all costs need to be factored into the budget.

4. Round table discussions:

- More and more pressure on water resources.
- The price that we pay for water does not reflect its value and scarcity.
- Transboundary makes it more complex (e.g. SA and Lesotho).
- Not necessarily about pushing the price of water.
- Water pricing strategy: Cost to provide water, as well as levies (water research, infrastructure, waste discharge).
- Polluter pays: Sediment is one of the biggest problems.

Session A Summary: Frameworks for business to manage natural capital

- Projects need to be considered according to an appropriate scale.
- A bottom up perspective is valuable.
- "Biodiversity" is not always the way to sell this to business, but rather "Ecosystem Services".
- We may not be engaging with all of the relevant businesses. There is an added importance of introducing companies that are other players in the system.
- There is a cost to not thinking at an ecosystem services level.
- We need to use a language that makes sense to all of the users, i.e. we need to define "sustainable growth", "business resilience" etc.
- The importance of integration and collaboration.
- Focus on what you can do well (don't try to do everything in the landscape).

Session B: Corporate tools for managing natural capital

Facilitator: Paul da Cruz, Royal Haskoning DHV

Participants:

Amanda Maree, Senior Director, Conservation South Africa

Dean Muruven, Water Source Areas Manager, WWF-SA

Daphney Ramaphosa, Senior Manager: Natural Capital Sustainability Transnet

1. Environmental Sustainability Initiative (ESI) for the consumer goods sector (Amanda Maree, Senior Director, Conservation South Africa)

There is a collaboration between Centre for Evaluation and Monitoring (CEM), Conservation South Africa (CSA) and the Consumer Goods Council (CGC) on environmental sustainability. The collaboration started out with a membership survey in 2012 with 450 responses from 29 sectors. The survey aimed to map perceptions and attitude towards business and biodiversity. The top actions desired were:

- SD guidelines,
- SD policy, and
- consumer awareness.

There was a strong legal compliance focus, whilst they had not necessarily moved further up the value ladder towards environmental awareness. The tool focuses on business improvement: trading, technical, assistance, auditing and support. The opportunity for CGCSA is to look outside of South Africa such as towards the Global Social Compliance Programme (GSCP). This is a global platform with 400 retailers in over 70 countries, which constitutes a large part of the market. The platform relies on collaboration as opposed to competition. There is a pooling of learning. It constitutes a huge network of information and tools, and provides a framework for environmental stewardship. The platform has developed various standards where several have implications for biodiversity.

The platform also organises a supply chain management scoring system based on a self-assessment with various rating levels of sustainability awareness or maturity. This means a company can be rated as level 1, and can then aspire to and work towards level 2 of sustainability awareness. CSCA is supporting this initiative in terms of assessment and certification in South Africa. CSA has the mandate to drive the process forward, and to roll this out in South Africa. Currently CSA is looking for organisations in South Africa that are willing to pilot this supply chain management scoring system.

2. Water Risk Filter (Dean Muruven, Water Source Areas Manager, WWF-SA)

Partners of the water risk filter initiative are Sanlam, CSIR, DHI, Department for Water, DBSA, WRC and more. Water is categorised as one of top three risks to global growth by the World Economic Forum.

There are physical risks linked to water such as drought and flooding. There are reputational risks related to water management with people being displaced from water resources for example, and there are regulatory risks in case of mismanagement of the resources. These are some of the aspects of a company's water related risks. The water risk tool is a free online tool that summarises and highlights key water risks. The water risk filter links in with a programme to identify water stewards which focuses more on how to strengthen governance in your particular catchment. To become a water steward you need to have knowledge of the impact, and you have to internalise the action. There is no point in nominating water stewards that do not practice what they preach. You have to walk the talk. The next step is to champion and define collective action. The water risk filter aims to support you as a business to become a water steward in your catchment. The assessment does enable benchmarking, which means you can compare yourself towards local and global datasets (anonymously). It is worth mentioning that this is a scoping tool, and is not intended to replace a detailed hydrologist assessment.

The water risk filter has for example been used by Mondi (in their mills), Hand M, Coca Cola, and HSBC. There are more than 2,700 assessments performed to date. The tool will give you a water risk assessment, and a location based risk analysis. The tool also proposes various mitigation steps and options that you could deploy with relevance for your region. Another feature is that you can find examples of what other companies in similar industries and context are doing to reduce their water risk.

The tool provides country level data and assessments. It is only United Kingdom and South Africa that have downscaled details to country level data. The tool summarises your company's risk profile in a heat map. A red risk in one country cannot be compared to a red risk in another country as the indicators change between countries. An example of the water risk filter in practice is MandS who ran an analysis, and identified their hotspot area as the Ceres in South Africa. This mapping then resulted in MandS rolling out a training and guidelines programme with regards to fruit farmers in the region. CMA and DWS are now considering whether this programme can be rolled out as part of regulatory efforts.

<u>Questions and Answers</u>

1. What data was used for the water risk filter tool?

- Some of the data utilised goes back to when data was first collected. The tool is free, so it is based on public and free data available.

2. What levels of the organisation are taking an interest in this tool? Is it decision-makers or is it advisors and specialists?

- WWF would not know, as the use is anonymous.

3. Can this tool be used for benchmarking?

- The challenge with benchmarking is that it requires sharing of sensitive data that companies may not want to share.

- The catchment agencies may know of existing best practice. Could initiate a voluntary monitoring initiative. There could for example be a platform where data is shared. However, this is more at an idea stage. There could be opportunities to include citizen science for example.
- SA BirdAtlas programme - they are a good example of including citizen science.

3. Transnet sustainability tool (Daphney Ramaphosa, Senior Manager: Natural Capital Sustainability Transnet)

The world is constantly changing and identifying new technologies and approaches to increase efficiencies and reduce environmental footprint. In China there is move towards recycled steel, whilst in Japan there is a move towards recycling of old vehicles. South Africa is still based on a very consumptive model.

For Transnet coal is the biggest revenue area, but also has considerable sustainability challenges. It is uncertain how the coal market will develop in the future. There is a key link between biodiversity and the planetary limits, so how do we create value?

Transnet has come up with nine development areas based on the six capitals model. Transnet did an extensive sustainability risk assessment that led to the nine development areas. The risk assessment included aspects such as: business operations, value chain, value network and then combined this with how urgent the risk was in the forecasted financial year. Prior to this mapping there was a risk analysis assessment. Once the risks were mapped they also conducted a trend analysis, and identified interdependencies between the risks. This risk assessment was conducted based on a scenario analysis rooted in the six capitals concept. The final assessment categorised Transnet's awareness and maturity level in the sustainability and risk context. This categorisation provides insight to where the company is today, but also a vision for where it wants to be. The company operates in a consumptive business context, and wants to move to a re-generative model.

<u>Questions and Answers</u>

1. The assessment includes considerations for emerging technologies that are very young. How did the assessment include uncertainty margins?

- The trend analyses informing the exercise were both on a global and local scale. Transnet considered the trends that were more relevant to the South African and the specific company context.

<u>Session C: Institutional tools for the management of natural capital</u>

Facilitator: Duncan Hay, Institute for Natural Resources

Participants:

Carina Malherbe, Director of Environmental Sector Advocacy and Coordination, DEA

Willeen Olivier, Biodiversity Officer Control: Biodiversity Planning, DEA

Pamela Kershaw, Deputy Director Biodiversity Planning, DEA

Kiruben Naicker, Director: Science Policy Interface, DEA

1. Department of Environmental Affairs' (DEA) 2E2I (Effective Environmental Improvement Interventions) (Carina Malherbe, Director: Environmental Sector Advocacy and Coordination, DEA)

The global value of ecosystem services is placed at more than 58 trillion USD dollars. However, more than 2/3 of our ecosystems are degraded, and severely so. We realise that we are currently not good stewards of our planet, its ecosystems and its biodiversity. This also applies to South Africa. There was a study performed in 2014 in South Africa based on the Stockholm Research Centre methodology for safe operating space for humanity aiming to demonstrate the country's ecological deficits. The study found among other that biodiversity loss was exceeded with 37% and marine harvesting exceeded by 45% compared to defined safe operating limits. The bottom line is that the results were quite depressing. The National Development Plan (NDP) aims to address this. The plan outlines what we need to do in order to protect our ecosystems and natural resources. The NDP states that we need to maintain the current natural capital value, and leave the next generation with equal value of natural capital. The plan also includes economic policy incentive schemes for the national treasury to implement.

Effective Environmental Improvement Interventions (2E2I) is a programme to support discrete, intentional and recognised interventions that have measurable and sustained improvement of a degraded environment. The programme has three main objectives:

1. To recognise interventions with real improvement to the environment.
2. To stimulate further restoration and improvement interventions.
3. To create a consolidated information portal on the recognised initiatives.

A discrete, intentional and recognised intervention with measurable and sustained improvement is based on the following criteria:

- Discrete and intentional = well planned and thought through initiative.
- Recognised = recognised by the DEA and the 2E2I programme.
- Measurable improvement = 1 out of 3 *outcome indicators* demonstrate clear environmental improvement.
- Sustained = intervention needs to be sustained for 25 years.

A 2E2I can be implemented at any level of the nation from local communities, businesses, municipalities, or at government level. You can obtain a 2E2I certification through contacting the DEA either online or directly where you can obtain the formal application form and procedure. The application will be reviewed by the DEA, and by a selection of relevant experts for comments and approval as a 2E2I intervention. This is a voluntary process, and hoping that people would like to participate. The key benefit of a 2E2I certification is that you will have a published recognition by the DEA, which entails an increased public attention and advertising value. It will also support evidence based policy development at the DEA side. Currently, DEA is looking for good restoration examples

that could be interested in becoming registered, as well as compiling a list of experts who can support the certification progress.

Questions and Answers

1. Do you have to subscribe to access the online portal?

- The online portal will be searchable and visible to anyone

2. What is the time frame from application to approval? Would the applicant be able to support its application through a presentation?

- The turnaround time is uncertain at the moment, as this is a completely new initiative. Current approach to application evaluation is through written application. There is consideration for supporting the application with a presentation, whilst it is currently uncertain how the application will be evaluated (face to face meeting versus remote evaluation).

2. DEA's Biodiversity offsets policy and minimum requirements for biodiversity studies in EIAs (Willeen Olivier, Biodiversity Officer Control: Biodiversity Planning, DEA)

The draft biodiversity offset policy is currently with minister for approval. Subsequently it will be published in the Gazette for public comments, which the DEA hopes to do by the end of the financial year. At this point the draft will be shared with NBBN for distribution through their network as well.

Biodiversity offset is required as we are currently far exceeding our limits for use and loss of biodiversity and natural resources. Biodiversity offset should take an ecosystem approach. Understand the landscape and offset within the landscape. A biodiversity offset is a last resort effort. The aim is to avoid, reduce and minimise. Only once these options have been exhausted you should consider biodiversity offsets. A biodiversity offset scheme needs to consider the long-term protection of priority ecosystems, and needs to contribute to ecosystem integrity. Just declaring a nature reserve is not sufficient to become an effective biodiversity offset. The Ingula dam is a good example of an effective biodiversity offset scheme (almost finalised). The building of the dam has destroyed about 1/3 of the Bedford wetland through levelling and grading of the land, as well as the dam construction itself. Currently they have bought up properties around the dam and will declare 9000ha of high altitude grassland and wetlands as a nature reserve, which contains the remaining parts of the Bedford wetlands.

Equivalence Principle means that biodiversity offsets will need to have a direct link to the impact that you are offsetting. If you have an impact on grasslands, then the designed biodiversity offsets should be grassland related. The offsets have to be fair and equitable to all the people impacted by the project development. A biodiversity offset cannot be exchanged for a cultural heritage offset. Rehabilitation will practically never give you like for like. We cannot afford to lose something in order to protect something else. Furthermore, biodiversity offsets must result in conservation gains. Crucial aspects of biodiversity offsetting are timing and duration. The business will need to understand the required timelines in order to succeed. The offset will need to happened for as long as the impact is there, which means forever. South Africa has an extensive database on biodiversity and ecosystems, and the biodiversity offsets scheme will need to be based on available data and research. Make use of the

precautionary principle in designing the biodiversity offsets. Biodiversity offsetting needs to be enforceable and monitored.

Keep in mind: growth for the sake of growth is the ideology of a cancer cell.

Questions and Answers

1. The Department of Water Affairs have a wetlands offset guideline in place. How is the draft policy aligned with the wetlands offset guideline?

- There have been several engagements between the departments to ensure alignment between the regulatory requirements.

2. What does the DEA define as a significant residual impact?

- The DEA will look at their ability to meet the protection targets of critical ecosystems. If the project development negatively affects the protection of critical ecosystems then this will be considered a significant residual impact.

3. Have there been developments where the biodiversity offsets have not been met, and what are the consequences?

- Yes, and this is one of the reasons for developing the biodiversity offset policy.

4. How to manage the additional load on a strained system?

- This is not an addition to the principles and concepts of NEMA, so in that sense should not be an additional strain to NEMA requirements.

5. Time frame of 25 years, how will that work in practice (especially when a mine has closed it activities and left the area)?

- A biodiversity offsetting area will need to be declared a nature reserve. You can then sell the nature reserve onwards, but only under the clause that it will continue to be a nature reserve.

3. Biodiversity Screening Tool (Pamela Kershaw, Deputy Director Biodiversity Planning, DEA)

In 2014 the DEA developed guidelines on minimum biodiversity considerations in land use planning prior to the 2014 EIA regulations. The guideline was generally accepted whilst wanted to formalise it into the regulations. The 2014 EIA regulations were issued with explicit reference to an environmental screening tool, which is currently under development. The current thinking is that the biodiversity considerations guideline will be best incorporated in this screening tool. It will be a national based screening tool accessible online. The screening will make use of spatial environmental data for the assessment. The assessment will result in a high, medium or low ranking in terms of biodiversity sensitivity. The aim is that by March 2017 this will be gazetted and available for public comment.

1. What data will the screening tool be based on? There is not always alignment between the datasets.

- The intention is that you can upload recent data collected through the assessment exercise in order to address issues of datasets that are not reflecting current situation.

2. There is a slight confusion in the regulation on wetland delineation, will this tool have a clear definition of its wetlands delineation?

- DEA is aware of this and working to address this.

4. DEA on the Global Partnership and South Africa's stance on CBD-COP13 (Kiruben Naicker, Director: Science Policy Interface, DEA)

South Africa is a signatory party to the Convention on Biological Diversity (CBD). People may struggle to recognise how this high level and international commitments are relevant to individuals and businesses of South Africa. The agreements made as part of the CBD convention of parties trickle down into the individual countries' legislation and requirements. This is where it becomes relevant for businesses in South Africa. Therefore, DEA is urging people in the room to provide their input to South Africa's participation in the CBD COP13, which takes place in December 2016. A draft document has been circulated to the participants of the indaba and the NBBN network through Shelley Lizzio. The draft has been developed with input from business, but would like to have further input prior to the COP13.

There is a global event, similar to this indaba, on business and biodiversity. This is the Business and Biodiversity Forum 2016 on mainstreaming biodiversity into businesses beyond CSR activities. The global platform for business and biodiversity is a global partnership and collaboration. It includes sharing of information and best practices. The aim is to create a global network to link up experiences and learning across the world. To secure this network's future they are looking into how they can copy structures that are in place with for example the Natural Capital Coalition and the WBCSD.

Comment: The DEA is coordinating the input to CBD COP13, however there are also mechanisms where businesses can attend the conference without going through the DEA. In this case they would only be able to go as observers, as opposed to influencing the process. They would though be able to voice their concerns and perspectives. Currently not aware of any businesses attending the conference.

2.8 Keynote address

Presenter: Deshnee Naidoo, CEO, Vedanta Zinc International Africa & Ireland

Vedanta is an Indian mining company employing about 75,000 people and second largest zinc producer in the world. In South Africa they operate in the Black Mountain area, and also a few other mines in the country.

Gamsberg is the largest undeveloped zinc reserve in the world. The mine is a major economic opportunity to the area, whilst would also be an open cast mine in a high biodiversity value area. The mine will be fully on-stream mid-2018. During the construction phase the mine will employ between 1,000-1,200 people, and about 800-900 people for the operational phase.

Vedanta believes they can build an open cast mine in a pristine environment, and operate responsibly and sustainably. Vedanta believes they can leave the area in a better state than before mining. Therefore, was not warded off by the challenges associated with mining the area. The company operates with the ambition of zero harm for people and the environment. They have four guiding principles: responsible stewardship (IFC influenced), building strong relationship with employees, societies and local communities, adding and sharing value and maintain social license to operate. The succulent Karoo is one of the designated biodiversity hotspots in South Africa with a large variety of species. Vedanta has a sustainable framework that they rolled out in 2013, which has served as an effective tool to ensure appropriate business conduct. Some of the first actions for Vedanta were to engage with parties such as WWF and EWT. They commissioned a range of studies on vegetation, hydrology and similar, which resulted in GIS mapping for a series of decision supporting mechanisms. The understanding resulted in re-designs and re-allocations, and an adapted planning process. This process really demonstrated the progress that can be made when engineers and environmentalist work together.

With regards to biodiversity they intend to rescue plants of value. These will be relocated or protected. Today over 77,000 plants have been relocated, where some have been donated to SANBI. There will be continuous monitoring to ensure successful relocation. The seeds are stored in seed bank in the nursery for research and for later restoration work. Furthermore, Vedanta has developed a biodiversity offsetting scheme for the residual non-avoidable impacts. Vedanta has committed to a No Net Loss strategy, and they will be measured and benchmarked against the IFC performance standard 6. Vedanta has further engaged with organisations such as IUCN and CSA. Their collaboration has been crucial in developing an effective biodiversity offsetting strategy. Vedanta has now set up a partnership with IUCN to deliver the offsetting project. There have been extensive biodiversity assessments, SWOT analysis and a Biodiversity Action Plan has been developed (and revised). Vedanta has committed to issue annual biodiversity performance reports. Furthermore, Vedanta has committed to regular independent reviews and audits. Monitoring is a crucial element to the biodiversity offsetting scheme, as there will always be something that does not go according to plan. This, combined with strong governance structure, will make a successful biodiversity offsetting project. So far Vedanta have implemented all the identified mitigations measure related to avoid and reduce impact. Certain areas have no-go criteria, and not even staff will be allowed to enter. This has so far required some disciplinary actions, whilst the message is coming through. Some of the biodiversity initiatives require extensive engagement with the employees to implement, as the concept is very new to them. Vedanta needs to secure about 12,500ha of land for its biodiversity offsetting, and have to date secured 50% of that land. Once the land has been secured it will be declared as a nature reserve. Lessons learnt during this process have so far been:

- Long term is not easy
- Need to define a vision on biodiversity and required outcomes
- Non-aligned internal processes will delay the progress.
- Clearly define a strategy with adhering KPIs to ensure delivery. KPIs are essential.
- Requires a strong team, strong skills and capabilities. All partners need to be involved whole-heartedly.

Vedanta finds that biodiversity integration and mainstreaming is a journey, and can only happen when having dedicated resources in place! There is a need for enhancing local and regional biodiversity. Creating the change in biodiversity management is an on-going long-term commitment to install the concept in people's minds and people's hearts. You will need to embed it into your day job. The social and environmental legacy of a company is essential for the business' success and to stay ahead of the curve. The business case for biodiversity management is first and foremost because it is the right thing to do. Secondly there is reputation management and to avoid unnecessary costs later on. Vedanta currently recognises that do not have all the answers, whilst confident that can identify solutions through the collaboration and partnerships with key organisations and stakeholders.

Vedanta has a very good example of good practice mine closure from the Lisheen mine in Ireland. The closure planning was already integrated before starting the mine, and the aim was to return the plant area to a green area. Currently the local water levels are back to 1990's. There is a redundancy programme enabling those who started and ran the mine - to also close the mine. Vedanta will be present at the site area for the next 30 years, so liability is not gone as soon as the mine is closed. The Lisheen experience was from a heavily regulated process. It was very expensive, but it was also one of the most productive mines globally. The approach taken in Lisheen is now becoming Vedanta's closure standard elsewhere in the world.

4. Closing

Presenter: Shelley Lizzio, Manager: NBBN, Endangered Wildlife Trust

Shelley highlighted the relevance of an article by Kristy Faccer on sustainability to the proceedings of the past two days and provided an overview of the article. The article is entitled 'CEOs begin to see sustainability as key' and was published on Thursday 6 October 2016 in the Business Day.

Lars Rebien Sorensen of Novo Nordisk was named the world's best-performing CEO by the Harvard Business Review in its annual report on the ranking of the top 100 CEOs in November 2015. In response to this report Mr Sorenson, provided his perspective on Environmental and Social Governance (ESG). His key message was that the financial numbers are no longer enough to ensure success. A company needs to understand the global issues, as well as its local context, to manage its business well. The CEOs need to navigate in an increasingly complex world. The report found that the more experienced a CEO was, the more likely he or she was to integrate environmental and social considerations into the business. They also found that companies in crisis are less likely to act sustainably. An organisation only has so much strength to deal with change and stress, therefore difficult to consider sustainability issues in the context of also facing other crises. The environmental staff needs to work as change agents in the company. They are likely to be more effective when working to support a change in attitude and approaches. This can be a tough journey, so can be valuable to check the CEO's motivation and interest, as well as his or her track record in terms of managing change. When driving a corporate change, it is important to avoid it becoming one person's pet project, as its success and implementation then depends on that specific person only. A sustainability change needs to be bought into by several stakeholders in the organisation and driven from several holds.

Shelley highlighted the following recurring common themes of the past two days.

- The importance of partnerships (partnerships across all layers).

- The need for a common language in the field of sustainability and biodiversity specifically.
- The SDGs might provide the basis for this common language.
- We need to take a broader landscape approach to biodiversity management.
- The challenge for the biodiversity community is to communicate clearly and accurately on biodiversity management. The business is not afraid of complexity. It just needs us to articulate the issues and priorities clearly.
- Communication is key.
- Bring in the small players, and do not just focus on the big players. Do not operate in isolation. Bring your neighbours along, and identify common solutions.