

2019

**BIODIVERSITY
PERFORMANCE
RATING
OF
SOUTH AFRICAN
COMPANIES**

www.bdprotocol.org



ENDANGERED
WILDLIFE TRUST



WHAT IS BIODIVERSITY

The International Convention on Biological Diversity (CBD) defines “biodiversity” as the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.

This includes diversity within species, between species and of ecosystems.

BIODIVERSITY MATTERS TO BUSINESS

Biodiversity produces a wide variety of services on which businesses depend. Examples include crop pollination, water filtration, flood attenuation, erosion control and many others. Businesses are critically dependent on these ecosystem services to produce their goods and services and would not be able to operate without them. However, biodiversity is under severe threat globally and the private sector is one of the primary drivers of its degradation and loss.

Biodiversity is a key component of the sustainable development agenda, nationally and internationally. The Sustainable Development Goals (SDGs) prioritise the connection between environment and development by integrating sustainability in all 17 of the Global Goals. More specifically, SDG 14 “life below water” and SDG 15 “life on land” make biodiversity a top priority on the international development agenda.

Healthy ecosystems are recognised as being at the foundation of poverty reduction and sustainable development. In addition, governments around the world have adopted the Strategic Plan for Biodiversity 2011–2020. This plan and its 20 Aichi Biodiversity targets represent a roadmap towards a sustainable future and are aligned with the Sustainable Development Goals.

In 2020, the Convention on Biological Diversity will adopt a post-2020 global biodiversity framework, after an international co-construction process, as a stepping-stone towards the 2050 Vision of “Living in harmony with nature”.

South Africa’s policy and legislative framework for biodiversity is well developed, providing a strong basis for the conservation and sustainable use of biodiversity. South Africa is one of the few countries in the world to have a Biodiversity Act and a National Biodiversity Institute. Moreover, the private sector is identified as a key stakeholder for biodiversity conservation and sustainable use in South Africa’s National Biodiversity Strategy and Action Plan 2015–2025.

So how are South African businesses responding to the risks posed by their dependencies and impacts on biodiversity over the past year? How are they communicating with the public about their actions to manage this threat? Has there been any difference with our 2018 assessment?

WHAT ARE THE MAIN DRIVERS OF BIODIVERSITY LOSS?

- Land use change, directly by land intensive sectors (e.g. agriculture, real estate / property development, infrastructure, mining) and indirectly by sectors further down the supply chains (e.g. retail, manufacturing, banking, insurance);
- Invasive alien species, introduced or mismanaged, intentionally or not;
- Water use and emissions by various industries, such as energy, mining, foods and beverages, textiles, etc.; and
- Greenhouse gas emissions leading to climate change and hence changes in the distributions of species.

METHODOLOGY

To help answer these questions, the NBBN^[1] undertook a second assessment of the biodiversity performance of South African companies. This time, 320 Johannesburg Stock Exchange (JSE) listed companies^[2] and 28 state-owned enterprises were assessed. This assessment was undertaken as part of the Biodiversity Disclosure Project (BDP).

We have grouped JSE-listed companies^[3] according to the following broad sectors^[4]:

- Basic materials (sample: 48);
- Consumer staples (sample: 28);
- Consumer discretionary (sample: 32);
- Energy (sample: 7);
- Financials (sample: 63);
- Health care (sample: 9);
- Industrials (sample: 54);
- Real estate (sample: 53);
- Technology (sample: 16);
- Telecommunications (sample: 10)

Due to the significant change in sample size in 2019 (28) compared to 2018 (2), we kept SOEs as a separate, single group of reporting organisations.

This assessment was conducted in 2019 using publicly available information, including company websites and 2018 annual reports (e.g. annual integrated reports, sustainability reports). Each company was contacted electronically to offer them the opportunity to review their individual results and share any additional information if warranted.

What is biodiversity mainstreaming?

Biodiversity mainstreaming refers to the integration or incorporation of biodiversity considerations directly into the strategies and activities of business.

[1] In 2013, the Endangered Wildlife Trust (EWT) recognised that South African businesses needed assistance with the integration of biodiversity into their business activities and thus established the NBBN in partnership with the Department of Environmental Affairs, Nedbank, De Beers, Pick n Pay, Hatch, Transnet and Pam Golding Properties.

[2] 345 companies were assessed in 2018. Several companies were delisted from the JSE and were thus not assessed in 2019.

[3] Some companies were not assessed in 2018 as they were not JSE-listed at the time. Several others have since delisted for various reasons and have been excluded from the 2019 assessment.

[4] We recognise that there are different company classification systems and different ways to group companies (including those with diversified activities belonging to different sectors). We have largely used the Industry Classification Benchmark (ICB) system, used by the JSE from the 1st January 2019. However, we also recognise that not everyone will agree with our classification of individual companies.

We assessed the biodiversity mainstreaming performance of the target organisations according to eight key questions, which reflect the key steps that a company needs to follow to effectively mainstream biodiversity into its activities[5]:

- What is the biodiversity policy of the company?
- What are the biodiversity dependencies and impacts of the company?
- Does the company measure its biodiversity dependencies and impacts?
- Does the company value its biodiversity dependencies and impacts? What are the most material ones?
- Does the company have a biodiversity strategy, biodiversity targets and associated key performance indicators (KPIs)?
- Does the company have a biodiversity action plan?
- Does the company disclose its biodiversity risks and performance?
- Does the company have a biodiversity monitoring system in place for continuous improvement?

THE ANSWER SETS

There are five possible answers with corresponding scores (0 to 4) for each question. Key principles underlying the set of possible answers include the impact mitigation hierarchy[6] and no-net-loss[7] / net-gains[8] of biodiversity values.

Question 1: What is the biodiversity policy of the company?

Score 0 = No information.

Score 1 = Clear statement that explains the company's interactions with biodiversity.

Score 2 = Clear statement that explains the company's interactions with biodiversity and focuses on impact avoidance and / or minimisation.

Score 3 = Clear statement that explains the company's interactions with biodiversity and focuses on no-net-loss.

Score 4 = Clear statement that explains the company's interactions with biodiversity and focuses on net positive impacts.

Question 2: What are the biodiversity dependencies and impacts of the company?

Score 0 = No information.

Score 1 = Clear statement that explains the company's direct, material biodiversity impacts.

Score 2 = Clear statement that explains the company's direct, material biodiversity dependencies and impacts.

Score 3 = Clear statement that explains the company's material direct and indirect (suppliers, clients) biodiversity dependencies and impacts, including throughout its supply chains.

Score 4 = Clear statement that explains the company's material direct and indirect biodiversity dependencies and impacts, over the whole life cycle of products or services

[5] Biodiversity mainstreaming guidelines are available at URL: <http://bdprotocol.org/>.

[6] The mitigation hierarchy includes avoidance, minimisation, restoration or rehabilitation and offset measures, to be adhered to in that order. This means that offset measures are a "last resort" activity, after all reasonable measures have been taken first to avoid and minimize the impact of a development project and then to restore biodiversity on-site.

[7] No-Net-Loss ("NNL") refers to the point where biodiversity gains from targeted mitigation activities match the losses of biodiversity due to the impacts of a business activity or project. The type, amount and condition (or quality) of biodiversity need to be taken account.

[8] A net gain means that biodiversity gains exceed a specific set of losses.

Question 3: Does the company measure its biodiversity dependencies and impacts?

Score 0 = No information.

Score 1 = Quantified information on the company's direct, material biodiversity impacts.

Score 2 = Quantified information on the company's direct, material biodiversity dependencies and impacts.

Score 3 = Quantified information on the company's material direct and indirect biodiversity dependencies and impacts, including throughout its supply chains.

Score 4 = Quantified information on the company's material direct and indirect biodiversity dependencies and impacts, over the whole life cycle of products or services.

Question 4: Does the company value its biodiversity dependencies and impacts?

What are the most material ones?

Score 0 = No information.

Score 1 = Qualitative, quantitative and / or monetary values of direct, material biodiversity impacts.

Score 2 = Qualitative, quantitative and / or monetary values of direct, material biodiversity dependencies and impacts.

Score 3 = Qualitative, quantitative and / or monetary values of the company's material direct and indirect biodiversity dependencies and impacts, including throughout its supply chains.

Score 4 = Qualitative, quantitative and / or monetary values of the company's material direct and indirect biodiversity dependencies and impacts, over the whole life cycle of products or services.

Question 5: Does the company have a biodiversity strategy, biodiversity targets and associated KPIs?

Score 0 = No information.

Score 1 = Targets and KPIs for at least one step of the impact mitigation hierarchy.

Score 2 = Targets and KPIs for all steps of the impact mitigation hierarchy.

Score 3 = No-net-loss targets and KPIs.

Score 4 = Net positive impact targets and KPIs.

Question 6: Does the company have a biodiversity action plan?

Score 0 = No information.

Score 1 = Action plan covers at least one step of the impact mitigation hierarchy for direct, material biodiversity impacts.

Score 2 = Action plan covers all steps of the impact mitigation hierarchy for direct, material biodiversity dependencies and impacts.

Score 3 = Action plan covers all steps of the impact mitigation hierarchy for material direct and indirect biodiversity dependencies and impacts, including throughout its supply chains.

Score 4 = Action plan covers all steps of the impact mitigation hierarchy for material direct and indirect biodiversity dependencies and impacts, over the whole life cycle of products or services.

Question 7: Does the company disclose its biodiversity risks and performance?

Score 0 = No information.

Score 1 = Disclosure of the company risks and performance related to direct, material biodiversity impacts.

Score 2 = Disclosure of the company risks and performance related to direct, material biodiversity dependencies and impacts.

Score 3 = Disclosure of the company risks and performance related to material direct and indirect biodiversity dependencies and impacts, including throughout its supply chains.

Score 4 = Disclosure of the company risks and performance related to material direct and indirect biodiversity dependencies and impacts, over the whole life cycle of products or services.

Question 8: Does the company have a biodiversity monitoring system in place for continuous improvement?

Score 0 = No information.

Score 1 = Biodiversity performance monitoring system in place for direct, material biodiversity impacts.

Score 2 = Biodiversity performance monitoring system in place for direct, material biodiversity dependencies and impacts.

Score 3 = Biodiversity performance monitoring system in place for material direct and indirect biodiversity dependencies and impacts, including throughout its supply chains.

Score 4 = Biodiversity performance monitoring system in place for material direct and indirect biodiversity dependencies and impacts, over the whole life cycle of products or services.

The level of biodiversity performance shown by JSE-listed reporting organisations has increased over the period.

THE RESULTS

The 2019 biodiversity performance rating of SA companies was a very exciting and successful endeavour for the NBBN. In 2018, the company response rate was very low. 15 companies provided feedback on our initial ratings and three meetings were organised. In 2019, the company response rate significantly improved, with 36 company feedback received and 16 meetings organised.

Table 1 shows the average scores for each question in 2018 and 2019 for both JSE-listed companies and SOEs.

While the lower averages for SOEs reflect the change in sample size (from 2 to 28), average scores for JSE-listed companies have improved across all questions, though remaining below an average score of 1 (out of possible maximum average of 4), which underlines the fact that biodiversity has not been recognised as a material issue for disclosure by most SA companies.

Question 1, which pertains to company's biodiversity policy, had the highest average (0.23) while question 4, which relates to the valuation of biodiversity impacts and dependencies, had the lowest (0.03).

Nevertheless, the level of biodiversity performance shown by JSE-listed reporting organisations has increased over the period.

Table 1: Average scores for each question in 2018 and 2019

Company type	Scores: 0 (minimum) to 4 (maximum)															
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
JSE-listed companies (Sample: 343 in 2018 to 320 in 2019)	0,14	0,23	0,11	0,18	0,02	0,05	0,02	0,03	0,03	0,05	0,07	0,14	0,05	0,08	0,04	0,09
SOEs (Sample: 2 in 2018 to 28 in 2019)	0,75	0,11	0,25	0,09	0,50	0,11	0,25	0,09	0,25	0,04	1,00	0,25	0,50	0,13	0,00	0,07

Table 2 shows the percentage change in average scores over the period. The biggest increases in average scores for JSE-listed companies have occurred for questions 3 (105%), 6 (86%) and 8 (103%). As a reminder, question 3 refers to the measurement of

biodiversity dependencies and impacts, question 6 to the company's biodiversity action plans and question 8 to the company's biodiversity monitoring system. The negative percentage changes in averages for SOEs reflect the change in sample size (from 2 to 28).

Table 2: Percentage changes in average scores for each question from 2018 to 2019

Company type	Scores: 0 (minimum) to 4 (maximum)															
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
JSE-listed companies (Sample: 343 in 2018 to 320 in 2019)	64,52%		54,00%		105,33%		48,08%		58,81%		86,08%		60,42%		103,19%	
SOEs (Sample: 2 in 2018 to 28 in 2019)	-85,71%		-64,29%		-78,57%		-64,29%		-85,71%		-75,00%		-75,00%		NA (initial average of 0)	

BROAD ANALYSIS ACROSS SECTORS AND QUESTIONS IN 2019

Average scores remain all below 1 (out of a maximum possible 4) across sectors and questions. Table 3 breaks down the average 2019 scores across the different sectors as well as for each question.

While average scores overall (all questions combined) are highest for the basic materials (sample: 48) and consumer staples (sample: 28) sectors, the lowest average scores overall (all questions combined) were attributable to the consumer staples (sample: 28), financials (sample: 63), healthcare (sample: 9) and technology (sample: 16) sectors in 2019.

The latter suggests that these sectors have not yet recognised biodiversity as a material issue, which is surprising, especially for the financials sector given their financing of various projects with potentially high biodiversity risks and / or impacts.

On a more positive note, the average score for question 1 stands at 0,85 for the basic materials sector, which suggests that many companies within this sector have some form of biodiversity policy.

Table 3: Average scores broken down per sector and per question in 2019
(N = sample size of companies)

Questions	Sector											Average scores overall per question
	Basic materials	Consumer staples	Consumer discretionary	Energy	Financials	Health care	Industrials	Real estate	SOEs	Technology	Telecommunications	
	(N = 48)	(N = 28)	(N = 32)	(N = 7)	(N = 63)	(N = 9)	(N = 54)	(N = 53)	(N = 28)	(N = 16)	(N = 10)	
1. What is the biodiversity policy of the company?	0,85	0,34	0,09	0,29	0,05	0,00	0,08	0,17	0,11	0,03	0,10	0,22
2. What are the biodiversity dependencies and impacts of the company?	0,56	0,39	0,05	0,29	0,03	0,00	0,09	0,10	0,09	0,06	0,10	0,17
3. Does the company measure its biodiversity dependencies and impacts?	0,23	0,11	0,00	0,00	0,00	0,00	0,03	0,01	0,11	0,00	0,00	0,05
4. Does the company value its biodiversity dependencies and impacts? What are the most material ones?	0,17	0,00	0,00	0,00	0,00	0,00	0,01	0,03	0,09	0,00	0,00	0,04
5. Does the company have a biodiversity strategy, biodiversity targets and associated KPIs?	0,23	0,09	0,00	0,14	0,00	0,00	0,02	0,02	0,04	0,00	0,00	0,05
6. Does the company have a biodiversity action plan?	0,57	0,21	0,00	0,14	0,02	0,00	0,07	0,06	0,25	0,00	0,10	0,15
7. Does the company disclose its biodiversity risks and performance?	0,35	0,14	0,00	0,00	0,02	0,00	0,04	0,02	0,13	0,00	0,00	0,08
8. Does the company have a biodiversity monitoring system in place for continuous improvement?	0,34	0,25	0,00	0,29	0,00	0,00	0,03	0,02	0,07	0,00	0,05	0,09
Overall average score	0,41	0,19	0,02	0,14	0,01	0,00	0,05	0,05	0,11	0,01	0,04	

Looking at the average scores per question across sectors, the highest averages were found for question 1 (biodiversity policy), 2 (identification of biodiversity dependencies and impacts) and 5 (biodiversity action

plan) while the lowest were for questions 3 (impact / dependency measurement), 4 (impact / dependency valuation) and 5 (strategy, targets and KPIs).

This suggests that, for the companies that have recognised biodiversity as a material issue and are undertaking activities to address the associated risks / challenges, few have developed a comprehensive strategy (with targets and KPIs; question 5) based on a clear understanding of:

- The company's impacts / dependencies (i.e. actual measurements; question 3) and
- The importance of the latter to the business and / or its stakeholders (e.g., financial values, externality values and / or quantitative degree of threat values; question 4).

Many companies within the materials sector have some form of biodiversity policy.

ANALYSIS PER SECTOR AND BEST PRACTICES

Table 4 shows individual company scores for the basic materials sector. The highest scoring questions are questions 1 (biodiversity policy), 2 (identification of biodiversity dependencies and impacts) and 6 (action plan) in 2019.

The top scoring companies (by alphabetical order) are:

- African Rainbow Minerals Limited
- Anglo American PLC / Anglo American Platinum Limited
- Assore Limited
- BHP Group PLC
- Glencore PLC
- Gold Fields Limited
- Harmony Gold Mining Company Limited
- Impala Platinum Holdings Limited
- Mondi Limited / Mondi PLC
- Sibanye Gold Limited

While this the sector with the highest average scores of all the sectors, there was very little information on company's actual impacts and / or dependencies on biodiversity (question 3), including for the best scoring companies.

Table 4: Average scores broken down per company and per question in 2019 for the basic materials sector (N = 48 companies)

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
AFRICAN OXYGEN LIMITED	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0
AFRICAN RAINBOW MINERALS LIMITED	2,5	2,5	1	1	1	1	1	1	0,5	0,5	2	2	1	1	1	1
AFRIMAT LIMITED	1	1	0,5	0,5	0	0	0	0	0	0	1	1	0	1	0	0
ALPHAMIN RESOURCES CORPORATION	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0
ANDULELA INVESTMENT HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANGLO AMERICAN PLC / ANGLO AMERICAN PLATINUM LIMITED	4	4	1	3	0	0,5	0	0	3,5	3,5	2	2	1	1	1	1,5
ANGLOGOLD ASHANTI LIMITED	1	0,5	0	0	0	0	0	0	0,5	0	1	1	1	0,5	1	0,5
ASSORE LIMITED	0	2	0	1	0	0,5	0	1	0	0	0	1	0	0,5	0	0,5
ATLATSIA RESOURCES CORPORATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BAUBA RESOURCES LIMITED	1	0,5	1	0,5	0	0	0	0	0	0	0	0	0	0	0	0
BHP GROUP PLC	2,5	2	1	1	0	0	0	0	1	1	1	2	0	1	1	1
BUFFALO COAL CORPORATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHROMETCO LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DRDGOLD LIMITED	0,5	1	0,5	1	0,5	1	0	0	0	0	0	1	0	1	0	1
EASTERN PLATINUM LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EUROPA METALS LIMITED		0		0		0		0		0		0		0		0
EXXARO RESOURCES LIMITED	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0
GEMSFIELD GROUP LIMITED		2		1		0		0		1		0		0		0
GLENCORE PLC	2	2	1	1	0,5	0,5	0	0	0	0	1	1	0	0	0,5	0,5
GOLD FIELDS LIMITED	2	2	1	1	0,5	0,5	0	1	0	0,5	2	2	0,5	1	1	1
HARMONY GOLD MINING COMPANY LIMITED	2	4	1	1	0	0	0,5	0,5	0	0	1	1	1	2	1	1
HULAMIN LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IMPALA PLATINUM HOLDINGS LIMITED	2	2	1	1	0,5	0,5	0	0	0,5	0,5	1	1	1	1	1	1
INSIMBI INDUSTRIAL HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUBILEE METALS GROUP PLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KIBO ENERGY PLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KORE POTASH PLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MC MINING LIMITED	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
MERAFE RESOURCES LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONDI LIMITED / MONDI PLC	0	2	2	2	0,5	0,5	1	1	0,5	1	1	1	1,5	1,5	1	2
NORTHAM PLATINUM LIMITED	0	1	0	1	0	1	0	0	0	0	1	1	1	1	1	1
OMNIA HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORION MINERALS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAN AFRICAN RESOURCES PLC	0	0	0	0	0	0	0,5	0,5	0	0	0	0	0	0	0	0
RANDGOLD & EXPLORATION COMPANY LIMITED	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
RESOURCE GENERATION LIMITED	0	0	1	1	1	1	1	1	0	0	0	0	1	1	0	0
ROLFES HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROYAL BAFOKENG PLATINUM LIMITED	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0
SAPPI LIMITED	0	2	2	2	0	1	0	0	0	0	1	1	1	1	1	1
SIBANYE GOLD LIMITED	0	2	0	1,5	0	0,5	0	1	0	1,5	0	1,5	0	0,5	0	1,5
SOUTH32 LIMITED	0	1	1	1	0	0,5	0	0	0	0	0	2	0,5	0,5	0	0,5
SPANJAARD LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THARISA PLC	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0
TRANS HEX GROUP LIMITED	0	0,5	0	0,5	0	0	0	0	0	0	0	0	0	0	0	0
UNICORN CAPITAL PARTNERS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESCOALHOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESIZWE PLATINUM LIMITED	0	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0
YORK TIMBER HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0,5	0,5	1	1	0,5	0,5	0,5	0,5
Average scores per question & year	0,58	0,85	0,41	0,56	0,12	0,23	0,11	0,17	0,17	0,23	0,41	0,57	0,26	0,35	0,26	0,34
Percentage change in average scores from 2018 to 2019	48,27%		36,18%		91,67%		53,33%		31,77%		38,71%		35,76%		31,77%	

Table 5 shows individual company scores for the consumer staples sector.

The highest scoring questions are questions 1 (biodiversity policy), 2 (identification of biodiversity dependencies and impacts) and 8 (monitoring system) in 2019.

The top scoring companies (by alphabetical order) are

- Avi Limited
- British American Tobacco PLC
- Crookes Brothers Limited
- Sea Harvest Group Limited
- Woolworths Holdings Limited

Table 5: Average scores broken down per company and per question in 2019 for the consumer staples sector (N = 28 companies)

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8								
AH-VEST LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANHEUSER-BUSCH INBEV SA/NV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASTRAL FOODS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AVI LIMITED	0,5	1	2	2	0	2	0	0	0	0	1	0	0	0	0	1
BID CORPORATION LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRITISH AMERICAN TOBACCO PLC	0	2	0	2	0	0	0	0	0	0,5	0	2	0	0,5	0	2
CASHBUILD LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHOPPIES ENTERPRISES LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLICKS GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOVER INDUSTRIES LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CROOKES BROTHERS LIMITED	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0
DISTELL HOLDINGS GROUP LIMITED	0,5	0,5	0,5	0,5	0	0	0	0	0	0	0	0	0	0	0	0
LIBSTAR HOLDINGS LIMITED		0		0		0		0		0		0		0		0
MASSMART HOLDINGS LIMITED	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
MR PRICE GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUTRITIONAL HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCEANA GROUP LIMITED	0	0	0,5	0,5	0	0,5	0	0	0	0	0	0	0,5	0,5	0,5	0,5
PICK N PAY STORES LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PIONEER FOOD GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PREMIER FISHING AND BRANDS LIMITED	0	0	0,5	0,5	0,5	0,5	0	0	0	0	0	0	0	0	0	0
QUANTUM FOODS HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
RCL FOODS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RHODES FOOD GROUP HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEA HARVEST GROUP LIMITED	1	1	0,5	0,5	0	0	0	0	0	0	0	0	0	0	0,5	0,5
SHOPRITE HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THE SPAR GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIGER BRANDS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WOOLWORTHS HOLDINGS LIMITED	0	2	0,5	3	0	0	0	0	0	1	0,5	1	0	3	0	3
Average scores per question & year	0,15	0,34	0,20	0,39	0,02	0,11	0,00	0,00	0,00	0,09	0,02	0,21	0,02	0,14	0,04	0,25
Percentage change in average scores from 2018 to 2019	129,02%		92,86%		478,57%		0,00%		NA (initial average of 0)		1057,14%		671,43%		575,00%	

Table 7 shows individual company scores for the energy sector, which scored poorly overall. Only Sasol limited showing positive levels of biodiversity mainstreaming with relatively high scores for questions 1 (biodiversity policy), 2 (identification of biodiversity dependencies and impacts) and 8 (monitoring systems) in 2019.

Yet, energy companies can have significant biodiversity impacts, notably directly through their footprints and indirectly through greenhouse gas emissions which are responsible for changes in ecosystem extent and composition (e.g., loss of mountain fynbos habitats in the Western Cape due to rising temperatures).

Table 7: Average scores broken down per company and per question in 2019 for the energy sector (N = 7 companies)

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
AEP ENERGY AFRICA LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EFORA ENERGY LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HULISANI LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONTAUK HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OANDO PLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RENERGEN LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SASOL LIMITED	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	2
Average scores per question & year	0,00	0,29	0,00	0,29	0,00	0,00	0,00	0,00	0,00	0,14	0,00	0,14	0,00	0,00	0,00	0,29
Percentage change in average scores from 2018 to 2019	NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)	

Table 8 shows individual company scores for the financials sector, which scored poorly overall.

There is no real leader from a biodiversity perspective in this sector yet, though a few companies do have some positive scores for questions 1 (biodiversity policy) and 2 (identification of biodiversity dependencies and impacts).

This lack of recognition of biodiversity risks by the financials sector is worrying, since biodiversity loss is enabled through the financing of companies and projects with negative impacts on biodiversity.

Table 9 shows individual company scores for the health care sector, which scored poorly overall. There is no real leader from a biodiversity perspective in this sector yet, as all scored 0 in 2019, giving the impression that biodiversity has not yet been recognised as a material issue in this sector.

Yet, there is growing evidence worldwide of the impacts of the broader health care industry on biodiversity, such as that of pharmaceutical waste and wastewater on freshwater ecosystems.

Table 9: Average scores broken down per company and per question in 2019 for the health care sector (N = 9 companies)

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
ADCOCK INGRAM HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ADVANCED HEALTH LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AFROCENTRIC INVESTMENT CORPORATION LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASCENDIS HEALTH LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASPEN PHARMACARE HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GO LIFE INTERNATIONAL LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIFE HEALTHCARE GROUP HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MEDICLINIC INTERNATIONAL PLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETCARE LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average scores per question & year	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Percentage change in average scores from 2018 to 2019	NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)	

Table 10 shows individual company scores for the industrials sector. The highest scoring questions are questions 1 (biodiversity policy), 2 (identification of biodiversity dependencies and impacts) and 6 (action plan) in 2019, though average scores remain very low overall.

The top scoring companies (by alphabetical order) are

- AECL Limited
- CALGRO
- M3 Holdings Limited

- ELLIES Holdings Limited
- KAP Industrial Holdings Limited
- Stefannutti Stocks Holdings Limited

Yet, there was no information on company's actual impacts and / or dependencies on biodiversity (question 3), including for the best scoring companies.

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
PPC LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRIMESERV GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PSV HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RAUBEX GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
REUNERT LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SANTOVA LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEPHAKU HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH OCEAN HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STEFANUTTI STOCKS HOLDINGS LIMITED	0	0	1	1	0	0,5	0	0	0	0	0	0	1	1	0	0
SUPER GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THE BIDVEST GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRANSPACO LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRELLIDOR HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRENCOR LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VALUE GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WILSON BAYLY HOLMES-OVCON LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average scores per question & year	0,07	0,08	0,07	0,09	0,01	0,03	0,01	0,01	0,02	0,02	0,04	0,07	0,03	0,04	0,01	0,03
Percentage change in average scores from 2018 to 2019	12,50%		25,00%		200,00%		0,00%		0,00%		100,00%		33,33%		200,00%	

Table 11 shows individual company scores for the real estate sector. The highest scoring questions are questions 1 (biodiversity policy), 2 (identification of biodiversity dependencies and impacts) and 6 (action plan) in 2019, though average scores remain very low overall.

The top scoring companies (by alphabetical order) are:

- ATTACQ Limited
- EMIRA Property Fund Limited
- Fortress REIT Limited

Biodiversity impacts and dependencies constitute material risks for South African companies

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8								
RDI REIT PLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REBOSIS PROPERTY FUND LIMITED	0	0,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REDEFINE PROPERTIES LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESILIENT REIT LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SA CORPORATE REAL ESTATE LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SAFARI INVESTMENTS (RSA) LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SCHROBER EUROPEAN REAL ESTATE INVESTMENT TRUST PLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SIRIUS REAL ESTATE LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPEAR REIT LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STENPROP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STOR-AGE PROPERTY REIT LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TEXTON PROPERTY FUND LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOWER PROPERTY FUND LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRADEHOLD LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRANSCEND RESIDENTIAL PROPERTY FUND LTD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VUKILE PROPERTY FUND LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average scores per question & year	0,10	0,17	0,06	0,10	0,00	0,01	0,00	0,03	0,02	0,02	0,02	0,06	0,02	0,02	0,00	0,02
Percentage change in average scores from 2018 to 2019	73,21%		76,42%		NA (initial average of 0)		NA (initial average of 0)		-3,77%		188,68%		-3,77%		NA (initial average of 0)	

Table 12 shows individual company scores for SOEs. The highest scoring questions are questions 6 (action plan) and 7 (disclosure) in 2019, though average scores remain very low overall.

The top scoring companies (by alphabetical order) are:

- Eskom
- South African National Parks
- Transnet

There has been a lot of progress in the development of quantitative metrics to assess net impacts and target achievements

Table 12: Average scores broken down per company and per question in 2019 for SOEs (N = 28 companies)

SOE names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8								
AIRPORTS COMPANY SOUTH AFRICA		0		0		0		0		0		0		0		0
ALEXKOR LIMITED		0		0		0		0		0		0		0		0
ARMAMENTS CORPORATION OF SOUTH AFRICA		0		0		0		0		0		0		0		0
DENEL (PTY) LTD		0		0		0		0		0		0		0		0
DEVELOPMENT BANK OF SOUTHERN AFRICA		0		0		0		0		0		0		0		0
ESKOM	1	0,5	0	0	1	1	0,5	0,5	0	0	1	1	1	1	0	0
FREE STATE DEVELOPMENT CORPORATION		0		0		0		0		0		0		0		0
GOVERNMENT EMPLOYEES PENSION FUND		0		0		0		0		0		0		0		0
HOUSING DEVELOPMENT AGENCY		0		0		0		0		0		0		0		0
INDUSTRIAL DEVELOPMENT CORPORATION		0		0		0		0		0		0		0		0
INDEPENDENT DEVELOPMENT TRUST		0		0		0		0		0		0		0		0
INGONYAMA TRUST BOARD		0		0		0		0		0		0		0		0
ITHALA DEVELOPMENT FINANCE CORPORATION		0		0		0		0		0		0		0		0
KHULA ENTERPRISE FINANCE		0		0		0		0		0		0		0		0
LAND BANK AND AGRICULTURAL BANK OF SOUTH AFRICA		0		0		0		0		0		0		0		0
NATIONAL DEVELOPMENT AGENCY		0		0		0		0		0		0		0		0
NATIONAL PORTS AUTHORITY		0		0		0		0		0		0		0		0
PASSENGER RAIL AGENCY OF SOUTH AFRICA		0		0		0		0		0		0		0		0
PETROSA (PTY) LTD		0		0		0		0		0		0		0		0
PUBLIC INVESTMENT CORPORATION		0		0		0		0		0		0		0		0
RAND WATER		0		0		0		0		0		1		0		0
SOUTH AFRICAN AIRWAYS		0		0		0		0		0		1		0		0
SOUTH AFRICAN FORESTRY COMPANY (LTD)		0		0		0,5		0		0		0		0		0
SOUTH AFRICAN LOCAL GOVERNMENT ASSOCIATION		0		0		0		0		0		1		0		0
SOUTH AFRICAN NATIONAL PARKS		2		2		1		2		1		1		2		2
SOUTH AFRICAN NATIONAL ROAD AGENCY		0		0,5		0,5		0		0		1		0,5		0
SOUTH AFRICAN POST OFFICE		0		0		0		0		0		0		0		0
TRANSNET (LTD)	0,5	0,5	0,5	0	0	0	0	0	0,5	0	1	1	0	0	0	0
Average scores per question & year	0,75	0,11	0,25	0,09	0,50	0,11	0,25	0,09	0,25	0,04	1,00	0,25	0,50	0,13	0,00	0,07
Percentage change in average scores from 2018 to 2019	-85,71%		-64,29%		-78,57%		-64,29%		-85,71%		-75,00%		-75,00%			NA (initial average of 0)

Table 13 shows individual company scores for the technology sector. Average scores remain very low overall and there is no real leader from a biodiversity perspective in this sector, giving the impression that biodiversity has not yet been recognised as a material issue in this sector.

However, there is growing evidence worldwide of biodiversity loss enabled and / or caused by technology, for instance through resource extraction in its supply chains.

Table 13: Average scores broken down per company and per question in 2019 for technology sector (N = 16 companies)

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
ADAPT IT HOLDINGS LIMITED	0,5	0,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ALARIS HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ALLIED ELECTRONICS CORPORATION LIMITED	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
ALVIVA HOLDINGS LIMITED	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
AYO TECHNOLOGY SOLUTIONS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPITAL APPRECIATION LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COGNITION HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DATATEC LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EOH GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ETION LIMITED		0		0		0		0		0		0		0		0
ISA HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JASCO ELECTRONICS HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUSTEK LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NASPERS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBT GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SETABA HOLDINGS LIMITED		0		0		0		0		0		0		0		0
Average scores per question & year	0,04	0,03	0,14	0,06	0,07	0,00	0,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Percentage change in average scores from 2018 to 2019	-12,50%		-56,25%		-100,00%		-100,00%		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)	

Finally, table 14 shows individual company scores for the telecommunications sector. As for the technology sector, average scores remain very low overall and there is no real leader from a biodiversity perspective in this sector yet.

The telecommunications sector should also recognise biodiversity as a material issue, not only to address supply chain and infrastructure risks but also to promote pro-biodiversity efforts.

Table 14: Average scores broken down per company and per question in 2019 for telecommunications sector (N = 10 companies)

Company names	Scores (0 to 4)															
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
	Question 1		Question 2		Question 3		Question 4		Question 5		Question 6		Question 7		Question 8	
AFRICAN MEDIA ENTERTAINMENT LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BLUE LABEL TELECOMS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAXTON AND CTP PUBLISHERS AND PRINTERS LTD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMEDIA HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HUGE GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MTN GROUP LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SILVERBRIDGE HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TELEMASTERS HOLDINGS LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TELKOM SA SOC LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VODACOM GROUP LIMITED	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0,5
Average scores per question & year	0,00	0,10	0,00	0,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,10	0,00	0,00	0,00	0,05
Percentage change in average scores' from 2018 to 2019	NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)		NA (initial average of 0)	

Recent calls by academia and business have shifted focus towards processes that consider net outcomes for biodiversity

BIODIVERSITY DISCLOSURE

Biodiversity disclosure should cover the biodiversity risks, impacts/dependencies, targets, and performance of your business and/or its value chain, as per its strategy.
Ensuring transparency and verifiability of the disclosed data is crucial for both internal and external stakeholders.

DISCUSSIONS AND CONCLUSIONS

The results of the 2019 corporate biodiversity performance rating highlight several key gaps with regards to biodiversity risk and performance disclosure amongst businesses in South Africa. Despite some leadership from a small number of companies and overall positive progress from 2018 to 2019, for the majority of the companies assessed, there is still an urgent need for:

- Recognition of the importance of biodiversity to business and its stakeholders;
- Understanding of business-biodiversity dependencies and impacts and the associated benefits / assets and costs / liabilities;
- Knowledge of how to recognise, measure, value, and responsively manage the direct and indirect dependencies and impacts on biodiversity; and
- Understanding of how to report on corporate biodiversity performance in a structured and standardised manner.

As shown recently by Addison et al. (2018)[1], in their assessment of the top 100 of the 2016 Fortune 500 Global companies' sustainability reports, 49 companies mentioned biodiversity in their reports, and 31 made clear biodiversity commitments, of which only five were specific, measurable, and time bound. A variety of biodiversity-related activities were mentioned (e.g., managing impacts, restoring biodiversity, and investing in biodiversity) (i.e. narratives), but only nine companies provided quantitative indicators to verify the magnitude of their activities (e.g., area of habitat restored).

Yet, these quantitative estimates of beneficial activities for biodiversity are never compared to the quantified magnitude of negative impacts on biodiversity that these companies generate.

Moreover, it must be noted that while corporate disclosure of biodiversity impacts and dependencies remains limited, there has been increasing efforts by the corporate sector to quantify their impacts and achieve targets of no net loss or a net gain of biodiversity. This has been driven by standards set by the finance sector, including the International Finance Corporations Performance Standard 6, as well as national legislations and policies. This information however remains buried in monitoring reports that are rarely disclosed or fed into corporate level reporting.

Fortunately, recent calls by academia[2] and business[3] have tried to shift the attention or focus "away from conservation targets that focus on avoiding losses towards processes that consider net outcomes for biodiversity." Within the context of the Post 2020 Biodiversity Framework, this means adopting the mitigation hierarchy at the corporate level[4], building on site-based net impact approaches (e.g., No-net-loss and net positive impact targets for a project). This would involve target-setting (a) processes which formally adopt / apply the steps of the mitigation hierarchy (avoid, minimise, restore, offset) and (b) outcomes which explicitly refer to net biodiversity impact key performance indicators.

[1] Addison, P.F.E., Bull, J.W. and Milner-Gulland, E.J. (2018). Using conservation science to advance corporate biodiversity accountability. *Conservation Biology*. <https://doi.org/10.1111/cobi.13190>.

[2] Bull, J.W., Milner-Gulland, E.J., Addison, P.F.E. et al. Net positive outcomes for nature. *Nat Ecol Evol* (2019) doi:10.1038/s41559-019-1022-z

[3] de Silva, G.C., Regan, E.C., Pollard, E., Addison, P.F.E. The evolution of corporate no net loss and net positive impact biodiversity commitments: Understanding appetite and addressing challenges. *Bus Strat Env*. 2019; 28: 1481– 1495. <https://doi.org/10.1002/bse.2379>

[4] URL: <https://www.cbd.int/doc/strategic-plan/Post2020/postsbi/biodiversity1.pdf>

Yet, while there has been a lot of progress in the development of quantitative metrics to assess net impacts and target achievements at the site or project level, corporate level reporting on these elements remains a challenge, in part due to a lack of agreed and standardised measurement approaches and accounting framework to consolidate this information at corporate level. This is why the NBBN has been working on the development of the Biological Diversity Protocol (BD Protocol) (Box 1).



BOX 1: INTRODUCING THE BD PROTOCOL

The BD Protocol is an accounting framework compatible with the measurement approaches that use primary and secondary biodiversity data. It is currently in draft and is being finalised following stakeholder feedback[5]. The BD Protocol is also compatible with the Natural Capital Protocol[2] and shares a similar intent as the Greenhouse Gas (GHG) Protocol which was developed to drive consistency in the development of GHG emissions inventories for disclosure purposes.

Based on the mitigation hierarchy (hence compatible with legislative requirements related to protected species and habitats) and core accounting and reporting principles (e.g. ecological equivalency, accuracy, transparency), it aims to provide biodiversity information users with the reasonable confidence that a company's biodiversity disclosure (e.g., impacts and performance) can be/has been verified on the ground, in line with many other environmental disclosure mechanisms (e.g. GRI and CDP).

The BD Protocol is based on the assumption that, for any impact accounting framework to present a complete and accurate representation of the net consequences of an organisation, it must be able to account for both periodic (e.g. annual) and historical (e.g. since the start of a business) performance. This is the case with financial accounting and reporting, which uses double-entry bookkeeping (DEBK) to produce Statements of Financial Position and Performance (i.e. Balance Sheet and Profit/Loss Statement).

To help provide a comprehensive audit trail of the biodiversity impacts of an organisation, the BD Protocol embraces an accounting framework that is based on a biodiversity impact inventory (similar to a GHG emissions inventory) and enables the measurement of net impacts over time. This involves the development of biodiversity accounts which record and allow the monitoring of both periodic and accumulated changes in biodiversity (for both impacts on ecosystems and species). The BD Protocol adapts DEBK to that end. Accounting for biodiversity impacts revolves around the following equations:

- Statement of Biodiversity Position: (A) total biodiversity impacts (i.e. biodiversity assets or stocks) = (B) accumulated positive impacts + (C) accumulated negative impacts;
- Statement of Biodiversity Performance: (E) net biodiversity impacts over the accounting period = (F) periodic positive impacts or gains - (G) periodic negative impacts or losses.

The NBBN recognises that public and private South African companies are already subject to onerous mandatory and voluntary disclosure requirements (e.g. KING IV), including reporting on the impacts of business on our natural world (e.g. GRI Standards, CDP questionnaires). Yet there is a need for reporting organisations to improve the disclosure of their impacts and dependencies on biodiversity specifically, as opposed to simply assuming it is covered under the broader sustainability agenda.

Biodiversity impacts and dependencies constitute material risks for South African companies and should be recognised as such urgently given the growing biodiversity crisis.

If not addressed, these risks could ultimately threaten their going concern. By measuring their biodiversity impacts / dependencies and valuing their importance to their business and its stakeholders, companies would be positioning themselves to manage biodiversity risks more effectively.

By displaying transparency on their biodiversity performance, companies would provide stakeholders with the evidence needed to make informed decisions.

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