



MEASURE

STEP 3:

BIODIVERSITY MAINSTREAMING INTO BUSINESS IN SOUTH AFRICA



Key questions to consider

For shareholders:

What is the extent of key biodiversity dependencies and impacts inherent to your investment and the associated risks/exposure?

For the CEO and the board:

What is the scale of the main biodiversity dependencies and impacts of your business and its value chain? What are the trends? Are you reporting appropriately to stakeholders?


For environmental and sustainability managers:

Do you compile and maintain a biodiversity impact inventory across the value chain in which your company operates?

For the financial sector:

Has your client measured the extent of their key biodiversity impacts and dependencies?

**MEASURE THE
MATERIAL
BIODIVERSITY
DEPENDENCIES
AND IMPACTS OF
YOUR BUSINESS**

Key:
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for more information 



Key messages

- Biodiversity measurement deals with assessing the scale or extent of dependencies and impacts;
- It concerns the two first components of the biodiversity impact pathway, i.e. drivers of biodiversity change and actual biodiversity changes;
- Defining the objectives of the assessment of the material biodiversity impacts and/or dependencies – if your business requires considering various issues – notably the business application and your target audiences;
- Scoping an assessment requires careful considerations of various technical and planning issues;
- The Biological Diversity Protocol addresses the gap in standardised measurement guidance for consolidated corporate level performance disclosure.

Once you have identified the potentially material biodiversity dependencies and impact drivers of your business across its value chain (Step 2 of the biodiversity mainstreaming guidelines), it is important to ask yourself about the scale or extent of the associated interactions with biodiversity. This document introduces you to the key concepts and approaches to measure the biodiversity dependencies and impacts of your business.

This step precedes Step 4, which introduces biodiversity valuation, the process of assessing the importance of biodiversity dependencies and impact to your business and its stakeholders toward making an informed decision in Step 5.

What is biodiversity dependency and impact measurement?

As explained in Step 2 of the biodiversity mainstreaming guidelines, the biodiversity impact pathway involves three main sequential components (Figure 3.1):

- **Component 1:** Drivers of biodiversity changes, which can be business inputs and/or outputs or dependencies;
- **Component 2:** Changes in biodiversity, i.e. actual biodiversity impacts; and
- **Component 3:** Impacts on business and its stakeholders.

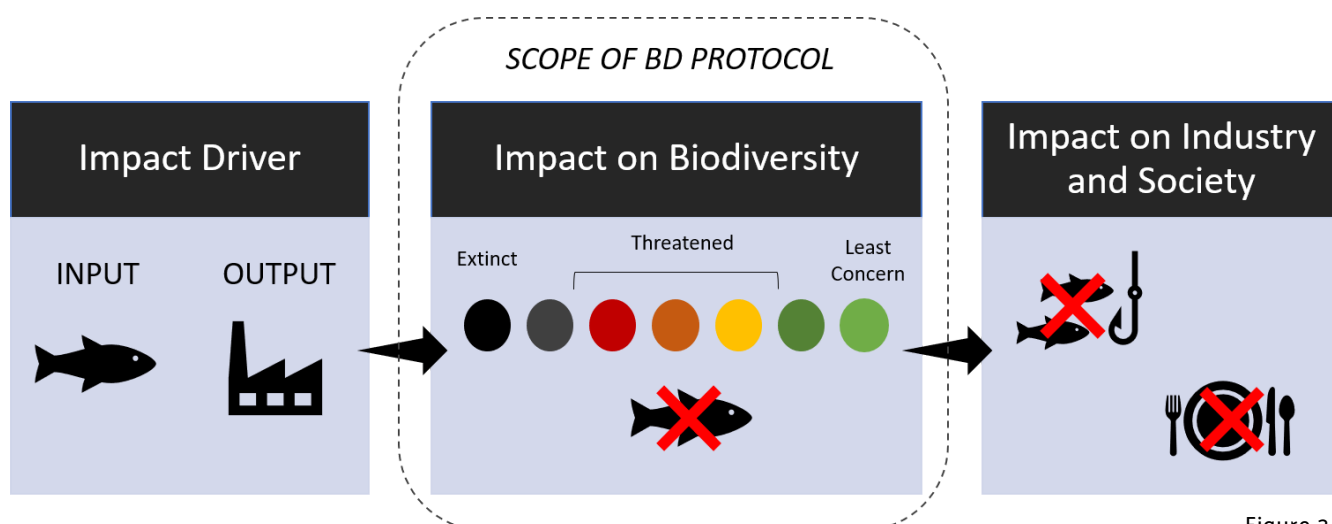


Figure 3.1:

The biodiversity impact pathway: impact drivers, impacts on/changes in biodiversity and impacts on industry and society.

Measurement involves assessing how much biodiversity is being used or impacted on by your business: i.e. the process of determining the amounts, extent and condition of biodiversity components with which your company interacts. Measurement therefore concerns the first two components of the biodiversity impact pathway, the last involving valuation of biodiversity impacts and dependencies (see Step 4 of the biodiversity mainstreaming guidelines).

This involves measuring the scale or extent of:

- Drivers of biodiversity changes (component 1 of the impact pathway), and/or
- Biodiversity impacts in themselves (component 2 of the impact pathway).

Many companies are already familiar with measuring the scale or extent of their drivers of biodiversity change, especially business inputs (e.g. water use, biological resource harvest) and outputs (e.g. water emissions).

Current gaps lie in measuring:

- Biodiversity dependencies, i.e. your business' use of various services supplied by biodiversity (e.g., pollination services, water purification);
- The actual impacts on biodiversity, including on genetic diversity, species and their habitats.

What process should you follow to undertake a biodiversity assessment?

You may undertake a biodiversity dependency and/or impact assessment for a wide range of business applications, from risk screening (e.g. biodiversity exposure of investment portfolio) to compliance and disclosure. Scoping such an assessment would depend on various aspects, including but not limited to:

- Your organisational focus, i.e. assessment of a project, a product/service and/or the whole company.
- Your target audience(s), i.e. who you would like to convince or influence;

- Your available resources, both in terms of human and financial capital;
- The availability of biodiversity-related data.

Measuring the potentially material biodiversity dependencies and impacts of your business (see Step 2 of the biodiversity mainstreaming guidelines) would typically involve:

- **Firstly**, to define the objectives of your assessment, according to your business context, target audience(s) and stakeholders;
- **Secondly**, to scope your assessment, including the determination of the organisational focus, organisational and value chain boundaries, and the consideration of various technical (e.g. baseline, scenarios) and planning (e.g. stakeholder engagement, budget, recruitment of specialists) issues;



- Finally, to undertake the assessment, including the mapping of your activities against the impact drivers and/or dependencies, defining the appropriate measurement indicators, selecting the appropriate measurement methods and eventually collecting data.

Measuring impact drivers and dependencies

As explained by the Natural Capital Protocol, selecting the right indicators for measuring impact drivers and dependencies requires careful consideration, as these should be used as part of the company's biodiversity strategy (e.g. to monitor or disclose performance, value biodiversity impacts and dependencies) and hence enhance the business case for biodiversity conservation and sustainable use.



Measurement indicators can either be qualitative or quantitative:

- **Qualitative** indicators may be based on professional judgment and can be informed by the opinions of stakeholders. Qualitative measures may involve a subjective assessment of high, medium, or low, or other defined criteria.
- **Quantitative** indicators are typically in physical units, such as the amount of different pollutants emitted (e.g. tons) or the amount of resources consumed (m³ water, ha of habitat), or a rate of consumption over the duration of a project (m³/day).

Other aspects to consider include whether:

- Data are available internally (within the company), publicly, or commercially;
- They involve direct measurement (e.g. actual mapping of land use change in ha in the supply chain) or the use of a proxy (e.g. extrapolating land use change from the amounts of resource purchased using environmental databases);

Indeed, there are many approaches, methodologies and tools available for measurement.

The Endangered Wildlife Trust (EWT) and the Natural Capital Coalition – of which the EWT is a regional partner – are working actively towards providing guidance on why and how to include biodiversity in broader natural capital assessments.

Introducing the Biological Diversity Protocol

The Biological Diversity Protocol (BD Protocol) aims to address the gap in standardised measurement guidance for consolidated biodiversity impact disclosure at the corporate level. The BD Protocol is an output of the Biodiversity Disclosure Project (BDP), managed by the National Biodiversity and Business Network (NBBN) of South Africa and hosted by the EWT.

In close collaboration with a wide range of stakeholders, the BD Protocol aims to enable any private or public organisation to identify, measure, manage and report on their impacts on biodiversity in a standardised, comparable, credible and unbiased manner.

It helps provide biodiversity-specific guidance to measuring changes in the state of natural capital (Step 6 of the Natural Capital Protocol), by providing standardised guidance on how to measure change(s) in biodiversity components impacted by business.

An international consultation process over the BD Protocol has recently taken place. Managed by the EWT and hosted by the Natural Capital Coalition through Collaborase, this lasted for three months until August 15, 2019, after which all comments, questions and contributions were collected, analysed and summarised in a stakeholder feedback report for public release in late 2019/early 2020.

The BD Protocol has now been launched and is freely available on www.nbbnbdp.org with case studies showing its implementation.



Measuring biodiversity impacts according to the BD Protocol

The BD Protocol is the key tool to help businesses measure and consolidate their biodiversity impacts at the level of the whole organisation.

The draft BD protocol currently provides guidance on:

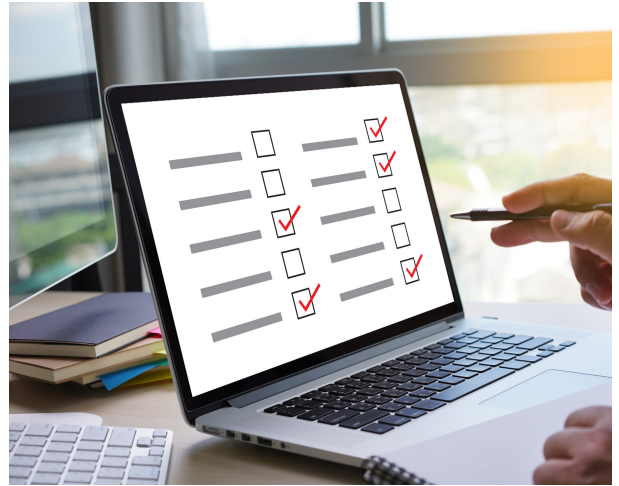
- The setting of value chain boundaries;
- The identification and determination of material biodiversity impacts;
- The development of a biodiversity impact inventory and the management of its quality;
- The application of the impact mitigation hierarchy;
- The assessment of impacts on biodiversity;
- Record keeping of biodiversity impacts and their consolidation through the biodiversity accounting framework;
- Accounting for biodiversity gains and losses over time;
- Validation and verification of net impact assessment;
- The reporting and disclosure of net biodiversity impacts.



Material impacts according to the BD Protocol

After selecting the organisational and value chain boundaries of your impact assessment, the BD Protocol recommends that your business measures:

- All its impacts on land cover (habitats), a relatively good proxy of biodiversity status, as it will enable your company to assess its biodiversity footprint, the headline key performance indicator for reporting or disclosure purposes;
- Only its impacts on species that are important to its internal and/or external stakeholders.



National Biodiversity and Business Network

The National Biodiversity and Business Network (NBBN) recognises the importance of biodiversity to business and builds the capacity of business to act as a positive force for the conservation of biodiversity in South Africa. The natural environment plays an important role in the value chain of any business. We work with innovative business leaders to identify and manage the business risks and opportunities that result from their interactions with the natural world.

We provide a platform for businesses to proactively engage with each other and discover solutions that lead to sustainable business growth and many exciting business opportunities such as new sources of revenue and the opportunity to reduce production costs.

We achieve this through the following projects:

- Biodiversity Disclosure Project
- Biological Diversity Protocol
- Mainstreaming Biodiversity into Business Toolkit

