

# Launch webinar | MEB's report N°49

## Global Biodiversity Score: Accounting for positive and negative impacts throughout the value chain

February 1<sup>st</sup>, 2024, 14:00-15:00 CET



Help us spread the publication

**#GlobalBiodiversityScore**

Don't forget to tag **@CDC Biodiversité**

# Agenda

<b>13:45 – 14:00</b>	<i>Waiting room for participants</i>	
<b>14:00 – 14:05</b>	<b>Welcoming participants</b> – Opening of the webinar and agenda	<b>Arthur Campredon</b> <i>Biodiversity Footprint Director</i> CDC Biodiversité
<b>14:05 – 14:15</b>	<b>Foreword</b> – Biodiversity footprinting in the international and regulatory landscapes: towards bending the curve of biodiversity loss	<b>Patrick de Cambourg</b> <i>Chair of the Sustainability Reporting Board</i> EFRAG
<b>14:15 – 14:20</b>	<b>Welcoming words</b> – Overview of CDC Biodiversité and its biodiversity footprinting work in a changing landscape	<b>Arthur Campredon</b> CDC Biodiversité
<b>14:20 – 14:40</b>	<b>Presentation of the publication content</b> – Overview and focus: mapping of biodiversity impact measurement tools, LEAP approach and positive, reduced and avoided impacts on biodiversity	<b>Joshua Berger</b> <i>Senior Advisor to the Biodiversity Footprint Direction</i>  <b>Elisa Magueur</b> <i>B4B+Club Project Officer</i>  CDC Biodiversité
<b>14:40 – 14:50</b>	<b>Case study</b> – Assessing Vattenfall's biodiversity footprint and setting science-based targets with the GBS	<b>Josefin Blanck</b> <i>Director Environmental Strategic Projects</i> Vattenfall
<b>14:50 – 15:00</b>	Closing words – Join CDC Biodiversité's ecosystem on biodiversity footprinting	<b>Claire Blery</b> <i>Head of the B4B+ Club &amp; training team</i> CDC Biodiversité





## Launch webinar | New GBS report

February 1, 2024

# Foreword

Patrick de Cambourg  
Chair of the EFRAG  
Sustainability Reporting Board



# Welcoming words



Arthur Campredon

Biodiversity Footprint Director  
CDC Biodiversité



## Launch webinar | New GBS report

February 1, 2024



# Presentation of the publication content

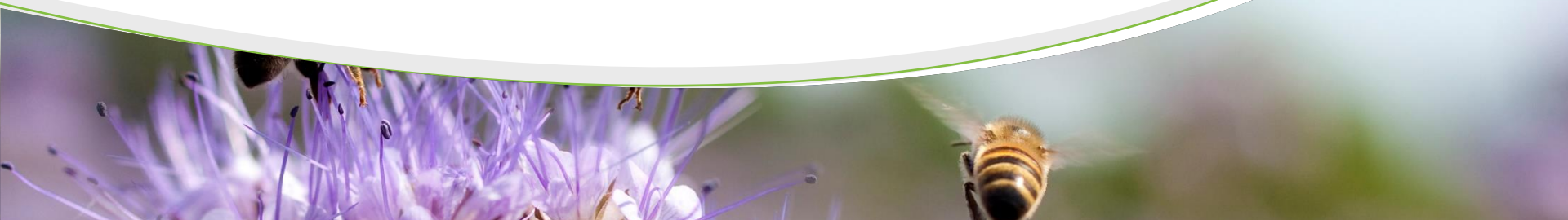
Overview and focus: mapping of biodiversity impact measurement tools, LEAP approach and positive, reduced and avoided impacts on biodiversity

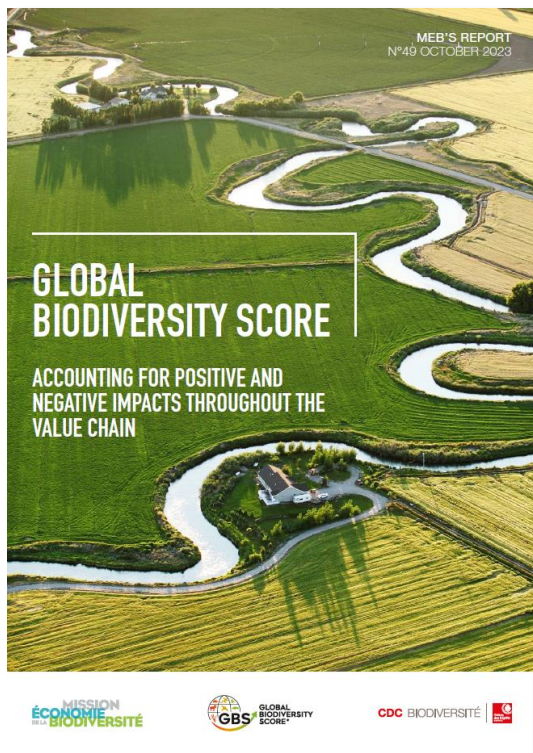


Joshua Berger  
Senior Advisor to the  
Biodiversity Footprint Direction  
CDC Biodiversité



Elisa Magueur  
B4B+Club Project Officer  
CDC Biodiversité





The MEB is releasing today its newest report (N°49):

*« Global Biodiversity Score – Accounting for Positive and Negative Impacts throughout the value chain »*



**MEB's objectives:** identify, study and experiment innovative tools to connect biodiversity and the economy, by sharing its works through publications and various supports

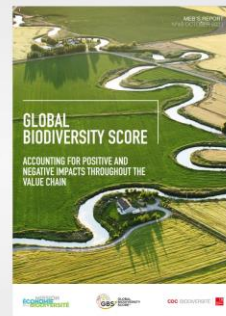


Latest GBS publication ([Biodiv'2050 Outlook N°18](#)): *« Global Biodiversity Score: Establishing an ecosystem of stakeholders to measure the biodiversity performance of human activities »*

\*From 2012 to 2021, the MEB's work was published in two collections (BIODIV'2050 and Cahiers de BIODIV'2050), but since 2022, it publishes its work within a single unified collection, the "MEB's reports".



# Publication launch







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PUBLICATION OF THE MISSION ECONOMIE DE LA BIODIVERSITÉ, FINANCED BY THE BANQUE D'INTERVENTION ECONOMIQUE DES ÉPARGES

REPERES: CDC BIODIVERSITÉ DESJOURS, JOURNAL BIODIVERSITÉ WORLD ACCOUNTING FOR POSITIVE AND NEGATIVE IMPACTS THROUGHOUT THE VALUE CHAIN. BERGER, J., REZARD, M., WINTER, J., DEBART, M., FENEL, J., MARCOTTE, R., MARTEL, L., MARTIN, A., ROY, P., POLLARD, L., DUBOIS, J., MISSION ECONOMIE DE LA BIODIVERSITÉ, PARIS, FRANCE, 2021



## What is in this new publication?

A foreword from **Patrick de Cambourg**, Chair of the EFRAG's Sustainability Reporting Board

Reminders on key concepts around the GBS and its ecosystem

Contextualisation of the overall landscape for biodiversity footprint assessment and for the GBS

Presentation of **new key concepts** with illustrations (e.g., MSAppb, Scope 3 impacts classification, critical dependencies...)

Recent GBS **methodological developments** (e.g., overfishing, Climate change static impacts)

A case study:





## Accounting for stocks & variation of stocks of biodiversity

- Accounting for the biodiversity state requires to distinguish:
  - Stocks of **remaining biodiversity** (accumulated positive impacts);
  - Stocks of past accumulated impacts up to a given moment ("**static**" or accumulated negative impacts);
  - Variations of stocks during a period ("**dynamic**" or periodic gains/losses).
- The publication illustrates the linkages between indicators tracked by companies & the intensities of pressures, and **how it translates into periodic gains/losses** (or maintains the state of biodiversity constant).



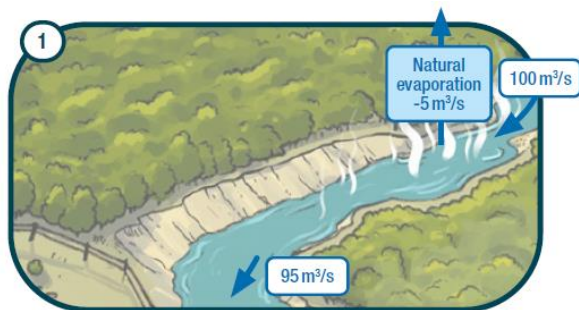
REALM	PRESSURE	CORPORATE INDICATOR	INDICATOR OF THE INTENSITY OF PRESSURE	CONSEQUENCES FOR THE STATE OF BIODIVERSITY
Terrestrial	Climate change	Accumulated GHG emissions (kg CO2-eq)	Global Mean Temperature Increase (GMTI)	Yearly GHG emissions add up and raise Accumulated GHG emissions, leading to an increase in GMTI and a <b>periodic loss</b>
	Land use	Land occupation (ha)	Land occupation by land use	Constant land occupation (without land use change) leads to <b>no change in the state of biodiversity</b> Ecological restoration involving a conversion from intensive land uses to more natural land uses would lead to <b>periodic gains</b>
Aquatic	Hydrological disturbance due to direct water use	Withdrawal intensity (m <sup>3</sup> /month)	Flow deviation	An increase in withdrawal intensity increases flow deviation and leads to a <b>periodic loss</b>

# Key concepts: example - stocks & variation of stocks

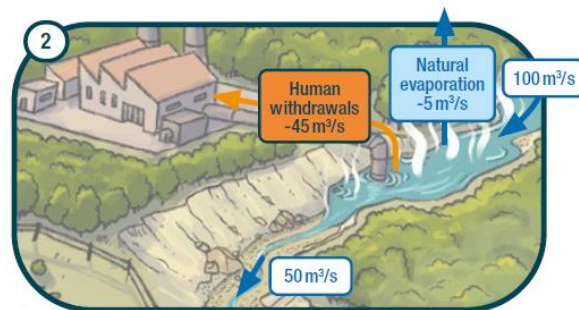
Key concepts



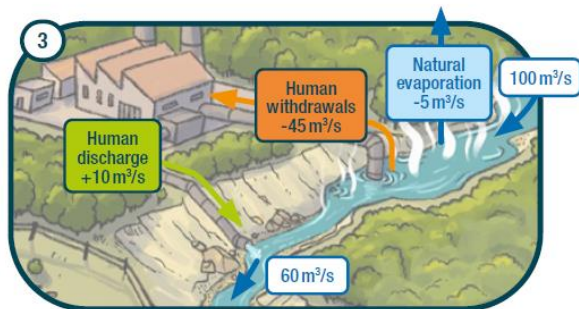
Accounting for stocks & variation of stocks of biodiversity: **example of illustration (hydrological disturbance)**



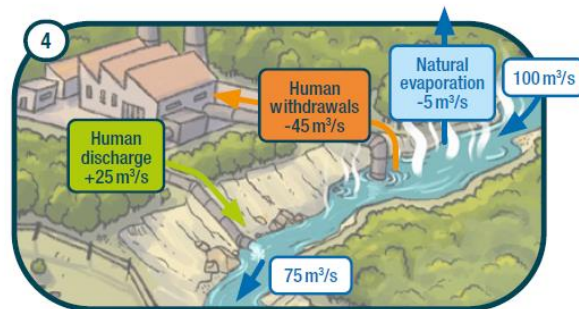
Undisturbed river. AAPFD = 0



Disturbed river. AAPFD = 1.6



Hydrological disturbance is reduced by the water discharge. Residual AAPFD = 1.3

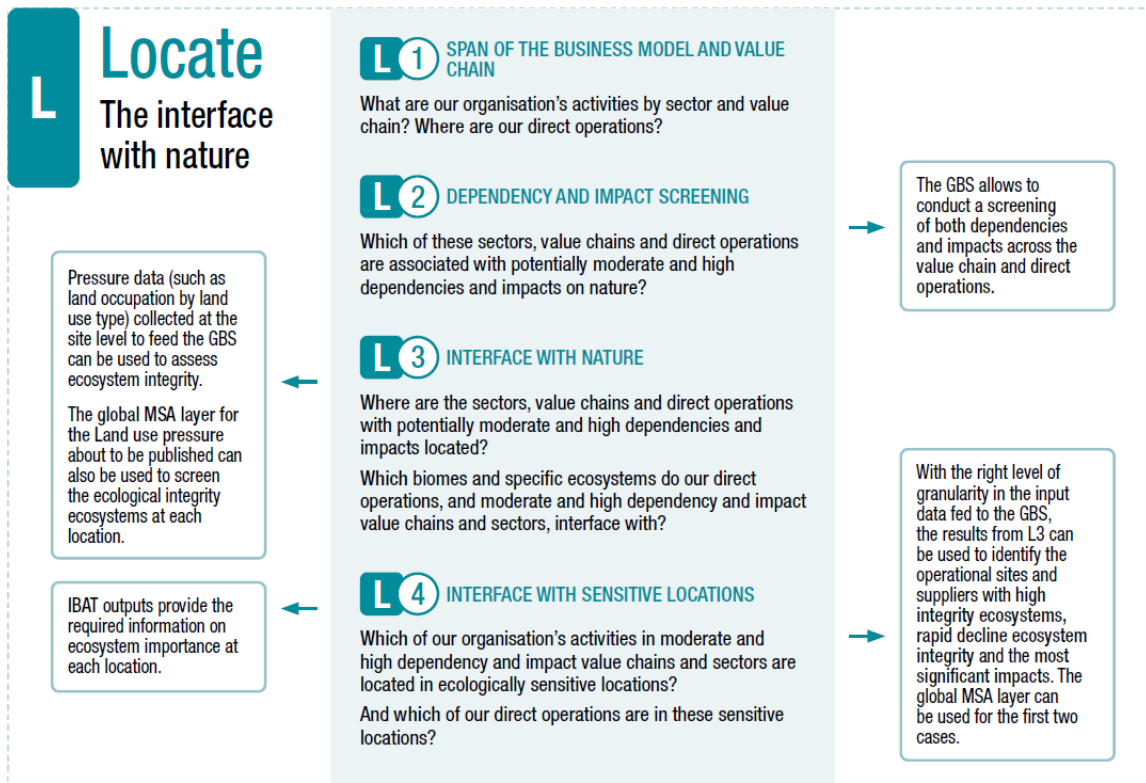


Hydrological disturbance changes only when the discharge changes. Residual AAPFD = 0.73



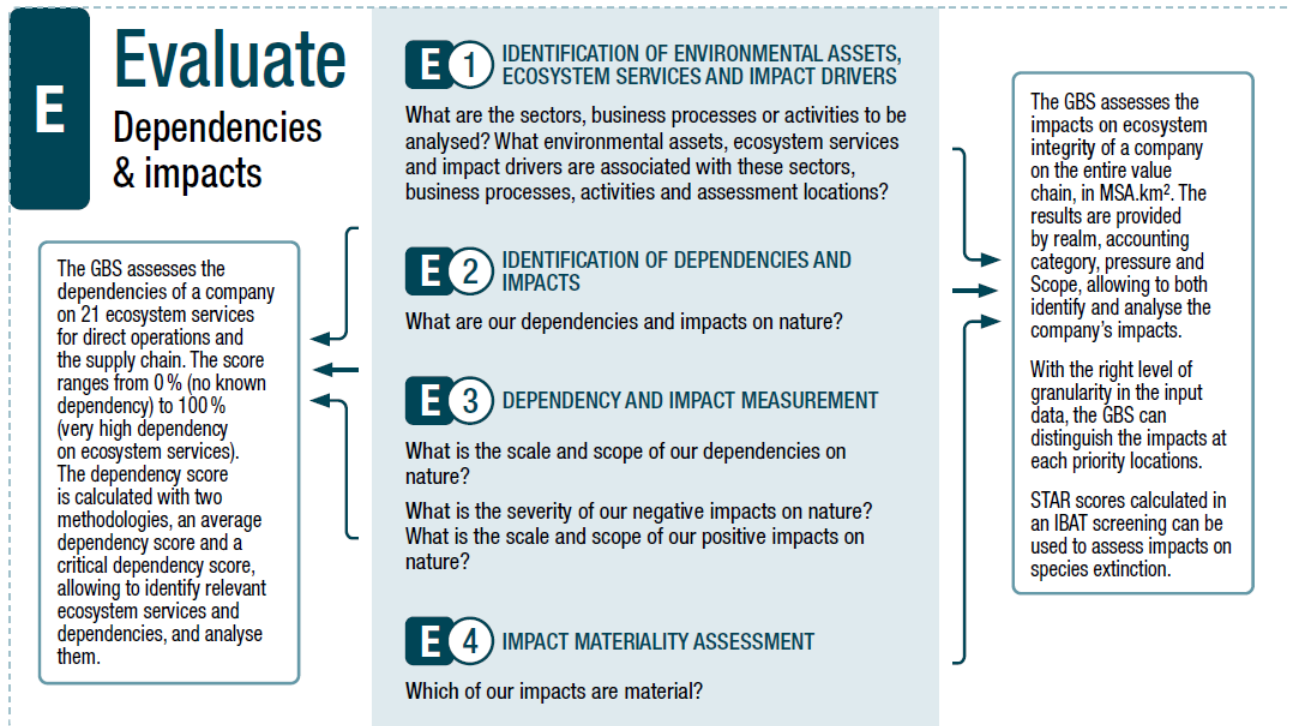


## i Connection with the LEAP approach: **Locate**, **Evaluate**, **Assess** and **Prepare**





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## i Connection with the LEAP approach: **Locate**, **Evaluate**, **Assess** and **Prepare**

**A**

### **Assess** Risks & opportunities

#### **A 1** RISK AND OPPORTUNITY IDENTIFICATION

What are the corresponding risks and opportunities for our organisation?

#### **A 2** ADJUSTMENT OF EXISTING RISK MITIGATION AND RISK AND OPPORTUNITY MANAGEMENT

What existing risk mitigation and risk and opportunity management processes and elements are we already applying? How can risk and opportunity management processes and associated elements (e.g., risk taxonomy, risk inventory, risk tolerance criteria) be adapted?

#### **A 3** RISK AND OPPORTUNITY MEASUREMENT AND PRIORITISATION

Which risks and opportunities should be prioritised?

#### **A 4** RISK AND OPPORTUNITY MATERIALITY ASSESSMENT

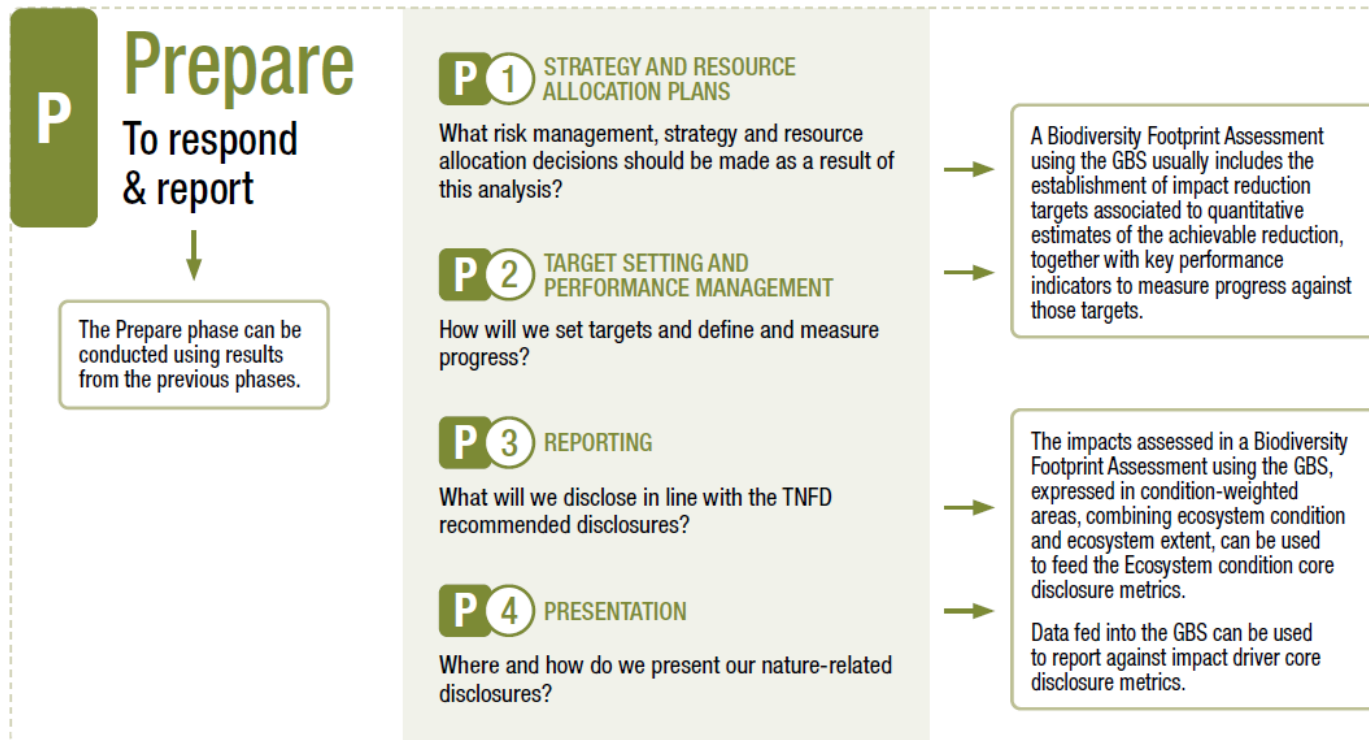
Which risks and opportunities are material and therefore should be disclosed in line with the TNFD recommended disclosures?

Impacts and dependencies results can feed into the identification and materiality assessment of the company's nature-related risks and opportunities.





## i Connection with the LEAP approach: **Locate**, **Evaluate**, **Assess** and **Prepare**



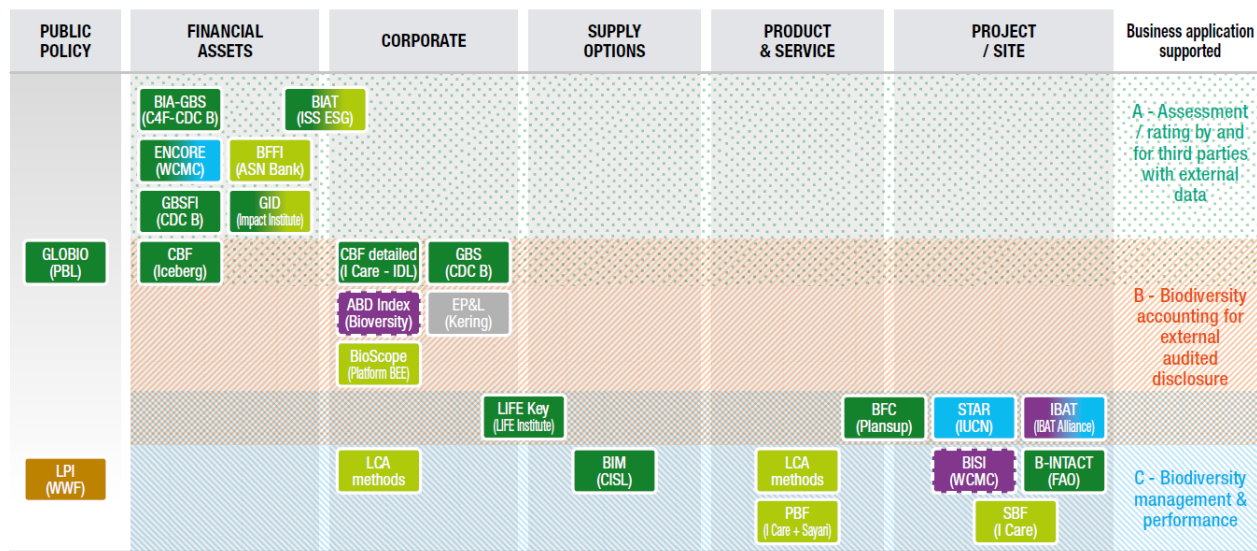
# Overall landscape : mapping of biodiversity impact measurement tools

Overall landscape

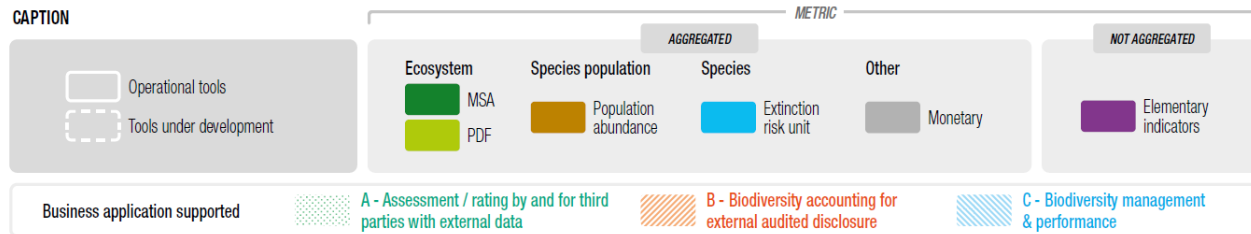


i

## Mapping of biodiversity impact assessment initiatives



CAPTION





## Avoided, reduced and positive impacts: definitions

The report seeks to define avoided, reduced, positive and negative impacts and illustrates an example of accrued positive impacts compared to a baseline generated by a wastewater treatment service.

- **Negative impacts** : losses of biodiversity, *i.e.*, **periodic losses** (BD Protocol) or **dynamic losses** (GBS). Those losses accrue into *accumulated negative impacts* or *static impacts*.
- **Positive impacts** : less straightforward; defined in the context of project finance as “more animals, plants and/or microbes, improving the health of a natural ecosystem, in a specific location and timeframe, as a result of a human intervention” (PBAF). They require to enhance biodiversity and achieve **real periodic (or dynamic) biodiversity** gains compared to a baseline set in the past. Two kinds of actions are possible to enhance biodiversity : **regenerate** or **restore**.
- **Reduced impacts**: periodic losses **that are reduced and minimized**, without necessarily being eliminated. It is linked to a comparison of impact in time: reduced periodic losses are defined compared to a baseline past value of periodic losses, at an arbitrary date.
- **Avoided negative impacts**: periodic losses within the value chain that are **prevented and entirely eliminated** (*e.g.*, thanks to an alternative solution/technology). It requires a counterfactual scenario to compare with. 3 types of avoidance actions : spatial, technological and temporal.



# New concepts: avoided, reduced and positive impacts

New concepts



i Avoided, reduced and positive impacts: illustration adapted from the SBTN

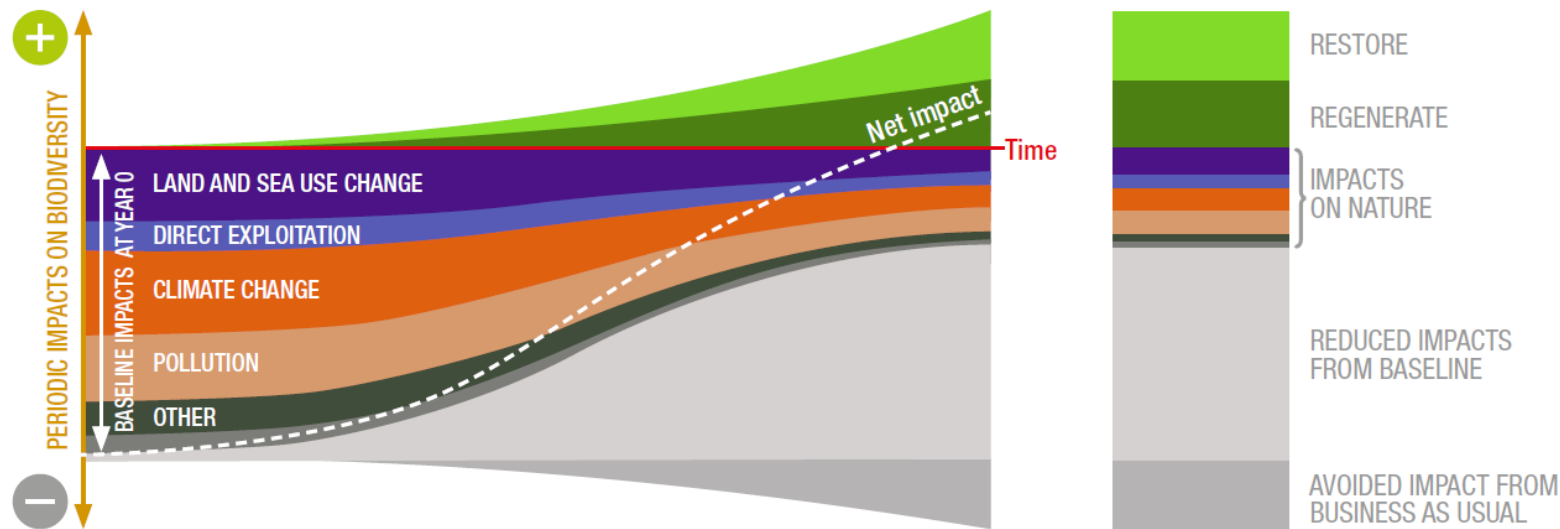


Figure 14: Illustration of periodic positive and negative impacts and reduced and avoided impacts, adapted from Science Based Target Network (2020)



# Case study – Vattenfall



Josefin Blanck

Director of Environmental  
Strategic Projects at Vattenfall



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A woman with long brown hair, wearing a light blue hoodie and a grey coat, stands on a rocky shore. In the background, there is a body of water and a hilly, rocky landscape under a cloudy sky.

# Vattenfall Biodiversity Footprint case study

**Josefin Blanck, Director of Environmental Strategic Projects  
Vattenfall AB**



# 3 key areas needed to succeed and contribute to Net Positive Impact

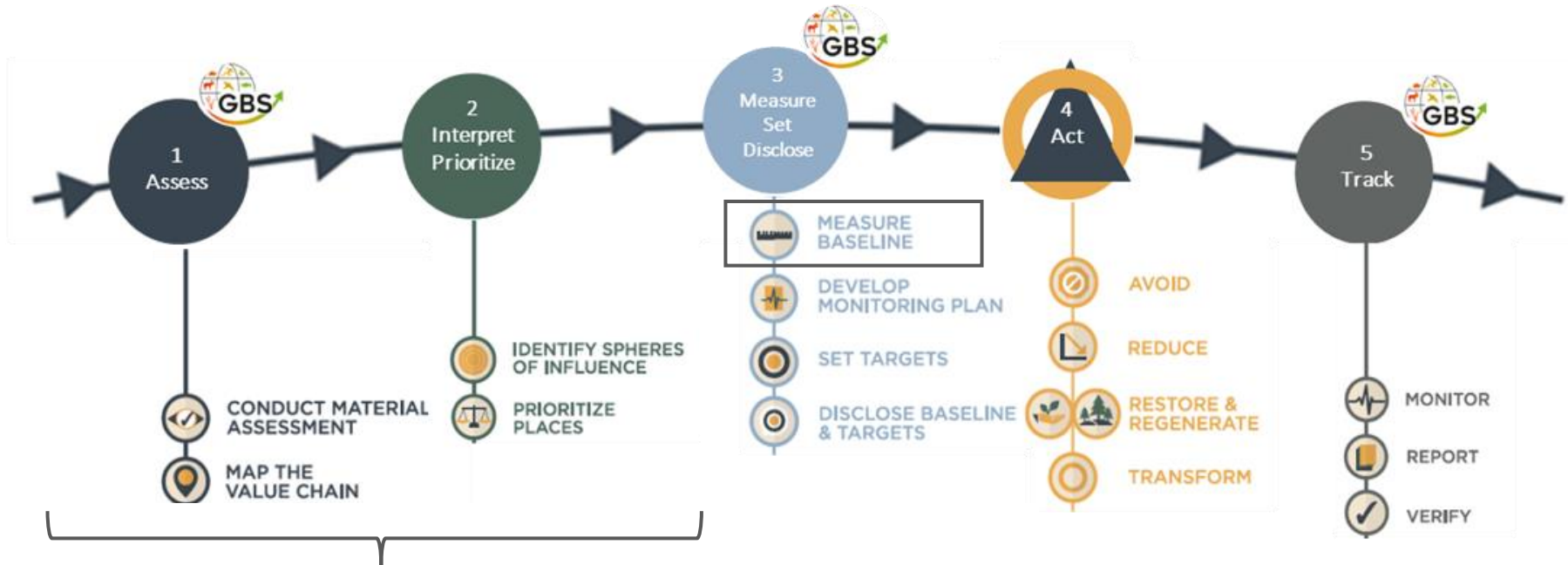
**Measure our  
impacts in a full  
value chain  
perspective**

**Calculate  
positive impacts  
from projects  
(and connect to  
baseline  
calculations)**

**Develop new  
ways to collect,  
use and analyze  
biodiversity data**



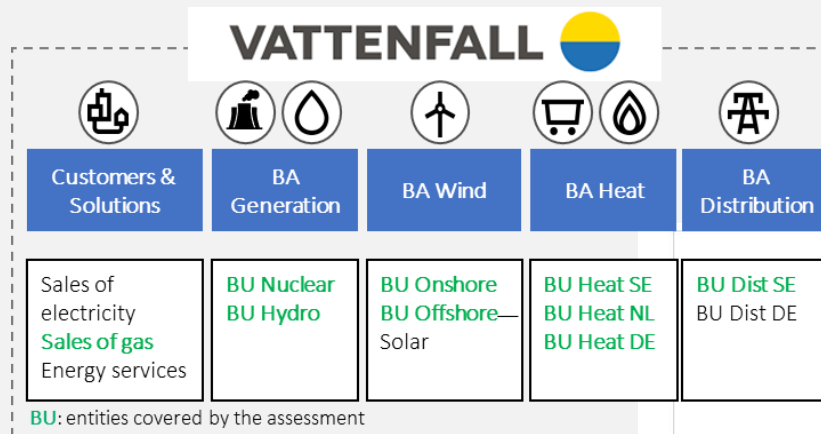
# Starting the journey to set relevant science-based targets



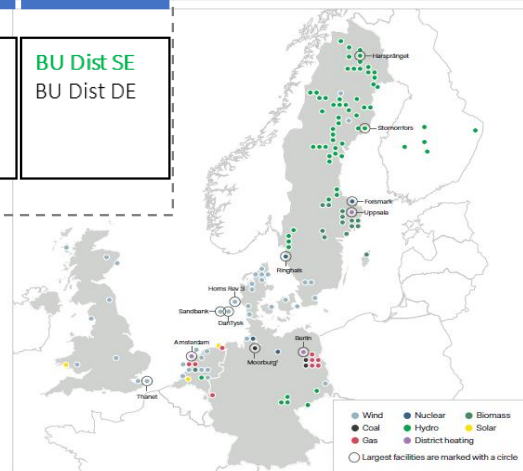
Focus for our biodiversity footprint assessment

# Perimeter of the assessment

- ✓ Data from 2020
- ✓ All the GBS pressures covered
- ✓ Main activities of Vattenfall covered:
  - Hydropower
  - Wind onshore (& offshore)
  - Heat
  - Distribution of electricity
  - Nuclear
  - Sales of gas
- ✓ Main locations of Vattenfall covered:
  - Sweden
  - Finland
  - Denmark
  - Germany
  - Poland
  - Netherlands
  - The UK



*Vattenfall's Business Areas & Business Units*



*Assets & Production plants locations*

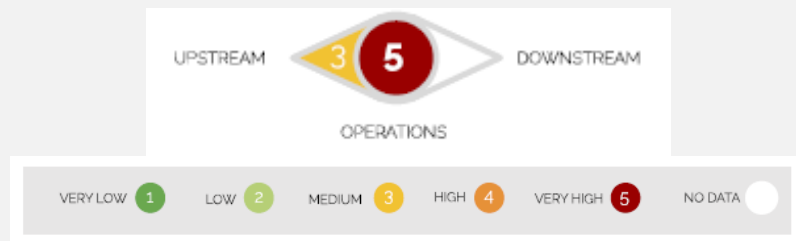
# Financial, spatial and operational data was processed through the GBS to get a refined materiality impact assessment

		Terrestrial impacts					
	IPBES drivers	Land/sea use change			Climate change	Pollution	Pollution
	Pressures	Land use	Fragmentation	Encroachment	Climate change	Atmospheric nitrogen deposition	Terrestrial ecotoxicity
Business unit A	Dynamic	5 (0 >1)	1 (0 >2)	3 (0 >1)	4 (2 >1)	1 (1 >1)	Not yet assessed in the GBS
	Static	5 (0 >1)	2 (0 >1)	3 (1 >1)		1 (0 >1)	
Business unit B	Dynamic	2 (1 >1)	1 (0 >1)	3 (1 >1)	4 (5 >1)	1 (1 >1)	
	Static	5 (1 >1)	3 (1 >1)	3 (1 >1)		1 (1 >1)	
Business unit C	Dynamic	3 (1 >1)	1 (0 >1)	1 (0 >1)	5 (2 >1)	1 (0 >1)	
	Static	4 (4 >1)	1 (3 >1)	2 (3 >1)		1 (0 >1)	

Overview of company-level impacts materiality for terrestrial biodiversity (fictitious figures)

	Drivers	Terrestrial impacts					Drivers
		Land/sea use change	Water resources	Climate change	Pollution	Pollution	
Business unit A	Dynamic	5 (0 >1)	1 (0 >2)	3 (0 >1)	4 (2 >1)	1 (1 >1)	Not yet assessed in the GBS
	Static	5 (0 >1)	2 (0 >1)	3 (1 >1)		1 (0 >1)	
Business unit B	Dynamic	2 (1 >1)	1 (0 >1)	3 (1 >1)	4 (5 >1)	1 (1 >1)	Not yet assessed in the GBS
	Static	5 (1 >1)	3 (1 >1)	3 (1 >1)		1 (1 >1)	
Business unit C	Dynamic	3 (1 >1)	1 (0 >1)	1 (0 >1)	5 (2 >1)	1 (0 >1)	Not yet assessed in the GBS
	Static	4 (4 >1)	1 (3 >1)	2 (3 >1)		1 (0 >1)	

Overview of company-level impacts materiality for aquatic biodiversity (fictitious figures)



# Understanding biodiversity impacts from a holistic perspective

### STATIC IMPACTS

Our static footprint from impact comes from historical and persistent land transformation.

#### Scope 1: Land use impacts from own operations

Land in powerline corridors	335 MSA	●
Impacts from industrial sites	39 MSA	●
Occupied land close to hydropower stations	27 MSA	●
Land use footprint in onshore wind	6 MSA	●

#### Scope 3: Upstream land use impacts in all geographies

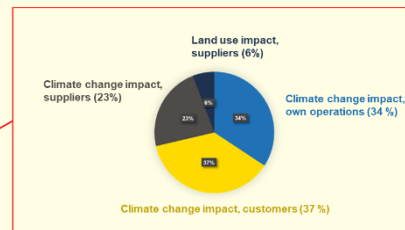
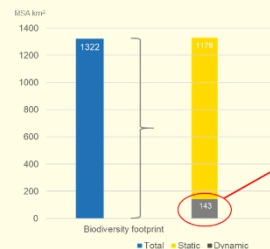
Land use impact from fossil fuel extraction	309 MSA	●
Procurement goods and services (also including offshore wind)	249 MSA	●
Land use impact from biomass fuels	234 MSA	●
Land use impact from nuclear fuels	1 MSA	●

<sup>1</sup> [https://www.fpr.awsassets.panda.org/downloads/lpr\\_2022\\_full\\_report.pdf](https://www.fpr.awsassets.panda.org/downloads/lpr_2022_full_report.pdf)

<sup>2</sup> <https://www.cdc.biodiversity.org/global-biodiversity-score/#>

### DYNAMIC IMPACTS

Our annual growing footprint (dynamic impacts) is almost all linked to climate change impacts.





# Interpret & Prioritize

## Identifying priorities to address first



### CLIMATE CHANGE

Reduce climate impact according to SBTi targets and CO2 reduction target for supply chain



### LAND USE IMPACT

Continue to restore and regenerate biodiversity through ecological projects



### LAND USE IMPACT

Continue to secure sustainable sourcing of biomass, use co-products or products waste

# The BFA results has helped us in our biodiversity work

- SBTN Materiality Assessment and value-chain mapping
- SBTN readiness check
- Communication e.g. Annual Sustainability Report
- Executive Group Management discussions
- CSRD
- Networking and learning





# Thank you!

Publication official release





New technical publication on the GBS now available!



Flash QR code

# Closing words



Claire Blery

Head of the B4B+ Club & Training  
department at CDC Biodiversité

# How CDC Biodiversité can support you in your biodiversity journey?

You want to better understand biodiversity footprint & use the GBS?



👉 Get trained with CDC Biodiversité

You want to exchange on your biodiversity footprinting challenges and remain updated about latest changes?



👉 Join the B4B+ Club

You want to...



Understand your **impacts** and **dependencies** on biodiversity ?



Prepare for the arrival of new **regulations** and **standards** ?



Reduce your biodiversity footprint & set **quantitative targets** ?

👉 Get support from CDC Biodiversité



Publication on the Global Biodiversity Score (GBS)

# Thanks for your participation!



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