Agenda

The Nature Loss Crisis
Introduction to the Risk Filter Suite and Guidance
Panel Discussion
Future Directions
Q&A
1 million* Species may face extinction due to human activity

69% decline* in populations of mammals, birds, fish, amphibians and reptiles since 1970

$44 trillion* of value generation is moderately or highly dependent on nature and the services it provides

*Source: WWF, IPBES, WEF & PWC
 Corporates will need to comply with many new standards on biodiversity

- Science-Based Targets for Nature
- Task Force for Nature-related Financial Disclosures
- Kunming-Montreal Global Biodiversity Framework
- Global Reporting Initiative
- Climate Disclosure Standards Board
- EU Sustainable Finance Disclosure Regulation
- EU Corporate Sustainability Reporting Directive
- CDP
What is Biodiversity Risk?

**PHYSICAL**
Cost increases or loss of revenue due to (acute or chronic) hazards arising from the global depletion of natural resources and the decline of ecosystem services.

**REPUTATIONAL**
Loss of brand value and market share due to actual or perceived nature-related misconduct (or lack of transparency).

**REGULATORY**
Cost increases due to restrictions and requirements resulting from non-compliance with existing and future biodiversity legislation.

**MARKET**
Cost increases or loss of revenue due to changing dynamics in overall markets that arise from a company's impact or dependency on biodiversity.
Impacts and dependencies on biodiversity create financial risks and opportunities – which drive companies and financial institutions to act in the right places in the right way.

**Dependencies on biodiversity**

Ecosystem services decline can physically impact business locations and create opportunities.

**Impacts on biodiversity**

Impacts on biodiversity can create regulatory, reputational, and other risks for business locations.

**Biodiversity risk & opportunity ratings for company locations**

Spatial ratings across categories of biodiversity-related threats and opportunities help companies and financial institutions prioritize areas for action and set targets.

**Response plan per and across priority locations**

Personalized list of options to mitigate risks and seize opportunities helps to drive positive biodiversity impact and contribute to global conservation agenda.

Source: WWF, BCG
The WWF Biodiversity Risk Filter - Overview

**Purpose**
- Corporate-level screening & prioritization
- Understand direct impacts and dependencies on nature
- Analysis of operational and key value chain sites
- Visual outputs on spatial data for planning and decision-making
- Result: Assess and respond to nature-related risks and opportunities

**Ease of Use**
- Open access
- Web-based
- Over 50 key data sets translated into company-relevant terms
- Visually comprehensive output
- Same login and data input requirements for both Biodiversity Risk Filter and Water Risk Filter

**Scope**
- All industries
- Spatially explicit biodiversity and water-specific data
- Risks: Physical, Regulatory, Reputational
Biodiversity Risk Filter

Understand, assess and respond to your biodiversity risks for enhancing resilience

Corporate and portfolio-level screening tool to help companies and investors to prioritize action on what and where it matters the most to address biodiversity risks for enhancing business resilience and contributing to a sustainable future.
OUR MODULES

The WWF Biodiversity Risk Filter is a free online tool that enables companies and financial institutions to Inform, Explore, Assess, and Respond to biodiversity risks.

To learn more about the tool's modules and how biodiversity loss can result in business risk, please read below and latest WWF report.

1  INFORM
Dependencies and impacts on biodiversity

2  EXPLORE
Maps for physical and reputational biodiversity risks

3  ASSESS
Biodiversity risks across your operations, value chain and investments

4  RESPOND
Mitigate your biodiversity risks and enhance resilience
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</table>
WHICH BIODIVERSITY RISK ASPECT DO YOU WANT TO SEE?

Scape Physical Risk

Show more settings

WHAT AM I SEEING HERE?

Physical Risk

Physical Risk is driven by the ways in which a business depends on nature and can be affected by both natural and human-induced conditions of land- and seascape. It comprises the risk categories: 1) Provisioning Services, 2) Regulating & Supporting Services - Enabling, 3) Regulating Services - Mitigating, 4) Cultural Services and 5) Pressures on Biodiversity. Therefore, physical risks account for the status of the ecosystem services that companies, or their suppliers, rely on. See the specific risk type layers for more details.

WWF Biodiversity Risk Filter (2023)

Very low risk

Very high risk
Add a new site

Company name
Company A

Site name

Industry
Agriculture (plant products)

Commodity (optional)
Nothing selected

Group (optional)
Nothing select

Business Importance
High

Location
[37.251420596040566,6.180865992033063]

Please note that sites uploaded into marine areas will only have analysis data for Biodiversity.
Risk analysis for: Company A

WHICH BIODIVERSITY RISK ASPECT DO YOU WANT TO SEE?
- Scape Physical Risk

Show more settings

WHAT AM I SEEING HERE?
Physical Risk
Physical Risk is driven by the ways in which a business depends on nature and can be affected by both natural and human-induced conditions of land- and seascapes. It comprises the risk categories: 1) Provisioning Services, 2) Regulating & Supporting Services - Enabling, 3) Regulating Services - Mitigating, 4) Cultural Services and 5) Pressures on Biodiversity. Therefore, physical risks account for the status of the ecosystem services that companies, or their suppliers, rely on. See the specific risk type layers for more details.

WWF Biodiversity Risk Filter (2023)

n/a Very low risk
Very high risk
## Risk analysis for: Site 15

### Agriculture (plant products)

<table>
<thead>
<tr>
<th>Risk Type</th>
<th>Risk Category</th>
<th>Indicator</th>
<th>Risk Score</th>
</tr>
</thead>
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<tr>
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<td>1. Provisioning Services</td>
<td>1.1 Water Scarcity</td>
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<td>1.2 Limited Timber Availability</td>
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<td>1.3 Limited Wild Flora &amp; Fauna Availability</td>
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<td>1.4 Limited Marine Fish Availability</td>
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<td></td>
<td>2. Regulating &amp; Supporting Services - Enabling</td>
<td>2.1 Soil Condition</td>
<td>4.5</td>
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<td></td>
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<td>2.2 Water Condition</td>
<td>4.5</td>
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<td>2.3 Air Condition</td>
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<td></td>
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<td>2.4 Ecosystem Condition</td>
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<td></td>
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<td>2.5 Pollination</td>
<td>4.5</td>
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</table>
What the Tool is (and is not)

A user-oriented model of **biodiversity-related risk to business**, supporting companies and financial institutions in identifying the financial materiality of biodiversity.

A spatial risk assessment tool, helping companies and financial institutions prioritize **high risk areas and issues** for different operations and sourcing sites.

A comprehensive model of biodiversity-related risks to nature & people that captures nature in all its facets.

A footprint assessment tool that provides biodiversity impact scores across private sector spheres of influence.
**WWF Biodiversity Risk Filter Methodological Guidance**

**BRF METHODOLOGY**

**Guidance on location-specific company data:** Since location-specific company data is required to run the WWF BRF (and WRF) Assess Module, this guidance provides financial institutions with an overview of existing proxy data for company locations and how to collect and prepare them at scale.

**Guidance on location-specific supply chain data:** Since location-specific supply chain data is required to run the WWF BRF (and WRF) Assess Module, this guidance provides companies and financial institutions with an overview of existing approaches to collect and prepare location-specific supply chain data at scale.

**Guidance on WWF BRF and WRF tools output:** Since the WWF BRF (and WRF) provide an assessment at the site level but not at the company or portfolio level, this guidance provides financial institutions with a description of how the output of the tools can be further processed and aggregated to the company and portfolio level.

**Guidance on location-specific company data**

- Details the underlying methodology of the WWF BRF tool, including a description of the risk assessment framework, underlying structure and data and limitations.
Using the WWF BRF and WRF Assess Modules requires the following data inputs:

Geographic location of operational sites
- Long/Lat
- ...
- ...
- Long/Lat

A (physical) site where corporate activities are conducted

Industry classification per site
- Industry sector XYZ
- ...
- ...
- Industry sector XYZ

Similar production processes are grouped into the same “bucket”

To allow for aggregation, the following additional data input is required:

Business importance per site
- % or High/Med/Low
- ...
- ...
- % or High/Med/Low

Relative importance of a site to the overall company

GUIDANCE: AGGREGATION
GUIDANCE A: Collecting location-specific company data

How to collect the data at scale? – Starting with operational sites

Hybrid Approach (merging different sources)
Asset-level data
Data on corporate structure and subsidiaries

Backup Options
City of headquarter
Disaggregated revenue

High quality
Low quality
How to collect supply chain data at scale?

**Approach I: Firm-specific supply chain data**
- Data products by major data providers (Bloomberg, Refinitiv, FactSet, ...)
- Conceptually straightforward but currently poor data availability

**Approach II: Making use of Input Output models**
- Less precise but more pragmatic and applicable approach
- IO models = show supply chains between industries and countries
Applying the BRF to portfolio assessment

**STEP 1: COLLECTING LOCATION-SPECIFIC COMPANY AND SUPPLY CHAIN DATA**

After refining the scope of the assessment (Step 2), collect location-specific data on portfolios and companies' operational and supply chain sites. The following input data is required to use the Assess Modules of the BRF and WRF tools:

- **Geographic location of sites**
  - (coordinates, address)

- **Industry classification of sites**
  - Using WWF Risk Filter industry sector classifications

- **Business Importance of sites**
  - (indicated through high, medium or low importance)

**GUIDANCE 1: COMPANY DATA**

For financial institutions:

As a majority of financial institutions do not currently have easily available location-specific company information, WWF and Climate & Company developed guidance on how to collect location-specific proxy data for portfolios and companies at scale.

**GUIDANCE 2: SUPPLY CHAIN DATA**

For companies and financial institutions:

As a majority of companies and financial institutions do not currently have easily available location-specific supply chain information, WWF and Climate & Company developed guidance on how to collect location-specific proxy data for supply chains at scale.

**STEP 2: ASSESSING BIODIVERSITY-RELATED RISKS**

The Assess Module combines the sites' industry materiality rating (IA) and the local biodiversity importance or integrity rating (BIF) into a single risk score for each company location. This comprises 3 biodiversity indicators from “water scarcity” to “terrestrial modification” following the BIF risk hierarchy.

**STEP 2: ASSESSING WATER-RELATED RISKS**

See WWF Water Risk Filter Methodology.

**STEP 3: AGGREGATING BIODIVERSITY RISK TO THE COMPANY AND PORTFOLIO LEVEL**

**GUIDANCE 3: AGGREGATION**

For addressing the needs of financial institutions, WWF and Climate & Company developed guidance on how to aggregate scope risk per indicator to the company and portfolio level using the site-specific WWF BIF data outputs. WWF's guidance focuses on biodiversity risk; the same aggregation approach can be applied with the outputs of the WWF's WRF data outputs.
Applying the WWF BRF to Portfolio Assessment

Industry-level overview

<table>
<thead>
<tr>
<th>Industry (WWF Risk Filter industry sector classification)</th>
<th>Physical risk score</th>
<th>Reputational risk score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing and aquaculture</td>
<td>4.40</td>
<td>3.66</td>
</tr>
<tr>
<td>Agriculture (plant products)</td>
<td>4.37</td>
<td>3.97</td>
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<tr>
<td>Agriculture (animal products)</td>
<td>4.29</td>
<td>4.03</td>
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<tr>
<td>Electric energy production (geothermal or combustion)</td>
<td>3.81</td>
<td>3.46</td>
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<tr>
<td>Transportation services</td>
<td>3.75</td>
<td>3.58</td>
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<tr>
<td>Paper and forest product production</td>
<td>3.64</td>
<td>3.43</td>
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<tr>
<td>Health care, pharmaceuticals and biotechnology</td>
<td>3.62</td>
<td>3.17</td>
</tr>
<tr>
<td>Water utilities / Water service providers</td>
<td>3.61</td>
<td>3.25</td>
</tr>
<tr>
<td>Metals and mining</td>
<td>3.57</td>
<td>3.59</td>
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<tr>
<td>Oil, gas and consumable fuels</td>
<td>3.54</td>
<td>3.71</td>
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<tr>
<td>Food and beverage production</td>
<td>3.51</td>
<td>3.40</td>
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<tr>
<td>Hospitality services</td>
<td>3.50</td>
<td>3.26</td>
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<tr>
<td>Construction materials</td>
<td>3.48</td>
<td>3.47</td>
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<tr>
<td>Textiles, apparel and luxury good production</td>
<td>3.45</td>
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<td>Automotive, electrical equipment and machinery production</td>
<td>3.43</td>
<td>3.19</td>
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<td>Chemicals and other materials production</td>
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<td>Food retailing</td>
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<td>Appliances and general goods manufacturing</td>
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<td>Telecommunication services (including wireless)</td>
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<td>General or specialty retailing</td>
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<td>Land development and construction</td>
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<td>Electronics and semiconductor manufacturing</td>
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<td>Electric energy production (solar, wind)</td>
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<td>Offices and professional services</td>
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Company-level overview

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<tr>
<th>Risk score</th>
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<th>Reputational risk</th>
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<tr>
<td></td>
<td>Nr. of companies</td>
<td>% of companies</td>
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<tr>
<td>1.0 - 1.4</td>
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<td>0.00%</td>
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<tr>
<td>1.4 - 1.8</td>
<td>0</td>
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<td>1.8 - 2.2</td>
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<td>2.6 - 3.0</td>
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<td>3.0 - 3.4</td>
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<td>41.32%</td>
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<td>3.4 - 3.8</td>
<td>141</td>
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<td>3.8 - 4.2</td>
<td>34</td>
<td>5.62%</td>
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<td>4.2 - 4.6</td>
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<td>4.5 - 5.0</td>
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<td>1.82%</td>
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Site-level overview

Case study presented in the following report:
Suggested outputs of LOCATE phase:

- **Geospatial map** of the organisation’s operational locations, and upstream and downstream value chain locations, overlaid on geospatial biodiversity data
- A list of the organisation’s **priority locations** (direct, upstream and downstream)

Suggested outputs of EVALUATE phase:

- A list of the relevant environmental assets and ecosystem services at each priority location;
- A list of relevant nature-related dependencies and nature impacts, according to the selected scope;

Suggested outputs of ASSESS phase:

- A ‘long list’ of relevant nature-related risks and opportunities the organisation should act on
- A matrix of material risks consistent with the enterprise management framework of the organisation (e.g. significance by sector, business line, location, value chain, etc.)
### SBTN 5-step approach:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Support</th>
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<tbody>
<tr>
<td>1</td>
<td>Assess</td>
<td>WWF BRF/WRF provides support</td>
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<tr>
<td>2</td>
<td>Implement &amp; Prioritize</td>
<td>WWF BRF/WRF provides support</td>
</tr>
<tr>
<td>3</td>
<td>Measure &amp; Set a Directive</td>
<td>WWF BRF/WRF tools are not target setting tools</td>
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<td>4</td>
<td>Act</td>
<td>WWF BRF/WRF Respond Module will provide support in the future</td>
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<tr>
<td>5</td>
<td>Track</td>
<td>WWF BRF/WRF provides support</td>
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### DRAFT EUROPEAN SUSTAINABILITY REPORTING STANDARDS

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<td>E3-2: Actions and resources related to water and marine resources</td>
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</tr>
<tr>
<td>E3-3: Targets related to water and marine resources</td>
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<tr>
<td>E3-4: Water consumption</td>
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<tr>
<td>E3-5: Potential financial effects from water and marine resources-related impacts, risks and opportunities</td>
<td>✓</td>
</tr>
<tr>
<td>E4-1: Transition plan on biodiversity and ecosystems</td>
<td>✓</td>
</tr>
<tr>
<td>E4-2: Policies related to biodiversity and ecosystems</td>
<td>✓</td>
</tr>
<tr>
<td>E4-3: Actions and resources related to biodiversity and ecosystems</td>
<td>✓</td>
</tr>
<tr>
<td>E4-4: Targets related to biodiversity and ecosystems</td>
<td>✓</td>
</tr>
<tr>
<td>E4-5: Impact metrics related to biodiversity and ecosystems change</td>
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</tr>
<tr>
<td>E4-6: Potential financial effects from biodiversity and ecosystem-related impacts, risks and opportunities</td>
<td>✓</td>
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</tbody>
</table>

**Building on and aligning with existing solutions**

- **ENCORE**
- **IBAT**
- **RepRisk**
Panel Discussion

Britt Hammer – Project Manager Biodiversity, EDEKA Zentrale Stiftung & Co. KG
Madelyn Shikh-Salim – ESG Impact Executive and Biodiversity Lead, British International Investment plc
Michal Kulak – Senior Sustainable Investing Analyst, Robeco Switzerland
Moderated by: Silke Düwel-Rieth – Director, Sustainable Business and Markets, WWF Germany
The EDEKA Group is organised in the form of a co-operative and is backed by about 3,500 independent retailers. They give EDEKA a face and assume the role of the local supplier that stands for variety, quality and enjoyment.
Strong market presence in Germany.

Market share

in the food retail segment in 2021

29.9 %

+0.8% point

EDEKA 22.1%

Netto Marken-Discount 7.8%

Source: GFK; own calculations
We & Now We achieve more by joining forces.

Our objectives
for more sustainability

- Reduction of greenhouse gas emissions by 33.5% by the year 2025
- Preservation of ecosystems along with their biodiversity
- Responsible use of water and protection of freshwater ecosystems
- More sustainable packaging design and resource conservation in supply chains
Targeted field projects in crop-growing countries.

For valuable ecosystems

- Citrus project: focus on less water consumption and more biodiversity in conventional orange cultivation in Spain
- Banana project: making conventional farming in Colombia and Ecuador more environmentally and socially compatible
- “Agriculture for biodiversity”: promoting biodiversity in Germany – e.g., through flower strips on field margins
- Our new cocoa project in Ghana is set to launch in 2022
We invest to create more productive, sustainable and inclusive economies in Africa, Asia and more recently, the Caribbean, enabling people in those countries to build better lives for themselves and their communities.

We focus on investing in sectors where growth leads to better economic, inclusive and sustainable outcomes, including financial institutions, infrastructure, healthcare, manufacturing, food and agriculture, construction and education.

Our mission

We are the UK’s Development Finance Institution and impact investor with nearly 75 years’ experience investing in the emerging markets.

To continue to solve the biggest global development challenges by investing patient, flexible capital to support private sector growth and innovation. We will help to alleviate poverty by building productive, sustainable and inclusive economic outcomes for those that need fair and transparent investment the most.
Future Directions
Regulatory Risk

How can changing laws, regulation and enforcement create risk for companies and FIs?

Respond Module

How can companies and FIs respond to identified nature-related risks?
Contact Us

Or contact us:  riskfilter@wwf.de

https://riskfilter.org/