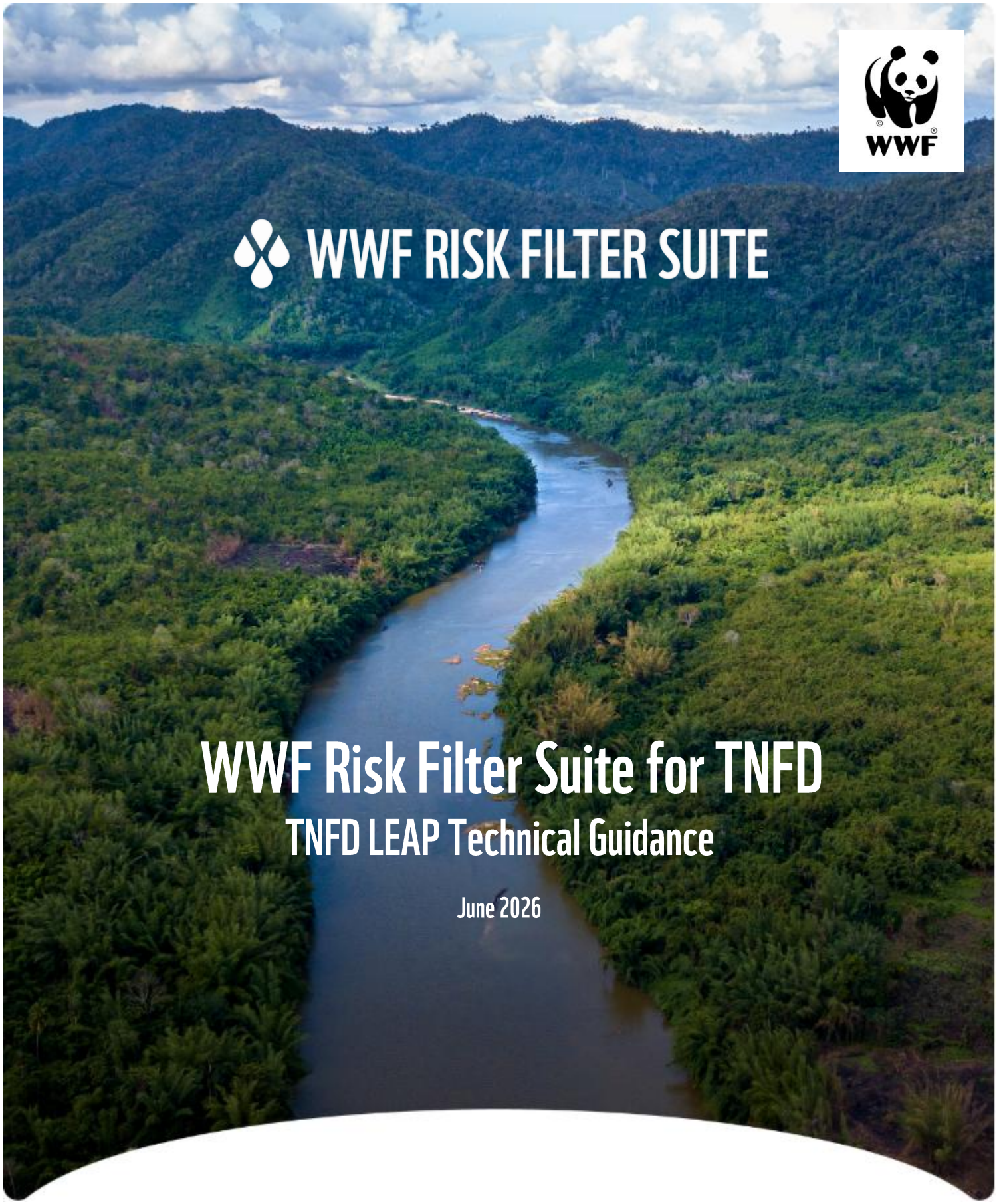

WWF RISK FILTER SUITE

WWF Risk Filter Suite for TNFD

TNFD LEAP Technical Guidance

June 2026

WWF BIODIVERSITY RISK FILTER | WWF WATER RISK FILTER | WWF PLACE-BASED IMPACT ESTIMATOR

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Publisher	WWF
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Authors	Ariane Laporte-Bisquit, Florian Oeschger, Rebekah Church, Nicolas Poolen, Fee Reinhart, Maria Walsh, Isabel Meza, Liam Bailey, Nicola Lei-Ravello and Andréa Thillou
Coordination	Ariane Laporte-Bisquit
Contact	riskfilter@wwf.de
Design	Thomas Schlembach (WWF Germany)
Photo credits	© Cover photo: WWF Risk Filter Suite, p. 7: freepik, p. 12: Luis Barreto/WWF-UK, p. 14: Shutterstock/BORJA PD/WWF, p. 17: Andrew Parkinson/WWF-UK, p. 18: Shutterstock/TOM...foto/WWF, p. 23: Adam Oswell/WWF-Greater Mekong

1. Introduction

More than half the world's total GDP (55 %)—equivalent to about US$58 trillion—is moderately or highly dependent on nature and its services. With growing evidence on the unprecedented rate of nature loss, companies and financial institutions are increasingly recognizing the business case for managing their nature-related risks and opportunities.

In September 2023, the Taskforce on Nature-related Financial Disclosures (**TNFD**) published its final Recommendations for nature-related risk management and disclosure, which offers one of the major milestones for delivering the Kunming-Montreal Global Biodiversity Framework (especially Target 15). By providing companies and financial institutions of all sizes and across all sectors with a risk management and disclosure framework to identify, assess, manage and report on nature-related dependencies, impacts, risks and opportunities ("nature-related issues"), the TNFD's recommendations aim to integrate nature into strategic and capital allocation decision making in order to ultimately shift global financial flows toward nature-positive outcomes. While TNFD disclosures are voluntary, there is a high chance that these recommendations will be adopted or otherwise integrated into regulations in due course. To help companies and financial institutions implement its recommendations, the TNFD released 'how-to' guidance for organisations to follow when preparing disclosures—called the LEAP approach. The LEAP approach provides a structured process for how to identify, assess and report on nature-related impacts, dependencies, risks and opportunities. By following the LEAP approach, organisations can identify which nature-related issues should be considered for reporting against TNFD's recommended disclosures as illustrated in **Figure 1**.

The ▶WWF Risk Filter Suite (**WWF RFS**) is a free online platform containing two spatially explicit risk assessment tools: the Biodiversity Risk Filter (**BRF**) and Water Risk Filter (**WRF**). Designed to be used as corporate- and portfolio-level screening and prioritisation tools, the WWF Risk Filter tools enable companies and financial institutions to assess nature-related risks worldwide, as well as understand their dependencies and impacts on nature. As a result, the freely available WWF Risk Filter Suite provides critical nature-related information to support organisations across the different Phases of the TNFD LEAP Approach.

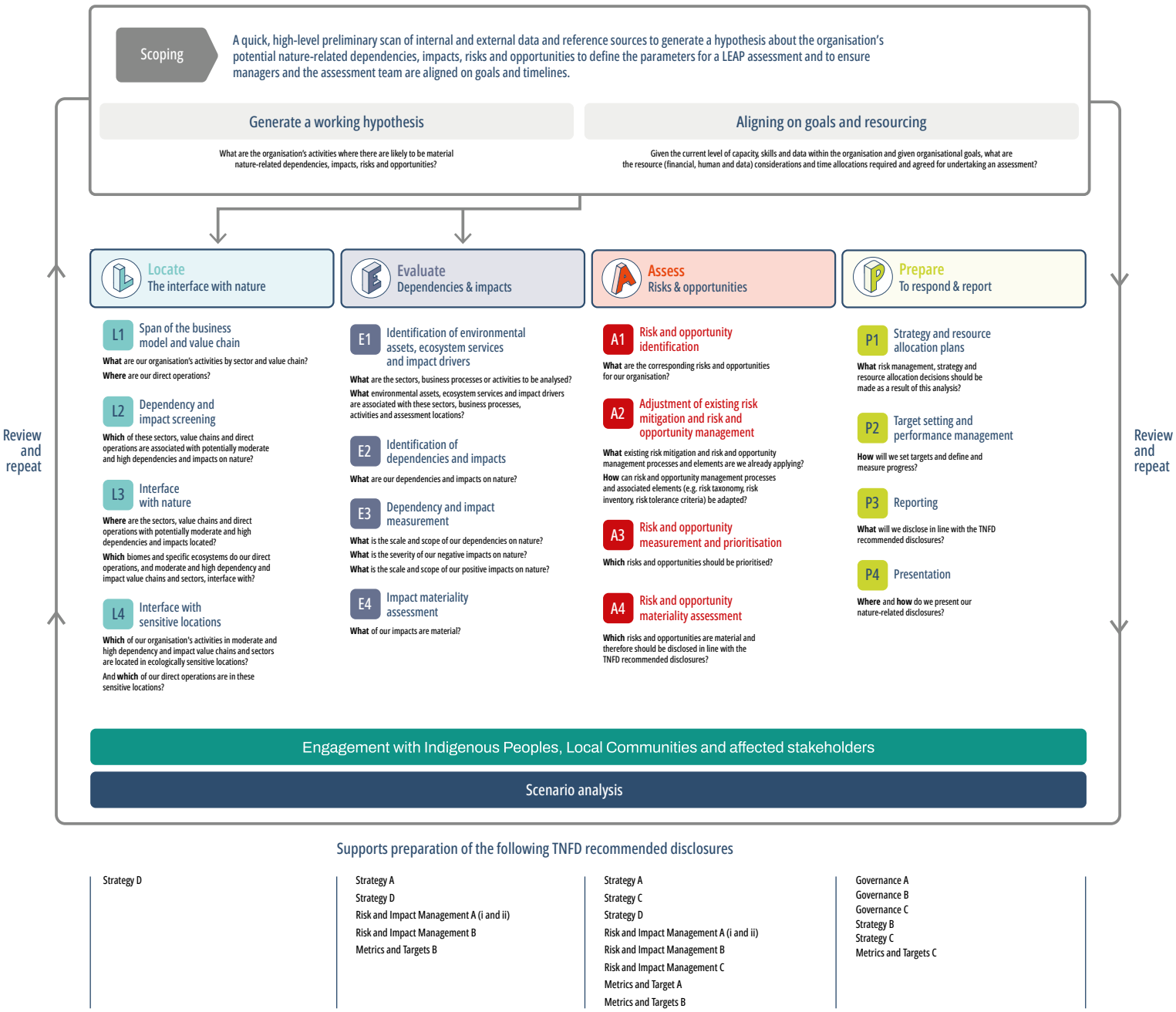
This technical guidance aims to outline how the WWF Risk Filter Suite can be used by companies and financial institutions to complete the four Phases of the TNFD LEAP approach:

1. Locate,
2. Evaluate,
3. Assess, and
4. Prepare.

The WWF Risk Filter Suite is particularly well suited for supporting the Locate (especially the identification of ecologically sensitive locations in L4) and Assess Phases of the LEAP approach.

Furthermore, this technical guidance shows how the WWF Risk Filter Suite can support TNFD's recommendations on general (core and additional) disclosure metrics. WWF has published an ▶Excel document containing detailed information about which datasets within the WWF Risk Filter Suite can help companies and financial institutions with TNFD's recommended (core and additional) disclosure metrics.

Figure 1.
Overview of the LEAP Approach and TNFD's recommended disclosures. Figure from ▶TNFD's 2023 Guidance on the identification and assessment of nature-related issues: The TNFD LEAP approach.



2. How the WWF Risk Filter Suite can support TNFD's LEAP Approach

The LEAP approach helps organisations conduct the due diligence necessary to inform disclosure statements aligned with the TNFD recommendations (see **Figure 1**). It is designed for use by organisations of all sizes and across all sectors and geographies.

The objective of this section is to provide guidance on how the different Modules of the WWF BRF and WRF tools (see **Table 1**) can help with the four Phases of the LEAP approach:

1. Locate your interface with nature,
2. Evaluate your dependencies and impacts,
3. Assess your risks and opportunities, and
4. Prepare to respond to those risks and opportunities and to report.

The TNFD encourages users to scope their LEAP assessment before starting any in-depth analytical work in order to first understand the resources needed as well as potential constraints (e.g., cost, time and data availability).

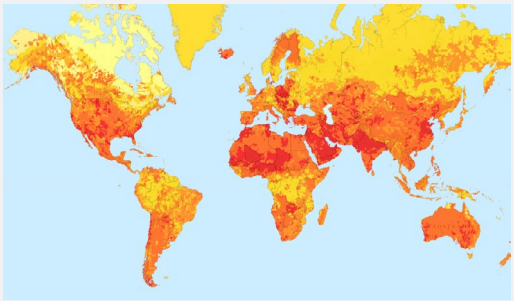
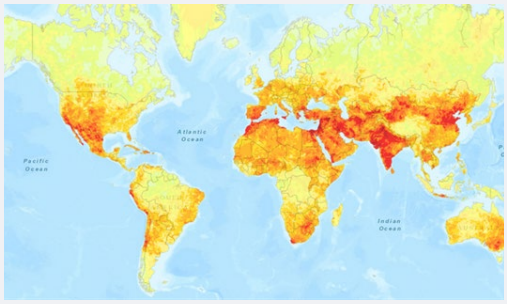
With over 80 global datasets on water and biodiversity, the WWF BRF and WRF are corporate-and portfolio-level screening and prioritisation tools that enable companies and financial institutions to identify and report on their water and biodiversity risks across their operations, supply chain and investments worldwide. For identified high water and biodiversity risks using global datasets, WWF does recommend gathering more localised information for deeper and finer-scale assessments. As the LEAP approach should be an iterative process, in which organisations should go deeper each time on the areas that are identified as most exposed to risk, it is recommended that organisations use the outputs of the WWF Risk Filter tools to help focus and prioritise their efforts towards gathering more localised information when deepening their analysis.

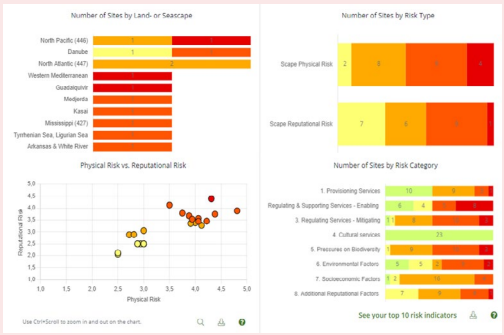
To apply the LEAP approach, corporates and financial institutions need to gather asset-level data on the geographic locations of their direct operations, value chain or investment portfolios. Furthermore, asset-level/location data are required to conduct a risk assessment with the WWF BRF and WRF tools. Given the current data challenges and lack of transparency on asset-level/location data, especially experienced by financial institutions, WWF developed guidance on how to gather necessary asset-level/location data across operations and value chains—described in detail in **Appendix 1**. Furthermore, WWF developed guidance for how financial institutions can aggregate results at site-level (available from the WRF and BRF Assess Module) to company-level, sector-level or portfolio-level—described in detail in **Appendix 2**.

For more detailed information on the WWF BRF and WRF as well as these two guidances, please visit the ▶WRF RFS Data & Methods page. In 2024, WWF and MSCI established a technical partnership to integrate WWF BRF with MSCI's Geospatial Asset Intelligence. This collaboration empowers investors to assess nature-related risks by mapping over 4 million corporate assets worldwide—read more ▶here.

The WWF BRF and WRF are corporate- and portfolio-level screening and prioritisation tools.

Table 1. Overview of the WWF BRF and WRF Modules

Module	WWF Biodiversity Risk Filter	WWF Water Risk Filter
INFORM	Users can explore impacts and dependencies on nature across 25 different industry sectors. Risk values are presented at the sector-level regardless of location. The information provided in the Inform Module is based on insights from ▶ ENCORE tool. **This module does not require login or company data input.** 	N. A.
EXPLORE	• **Maps:** Users can explore various maps to visualize current biodiversity risks worldwide • **Country Profiles:** Users can visualize and download biodiversity risk data aggregated at national and sub-national level **This module does not require login or company data input.** 	• **Maps:** Users can explore various maps to visualize current and future water risks worldwide • **Country Profiles:** Users can visualize and download water risk data aggregated at national and sub-national level **This module does not require login or company data input.** 

Module	WWF Biodiversity Risk Filter	WWF Water Risk Filter
ASSESS	Users can assess scape biodiversity risks across direct operations, supply chains and portfolio investments. The term scape is used to refer collectively to landscapes, seascapes and river basins (freshwater systems). Scape biodiversity risk is informed by a company's geographic locations, its industry activity at site level and the state-of-nature of ecosystems at the geographic location. **This module requires login and localized company data input.** 	Users can assess basin water risks across direct operations, supply chains and portfolio investments. Basin water risk is informed by a company's geographic locations, its industry activity at site level and the state-of-nature of freshwater resources at the geographic location. In addition, users can also assess operational water risks using a site-level questionnaire. Operational water risk is informed by how a company uses, manages and impacts water resources. **This module requires login and localized company data input.**
ACT (will be made available)	Users will get guidance on: • Identifying suitable actions to respond to identified risks • Selecting locations for investment in conservation and restoration **Login and localized company data input will be required for using this module.**	

2.1 Scoping a LEAP assessment

The primary aim in scoping the LEAP assessment is to achieve precise alignment between senior management and a designated LEAP assessment team regarding the critical parameters governing the assessment. These parameters encompass the various dimensions of the business model and the components of the value chain to be assessed, along with the allocation of resources essential for the assessment's execution.

A key component of the scoping process entails conducting a preliminary survey of the internal and external data that is imperative for conducting a thorough LEAP assessment. To facilitate organisations in this endeavour, the WWF WRF and BRF are fully transparent about the underlying datasets used for their 59 WRF indicators and 69 BRF indicators—see WWF RFS Data & Methods page. Furthermore, WWF RFS Guidance on Location Data (available in Data & Methods page) provides a comprehensive inventory of asset-level data sources that can be used for conducting a biodiversity and water risk assessment across financial portfolios.

In addition, organisations are recommended to develop a working hypothesis about the organisation's potential nature-related issues to focus the LEAP assessment. This necessitates an understanding of the processes and activities across direct operations as well as upstream and downstream value chains, to discern potential nature-related dependencies, impacts, risks, and opportunities. Within this context, the BRF Inform Module can serve as a valuable resource by providing a sector-specific overview of impacts and dependencies. For those seeking to also include a quick geographical screening as part of their scoping approach, the WRF and BRF Explore Modules are valuable resources with global state-of-nature maps on water and biodiversity risks worldwide.

2.2 Locating the organisation's interface with nature

The Locate Phase of LEAP encourages organisations to filter and prioritise potential nature-related issues using three factors: sector, value chain and geography. The objective is to help organisations identify potentially material nature-related dependencies, impacts, risks and opportunities in their direct operations and upstream and downstream value chains. As the WWF BRF and WRF are spatially explicit tools, they are particularly well suited for supporting LEAP's Locate Phase, especially the identification of ecologically sensitive locations in L4. The Explore and Assess Modules in the WWF BRF and WRF tools are most relevant to support LEAP's Locate Phase (see **Table 2**).

In the Locate Phase, corporates should identify the geographic locations of their direct operations using internal asset-level data and assess the coverage and quality of their value chain asset-level data. The TNFD acknowledges the data challenges associated with nature-related reporting across value chains and recognises that it will take time for organisations to address over several reporting cycles. For financial institutions, whose nature-related impacts and dependencies are primarily generated through their investment portfolios rather than their direct operations, the ▶ additional guidance to help applying the TNFD Framework.

Table 2. Overview of the most relevant WWF BRF and WRF Modules to support LEAP's Locate Phase.

Steps of Locate Phase & Guiding Questions	Relevant Modules in the WWF Biodiversity Risk Filter (BRF) and Water Risk Filter (WRF)
L1: Span of the business model and value chain What are our organisation's activities by sector, value chain and geography? Where are our direct operations?	• **BRF/WRF Assess Module:** Users can map their operational sites and supply chain worldwide.
L2: Dependency and impact screening Which of these sectors, value chains and direct operations are associated with potentially moderate and high dependencies and impacts on nature?	• **BRF Inform Module:** Users can identify which of their sectors have moderate and high nature-related dependencies and impacts.
L3: Interface with nature Where are the sectors, value chains and direct operations with potentially moderate and high dependencies and impacts located? Which biomes and specific ecosystems do our direct operations, and moderate and high dependency and impact value chains and sectors, interface with?	• **BRF/WRF Explore Module—Country Profiles:** If the geographic location of operations and supply chain is only available at country or sub-national level, users can use the WRF and BRF aggregated data at national and sub-national level. • **BRF/WRF Explore Module—Maps:** If only a rough understanding of the geographic location of operational and supply chain is available, users can explore and visualise water and biodiversity indicator datasets (which includes state of nature) • **BRF/WRF Assess Module:** If the precise geographic location of operations and supply chain is available, users can assess their biodiversity and water risks (including state of nature), with a focus on identified sectors with high nature-related dependencies and impacts.
L4: Interface with sensitive locations For our organisation's activities in moderate and high dependency and impact value chains and sectors, which of these are in ecologically sensitive locations? And which of our direct operations are in sensitive locations?	• **BRF/WRF Explore Module—Maps:** If only a rough understanding of the geographic location of operational and supply chain is available, users can screen for different water and biodiversity risks to get a sense of whether their direct operations and value chains are likely to be located in ecologically sensitive locations. • **BRF/WRF Assess Module:** If the precise geographic location of operations and supply chain is available, users can assess biodiversity and water risks to identify if their direct operations and value chain are located in ecologically sensitive locations. See Table 3 for a full list of all relevant BRF/WRF risk categories and indicators that can be used for identifying ecologically sensitive locations according to TNFD's criteria. Please note that WWF does not recommend using aggregated risk data at national or sub-national level given the importance of identifying ecologically sensitive locations with a certain level of geographic location information.

While the WWF Risk Filter Suite can help organisations through all four steps of the Locate Phase, it is particularly well suited to help organisations identify ecologically sensitive locations (L4) in which they operate in (see **Table 3**), which is a critical step informing the other Phases of the LEAP approach as well as for Strategy D of the TNFD recommended disclosures.

Table 3. Overview of WWF's recommendations of relevant WWF BRF and WRF risk categories and indicators that can be used for identifying ecologically sensitive locations (L4) according to TNFD's criteria. Only one criterion needs to be met to constitute a sensitive location.

TNFD Criteria for Identification of Ecologically Sensitive Areas (L4)	Recommended WWF BRF/ WRF Risk Categories & Indicators
Areas of high biodiversity importance	BRF Reputational Risk Category 14. Environmental Factors and associated indicators 14.1. Protected/Conserved Areas 14.2. Key Biodiversity Areas 14.3. Wetlands of International Importance (same indicator in WRF) 14.4. Other Important Delineated Areas 14.6. Range Rarity WRF Reputational Risk Category 16. Environmental Factors and associated indicators 16.1. Freshwater Biodiversity 16.2. Wetlands of International Importance (same indicator in BRF)
Areas of high ecosystem integrity	BRF Reputational Indicator 14.5. Ecosystem Condition (intact) WRF Reputational Indicators 16.3. Ecosystem Condition (intact) and 16.4. Free Flowing Rivers
Areas of rapid decline in ecosystem integrity	BRF Physical Indicator 2.4. Ecosystem Condition (Degraded) BRF Reputational Risk Category 13. Pressures on Biodiversity and associated indicators 13.1. Land, Freshwater and Sea Use Change 13.2. Forest Canopy Loss (same indicator in WRF) 13.3. Invasive Species 13.4. Pollution WRF Physical Risk Category 6. Ecosystem Services Status and associated indicators 6.1. Forest Canopy Loss (same indicator in BRF) 6.2. Landslides 6.3. Invasive Species 6.4. Desertification 6.5. River Fragmentation WRF Reputational Risk Category 15. Pressures on Freshwater and associated indicators 15.1. Freshwater Exploitation 15.2. Freshwater Habitat Degradation 15.3. Pollution

TNFD Criteria for Identification of Ecologically Sensitive Areas (L4)	Recommended WWF BRF/ WRF Risk Categories & Indicators
Areas of importance for ecosystem service provision, including benefits to Indigenous Peoples, Local Communities and stakeholders	**BRF Reputational Indicator** 15.2. Resource Scarcity
Areas of high physical water risks	**WRF Physical Risk Categories** 1. Water Availability (same indicator in BRF) 2. Drought 3. Flooding (same indicator in BRF) 4. Water Quality (same indicator in BRF but without marine) 5. Water Accessibility 6. Ecosystem Services Status **BRF Physical Indicators** 1.1. Water Availability (same indicator in WRF), 2.2. Water Quality (same indicator in WRF but with marine), and 3.7. Flooding (same indicator in WRF)

Every two years, the underlying datasets in the WWF Risk Filter tools are updated in order to incorporate the most recent and robust scientific datasets available. See the WWF RFS Data & Methods page for most updated information on the WRF and BRF tools' risk data.

2.3 Evaluating nature-related dependencies and impact

The Evaluate Phase of the LEAP assessment is focused on developing an understanding of the organisation's potentially material dependencies and impacts on nature:

- Companies should aim to understand the dependencies and impacts within their direct operations as well as across their upstream and downstream value chains,
- Financial institutions should aim to understand the dependencies and impacts of the companies in their portfolios.

While the WWF BRF and WRF tools are not footprinting tools that enable a detailed assessment of company-specific dependencies and impacts, the following Modules can help support LEAP's Evaluate Phase: BRF Inform Module and the WRF operational risk assessment in the Assess Module (see **Table 4**).

Table 4. Overview of the most relevant WWF BRF and WRF Modules to support LEAP's Evaluate Phase.

Steps of Evaluate Phase & Guiding Questions	Relevant Modules in the WWF Biodiversity Risk Filter (BRF) and Water Risk Filter (WRF)
E1. Identification of environmental assets, ecosystem services and impact drivers For corporates: What are the sectors, business processes or activities to be analysed? What environmental assets, ecosystem services and impact drivers are associated with these sectors, business processes, activities and assessment locations? For financial institutions: What are the companies/activities in our portfolios that are in sectors, geographies and sensitive locations identified? What are the environmental assets, ecosystem services and impact drivers associated with these companies/activities?	• **BRF Inform Module:** Users can identify impact drivers that are commonly associated with their sector's typical business activities and processes using specific indicators outlined in Appendix 3. • **WRF Assess Module—Operational Risk:** Impact drivers on water use and water pollution associated with activities and processes of key sites can be estimated by completing the site-level WRF operational questionnaire—see Appendix 3.
E2. Identification of dependencies and impacts For corporates: What are our dependencies and impacts on nature? For financial institutions: What are our dependencies and impacts on nature resulting from the dependencies and impacts of these companies in our portfolios?	• **BRF Inform Module:** Users can identify dependencies and impacts on nature based on general sector activities and processes. However, companies are expected to provide more company-specific information in step E2 using other tools and approaches (e.g., Life Cycle Assessment). • **WRF Assess Module—Operational Risk:** By completing the site-level WRF operational questionnaire, users can understand dependencies and impacts on water due to their site's activities and processes.
E3. Dependency and impact measurement For corporates: Dependency measurement—What is the scale and scope of our dependencies on nature? Impact measurement—What is the severity of our negative impacts on nature? What is the scale and scope of our positive impacts on nature? For financial institutions: Dependency measurement—What is the scale and scope of our dependencies on nature as a result of the dependencies of our portfolio companies? Impact measurement—What is the severity of their negative impacts on nature? What is the scale and scope of their positive impacts on nature?	• **BRF Inform Module:** Risk values range on a scale of 1-5 (1 very low to 5 very high) and provide a qualitative assessment of the level of dependency or impacts on nature based on general sector activities and processes. However, companies are expected to provide more company-specific information in step E3 using other tools and approaches (e.g., Life Cycle Assessment). • **WRF Assess Module—Operational Risk:** Risk values range on a scale of 1-5 (1 very low to 5 very high) and provide a qualitative assessment of the level of dependency or impacts on nature based on sites' activities and processes.
E4. Impact materiality assessment For corporates: Which of our impacts are material? For financial institutions: Which of the identified impacts are material?	• **BRF/WRF Assess Module:** Users can prioritise their most significant impact-related risks (e.g., BRF/WRF Reputational Risk associated with Environmental Factors Category or WRF operational indicators) using risk values ranging from 1-5 (1 very low to 5 very high).

2.4 Assessing nature-related risks and opportunities

In the Assess Phase of a LEAP assessment, organisations aim to understand which nature-related risks and opportunities are material and should be disclosed. TNFD categorises nature-related risks as physical risks, transition risks or systemic risks. The exposure of the organisation to a nature-related risk or opportunity is driven by two key elements:

- The presence of a corporate's operations or value chain—or a financial institution's deployed capital—in sensitive locations (see the *Locate Phase*); and
- An organisation's dependencies and impacts on nature (see the *Evaluate Phase*)

As the WWF BRF and WWF WRF are risk assessment tools, they are well suited to provide critical information for assessing nature-related risks in the Assess Phase. Moreover, the WWF Risk Filter tools' risk assessment approach is well-aligned to TNFD's framing of nature-related risks as basin/scape risk values provided in the tools' Assess Module are based on a combination of:

- The state-of-nature of the basins/landscapes/seascapes in which sites are located; and
- The sector-specific dependencies and impacts on nature.

Furthermore, the WWF BRF and WRF tools assess three types of risks: physical, reputational and regulatory deficiency risks. As a result, the WWF BRF and WRF Assess Modules are the most relevant Module to support LEAP's Assess Phase (see **Table 5**). However, please note that the following limitations regarding use of the RFS results for TNFD LEAP Assess Phase:

- BRF/WRF risk values do not readily dissociate between the magnitude and the likelihood of a given nature-related risks, although some inferences of both could be made.
- BRF/WRF do not provide any quantifications for nature-related risks in currency terms that can help measure the magnitude of a given risk according to the TNFD LEAP Assessment Guidance.
- BRF/WRF do not provide any measure for the vulnerability of a corporate activity to a nature-related risks (how much it can withstand/mitigate the risk), nor the speed of onset of a risk (how fast the risk can materialise).

Table 5. Overview of the most relevant WWF BRF and WRF Modules to support LEAP's Assess Phase.

Steps of Assess Phase & Guiding Questions	Relevant Modules in the WWF Biodiversity Risk Filter (BRF) and Water Risk Filter (WRF)
A1. Risk and opportunity identification What are the corresponding risks and opportunities for our organisation?	**BRF/WRF Assess Module:** Basin/scape risk values range on a scale of 1-5 (1 very low to 5 very high) and therefore can provide a qualitative assessment of physical, reputational and regulator deficieny risks. In the Assess Module, users have access to various visuals and maps to identify most critical water and biodiversity risks across all assessed sites as well as identify regional risk-clusters and risk hotspots. In the WRF Assess Module, users can also assess operational water risks.
A2. Adjustment of existing risk mitigation and risk 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?	**BRF/WRF Assess Module:** Basin/scape risk scores account only for risk and do not consider mitigation efforts taken by the assessed sites. **BRF/WRF Act Module—in development:** Users will get guidance on suitable actions to mitigate their identified risks and recommendations for investment in conservation and restoration.
A3. Risk and opportunity measurement and prioritisation. Which risks and opportunities should be prioritised?	**BRF/WRF Assess Module:** Basin/scape risk values range on a scale of 1–5 (1 very low to 5 very high) and therefore can provide a qualitative assessment to prioritise most critical risks to be reported under TNFD. Users can aggregate site-level results to company-level, sector-level or portfolio-level (as described in Appendix 2) to support the prioritisation process.
A4. Risk and opportunity materiality assessment Which risks and opportunities are material and therefore should be disclosed in line with the TNFD recommended disclosures?	**BRF/WRF Assess Module:** Risk assessment results are qualitative and support risk identification and prioritisation. Therefore, risk assessment results can help prioritise which are most critical risks to be reported under TNFD. However, the BRF and WRF tools do not provide an assessment on the implications of identified risks to the organisation´s financial performance and cash flows (financial effects), which is required for this step A4.

2.5 Preparing to respond and report

During the Prepare Phase of the LEAP assessment, organisations will decide how they should respond to the material nature-related issues identified in the LEAP approach, including what to disclose and how to disclose the material issues identified.

The WWF Risk Filter Suite can support the LEAP's Prepare Phase with its risk assessment outputs in the Assess Module and its future Act Module will provide guidance to help inform strategy and resource allocation plans (see **Table 6**).

Table 6. Overview of the most relevant WWF BRF and WRF Modules to support LEAP's Prepare Phase.

Steps of Prepare Phase & Guiding Questions	Relevant Modules in the WWF Biodiversity Risk Filter (BRF) and Water Risk Filter (WRF)
P1. Strategy and resource allocation plans What risk management, strategy and resource allocation decisions should be made as a result of this analysis?	**BRF/WRF Act Module—in development:** Users will get guidance on suitable actions to mitigate their identified risks and recommendations for investment in conservation and restoration.
P2. Target setting and performance management How will we set targets and define and measure progress?	**Additional resources:** The SBTN team and WWF released ▶ technical guidance on how the WWF Risk Filter Suite can be used by companies and financial institutions for steps 1 and 2 of the SBTN target-setting process. In addition, WWF released ▶ guidance on setting contextual water targets, including in-formation on how the WRF can support the contextual water target setting process.
P3. Reporting What will we disclose in line with the TNFD recommended disclosures?	**BRF/WRF Assess Module:** Outputs from the risk assessment results contain powerful insights that can support reporting under TNFD—see Assess Phase.
P4. Presentation Where and how do we present our nature-related risk disclosures?	N.A.

3. TNFD disclosure metrics

The TNFD's recommended core disclosure metrics are organised around 14 core global indicators relating to:

- Dependencies and impacts on nature (recommended disclosure Metrics and Targets B); and
- Nature-related risks and opportunities to the organisation (recommended disclosure Metrics and Targets A).

The TNFD also provides recommendations for additional metrics to be considered, where relevant, for disclosure, with the objective to best represent an organisation's mature nature-related issues, based on their specific circumstances.

The TNFD disclosure metrics require organisations to report specific company-related information. However, the WWF BRF and WRF scape/basin risk data as well as the WWF BRF Inform industry activity values can be used as proxy to help in form TNFD disclosure metrics. Furthermore, the WWF WRF operational risk assessment does require company-specific information to be provided at site-level and, therefore, some of its metrics/questions can used to inform directly TNFD disclosure metrics.

This ▶ Excel document provides a detailed overview of which WWF BRF and WWF WRF risk categories and indicators can help companies and financial institutions with TNFD's recommended (core and additional) disclosure metrics.

The WWF BRF and WWF WRF scape/basin risk data as well as the BRF Inform industry activity values can be used as proxy to help inform TNFD disclosure metrics.

4. Conclusion

As outlined throughout this technical guidance, the WWF Risk Filter Suite—containing the BRF and WRF freely available online tools—can help companies and financial institutions throughout all four phases of the TNFD LEAP approach, which in turn helps inform TNFD's recommended disclosures. As the BRF and WRF are spatially explicit risk assessment tools, they are particularly well suited for supporting the Locate Phase (especially the identification of ecologically sensitive locations in L4) as well as the Assess Phase of the LEAP approach. Furthermore, the WWF Risk Filter tools can support TNFD's recommendations on general (core and additional) disclosure metrics.

Companies and financial institutions should apply the LEAP approach as an iterative process. As the WWF BRF and WRF are designed to be used as corporate- and portfolio-level screening and prioritisation tools, they can help organisations better prioritise where and on what nature-related issues to focus their efforts in gathering more localised information for deeper analysis.

As the nature crisis worsens, there is growing momentum for companies and financial institutions to report and manage their nature-related risks and opportunities using the TNFD's recommendations, with the objective to align our economies and finance system with a nature-positive future. The TNFD recommendations were designed to complement and be consistent with the Task Force on Climate-related Financial Disclosures (TCFD), the International Sustainability Standards Board (ISSB), the Global Reporting Initiative (GRI) standards, the requirement of Target 15 of the Kunming-Montreal Global Biodiversity Framework for corporate reporting, as well as are incorporated into the new European Sustainability Reporting Standards (ESRS). By aligning and complementing each other, the TNFD and other key global initiatives set the stage for action by private sector actors to tackle nature loss and make their businesses and financial portfolios more resilient to nature-related risks in the process, as well as seize nature-related opportunities.

Within the context of the fast evolving regulatory and reporting initiatives space, WWF will continue to enhance the WWF Risk Filter Suite to mobilise business and finance in supporting the transition to a nature-positive economy.

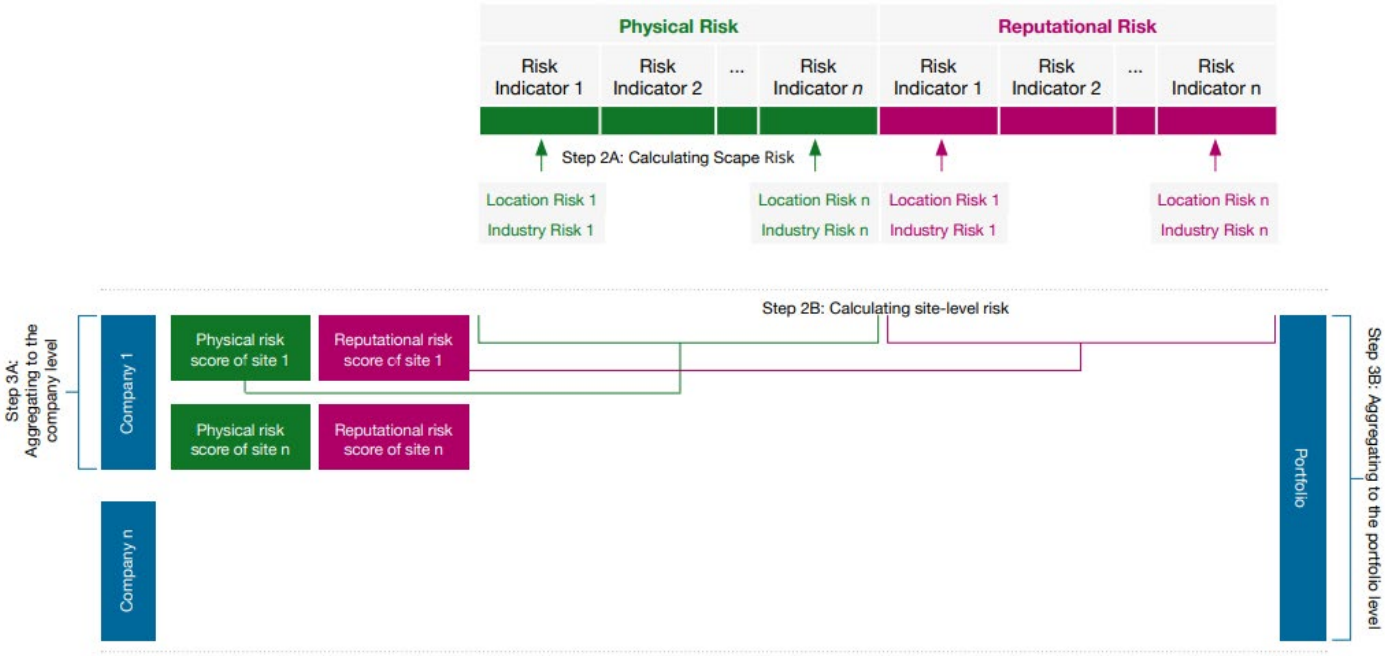
Appendix

Appendix 1. Guidance on how to collect necessary asset-level data/location data
To initiate an assessment using the WWF BRF and WRF Assess Module, users are required to input three fundamental data points per site: location, business activity, and business importance. This can present a challenge for financial institutions, which often lack the necessary data with respect to companies within their portfolio.

In response, WWF has created comprehensive guidance to empower users in acquiring company-specific data. The approach involves leveraging two distinct data sources, with the first utilising all available asset-level data—both commercial and open-source. These data sets encompass the required data points in the correct format and exhibit sophisticated quality.

A detailed list of such asset-level datasets is available in WWF RFS Guidance on Location data (available in Data & Methods page), aiding users in selecting the most pertinent datasets for their assessments. However, a limitation arises as asset-level data sets exhibit uneven coverage across economic sectors, resulting in data gaps for RFS assessments. To mitigate this, users are advised to refer to corporate structure data sets from prominent data providers, augmenting their coverage and streamlining the matching process with portfolio companies.

Appendix 2. Guidance on aggregation



The overarching objective of aggregating the results of the RFS assessment is to attain deeper insights into the various assessed sites. Highlighted in graph 1 are some of the most prevalent aggregation levels.

1. Group level

2. Sector level

3. Portfolio level

1. Group level:
The group functionality enables users to systematically evaluate a curated selection of sites. This capability proves invaluable when conducting assessments across sites affiliated with a particular company within a portfolio, sites situated in a specific country or region, those encompassing a distinct production process, and any other relevant grouping criteria.

In order to aggregate the results of the individual sites within a group to one risk score (RI) per group (g), and per indicator (r), can be computed by multiplying the business importance (BI) per site, (i), with the aggregated site risk of site (i), per risk type (r).

$RI_(g,r)=\sum^{n} Site\ Risk_(i,r)\ (x) BI_i$
With N=total number of sites per company.

2. Sector level:
Aggregating the results to the sector level is most interesting for financial institutions and large multinational corporations. It enables the user to prioritise certain high risk sectors.

The aggregation mirrors the process at the group level, with the distinction that, in this instance, the focal point shifts to the sector. Thus, in order to aggregate the results of the individual sites within a site to one risk score (RI) per sector (s), and per indicator (r), can be computed by multiplying the business importance (BI) per site, (i), with the aggregated site risk of site (i), per risk type (r).

$$RI_(s,r)=\sum\nolimits^{n} Site\ Risk_(i,r)\ (x)BI_i$$

3. Portfolio level:
This aggregation holds particular significance for financial institutions. It provides valuable insights into the comprehensive risk associated with specific indicators across all assessed sites.
When aiming to aggregate at the portfolio level, it is beneficial to have previously aggregated the results at the company level, as outlined in the aggregation to the group level.

An aggregated portfolio risk score, P, for each LEVEL 1 risk type, and portfolio, p, can be computed by multiplying the portfolio weight of a company, to the aggregated company risk score, RI, for company, c, and per risk type, r.

$$P_(p,r)=\sum\nolimits_{c}^{n} RI_(c,r)\ x\ W_c$$

Appendix 3. Impact Drivers

Driver of nature change	Impact driver	Relevant BRF/WRF Risk Categories & Indicators
Land/Freshwater/ocean-use change	Land/Freshwater/ocean-use change	BRF 13.1 Land, freshwater and sea use change
Climate Change	Greenhouse gas emissions	N.A.
Resource use/replenishment	Water use	WRF operational questionnaire WRF 1. Water Availability
	Other resource use	BRF 15.2 resource scarcity: water-air
Pollution	Non-GHG air pollution	
	Water pollution	WRF operational questionnaire WRF 4. Water Quality
	Soil pollution	BRF 13.4 Pollution
	Waste	
	Disturbances	
Invasive species and other	Biological alterations	BRF 13.3 Invasive Species

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Why we are here
To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

WWF Deutschland
Reinhardtstr. 18 | 10117 Berlin | Germany
Tel.: +49 30 311777-700
info@wwf.de | wwf.de