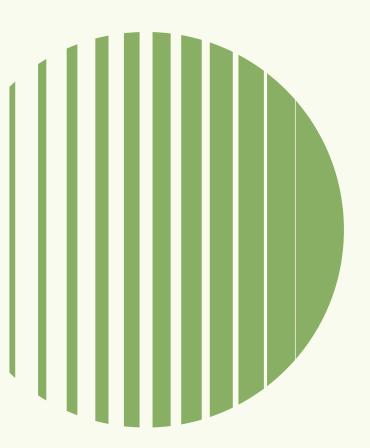


INF RM Investor Framework for Biodiversity Risk Mitigation



General disclaimer

The content and suggestions in this report are intended solely as general informational use and guidance. For any decisions that have financial impacts readers are encouraged to make their own assessments and consult with qualified advisors before taking any actions based on the material provided.

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Suggested citation: Wassénius, E., Funke, H., Crona, B., Meacham, M. 2025, INFORM: Investor Framework for Biodiversity Risk Mitigation, Mistra FinBio & Stockholm Resilience Centre.





Mistra FinBio is a transdisciplinary research programme centred on doing cutting-edge research while simultaneously developing science-based outputs that can promote real-world impact. It leverages key networks in the academic and finance sector alike, with the aim of serving as a testbed for piloting novel metrics and tools to achieve scalable impact.

Mistra FinBio is funded by Mistra.

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1. About INFORM

Urgent action is needed to stop the ongoing environmental degradation of our planet. As ecosystems face increasing pressures, it is crucial for businesses to recognize and address their impacts on nature. **Integrating nature into decision-making** is essential for sustaining both natural and financial capital, and investors play an important role in guiding companies toward sustainable business practices.

INFORM provides a science-based framework for investors to monitor and assess portfolio companies' environmental performance, with specific focus on nature and biodiversity. It is designed to increase competency around this topic among engagement officers and companies alike. By linking the guidance to existing targets and frameworks, it is also designed to support investors, engagement officers, and companies as they journey towards the necessary shift in sustainability information disclosure needed for emerging reporting requirements and for more accurately assessing nature- and biodiversity-related risks.



2. Why Should Investors Use INFORM?

There are several initiatives launched to encourage and track company political engagement and commitments to sustainability-related targets, such as <u>Spring</u> and the <u>Nature Action 100 company benchmark</u>. So, what does INFORM add?

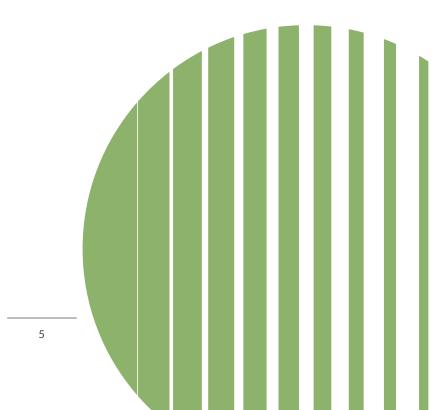
INFORM provides a more detailed focus that aims to help investors, and specifically engagement officers, guide and support companies as they move from making commitments to mapping their biodiversity impact and developing mitigative actions to reach committed targets. This is a key step in risk mitigation and for achieving the long-term investor interest of addressing systemic risks, as outlined by PRI. INFORM thus complements Spring and the NA 100 company benchmark by helping users gain a comprehensive understanding of companies' interface with nature while also facilitating companies' alignment with global requirements and disclosure standards.

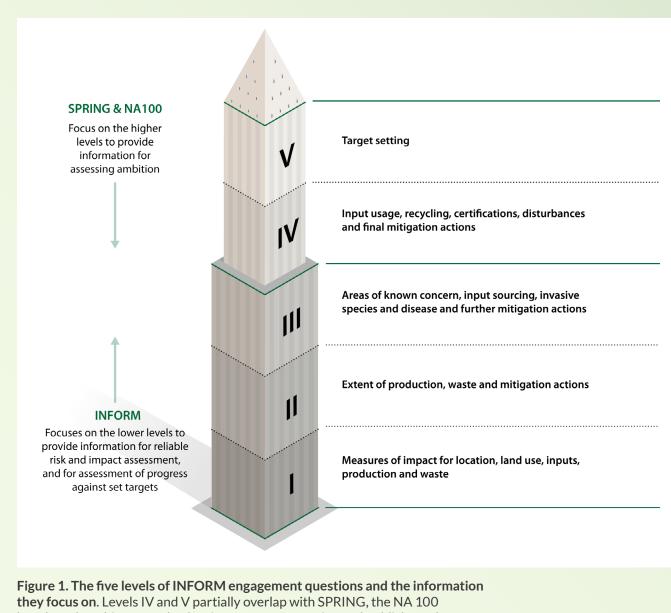
The engagement questions outlined in INFORM are categorized in five levels to help investors prioritize what issues to focus on during engagement (Figure 1). Lower levels focus on information that is critical to assess nature-related impacts and progress towards targets. Higher levels focus on information on targets and ambitions, thus deliberately overlapping with NA 100 and Spring to ensure information gathered from INFORM can be mapped to targets and to promote alignment.

To account for varying maturity in nature-related issues among companies and investors we outlined two ways to use the framework; one for Entry-level users and one for Advanced users. Entry-level users can use INFORM to increase their own (and companies') understanding of biodiversity impacts and their importance for target setting and risk assessment. Advanced users can use INFORM as a detailed support for driving transformation in their portfolio companies.

Want to understand how to use INFORM? See Section 5 for detailed guidance

Want to learn more about nature, biodiversity, and its relation to systemic risk? See <u>Section 3</u>





they focus on. Levels IV and V partially overlap with SPRING, the NA 100 benchmark and frameworks that focus on target setting and publicly made commitments.

3. Nature, Biodiversity, and Its Relation to Systemic Risk

Nature encompasses all living and non-living things in the environment, including the soil, minerals, water and glaciers. Biodiversity, on the other hand, refers specifically to the variety and variability of all living things. Biodiversity is directly affected by the pressures human activities put on the environment, particularly the amount of land and water we use, release of pollutants or invasive species, and of course climate change.

Almost 15 years ago, scientists created a framework called "<u>planetary boundaries</u>" to estimate limits for nine environmental dimensions. If human pressures push us beyond these limits our climate and living ecosystems risk becoming unpredictable and change so much that they could cease to provide the goods and services that underpin our economies and wellbeing. ¹ Therefore, understanding the magnitude of environmental pressures of companies is important because these environmental impacts translate into tangible risks to companies, investors and society.

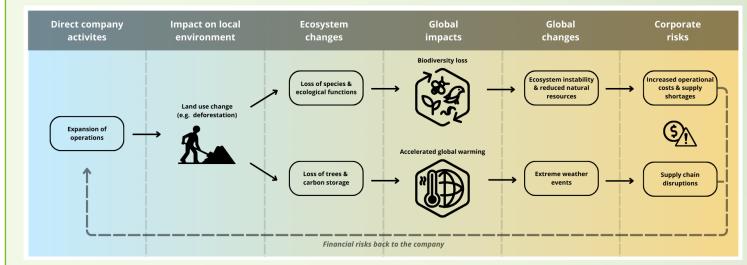


Figure 2. An example of how business activities may have global implications that lead to increased financial risk. Note that this is merely one example, and many other impact-to-risk pathways exist.

Systemic risk refers to disruptions that can destabilize markets, economies, and the entire financial system. Systemic risks that relate to the environment include climate change, and rapid fundamental change of ecosystems caused by biodiversity loss (Figure 1). Each can have far-reaching impacts on the economy and financial markets. For example, climate change can lead to extreme weather events that disrupt supply chains, damage infrastructure, and reduce agricultural productivity, all of which can negatively affect investment returns. Changing land use can affect the capacity of an ecosystem to produce agricultural or forestry products and lead to a loss of biodiversity that reduces the capacity of nature to mitigate and absorb shocks from the increasingly volatile climate, this translates into risks for economic assets.

¹ Steffen, W. et al. (2015). Planetary boundaries: Guiding human development on a changing planet. Science, 347,1259855.

Our climate is already changing. Extreme weather events have risen sharply in frequency and intensity throughout the world. Loss of crop production due to declining pollination, or the ability to maintain stable water flows in rivers both during drought and floods are severely compromised in many regions.^{2,3} In other words, the climate and nature-related risks and concomitant costs to businesses and society are already materializing.^{4,5}Therefore, **understanding how companies can reduce their impact (or that of their supply chains) is a key part of reducing their own risk, and the likelihood of systemic risk.**

Systemic risk requires a systems perspective on sustainability. This means understanding that the various components of our environment, society, and economy are interconnected and influence each other. A systems perspective emphasizes that actions in one area can have ripple effects across the entire system. The concept of planetary boundaries illustrates this well. For example, deforestation (which impacts the land-system change boundary) can lead to increased carbon dioxide levels since the trees no longer store any carbon in their trunks and also generally leads to loss of species, ecological functions, and even genetic diversity. As such, deforestation (or any land use change) has the potential to affect both climate and biodiversity. Interactions like the one described can amplify global warming and climate change, making it harder to maintain a stable and resilient Earth system.

² Rumohr, Q. et al. (2023). Drivers and pressures behind insect decline in Central and Western Europe based on long-term monitoring data. PLoS ONE, 18(8): e0289565.

³ Potts, S., et al. (2015). Status and trends of European pollinators. Key findings of the STEP project.

⁴ NOAA National Centers for Environmental Information (2025). Monthly Global Climate Report for Annual 2024. Available at: https:// www.ncei.noaa.gov/access/monitoring/monthly-report/global/202413

⁵ European Environment Agency (2024). European Climate Risk Assessment. EEA, Luxembourg.

4. The INFORM Approach to Engagement

The engagement process using INFORM is based on mapping out and assessing portfolio companies' impacts on biodiversity by asking engagement questions. To ensure that investors get information that is useful to assess a company's interface with, and impacts on, nature questions are divided across a hierarchy of five levels. Following the hierarchy helps investors focus on the most critical information first. It supports both the investor and the company in gathering information that is relevant given their maturity regarding nature and biodiversity-related topics.

Level I questions are essential to reliably assess any company's interface with nature since they account for the main drivers of biodiversity loss and impact from operational locations. To set the foundation to reduce biodiversity impact users should therefore focus on initially addressing Level I questions. Provided the company can address these, engagement can proceed to higher levels to plan mitigation actions and targets.

Engagement Questions

The engagement questions span four thematic areas, corresponding to key dimensions for assessing a company's nature and biodiversity-related impacts. The thematic areas are grounded in environmental science which has identified information that is material to assess environmental impact (referred to as Essential Environmental Impact Variables). The four thematic areas are:

Mapping of Locations: Disclosure of all operational locations is a crucial element to assess the biodiversity impacts of any company

Land Use: Practices that affect the land use in operational sites and surrounding areas (e.g. tillage methods, land cover, proximity to areas of known concern)

Inputs & Outputs: Inputs and outputs that are used, extracted, processed or otherwise involved in operations (e.g. freshwater, energy, feed, consumer goods)

Events & Externalities: Events and nature-related risks that impact operations or causes disturbances (e.g. natural disasters, accidents, disease outbreaks)

The first engagement question focuses on Mapping of Locations. This information is essential to make any reliable assessment of biodiversity impact. Remaining questions cover the three subsequent thematic areas, and all have at least one question for measurement of impact (I), mitigation action (A), and target setting (T).

• Measurement of impact (I) questions request information on processes that contribute to environmental impacts

• Mitigation action (A) questions request information on strategies or initiatives to mitigate environmental impacts

• Target setting (T) questions request information on what targets the company has set to reduce environmental impacts

⁶ Wassénius, E., Crona, B., & Quahe, S. (2024). Essential environmental impact variables: A means for transparent corporate sustainability reporting aligned with planetary boundaries. One Earth, 7(2), 211–225.

Interpreting Responses

Users of INFORM must make subjective judgments to determine whether the company's response to a question should be considered satisfactory or not, depending on the company's maturity around these topics. However, for every question we provide guidance on its purpose and what should be included in an ideal satisfactory answer.

Simply by showing which engagement questions the company can address, investors will immediately gain valuable insights regarding the company's reporting and understanding of nature-related impacts. For example, a company may have land use practices in place to mitigate environmental harm but have poor oversight of impacts from inputs in their operations. Such insights flag gaps or challenges that must be addressed for the company to improve their awareness of impacts. It can inform both the company and its investors regarding what actions to reduce impacts may need to be prioritized. The framework therefore helps investors work with companies to identify challenges and opportunities for action.

Sector-specific Guidance

All guidance in this document refers to general engagement questions that are broadly applicable to any sector (see General Engagement Questions-tab in the INFORM Spreadsheet). Users should however always be mindful of how the unique context of a company they engage with shapes its interface with nature. To aid this process we provide engagement questions specifically tailored to three sectors identified by NA 100 as high priority for reversing nature and biodiversity loss; Forestry, pulp and paper, Mining and metals, and Food and beverage retail.

Users will find these engagement questions in three sector-specific tabs in the INFORM Spreadsheet. These are based on the same questions as the general version, but with additional context for some questions and exclusion of the less relevant ones.

When engaging with companies that have low awareness of biodiversity impacts and nature-related risks, or if your own experience is limited, it is important to start at a foundational level. Companies with low topic maturity often lack the necessary data to assess their interactions with nature. Therefore, engagement should ideally begin by encouraging companies to recognize how their business activities depend on, and impact biodiversity (Figure 4). This initial step also helps companies begin the necessary journey towards collecting relevant data. A primary focus should be on whether the company has mapped all its operational locations and is gathering data on land use, and types and amounts of inputs at each site. These elements are essential for reliable risk assessments and are covered by the Level I engagement questions.

5. Different ways to use the INFORM?

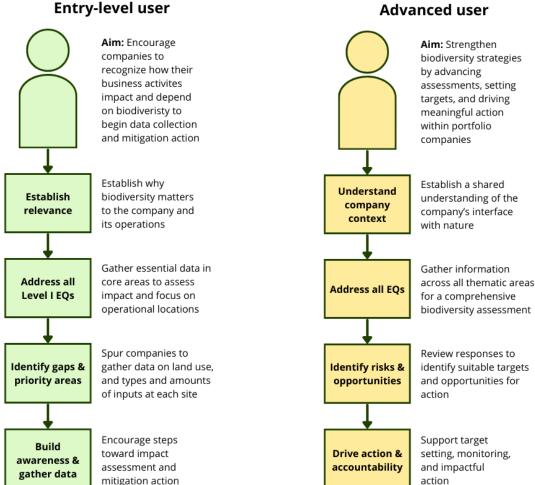
We outline two examples of how to make use of the guidance material: entrylevel and advanced user. These two types should be understood as stereotyped users to illustrate different ways in which INFORM can support investors and companies (Figure 3). The goal of engagement will differ somewhat between these user types.

Entry-level users: Focus on increasing understanding of biodiversity impacts and why they are a crucial basis for assessing targets and making reliable risk

Advanced users: Focus on using INFORM as a detailed support for driving transformation in their portfolio companies

Detailed guidance for how each user type can engage with the material is found below.

Go directly to Engagement Process: Entry-level User Go directly to Engagement Process: Advanced User



Advanced user

Figure 3. Archetypes for two different types of users

6. Engagement Process: Entry-level users

When engaging with companies that have low awareness of biodiversity impacts and nature-related risks, or if your own experience is limited, it is important to start at a foundational level. Companies with low topic maturity often lack the necessary data to assess their interactions with nature. Therefore, engagement should ideally begin by encouraging companies to recognize how their business activities depend on, and impact biodiversity (Figure 4). This initial step also helps companies begin the necessary journey towards collecting relevant data.

A primary focus should be on whether the company has mapped all its operational locations and is gathering data on land use, and types and amounts of inputs at each site. These elements are essential for reliable risk assessments and are covered by the Level I engagement questions.

The aim of entry-level engagement is not to address all questions, but to raise awareness regarding biodiversity impacts and start gathering the data needed to implement mitigation actions and set reliable targets. Once a company can respond to all Level I EQs, engagement can move to subsequent levels, focusing on ambitions, targets, and mitigation actions. However, it is crucial to first establish a strong understanding of biodiversity impacts before advancing. In this way, INFORM can be used as a process to identify gaps in current business practices and priorities to increase awareness. After engaging with companies, investors should support the company to take necessary steps to build awareness and gather the necessary data to implement mitigation action

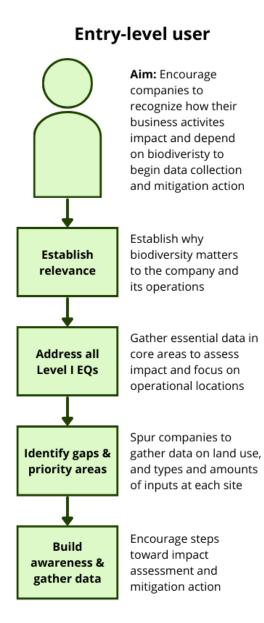


Figure 4. Engagement process for entry-level users

Below are specific practical suggestions for entry-level users to facilitate engagement with companies. A suggestion is to bring this page to engagement talks to ensure the conversation stays focused on information that is essential to make companies more aware of their biodiversity impacts.

Explaining why companies should care about nature and biodiviersity

Corporate and investor risks relating to nature include climate change but also changes in ecosystems that negatively affect our capacity to mitigate and adapt to climate change. Degradation of ecosystems, caused by biodiversity loss, also undermines many environmental goods and services that currently support our economies and individual business at low cost.

Understanding the magnitude of your company's pressures on the environment is therefore important because environmental impacts translate into tangible risks to companies, but also to investors and society.

Essential elements to understand any company's impact on biodiversity

Below are all the *Level I* questions from INFORM. These are essential to conduct reliable risk assessment and understand any company's impact on nature. Focus engagement talks on these questions:

- Have you mapped all your locations of operations?
- How much has the area under operation increased or decreased in the previous year?
- What types of inputs do you use (e.g. freshwater, chemicals, feed, seed)?
- How much do you use of each of these inputs?
- What method is used to extract or produce your resources or outputs?
- How and where are waste products managed, stored and/or released?

These engagement questions (with ID numbers: 1, 2-I, 4-I, 5-I, 10-I, 13-I) can also be found in the *INFORM Spreadsheet*, along with all other engagement questions, and answers provided by companies can be entered in the excel file to keep a record of status and progress.

Evaluating company initiatives or biodiversity action

When engagement officers are faced with existing company initiatives to mitigate biodiversity loss it is important that the expected outcomes are credibly linked to mitigation of impacts of the company's own operations. Therefore, ask companies to explain how any 'biodiversity initiative' helps mitigate their own impacts. This ensures discussions remain focused on the company's actual interactions with nature rather than abstract commitments or vaguely related off-sets.

For example, if a company supports initiatives to protect endangered species or threatened habitats, it is important that these initiatives are linked to their business activities and operational locations. This is important because compensating biodiversity loss in one location by supporting biodiversity in a distant location is unlikely to mitigate the negative effects of nature degradation at the operational site.

7. Engagement Process: Advanced User

If you have experience working with sustainability issues yourself, or if you work with companies that are mature in their sustainability work and disclosure, you will benefit from using the engagement questions across all levels of the INFORM hierarchy.

Many companies tend to have a negative impact on biodiversity, but this assumption may not be as consistent across companies with advanced biodiversity knowledge (or for new ventures explicitly providing sustainability solutions). Therefore, engagement should start by establishing a shared understanding of the company's current interface with nature, and what strategies they have in place that are important to their biodiversity impact (Figure 5).

The aim of advanced biodiversity engagement is thus to use the engagement questions to assess the company's current interface with nature and identify what actions and targets should be adopted to advance biodiversity action and minimize negative impacts. All INFORM engagement questions cover elements that are important for a comprehensive assessment of a company's biodiversity impacts and should be addressed by a company with advanced biodiversity knowledge. However, it is essential that companies can first address the lower-level questions to have the necessary information to implement mitigation action and set targets. By mapping out all the responses, you get an overview of the company's impact awareness and can assess its performance across the different levels and thematic areas. In this way, the question sheet can be used to identify gaps in the company's current operations, and priorities to advance biodiversity action.

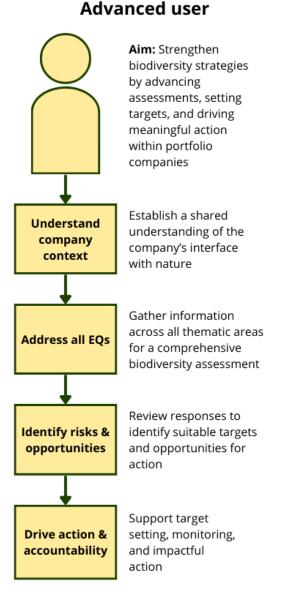


Figure 5. Engagement process for advanced users.

Below we provide specific tips for how INFORM can be used and what advanced users should think about when implementing it.

Using INFORM for monitoring of biodiversity progress

By following up with companies annually you can see in what direction the companies are progressing. If the measures of impact values are increasing, impact on the planet and thus nature-related risks, are increasing. By tracking the measures of impact values, you can monitor if a company's progress is aligned with their mitigation plans and targets set. This also indicates whether current targets are feasible based on current progress and may prompt further engagement if necessary.

What the different groups of engagement questions tell you about risk

If you identify with the advanced user type it can help you to think about how the different categories of engagement questions and the information they require relate to nature-related risk. This is important to interpret the responses and prioritize action based on the engagement.

- **Information on location:** This information is crucial to both understanding the impacts and risks that the company faces (and by extension, you as an investor). Almost all physical nature-related risks are location-specific and cannot adequately be assessed without information on operational locations.
- **Measures of impact:** These questions (Group I) prompt you to gather the essential data to be able to assess both environmental impact and the causes of nature-related risks. Without this data you cannot understand the full risk landscape.
- **Mitigation action:** These questions (Group A) prompt you to gather information on company action to reduce impact and mitigate risks and thus reduce the impact and risks in your portfolio.
- **Target setting:** These questions (Group T) prompt you to gather information on targets. Targets are a good way to understand the ambition and timeframe for proposed impact and risk reductions. Despite not being necessary to make progress, having targets can help make the discussions around progress more tangible and operational.

How to use INFORM with sustainable solutions companies

As an advanced user you may also work with companies that are specifically focused on 'sustainable solutions'. INFORM can guide you to understand which topics of environmental impact your company will help mitigate by creating solutions. It will also help you understand which impact topics it will not help address and where it may in fact also contribute through its operations. This helps you check that solutions in one sphere do not inadvertently create greater impact and risks in another.

Note that within the topic areas which the solution aims to address, expansion of company impact may in fact be positive. For example, increased land use may be positive if the company works with nature restoration.

In such cases, it is important for engagement to improve understanding of what the solution company's expansion replaces. If it is expansion that replaces and takes market shares of another company with a similar product but at lower impact this is absolute impact reduction. If the expansion increases overall consumption of the product, and/or uses natural resources that were previously unused, this expansion does not create absolute impact reduction. In these situations, your engagement discussions can focus on how to work towards replacing rather than adding impact and risk.

8. FAQ

What does INFORM do?

INFORM provides guidance through a structured process of engagement questions, across four thematic areas of relevance for nature and biodiversity impacts and risks. By using these questions as a foundation when engaging on biodiversity, investors can identify what information or action they should request from the company to reduce impacts. They can also assess the maturity of the company in nature and biodiversity-related issues and support them in adopting business practices that align with the Global Biodiversity Framework and global reporting standards.

How is INFORM different from existing initiatives and frameworks to guide active ownership?

Other initiatives and frameworks tend to focus on higher-level issues and assess what commitments and goals the company has set. INFORM complements these by focusing on measures of impact and data that are essential to reliably assess and track progress towards targets.

Why should an investor use INFORM?

Investors that want to support their assets in becoming more aware of their nature-related impacts and risks, and take action to mitigate biodiversity loss can use INFORM as scientifically grounded guidance. The engagement questions focus on tangible measurements of impact, actions, and targets that investors should encourage companies to adopt. Additionally, the questions help companies gather information and data for reporting that is requested under current standards and frameworks. Finally, engaging with INFORM builds the competency of both investors and companies to better understand how their operations relate to nature-related risks.

What reporting frameworks and standards does INFORM link to?

There are several mandatory and voluntary frameworks and standards for companies to disclose non-financial sustainability information. INFORM has been mapped to <u>TNFD</u>, <u>GRI</u>, <u>ESRS</u>*, and to globally agreed upon <u>targets on biodiversity</u> (GBF).

All engagement questions indicate which standards and reporting requirement they are linked to. In other words, it shows which reporting requirements a company will be compliant with if they provide information in response to the questions outlined in the guidance material. This alignment can help reduce reporting time and costs for companies and, over time, contribute to reducing nature-related risks to both companies and investors. *refers to pre-omnibus requirements

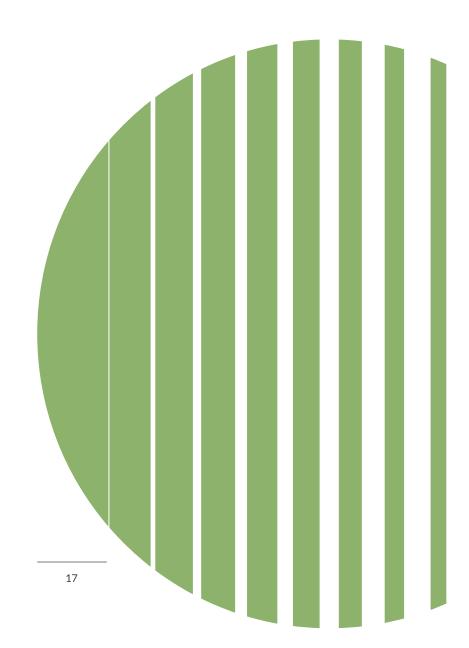
What is GBF and why is it important to be aware of?

The Global Biodiversity Framework (GBF), adopted under the Convention on Biological Diversity, sets ambitious targets for halting biodiversity loss by 2030. These include protecting 30% of land and sea areas, reducing pollution, halting species extinction, and transforming food systems. INFORM is designed to help align business practices and investments with the GBF's targets and provide a science-based roadmap for investors to engage with portfolio companies.

Target 15A of the GBF states that businesses should: "[r]egularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity,

including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains and portfolios."

Our aim is to provide an accessible framework for investors to monitor and assess portfolio companies' environmental performance, based on the GBF and other relevant indicators. All GBF targets that focus on reducing risks to biodiversity (target 1-8) are covered by the engagement questions in this framework. This alignment should reduce reporting time and costs for companies and, over time, contribute to reducing nature-related risks to both companies and investors.





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