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# Biodiversity report

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## Responding to the paper

EIOPA welcomes comments on the Consultation paper on the Report on biodiversity risk management by insurers.

Comments are most helpful if they:

- respond to the question stated, where applicable;
- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Please provide your comments to EIOPA via EU Survey **by 26 February 2025, 23:59 CET**.

Contributions not provided via EU Survey or after the deadline will not be processed. In case you have any questions please contact SolvencyIIreview@eiopa.europa.eu.

**Publication of responses**
Your responses will be published on the EIOPA website unless: you request to treat them confidential, or they are unlawful, or they would infringe the rights of any third party. Please, indicate clearly and prominently in your submission any part you do not wish to be publicly disclosed. EIOPA may also publish a summary of the survey input received on its website.

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statement at the end of the public consultation document.

**Remarks on completing the survey**

EU Survey supports the last two versions of Microsoft Edge and the latest version of Mozilla Firefox and Google Chrome. Using other browsers might cause compatibility issues.

After you start filling in responses to the survey there is the option to save your answers. However, please note that the use of the online saving functionality is at the user's own risk. As a result, it is strongly recommended to complete the online survey in one go (i.e. all at once).

Should you still proceed with saving your answers, the online tool will immediately generate and provide you with a new link from which you will be able to access your saved answers.

It is also recommended that you select the “Send this Link as Email” icon to send a copy of the weblink to your email - please take care of typing in your email address correctly. This procedure does not, however, guarantee that your answers will be successfully saved.

You will have the possibility to print a pdf version of the final responses to the survey after submitting it by clicking on "Download PDF". You will automatically receive an email with the pdf file. Do not forget to check your junk / spam mailbox.

## About the respondent

* Please indicate the desired disclosure level of the responses you are submitting.

- (x) Public
- ( ) Confidential
- ( ) Partly confidential

* Stakeholder name

Actuarial Association of Europe

* Contact person (name and surname)

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## Questions to stakeholders

## Chapter 2. Defining biodiversity and risk drivers for insurers

### 2.1 Definition of biodiversity risk

* Q1: In your view, should biodiversity risks be assessed together with climate risks, or subject to a dedicated risk assessment? Please explain.

- ○ Assessment together with climate risks
- ○ Subject to a dedicated risk assessment
- ◉ Other

Please provide your comments to Q1.

The Actuarial Association of Europe (AAE) appreciates the opportunity to provide input on the assessment of biodiversity risks within the Solvency II framework. We recognise the increasing relevance of biodiversity risk to the financial and insurance sectors and the broader sustainability risk management landscape.

Integrated vs. Dedicated Risk Assessment Approach
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There are differing views within our membership on whether biodiversity risks should be assessed together with climate risks or separately. Below, we outline the main perspectives and considerations:

1. Simplicity and Practicality: Some members emphasise the importance of avoiding overcomplicating the risk assessment process at this stage. Given the many uncertainties surrounding biodiversity risk, it is crucial to ensure that any approach remains simple and easy to implement. A proportionate and pragmatic approach is essential, ensuring that biodiversity risk assessments remain feasible given the current limitations in scientific data, modelling capabilities, and insurer expertise. Overly complex methodologies could introduce a false sense of precision and place unnecessary burdens on undertakings without materially improving risk management outcomes. The key priority should be to establish understandable and practical models rather than striving for perfect methodologies in a rapidly evolving field with limited data and experience. It is also important to ensure that any regulatory expectations remain proportionate and practical, aligning with insurers' existing risk management processes without creating unnecessary complexity or reporting burdens.

2. Interdependencies vs. Separate Assessment Phases: Other members recognise the strong interdependencies between climate and biodiversity risks but acknowledge that, due to the lack of biodiversity-related data and the complexity of relevant metrics, insurers may initially need to separate the two analyses, with a view to integrate them when this is supported by data availability and suitable methodologies. Climate risk assessment may be more quantitative, while biodiversity risk assessment may remain qualitative in the early stages.

3. Integrated Approach: Some of our members support the view that climate and biodiversity risks should be assessed together. The climate-biodiversity nexus exhibits self-reinforcing feedback loops, and an integrated approach ensures consistency in firms' strategies, operating models, and capabilities. The Taskforce on Nature-related Financial Disclosures (TNFD) anticipates that the market will move towards integrated reporting, reinforcing the case for a combined assessment framework. (Reference: https://tnfd.global/tnfd-releases-fourth-final-beta-framework-v0-4/) Additionally, given the current difficulties in assessing biodiversity risks, some members believe that integrating biodiversity assessment into existing climate risk models would be more practical for undertakings.

* Q2: Would you agree that for financial risk assessment purposes, insurers could be guided by identifying their exposure of investments or liabilities to (i) economic activities that are dependent on biodiversity and ecosystem services and (ii) economic activities that impact biodiversity and ecosystems (‘biodiversity footprint’)?

- ○ Yes
- ◉ No

Please provide your comments to Q2.

Our members generally agree with this recommendation, and we would like to provide more context in this question.

Some members have pointed out that guidance would be beneficial on how to identify exposure to economic activities dependent on biodiversity and ecosystem services (i) and those that impact biodiversity and ecosystems (ii). Such guidance would help ensure a level playing field and keep implementation simple and understandable for both undertakings and supervisors.

Some members argue that for financial risk assessment purposes, the focus of insurers should be on identifying their exposure of investments or liability to economic activities that are dependent on biodiversity and ecosystem services, including consideration of second order impacts rather than just direct exposure. This could be deemed aligned with corporate reporting, such as under the Corporate Sustainability Reporting Directive (CSRD), which incorporates double materiality considerations.

### 2.2 Biodiversity risk drivers for insurers

* Q3: Do you agree with the description of the transmission of biodiversity risk to insurers' assets and liabilities? Please explain.

- (x) Yes
- ( ) No

Please provide your comments to Q3.

## Chapter 4. Biodiversity risk assessment in Solvency II

### 4.2 Materiality assessment

* Q4: Do you identify relevant market practices of undertakings in describing their narrative on the impact of biodiversity risks to their business? Please share them below.

The AAE acknowledges that biodiversity risk management is still in its early stages, and market practices are evolving.

Although many companies are at an early stage in biodiversity risk management, those reporting under frameworks such as the Corporate Sustainability Reporting Directive (CSRD), Taskforce on Nature-related Financial Disclosures (TNFD), Science Based Targets Network, and EU Taxonomy will have considered the impact of biodiversity risks on their business.. As such frameworks continue to develop, they will provide a useful reference point for best practices in biodiversity risk assessment and disclosure.

Some of our members have noted that, to enhance the usefulness of narratives, companies should consider moving beyond the general discussion of nature-related risks and consider a more detailed assessment of specific biodiversity-related risks, such as species loss, deforestation, water scarcity, air and soil pollution. A detailed approach could enable a more concrete risk assessment, allowing undertakings to select appropriate scenarios and metrics. Examples of good practices in this area include AVIVA's approach to deforestation, as referenced in the consultation paper, and SMBC's work on water-related risks. (Reference: https://www.smfg.co.jp/english/sustainability/materiality/environment/naturalcapital/pdf/tnfd_report_e_2023.pdf)

During the consultation process with our members, we received comments from some members noting that it would be beneficial for undertakings to have clear guidelines on how to structure their narratives. This would help ease the reporting burden while ensuring consistency and a level playing field across the industry.

Given the ongoing development of methodologies and data availability, we encourage further industry-wide efforts to improve clarity, consistency, and comparability in biodiversity risk narratives, ensuring they support meaningful risk assessment and decision-making.

* Q5: Please share relevant approaches, tools and practices for undertakings to perform sectoral and/or geographical biodiversity exposure risk assessment.

The AAE recognises that biodiversity exposure risk assessment is an emerging area, and undertakings require practical and accessible tools to conduct sectoral and geographical analyses.

Companies reporting under the Corporate Sustainability Reporting Directive (CSRD) are required to complete a Double Materiality Assessment for Biodiversity under the European Sustainability Reporting Standard (ESRS) E4. This framework provides a structured approach to assessing biodiversity risks and impacts across economic activities. It also promotes alignment with broader sustainability reporting requirements, facilitating comparability and integration into financial risk assessments.

Additionally, some of our members have noted that, while EIOPA has provided a list of tools in the consultation paper, the prioritisation of open-source and free solutions would be beneficial in EIOPA's recommendations. Currently, the consultation paper highlights Swiss Re's Biodiversity and Ecosystem Services (BES) Index, which is a commercial tool with limited publicly available documentation dating back to 2020. To ensure accessibility and a level playing field for all undertakings, some members have recommend that that EIOPA could provide references to widely available, non-proprietary resources when guiding insurers on biodiversity exposure risk assessment.

It could be beneficial to explore the further development and standardisation of methodologies, so that undertakings have access to transparent and practical tools for assessing biodiversity-related financial risks.

* Q6: Please share relevant approaches, methodologies and reference to relevant data for **assessing underwriting risk exposure to biodiversity losses**.

We recognise that assessing underwriting risk exposure to biodiversity losses requires a tailored approach, as methodologies and data will depend on the specific line of business and the particular nature-related risks considered. Given this complexity, we suggest that EIOPA develops an application paper that examines biodiversity risk across different insurance lines, including property, environmental liability, and health insurance. This would provide undertakings with clearer guidance on how to integrate biodiversity considerations into underwriting practices.

We also note that disclosures under the Corporate Sustainability Reporting Directive (CSRD) and the Taskforce on Nature-related Financial Disclosures (TNFD) require companies to assess both actual and potential impacts on biodiversity. These frameworks provide useful reference points for insurers seeking to evaluate their underwriting exposures in relation to biodiversity risks.

Finally, we note that the AAE has published a report on environmental liability, which may offer valuable insights into biodiversity-related underwriting risks. We encourage EIOPA to consider this report as part of its ongoing work on biodiversity risk assessment. (Reference: https://actuary.eu/wp-content/uploads/2022/09/ELD.pdf)

We support further efforts to enhance the availability of relevant methodologies and data sources, ensuring that insurers can effectively incorporate biodiversity risk into their underwriting assessments.

## 4.3 Financial risk assessment

* Q7: Please share relevant approaches, tools and practices for undertakings to perform a **financial risk assessment for biodiversity risk**. Please provide reference to potential scenarios and models.

We recognise the growing need for robust approaches, tools, and practices to support financial risk assessments for biodiversity risk. While methodologies are still developing, several frameworks and tools provide valuable guidance.

One key reference is the Taskforce on Nature-related Financial Disclosures (TNFD), which has been widely recognised in the financial sector. The TNFD's 2023 discussion paper on advanced scenario analysis provides insights into methodologies for conducting financial risk assessments related to biodiversity loss. (Reference: https://tnfd.global/wp-content/uploads/2023/12/TNFD_Discussion_paper_on_conducting_advanced_scenario_analysis_2023.pdf)

Several biodiversity assessment tools are also relevant for financial risk assessment, including:

- ENCORE (Exploring Natural Capital Opportunities, Risks, and Exposure): Maps sector-specific dependencies and impacts on biodiversity.
- IBAT (Integrated Biodiversity Assessment Tool): Offers spatial data on biodiversity-sensitive areas.
- Global Biodiversity Score (GBS): Measures the biodiversity footprint of activities and investments.
- Cambridge University's Nature-Related Financial Risks Report (2022): Provides additional research on financial risks associated with biodiversity loss. (Reference: https://www.cisl.cam.ac.uk/files/cisl_nature-related_financial_risks_report_2022.pdf)

A further reference is the ACPR's 2024 report on the risks associated with biodiversity loss for French insurers. Table 1 (page 19) of this report summarises examples of indicators and metrics mentioned in 29 LEC reports submitted by undertakings that included a biodiversity footprint indicator. This provides useful insights into how insurers are currently assessing biodiversity risk exposure. (Reference: https://acpr.banque-france.fr/system/files/import/acpr/medias/documents/20240620_analyses_syntheses_biodiv_fr_en.pdf)

We encourage EIOPA to consider these tools and methodologies while promoting open-access solutions that ensure widespread usability. As the field of biodiversity financial risk assessment continues to evolve, collaboration across regulators, insurers, and academia will be essential in refining best practices and developing robust scenario analysis frameworks.

* Q8: Please share references to relevant scenarios for assessing the **financial risks of biodiversity loss for specific lines of business or exposures** (e.g. agriculture, health, …)

We acknowledge that the financial risk assessment of biodiversity loss is still in its early stages. Although, there are references that provide useful scenario-based approaches for specific lines of business.

For Life & Health insurance, the 2023 ACPR insurance climate exercise includes relevant long-term scenarios. Section 6.1 examines the rise in vector-borne diseases, which are expected to increase due to biodiversity loss and climate change. Section 6.2 explores the impact of rising pollution in urban areas, a key biodiversity-related risk affecting health outcomes. These scenarios provide insights into how biodiversity loss may translate into underwriting and financial risks for insurers. (Reference: https://acpr.banque-france.fr/system/files/import/acpr/medias/documents/2023_main_assumptions_and_scenarios_of_the_acpr_climate_exercise.pdf)

Additionally, we note the availability of the IPR Forecast Policy Scenario + Nature (2023), which includes a nature-related scenario relevant for financial risk assessment. This scenario could provide useful considerations for integrating biodiversity risks into financial models and strategic decision-making. (Reference: https://www.unpri.org/inevitable-policy-response/ipr-forecast-policy-scenario--nature/10966.article)

* Q9: Please share references to relevant scenarios for **integrated climate-biodiversity financial risk assessment**.

A key reference in this area is the ‘Climate-nature scenario development for financial risk assessment’ report, published by Nature Finance, PIK, ECB, and the University of Minnesota (November 2024). This report explores methodologies for integrating climate and biodiversity risks into financial risk assessments, offering a comprehensive framework for scenario development. (Reference: https://www.naturefinance.net/wp-content/uploads/2024/11/ECB_PIK-Report-2024-FINAL.pdf)

## 4.4 Targets and actions

* Q10: Please share relevant examples of targets set by insurance undertakings to manage biodiversity risks. Where possible, please identify how these targets relate to global or EU biodiversity and nature conservation or restoration targets.

One example is Storebrand (Norway), which has committed to eliminating commodity-driven deforestation by 2025. This target aligns with broader global biodiversity commitments, such as the Kunming-Montreal Global Biodiversity Framework (GBF), which includes halting deforestation and promoting sustainable land use. (Reference: https://www.storebrand.com/sam/international/asset-management/sustainability/policies-and-governance/policy-on-nature)

Another example is Aviva, which, in its Biodiversity Report 2022, referenced its intention to set specific biodiversity-related targets as a future action to be completed in 2024, following the establishment of a biodiversity risk assessment baseline. While the outcomes of these targets are not yet publicly available, the report highlights Aviva’s alignment with the Science-Based Targets Network (SBTN), ensuring consistency with recognised biodiversity conservation methodologies. (Reference: https://static.aviva.io/content/dam/aviva-corporate/documents/socialpurpose/pdfs/biodiversity-report-2022.pdf)

* Q11: Please share relevant examples of actions which insurance undertakings can take to mitigate prudential biodiversity-related risks, including through nature-based investment and underwriting strategies.

We are aware of some insurers who have already implemented initiatives that align with biodiversity conservation and risk mitigation.

One key reference is the WWF/Deloitte Switzerland (2023) report, "Underwriting Our Planet," which provides numerous examples of underwriting-related biodiversity initiatives. A notable case is Tokio Marine's "Value Co-creation through Mangrove Planting" initiative, which supports ecosystem resilience and risk reduction. This approach demonstrates how insurers can integrate nature-based solutions into underwriting practices. (Reference: https://wwfint.awsassets.panda.org/downloads/wwf-deloitte-insurance-biodiversity-climate-2023-full--report.pdf; Tokio Marine TNFD Report 2024)

AXA has also taken steps to integrate biodiversity considerations into underwriting. Its biodiversity risk strategy includes changes to its Marine Underwriting Rules, introducing enhanced checks on vessels to promote marine stewardship. This represents a concrete example of how underwriting practices can be adapted to support biodiversity conservation. (Reference: https://www.axa.com/en/commitments/axa-and-biodiversity-strategy)

Additionally, MSCI's "Underwriting the Biodiversity Crisis" report explores the link between biodiversity loss and increased underwriting risks. The report provides insights into how insurers can incorporate emerging biodiversity risks into their underwriting processes, helping to mitigate long-term financial and environmental risks. (Reference: https://www.msci.com/www/blog-posts/underwriting-the-biodiversity/03731924115)

Another example is La France Mutualiste's investment in a biodiversity-focused bond, which has enabled the creation of a fishing exclusion zone between the Galápagos and Cocos Islands, protecting marine ecosystems from overfishing and preserving biodiversity. (Reference: https://www.la-france-mutualiste.fr/articles/un-nouveau-fonds-biodiversite-pour-financer-des-projets-europeens#:~:text=Une%20s%C3%A9rie%20d%27investissements%20en%20faveur%20de%20la%20biodiversit%C3%A9&text=La%20sauvegarde%20la%20biodiversit%C3%A9%20est,contre%20nature%20aux%20%C3%AEles%20Gal%C3%A1pagos.)

* Q12: Please share reference to relevant approaches to integrate biodiversity or nature-related data into cat modelling.

It has been noted that Swiss Re are doing work which covers Biodiversity and Ecosystem Services Scenarios modelling. This work began in March 2023 and is anticipated to continue until December 2025 and perhaps may include cat modelling considerations.

https://www.swissre.com/institute/partnerships/modelling-biodiversity-ecosystem-boost-resilience.html

## 5. Conclusions

* Q13: Do you agree on these preliminary conclusions? Which additional practices should be highlighted?

We agree with the preliminary conclusions outlined in the consultation and support the emphasis on fostering convergent practices in biodiversity risk assessment. In particular, we welcome the guidance on conducting materiality assessments of biodiversity risks, which aligns with similar approaches used for climate risk scenarios. Ensuring consistency in these methodologies will help insurers integrate biodiversity risks effectively within their broader risk management frameworks.

However, some of our members have noted two key aspects to be considered further. First, nature-related risks should not be treated as a single risk category, as is often the case with climate risks. Instead, they encompass a range of distinct but interrelated issues, including biodiversity and species loss, water scarcity, deforestation, and pollution. Recognising this complexity could be valuable in developing meaningful risk assessment frameworks.

Second, some of our members have noted that exclusions and impact strategies should not be seen solely as short-term microprudential tools for reducing an individual company’s risk exposure. They also serve a macroprudential function by contributing to long-term financial stability. By mitigating systemic risks linked to biodiversity loss, these strategies help to preserve the resilience of the broader financial system.

Finally, we highlight the importance of avoiding the double counting of risks when assessing biodiversity alongside climate risks and acknowledging the need to balance regulatory efficiency and proportionality.

## Any other comments

Q14 Do you have any other comments on the consultation paper?

- (x) Yes
- ( ) No

Please provide your other comments on the consultation paper.

The AAE acknowledges the importance of integrating biodiversity risk assessment into insurers' risk management frameworks. Biodiversity risk measurement remains in its early stages, with significant challenges related to data availability and methodological limitations. Given these constraints, a proportionate approach is essential, particularly for small and medium-sized insurers who may lack the resources for complex biodiversity risk modelling. We suggest that these limitations are acknowledged and that clear guidance is provided for a phased, proportionate implementation, ensuring that biodiversity risk assessments align with the size, complexity, and risk profile of each undertaking.

The AAE emphasises the need for a proportionate and phased approach, ensuring that biodiversity risk assessments are practical and aligned with insurers' broader risk management efforts.

We set out some final thoughts on the consultation paper below:

A. First, we note that the terminology of 'biodiversity' in the consultation paper could be seen as ambiguous. It appears that EIOPA is using this term broadly to encompass all nature-related risks other than climate, including water risks, which are often considered separately (as in the ESRS and EU Taxonomy). To avoid misunderstandings, EIOPA could clarify this broader use of 'biodiversity' and consider using 'nature-related risk' as a more appropriate overarching term.

B. Second, we would caution against the imposition of overly ambitious requirements at this early stage of biodiversity risk management, given that relatively few insurers are actively engaged in this area. While we recognise the importance of integrating biodiversity risks into insurers' risk frameworks, we would suggest an incremental approach that aligns with climate risk efforts and broader sustainability considerations. To achieve this, we EIOPA could consider the following steps for advancing biodiversity risk management without overwhelming undertakings:

1. Establish overarching governance principles for insurers that align with climate risk management without being overly prescriptive.

2. Encourage insurers to extend their existing climate risk management frameworks by adding one additional biodiversity-related consideration, such as deforestation, marine ecosystems, or plastics.

3. Commission research into biodiversity risk from an EU perspective, particularly in the agriculture and food systems sectors, to provide insurers with more concrete insights. We highlight the work undertaken by the Green Finance Institute and Oxford University in assessing the materiality of nature-related financial risks in the UK as a useful reference. (Reference: https://www.greenfinanceinstitute.com/insights/assessing-the-materiality-of-nature-related-financial-risks-for-the-uk/)

## Contact

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