

Vergleichsversion ESRS E4 (Biodiversity and ecosystems)

Hinweis

Die durch die [Richtlinie \(EU\) 2022/2464](#) (Corporate Sustainability Reporting Directive, CSRD) geänderte [Richtlinie 2013/34/EU](#) (Bilanzrichtlinie, BilanzRI) verpflichtet bestimmte EU-Unternehmen und EU-Tochterunternehmen oder EU-Niederlassungen von Drittstaatenunternehmen, die EU-Standards zur Nachhaltigkeitsberichterstattung (European Sustainability Reporting Standards, ESRS) anzuwenden. Die ESRS werden als delegierte Rechtsakte durch die Europäische Kommission erlassen (Artikel 29b, 29c und 40b BilanzRI). Mit der fachlichen Ausarbeitung der ESRS ist die European Financial Reporting Advisory Group (EFRAG) beauftragt worden, welche im November 2022 den ersten Satz der [ESRS-Entwürfe](#) (Set 1) als fachliche Stellungnahme gem. Artikel 49 Abs. 3b BilanzRI an die Europäische Kommission übermittelt hat. Die Europäische Kommission hat am 9. Juni 2023 eine einmonatige [Konsultation](#) zum Set 1 begonnen. Die Konsultation umfasst einen Entwurf für einen delegierten Rechtsakt, welcher aus einer Delegierten Verordnung mit zwei Anhängen besteht. Anhang I enthält 12 ESRS-Entwürfe, die sich von den von EFRAG ausgearbeiteten ESRS-Entwürfen unterscheiden.

Die Geschäftsstelle des DRSC stellt in mehreren Paketen Vergleichsdokumente zwischen den ESRS-Entwürfen der EFRAG und den ESRS-Konsultationsentwürfen der Europäischen Kommission zur Verfügung. Dieses Vergleichsdokument wurde von der Geschäftsstelle des DRSC erstellt. Es dient der Unterstützung bei der Erfassung und Beurteilung der von der Europäischen Kommission vorgenommenen Änderungen. Es erhebt keinen Anspruch auf Vollständigkeit oder Richtigkeit, insbesondere wurde auf den Vergleich von Grafiken und Tabellen verzichtet. Im Zuge der Erstellung der Vergleichsversion wurden formale Aspekte überarbeitet, um die Aussagekraft der angezeigten Änderungen zu erhöhen. Dieses Dokument ersetzt keine eigene umfassende Durchsicht des Lesers.

Table of contents

Objective

Interaction with other ESRS

Disclosure Requirement

ESRS 2 General disclosures

Disclosure Requirement E4-1 – Transition plan ~~and~~ [consideration of biodiversity and ecosystems in strategy and business model](#)

Disclosure Requirement related to ESRS 2 SBM-3 – Material impacts, risks and opportunities and their interaction with strategy and business model~~(s)~~

Disclosure Requirement related to ESRS 2 IRO-1 Description of processes to identify and assess material biodiversity and ecosystem-related impacts, risks and opportunities

Impact, risk and opportunity management

Disclosure Requirement E4-2 – Policies related to biodiversity and ecosystems

Disclosure Requirement E4-3 – Actions and resources related to biodiversity and ecosystems

Metrics and targets

Disclosure Requirement E4-4 – Targets related to biodiversity and ecosystems

Disclosure Requirement E4-5 – Impact metrics related to biodiversity and ecosystems change

Vergleichsversion ESRS E4 (Biodiversity and ecosystems)

Disclosure Requirement E4-6 – ~~Potential~~Anticipated financial effects from biodiversity and ~~ecosystem-related~~ecosystemrelated impacts, risks and opportunities _____

Appendix A: ~~Defined terms~~

~~Appendix B:~~ Application Requirements __

ESRS 2 General disclosures

Disclosure Requirement E4-1 – Transition plan ~~on~~and consideration of biodiversity and ecosystems in strategy and business model

Disclosure requirements related to ESRS 2 IRO-1 – Description of the processes to identify and assess material biodiversity and ecosystem-related impacts, risks and opportunities

Impact, risk and opportunity management

Disclosure Requirement E4-2 – Policies related to biodiversity and ecosystems

Disclosure Requirement E4-3 – Actions and resources related to biodiversity and ecosystems

Metrics and targets

Disclosure Requirement E4-4 – Targets related to biodiversity and ecosystems

Disclosure Requirement E4-5 – Impact metrics related to biodiversity and ecosystems change

Disclosure Requirement E4-6 – ~~Potential~~Anticipated financial effects from biodiversity and ecosystem-related risks and opportunities

Objective

1. The objective of this Standard is to specify Disclosure Requirements which will enable users of the sustainability ~~statements~~statement to understand:
 - a) how the undertaking affects biodiversity and ecosystems, in terms of material positive and negative, actual and potential impacts, including the extent to which it contributes to the drivers of biodiversity and ecosystem loss and degradation;
 - b) any actions taken, and the result of such actions, to prevent or mitigate material negative actual or potential impacts and to protect and restore biodiversity and ecosystems, and to address risks and opportunities; and
 - c) the plans and capacity of the undertaking to adapt its strategy and business model~~(s)~~ in line with (i) respecting ~~the~~ planetary boundaries of the related to biosphere integrity and land-system change, ~~[(ii) targets outlined in the Post-2020 the vision of the Kunming-Montreal Global Biodiversity Framework of no net loss by 2030, net gain from 2030 and full recovery by 2050,] its relevant goals and targets, (iii) relevant aspects of the EU Biodiversity Strategy for 2030 with the targets set under, iv) the EU Nature Restoration Plan and Enabling Transformative Change Birds and comparable amended or new frameworks Habitats Directives, and strategies~~ the Marine Strategy Framework Directive;
 - d) the nature, type and extent of the undertaking's material risks-, dependencies and opportunities related to ~~the undertaking's impacts or dependencies on~~ biodiversity and ecosystems, and how the undertaking manages them; and
 - e) the financial effects on the undertaking over the short-, medium- and long-term time horizons of material risks and opportunities arising from the undertaking's impacts and dependencies on biodiversity and ecosystems.
2. This Standard sets out Disclosure Requirements related to the undertaking's relationship to terrestrial, freshwater and marine habitats, ecosystems and populations of related fauna and flora species, including diversity within species, between species and of ecosystems and their ~~into relation~~ interrelation with indigenous peoples and other affected communities.
3. The ~~sustainability matter~~ terms "biodiversity" and "biological diversity" covers diversity refer to the variability among living organisms from all sources including, inter alia, terrestrial, freshwater, marine and other aquatic ecosystems and the ecological complexes of which they are part. ~~An environmental limit is usually interpreted as the point or range of conditions beyond which there is a significant risk of abrupt irreversible, or difficult to reverse, changes to the benefits derived from natural resource systems with impacts on human well-being (e.g., planetary boundaries).~~

Interaction with other ESRS

4. ~~'Biodiversity and ecosystems' is a topic across are closely connected to other~~ environmental matters. The main direct drivers of biodiversity and ecosystems change are climate change, pollution, land-use ~~and sea-use~~ change, freshwater-use change and sea-use change, direct exploitation of organisms and invasive alien species ~~according to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), are sustainability matters. These drivers are covered in other topical Standards.~~
- 5.4. ~~These environmental sustainability matters are:~~ this standard, except for climate change, ~~(covered by ESRS E1) and pollution, land-use, freshwater-use and sea-use change, direct exploitation and invasive alien species. (covered by ESRS E2).~~
- 6.5. ~~As a general remark and to~~ To obtain an encompassing a comprehensive understanding of material impacts and dependencies on Biodiversity biodiversity and ecosystems, the Disclosure Requirements of other environmental ESRS should be read and interpreted in conjunction with the specific disclosure requirements of this Standard. The relevant disclosure requirements covered in other environmental ESRS are:
7. ~~All Disclosure Requirements concerning material impacts related to biodiversity and ecosystems change arising from other ESRS are listed and referenced in this Standard, and in particular to:~~
- a) ESRS E1 Climate change, which addresses in particular GHG emissions and energy resources (energy consumption);
 - b) ESRS E2 Pollution, which addresses pollution to air, water and soil;
 - ~~b)c)~~ ESRS E3 Water and marine resources which addresses in particular water ~~resource~~ resources (water consumption) and ~~water~~ marine resources;
 - ~~c)d)~~ ESRS E5 Resource use and circular economy addresses in particular the transition away from extraction of non-renewable resources and the implementation of practices that prevent waste generation, including pollution generated by waste.
- 8.6. ~~This Standard covers an environmental topic, however as people benefit from biodiversity and ecosystems,~~ The undertaking's impacts on biodiversity and ecosystems affect people and communities. When reporting on material negative impacts on affected communities from biodiversity and ecosystem ~~loss~~ change under ESRS E4, the undertaking shall consider the requirements of ESRS S3 Affected communities.
- 9.7. This Standard should be read in conjunction with ESRS 1 General requirements and ESRS 2 General disclosures.

Disclosure Requirements

ESRS 2 General disclosures

~~10.8.~~ The requirements of this section shall be read in conjunction with the disclosures required by ESRS 2 ~~on~~ Chapter 2 Governance, Chapter 3 Strategy and Chapter 4 Impact, risk and opportunity management.

~~11.9.~~ The resulting disclosures shall be presented alongside the disclosures required by ESRS 2, except for ESRS 2 SBM-3, for which the undertaking has an option to present the disclosures alongside the topical disclosures.

~~12.10.~~ In addition to the requirements in ESRS 2, this Standard also includes the topic specific Disclosure Requirement E4-1 Transition plan ~~and consideration of~~ biodiversity and ecosystems in strategy and business model.

Strategy

Disclosure Requirement E4-1 – Transition plan ~~on~~ and consideration of biodiversity and ecosystems in strategy and business model

- ~~13.11.~~ The undertaking shall disclose how its plan to ensure that its business model, biodiversity and strategy are compatible with the respect of planetary boundaries of the biosphere integrity, ecosystem impacts, dependencies, risks and land system change and relevant targets outlined in [the Post-2020 Global Biodiversity Framework of no net loss by 2030, net gain opportunities originate from 2030, full recovery by 2050, and trigger adaptation of its strategy and the EU Biodiversity Strategy for 2030] business model.
- ~~14.12.~~ The objective of this Disclosure Requirement is to enable an understanding of the resilience of the undertaking's strategy and business model in relation to biodiversity and ecosystems, and of the compatibility of the transition plan of the undertaking, undertaking's strategy and business model with regard to relevant local, national and global ecological thresholds and boundaries ~~as well as~~ public policy targets related to biodiversity and ecosystems.
- ~~15.~~ Based on the list of priority sectors provided by the Taskforce on Nature-related Financial Disclosures (TNFD), this Disclosure Requirement is mandatory for undertakings in the following industries: Agriculture and Farming, Forestry, Construction and Engineering, Oil and Gas – from Midstream and Downstream, Energy Production and Utilities, Water and Waste Services, Food and Beverages, Paper and Wood Products, Building materials, Chemical products, Coal Mining, Mining, Oil and Gas – Upstream and Services, Pharma and biotechnology, Textiles, Accessories, Footwear and Jewellerys, Tobacco, and Transportation.
- ~~16.~~ When disclosing its transition plan, the undertaking shall:
- ~~a)~~ provide a high-level explanation on how it will adjust its strategy and business model to ensure that they are compatible with:
 - ~~i.~~ respecting planetary boundaries on the biosphere integrity and land system change;
 - ~~ii.~~ [the targets outlined in the Post-2020 Global Biodiversity Framework of no net loss by 2030, net gain from 2030 and fully recovery by 2050;] and
 - ~~iii.~~ The relevant targets as part of the EU Biodiversity Strategy for 2030 concerning the EU Nature Restoration Plan and Enabling Transformative Change.
 - ~~b)~~ Include own operations and explain how it is responding to material impacts across its related value chain identified in its materiality assessment as per ESRS 2 IRO-1 Description of the processes to identify and assess material impacts, risks and opportunities;
 - ~~c)~~ explain how its business development strategy interacts with the achievability of its transition plan;
 - ~~d)~~ highlight its contribution to impact drivers and its possible mitigation actions following the mitigation hierarchy and the main path dependencies and locked-in assets and resources (e.g., plants, raw materials) that are associated with biodiversity and ecosystems change;
 - ~~e)~~ explain whether or not biodiversity offsets are part of the transition plan. And if so, where the offsets are planned to be used, the extent of use in relation to the overall transition plan, and whether the mitigation hierarchy was considered;
 - ~~f)~~ indicate whether the administrative, management and supervisory bodies have approved the transition plan;
 - ~~g)~~ provide information on how the process of implementing and updating the transition plan is managed;
 - ~~h)~~ indicate its metrics and related tools used to measure progress that are integrated in this measurement approach; and
 - ~~i)~~ indicate current challenges and limitations to draft a plan in relation to areas of significant impact and actions the company is taking to address them.
- ~~17.~~ Where applicable, this disclosure shall refer to and contextualise information presented under other Disclosure Requirements of this Standard.
- ~~18.~~ In case the undertaking does not have a transition plan in place, it shall provide an explanation of its biodiversity and ecosystems-related ambition and whether and when it will adopt a transition plan.

~~Disclosure Requirement related to ESRS 2 SBM-3 – Material impacts, risks and opportunities and their interaction with strategy and business model(s)~~

~~19.13.~~ The undertaking shall describe the resilience of its strategy and business model(s) in relation to biodiversity and ecosystems. The description shall include:

a) an assessment of the resilience of the current business model(s) and strategy to biodiversity and ecosystems-related physical, transition and systemic risks ~~as well as opportunities;~~

~~b)~~ the scope of the resilience analysis

~~i.~~ ~~along in relation to~~ the undertaking's own operations and ~~related upstream and downstream~~ value chain and

~~ii.b) in relation to the material transition and physical biodiversity and ecosystems-related risks covered~~ considered in that analysis;

c) the key assumptions made;

d) the time horizons used ~~for the analysis;~~

e) the results of the resilience analysis; and

f) the involvement of stakeholders, including, where appropriate, holders of indigenous and local knowledge.

~~14.~~ If information specified in this disclosure requirement is disclosed by the undertaking as part of the information required under ESRS 2 SBM-3, the undertaking may refer to the information it has disclosed under ESRS 2 SBM-3.

~~15.~~ The undertaking may disclose its transition plan to improve and, ultimately, achieve alignment of its business model and strategy with the vision of the Kunming-Montreal Global Biodiversity Framework and its relevant goals and targets, the EU Biodiversity Strategy for 2030, and with respecting planetary boundaries related to biosphere integrity and land system change.

Impact, risk and opportunity management

Disclosure Requirement related to ESRs 2 IRO-1 Description of processes to identify and assess material biodiversity and ecosystem-related impacts, risks, dependencies and opportunities

~~20.16.~~ The undertaking shall describe ~~the~~its process to identify material impacts, risks, dependencies and opportunities. The description of the process shall include whether and how the undertaking:

- a) identified and assessed actual and potential impacts on biodiversity and ecosystems at own site locations and in the value chain, including assessment criteria applied;
- b) identified and assessed dependencies on biodiversity and ecosystems and their services at own site locations and in the value chain, including assessment criteria applied, and, if this assessment includes ecosystem services that are disrupted or likely to be;
- c) identified and assessed transition and physical risks and opportunities related to biodiversity and ecosystems, including assessment criteria applied based on its impacts and dependencies;
- d) considered systemic risks ~~to:~~
 - i. ~~its own business model; and~~
 - ii. ~~society as a whole in its assessment of biodiversity and ecosystems-related risks.~~
- e) conducted consultations with affected communities on sustainability assessments of shared biological resources and ecosystems and, in particular:
 - i. when a site, a raw material production or sourcing is likely to negatively impact biodiversity and ecosystems, the identification of the specific sites, raw materials production or sourcing with negative or ~~potential~~potentially negative impacts on affected communities;
 - ii. when affected communities are likely to be impacted, the undertaking, shall disclose how these communities were involved in the materiality assessment; and
 - iii. with respect to impacts on priority ecosystem services of relevance to affected communities in its own operations, the undertaking shall indicate how negative impacts may be avoided. If these impacts are unavoidable, the undertaking may indicate its plans to minimise them and implement mitigation measures that aim to maintain the value and functionality of priority services.

~~21.~~ The undertaking ~~shall~~may disclose whether ~~the business model(s) and how it has been verified using a range of used biodiversity and ecosystems scenarios — or other scenarios with a modelling of biodiversity and ecosystems related consequences — with different possible pathways; scenario analysis to inform the identification and it shall also assessment of material risks and opportunities over short-, medium- and long-term time horizons. If the undertaking has used such scenario analysis, it may~~ disclose the following information ~~on the scenarios:~~

- a) why the considered scenarios were ~~taken into consideration~~selected;
- b) how the considered scenarios are updated according to evolving conditions and emerging trends; ~~or~~and
- c) whether the scenarios are informed by expectations ~~is~~published by authoritative intergovernmental ~~instruments~~bodies, such as the Convention for Biological Diversity and, where relevant, by scientific consensus, ~~such as that is, inexpressed by the case of biodiversity and ecosystem services, Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services (IPBES).~~

~~22.17.~~ The undertaking shall specifically disclose:

- a) ~~the definition of the time horizons used for the analysis;~~
- b) ~~whether and how it has used scenario analysis in the assessment process;~~
- c) a) whether or not it has sites located in or near biodiversity-sensitive areas and whether activities related to these sites negatively affect these areas:
 - i. by leading to the deterioration of natural habitats and the habitats of species and to the disturbance of the species for which a protected area has been designated; and
 - ii. where conclusions or necessary mitigation measures identified by any of the following assessments have not been implemented or are ongoing accordingly (Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds; Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora; an Environmental Impact Assessment (EIA) as defined in Article 1(2), point (g), of Directive 2011/92/EU of the European Parliament and of the Council on the assessment of the effects of certain public and private projects on the environment; and for activities located in third countries, in accordance with equivalent national provisions or

international standards, such as the International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

~~d)~~b) a list of material sites based on the results of paragraph ~~22-e17 (a)~~. The undertaking shall disclose these locations by:

- i. specifying the activities negatively affecting these areas;
- ii. providing a breakdown of sites according to the impacts and dependencies identified, and to the ecological status of the areas (with reference to the specific ecosystem baseline level) where they are located; and
- iii. specifying the biodiversity-sensitive areas impacted, as defined in paragraph ~~22-e17(a)~~ ii for users to be able to determine the location and the responsible competent authority with regards to the activities specified in paragraph ~~22-e17(b)~~ i.

~~e)~~c) whether it has identified material negative impacts with regards to land degradation, desertification or soil sealing; and

~~f)~~d) whether it has ~~its~~ operations that affect threatened species.

Impact, risk and opportunity management

Disclosure Requirement E4-2 – Policies related to biodiversity and ecosystems

~~23.18.~~ The undertaking shall ~~disclosedescribe~~ its policies ~~implemented~~ to ~~manageaddress the management of~~ its material impacts, risks, ~~dependencies~~, and opportunities related to biodiversity and ecosystems.

~~24.19.~~ The objective of this Disclosure Requirement is to enable an understanding of the extent to which the undertaking has ~~implemented~~ policies that address the identification, assessment, management and/or remediation of its material biodiversity and ~~ecosystemrelatedecosystem-~~ related impacts, dependencies, risks and opportunities, ~~and how they are connected to and in alignment with the Post-2020 Global Biodiversity Framework and the EU Biodiversity Strategy for 2030.~~

~~25.20.~~ The ~~summarised description of the policydisclosure required by paragraph 18~~ shall contain the information ~~required on the policies the undertaking has in place to manage its material impacts, risks, dependencies and opportunities related to biodiversity and ecosystems in accordance with~~ ESRs 2 ~~DCMDR~~-P Policies adopted to manage material sustainability matters~~).~~

~~26.21.~~ In addition to the provisions of ESRs 2 ~~DCMDR~~-P the undertaking shall describe whether and how its biodiversity and ecosystems-related policies:

~~a)~~ ~~are connected to and in alignment with the Post-2020 Global Biodiversity framework as well as the EU Biodiversity Strategy for 2030 and other relevant EU and national policies and legislation related to biodiversity and ecosystems. The undertaking may use a cross-reference to the information provided under Disclosure Requirement ESRs E4-1;~~

~~b)~~ relate to the matters specified in ESRs E4 Application Requirement 4;

~~c)~~ relate to its material biodiversity and ecosystems-related impacts;

~~d)~~ relate to material dependencies and material physical and transition risks and opportunities;

~~e)~~ support traceability of products, components and raw materials with significant actual or potential impacts on biodiversity and ecosystems along the value chain;

~~f)~~ address production, sourcing or consumption from ecosystems that are managed to maintain or enhance conditions for biodiversity, as demonstrated by regular monitoring and reporting of biodiversity status and gains or losses; and

~~g)~~ address social consequences of biodiversity and ecosystems-related impacts.

~~27.22.~~ The undertaking shall specifically disclose, whether it has adopted:

a) ~~a~~-biodiversity and ecosystem protection policy covering operational sites owned, leased, ~~or~~ managed in or near a protected area or ~~a biodiversity-sensitivean~~ area ~~of high biodiversity-value~~ outside protected areas, where ~~an area of high biodiversity value outside protected areas refers to~~ land with high biodiversity value ~~refers to as defined in~~ Article 7b (3) of Directive 98/70/EC of the European Parliament and of the Council and ~~where~~ "protected area" ~~in this specific case~~ means ~~an area~~ designated ~~areas~~ in the European Environment Agency's Common Database on Designated Areas (CDDA);) ~~and in the Natura 2000 network of protected areas set up in accordance with Directives 2009/147/EC and 92/43/EEC;~~

b) sustainable land / agriculture practices or policies;

c) sustainable oceans / seas practices or policies; and

d) policies to address deforestation.

Disclosure Requirement E4-3 – Actions and resources related to biodiversity and ecosystems

~~28-23.~~ The undertaking shall disclose its biodiversity and ecosystems-related actions and the resources allocated to their implementation.

~~29-24.~~ The objective of this Disclosure Requirement is to enable an understanding of the key actions taken and planned that significantly contribute to the achievement of biodiversity and ecosystems-related policy objectives and targets.

~~30-25.~~ The description of key ~~action~~actions and resources shall follow the mandatory content defined in ESRS 2 ~~DC~~MDR-A Actions and resources in relation to material sustainability matters.

~~31-26.~~ In addition, the undertaking shall:

- a) disclose ~~to which layer in~~how it has applied the mitigation hierarchy ~~a key action can be allocated; with regard to its actions~~ (avoidance, ~~reduction and~~ minimisation, restoration ~~and~~/rehabilitation; and compensation or offsets);
- b) disclose whether it used biodiversity offsets in its action plans. If the actions contain biodiversity offsets, the undertaking shall include the following information:
 - i. the aim of the offset and key performance indicators used;
 - ii. the financing effects (direct and indirect costs) of biodiversity offsets in monetary terms; and;
 - iii. a description of offsets including area, type, the quality criteria applied and the standards that the biodiversity offsets ~~fulfil~~comply with;
- ~~e)~~ describe whether and how it has incorporated local and indigenous knowledge and ~~nature based~~nature-based solutions into biodiversity and ecosystems-related actions;
- ~~d)~~ ~~provide the following details for key actions:~~
 - ~~i. a list of key stakeholders involved (e.g., competitors, suppliers, retailers, other business partners, affected communities and authorities, government agencies) and how they are involved, mentioning key stakeholders negatively or positively impacted by actions and how they are impacted, including impacts or benefits created for affected communities, smallholders' indigenous groups or other vulnerable groups;~~
 - ~~ii. where applicable, an explanation on the need for appropriate consultations and the need to respect the decisions of affected communities;~~
 - ~~iii. a brief assessment whether the key actions may induce significant negative sustainability impacts;~~
 - ~~iv. an explanation whether the key action is intended to be a one-time initiative or systematic practice; and~~
- ~~v.c)~~ ~~an explanation on whether the key action plan is carried out only by the undertaking, using the undertaking's resources, or whether it is part of a wider action plan, of which the undertaking is a member. The undertaking shall then provide more information on the project, its sponsors and other participants.~~

Metrics and targets

Disclosure Requirement E4-4 – Targets related to biodiversity and ecosystems

~~32-27.~~ The undertaking shall ~~describedisclose~~ the biodiversity and ecosystem-related targets it has ~~adoptedset~~.

~~33-28.~~ The objective of this Disclosure Requirement is to allow an understanding of the targets the undertaking has adopted to support its biodiversity and ecosystems policies and address its material related impacts, dependencies, risks and opportunities.

~~34-29.~~ The description of the targets shall follow the mandatory content defined in ESRS 2 ~~DCMDR-T~~ Tracking effectiveness of policies and actions through targets.

~~35-30.~~ The disclosure required by paragraph ~~3227~~ shall include the following information:

~~a) whether the undertaking has set targets related to material aspects specified in paragraph AR 4 of this Standard;~~

~~b) whether the target has set dates and milestones;~~

~~e)a) whether ecological thresholds and allocations of impacts to the undertaking were applied when setting targets.~~

~~This enables users to understand whether the target set by the undertaking is based on conclusive scientific evidence.~~ If so, the undertaking shall specify:

~~i.a) the ecological thresholds identified and the methodology used to identify such thresholds;~~

~~ii.a) whether or not the thresholds are entity-specific and if so, how they were determined; and~~

~~iii.a) how responsibility for respecting identified ecological thresholds is allocated in the undertaking.~~

~~d)b) whether the targets are informed by, and ~~/~~or aligned with the Post-2020 Kunming-Montreal Global Biodiversity Framework, relevant aspects of the EU Biodiversity Strategy for 2030 and other biodiversity and ecosystem-related national policies and legislation ~~as well as authoritative intergovernmental instruments like the IPBES;~~~~

~~c) how the targets relate to the biodiversity and ecosystem impacts, dependencies, risks and opportunities identified by the undertaking in relation to its operations and value chain;~~

~~d) the geographical scope of the targets, if relevant;~~

~~e) whether or not the undertaking used biodiversity offsets in setting its targets as described in paragraph ~~3426~~ (b); and~~

~~f) to which of the layers of the mitigation hierarchy the target can be allocated (i.e., avoidance, minimisation, restoration and rehabilitation, compensation or offsets).~~

~~31. The undertaking may disclose whether ecological thresholds and allocations of impacts to the undertaking were applied when setting targets. If so, the undertaking may specify:~~

~~a) the ecological thresholds identified and the methodology used to identify such thresholds;~~

~~b) whether or not the thresholds are entity-specific and if so, how they were determined; and~~

~~c) how responsibility for respecting identified ecological thresholds is allocated in the undertaking.~~

Disclosure Requirement E4-5 – Impact metrics related to biodiversity and ecosystems change

- ~~36:32.~~ The undertaking shall report metrics related to its material impacts ~~resulting in or~~ biodiversity and ~~ecosystem change ecosystems~~.
- ~~37:33.~~ The objective of this Disclosure Requirement is to enable an understanding of the performance of the undertaking against impacts identified as material in the materiality assessment on biodiversity and ecosystems change.
- ~~38:34.~~ If the undertaking identified sites located in or near biodiversity-sensitive areas that it is negatively ~~affecting~~ ~~19 affecting~~ (see ~~paragraph 22~~ ~~(paragraph 17(a))~~), the undertaking shall disclose the number and area (in hectares) of sites owned, leased or managed in or near these protected areas or key biodiversity areas.
- ~~39:35.~~ If the undertaking ~~operates in one of the sectors for which Disclosure Requirement E4-1 is applicable and~~ has identified material impacts with regards to land-use change, or impacts on the extent and condition of ecosystems, ~~the undertaking shall it may~~ also disclose their land-use based on a Life Cycle Assessment.
- ~~40.~~ ~~Performance measures on biodiversity and ecosystems are currently the object of much ongoing collective work at the time of the drafting of this Standard. That is why the Disclosure Requirements proposed in this Standard are mostly principles-based to clarify the categories of performance measures expected, as well as laying out the features of quality biodiversity and ecosystems-related measures rather than proposing specific measures per se. Wherever possible, the application requirements refer to examples of commonly used metrics and tools in the public domain to allow application of the different categories of measures required under this Disclosure Requirement. The undertaking may refer specifically to the recommendations provided by Aligning Accounting Approaches for Nature (Align).~~
- ~~41:36.~~ For datapoints specified in ~~paragraphs 42~~ ~~paragraphs 37~~ to ~~45~~ ~~40~~, the undertaking shall consider its own operations.
- ~~42:37.~~ If the undertaking has concluded that it directly contributes to the impact drivers of landuse change, freshwater-- use change and ~~//~~ or sea-use change, ~~the undertaking it~~ shall report relevant metrics ~~considering~~. ~~The undertaking may disclose metrics that measure:~~
- a) the conversion over time (e.g. ~~2~~ one or five years) of land cover (e.g. ~~2~~ deforestation or mining);
 - b) changes over time (e.g. ~~2~~ one or five years) in the management of the ecosystem (e.g., through the intensification of agricultural management, or the application of better management practices or forestry harvesting);
 - c) changes in the spatial configuration of the landscape (e.g. ~~2~~ fragmentation of habitats, changes in ecosystem connectivity);
 - d) changes in ecosystem structural connectivity (e.g. ~~2~~ habitat permeability based on physical features and arrangements of habitat patches); and
 - e) the functional connectivity (e.g. ~~2~~ how well genes, ~~gametes, propagules~~ or individuals move through land, freshwater and seascape).
- ~~43:38.~~ If the undertaking concluded that it directly contributes to the ~~impact drivers of~~ accidental or voluntary introduction of invasive alien species, the undertaking ~~shall may~~ disclose ~~how the metrics~~ it ~~manages uses to manage~~ pathways of introduction and spread of invasive alien species and the risks posed by invasive alien species.
- ~~44:39.~~ If the undertaking identified material impacts related to the state of species, the undertaking ~~shall may~~ report metrics it considers relevant ~~and~~. ~~The undertaking may:~~
- a) ~~may be referred to refer to relevant disclosure requirements~~ in ESRS E1, ESRS E2, ESRS E3, and ESRS E5;
 - b) consider population size, range within specific ecosystems as well as extinction risk-. These aspects provide insight on the health of a single species' population and its relative resilience to human induced and naturally occurring change;
 - c) ~~include one or more indicators disclose metrics~~ that ~~measures measure~~ changes in the number of individuals of a species within a specific area, ~~e.g., counting the number of individuals or breeding pairs may provide information on changes in suitability of an area as a breeding ground;~~
 - d) ~~include one or more indicators when disclosing information disclose metrics~~ on species at ~~global~~ extinction risk ~~such as: that measure~~
 - i. the threat status of species and how activities/pressures may affect the threat status; or
 - ii. ~~change changes~~ in the relevant habitat for a threatened species as a proxy for the ~~undertakings undertaking's~~ impact on the local population's extinction risk.

~~45.40.~~ If the undertaking identified material impacts related to ecosystems, ~~the undertaking shall consider, as per ecosystem category (IUCN Global Ecosystem Typology 2.0), two aspects to obtain insights into the health of ecosystems it may disclose:~~

- a) ~~with regard to ecosystems extent: the undertaking shall report an indicator, metrics~~ that ~~measures~~measure area coverage of a particular ecosystem without necessarily considering the quality of the area being assessed, such as habitat cover. For example, forest cover is a measure of the extent of a particular ecosystem type, without factoring in the condition of the ecosystem (e.g., provides the area without describing the species diversity within the forest).
- b) ~~with regard to ecosystems condition:~~
 - i. ~~one or more indicators~~metrics that ~~measures~~measure the quality of ecosystems relative to a pre-determined reference state; ~~or~~
 - ii. ~~one or more indicators~~metrics that ~~measures~~measure multiple species ~~{within an ecosystem rather than the number of individuals within a single species}~~ within an ecosystem: ~~e.g. (for example: scientifically established species richness and abundance indicators that measure the development of (native) species composition within an ecosystem against the reference state at the beginning of the first reporting period {as well as the targeted state outlined in the Post-2020 Kunming-Montreal Global Biodiversity Framework},¹ or an aggregation of species' conservation status if relevant;);~~ or
 - iii. ~~one or more indicators~~metrics that ~~may also~~ reflect structural components of condition such as habitat connectivity (i.e., how linked habitats are to each other).

Disclosure Requirement E4-6 – ~~Potential~~Anticipated financial effects from material biodiversity and ecosystem-related impacts, risks and opportunities

~~41.~~ The undertaking shall disclose its ~~potential~~anticipated financial effects of material ~~risks and opportunities arising from~~ biodiversity- and ecosystem-related ~~impacts~~risks and opportunities.

~~46.~~42. ~~The information required by paragraph 41 is in addition to the information on current financial effects on the entity's financial position, financial performance and dependencies.~~ cash flows for the reporting period required under ESRS 2 SBM-3 para 48 (d). is in addition to the information on current financial effects on the entity's financial position, financial performance and cash flows for the reporting period required under ESRS 2 SBM-3 para 48 (d).

~~47.~~43. The objective of this Disclosure Requirement is to provide an understanding of:

- a) ~~potential~~anticipated financial effects due to material risks arising from biodiversity- and ecosystem-related impacts and dependencies and how these risks have ~~(or are likely to have a material influence)~~ (or could reasonably be expected to have) a material influence ~~(or are likely to have a material influence)~~ on the undertaking's ~~cash flows, financial position, financial performance and position, development, cost of capital or access to finance~~cash flows over the short-, medium- and ~~long-term time horizons~~longterm; and
- b) ~~potential~~anticipated financial effects due to material opportunities related to biodiversity- and ecosystem-related ~~material opportunities and how the undertaking may financially benefit from such material opportunities~~.

~~48.~~44. The disclosure shall include:

- a) a quantification of the ~~potential~~anticipated financial effects in monetary terms before considering biodiversity and ecosystems-related actions or where ~~impracticable~~not possible without undue cost or effort, qualitative information. For financial effects arising from material opportunities, a quantification is not required if it would result in disclosure that does not meet the qualitative characteristics of information (see ESRS 1 Appendix C Qualitative characteristics of information). The quantification of the ~~potential~~anticipated financial effects in monetary terms may be a single amount or a range;
- b) a description of the effects considered, the related impacts and dependencies to which they relate and the time horizons in which they are likely to materialise; and
- c) the critical assumptions used into quantify the ~~estimate~~anticipated financial effects as well as the sources and the level of uncertainty ~~attached of~~ those assumptions.

~~49.~~ ~~In the context of this Disclosure Requirement, potential financial effects include financial effects that do not meet the recognition criteria for inclusion in the financial statement line items and notes to the financial statements.~~



Appendix ~~BA~~A: Application Requirements

This appendix is an integral part of the ESRS E4. It supports the application of the disclosure requirements set ~~for~~out in ~~paragraphs 1 to 49~~this standard and has the same authority as the other parts of ~~Standard~~the standard.

ESRS 2 General disclosures

Strategy

Disclosure Requirement E4-1 – Transition plan ~~on~~ and consideration of biodiversity and ecosystems in strategy and business model

AR 1. If disclosing a transition plan, the undertaking may:

- a) explain how it will adjust its strategy and business model to improve and, ultimately, achieve alignment with relevant local, national and global public policy goals and targets related to biodiversity and ecosystems including the vision of the KunmingMontreal Global Biodiversity Framework and its relevant goals and targets, the EU Biodiversity Strategy for 2030, and the EU Birds and Habitats Directives and, as appropriate, planetary boundaries related to biosphere integrity and land system change
- b) include its own operations and also explain how it is responding to material impacts in its related value chain identified in its materiality assessment in accordance with ESRS 2 IRO-1 Description of the processes to identify and assess material impacts, risks and opportunities;
- c) explain how its strategy interacts with its transition plan;
- d) explain how it contributes to biodiversity and ecosystem impact drivers and its possible mitigation actions following the mitigation hierarchy and the main pathdependencies and locked-in assets and resources (e.g., plants, raw materials) that are associated with biodiversity and ecosystems change;

~~AR 1. Targets under paragraph 16(a)iii may be:~~

- ~~e) explain how biodiversity offsets are used as part of the transition plan, and if so, where the offsets are planned to be used, the extent of use in relation to the overall transition plan, and whether the mitigation hierarchy was considered;~~
- ~~f) explain how the process of implementing and updating the transition plan is managed;~~
- ~~g) explain how it measures progress, namely indicate the metrics and methodologies it uses for that purpose;~~
- ~~h) indicate whether the administrative, management and supervisory bodies have approved the transition plan; and~~
- ~~i) indicate current challenges and limitations to draft a plan in relation to areas of significant impact and how the company is addressing those challenges.~~

~~a)AR 2. If disclosing a transition plan, the undertaking may, for example, refer to the following targets ~~underfrom~~ the EU Nature Restoration PlanBiodiversity Strategy for 2030:~~

- ~~i. 5 - The decline of pollinators is reversed.~~
- ~~ii. 6 - The risk and use of chemical pesticides is reduced by 50%, and the use of more hazardous pesticides is reduced by 50%.~~
- ~~iii. 8 - At least 25% of agricultural land is under organic farming management, and the uptake of agro-ecological practices is significantly increased.~~
- ~~iv. 9 - Three billion additional trees are planted in the EU, in full respect of ecological principles.~~
- ~~v. 10 - Significant progress in the remediation of contaminated soil sites.~~
- ~~vi. 11 - At least 25,000 km of free-flowing rivers are restored.~~
- ~~vii. 13 - The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction of the use of fertilisers by at least 20%.~~
- ~~viii. 15 - The negative impacts on sensitive species and habitats, including on the seabed through fishing and extraction activities, are substantially reduced to achieve good environmental status.~~

~~b) enabling Transformative Change:~~

- ~~i. Business for biodiversity~~
- ~~ii. Financing for biodiversity~~

~~AR 3. When providing information under paragraph 16If disclosing a transition plan, the undertaking may in additionalso refer to the mentioned frameworks and policies consider the Sustainable Development Goals-using the, in particular:~~

~~AR 2. SDG Compass as guidance and with focus on the following targets:~~

- ~~a) 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture;~~
- ~~b) SDG 6 - Ensure availability and sustainable management of water and sanitation for all;~~



- c) [SDG 14](#) - Conserve and sustainably use the oceans, seas and marine resources for sustainable development;
and
- d) [SDG 15](#) - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Impact, risk and opportunity management

Disclosure requirements related to ESRS 2 IRO-1 – Description of the processes to identify and assess material biodiversity and ecosystem-related impacts, risks and opportunities

- ~~AR 3. In the absence of a yet to be established global set of relevant scenarios and following the principle-based approach as defined within this Standard, the undertaking may refer to the guidance provided by TNFD and the following tools and methodologies when applying and disclosing on relevant scenarios under paragraph 22:~~
- ~~a) “Methodological Assessment Report on Scenarios and Models of Biodiversity and Ecosystem Services” published by the IPBES in 2016;~~
 - ~~b) the Globio model allows trends in biodiversity and ecosystem services to be modelled under future socio-economic development scenarios, as well as different policy interventions;~~
 - ~~c) the Risk Filter Suite by WWF includes, in its Water Risk Filter tool, TCFD aligned scenarios of water risks for 2030 and 2050 based on climate scenarios (IPCC CMIP5 Representative Concentration Pathways – RCP) and socio-economic scenarios (IIASA Shared Socioeconomic Pathways – SSP). Among physical water risks, the tool includes risks related to ecosystem services status;~~
 - ~~d) the ENCORE allows exploration of future scenarios in terms of the potential impacts and dependencies of activities on biodiversity (available for some sectors, e.g., agriculture and mining);~~
 - ~~e) the EXIOBASE is a global, detailed Multi-Regional Environmentally Extended Supply-Use Table (MR-SUT) and Input-Output Table (MR-IOT). The MR-IOT that can be used for the analysis of the environmental impacts associated with the final consumption of product groups; and~~
 - ~~f) climate change scenarios as drivers for biodiversity and ecosystems aspects (see ESRS E1).~~
- AR 4. The materiality assessment under ESRS E4 includes the undertaking’s:
- a) contribution to direct impact drivers on biodiversity loss ~~as defined by IPBES:~~
 - i. climate change;
 - ii. land-use change (e.g., land artificialisation), freshwater-use change and sea-use change;
 - iii. direct exploitation;
 - iv. invasive alien species;
 - v. pollution; and
 - vi. others.
 - b) impacts on the state of species (i.e., species population size, species global extinction risk);
 - c) impacts on the extent and condition of ecosystems ~~(classified as per the IUCN Global Ecosystem Typology 2 and defined within the UN SEEA EA accounting framework (e.g., including through~~ land degradation, desertification and soil sealing); and
 - d) impacts and dependencies on ecosystem services ~~(as defined within the UN SEEA EA accounting framework).~~
- AR 5. When assessing the materiality of impacts, dependencies, risks and opportunities the undertaking shall consider the provisions in ESRS 2 IRO-1 and ESRS 1 Chapter 3 Double materiality as the basis for sustainability disclosures and describe its considerations.
- AR 6. The undertaking shall assess the materiality of biodiversity and ecosystems in its own operations and its value chain, and may consider conducting its materiality assessment in line with the first three phases of the LEAP approach ~~by TNFD: Locate (paragraph AR 7), Evaluate (paragraph AR 8) and Assess (paragraph AR 9).~~ ~~For further guidance the undertaking may refer to the TNFD Nature-Related Risk & Opportunity Management and Disclosure Framework.~~
- AR 7. Phase 1 relates to the localisation of relevant sites regarding its interface with biodiversity and ecosystems. To identify these relevant sites the undertaking shall consider:
- a) developing a list of locations of direct assets and operations and related upstream and downstream value chain that are relevant to the undertakings business activities. Furthermore, the undertaking may provide information about sites for which future operations have been formally announced.
 - b) listing the biomes and ecosystems it is interfacing³⁹ with based on the list of locations identified under paragraph AR 7(a).
 - c) identifying the current integrity and importance of biodiversity and ecosystem at each location taking into consideration the information provided in paragraph 2217.

- d) developing a list of locations where the undertaking is interfacing with locations in or near biodiversity-sensitive areas taking into consideration the information provided in paragraph ~~22~~17.
- e) identifying which sectors, business units, value chains or asset classes are interfacing with biodiversity and ecosystems in these material sites. Instead of ~~disclosure~~identifying these interfaces per site, the undertaking may choose to ~~disclose~~identify them per raw material procured or sold by weight in tons, if such practice offers greater transparency.
- AR 8. In Phase 2, the undertaking shall consider evaluating actual or potential impacts and dependencies on biodiversity and ~~ecosystem-related~~ecosystems for relevant sites by:
- a) identifying business processes and activities that interface with biodiversity and ecosystems;
- b) identifying actual and potential impacts and dependencies;
- c) indicating the size, scale, frequency of occurrence and speed of the impacts on biodiversity and ecosystems taking into consideration the disclosures under paragraph ~~23~~16. Furthermore, the undertaking may disclose:
- i. the percentage of its suppliers' facilities which are located in risk prone areas (with threatened species on the IUCN Red List of Species, the Birds and Habitats Directive or nationally list of threatened species, or in officially recognised Protected Areas, the Natura 2000 network of protected areas and Key Biodiversity Areas);
 - ii. the percentage of its procurement spend from suppliers with facilities which are located in risk prone areas (with threatened species on the IUCN Red List of Species, the Birds and Habitats Directive or nationally list of threatened species, or in officially recognised Protected Areas, the Natura 2000 ~~ne~~ ~~work~~network of protected areas and Key Biodiversity Areas); and
- d) indicating the size and scale of the dependencies on biodiversity and ecosystems, including on raw materials, natural resources and ecosystem services ~~taking into consideration the disclosures under paragraph 25.~~ The undertaking may rely on the international classifications such as the Common International Classification of Ecosystem Services (CICES).
- AR 9. Based on the results of Phase 1 and 2, the undertaking shall consider assessing material risks and opportunities in Phase 3 along the following categories:
- a) physical risks:
- i. acute risks (e.g., natural disasters exacerbated by loss of coastal protection from ecosystems, leading to costs of storm damage to coastal infrastructure, disease or pests affecting the species or variety of crop the undertaking relies on, especially in the case of no or low genetic diversity, species loss and ecosystem degradation); and
 - ii. chronic risks (e.g., loss of crop yield due to decline in pollination services, increasing scarcity or variable production of key natural inputs, ecosystem degradation due to operations leading to, for example, coastal erosion and forest fragmentation, ocean acidification, land loss to desertification and soil degradation and consequent loss of soil fertility, species loss).
- b) transition risks, including:
- i. policy and legal: e.g. introduction of regulation or policy (e.g. changes such as increased land protection), ~~ineffective biodiversity governance in an area, across boundaries (i.e. transboundary governance) and cooperation resulting in biodiversity and ecosystem change (e.g. biodiversity-rich ecosystems crossing national boundaries);~~ exposure to sanctions and litigation (e.g. spills of polluting effluents that damage human and ecosystem health; or violation of biodiversity-related rights, permits or allocations; or negligence towards or killing of threatened species); ~~enhanced reporting obligations on biodiversity, ecosystems and related services;~~
 - ii. technology: e.g. substitution of products or services with a lower impact on biodiversity or dependence on ecosystem services, lack of access to data or access to poor quality data that hamper biodiversity-related assessments, transition to more efficient and cleaner technologies (i.e. with lower impacts on biodiversity), new monitoring technologies (e.g. satellite), ~~adaptation requirements to use certain technologies required to cope with new future scenarios and trends (e.g. (e.g. climate resistant crops, mechanical pollinators, water purification, flood protection) used by regulators;~~
 - iii. market: e.g., shifting supply, demand and financing, volatility or increased costs of raw materials (e.g., biodiversity-intense inputs for which price has ~~raised~~risen due to ecosystem degradation);
 - iv. reputation: e.g., changing societal, customer or community perceptions as a result of an organisation's role in loss of biodiversity, violation of ~~nature-related~~naturerelated rights through

- operations, negative media coverage due to impacts on critical species and/or ecosystems, biodiversity-related social conflicts over endangered species, protected areas, resources or pollution;
- c) contribution to systemic risks, including:
- i. ecosystem collapse risks that a critical natural system no longer functions, e.g., tipping points are reached and the collapse of ecosystems resulting in wholesale geographic or sector losses (summing physical risks);
 - ii. aggregated risk linked to fundamental impacts of biodiversity loss to levels of transition and physical risk across one or more sectors in a portfolio (corporate or financial); and
 - iii. contagion risks that financial difficulties of certain corporations or financial institutions linked to failure to account for exposure to biodiversity-related risks spill over to the entire economic system as a whole.
- d) opportunities, including for example:
- i. business performance categories: ~~1)~~ resource efficiency; ~~2)~~ products and services; ~~3)~~ markets; ~~4)~~ capital flow and financing; ~~5)~~ reputational capital; and
 - ii. sustainability performance categories: ~~6)~~ ecosystem protection, restoration and regeneration; ~~7)~~ sustainability use of natural resources.

~~AR 10. When conducting the materiality assessment, the undertaking may refer to the Tools Catalogue provided by TNFD, rely on information provided by the EU Business @ Biodiversity Platform, which provides periodic updates on available tools, metrics and data sources relevant for this Standard. The undertaking may further refer to the “Exploring Natural Capital Opportunities, Risks and Exposure” (ENCORE) tool during all phases and specifically in:~~

- a) ~~Phase 1 to:~~
- i. ~~Protected Planet database, a source of data on protected areas and other effective area-based conservation measures (OECMs), the Natura 2000 network of protected areas;~~
 - ii. ~~the Common Database on Designated Areas (CDDA) as the official source of protected area information from European countries to the World Database of Protected Areas (WDPA);~~
 - iii. ~~the Global Biodiversity Information Systems (<https://www.gbif.org/>); The Ocean Data Viewer (<https://data.unep-wcmc.org/>); and~~
 - iv. ~~the tool “Trase” on deforestation risk to assess raw materials or to the tool “Bioscope” to assess the impact drivers of biodiversity change for raw materials and to address the materiality of impact drivers of biodiversity change by raw material.~~
- b) ~~and Phase 2 and / or 3 to:~~
- i. ~~information provided by the WWF Risk Filter Suite that includes the Biodiversity Risk Filter – a web-based tool integrating spatially explicit biodiversity data. It allows firms to understand and assess biodiversity impacts and dependencies, risks and opportunities, prioritise areas of action and develop tailored response plans; and~~
 - ii. ~~national, European or international specialised databases (for example Global Forest Watch (<https://www.globalforestwatch.org/>); The Living Planet Database (<https://livingplanetindex.org/home/index>), The International Waterbird Census Database (<http://wpe.wetlands.org/>).~~

Presentation of information:

~~AR 11.~~ AR 10. The undertaking may consider the below tables to ~~present~~ facilitate its materiality assessment of material sites identified under paragraph AR 7:

~~„Tabelle“~~

~~„Tabelle“~~

~~When disclosing on paragraph~~ With regard to AR 7(~~de~~), the undertaking may consider using the ~~below~~ table ~~for presentation~~ below:

~~„Tabelle“~~

Impact, risk and opportunity management

Disclosure Requirement E4-2 – Policies related to biodiversity and ecosystems

~~AR 11. The policies described under this Disclosure Requirement may be integrated in broader environmental or sustainability policies covering different subtopics.~~

AR 12. The undertaking may also provide information on how the policy refers to the production, sourcing or consumption of raw materials, and in particular how it:

- a) ~~refer to policies limiting limits~~ procurement from suppliers that cannot demonstrate that they are not contributing to significant ~~conversion of damage to~~ protected areas or key biodiversity areas (e.g., through certification);
- b) ~~refer~~refers to recognised standards or third-party certifications overseen by regulators; and
- c) addresses raw materials originating from ecosystems that have been managed to maintain or enhance conditions for biodiversity, as demonstrated by regular monitoring and reporting of biodiversity status and gains or losses.

AR 13. ~~When disclosing how its policies are connected to and in alignment with policies and legislation relation to biodiversity and ecosystems under paragraph 26(a)26(a), the undertaking may also~~The undertaking may disclose connections and alignment with other global goals and agreements such as the SDGs 2, 6, 14 and 15 or any other well established global convention related to biodiversity and ecosystems.

AR 14. When disclosing policies related to social consequences of biodiversity and ecosystems related dependencies and impacts under ~~26(e)21 (f)~~, the undertaking may notably refer to the Nagoya Protocol and the Convention for Biological Diversity (CBD), ~~but may also refer to IFC Performance Standard 4, 5, 6 and 7 and the Core Principles from the Accountability Framework, Principle 2 “Respect for Human Rights”-).~~

AR 15. When disclosing ~~en~~information about the social consequences of policies under paragraph ~~26(g)21(f)~~, the undertaking may provide information in relation to:

- a) the fair and equitable ~~benefit-sharing from of~~ the benefits arising from the utilisation of genetic resources; and
- b) the prior informed consent (i.e., the permission given by the competent national authority of a provider country to a user prior to accessing genetic resources, in line with an appropriate national legal and institutional framework) for access to genetic resources.

~~AR 16. This information. The undertaking may be complemented on also explain~~ how ~~the its~~ policy ~~allows the undertaking enables it to:~~

~~a)AR 16.~~ avoid its negative impacts on biodiversity and ecosystems in its operations and related value chain (upstream and downstream);

~~b)a)~~ reduce and minimise its negative impacts on biodiversity and ecosystems in its operations and throughout the value chain that cannot be avoided;

~~e)b)~~ restore and rehabilitate degraded ecosystems or restore cleared ecosystems following exposure to impacts that cannot be completely avoided and/or minimised; and

~~d)c)~~ mitigate its contribution to material biodiversity loss drivers ~~as disclosed in the section, impacts, dependencies, risks and opportunities.~~

AR 17. When disclosing its policies, if referring to third-party standards of conduct, the undertaking may disclose whether the standard used:

- a) is objective and achievable based on a scientific approach to identifying issues, and realistic in assessing how these issues can be addressed on the ground under a variety of practical circumstances;
- b) is developed or maintained through a process of ongoing consultation with relevant stakeholders with balanced input from all relevant stakeholder groups, including producers, traders, processors, financiers, local people and communities, indigenous peoples, and civil society organisations representing consumer, environmental and social interests, with no group holding undue authority or veto power over the content;
- c) encourages a step-wise approach and continuous improvement - both in the standard and its application of better management practices, and require the establishment of meaningful targets and specific milestones to indicate progress against principles and criteria over time;
- d) is verifiable through independent certifying or verifying bodies, which have defined and rigorous assessment procedures that avoid conflicts of interest, and are compliant with ISO guidance on accreditation and verification procedures or Article 5(2) of Regulation (EC) No 765/2008; and
- e) conforms to the ISEAL Code of Good Practice.

Deutsches Rechnungslegungs Standards Committee e.V.

Accounting Standards Committee of Germany



Disclosure Requirement E4-3 – Actions and resources related to biodiversity and Ecosystems/ecosystems

AR 18. ~~As regards to paragraph 35(f), the~~The undertaking may disclose whether it considers an “avoidance” action plan, which prevents damaging actions before they take place. Avoidance often involves a decision to deviate from the business-as-usual project development path. An example of avoidance is altering the biodiversity and ecosystem footprint of a project to avoid destruction of natural habitat on the site and/or establishing set-asides where priority biodiversity values are present and will be conserved. At a minimum, avoidance should be considered where there are biodiversity and ~~ecosystem-related/ecosystem-related~~ values that are in one of the following categories: particularly vulnerable and irreplaceable, of particular concern to stakeholders, or where a cautious approach is warranted due to uncertainty in impact assessment or the efficacy of management measures. The three main types of avoidance are defined below:

- a) avoidance through Site Selection (Locate the entire project away from areas recognised for important biodiversity values);
- b) avoidance through Project Design (Configure infrastructure to preserve areas at the project site with important biodiversity values); and
- c) avoidance through Scheduling (Time project activities to account for patterns of species behaviour (e.g., breeding, migration) or ecosystem functions (e.g., river dynamics).

~~AR 19. With regard to key actions, the undertaking may disclose:~~

~~AR 19. a list of key stakeholders involved (e.g., competitors, suppliers, retailers, other business partners, affected communities and authorities, government agencies) and how they are involved, mentioning key stakeholders negatively or positively impacted by actions and how they are impacted, including impacts or benefits created for affected communities. When disclosing under paragraph 31(b), the undertaking may refer to “The BBOP Principles on Biodiversity Offsets” (2018), “IUCN Policy on Biodiversity Offsets” (2016), and “Guidance on achieving no net loss or net gain of biodiversity and ecosystem services” (2020, EU document).~~

~~AR 20. The disclosure required by paragraph 31(d) may also include for each key action:~~

- ~~a) smallholders, indigenous peoples or other persons in vulnerable situations;~~
- ~~b) where applicable, an explanation of the need for appropriate consultations and the need to respect the decisions of affected communities;~~
- ~~c) a brief assessment of whether the key actions may induce significant negative sustainability impacts;~~
- ~~a)d) an explanation of whether the key action is intended to be a one-time initiative or a systematic practice;~~
- ~~b) if the action is individual or collective, and for a collective, the undertaking may explain its role and whether the success of it depends on the undertaking’s support.~~
- ~~e) an explanation of whether the key action plan is carried out only by the undertaking, using the undertaking’s resources, or whether it is part of a wider initiative to which the undertaking significantly contributes. If the key action plan is part of a wider initiative, the undertaking may provide more information on the project, its sponsors and other participants;~~
- ~~e)f) a description of how the action(s) to contribute it contributes to systemwide change, notably to alter the drivers of biodiversity and ecosystem change, e.g., through technological, economic, institutional, and social factors and changes in underlying values and behaviours. an explanation whether the action is intended to be a one-time initiative or a systematic practice;~~

~~AR 21. When disclosing policies regarding sourcing of raw materials under paragraph 26(e), the undertaking may refer to what action the undertaking may take to shift suppliers when they contribute to significantly negatively impacting those protected areas or key biodiversity areas.~~

~~AR 22-AR 20.~~ In the context of this Disclosure Requirement, “local and indigenous knowledge” refer to the understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings. For rural and indigenous peoples, local knowledge informs decision-making about fundamental aspects of day-to-day life.

Metrics and targets

Disclosure Requirement E4-4 – Targets related to biodiversity and ecosystems

~~AR 23. When determining ecological thresholds to set targets, the undertaking may refer to the guidance provided by TNFD on the use of the methods by Science-Based Targets Initiative for Nature (SBTN), the relevant work outlined in the Sustainable Development Performance Indicator (SDPI) online platform, or any other guidance with a scientifically acknowledged methodology that allows the setting of science-based targets by identifying ecological thresholds and, if applicable, entity-specific allocations.~~

~~AR 24.~~ AR 21. When disclosing information required under paragraph ~~3530~~ for the purpose of setting targets the undertaking shall consider the need for an informed and willing consent of local and indigenous ~~communities~~peoples, the need for appropriate consultations and the need to respect the decisions of these communities.

Presentation of information

AR 22. The targets related to material impacts may be presented in a table as illustrated below:

„Tabelle“

AR 23. The targets related to ~~aspects~~the potentially material sustainability matters listed in paragraph AR 4 of this Standard, may be presented in a table as illustrated below:

„Tabelle“

~~AR 25-~~AR 24. _____ Measurable targets related to biodiversity and ecosystems may be expressed as:

- a) size and location of all habitat areas protected or restored, whether directly or indirectly controlled by the undertaking, and whether the success of the restoration measure was or is approved by independent external professionals;
- ~~b) area of land with a permanently protected land status as of the end of the reporting period;~~
- ~~e) area of land with a protected land status as of the end of reporting period;~~
- ~~d)~~b) recreated surfaces (environments in which management initiatives are implemented so as to create a habitat on a site where it did not exist initially); or
- ~~e)~~c) number or percentage of projects / sites whose ecological integrity was improved (e.g., installation of fish passes, wildlife corridors).

Disclosure Requirement E4-5 – Impact metrics related to biodiversity and ecosystems change

~~AR 26-AR 25.~~ ~~The undertaking shall consider and describe these considerations as per the following when~~ When preparing the information required under this Disclosure Requirement, the undertaking shall consider and may describe:

- a) the methodologies and metrics used and an explanation for why these methodologies and metrics are selected, as well as their assumptions, limitations and uncertainties, ~~as well as~~ and any changes in methodologies made over time and why they occurred;
- b) the scope of the metrics and methodologies, for example:
 - i. undertaking, site, brand, commodity, corporate business unit, activity;
 - ii. entire value chain or specific parts the value chain, upstream or downstream value chain, or own operations and leased assets;
 - iii. aspects (as set out in paragraph AR 4) covered.
- c) the biodiversity components of the metrics: species specific, ecosystem specific;
- d) ~~a description of~~ the geographies covered by the methodology and, an explanation of why ~~the~~ any relevant geographies ~~identified were not included~~ omitted;
- e) how the metrics integrate ecological thresholds (e.g., the biosphere integrity and land-system change, planetary boundaries) and allocations;
- f) the frequency of monitoring, key ~~indicators~~ metrics being monitored, and the baseline condition/value and baseline year/period, as well as the reference period;
- ~~i.g.) whether the parametrisation of~~ these metrics rely on primary data, secondary data, modelled data or on expert judgement, or a mixture of these;
- ~~ii.h.)~~ an indication of which action is measured and monitored via the metrics and how they relate to the achievement of targets;
- ~~iii.i.)~~ whether metrics are mandatory (based on legislation) or voluntary. If they are mandatory, the undertaking may consider listing the relevant legislation; if voluntary, the undertaking may refer to ~~the~~ any voluntary standard ~~or~~ or procedure used; and
- ~~iv.j.)~~ whether the metrics are informed by or correspond to expectations or recommendations of relevant and authoritative national, EU-level or intergovernmental guidelines, policies, legislation or agreements, such as the Convention for Biological Diversity (CBD) ~~and/or~~ or IPBES.

~~AR 27-AR 26.~~ ~~When selecting metrics, the~~ The undertaking shall consider ~~using~~ selecting metrics that are verifiable and describing these considerations to use ~~that are~~ technically and scientifically ~~robust and verifiable information, as well as data and methods that, from a scientific perspective, are fit for decision making and responsive to decision making over~~ considering the appropriate ~~timeframe and spatial scale. For example, time scales geographies, and may disclose how its selected metrics correspond to those criteria. To ensure that the metric is relevant~~ there should be ~~an accepted theory of the~~ a clear relationship between the indicator and the purpose, ~~with agreement that change in the indicator indicates change in the issue of concern of the measurement.~~ Uncertainties should be reduced as far as possible. Data or mechanisms used should be supported by well-established organisations and updated over time. Robust modelled data and expert judgment can be used where data gaps exist. The methodology must be sufficiently detailed to allow for meaningful comparison of impacts and mitigation activities over time. Information gathering processes and definitions must be systematically applied. This enables a meaningful review of the undertaking's performance over time and helps internal and peer comparison.

~~AR 28-AR 27.~~ If a metric corresponds to a target, the baseline for both shall be aligned. The biodiversity baseline is an essential component of the larger biodiversity and ecosystems management process. The baseline is necessary to inform impact assessment and management planning, as well as monitoring and adaptive management. ~~The undertaking may refer to the work in "Good Practices for the Collection of Biodiversity Baseline Data" (Gullison, 2015) for baseline creation, and in particular the checklist available on page 18.~~

~~AR 29.~~ ~~When identifying relevant metrics, the undertaking may refer to the biodiversity and ecosystems-related indicators listed for the Sustainable Development Goals, IPBES Assessment Report 2019 and the Report on biodiversity measurement approaches developed by the Business for Biodiversity Platform.~~

~~AR 30-AR 28.~~ Methodologies available to collect data and measure the undertakings' impacts on biodiversity ~~state and ecosystems~~ may be separated into three categories as follows:

- a) primary data: collected in-situ using on the ground surveys;
- b) secondary data: including geospatial data layers that are overlaid with geographic location data of business activities:
 - i. ~~at~~At the species level, data layers on the ranges of different species can be used to predict the species that may be present at different locations. This includes operation sites and sourcing locations. ~~Range Different range~~ layers, ~~each~~ will have ~~differing different~~ levels of accuracy depending on certain factors (e.g., whether species ranges have been refined based on availability of habitat). Information on the threat status of the species, and the activities that threaten them, can provide an indication of the likely contribution that business activities may be having on driving population trends and threat status;
 - ii. ~~at~~At the ecosystem level, data layers reflecting change in the extent and condition ~~of~~ ecosystems can be applied, including levels of habitat fragmentation and connectivity;
- c) modelled biodiversity state data: Model-based approaches are commonly used for measuring ecosystem level indicators (e.g., extent, condition, or function). Models quantify how the magnitude of different pressures affects the state of biodiversity. These are referred to as pressure-state relationships and are based on globally collected data. Modelling results are applied locally to estimate how undertaking-level pressures will cause changes in ecosystem condition.

~~AR 34-AR 29.~~ An impact driver generally has three main characteristics: magnitude (e.g., amount of contaminant, noise intensity), spatial extent (e.g., area of land contaminated) and temporal extent (duration of persistence of contaminant).

~~AR 32-AR 30.~~ ~~The~~With regard to life cycle assessment for land-use, the undertaking may refer to the "Land-use related environmental indicators for Life Cycle Assessment" by the Joint Research Center ~~or an equally established scientific approach, when disclosing on paragraph 39.~~

~~AR 33-AR 31.~~ ~~When disclosing under paragraph 43 on the~~With regard to the introduction of invasive alien species, the undertaking may ~~refer to the guidance provided by TNFD on invasive alien species removal. The undertaking may further disclose, for example,~~ the pathways and number of invasive alien species ~~or and~~ the extent of surface covered by invasive alien species.

~~AR 34.~~ ~~When reporting on the state of species under paragraph:~~

- a) ~~44(d)i,~~ the undertaking may consider that ~~contribution~~With regard to ~~extinction risk metrics use threat assessments and range sizes of the species present at a given location to estimate how different activities at that location may drive species extinctions globally.~~
- b) ~~44(d)ii,~~ the undertaking may consider that ~~changes in species area of habitat metrics measure the change in habitat size as a proxy of a change to a species population size. Indicators such as these can be used when direct population counts are not possible to obtain, however, direct in-situ population measures are preferred.~~

~~AR 35-AR 32.~~ ~~When disclosing under paragraph 45 on the extent and condition of ecosystems, the undertaking may refer to metrics and information provided by~~useful guidance can be found in the work of the United Nations System of Environmental Economic Accounting Ecosystem Accounting (UN SEEA EA).

~~AR 36-AR 33.~~ The undertaking may disclose in units of area (e.g., m² or ha) on land-use using guidance provided by the Eco-Management and Audit Scheme (EMAS):

- a) total use of land;
- b) total sealed area;
- c) total nature-oriented area on site; and
- d) total nature-oriented area off site.

~~AR 37-AR 34.~~ The undertaking may disclose, for example, land cover change, which is the physical representation of the drivers "habitat modification" and "industrial and domestic activities", i.e., the man-made or natural change of the physical properties of ~~Earth's~~the earth's surface at a specific location. ~~The undertaking may refer to the CDSB Biodiversity Application Guidance 2021:~~

~~AR 38.~~ ~~Land cover is a typical variable that can be assessed with earth observation data. Examples include: Validated global land cover datasets have been produced annually since 2015 by the Copernicus Global Land Service. A high-resolution alternative is ESA's WORLDCOVER dataset, a global land cover map with a spatial resolution of 10 meters. However, this dataset has so far only been generated for the year 2020, so no changes can be~~

~~assessed yet, but an annual calculation is envisaged. Alternatively, the undertaking may refer to the following metrics and open-access tools: the Invest Habitat Quality Model, the Corine Land Cover, the ESRI Land Cover, the catalogue of Earth Engine Data, the Eurostat Land Use and Land Cover Survey, the habitat modification metric from the ENCORE database or the Biodiversity Intactness Index.~~

~~AR 39. Data layers on the ranges of different species may be used to predict the species that may be present at different locations. This includes operation sites and sourcing locations. Range layers has differing levels of accuracy depending on factors, e.g., whether species ranges have been refined based on availability of habitat. Information on the threat status of the species, and the activities that threaten them, can provide an indication of the likely contribution that business activities may be having on driving population trends and threat status.~~

~~AR 35. Land cover is a typical variable that can be assessed with earth observation data.~~

~~AR 40-AR 36. _____ When reporting on material impacts related to the ecosystems under paragraph 44, the undertaking may, in addition to the extent and condition of ecosystems, also consider a third aspect of on the functioning of ecosystems by using:~~

- ~~a) an indicator a metric that measures a process (or function) that the ecosystem completes, or that reflects the ability of the ecosystem to undertake that specific process (or function); e.g., net primary productivity, which is the measure of plant productivity that measures the rate that energy is stored by plants and made available to other species in the ecosystem. It is a core process that occurs for ecosystems to function. It is related to many factors, such as species diversity, but does not measure these factors directly; or~~
- ~~b) an indicator A metric that measures changes to the population of scientifically identified.~~

~~AR 41.b) When reporting on impacts contributing to state changes under paragraph 44, indicators for ecosystem extent and condition shall form the core of measurements but can be supplemented with species level indicators for a more complete assessment under threat.~~

~~AR 42-AR 37. _____ At the ecosystem level, data layers reflecting change in the extent and condition of ecosystems may be applied, including levels of habitat fragmentation and connectivity.~~

Disclosure Requirement E4-6 – Potential Anticipated financial effects from material biodiversity and ecosystem-related risks and opportunities

~~AR 43.~~ AR 38. The undertaking may include an assessment of its related products and services at risk over the short-, medium- and long-term time horizons, explaining how these are defined, how financial amounts are estimated, and which critical assumptions are made.

~~AR 44.~~ AR 39. The quantification of the ~~potential~~anticipated financial effects in monetary terms under paragraph ~~4644(a)~~ may be a single amount or a range.