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Exposure Draft ESRS *Mining, Quarrying and Coal*

V.3.1

The [Draft] ESRS Mining, Quarrying and Coal set out in paragraphs 1-### and the following Appendices, that have the same authority as the main body of the Working Paper.

- Appendix A: Defined Terms;
- Appendix B: Application Requirements;
- Appendix C: Application Requirements supporting the assessment of materiality of the information prescribed in some Disclosure Requirements;
- Appendix D: List of datapoints that emanate from EU Law;
- Appendix E: NACE codes: Mining, Quarrying and Coal;
- Appendix E: Description of sustainability matters that are most material to Mining, Quarrying and Coal sector.

This draft also uses terms defined in sector-agnostic ESRS and shall be read in the context of its objective. The terms defined in sector-agnostic ESRS are marked with *italic bold, blue font*.

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Objective

1. Consistent with ESRS 1 paragraph 9, the objective of this [draft] ESRS is to specify disclosure and application requirements that enable users of sustainability statements to understand material impacts, **risks** and **opportunities**, that are likely to be material for all undertakings in a specific sector and that are not covered, or not sufficiently covered, by topical standards. This [draft] ESRS covers the **sustainability matters** that are most relevant to the Mining, Quarrying and Coal sector.
2. This [draft] ESRS specifies disclosure and application requirements as follows:
 - (a) additional sector-specific datapoints and/or application requirements related to sector-agnostic disclosure requirements. Additional datapoints are located in the main body of this standard and additional Application Requirements are located in Appendix B. In both cases, these additional datapoints and application requirements are identified by having in their title the relevant disclosure requirement of sector-agnostic ESRS to which they relate (e.g. *ESRS2.IRO2.MQC*).
 - (b) sector-specific Disclosure Requirements are presented in the main body of this [draft] standard and are identified by a progressive numbering (MQC 1, MQC 2, etc.). Their respective Application Requirements are presented in Appendix B.
3. The requirements classified in this [draft] standard as **Policies**, **Actions** and **Targets** are subject to the materiality provisions of paragraph 33 of ESRS 1. Those classified as **Metrics** are subject to the materiality provisions of paragraph 34 of ESRS 1. In relation to additional metrics sector -specific datapoints in this [draft] standard, when assessing the condition of paragraph 34 (b), the undertaking shall refer to the objective of the relevant Disclosure Requirement in the sector agnostic ESRS.

Scope of application

4. An undertaking is within the scope of application of this [draft] ESRS when *Mining, Quarrying and Coal* is a significant sector according to paragraph 40 (b) and/or (c) of ESRS 2 General Disclosures, using the criteria set in AR 13 of ESRS 2 to define a significant sector.
5. [draft] ESRS SEC 1 *Sector classification* defines the aggregation of activities (NACE codes) into sectors for the purposes of applying sector ESRS. The NACE codes that pertain to the Mining, Quarrying and Coal sector are listed in Appendix D to this [draft] ESRS, consistent with SEC 1.
6. The *Mining, Quarrying and Coal* sector is composed of *mining, quarrying, coal* and *service* sub-sectors.
7. The *Mining sub-sector* includes the extraction of metals which can be achieved by different methods, such as underground or surface mining, well operation, seabed mining, salars' exploitation, geothermal mining and others. Extraction of critical minerals such as copper, lithium, nickel, cobalt and rare earth elements is included in this sub-sector. Supplementary activities, such as crushing, grinding, washing, drying or sintering are also included. The activities in this sub-sector are classified under NACE division 07 Mining of metal ores (codes 07.10, 07.21 and 07.29).
8. The *Quarrying sub-sector* includes activities such as quarrying, rough trimming and sawing of large building stones, breaking and crushing of ornamental and building stones, the extraction and dredging of industrial sand, mining of natural phosphates and natural potassium salts, peat digging and preparation of peat to improve quality or facilitate transport or storage. It also includes extraction of salt, as well as mining and quarrying of various minerals and materials, as well as supplementary activities such as dredging of alluvial deposits, rock crushing or the use of salt marshes. The activities in this sub-sector are classified under NACE division 08 Other mining and quarrying (codes 08.11, 08.12, 08.91, 08.92, 08.93, 08.99).
9. The *Coal sub-sector* includes the extraction of solid mineral fuels through underground or open-cast mining and includes operations (e.g., grading, cleaning, compressing and other steps necessary for transportation etc.) leading to a marketable product. This sub-sector includes undertakings that mine coal and manufacture coal products, whether it concerns underground or surface mining, thermal or metallurgical coal. This sub-sector also includes manufacturing

of coke oven products. The activities in this sub-sector are classified under NACE division 05 Mining of coal and lignite (codes 05.10, 05.20), as well as NACE code 19.10 Manufacture of coke oven products.

10. The *Services sub-sector* includes providing support services on a fee or contract basis to the three sub-sectors mentioned above. Such services can consist of exploration services like prospecting, draining and pumping services or test drilling and test hole boring. The activities in this sub-sector are classified under NACE 09.90 Support activities for other mining and quarrying.

Presentation of sector-specific disclosures

11. Disclosures stemming from the [draft] MQC ESRS shall be presented alongside the disclosures required by the corresponding sector-agnostic ESRS and following the provisions prescribed by ESRS 1 paragraph 115. of ESRS 1.

Material matters and materiality of information

12. Appendix F of this [draft] ESRS identifies the list of matters that are most relevant to the sector. This list supports the undertaking's materiality assessment, in conjunction with the list in paragraph AR 16 of ESRS 1.
13. Irrespective of the outcome of its materiality assessment, the undertaking shall always disclose the information required by this [draft] ESRS that are sector specifications of:
 - (a) ESRS 2 *General Disclosures* (i.e. all the Disclosure Requirements and data points specified in this draft ESRS that are sector specifications of ESRS 2); and
 - (b) of the Disclosure Requirements (including their datapoints) in topical ESRS related to the Disclosure Requirement *IRO-1 Description of the process to identify and assess material impacts, risks and opportunities*, as listed in ESRS 2 *Appendix C Disclosure/Application Requirements in topical ESRS* that are applicable jointly with ESRS 2 General Disclosures.
14. The undertaking shall apply paragraphs 33, 34 and 35 of ESRS 1, when determining the information to be reported on a material sustainability matter, prescribed by the requirements in this [draft] ESRS.
15. For metrics prescribed in this [draft] ESRS that are not datapoints in Appendix C: *List of datapoints that emanate from EU Law*; if the undertaking omits information prescribed by either a Disclosure Requirement or a datapoint of a Disclosure Requirement, such information is considered to be implicitly reported as "not material for the undertaking".

Disclosure requirements

ESRS 2 General disclosures

ESRS 2.IRO2.MQC – Conclusions on material matters and reported information

16. The undertaking shall disclose the conclusions of its materiality assessment regarding the list of sustainability matters listed in Appendix F, providing a brief explanation, in relation to the undertaking's specific facts and circumstances, of which matters in the list have been assessed to be material and which have not. Specific facts and circumstances include the undertaking's business model, its specific activities, the location of its sites, its products, and its business relationships. This disclosure may be presented alongside the information prescribed by paragraph 38 of ESRS 2.
17. When the undertaking omits the Disclosure Requirements prescribed by this [draft] ESRS that are applicable to a subsector of activity (refer to the Appendix C of this [draft] ESRS) which the undertaking does not operate, the brief explanation of paragraph 14 does not need to cover the Sustainability Matters which the omitted Disclosure Requirements refer to.

18. The list disclosed following paragraph 56 of ESRS 2 shall include the Disclosure Requirements of this [draft] sector ESRS complied with in preparing the sustainability statement.

ESRS 2.SBM1.MQC – Activity indicators

19. In addition to the information provided following ESRS 2 SBM-1, the undertaking shall provide a breakdown of its net revenue (both in monetary amount and as a percentage of its total revenue) into the following NACE-code activities¹:
- (a) B.05 – Mining of coal and lignite
 - (b) B.07 – Mining of metal ores
 - (c) B.08 – Other mining and quarrying
 - (d) B.09 – Mining support activities
 - (e) C.19 – Manufacture of coke oven products

Activity indicators?

ESRS 2.SBM2.MQC?

ESRS 2.IRO2.MQC?

Cross-topical sector disclosures

MQC 1. Mapping of operational sites

20. The undertaking shall disclose a list of its significant *operational sites* with specification of the *sustainability matters* to which they are connected.
21. The objective of this Disclosure Requirement is to enable an understanding of which *operational sites* are connected with specific material *sustainability matters*.
- Metrics**
22. For each of the *operational sites* in the list, the undertaking shall include:
- (a) basic description including name and a description of the activities and main characteristics of each site;
 - (b) location (NUTS region in the EU, country + region outside EU);
 - (c) type of control: financial or *operational control*;
 - (d) status of site (active; undergoing closure; closed and rehabilitated; or closed and not rehabilitated);
 - (e) the existence of tailing impoundments;
 - (f) material impacts related to social or environmental matters to which operational site is connected to, including:
 - i. whether the site is located in or *near* to a *protected areas* or a *key biodiversity area*. If so, the undertaking shall specify the impacts to the affected habitats and *ecosystems* and species and describe *biodiversity* management and adaptive management activities in place.
 - ii. whether the undertaking is connected to material impacts on the local community, specifically, in relation to:
 - 1. *indigenous peoples*;

¹ This disclosure requirement is consistent with the requirements included in EBA Pillar 3 ITS Template 1 [Banking book – Climate change transition risk – Credit quality of exposures by sector, emissions and residual maturity](#).

2. land rights;
 3. **infrastructure**, including housing, food, water and sanitation, and power;
 4. **pollution**;
 5. **hazardous waste** storage or disposal;
 6. voluntary or involuntary resettlements that have been taking place or are ongoing **near** the site, subject to legal restrictions on the disclosure.
- iii. whether the site is located in or near **active conflict** areas or **high-risk areas**; and
 - iv. whether the site is located in **areas at water risk**.
- (g) the percentage of top management and employees recruited from the affected community, including indigenous people.

MQC 2. Mineral reserves

23. **The undertaking shall disclose its proved mineral reserves.**
24. The objective of this Disclosure Requirement is to enable an understanding of the actual and potential future impacts and risks for the various types of sites.
- Metrics**
25. The undertaking shall disclose the percentage of **proved mineral reserves** that are:
- (a) in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index;
 - (b) in or **near** the areas of **active conflict**;
 - (c) in or **near** the indigenous land;
 - (d) in or near sites protected areas and key biodiversity areas; and
 - (e) in areas at water risk.
26. The undertaking shall disclose for each line item the corresponding countries where it has **proved mineral reserves**.
27. The undertaking shall, where relevant, provide a breakdown of calculations by mineral or business unit where minerals or business units include, for example: coal, aluminium, copper, zinc, iron ore, platinum group metals, or diamonds.

MQC 3. Industrial hazards

28. **The undertaking shall disclose information related to the industrial hazards.**
29. The objective of this Disclosure Requirement is to enable an understanding of the material impacts, risks and opportunities related to industrial hazards connected to the undertaking's operations, as well as how the undertaking manages them.
- ESRS E2 -Policies, actions and targets**
30. When reporting according to ESRS E2-1 to E2-6, the undertaking shall disclose its **policies**, **actions** and **targets** related to the **industrial hazards**, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1.
- ESRS S1 -Policies, actions and targets**
31. In addition to the information provided following ESRS S1-1, S-4 and S-5, the undertaking shall disclose its **policies**, **actions** and **targets** related to the **industrial hazards**, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1.
- ESRS E2 -Metrics**

32. The undertaking shall disclose the total number of significant spills that occurred during the reporting period, including the total volume spilled and the name of the substances released, as well as how it defines significant spill.

ESRS S1 - Metrics

33. The undertaking shall provide the following **metrics** related to health and safety:
- (a) health and safety incidents as a result of being exposed to chemicals (including crystalline silica and dust) and provide a breakdown between **employees** and **non-employee** in **own workforce**:
 - i. the number of work-related fatalities,
 - ii. the number of **work-related injuries**; and
 - iii. the number of cases of work-related **ill health**;
 - (b) the minimum number of hours of **training** per worker received by its **own workforce** on health, safety and emergency preparedness, with respect to occupational risks or hazards to which its own workforce is reasonably likely to be exposed. Such information shall be broken down by **employees** and **non-employee**.

MQC 4. Closure of assets

34. **The undertaking shall disclose its **metrics** related to the closure of assets.**
35. The objective of this Disclosure Requirement is to enable an understanding of the qualitative and quantitative indicators related to **closure of assets** connected with the undertaking's operations.

Policies, actions and targets

36. When reporting according to ESRS E2-1 to E2-6, the undertaking shall disclose its **policies**, **actions** and **targets** related to the **closure of assets**, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1.

Metrics

37. The undertaking shall list the percentage of **operational sites** for which there is no existing or foreseen site rehabilitation plan.
38. The undertaking shall disclose the material financial liabilities it expects to incur for closure and rehabilitation, for each **operational site**, including environmental and social post-closure monitoring and aftercare for its sites, in particular:
- (a) monetary amount recognized in the financial statements;
 - (b) undiscounted monetary value of (a) split by time horizon;
 - (c) discount rate used to calculate (a);
 - (d) potential additional liabilities that do not meet the recognition criteria at the reporting date; and
 - (e) whether the operational site has been sold to a third party.

MQC 5. Tailings management, facilities and impoundments

39. **The undertaking shall disclose information on its tailings management practices, tailings facilities and tailing impoundments.**
40. The objective of this Disclosure Requirement is enabling an understanding of the undertaking's management of its **tailings** facilities, the hazards nature of its tailings impoundments, and its treatment of tailings.

Policies, actions and targets

41. When reporting according to ESRS E5-5, the undertaking shall disclose its **policies, actions** and **targets** related to the **tailings**, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1.

42. If the undertaking does not follow any generally accepted standard or code of practice, it shall explain why.

Metrics

43. The undertaking shall also disclose, for each material **tailings** facility for which a risk assessment has not been carried out in the previous reporting period:

- (a) a description of the tailing's facility, its name, location, and ownership;
- (b) a classification by hazard potential for each listed **tailings** impoundments;
- (c) types of **tailings** disposal methods used by the undertaking;
- (d) whether the facility is active, inactive, or closed;
- (e) the date and main findings of the most recent risk assessment;
- (f) the dates of the most recent and next independent technical reviews as well as the main findings of the most recent technical review;
- (g) the maximum permitted storage capacity.

44. The undertaking shall disclose:

- (a) the percentage of its tailings impoundment that has been assessed by a third party; and
- (b) the hazard potential per each of its tailing facility according to the following classification:
 - i. high hazard potential;
 - ii. significant hazard potential;
 - iii. low hazard potential.

45. The undertaking shall provide information about its waste-management process in case of deep-sea, river, lake and ocean tailings disposal and shall:

- (a) disclose the total amount of waste from **tailings** and of mineral processing waste generated during the reporting period;
- (b) report on the waste-management process followed and additional challenges faced considering the activities that take place underwater, if it engages on sea mining activities, coastal or deep sea, including the disposal of waste into the marine systems or other activities mentioned in ESRS E3 AR.12;
- (c) disclose if waste from **tailings** is being generated in deep-sea areas (Deep-Sea Tailings Disposal (DSTD)).

46. The undertaking shall disclose the following information on the financial effects related to catastrophic failures:

- (a) available financial resources (including from insurance arrangements) to face potential future events and monetary amounts at risk;
- (b) provisions recognised in the financial statements for past events;
- (c) other expected costs, if applicable;
- (d) description of how the amounts above have been estimated, including the key assumptions and inputs.

Environmental disclosures

ESRS E1 – MQC Climate change

Policies, actions and targets

47. When reporting according to ESRS E1-2, E1-3 and E1-4, the undertaking shall also disclose its **policies**, **actions** and **targets** related to the management and abatement of methane emissions, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T, covering the applicable items in Appendix B.1.

Metrics

48. In addition to the information provided following ESRS E1-6, the undertaking shall disclose a breakdown:
- (a) of its total **Scope 1 GHG emissions** into total CO₂ and methane emissions;
 - (b) of total **Scope 1 GHG emissions** by type of source, where relevant, namely:
 - i. stationary combustion;
 - ii. mobile combustion;
 - iii. flaring;
 - iv. venting, and
 - v. fugitive emissions.
49. The undertaking shall disclose its GHG intensity per unit of production, including the specific denominators chosen to calculate it.
50. In addition to the information provided following ESRS E1-6, with regards to its methane emissions, the undertaking shall disclose:
- (a) the geographical location (country) of any significant **flaring** or **venting** emissions;
 - (b) the percentage of routine and non-routine flaring, and the efficiency of combustion.
51. In addition to the information provided following E1-9, the undertaking shall disclose how it expects the management of climate change-related **risks** and **opportunities** to affect the medium and long-term financial position, performance and development.

ESRS E2 – MQC Pollution

Policies, actions and targets

52. When reporting according to the ESRS E2-1 to E2-5, the undertaking shall disclose its **policies**, **actions** and **targets** related to pollution prevention and control in normal operations in accordance with ESRS 2 MDR-P, MDR-A, MDR-T, covering the applicable items in Appendix B.1.

Metrics

53. The undertaking shall disclose the frequency of its significant non-compliance with Environmental Quality Standards (defined by local regulation or permitting conditions) **near** its operational sites.
54. The undertaking shall indicate the mine sites in which the acid drainage is:
- (a) predicted to occur or has been found to occur;
 - (b) has not been actively mitigated; and
 - (c) is not under treatment or remediation.

ESRS E3 – MQC Water and marine resources

Policies, actions and targets

55. When reporting according to the ESRS E3-1 and E3-3, the undertaking shall disclose its **policies** and **targets** related to water and marine resources in accordance with ESRS 2 MDR-P and MDR-T covering the applicable items in Appendix B.1.

MQC 6. Water and marine resources metrics

Metrics

56. **The undertaking shall disclose its water withdrawals and discharges.**
57. The objective of this disclosure requirement is to enable an understanding of the **water withdrawals** and **water discharges**.
58. The undertaking shall disclose the total volume of **water withdrawals** and **water discharges**, disaggregated into:
- (a) surface water;
 - (b) groundwater;
 - (c) other water.
59. With regards to the **water withdrawals** disclosed according to paragraph 58 points (a), (b) and (c), the undertaking shall disclose the share (percentage) of water withdrawn from the **areas at water risk**.
60. The undertaking shall disclose the number of significant non-compliances with respect to local regulatory or discharge limits and indicate exceeded parameters.
61. The undertaking shall report on which **operational sites** referred to in MQC 1. Mapping of operational sites the activities have a significant impact on groundwater level and environmental-flows and what measures are put in place to counteract these effects.
62. The undertaking shall report in which water basin its operations significantly impact hydrological conditions (e.g. drainage flows, hydrogeology, etc) and in which water basin these have or are likely to have a material impact on groundwater level and environmental-flows and what measures are put in place to counteract these effects.
63. The undertaking shall disclose:
- (a) the volume of the water it discharges to the environment or exports to third parties;
 - (b) the destination of the volume disclosed in (a), the impacts arising from it;

ESRS E4 – MQC Biodiversity and ecosystems

Policies, actions and targets

64. When reporting according to the ESRS E4-1 and E4-4, the undertaking shall disclose its **policies** and **targets** related to biodiversity and ecosystems in accordance with ESRS 2 MDR-P and MDR-T, covering the applicable items in Appendix B.1.
65. In case the undertaking's **policies** implemented to manage material impacts, risks and opportunities related to biodiversity and ecosystems, according to ESRS E4-2, do not apply to one or more of its sites, the undertaking shall disclose which policies apply to which sites and, when for sites located in or near key biodiversity areas, if they are more stringent than the corporate wide policy.

Metrics

66. The undertaking shall disclose whether a site rehabilitation or restoration plan exists or is foreseen for each of its operational sites. If this is not the case, the undertaking shall disclose the list of sites for which there is no existing or foreseen site rehabilitation or restoration plan.
67. The undertaking shall disclose significant impacts on **biodiversity** and **ecosystems** change:

- (a) direct land use change related to its operational sites in hectares (ha), as well as direct land use change in **key biodiversity areas**;
 - (b) percentage of land-use change area rehabilitated or restored during the reporting period and the percentage of land-use change area rehabilitated or restored in **protected areas** and **key biodiversity areas**;
 - (c) the total number of IUCN Red list species and national conservation list species with habitats in areas affected by the operations of the organisation, by level of extinction risk.
68. The undertaking shall report **metrics** related to material **biodiversity** and **ecosystem** change impacts in accordance with ESRS E4-5, per each operational site located in or **near protected areas** and in **key biodiversity areas** that is listed according to the disclosure MQC 1. Mapping of operational sites. This disclosure is not required for the sites for which the undertaking has assessed that it is not connected with a material potential or actual material impact.

Social disclosures

ESRS S1 – MQC. Own workforce

Policies, actions and targets

69. When reporting according to ESRS S1-1, S1-4, S1-5, the undertaking shall disclose its **policies, actions** and **targets** related to working time and **work-life balance**, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1.

MQC 7. Work stoppages

70. **The undertaking shall disclose the number of work stoppages during the year, including number of employees involved and their length.**

71. The objective of this Disclosure Requirement is to enable an understanding of the extent of work stoppages and their effects on the undertaking.

Metrics

72. The undertaking shall disclose following **metrics** related to work stoppages
- (a) the number of major work stoppages,
 - (b) for each major work stoppage:
 - i. the percentage of **employees** involved;
 - ii. the number of employees involved;
 - iii. the length in days of each stoppage.
73. When reporting according to ESRS S1-1, S1-4, S1-5, the undertaking shall disclose its **policies, actions** and **targets** related to work stoppages in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1.

ESRS S2 – MQC. Workers in the value chain

Policies, actions and targets

74. When reporting according to ESRS S2-1, S2-4, S2-5, the undertaking shall disclose its **policies, actions** and **targets** related to **value chain workers**² health and safety, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1.

² ESRS S1 *Own Workforce* includes employees and non-employees (individual contractors supplying labour to the undertaking, and people provided by undertakings primarily engaged in 'employment activities' (NACE Code N78). Workers not in scope of *Own Workforce* are considered workers in the value chain (and are defined as individuals performing work in the value chain of the undertaking, regardless of the existence or nature of any contractual relationship with the undertaking).

ESRS S3 – MQC. Affected communities - indigenous people

Policies, actions and targets

75. When reporting according to ESRS S3-1, S3-4, S3-5, the undertaking shall disclose its **policies, actions** and **targets** related to the engagement with **indigenous peoples** throughout the tailings facility lifecycle, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1

Metrics

76. The undertaking shall disclose the following **metrics** in relation to seeking **free, prior and informed consent (FPIC)**:
- (a) whether it has been involved in a process of seeking FPIC from **indigenous peoples** for any of its activities.
 - (b) if the undertaking has been involved in such processes, the following information for the operational sites in question:
 - i. whether the process has been mutually accepted by the undertaking and the affected indigenous peoples; and
 - ii. whether an agreement has been reached, and if so, if the agreement is publicly available

Policies, actions, targets

77. When reporting according to ESRS S3-1, S3-4, S3-5, the undertaking shall disclose its **policies, actions** and **targets** related to the recognition of legitimate land tenure right holders and establishing compensation for loss of assets or other assistance in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1
78. When reporting according to ESRS S3-1, S3-4, S3-5, the undertaking shall disclose its **policies, actions** and **targets** related to respecting and protecting human rights and environmental defenders, in accordance with ESRS 2 MDR-P, MDR-A, MDR-T; covering the applicable items in Appendix B.1

MQC 8. Security personnel

79. **The undertaking shall disclose the percentage of security personnel that has received training about the undertaking's human rights policies within own workforce.**

Policies, actions and targets

80. The objective of this Disclosure Requirement is to enable an understanding of the extent to which the undertaking's security personnel are aware of the undertakings' human rights **policies** and how these are respected when engaging with affected communities.
81. The undertaking shall disclose:
- (a) the percentage of security personnel that has received **training** in the undertaking's human rights **policies**;
 - (b) whether the undertaking has performed internal audits and /or audited or certified by an external party in relation to compliance of security personnel with its own human rights policies when engaging with **affected communities**;
 - (c) where applicable, the number of the identified **incidents** of violations of human rights of **affected communities** directly linked to its security personnel and an explanation of the type of violation.

MQC 9. Engagement with affected communities and grievance mechanisms

Metrics

82. **The undertaking shall disclose metrics regarding engagement with affected communities and the performance of its grievance mechanisms.**

83. The objective of this Disclosure Requirement is to enable an understanding of the impacts of the undertaking on **affected communities**.
84. The undertaking shall disclose the number of sites with grievance mechanisms or similar conflict resolution procedures for the operational sites listed in MQC 1, Mapping of operational sites. If the undertaking does not operate local grievance mechanisms at the operational site level as these are at group or company level, it may fulfil this requirement by stating this to be the case. It may disclose its plans to develop grievance mechanisms at operational site level.
85. The undertaking shall disclose the percentage of operational sites that have: implemented local community engagement, impact assessments, and/or development programs, including the use of:
- (a) implemented affected community engagement;
 - (b) been subject to impact assessments, including:
 - iii. social impact assessments, including gender impact assessments, based on processes whereby **affected communities** are participating in the undertakings' decisions that affect them;
 - iv. environmental impact assessments;
 - (c) work councils, occupational health and safety committees and other worker representation bodies to deal with impacts;
86. In addition for (b) above, the undertaking shall disclose whether the results of environmental and social impact assessments have been made public.
87. The undertaking shall disclose the following for the operational sites listed in MQC 1 and disclose at country level for material investments:
- (a) The extent of development of significant infrastructure investments (e.g. transport links, utilities) and services (e.g. community social facilities, health, and welfare centres) supported; and whether these investments and services are commercial, in-kind, or pro bono engagements.

MQC 10. Human rights and environmental defenders

Metrics

88. The undertaking shall describe the number of **incidents** when engaging with human rights and environmental defenders.
89. The objective of this Disclosure Requirement is to enable an understanding of the undertaking's engagement and respect for **human rights** and **environmental defenders** and the extent to which incidents occur.
90. The undertaking shall provide the number of **incidents** with **human rights** and **environmental defenders** and identify those that relate to **vulnerable groups**.

Governance disclosures

ESRS G1 - MQC. Business conduct

Policies, actions and targets

91. When reporting according to ESRS G1-2 and G1-6, the undertaking shall disclose its **policies**, related to the **management of relationships with suppliers and payment practices**, in accordance with ESRS 2 MDR-P covering the applicable items in Appendix B.1
92. The undertaking shall report its definition used of 'local suppliers' in cases where it deviates from the suggested definition in appendix A.

Metrics

93. When providing disclosures in accordance with Disclosure Requirement ESRS G1-5 paragraph 29, the undertaking shall disclose what it spent (as a reporting entity) during the reporting period on **lobbying activities** regarding its material impacts, **risks** and **opportunities** identified in its **materiality** assessment in accordance with ESRS 2.
94. The undertaking shall disclose the number of open cases before courts or other competent authorities at the end of the reporting period that concern claims about misleading commercial practices or public communication related to sustainability. It shall also disclose the number of similar cases resolved during the reporting period and the outcomes of such cases.

MQC 11. Transparency about contracts and licenses

95. **The undertaking shall provide information about the transparency with respect to contracts and licenses with governments setting the terms and conditions for the exploitation of **minerals and coal resources**.**
96. The objective of this Disclosure Requirement is to provide an understanding of the transparency of the undertaking about its contracts concluded and licences received.
- Metrics**
97. For any material **contract** or **license**, the undertaking shall disclose:
- (a) whether such **contracts** are made publicly available and where they can be found; and
 - (b) for those **contracts** or **licenses** not publicly available, the reason for this and if applicable, **actions** taken to publish in the future as well as the timetable to do so.

MQC 12. State-aid and competition

98. **The undertaking shall provide information concerning possible anti-competitive behaviour, the abuse of dominance, or the receipt of state aid during the reporting period.**
99. The objective of this Disclosure Requirement is to enable an understanding of possible anti-competitive behaviour of the undertaking during the reporting period, as well as any **state aid** received.
- Metrics**
100. The disclosure shall include the following information:
- (a) publicly announced notifications, preliminary investigations, investigations, proceedings or commitments and remedies relating to violations of antitrust and monopoly legislation or the receipt of state-aid where the undertaking was named as a participant by a competent authority; and
 - (b) the main outcomes of legal proceedings against the undertaking concluded during the reporting period, including sanctions, fines, commitments and remedies.
2. The undertaking shall also disclose the total amount received with respect to **state aid** or financial assistance received from any government on a country-by-country basis.

MQC 13. Beneficial ownership

101. **The undertaking shall provide information about its beneficial ownership and how it identifies the beneficial owners of business partners, including joint ventures and suppliers.**
102. The objective of this Disclosure Requirement is to provide transparency about the undertakings beneficial owner(s) and to provide an understanding of its **policy** regarding the beneficial owners of its business partners and how these are identified.
- Policies, actions and targets**

103. When reporting according to ESRS G1-1 and G1-3, the undertaking shall disclose its **policies**, related to the **prevention and detection of corruption and bribery** in accordance with ESRS 2 MDR-P covering the applicable items in Appendix B.1.

Metrics

104. The undertaking shall disclose a list of its beneficial owner(s) (as defined in article 3(6) of Directive (EU) 2015/849).

MQC 14. Minerals or coal purchased from states

105. **The undertaking shall provide information about minerals or coal purchased from states or a third party appointed on the behalf of such states during the reporting period.**

106. The objective of this disclosure requirement is to enable transparency about minerals or coal purchases from **the state** and to provide insights amounts paid to the state under such transactions.

Metrics

107. For minerals or coal purchased from the state or from third parties appointed by the state to sell on their behalf, the undertaking shall disclose:
- (a) volumes and types of minerals purchased from the state;
 - (b) full names of the buying undertaking(s) and the recipient of the payment; and
 - (c) payments made for the purchase.

MQC 15. Cybersecurity

108. **The undertaking shall disclose information about its cybersecurity during the reporting period where failures may adversely impact people and the environment.**

109. The objective this Disclosure Requirement is to enable an understanding of the undertaking's policies and management of risks regarding cybersecurity, preventing adverse impacts on people and the environment, as well as information about failures related to cybersecurity.

Policies, actions and targets

110. When reporting according to ESRS G1-1 the undertaking shall disclose its **policies**, related to cybersecurity in accordance with ESRS 2 MDR-P covering the applicable items in Appendix B.1.
111. The undertaking shall disclose its approach to cybersecurity management for existing operations, projects planned or underway and new locations for business activities, including assessment of threats, vulnerabilities and **risks**.

Metrics

112. The undertaking shall disclose:
- (a) the number of cybersecurity breaches, during the reporting period;
 - (b) the number of operational sites impacted; and
 - (c) whether this involved restricted or **classified information**.

Appendix A: Defined terms

This appendix is an integral part of this Exposure Draft and has the same authority as the other parts of this Exposure Draft.

<p>Acid drainage (including acid rock drainage and acid mine drainage)</p>	<p>Highly acidic, polluted water containing free sulphuric acid and dissolved metals sulphate salts resulting from the oxidation of contained sulphide minerals or additives to the process.</p> <p>Acid drainage can result from a variety of natural sources and anthropogenic activities.</p> <p>In the case of acid rock drainage (ARD), this oxidation process occurs naturally and is complemented by reactions of the base minerals in the rock, which are exposed to air and water.</p> <p>For acid mine drainage (AMD), this is a common form of water pollution in areas where mining took place. It is the result of open-pit underground extraction operations (in particular mining and coal mining) and extractive waste facilities, causing an acceleration of the acid draining process because such activities increase the exposure of sulphide minerals to air, water, and microorganisms.</p>
<p>Closure and post-closure of sites</p>	<p>Process undertaken when the operational stage of a site is ending or has ended, and the final decommissioning and site rehabilitation is underway. Generally, mine closure is the responsibility of the mine owner.</p> <p>Site rehabilitation is the restoration of the land on which mining, quarrying and coal activities have taken place to the intended post-closure land uses. Rehabilitation can include measures to restore the landscape to its pre-mining land uses (environmental rehabilitation). This covers physical mine closure, environmental reclamation and rehabilitation (including the removal of mining equipment), securing the stability of remaining dumps and impoundments, water management and surface stability at closed underground mines, and monitoring and managing any post closure environmental and human health impacts. Major issues to be considered for the closure and after-closure phases include the long-term safeguarding of:</p> <ul style="list-style-type: none"> physical stability of constructions (e.g. dams) and extractive waste (e.g. heaps); chemical stability of extractive waste; biological stability of extractive waste; successive land use (the rehabilitation of a site usually aims to turn the area into something that is useful to the local community).
<p>Active conflict and high-risk areas</p>	<p>Conflict-affected and high-risk areas are identified by the presence of armed conflict, widespread violence or other risks of harm to people. Armed conflict may take a variety of forms, such as a conflict of international or non-international character, which may involve two or more states, or may consist of wats of liberations, or insurgencies, civil wars, etc. High-risk areas may include areas of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence. Such areas are often characterised by widespread human rights abuses and violations of national or international law.</p>
<p>Contract</p>	<p>The full text of any contract, concession, production-sharing agreement or other agreement granted by, or entered into by, the government which provides the terms attached to the exploitation of mineral resources or coal.</p> <p>The full text of any annex, addendum or rider which establishes details relevant to the exploitation rights described in above or the execution thereof.</p> <p>The full text of any alteration or amendment to the documents described above.</p>

Cyber security	Cyber security relates to the practice of protecting electronic data, computer systems, servers, networks, mobile devices, tablet devices etc. from malicious criminal attacks, theft of sensitive data, and damage to IT systems.
Environmental defenders	The term "environmental defenders" refers to individuals and groups who, in their personal or professional capacity and in a peaceful manner, strive to protect and promote human rights relating to the environment, including water, air, land, flora and fauna. Land and environmental rights are interlinked and are often inseparable. As a result, the two broad categories of defenders advocating for the environment and for land rights are often characterized as "land and environmental rights defenders", "environmental rights defenders", or just "environmental activists".
Flaring	Flaring means the controlled combustion of methane for the purpose of disposal in a device designed for said combustion.
Human rights defender	AR 1. The term "human rights defenders" refers to individuals, groups and organs of society that promote and protect universally recognised human rights and fundamental freedoms. Human rights defenders seek the promotion and protection of civil and political rights as well as the promotion, protection and realisation of economic, social and cultural rights. Human rights defenders also promote and protect the rights of members of groups such as indigenous communities. The definition does not include those individuals or groups who commit or propagate violence.
Infrastructure	Facilities built primarily to provide a public service or good rather than a commercial purpose, and from which an organization does not seek to gain direct economic benefit.
Licence	The full text of any license, lease, title or permit by which a government confers on an undertaking(s) or individual(s) rights to exploit mineral resources or coal. The full text of any annex, addendum or rider that establishes details relevant to the exploitation rights described above or the execution thereof. The full text of any alteration or amendment to the documents described above.
Local supplier	Suppliers in the community surrounding operations, a region within a country, or a country.
Mineral probable reserves	Reserves for which quantity and grade and/or quality are computed from information similar to that used for proved (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced.
Mineral proved reserves	Mineral proved reserves are estimated quantities that analyses of geological and engineering data have demonstrated to be economically recoverable in future years from known reservoirs and under current economic conditions, operating methods, and government regulations.
Near (operational site located near a certain area)	A facility, site or asset is "near" a certain area, if it can have a direct material impact on that area, irrespective of the actual distance that separates the two.
Normal operation (or normal operating conditions)	Regularly oscillating activity phases that support continued operation within safe upper and lower operating limits. It is also the condition or phase of process operation between the startup phase and shutdown phase, other than start-up (e.g., bringing an activity, an equipment item

	or a tank into or out of service), shutdown (i.e., definitive cessation of operations), or emergency operations (e.g., leaks, malfunctions, momentary stoppages).
Operational site	Means the site locations where the business activities are performed, whether these are owned or operated by the undertaking, and includes the land, structures and any other surrounding areas and equipment.
Other water	Surface water that is not fresh water, and water from other sources.
Politically Exposed Persons (PEP)	An individual entrusted with a prominent public function.
Significant spills	Spill that is included in the organization's financial statements, for example due to resulting liabilities, or is recorded as a spill by the organization.
Spills	Spills are accidental release of hazardous substances such as chemicals, oils, fuels and other substances. They can affect water, soil and air quality as well as biodiversity and human health.
State aid	<p>State aid is defined as an advantage in any form whatsoever conferred by national public authorities to undertakings on a selective basis. Therefore, subsidies granted to individuals or general measures open to all enterprises are not covered by this prohibition and do not constitute State aid (examples include general taxation measures or employment legislation).</p> <p>To be State aid, a measure needs to have these features: there has been an intervention by the State or through State resources which can take a variety of forms (e.g. grants, interest and tax reliefs, guarantees, government holdings of all or part of a company, or providing goods and services on preferential terms, etc.); the intervention gives the recipient an advantage on a selective basis, for example to specific companies or industry sectors, or to companies located in specific regions as a result, competition has been or may be distorted; the intervention is likely to affect trade between Member States.</p> <p>Despite the general prohibition of State aid, in some circumstances government interventions are necessary for a well-functioning and equitable economy. Therefore, the Treaty leaves room for a number of policy objectives for which State aid can be considered compatible. These exemptions can be found in legislation relevant to State aid.</p> <p>For non-EU countries, state aid refers to financial assistance received from any government.</p>
Tailings and tailings facilities	<p>Tailings are a by-product of mining, consisting of fine-grained waste solids or slurries that remain after the treatment of metals and minerals recoverable (left over rock or soil) have been extracted by separation processes (e.g. crushing, grinding, size-sorting, flotation and other physico-chemical techniques) to remove the valuable minerals from the less valuable rock.</p> <p>Tailings facilities encompass the whole set of structures required for the handling of tailings including the tailings storage facility (used to contain tailings produced by mines, such as decant structures and spillways, open pits, dry stacking, lakes or underground storages), tailings dams (embankments and impoundment structures, ponds designed to enable the tailings to settle and to retain tailings and process water), delivery pipelines, etc. Tailings facilities store large amounts of mining waste.</p>
Venting	Controlled release of unburned gases directly into the atmosphere. Venting is arguably more harmful to the environment as the released gas typically contains high levels of CH ₄ , whereas flaring converts the CH ₄ into less harmful CO ₂ .

Vulnerable group	Group of individuals with a specific condition or characteristic (e.g., economic, physical, political, social) that could experience negative impacts as a result of the organization's activities more severely than the general population.
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Appendix B: Application Requirements

This Appendix is an integral part of the proposed [draft] ESRS Mining, Quarrying and Coal and has the same authority as the other parts of the Standard.

Application Requirements related to ESRS 2 General disclosures

ESRS 2 GOV-4

- AR 2. If the undertaking carries out activities concerned by the undermentioned supplements or regulations, it may also disclose a mapping of the information provided in its sustainability statement to the relevant supplements or regulations:
- (a) OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Supplement on Tin, Tantalum and Tungsten; Supplement on Gold of the bespoke OECD Due Diligence Guidance³
 - (b) areas specified by the Conflict Minerals Regulation⁴.
- AR 3. The undertaking may disclose procurement practices in its mapping, as well as environmental factors. This may be presented in a table in a similar form to the table presented below.

Core elements	Paragraphs in the sustainability statements
OECD Due diligence guidance for Responsible Supply chains of Minerals from Conflict-Affected and High-Risk areas	
Establish strong management system	
Identify and assess risk in the supply chain	
Carry out independent third-party audit of supply chain due diligence at identified points in the supply chain	
Report on supply chain due diligence	

ESRS 2 SBM-2

- AR 4. When disclosing how the undertaking engages with its **stakeholders** in compliance with ESRS 2 SBM-2, the undertaking shall describe how it incorporates the OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractives Sector, and in particular how it engages with affected stakeholders. Furthermore, the undertaking shall consider the following:
- (a) the approach to identifying stakeholders within local communities;
 - (b) a description of the **vulnerable groups** that the organisation has identified within local communities by mine site, such as women, children, migrants and their families, **indigenous peoples**, etc.

ESRS 2 SBM-3

- AR 5. When disclosing according to sector-agnostic requirements of ESRS E1 ESRS 2 SBM-3 paragraph 19c [the results of the resilience analysis including the results from the use of scenario analysis], the undertaking with coal mining operations shall consider disclosing how future energy demand scenarios may affect its determination of **mineral proved reserves**.
- AR 6. The undertaking may consider disclosing which impacts on **affected communities** are specific to **vulnerable groups** such as children, women, migrant workers, **indigenous peoples** or any other vulnerable group, as applicable.

³ [OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#)

⁴ [Regulation \(EU\) 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas](#)

ESRS 2 IRO-1

- AR 7. The undertaking shall disclose the resilience of its current **mineral proved reserves** and may disclose the resilience of its current **mineral probable reserves** using the price trajectories published by the International Energy Agency (IEA) in its World Energy Outlook (WEO)⁵ publication, including:
- (a) current Policies Scenario, which assumes no changes in policies from the mid-point of the year of publication of the WEO;
 - (b) new Policies Scenario, which assumes that broad policy commitments and plans that have been announced by countries-including national pledges to reduce greenhouse gas emissions and plans to phase out fossil energy subsidies-occur, even if the measures to implement these commitments have yet to be identified or announced. This broadly serves as the IEA baseline scenario;
 - (c) Sustainable Development Scenario, which assumes an energy pathway occurs that is consistent with the goal of limiting the global increase in temperature to 1.5°C by limiting concentration of greenhouse gases in the atmosphere.
- AR 8. The undertaking shall consider the above mentioned WEO scenarios as a normative reference, thus any updates to the WEO made year-on-year shall be considered updates to this guidance.
- AR 9. The undertaking may summarise its findings in the following table format:

Price case	Mineral proved reserves		Mineral probable reserves	
	Product A	Product B	Product A	Product B
Current Policies scenario (base)	[tonnes]	[tonnes]	[tonnes]	[tonnes]
New Policies scenario	[tonnes]	[tonnes]	[tonnes]	[tonnes]
Sustainable Development Scenario	[tonnes]	[tonnes]	[tonnes]	[tonnes]

- AR 10. The undertaking may disclose the resilience of its mineral proved reserves levels in other price and demand scenarios in addition to those described above, particularly if these scenarios differ depending on the type of coal reserves, regulatory environment in the countries or regions where mining occurs, end-use of the undertaking's products, or other factors.
- AR 11. For additional resilience analyses, the undertaking may disclose the following, per the Task Force on Climate Related Financial Disclosures (TCFD) Recommendations Report Figure 8 as well as the Implementing the Recommendations of the TCFD Report, Section E:
- (d) the alternative scenarios used, including other 2°C or lower scenarios;
 - (e) critical input parameters, assumptions, and analytical choices for the climate-related scenarios used, particularly as they relate to key areas such as policy assumptions, energy deployment pathways, technology pathways, and related timing assumptions;
 - (f) time frames used for scenarios, including short-, medium-, and long-term milestones (e.g., how organizations consider timing of potential future implications under the scenarios used).
- AR 12. When the undertaking is conducting its materiality assessment on **affected communities**, the undertaking shall consider how it addresses any risks related to free, prior, and informed consent from **indigenous peoples** in countries without regulation or processes in place. It may disclose whether as part of its materiality assessment it performs a risk assessment for new country entry before the subscription of a contract in a new country of operations which would in turn be part of its double materiality assessment.

⁵ [World Energy Outlook 2022 \(windows.net\)](https://www.iea.org/publications/freemove)

ESRS 2 IRO-2

AR 13. In the list of Disclosure Requirements complied with in preparing the sustainability statements, following the outcome of the materiality assessment, to be reported following paragraph 55 of ESRS 2, the undertaking shall also cover the Disclosure Requirements of this Standard.

Application requirements related to cross-topic disclosures

MQC 1. Mapping of operational sites

AR 14. The mapping of operational sites concerned by this disclosure includes both those that are under the undertaking’s financial control and those under **operational control**. The site is significant for the undertaking, if it meets one or both of the following criteria:

- (a) the site is among its top 20 sites;
- (b) the site is connected with material actual impacts or material potential negative impacts.

AR 15. For the purposes of this disclosure, the following are **major** operational sites:

- (a) mines and the surface area disturbed by a mining operation;
- (b) exploratory mining phase, not including sites where the undertaking only has a first right option to the subsequent possible exploratory activities, provided that the site is connected with material actual impacts or material potential negative impacts;
- (c) quarries.

AR 16. For the purposes of this Disclosure Requirement, the undertaking shall include the sites owned or operated under concession, permit or licence.

AR 17. For the purpose of illustration, the top 20 sites may be identified on the basis of 5% of the saleable production.

AR 18. When disclosing according to this disclosure requirement, the undertaking may use a table to list the operational sites. See example:

	Name of site 1	Name of site 2	Name of site 3	Name of site 4 etc
Mines and surface areas (provide a description)				
Quarries				
Tailings dams				
Infrastructure				
Active /closure & rehabilitation plans / closure activities / closed / rehabilitated				
Social matters (i.e. local community, indigenous communities, land rights etc.)				
Environmental matters (i.e. located in or near key biodiversity areas, pollution, toxic waste, acid, methane, etc.)				

AR 19. Mines and surface areas disturbed by a mining operation may be classified as follows:

- (a) the surface area from which the nonferrous metallic minerals or refuse or both have been removed;
- (b) the surface area covered by refuse, all lands disturbed by the construction or improvement of haulage ways, pipelines and pipeline corridors; and

- (c) any surface areas in which structures, equipment, materials, and any other elements used in the mining operation are situated;
- AR 20. When defining what 'near' or 'local' means for a specific site, the undertaking shall consider:
- (a) Stakeholders;
 - (b) Geographical location;
 - (c) Positive and negative social or environmental impacts;
 - (d) Labour market.
- AR 21. Workers hired from local communities include those individuals either born or who have the legal right to reside indefinitely (such as naturalized citizens or permanent visa holders) in the same geographic market as the operation.
- AR 22. The geographical definition of 'local' can include the community surrounding operations, a region within a country, or a country. The undertaking shall consider its definition of local when preparing this disclosure and disclose it.
- AR 23. The undertaking may disclose whether it has assessed or identified potential negative **risks** in the local communities caused or contributed by its hiring **policy**.

MQC 2. Mineral reserves

- AR 24. The undertaking may disclose the percentage and grade (in percentage metal content) of ***mineral proved reserves***.
- AR 25. The undertaking shall consider the Pan European Reserves and Resources Reporting Committee (PERC) Standard for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the 'PERC Reporting Standard') or the Combined Reserves International Reporting Standards Committee (CRIRSCO) guidance for classifying ore reserves and mineral resources, including the use of a "competent person" to compile information.
- AR 26. The undertaking may disclose mineral probable reserves, desegregated by mineral or business unit.
- AR 27. The undertaking may disclose the process of identifying the high-risk areas in a way that is easy to understand and replicate.
- (a) in or near areas of conflict
 - (b) in or near lands where indigenous peoples are present and are or may be affected by the activities of the undertaking
- AR 28. With reference to the reserves located in or near areas of conflict:
- AR 29. With reference to the reserves located in or near indigenous land, indigenous lands are considered those occupied by indigenous peoples.
- AR 30. The undertaking may separately disclose ***mineral proved reserves*** in areas with additional ecological, biodiversity, or conservation designations, such as those listed by the A-Z Guide of Areas of Biodiversity Importance prepared by the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC).
- AR 31. The undertaking may disclose ***mineral proved reserves*** that are in protected areas or endangered species habitat, but present low risk to biodiversity or ecosystem services; the undertaking may provide similar discussion for reserves located in areas with no official designation of high biodiversity value but that present high biodiversity or ecosystem services risks.

MQC 3. Industrial hazards

- AR 32. When reporting on its policies for emergency preparedness and response, the undertaking may additionally disclose on whether and how it accounts for the implementations steps of critical control management (CCM).

- AR 33. For the purpose of this disclosure, emergency preparedness is understood as the planning for and readiness to respond effectively to industrial emergency situations that may affect offsite resources or communities, and to minimize the likelihood of accidents, loss of life, injuries, and damage to property, environment, health and social well-being.
- AR 34. In addition to reporting on significant spills, the undertaking may disclose the number of overall significant incidents that occurred in the reporting period, including those incidents that are hazardous materials and waste management.
- AR 35. For the reporting of number of **significant spills**, the undertaking shall consider the provisions on pollutants in ESRS E2, paragraphs from AR 21 till AR 27, as well as the definitions of substances of concern and substances of very high concern defined in Annex II to the ESRS. Multiple pollutants can be involved in one incident.
- AR 36. Examples of chemical hazards in the sector may include the exposure to naturally occurring gases (especially methane and hydrogen sulphide), engine exhaust and chemical vapours.
- AR 37. Physical hazards may include, for example, the collapse of structures, fire and explosions, landslides, and exposure to airborne contaminants (for example crystalline silica dust, rock dust and fumes).
- AR 38. Ergonomic hazards may include, for example, lifting heavy loads, operating vibrating tools, performing repetitive movements and overall engaging in physical, and often repetitive labour in a high-pressure environment.
- AR 39. The undertaking may specify whether sexual harassment is considered among psychosocial factors.
- AR 40. In relation with the health and safety management system, the undertaking may disclose whether it takes into consideration specific differences for female workers (for example, in the equipment provided, or whether occupational health services and facilities take into consideration specific health-related concerns, etc.).

MQC 4. Closure of assets

- AR 41. When reporting information according to paragraph 36 the undertaking may additionally disclose on whether and how it accounts for the integrated closure planning approach.
- AR 42. The undertaking may disclose rehabilitation and restoration plans for operational sites in or near key biodiversity areas. Such rehabilitation and restoration plans shall provide:
- (a) a description of the risks for **biodiversity** and **ecosystems**;
 - (b) a description of real impacts on **biodiversity** and **ecosystems**.
- AR 43. When disclosing its **policies, actions** and **targets**, the undertaking shall consider the following related to closure of **operational sites**:
- (a) how it helps **employees** and **non-employee** workers manage the adverse impacts arising from the closure of its operational site(s);
 - (b) the labour transition plans in place to help workers manage the transition to a post-closure phase of operations (e.g., redeployment, assistance with redeployment, resettlement, and redundancy payments, **training** and skills programmes);
 - (c) the collaborative efforts, projects and programs that are set up to manage the socio-economic impact of closure and restoration programs and disclose these;
 - (d) how it engages with workers and other **stakeholders** in informing the closure plans, as well as notice periods regarding closure.
- AR 44. When disclosing on its material financial liabilities, the undertaking shall consider the closure and rehabilitation costs necessary to address:
- (a) adverse impacts of closure of the operational site on **own workers, non-employee workers** and their communities (Disclosure Requirement related to ESRS 2 SBM-3); and
 - (b) restoration of material impacts to **biodiversity** and **ecosystems** around the closed operational site (Disclosure Requirement related to ESRS E4-2).

- AR 45. The description of how an undertaking engages with local communities shall also consider an explanation on how the land will be used ex post the closure of the operational site. Where applicable, the undertaking shall describe the approach to engaging with local communities and other relevant **stakeholders** on closure and post-closure planning and implementation, including post-mining land use.
- AR 46. Where applicable, the undertaking shall disclose whether post-closure plans have been consulted with the **affected communities**.
- AR 47. When disclosing its processes to remediate negative impacts following ESRS S3-3, the undertaking shall consider how it engages with local communities and other relevant **stakeholders** on its closure and post-closure planning and implementation, including post-mining **land-use**, to limit the actual and potential adverse impacts (e.g. unemployment, people moving out affecting the liveability of remaining supporting activities such as local shops, schools).
- AR 48. The undertaking may disclose whether it has addressed potential access-barriers faced by **affected communities**, particularly by **vulnerable groups**, to reach the channels in place (e.g., understandable language, technological resources, accessible to children).
- AR 49. Where applicable, the undertaking shall disclose whether post-closure plans have been consulted with the **affected communities**.

MQC 5. Tailings management, facilities and impoundments

- AR 50. By relevant industry standards, mentioned in the paragraph 33 (a) the undertaking may refer to the Global Industry Standard on Tailings Management (GISTM) or equivalent.
- AR 51. To identify the scope of this disclosure, the undertaking may refer to the size and volume indications for material tailings facilities provided by international industry standards, such as the GISTM.

Application Requirements related to environmental metrics

ESRS E1 – MQC Climate change

Policies, actions and targets

- AR 52. When a LDAR programme exists, the undertaking may provide a brief description of the programme including: the frequency of the monitoring; the different methane monitoring technologies, e.g. remote sensing techniques or estimation methods;
- AR 53. When disclosing about its Leak Detection & Repair (LDAR) programme and the monitoring technologies, the undertaking shall consider the following examples:
- (a) estimation methods involving the use of pre-determined emission factors;
 - (a) decline curves;
 - (b) handheld instruments;
 - (c) Continuous Emission Monitoring Systems (CEMS);
 - (d) remote sensing techniques or aerial surveys.
- AR 54. In relation to the application of best practice in coal methane emission management, companies may refer to the Best Practice Guidance from UNECE⁶.

Metrics

- AR 55. When disclosing information required in ESRS E1-1 16 (d) on potential **locked-in GHG emissions** from the undertaking's assets and products, the undertakings with coal mining or peat operations shall consider the emissions potential of proved reserves of their coal and peat

⁶ [Best Practice Guidance for Effective Management of Coal Mine Methane at National Level: Monitoring, Reporting, Verification and Mitigation](#)

assets. This potential shall be calculated considering the recommendations of the World Resource Institute⁷ and Global Peatlands Initiative⁸.

AR 56. When disclosing its **Scope 1 GHG emissions** according to ESRS E1-6, the undertaking shall include **land use change** emissions. Land use change refers to a change in the use or management of land and seascapes by humans, which may lead to a change in land cover. It covers changes to terrestrial ecosystems, such as when forests are converted to enable mineral extraction and supporting infrastructure. Guidance on calculating land use change emissions can be found in the IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry and its 2019 updates.

AR 57. When disclosing its Scope 3 significant emissions according to ESRS E1-6, the undertaking shall consider Scope 3 categories that may be relevant for the sub-sector it is active in:

Scope 3 Category	Mining sub-sector relevance	Quarrying sub-sector relevance	Coal sub-sector relevance
3. Fuel & Energy related	X	X	X
10. Processing of Sold Products	X	X	
11. Use of Sold Products	X		X
13. Downstream Leased assets	X	X	X
15. Investments	X		X

AR 58. When disclosing its **Scope 3 category** 11 'Use of sold products emissions' according to ESRS E1-6, the undertaking shall base on the volumes of coal sold during the reporting period, instead of the coal produced (therefore, the quantities in stock or inventory shall not be considered).

AR 59. When preparing the GHG intensity per unit of production according to paragraph #49# of this standard, the undertaking shall:

- (a) choose the specific unit of production that applies to its activities (e.g. tonne of coal, aluminium, copper, zinc, iron ore, etc.)
- (b) calculate the GHG intensity by the following formula:

$$GHG\ intensity = \frac{\text{total GHG emissions attributable to production (tCO}_2\text{eq)}}{\text{total production volume (tonnes)}}$$
- (c) report the types of GHG emissions included in the intensity metrics (whether it is Scope 1, Scope 2, or Scope 3)
- (d) briefly explain the methodology used for the calculation

AR 60. Examples of denominators chosen for calculation of the GHG intensity metrics may include, but are not limited to:

- (a) copper, lithium, nickel, cobalt, aluminium for undertakings in the mining sub-sector
- (b) peat, calcium carbonate, dolomite, salt for undertakings in the quarrying sub-sector
- (c) thermal coal, metallurgical coal, coke oven products for the undertakings in coal sub-sector

AR 61. When providing information on its anticipated financial effects from material physical and transition risks and potential climate-related opportunities, according to the ESRS E1-9, the undertaking shall consider:

- (a) changes in the investment levels dedicated to the exploration, acquisition and development of **mineral proved reserves**;
- (b) changes in investments in development of low-carbon products and services or adaptation solutions

⁷ [A recommended methodology for estimating and reporting the potential greenhouse gas emissions from fossil fuel reserves, World Resource Institute, 2016](#)

⁸ [Handbook for assessment of greenhouse gas emissions from peatlands. Applications of direct and indirect methods by LIFE Peat Restore, Global Peatlands Initiative, 2022](#)

- (c) the development of new infrastructure projects related to transportation and distribution;
 - (d) potential write-off situations that do not meet the accounting recognition criteria; an
 - (e) early closure of existing assets and impacts on useful life of the existing assets.
- AR 62. Where applicable, the undertaking may cross-reference the information on its anticipated financial effects from material physical and transition risks and potential climate-related opportunities with its related line items or disclosures in financial statements.

ESRS E2 – MQC Pollution

- AR 63. For the purpose of paragraph 53, the Environmental Quality Standards refer to legally binding policy instruments that are imposed to remedy the environmental impact of pollutants emitted to air, water and land. They can be imposed by regulations – e.g., regulation imposing air quality limits such as 2008/50/EC (under revision) – or by conditions in permits to operate. They are usually accompanied by obligations to monitor with a certain frequency the specified parameters in the natural environment to ensure the environmental quality standards can still be observed in the surroundings of the pollution source(s).
- AR 64. When disclosing information on its pollution-related policies, the undertaking may:
- (a) disclose if the policies related to pollution prevention and control apply to all its operating sites and disclose the name of the sites which are not covered by the general policy; and
 - (b) include the description on whether and how it implements a certified and regularly audited Environmental Management System (EMS), according to a recognized international standard, covering all its operating sites; or
 - (c) list the sites that are not certified and regularly audited according to a recognized international standard with respect to their pollution performance, despite having an environmental monitoring plan (EMP) in operation.
- AR 65. When providing information on environmental monitoring plans, the undertaking may specify if it:
- (d) uses a network of air quality monitoring stations near its operational sites for key air quality parameters (e.g. PM10, NOx, CO);
 - (e) uses a network of water quality monitoring stations on water bodies near its operational sites for key water quality parameters (e.g. flow volumes, turbidity, pH, heavy metals);
 - (f) if it does regular campaigns to assess levels of soil pollution and ground water quality near its operational sites, namely for heavy metal (arsenic, lead, cadmium, mercury) and cyanide contamination;
 - (g) if it does regular noise monitoring campaigns from operations in particular when operating near human settlements.
- AR 66. Leachate shall be understood as any liquid having percolated through a porous material and loaded with extracted solutes or suspended solids. In case of extractive waste, the percolation occurs through the deposited waste and the liquid is emitted from or contained within an extractive waste facility, including polluted drainage, which may adversely affect the environment if not appropriately treated. Leachate may not only refer to unwanted processes (e.g., leading to polluted drainage), but also be generated on purpose, e.g. for the recovery of metals.

MQC 6. Water and marine resources

Metrics

- AR 67. The undertaking shall consider disclosing information on its water consumption performance according to ESRS E3-4, per operational site thereby developing a water footprint indicator and how it evolves over time.
- AR 68. When disclosing its water withdrawals and discharges according to paragraph 58, the undertaking may follow the table shown below:

Water withdrawals	Total water withdrawn (m3)	% withdrawn from areas at water risk	Total water discharged (m3)
Surface water			
Groundwater			
Other water			

AR 69. When disclosing the indicators of **water discharge**, the undertaking may disclose the internal standards it may have established for the management of water discharge-related impacts. The undertaking may give a description of any minimum standards set for the quality of effluent **discharge**, and how these minimum standards were determined, including:

- (a) how standards for facilities operating in locations with no local discharge requirements were determined;
- (b) any internally developed water quality standards or guidelines;
- (c) any sector-specific standards considered;
- (d) whether the profile of the receiving waterbody was considered.

ESRS E4 – MQC Biodiversity and ecosystems

Policies, actions and targets

AR 70. When disclosing its **policies** implemented to manage its material impacts, **risks** and **opportunities** related to **biodiversity** and **ecosystems**, the undertakings may disclose how the undertaking applies the mitigation hierarchy and international **biodiversity** standards in its operational planning, from early concept through to decommissioning.

Metrics

AR 71. Site restoration plans shall address the following objectives:

- (a) the long-term stability and sustainability of the landforms, **soils** and hydrology of the site;
- (b) the partial or full repair of **ecosystem** capacity to provide habitats for biota and services for people;
- (c) the prevention of pollution of the surrounding environment in the short, medium and long-term.

AR 72. The undertaking may disclose if it uses any recognized standard as a basis for site rehabilitation or restoration plans on what concerns biodiversity impacts.

ESRS E5 – MQC Circular economy

AR 73. When disclosing information about its waste in accordance with Disclosure Requirement E5-5, for sector-specific disclosures on Mining, Quarrying and Coal waste refer to information it is already required to report under other existing national or Community legislation (e.g. Directive 2006/21⁹ for the undertaking within the scope of extractive industries)¹⁰.

¹⁰ [Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC - Statement by the European Parliament, the Council and the Commission](#)

Application Requirements related to social disclosures

ESRS S1 – MQC. Own workforce

- AR 74. In relation to working time and work-life balance information, round-the-clock working measures could relate to long or split shifts for continuous operations and multi-day assignments for remoted locations.
- AR 75. When disclosing its **policies, actions** and **targets** on housing facilities and access to basic services, the undertaking may specify whether it takes into consideration specific needs for female workers.
- AR 76. In addition to disclosing how its **own workers** are covered against loss of income due to major life events in ESRS S1-11, the undertaking may disclose whether all workers in its **own workforce** are covered by non-occupational medical healthcare services through public programmes or through benefits offered by the undertaking.
- AR 77. For the workers who do not have their non-occupational medical and healthcare services through public programmes the undertaking may disclose:
- (a) how the undertaking facilitates workers' access to non-occupational medical and healthcare services, including the scope of their access;
 - (b) a description of voluntary health promotion services and programmes offered to workers that address major non-work-related health risks and how the organisation facilitates workers' access to these services and programmes.
- AR 78. Voluntary health promotion programmes and services may include:
- (a) smoking cessation programs
 - (b) dietary advice
 - (c) offering of healthy food in the canteen
 - (d) stress-reducing programs
 - (e) provision of a gym or
 - (f) fitness programs.
- AR 79. A program or service is voluntary when it does not set mandatory personal targets, and if incentives are provided, these are not associated with the undertaking's decisions regarding employment or engagement of workers.
- AR 80. In addition, voluntary health promotion services and programs complement but cannot be a substitute for occupational health and safety services, programmes and systems that prevent harm and protect workers from **work-related injuries** and **ill health**. Voluntary health promotion and occupational health and safety may be managed jointly by the undertaking, as part of an overall approach to ensuring the health and safety of workers.
- AR 81. When describing how it facilitates workers' access to voluntary health promotion services and programmes, the undertaking may disclose whether it allows workers to make use of these during paid working hours. The undertaking may also report if these services and programmes are available for family members of workers.
- AR 82. When disclosing according to ESRS S1-13, the undertaking may disclose whether the trainings it provides to its own workforce include prevention against sexual harassment and discrimination.
- AR 83. When disclosing according to the requirements of ESRS S1 Own workforce, the undertaking may refer to the table below for examples of policies, actions and targets: undertaking shall consider the following.
- AR 84.
- AR 85.

Social and human rights matters:	Non-exhaustive list of factors to consider in Materiality Assessment:	Examples of policies:	Examples of actions:	Examples of targets:
Secure employment	% of posted workers in own workforce	Policies on the use of non-employee workers in the workforce	Reducing the percentage of non-employee workers in its own workforce	Reducing the percentage of non-employee workers in its own workforce
Working time	% of workers regularly working multi-day away-from-home assignments % of workers regularly working evening shifts % of workers regularly working night shifts % of workers regularly working on Saturdays and/or Sundays	Policies on advance notice of scheduling, multi-day away-from-home assignments, and evening, night and weekend work	Increased percentage of workers with regular schedules Increased advance notice of scheduling Reducing percentage of multi-day away-from-home assignments, and evening, night and weekend work	Increased percentage of workers with regular schedules Increased advance notice of scheduling Reducing percentage of multi-day away-from-home assignments, and evening, night and weekend work
Adequate wages	Allowances for housing for away-from-home assignments	Policies for housing allowances	Increasing housing allowances	Adequate housing allowances
Freedom of association/ collective bargaining including the rate of workers covered by collective agreements	% of posted workers in own workforce	% of workers affected by work stoppages	Percentage of workers affected by work stoppages	Percentage of workers affected by work stoppages

AR 86.

AR 87. Posted workers are workers who are dispatched temporarily from another EU member state to work for the undertaking.

MQC 7. Work stoppages

AR 88. The undertaking shall disclose the information on the number of persons in own workforce involved in a major work stoppage as an absolute number of persons or FTE persons. A major work stoppage is defined as a work stoppage involving 100 or more employees and/ or non-employee workers in own workforce.

AR 89. The information required by paragraph 72(b)(iii) shall be the sum of the products of the number of persons in its own workforce (FTE) involved and the total duration (in workdays) of each major work stoppage.

AR 90. Where exact figures are not available, the undertaking may provide an estimate according to ESRS 1.

AR 91. The scope of this Disclosure Requirement includes work stoppages due to disputes between labour and management, including strikes and lockouts.

ESRS S3 – MQC. Affected communities – indigenous people

AR 92. When describing responding to ESRS S3-2, the undertaking shall consider the following aspects:

- (a) its due diligence practices and procedures with respect to indigenous rights of communities in which it operates or intends to operate, specifically: upholding internationally recognized rights of **indigenous peoples**, including but not limited to those recognized by the UN declaration on the Rights of Indigenous Peoples, and the ILO Convention No. 169;
- (b) the use of **free, prior, and informed consent (FPIC)** (or consultation) processes as per the United Nations Declaration on the Rights of Indigenous Peoples;

Policies

- AR 93. When disclosing its **policies** related to land acquisition and involuntary resettlement, the undertaking may disclose if it has considered or addressed potential negative impacts that are specific to women and children.
- AR 94. In relation to its disclosure on the **policies** of preventing attacks on **human rights** and **environmental defenders**, the undertaking may disclose whether it adopts a zero-tolerance approach for attacks against **human rights** and **environmental defenders**, and not to sue for defamation or to participate in strategic lawsuits against public participation (SLAPP).
- AR 95. If the undertaking has an operation site in or near the **indigenous peoples** lands as listed in MQC 1, Mapping of operational sites the undertaking shall consider:
- (c) its interactions with **indigenous peoples**, including but not limited to means of communication, language used, frequency;
 - (d) where applicable, the co-ownership programs developed for **indigenous peoples** and local communities. This includes equity shares acquired by communities and their value;
 - (e) the most recent examples of involvement in the process of seeking **free, prior, and informed consent** from **indigenous peoples** to any of the undertakings' activities, and whether an agreement has been reached and if it is publicly available.
- AR 96. In addition, the undertaking may disclose the approach taken in recognising the legitimate tenure rights holders when acquiring, leasing or making other arrangements to use, or restrict the use of, land as well as to providing remediation following involuntary resettlement either through monetary or asset compensation.
- AR 97. The undertaking shall consider the impacts on **affected communities** that stem from the undertaking's impacts on **biodiversity** when disclosing the actions that are planned or underway to address negative impacts on these affected communities; and, where applicable, it shall consider the principles in the Nagoya Protocol and the Montreal Agreement¹¹. The undertaking may refer to how the actions that are planned or underway are aligned to these frameworks.
- AR 98. The undertaking may list the **vulnerable groups**, including any **indigenous peoples**, that it has identified within local communities and the approach to engaging with those **vulnerable groups**, including:
- (a) how it seeks to ensure meaningful engagement; and
 - (b) how it seeks to ensure safe and equitable gender participations, namely how it seeks to ensure Indigenous women can participate safely and equitably.
- AR 99. When disclosing the engagement with **human rights** and **environmental defenders**, the undertaking shall consider its processes for engaging with **human rights** and **environmental defenders** as part of its due diligence processes, including on managing allegations of retaliations, threats and direct/indirect attacks (physical and legal – including all forms of judicial harassment) against defenders
- AR 100. The undertaking may describe any collective or individual rights that it has identified that are of particular concern for local communities (including **vulnerable groups**).

MQC 8. Security personnel

- AR 101. The undertaking shall consider the content of the **trainings** offered (e.g. differentiate between training related to security issues and **training** on human rights policies) and also if it

¹¹ ¹¹ Refers to the COP 15 Convention on Biological Diversity of December 2022, not yet ratified.

addresses the protection of **vulnerable groups**, especially women, children and indigenous populations.

- AR 102. Human rights **training** for security personnel aims at ensuring human rights respect with regards to their interaction with **stakeholders** including local communities, ensuring a non-discriminatory approach to women and minorities, not exacerbating social conflict, how to collaborate with public and private security providers, processes relating to detention of persons, undue use of force which includes ensuring that force is used only when necessary.
- AR 103. The undertaking may disclose information on its processes of tendering and contracting with security providers. It may also disclose whether compliance with the undertaking's human rights policies by the private security are part of the process.

MQC 9. Engagement with affected communities and grievance mechanisms

- AR 104. Social impact assessment includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions.
- AR 105. Environmental impact assessment includes the processes of identifying, describing and assessing in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors: (a) population and human health; (b) **biodiversity**, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and the landscape; (e) the interaction between the factors referred to in points (a) to (d). The effects on these factors shall include the expected effects deriving from the vulnerability of the project to **risks** of major accidents and/or disasters that are relevant to the project concerned.
- AR 106. When disclosing the extent of development of significant **infrastructure** investments and services supported, the undertaking may disclose whether any of these seek to address specific needs of women and children in the **affected communities**.

MQC 10. Human rights and environmental defenders

- AR 107. When disclosing the engagement with **human rights** and **environmental defenders**, the undertaking shall consider its processes for engaging with human rights and environmental defenders as part of its due diligence processes, including on managing allegations of retaliations, threats and direct/indirect attacks (physical and legal – including all forms of judicial harassment) against defenders.
- AR 108. The term “**human rights defenders**” refers to individuals, groups and organs of society that promote and protect universally recognised human rights and fundamental freedoms. **Human rights defenders** seek the promotion and protection of civil and political rights as well as the promotion, protection and realisation of economic, social and cultural rights. **Human rights defenders** also promote and protect the rights of members of groups such as indigenous communities. The definition does not include those individuals or groups who commit or propagate violence.
- AR 109. When describing the procedures and management of **environmental** and **human rights defenders**, the undertaking shall refer to **training** provided on company **policies** or international standards focused on safeguarding human rights as well as guidelines on the use of physical force and reporting procedures. It may also refer to screening and assessment processes, cost reimbursement and the use of company facilities.
- AR 110. When calculating the number of **incidents** in paragraph 91, the undertaking shall consider official sources such as policy reports or other reports issued by governmental organisations. The undertaking shall also consider information raised by legitimate representatives or credible proxies from **indigenous people**, as well as reports issued by local, national and international NGOs. The undertaking shall not consider unofficial sources e.g. social media when preparing this disclosure.

- AR 111. When disclosing the number of **incidents** broken down by **vulnerable groups**, the undertaking may disclose whether the threats and attacks identified are different depending on the particular group affected (e.g., sexual violence on female **human rights** and **environmental defenders**).
- AR 112. The undertaking may disclose if it has any initiatives or projects underway to support the actions or causes **human rights** and **environmental defenders** strive for.

Application Requirements related to governance disclosures

G1 – MQC Business conduct

AR 113. When providing information about its policy the undertaking may include details on how suppliers are categorised. Such categorisation may be based on geographic location, such as proximity to the site.

AR 114.

MQC 12. State-aid and competition

AR 115. When determining the total of **state aid** or of financial assistance received from any government, the undertaking shall include the following:

- (a) tax relief and tax credits;
- (b) subsidies;
- (c) funds received through the Just Transition Mechanism of the EU;
- (d) investment grants, research and development grants, and other relevant types of grants;
- (e) awards;
- (f) royalty holidays;
- (g) financial assistance from Export Credit Agencies (ECAs);
- (h) financial incentives;
- (i) other financial benefits received or receivable from any government for any operation.

Appendix B.1: Application Requirements related to policies, actions and targets

This appendix is an integral part of the ESRS [draft] Mining, Quarrying and Coal and has the same authority as the other parts of this standard.

The undertaking shall cover the items in the table below that are applicable to its specific facts and circumstances, when reporting on its policies, actions and targets following the Minimum Disclosure Requirements (MDR) present in ESRS 2 General Disclosures, i.e.:

- Minimum Disclosure Requirement – Policies MDR-P – Policies adopted to manage material sustainability matters (paragraphs 63 to 65)
- Minimum Disclosure Requirement – Actions MDR-A – Actions and resources in relation to material sustainability matters (paragraphs 66 to 69)
- Minimum Disclosure Requirement – Targets MDR-T – Tracking effectiveness of policies and actions through targets (paragraph 78 to 81).

Disclosure	Examples of policies, actions, targets (PAT)
<p>MQC 3. Industrial hazards</p>	<p>3. Policies, actions and resources related to: a) industrial hazard prevention and emergency preparedness and response; b) the reporting period and that account for past accident impacts for which environmental remediation may still be ongoing, including any actions that are planned for short, mid and long-term, if applicable.</p> <p>4. Policies, actions and targets related to: a) its occupational health services that contribute to the minimisation of risks and identification and elimination of hazards; b) how it ensures the quality of those services and facilitates workers' access to them. This includes: a) for chemical hazards, a description of the substances of very high concern (SVHCs) that workers are exposed to in its operations; b) for physical hazards, a description of the factors that contribute to these hazards, such as thermal strain and stress or noise and vibrations; c) a description of ergonomic hazards.</p> <p>5. Targets adopted on the prevention and control of: a) spills of chemical substances in soil and water; b) tailings from mining.</p>
<p>MQC 4. Closure of assets</p>	<p>6. Policy (whether it has one) addressing: a) adoption of closure plans for operational sites, including decommission, rehabilitation or restoration and post-closure monitoring of sites; b) its closure actions and resources allocated; c) if applicable, list of sites for which there is no existing or foreseen rehabilitation site plan.</p> <p>7. Policy addressing the approach to manage its (future) liabilities stemming from the closure, post-closure and sales of operational sites.</p> <p>8. Targets (may disclose) to track site-specific progressive closure.</p>
<p>MQC 5. Tailings management, facilities and impoundments</p>	<p>9. Policy (whether it has one) expressing intention, commitments and principles in relation to tailings management, such as: a) the following of any generally accepted good</p>

	<p>practices for safe management of tailings facilities; b) which standard or code of practice it uses.</p> <p>10. Actions taken to: a) manage impacts from tailings facilities, including during closure and post-closure; b) prevent catastrophic failures of tailings facilities; c) whether it complies with or has committed to comply with relevant industry standards on the treatment and management of tailings.</p>
ESRS E1 – MQC Climate change	<p>Policies, actions and resources related to methane emission management, addressing: a) emissions derived from operating mines, including all ventilation shafts in use by the mine operator; drainage stations and methane drainage system (whether occurring as a result of intentional or unintentional venting, or incomplete combustion in flares); b) emissions occurring during post-mining activities; c) emissions derived from operating surface, including methane emissions occurring at the coal mine during the mining process; methane emissions occurring during post-mining activities.</p> <p>Policy to: a) implement Leak Detection & Repair (LDAR) programme, b) monitor post-closure methane releases.</p> <p>Actions to a) address the methane leakages found as a result of the regular monitoring surveys; b) discontinue venting and flaring at drainage stations.</p>
ESRS E2 – MQC Pollution	<p>Policies, actions and resources on: a) maintenance and inspection frequency of critical structures, namely mining slopes, tailings dams and ponds; b) monitoring the quality of the environment around its operational sites, namely the percentage of operational sites that have an environmental management plan in operation; c) remediating the effects of pollution from its operations on the environment, in particular: i. air pollution, e.g. particulate matter (PM10, PM2.5), SO2 and CO; ii. water pollution, in particular leachate and acid drainage; iii. soil contamination, e.g. heavy metals (Pn, As, Hg, Zn, Cd, Cr, etc.) originating from mining tailings; iv. use and disposal of substances of concern or substances of very high concern (SVHCs), with particular attention to hazardous substances as defined in Article 3 of Regulation (EC) No 1272/2008.</p>
ESRS E3 – MQC Water and marine resources	<p>Policy and targets to manage water as a shared resource, particularly in areas at water risk and where conflicts between different water uses may emerge.</p>
ESRS E4 – MQC Biodiversity and ecosystems	<p>Policy to: a) phase-out of existing operations and/or stopping operational investments in or near key biodiversity areas. b) minimize biodiversity and ecosystem impacts from current and future operations in or near these areas; c) achieve no net loss or a net gain to biodiversity on operational sites.</p> <p>Targets on a) minimising direct land-use change from mining activity; b) maximising the percentage of impacted area rehabilitated or restored</p> <p>Biodiversity- related closure actions</p>
ESRS S1 – MQC Own Workforce	<p>Policies, actions and targets related to: a) housing facilities for own workers and their access to basic services such as clean water, sanitation and electricity as well as recreational facilities and social spaces, b) working time and work-life balance when operating round-the-clock or in remote locations</p>
MQC 7 – Work Stoppages	<p>Policies to address the cause of major work stoppages and actions to resolve potential disputes (for example worker disputes or protests by affected communities)</p>

<p>ESRS S2 – MQC Workers in the value chain</p>	<p><i>Policies</i> related to: a) the health and safety performance of potential <i>value chain workers</i> in the selection process, b) the applicability of its own health and safety management system to workers of <i>value chain workers</i> performing work on site and c) monitoring health and safety metrics for the <i>value chain workers</i> while working on site</p>
<p>ESRS S3 – MQC Affected communities – indigenous people</p>	<p><i>Policies, actions</i> and <i>targets</i> on the engagement with <i>indigenous peoples</i> throughout the tailings facility lifecycle in building knowledge and in decisions that may have a bearing on public safety.</p> <p><i>Policies, actions</i> and <i>targets</i> related to land and resources rights: the recognition of legitimate tenure rights holders when acquiring, leasing or making other arrangements to use, or restrict the use of land, including involuntary resettlement, and the process for establishing compensation for loss of assets or other assistance to improve or restore standards of living or livelihoods; and the use of the land after the closure of the <i>operational site</i>.</p> <p><i>Policies, actions</i> and <i>targets</i> related to: a) respecting and protecting human rights and environmental defenders, b) preventing attacks against human rights and environmental defenders</p>
<p>ESRS G1 – MQC Business conduct</p>	<p><i>policies</i> with respect to the proportion of the procurement spending on local suppliers. The content of relevant policies shall reflect a similar level of disaggregation, such as at operational site level or per group of operational sites, or per operational sites within the same geographical area, as applicable.</p>
<p>MQC 14. Beneficial owners</p>	<p><i>policies</i> and screening processes regarding politically exposed persons ('PEPs') and beneficial owners of business partners, including joint ventures and suppliers.</p>
<p>MQC 15. Cybersecurity</p>	<p><i>policies</i> relating to cybersecurity</p>

Appendix C: Materiality considerations

This appendix is an integral part of [draft] ESRS Mining, Quarrying and Coal and has the same authority as the other parts of this Standard.

This table provides application requirements to support the determination of which disclosures prescribed in this [draft] standard are material for an undertaking reflecting its specific circumstances.

The first column refers to the pertinent disclosure in this [draft] standard; the second column reports the sustainability matter pertaining to that disclosure; the third illustrates the factors to be considered when determining whether the information stemming from a Disclosure Requirement are material to the undertaking and therefore to be included, when the corresponding sustainability matter is material; the last four columns illustrates which Disclosure Requirements are applicable to undertakings that operate in a given sub-sector of activity within the sector.

The factors to consider in the third column illustrate in which circumstances the undertaking should be able to conclude that the information prescribed by a Disclosure Requirement in this standard is not material and therefore is omitted. For example, the undertaking omits the information prescribed in the Disclosure Requirement MQC 4 – Closure of assets when it does not have ongoing or anticipated decommissioning of facilities.

Disclosure Requirement	Sustainability matter	Factors to consider in Materiality Assessment	Applicable sub-sector of activity			
			Coal Mining	Mining	Quarrying	Services
ESRS 2.IRO2.MQC Conclusions on material matters and reported information	-		✓	✓	✓	✓
ESRS 2.SBM1.MQC Activity indicators	-		✓	✓	✓	✓
MQC 1. Mapping of operational sites	-		✓	✓	✓	✓
MQC 2. Mineral reserves	-	Existence of proved mineral reserves	✓	✓	✓	

Disclosure Requirement	Sustainability matter	Factors to consider in Materiality Assessment	Applicable sub-sector of activity			
			Coal Mining	Mining	Quarrying	Services
MQC 3. Industrial hazards	Industrial hazards	Actual or potential occurrence of accidental releases of hazardous substances from operations	✓	✓	✓	✓
MQC 4. Closure of assets	Closure of assets	Ongoing or anticipated decommissioning of facilities, absence of planning related to site rehabilitation	✓	✓	✓	
MQC 5. Tailings management, facilities and impoundments	Tailings	Generation and disposal of tailings (including in deep-sea, river, lake and ocean areas). Management approaches related to tailings and catastrophic failures (including through internal and third-party assessments, and financial provisions).	✓	✓	✓	
ESRS E1 – MQC Climate change	Climate change mitigation	Activities in development, exploration and production of mineral reserves	✓	✓	✓	✓
ESRS E1 – MQC Climate change	Methane	Actual or anticipated flaring or venting of methane	✓			
ESRS E2 – MQC Pollution	Pollution	Management of pollutants and dangerous substances, including through prevention and control approaches. Actual or anticipated hydraulic fracturing activities.	✓	✓	✓	✓
ESRS E3 - MQC Water and marine resources	Water and marine resources	Ongoing or anticipated activities with actual or potential impact on local water and land resources	✓	✓	✓	✓
MQC 6. Water and marine resources metrics	Water and marine resources	Ongoing or anticipated activities with actual or potential impact on local water and land resources	✓	✓	✓	✓
ESRS E4 – MQC Biodiversity and ecosystems	Biodiversity and ecosystems	Ongoing or anticipated activities resulting in disturbed land	✓	✓	✓	
ESRS S1 – MQC Own workforce	Own workforce	Percentage of workers regularly working multi-day away-from-home assignments	✓	✓	✓	✓

Disclosure Requirement	Sustainability matter	Factors to consider in Materiality Assessment	Applicable sub-sector of activity			
			Coal Mining	Mining	Quarrying	Services
MCQ 7 – Work stoppages	Freedom of association / Collective bargaining	Number of major work stoppages Length of work stoppages and percentage of employees involved	✓	✓	✓	✓
ESRS S2 – MQC Workers in the value chain	Health and safety	Number of value chain workers	✓	✓	✓	
ESRS S3 – MQC Affected communities – indigenous people	Rights of indigenous people	Proximity of indigenous peoples to tailings facilities Ongoing process of seeking FPIC from indigenous peoples	✓	✓	✓	
MCQ 8 – Security personnel	Security-related impacts	Use of private, government security personnel (in conflict zones) Incidents of violations of human rights of indigenous people directly linked to the undertaking’s security personnel	✓	✓	✓	✓
MCQ 9 – Engagement with affected communities and grievance mechanisms	Affected communities	Ongoing activities that negatively impact affected communities Percentage of operational sites that have been subject to environmental and social impact assessments	✓	✓	✓	
MCQ 10 – Human rights and environmental defenders	Impacts on human rights defenders	Ongoing processes of engagement with human rights and environmental defenders Prevalence of attacks on human rights and environmental defenders and the number of incidents when engaging with human rights and environmental defenders Weak national governance, law enforcement structures	✓	✓	✓	
ESRS G1 –MQC. Business conduct	Management of relationship with suppliers	Proximity of suppliers to the operational site	✓	✓	✓	
ESRS G1 – MQC. Business conduct	Political engagement and lobbying activities	Participation in advocacy and lobbying and associated expenditures aiming to exert influence on government policies Commercial practices or public communication related to sustainability	✓	✓	✓	✓

Disclosure Requirement	Sustainability matter	Factors to consider in Materiality Assessment	Applicable sub-sector of activity			
			Coal Mining	Mining	Quarrying	Services
MQC 11. Transparency about contracts and licenses	Management of relationship with (local) suppliers	Presence of government contracts and licences that are subject to public consultation	✓	✓	✓	
MQC 12. State aid and competition	Corruption and bribery	Ongoing activities in jurisdictions where instances of cartels, monopolistic practices, and related abuse of such positions have been documented. Legal actions relating to violations of antitrust and monopoly legislation. Eligible to or recipient of state aid or of financial assistance	✓	✓	✓	
MQC 13. Beneficial ownership	Corruption and bribery	Identification of individuals that classify as politically exposed persons ('PEPs') Availability of the identity of the natural person who has a control ownership interest in - and/or can exercise control over a legal entity used by the business partners, including joint ventures and suppliers.	✓	✓	✓	✓
MQC 14. Minerals and coal purchased from states	Management of relationship with suppliers	Ongoing transactions generating revenue directly for states or through third parties acting on behalf of states.	✓	✓	✓	
MQC 15. Cybersecurity	Cybersecurity	Dependency on technology to manage the facility operations Managing restricted or classified information on digital platforms	✓	✓	✓	✓

Appendix D: List of datapoints in accordance with EU law

This Appendix is an integral part of the [draft] ESRS *Mining, Quarrying and Coal* and has the same authority as the main body of the [draft] Exposure Draft.

The table below illustrates the datapoints that emanate from other EU legislation. These are to be reported irrespective of the outcome of the materiality assessment.

Disclosure Requirement	Pillar 3 reference
ESRS 2.SBM1.MQC – Activity indicators	Article 449a Capital Requirements Regulation – CRR – Template 1 : Banking book – Climate change transition risk: Credit quality of exposures by sector, emissions and residual maturity
MQC 1 Mapping of operational sites	Article 449a CRR – Template 1 : Banking book – Climate change physical risk – Exposures subject to physical risk
Ongoing discussion	Article 449a CRR – Template 1 : Banking book – Climate change transition risk: Credit quality of exposures by sector, emissions and residual maturity
Ongoing discussion	Article 449a CRR – Template 3 – Banking book – Climate change transition risk – Alignment risks

Appendix E: NACE codes

This Appendix set the list of NACE codes that are covered by this [draft] sector ESRS. All undertakings for which one or more of these NACE codes represent a significant sector according to paragraphs 40 (a) and (b) of ESRS 2 shall report according to this [draft] sector ESRS.

- B.05.10 Mining of hard coal
- B.05.20 Mining of lignite
- B.07.10 Mining of iron ores
- B.07.21 Mining of uranium and thorium ores
- B.07.29 Mining of other non-ferrous metal ores
- B.08.11 Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate
- B.08.12 Operation of gravel and sand pits; mining of clays and kaolin
- B.08.91 Mining of chemical and fertiliser minerals
- B.08.92 Extraction of peat
- B.08.93 Extraction of salt
- B.08.99 Other mining and quarrying n.e.c.
- B.09.90 Support activities for other mining and quarrying
- C.19.10 Manufacture of coke oven products

Appendix E is an integral part of this Exposure Draft and has the same authority as other parts of the Exposure Draft ESRS *Mining, Quarrying and Coal*.

Appendix F: Sustainability matters in the sector

This appendix is an integral part of [draft] Mining, Quarrying and Coal ESRS and has the same authority as the other parts of the Standard.

When performing its **materiality** assessment, the undertaking shall consider the following list of **sustainability matters** covered in this sector-specific [draft] ESRS.

Topic	Sub-Topic	Sub-Sub-Topic
E1 Climate change	Climate change adaptation* Climate change mitigation* Energy*	<u>Methane</u>
E2 Pollution	Pollution of air* Pollution of water* Pollution of soil* Pollution of living organisms and food resources* Substances of concern* Substances of very high concern*	
E3 Water and marine resources		Water withdrawals* Water consumption* Water use* Water discharges in water bodies and in the oceans* Habitat degradation and intensity of pressure on marine resources*
E4 Biodiversity and Ecosystems	Direct impact drivers on biodiversity loss* Impacts on the state of species* Impacts on the extent and conditions of ecosystems* Impacts and dependencies on ecosystem services*	
E5 Circular economy	Resource inflows, including resource use* Resource outflows related to products and services* Waste*	-
S1 Own workforce		Working time* Freedom of association, the existence of works councils and the information, consultation and participation rights of workers* Collective bargaining, including rate of workers covered by collective agreements* Work-life balance* Health and safety*
S2 Workers in the value chain		Health and safety
S3 Affected communities		Land-related impacts Security-related impacts Impacts on human rights defenders

		Free, prior and informed consent
G1 Business Conduct	Political engagement and lobbying activities* Management of relationships with suppliers including payment practices* Corruption and bribery* Cybersecurity	

*Sustainability matter covered by Disclosure Requirements in the topical sector-agnostic ESRS (see ESRS 1 Appendix B table in paragraph AR 16.)

Cross-topic sustainability matters

The undertaking shall also consider the following, sector-specific sustainability matters. The existence of following **sustainability matters** is expected to rise the materiality of number of other sustainability matters ('connected sustainability matters').

Cross-topic sustainability matter	Connected sustainability matters
Industrial hazards	Methane Pollution of air Pollution of water Pollution of soil Pollution of living organisms and food resources Substances of concern Substances of very high concern Pollution of water Pollution of living organisms and food resources Direct impact drivers on biodiversity loss Impacts on the state of species Impacts on the extent and conditions of ecosystems Impacts and dependencies on ecosystem services Waste Health and safety Communities' economic, social and cultural rights
Closure of assets	Methane Pollution of air Pollution of water Pollution of soil Water discharges in water bodies and in the oceans Habitat degradation and intensity of pressure on marine resources Waste Health and safety Communities' economic, social and cultural rights
Tailings	Energy Methane Pollution of air Pollution of water Pollution of soil Pollution of living organisms and food resources Substances of concern Substances of very high concern Water consumption

	<p>Water use</p> <p>Water discharges in water bodies and in the oceans</p> <p>Habitat degradation and intensity of pressure on marine resources</p> <p>Direct impact drivers on biodiversity loss</p> <p>Impacts on the state of species</p> <p>Impacts on the extent and conditions of ecosystems</p> <p>Impacts and dependencies on ecosystem services</p> <p>Resource inflows, including resource use</p> <p>Resource outflows related to products and services</p> <p>Waste</p> <p>Health and safety</p> <p>Land-related impacts</p> <p>Security-related impacts</p> <p>Impacts on human rights defenders</p> <p>Free, prior and informed consent</p>
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(*) Sustainability matter covered by Disclosure Requirements in the topical sector-agnostic ESRS (see ESRS 1 Appendix B table in paragraph AR 16).

Appendix G: Description of sustainability matters

This Appendix presents a description of the sustainability matters that are expected to be material for undertakings in the Mining, Coal and Quarrying sector. For the sustainability matters that are also listed in paragraph AR16 of Appendix A of ESRS 1, this Appendix provides a description of how such matters materialise in this specific sector. This Appendix is provided for illustrative purposes and is non-authoritative.

E1: Climate change adaptation

The sector is exposed to a range of risk from the current and future climate variability. Those may include, for example, increasing cost of natural resources, extreme weather events causing damage to the infrastructure, water availability decrease, increased dust emissions. Moreover, the impacts of climate change can cause significant disruption in the supply chain of the industry also contributing to create more dangerous working conditions for employee due to extreme weather events. Thorough risk evaluation and assessment as well as working towards resilience across the whole value chain, including surrounding communities and infrastructure, are essential to manage risk and opportunities related to the matters of climate change adaptation.

E1: Climate change mitigation

Mining operations generate significant direct greenhouse gas (GHG) emissions, including CO₂ from fuel use during mining, ore processing, and smelting activities. The GHG intensity may increase with decreasing grades of deposits and increasing depth and scale of mining operations. It will also depend on the method used (open pit or underground mining, excavation type, depth of the mine), volumes of fugitive methane released, or the type of metal mined and processed. Regulatory efforts to reduce GHG emissions in response to the risks posed by climate change may result in additional regulatory compliance costs and risks for metals and mining undertakings due to climate change mitigation policies.

Coal operations generate significant amounts of CO₂ emissions and have the highest intensity per energy unit out of all fossil fuels. For coal operations the release of GHG emissions includes CO₂ from fuel use and methane released from coal beds during mining and post-mining activities. Mitigating climate change can include changes in the developing of activities to reduce emissions and the effect these changes may have on the undertaking's employees and the communities in which coal activities take place.

E1: Energy

Mining, quarrying and coal operations are often energy-intensive. Currently, diesel is the most common source of energy consumption, especially for the usage of large mining equipment. The use of alternative sources such as liquefied or compressed natural gas, electricity or even hydrogen, is also possible (especially for smaller equipment) even if not immediately considered a more efficient alternative. A significant proportion of energy consumption in the sector is, anyway, accounted for by purchased electricity (which is often not coming from sustainable sources). Decisions about use of alternative fuels, renewable energy, and on-site generation of electricity (versus purchases from the grid) can play an important role in influencing both the costs and reliability of energy supply. Affordable, easily accessible, and reliable energy is an important competitive factor in this industry, with purchased fuels and electricity accounting for a significant proportion of total production costs. In order to be effective, decisions on the aspects related to alternative fuels should be adequately integrated in the design and business model of mining operations, especially considering the increasing demand expected in future years.

E2: Pollution of air

Mining and quarrying operations can give rise to various hazardous air pollutants from smelting and refining activities, and use of explosives to uncover the reserves, with quarrying making extensive use of dynamite to blast rock aiding the excavation. The use of explosives may result in emissions such as dust, vibrations, gaseous byproducts or flyrock. Coal operations are often associated with air emissions from drilling, refining to the transportation, waste management and active mine fires. Significant air

pollutants in these three subsectors are sulphur oxides (SO_x), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), heavy metals (particularly lead, mercury, cadmium, and arsenic), persistent organic pollutants (POPs), volatile organic compounds (VOCs), as well as several types of dust particles. Exposed surfaces of extractive waste primarily result in dust and VOCs releases.

E2: Pollution of water

Mining (e.g., excavation), quarrying (e.g., nitro-glycerine spills) and coal (e.g., coal washing to remove sulphur, cooling drilling equipment, transporting coal in slurry pipelines) processing extensively use water, resulting in water basins and groundwater contamination through erosion and sedimentation (e.g., suspended solids generation), tailings leakage and exposure to highly sulphidic excavated waste rock (e.g., acid mine drainage). These types of water quality concerns may accelerate further acidification and contamination over time, increasing the leaching of heavy metals (arsenic, cobalt, copper, cadmium, lead, silver, and zinc), leading to impacts that persist for decades after closure. Deep-sea mining is another critical issue of concern causing pollution in water columns from excessive light, noise, wastewater discharges, and sediment plumes.

E2: Pollution of soil

Soil pollution is a critical issue stemming from mining, quarrying and coal activities, given that the resulting pollutants can be retained by soil for a long time and slowly be passed to other media (water, air). Site soils and soils in their proximity, including in post-mining locations, have great variability in their properties (e.g., physical structure degradation due to dust accumulation, significant imbalances of pH levels due to different explosives used, toxic elements versus nutritional content) as a consequence of the leaching of waste rock and tailings produced at all stages of operation (e.g., ore and metallurgical extraction, ore beneficiation). Tailings are usually highly acidic and sandy with low levels of nutrients and their depositing on the ground may lead to severe soil fertility and integrity issues or sedimentation of massive amounts of heavy metals on the topsoil.

E2: Substances of concern and substances of very high concern

Mining (including coal mining) and quarrying operations (e.g., blasting, separation of minerals from ores, creation of tunnels) widely use substances with high chemical hazards. These lead to chronic and devastating effects on the environment (e.g., high toxicity in marine ecosystems) and human health (e.g., respiratory infections, cardiac and neuromuscular effects) as they are dumped on the surface, spilled from sites or leached due to precipitations, and spread to surrounding areas. The most concerning substances in this sector include mercury (a recognized volatile, persistent heavy metal of global concern), cyanide (life-threatening, fast-acting poison), sulphuric acids (leading to chronic inflammation and irritation), explosive (releasing toxic gases such as nitric and nitrogen oxides, as well as carbon monoxides), silica dust (hazardous to lungs and carcinogenic), and polycyclic aromatic hydrocarbons (acute toxicity to birds and aquatic organisms).

E2: Industrial hazards

The mining, quarrying and coal activities are highly prone to incidents and accidents with disastrous impacts on environmental resources (extreme contamination of air, water and soil), surrounding communities and infrastructures (e.g., damage to economic activities and food resources), workers (e.g., injuries, ill health, fatalities), as well as undertaking's assets, leading to critical financial repercussions. Some examples of industrial hazards include ground or strata failure, fires or explosions, inundation or inrush of any substance (including from tailings dam failures), leaks of poisonous gases, spills of hazardous chemicals or slurry. Specifically, underground mining can generate dust explosions, inundation, mining corridor collapses or others. Open pit mining can cause landslides, water inbursts, machinery failures and others. Such hazards may result in emissions of toxic gases and vapours, rockfalls, flooding and extreme temperatures.

E2: Pollution of living organisms and food resources

Mining, coal and quarrying operations (including through deep-sea mining resulting in sediment plumes, sea floor compaction, diminishing algae biomass through metal oxide deposition, etc.) may directly cause disturbances in the reproduction and growth of animals (e.g., benthic fauna), organisms and

plants, up to the destruction of wildlife altogether (e.g., through sediment generation and). For instance, heavy metals concentrations in site surrounding can be absorbed by crops and soil organisms, hence bioaccumulating in plant fibres and inhibiting enzyme functions. Arsenic might pollute food resources, with high negative impacts on neurotoxicity arising after consumption. Acid mine drainage, for instance raises the risks of degrading the quality of water to the point of exterminating wildlife due to its persistent nature. An excess in the generation of sediments may suffocate watershed vegetation and organisms. Suspended solids deplete oxygen levels and light diffusion and raise temperatures.

E3: Water use, including water withdrawals and water consumption

Mining, quarrying and coal operations can impact both the availability and the quality of local water resources considering the substantial volumes of water required for the production process. Mining operations, depending on their geographical and geological location, must manage water consumption, flood risks, water quality and other issues. Undertakings that are unable to secure a stable water supply could face production disruptions, while rising water prices could directly increase production costs. Consequently, the adoption of technologies and processes that reduce water consumption could lower operating risks and costs for undertakings by minimizing the impact of regulations, water supply shortages, and community-related disruptions on the operations of the undertaking. In dry climates, an undertaking may need to focus more on conservation, collecting, storing, and reusing contact water from the tailing's storage facility, seepage, open pit, and/or underground mine. For wet climates the greatest challenge is rather managing flood events and eliminating the risks of spilling, erosion, and infrastructure failure. Undertakings in cold climate regions must consider the large quantity of water generated from snow melt and ice thaw and manage the impacts of permafrost on drainage facilities.

E3: Water discharges in water bodies and in the oceans

Mining, quarrying and coal operations may discharge used water into water bodies or waterways. These discharges eventually can end up leading to a range of impacts described under pollution sustainability matters (chemical pollution, eutrophication of water bodies). This in return affects or poisons organisms living in the water, and it can cause negative effects on humans through fishing in these waters or tourism that depends on the existence of clean water bodies to attract customers. Recycling and cleaning processes of water discharges can allow to reuse much of the water used on a site, thereby decreasing operational dependency on an already scarce commodity. Clean water discharge will also avoid the risks for wildlife and human health or recreational activities.

E3: Habitat degradation and intensity of pressure on marine resources

Mining and coal activities can produce large volumes of waste, formed by the non-processed rock from overburden or access tunnels and shafts, and by the processed tailings. Traditionally, tailings are stored in land dams, but the lack of land availability, potential risk of dam failure, geological instability, and topography in coastal areas in certain countries makes consideration of disposal of tailings into marine systems, a process usually known as Deep-Sea Tailings Disposal. DSTD can have lasting impacts on biodiversity, ocean ecosystems as well as on fishing communities. Moreover, some undertakings are currently exploring deep-sea bed mining, which can be associated with a risks to the marine environment.

E4: Impacts on the extent and condition of ecosystems

The entire life cycle of *Mining, quarrying and coal* projects, namely, development, operation, closure and restoration of mine and quarries sites, can have direct, indirect, and cumulative impacts on biodiversity and condition of ecosystems, both in the short and long term. The development phase, in particular, typically requires large-scale infrastructure developments that have impacts on biodiversity, namely the alteration of landscapes, vegetation removal, and impacts to wildlife habitats. During the operation phase, pollution is a particularly significant risk to biodiversity and condition of ecosystems acid drainage is a particularly significant risk: it is highly acidic water, rich in heavy metals, formed when surface and shallow subsurface water encounter mining overburden. Acid drainage can have harmful effects on humans, animals, and plants. Similarly, tailings management will play an important role. *Quarries* are often operated close to processing facilities and require the removal of vegetation and topsoil and the blasting and crushing of underlying stone deposits. This process can lead to permanent

alterations of the landscape, with associated impacts on biodiversity. The environmental characteristics of the land where quarrying takes place could increase extraction costs, due to increasing awareness and protection of ecosystems. The use and spill of nitro-glycerine also may affect ground water or water basins as well as the animals living in it.

Mining activities can have impacts on biodiversity beyond the mine site. These impacts can be more significant when mining occurs in or near ecologically sensitive areas. For example, mining activities can spread into ecological corridors and disrupt the functioning of an ecologically sensitive area. Inactive mine pits, underground workings, and hazardous waste can also cause biodiversity impacts beyond closure (see also topic 14.8 Closure and rehabilitation)

Biodiversity impacts from coal activities include contamination of air, soil, and water; deforestation; soil erosion; and sedimentation of waterways. Other impacts can include animal mortality or increased vulnerability to predators, habitat fragmentation and conversion, and the introduction of invasive species and pathogens.

E4: Direct impact drivers of biodiversity loss

Mining, quarrying and coal operations make substantial impacts on the earth and nature around them. Surface mining and mountaintop removal can alter the landscape, removing vegetation and wildlife habitats. Acid mine drainage is particularly significant: it is highly acidic water, rich in heavy metals, formed when surface and shallow subsurface water encounters mining overburden, and can have harmful effects on humans, animals, and plants. Similarly, tailings management will play an important role. Biodiversity impacts of coal operations can affect the valuation of reserves and create operational risks. The environmental characteristics of the land where operational sites are located could increase extraction costs as a result of increasing awareness and protection of ecosystems. undertakings could also face regulatory or reputational barriers to accessing reserves in ecologically sensitive areas, such as the designation of areas where reserves are located as protected areas. Undertakings face regulatory risks related to reclamation after a mine is decommissioned, per applicable regulatory requirements to restore mined property according to a prior, approved reclamation plan. Material costs may arise from removing or covering refuse piles, fulfilling water treatment obligations, and dismantling infrastructure at the end of life. Furthermore, ongoing operations are subject to laws protecting endangered species.

Direct drivers of biodiversity loss influence biodiversity and ecosystem processes, leading to impacts such as degradation of ecosystems, habitat fragmentation, and animal mortality. Mining activities may contribute to the direct drivers of biodiversity loss through land and sea use change, for example, in the form of land clearance for mining, access routes, and waste management facilities; exploitation of natural resources by withdrawing and consuming water; through the introduction of invasive alien species; and pollution. Sources of air, water, and soil pollution can include:

E4: Impacts on the state of species

Mining, quarrying and coal operations can cause impacts which affect the continued existence of species not only because of indirect effects such as pollution but also because operational sites are located at or nearby areas where species have their natural habitat. The disappearance of one or more species can result in the disappearance of an entire ecosystem of species that depend on each other.

E4: Impacts and dependencies on ecosystem services

Mining, quarrying and coal operations can impact ecosystem services (the benefits to humans provided by the natural environment and healthy ecosystems). The disturbance of habitats by different kinds of pollution related to the operations, excavation activities in itself or deforestation prior to it affects the possibility of natural ecosystems to provide ecosystem services. Mining, quarrying and coal operations also can interact with human and social capital by disconnecting areas supplying ecosystem services from the people that rely on them.

Mining activities typically require large-scale developments that have impacts on biodiversity and ecosystem services. These impacts can limit the availability and accessibility of natural resources or degrade their quality. Impacts on biodiversity and ecosystem services may also affect the well-being

and livelihoods of local communities and Indigenous Peoples (see also topic 14.10 Local communities and 14.11 Rights of Indigenous Peoples).

E5: Resources inflows, including resource use

Mining activities are highly reliant on the extraction of critical raw materials and rare earths, which are fundamental to the EU's welfare and economy as they represent the input to produce many goods that are massively consumed. The present and future demand for metals and non-metal materials is, hence, growing with the increase of the demand of consumer goods, and the need to secure supply of these materials (which is finite). Their recovery, however, can also cause severe disruption to ecosystems as well as environmental contamination.

E5: Waste

The mining activities generate large volumes of mineral processing wastes, including slags and tailings, some of which may be hazardous or chemically reactive. Impoundments for tailings can cover large areas of land. Mineral waste is often stored in-pit, using abandoned open pit surface mines. Some mining activities can take place in coastal or deep-sea ecosystems, which can result in pollution of marine ecosystems if the waste processing is not accordingly managed. Coal activities can include handling of solid rock and clay waste, process refuse, and liquid coal waste containing hazardous substances like mercury, arsenic, and cadmium posing operational and regulatory challenges for coal operations undertakings.

S1/S2: Working time and work-life balance

Mining, quarrying and coal operations are typically operated in a manner that involves irregular working hours for a large portion of their own workforces. Mines and coal operations are frequently operated around-the-clock, including on weekends. Shift work longer than eight hours, and evening, night and weekend work are typical for many workers in this sector. Furthermore, mining and coal operations located far away from populated areas ("remote locations") often resort to arrangements whereby workers will rotate between long multi-day or multi-week periods on site and periods with time off off-site ("fly-in fly-out" arrangements). In such remote locations adequate housing, access to water and sanitation and health care are often material matters.

Research has demonstrated an association between extensive irregular working hours and time without family, recreation, and leisure and negative impacts on physical and psychological health and work-life balance. Extensive use of irregular working hours may make it difficult for undertakings to retain their workers and recruit new workers.

S1/S2: Health and safety

Mining, quarrying and coal operations may result in both strenuous and dangerous working conditions and are associated with a high degree of risk related to safety matters. Injuries may be caused by accidents with heavy equipment or explosives or collapse of mines or other facilities. Workers' health may be impaired by prolonged exposure to dust, heat, vibration, noise, ultraviolet light, heavy lifting and repetitive movements, and hazardous chemicals. This sector has higher than average rates of fatalities, injuries, lost workdays and occupational diseases. Worker injuries, illnesses, and fatalities can lead to regulatory penalties, negative publicity, low worker morale and productivity, and increased healthcare and compensation costs. This sustainability matter covers the undertaking's policies regarding health and safety, critical incident risk management, as well as workforce health, wellbeing, and safety

S1/S2: Adequate wages and secure employment

Many undertakings in the mining, coal and quarry sector make extensive use of non-employee workers, typically referred to as 'contractors' - that is, self-employed workers contracting directly with the undertaking or supplied by employment agencies. Many of these workers are utilized for extended periods of time for regular operations and perform work which is the same or similar to the work that employees do. However, these workers lack the employment security and, frequently, the wages and benefits that employees receive. Generally, non-employees may be exposed to higher risk of injury and health impairment and may have fewer rights to unemployment and early retirement benefits and access

to retraining than employees when it comes to the closure of mine sites, which can be also related to unemployment problems for the local community.

Another factor contributing to the materiality of these matters is the extensive contracting-out of the operation of mining, quarrying and coal operations. Contracting-out rather than owner-operator arrangements are particularly frequent in the case of smaller owners ('junior miners'), who may have little or no experience in operating a mine. Contracting-out arrangements have relevance for the security of employment, since such arrangements typically are medium term (e.g. five years) and obligations to the contractors' workforce as a rule do not extend beyond the end of the contract.

These are also material issues in the mining sector given the amount of artisanal and small-scale mining within the industry who, due to their small scale, don't have the governance structure and protection in place to ensure their worker's rights.

S1/S2: Freedom of association and collective bargaining

The mining, quarrying and coal sector in many countries has a higher rate of trade union representation and collective bargaining coverage than the economy-wide national average. However, freedom of association may be at risk, particularly in locations where these are not guaranteed by national legislation and/or where enforcement is weak. Many mining and coal operations are located in countries where the rule of law has broken down (10 of the 148 countries rated in the 2022 ITUC Rights Index), where labour rights are not guaranteed (34 countries) or where there are systematic violations of labour rights (39 countries). The proportion of self-employed workers ('contractors') whose working conditions are determined by a collective bargaining agreement (the 'collective bargaining coverage rate') is typically lower than that of employees.

S1: Training and skills development

Mining, quarrying and coal operations can be both technically difficult and dangerous and it is therefore imperative that the workers are properly trained and have the skills and capabilities to handle the risks that working in the mine entails. Health and safety-related training, including the proper use of equipment and handling of explosives and hazardous chemicals, is key to reduce the risk of accidents and occupational diseases. Some mining, coal and quarrying operations are placed in the middle or close to active conflict areas. They may also be the subject of controversy which leads to the necessity of security personnel. Thus, this sustainability matter also includes training of security personnel in human rights and humanitarian law.

S1: Measures against violence and harassment in the workplace

The remoteness and relative isolation of mining sites and housing camps make women more vulnerable to gender-based violence in the workplace, in comparison with other sectors. The male domination of the industry also contributes to this problem. Negative publicity on this issue can have a negative impact on the reputation of specific undertakings as well as on the industry as a whole and can make it more difficult to retain existing and recruit new female workers. Measures against violence and harassment at the workplace include clear policies on these issues, workforce training and an effective grievance mechanism in place.

S1: Diversity, including gender equality and equal pay for work of equal value

The mining, coal and quarrying industry has been identified as one of the most highly male-dominated industries, with few women employed and an above-average male-female wage gaps. Research reports that many female workers in the industry feel that they do not receive the same level of support and have the same career chances as their male colleagues. One impact of this situation is that many female workers will be earning less money and not realizing their full career potential. Another possible impact is on local communities, particularly where the undertaking is the main employer, as fewer women will benefit from income and career chances. It also may contribute to the difficulties to recruit workers as women (who make up half of the labour force) may be reluctant to work in the sector. Racism, which results in demotivated workers and a negative workplace culture, has also been reported to be an issue in the industry, with many of the same impacts on minorities that gender discrimination has on women. Ensuring workforce inclusion, diversity, and that minorities have equal opportunities is therefore an important aspect of sustainability within the mining industry. Such measures include clearly

communicated policies, effective grievance and remediation mechanisms, clear criteria and procedures for remuneration and promotion, mentoring and other forms of support.

S1/S2: Child labour

The ILO estimates that one million children are working in mining and quarries. The use of child labour is most prevalent in countries where labour rights are weak and/or poorly enforced and in artisanal and small-scale mining suppliers. In addition to the negative impact child labour can have on the health, development and well-being of children, there is reputational risk for undertakings using child labour in own operations or in the supply chain. This sustainability matter therefore includes the undertaking's efforts to tackle these risks, the organization's supply chain management and whether it ensures that it is ethical, sustainable, and ensures protection of the rights of all their suppliers' employees. The OECD has issued sector-specific guidelines on due diligence in mining, and the ILO has developed recommendations for action plans to address child labour in this sector.

S1/S2: Forced labour

The ILO estimates that roughly a quarter million adults are subject to forced labour in mining, as well as a significant proportion of the one million children working in the sector. As in the case of child labour, forced labour is concentrated in certain countries where labour rights are weak and in artisanal and small-scale mining suppliers.

This sustainability matter therefore includes the undertaking's efforts to tackle these risks, the organization's supply chain management and whether it ensures that it is ethical, sustainable, and ensures protection of the rights of all their suppliers' employees. The ILO, OECD, IOM and UNICEF have jointly issued recommendations for ending child labour, forced labour and human trafficking in global supply chains.

S1/S2: Adequate housing, including water and sanitation (Mining and coal only)

Adequate housing, including water and sanitation, is a material issue where mining, quarrying and coal operations are located in remote areas or in communities lacking the housing and other infrastructure needed to fully support the workforce. The quality of housing includes not only the physical condition of the housing structure but also the physical and social environment in which the housing is located. In some case of remote locations, infrastructure is completely lacking and workers may be flown in for weeks at a time. Housing currently provided by undertakings ranges from temporary camps to dormitories to homes. In these situations, the quality of this housing and the suitability of this housing for families, is a material issue. Policies, targets and action plans on this matter focus on the quality of housing that is provided to workers. Basic measures of housing quality used in the EU include access to water and sanitation, adequacy of heating, the absence of a leaking roof, and adequate space (i.e. lack of overcrowding).

S3: Infrastructure. Including adequate housing, adequate food, water and sanitation and power.

Mining and coal operations are interlinked with the location and communities in which these take place. This affects the employment and economic performance in the area, as well as potentially exposing the local community to hazardous substances if operations are not handled with the proper care. Due to impact on the local communities, this sustainability matter includes, but is not limited to; the living infrastructures of the local communities; its economic impacts; the communities' access to adequate food, the operations land-related impacts, their impact on families, children, and community as a whole; smell, light, noise, and vibration pollution; access to water and sanitation.

S3: Impacts on land rights

Mining and coal are land-intensive sectors, whose impacts can materialize when land is acquired to develop a project, but also when environmental pollution, ongoing deforestation, access restrictions among others, further impede the capacity of indigenous and local communities to access, cultivate lands or benefit from forests.

S3: Security-related impacts

Mining and coal operations can be located in or near areas of active conflict or could become a source of local conflict. They therefore can have an impact on the security and potential conflicts in the area.

S3: Freedom of expression and freedom of assembly

Due to the presence of mining and coal operations in countries where the enforcement of human rights may be low, there is a higher risk for violations of the civil and political rights among the undertaking's employees and local communities. This sustainability matter includes, but is not limited to, freedom of expression and freedom of assembly.

S3: Impacts on human rights and environmental defenders

The mining industry is one of the most closely watched sectors in terms of human rights protection and environmental defenders with several hundred attacks globally in addition to the concrete risk of threats and abuse. Ensuring the rights and protection of human rights and environmental defenders is therefore of the utmost importance in the mining industry.

S3: Particular rights of indigenous communities, including free, prior and informed consent; self-determination; and cultural rights

Mining and coal operations often take place in locations that are in close proximity to indigenous communities, and consequently have an impact on these communities due to its economic influence and the environmental consequences from these operations. Examples can be found in disputes and conflicts over land ownerships and absence of good faith in consultation; also the potential influx of workers from other areas can result in discrimination toward indigenous peoples regarding access to jobs and opportunities that can further undermine social cohesion, well-being and safety or the increased exposure of indigenous women to risks of prostitution, forced labour or violence. This sustainability matter would therefore cover if there has been a free, prior, and informed consent of indigenous people and the practice the undertaking has in place to ensure this. It also includes whether land-use rights, the right to self-determination as well as cultural right has been respected and indigenous communities' access to water is guaranteed.

G1: Corporate culture (Code of conduct and ethics)

Ensuring that undertakings have a code of conduct and ethics that outlines how the undertaking and its employees are expected to conduct themselves to guarantee security and guidance in their everyday work. Mining and coal operations are in locations all over the world, and it is therefore important that undertakings within the sector have a clearly stated code of conduct to ensure that the rights of employees and members of local communities are protected by the organization with no regard to the location of the operations.

G1: Corruption and bribery

Due to the nature of mining operations, along with other extractive industries, the mining and coal sector has a high risk for corruption and bribery events as their value chains are complex and of high value. This may lead to an undertaking taking advantage which consequently damages the environment and has a negative impact on the well-being of employees and local communities. This sustainability matter does not only include the efforts carried by an organization to guarantee that these actions are not happening within it, but also the measures implemented to prevent this from occurring. It also covers the consequences of a breach of policy, potential reprimands for breaches and the whistle blowing systems and protections the undertaking has in place.

G1: Political engagement and lobbying activities

Mining and coal operations, along with other extractive industries, are often important sectors within a country industry and therefore have wide ranging impacts on the communities and countries they operate within. This leads to them often engaging in politics and lobbying activities regarding legislation and political decisions. When democratic safeguards are not strong, political engagement and lobbying activities can result in less consideration of the interest of the local community. Only when both the

interests of the undertaking and the interests of the local community are upheld there can be an effective and value creating operation.

G1: Management of relationships (including payment practices)

Managing relationships with governments, business partners, suppliers and stakeholders is of vital importance for undertakings in the mining industry. Stakeholder engagement can prevent, monitor, and help mitigate any environmental or social risks. For this reason, stakeholder engagement shall be integrated into project planning and regular business operations through sharing of decision-making power with interested and affected parties and it shall be driven by stakeholders through ongoing consultation and follow-through. As per OECD guidelines on stakeholder engagement in the extractive industries, stakeholder engagement strategies shall prioritise engagement with most severely affected stakeholders, rather than most influential stakeholders. This includes, but is not limited to, artisanal and small-scale miners and civil society organizations. Clarity and transparency regarding payments to governments from undertakings in the mining industry sector will contribute to a more efficient management of public funds and avoiding corruption. Such payments may be the origin of revenue for local communities and other regions, which may have increased demand for public spending. Project-level payment data is therefore relevant information to local communities, governments, and investors alike. It enables undertakings to demonstrate the economic contribution they are making in relation to specific projects, and the communities they affect.

G1: Cyber security

The consequences of data breaches and other types of cyber security risks in mining, quarrying and coal sector could potentially lead to major incidents and the related release of potential pollutants could have detrimental impacts on the local environment and community.

G1: Protection of natural resources

Due to the value and nature of the natural resources exploited under mining contracts and licenses and/or contracts where such resources are purchased from the state, it means that there are significant opportunities to enrich individuals while the local community does not receive the full value that it should. These are further described below:

Licenses and contracts: As explained by EITI (The Extractive Industries Transparency Initiative), contracts, licenses and associated agreements are important elements as they explain the rights and obligations of all parties involved in the exploration and production of oil, gas and minerals.

Contract transparency can help curb corruption and empower citizens to assess whether they are getting a good deal for their resources as it informs on the terms that govern extractive projects, including revenues to national and subnational governments. This information can be crucial in contexts where precious revenues are impacted by market volatility and emerging energy transition policies.

Commodity trading: Per EITI, sometimes, extractive companies pay governments for the right to extract resources with in-kind payments of oil, gas and minerals. The state or the state-owned enterprise (SOE) then sells these physical resources to commodity trading companies or domestic refineries. Commodity traders may also provide resource-backed loans to governments or state-owned companies in exchange for future production of commodities.

These are so significant, that almost half of total government revenues reported through the EITI come from the sale of oil, gas and minerals to commodity trading companies. The scale and significance of these payments make them a matter of public interest.

Without transparency over the terms of these transactions, commodity trading is vulnerable to corruption and can jeopardise public revenues. Commodity trading transparency ensures that all parties understand the terms on which trades take place and how these may affect the funds available for public expenditures and development.

Beneficial ownership: The real owners of extractive companies, known as the beneficial owners, are often kept anonymous or hidden by a chain of shell companies. This can be a particular challenge in

the extractive industries, where knowing who has the rights to extract oil, gas and minerals is key to addressing risks of corruption or conflict of interest.

Protecting anonymity can deter investment and make it harder to curb corruption. It is estimated that developing countries have lost USD 1 trillion a year since 2011 as a result of corrupt or illegal deals, many of which involve anonymous companies. Investigations using beneficial ownership information culminated in data leaks such as the Panama Papers, the Luanda Leaks and the Pandora Papers.

Publishing details of company ownership can help close channels for corruption, enable effective taxation, build fairer markets, encourage responsible investment and manage business risk. Addressing these issues will remain critical as the energy transition gathers pace.