

2019 Sustainability Report GRI Navigator

Trevali issued its 2019 Sustainability Report covering new performance targets and disclosures. The report was developed in accordance with the Global Reporting Initiative (GRI) Standards: Core Option. This report covers the period from January 1 through December 31, 2019. The report has been reviewed and approved by Trevali's Executive Management and Board of Directors. No external third-party assurance was sought for the content of the report.

GRI Standard Number	Disclosure	Trevali response & disclosure location
102-01	Name of the organization	Annual Information Form - Corporate Structure, pp.6
102-02 (a)	Activities, brands, products, and services	Sustainability Report - About Trevali, pp.7 Annual Information Form - Description of Business, pp.11 Annual Information Form - Products and Markets, pp.17
102-03	Location of headquarters	Sustainability Report - About Trevali, pp.7: Trevali is a global base-metals mining company, headquartered in Vancouver, Canada
102-04	Location of operations	Sustainability Report - About Trevali, pp.7
102-05	Ownership and legal form	Annual Information Form - Corporate Structure, pp.6 Sustainability Report - About Trevali, pp.7
102-06	Markets served	Annual Information Form - Development of the Business, pp.7 Annual Information Form - Products and Markets, pp.17 Annual Information Form - Market for Securities, pp.70
102-07	Scale of the organization	Annual Information Form - Development of the Business, pp.7
102-08	Information on employees and other workers	Annual Information Form - Employees, pp.18
102-09	Supply chain	Sustainability Report , pp.3: 47% of our total supply chain is supported by local businesses. Sustainability Report - Supply Chain, pp.33 Sustainability Report - Community section - Local Supply Spend, pp.37
102-10	Significant changes to the organization and its supply chain	Annual Information Form - Significant Developments, pp.8
102-11	Precautionary Principle or approach	Sustainability Report - Biodiversity, Land Management and Closure, pp.20
102-12	External initiatives	Sustainability Report - 2019 Materiality Assessment, pp.10
102-14	Statement from senior decision-maker	Sustainability Report - Message from the Chair of the Board and from the Chair of the HSEC Committee, pp.2-3
102-15	Key impacts, risks, and opportunities	Annual Information Form - Risk Factors, pp. 51 Sustainability Report - 2019 Materiality Assessment, pp.10
102-16	Values, principles, standards, and norms of behaviour	Sustainability Report - We are Trevali - The Future of Mining, pp. 2

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GRI Standard Number	Disclosure	Trevali response & disclosure location
102-17	Mechanisms for advice and concerns about ethics	Sustainability Report - Business Ethics, pp. 44
102-18	Governance structure	Sustainability Report - Leadership Team, pp. 45 Sustainability Report - Board Structure, pp. 45
102-20	Executive-level responsibility for economic, environmental, and social topics	Sustainability Report - Leadership Team, pp. 45
102-21	Consulting stakeholders on economic, environmental, and social topics	Sustainability Report - 2019 Materiality Assessment, pp. 10
102-22	Composition of the highest governance body and its committees	Sustainability Report - Board Structure, pp. 45
102-23	Chair of the highest governance body	Sustainability Report - Board Structure, pp. 45
102-24	Nominating and selecting the highest governance body	www.trevali.com Management Information Circular
102-25	Conflicts of interest	Sustainability Report - Governance section, pp. 44 Annual Information Form - Conflict of Interests, pp. 77
102-26	Role of highest governance body in setting purpose, values, and strategy	www.trevali.com Management Information Circular Sustainability Report - Governance section, pp. 44
102-27	Collective knowledge of highest governance body	Sustainability Report - Governance section, pp. 44
102-28	Evaluating the highest governance body's performance	www.trevali.com Management Information Circular - Board Assessment, pp. 27 Annual Information Form Sustainability Report - Governance section, pp. 44
102-29	Identifying and managing economic, environmental, and social impacts	Sustainability Report - Governance section, pp. 44
102-30	Effectiveness of risk management processes	www.trevali.com Management Information Circular – Enterprise Risk Management, pp. 32-33 Annual Information Form Sustainability Report - Governance section, pp. 44
102-31	Review of economic, environmental, and social topics	Sustainability Report - Governance section, pp. 44
102-32	Highest governance body's role in sustainability reporting	Sustainability Report - Governance section, pp. 44 Sustainability Report - Message from the Chair of the Board and HSEC Committee pp. 2-3
102-33	Communicating critical concerns	Sustainability Report - Governance section, pp. 44

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GRI Standard Number	Disclosure	Trevali response & disclosure location
102-34	Nature and total number of critical concerns	Annual Information Form Sustainability Report - Governance section, pp. 44
102-35	Remuneration policies	www.trevali.com Management Information Circular - Compensation Discussion & Analysis, pp. 34-66
102-36	Process for determining remuneration	www.trevali.com Management Information Circular - Compensation Discussion & Analysis, pp. 34-66
102-37	Stakeholders' involvement in remuneration	www.trevali.com Management Information Circular
102-42	Identifying and selecting stakeholders	Sustainability Report - Community section, pp.36: We have improved the mapping of our stakeholders and have put in place stakeholder engagement plans, which have been developed to include underrepresented and potentially vulnerable groups.
102-43	Approach to stakeholder engagement	Sustainability Report - 2019 Materiality Assessment, pp. 10
102-44	Key topics and concerns raised	Sustainability Report - 2019 Materiality Assessment, pp. 10
102-45	Entities included in the consolidated financial statements	www.trevali.com Consolidated Financial Statements - Basis of Preparation, pp. 9
102-46	Defining report content and topic boundaries	Sustainability Report - About the Report section, pp. 1
102-47	List of material topics	Sustainability Report - 2019 Materiality Assessment, pp. 10
102-48	Restatements of information	N/A inaugural report
102-49	Changes in reporting	N/A inaugural report
102-50	Reporting period	Sustainability Report - About the Report section, pp. 1: This report covers the period from January 1 through December 31, 2019.
102-51	Date of most recent report	2019
102-52	Reporting cycle	Calendar year
102-53	Contact point for questions regarding the report	Sustainability Report - Back cover Email: info@trevali.com , Phone: +1 778 655 5885, Fax: +1 604 608 9863
102-54	Claims of reporting in accordance with the GRI Standards	No
102-55	GRI content index	2019 Sustainability Report GRI Navigator
102-56	External assurance	No external assurance was sought for the content of the report.
103-01 (a)	Explanation of the material topic and its boundary	Sustainability Report - 2019 Materiality Assessment, pp. 10
103-02	The management approach and its components	See GRI specific disclosures tab

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201-01	Direct economic value generated and distributed	www.trevali.com : Consolidated Financial Statements ; Management Discussion and Analysis ; ESTMA Report Sustainability Report - Community section - Community Investment, pp.35
201-02	Financial implications and other risks and opportunities due to climate change	Sustainability Report - Climate Change section, pp.12 Climate change also generates opportunities for those entities that respond and develop strategic resilience. This constitutes Trevali's first Task Force on Climate related Financial Disclosures (TCFD) aligned reporting.
202-01	Ratios of standard entry level wage by gender compared to local minimum wage	Sustainability Report - People section - Remuneration, pp.43
202-02	Proportion of senior management hired from the local community	Sustainability Report - People section, pp.39 Trevali's priority is to recruit our workforce locally, from our regional and local communities, to ensure the economic benefit of employment remains as much as possible in the communities in which we operate.
203-01	Infrastructure investments and services supported	Sustainability Report - Community section, pp.35
203-02	Significant indirect economic impacts	Sustainability Report - Community section, pp.34-37
204-01	Proportion of spending on local suppliers	Sustainability Report - Community section - Local Spend, pp.37
302-01	Energy consumption within the organization	Sustainability Report - Energy and Emissions section, pp.15-16 a. energy is reported by source and by location. Including fuel types used. C. energy consumption from electricity and from distillate and gas is reported. e. Total energy consumption within the organization, in joules or multiples. f. Standards, methodologies, assumptions, and/or calculation tools used. g. Source of the conversion factors used.
302-02	Energy consumption outside of the organization	Sustainability Report - Energy and Emissions section, pp.15-16 a. energy is reported by source and by location. Including fuel types used. b. Standards, methodologies, assumptions, and/or calculation tools used. c. Source of the conversion factors used.
302-03	Energy intensity	Sustainability Report - Energy and Emissions section, pp.15-16 a. energy intensity ratio reported b. tonnes of production included as denominator c. energy from electricity, distillate and gas included. D. includes both

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302-4	Reduction of energy consumption	Sustainability Report - Metrics and Targets, pp.14 In 2019 we have initiated a number of operation related energy saving initiatives: Projects identified to date include solar power, biodiesel and generator efficiency.
303-01	Interactions with water as a shared resource	Sustainability Report - Water section, pp.17-19 To identify water-related impacts and risks, Trevali undertook a qualitative assessment of its portfolio. In 2019, Trevali developed robust water reporting and management practices, which are embedded in the group EMS and adopted the Water Accounting Framework and the MAC TSM Water Stewardship Protocol. In 2019, we quantified our water balances, both surface ¹ and groundwater ² .
303-02	Management of water discharge-related impacts	Sustainability Report - Water section, pp.17-19
303-03	Water withdrawal	Sustainability Report - Water section, pp.17-19
303-04	Water discharge	Sustainability Report - Water section, pp.17-19
303-05	Water consumption	Sustainability Report - Water section, pp.17-19
304-01	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Sustainability Report - Biodiversity, Land Management and Closure section, pp.20-21: Trevali is committed to net-positive biodiversity outcomes in areas impacted by our activities. We apply an integrated approach to biodiversity conservation and land management in our business planning processes. This includes considering biodiversity in our life of asset plans, budgeting, investment planning and strategic closure planning. During 2019, we incorporated aspects relating to biodiversity and land management into our group EMS (aligned with the MAC – TSM Biodiversity Conservation Management Protocol). Our operations have a limited impact on biodiversity because we operate underground mining operations with a relatively low environmental footprint. The environmental impact assessments for each of our operations indicate that we do not materially impact any high conservation value areas or critical habitats. Where biodiversity is at significant risk or opportunity, we would develop and implement Biodiversity Action Plans.
304-02	Significant impacts of activities, products, and services on biodiversity	Sustainability Report - Biodiversity, Land Management and Closure section, pp.21: Our operations have a limited impact on biodiversity because we operate underground mining operations with a relatively low environmental footprint. The environmental impact assessments for each of our operations indicate that we do not materially impact any high conservation value areas or critical habitats.

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GRI Standard Number	Disclosure	Trevali response & disclosure location
304-03	Habitats protected or restored	<p><u>Sustainability Report</u> - Biodiversity, Land Management and Closure section, pp.21: Trevali approaches the reclamation of disturbed lands (including tailings facilities) in accordance with our group Business Planning Standard, which includes requirements for minimizing land disturbance and the continuous rehabilitation of disturbed lands in alignment with a final landform design. Our teams work together to integrate external stakeholder considerations and biodiversity considerations into internal planning decisions and budget allocation.</p>
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	<p><u>Sustainability Report</u> - Biodiversity, Land Management and Closure section, pp.20: The environmental impact assessments for each of our operations indicate that we do not materially impact any high conservation value areas or critical habitats. Where biodiversity is at significant risk or opportunity, we would develop and implement Biodiversity Action Plans.</p>
305-01	Direct (Scope 1) GHG emissions	<p><u>Sustainability Report</u> - Energy and Emissions section, pp.15: Trevali reported on: a. Gross direct (Scope 1) GHG emissions in metric tons of CO2 equivalent. d. Base year stated e. Source of the emissions factors and GWP rates used. f. Consolidation approach for emissions (operational control). g. standards, methodologies, assumptions, and/or calculation tools used.</p>
305-02	Energy indirect (Scope 2) GHG emissions	<p><u>Sustainability Report</u> - Energy and Emissions section, pp.15: Trevali reported on: a. Stated location based factors were used for calculation of scope 2 emissions. b. In the future we will aim to disclose our Scope 2 emissions using a market based approach as well. d. Base year stated e. Source of the emissions factors and GWP rates used. f. Consolidation approach for emissions (operational control). g. standards, methodologies, assumptions, and/or calculation tools used.</p>
305-04	GHG emissions intensity	<p><u>Sustainability Report</u> - Energy and Emissions section, pp.16:</p>

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305-05	Reduction of GHG emissions	<u>Sustainability Report</u> - Energy and Emissions section, pp.15: We identify, monitor and review GHG emission reduction opportunities and agreed reductions are integrated into our mine plans and budgets
305-07	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	<u>Sustainability Report</u> - Air Quality section, pp.24: At our Perkoa and Santander operations we record our nitrogen and sulphur oxides (NOx / SOx) air emissions in accordance with permit and regulatory requirements.
306-01	Waste generation and significant waste-related impacts Water and Effluents 2018 to report on the topic of 'effluents'.	<u>Sustainability Report</u> - Tailings and Waste section, pp.25-28
306-02	Management of significant waste-related impacts	<u>Sustainability Report</u> - Tailings and Waste section, pp.25-28
306-03	Waste generated	<u>Sustainability Report</u> - Tailings and Waste section, pp.25
306-04	Waste diverted from disposal	<u>Sustainability Report</u> - Tailings and Waste section, pp.25
306-05	Waste directed to disposal	<u>Sustainability Report</u> - Tailings and Waste section, pp.25
307-01	Non-compliance with environmental laws and regulations	<u>Sustainability Report</u> - Environment and Climate Change section, pp.11: During 2019, Trevali received no environmental charges, fines or penalties nor did we suffer any material controversy at any of our operations.
401-01	New employee hires and employee turnover	<u>Sustainability Report</u> - People section - Talent Attraction and Local Hiring, pp.40
403-01	Occupational health and safety management system	<u>Sustainability Report</u> - Health and Safety section, pp.30: In 2019, we further implemented a group Safety Management Standard and group Health Management Standard and procedures. We continue to focus on measuring leading and lagging indicators so that we can predict and prevent incidents from occurring and continuously improve. We also further implemented our 10 Fatal Risk Standards.

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403-02	Hazard identification, risk assessment, and incident investigation	Sustainability Report - Health and Safety section, pp.30: Regular in-field inspections occur to check adherence and the effectiveness of controls. Regular daily reports are provided to management so that learnings can be shared across crews and improvements implemented. In 2019, Trevali ran a campaign to show that workers will be supported for speaking up and we have seen the number of incidents reported increase. Trevali is focused on improving incident reporting, because when we have quality and real time data we can proactively respond.
403-05	Worker training on occupational health and safety	Sustainability Report - Health and Safety section, pp.30: Trevali continues to provide training to workers on hazard identification and risk control implementation. Using technology, we are implementing dashboards that allow workers to leave detailed voice notes on their environment.
403-08	Workers covered by an occupational health and safety management system	Sustainability Report - Health and Safety section, pp.31: Trevali understands the risk related to occupational exposures, particularly for lead, diesel particulate matter, respirable silica and noise. We use qualitative and quantitative health risk assessments and health surveillance to continue to improve controls to manage health risks. In addition, screening and medical support is provided to employees and communities related to HIV, Hepatitis A and B, malaria and COVID-19, in those locations where these viruses and diseases pose risks.
403-09	Work-related injuries	Sustainability Report - Health and Safety section, pp.30
404-02	Programs for upgrading employee skills and transition assistance programs	Sustainability Report - People section - Talent Management, Training and Professional Development Programs, pp.42
405-01	Diversity of governance bodies and employees	Sustainability Report - People section - Inclusion and Diversity, pp.41
405-02	Ratio of basic salary and remuneration of women to men	Sustainability Report - People section - Remuneration, pp.43
406-01	Incidents of discrimination and corrective actions taken	Sustainability Report - Human Rights section, pp.32: Trevali had no human rights incidents or violations reported at our operations during 2019.

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407-01	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Sustainability Report - People section - Employee Relations, pp.43: Trevali engages with union leaders regularly, negotiates in a cooperative manner, promotes freedom of association and collective bargaining, and treats employees with respect and care.
408-01	Operations and suppliers at significant risk for incidents of child labor	Sustainability Report - Human Rights section, pp.32: We have zero tolerance for child labour, forced labour and compulsory labour at our operations and practice due diligence in our recruitment process.
409-01	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Sustainability Report - Human Rights section, pp.32: We have zero tolerance for child labour, forced labour and compulsory labour at our operations and practice due diligence in our recruitment process.
410-01	Security personnel trained in human rights policies or procedures	Sustainability Report - Security section, pp.33: In 2019, 100% of our public and private security personnel at our Perkoa Operation received training in the Voluntary Principles of Security and Human Rights.
411-01	Incidents of violations involving rights of indigenous peoples	Sustainability Report - Community section, pp.34: During 2019 we did not have any instances of non-compliance with social regulations in any jurisdiction.
412-02	Employee training on human rights policies or procedures	Sustainability Report - Security section, pp.33: In 2019, 100% of our public and private security personnel at our Perkoa Operation received training in the Voluntary Principles of Security and Human Rights.
MM01	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	Sustainability Report - Biodiversity, Land Management and Closure section, pp.21
MM02	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	Sustainability Report - Biodiversity, Land Management and Closure section, pp.20: Our operations have a limited impact on biodiversity because we operate underground mining operations with a relatively low environmental footprint. The environmental impact assessments for each of our operations indicate that we do not materially impact any high conservation value areas or critical habitats. Where biodiversity is at significant risk or opportunity, we would develop and implement Biodiversity Action Plans.

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MM03	Total amounts of overburden, rock, tailings, and sludges and their associated risks.	Sustainability Report - Waste section, pp.25: Reported on Hazardous waste per operations - Hazardous waste includes tailings produced from our operations
MM04	Number of strikes and lock-outs exceeding one week's duration, by country.	Sustainability Report - Community section, pp.34: Trevali was not subject to any strikes or lock outs during 2019.
MM05	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities.	Sustainability Report - Community Investment, pp.37: Case Study: First Nation Cooperation Agreement
MM06	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	Sustainability Report - Community section, pp.34: During 2019 we did not have any instances of non-compliance with social regulations in any jurisdiction.
MM07	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes.	Sustainability Report - Human Rights section, pp.32: Trevali has partnered with Clearview Connects to provide a reporting system that enables the anonymous reporting of issues. In recognition that more vulnerable community members are not literate and may not have access to a computer or phone, Trevali is also building a "Trevali Dialogue Platform" that will enable more vulnerable community members to reach us via methods that work best for them, such as Whatsapp voicetext.
MM09	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	Sustainability Report - Community section, pp.34: Trevali has not engaged in resettlement activities at any of our operations, however we have developed requirements in our group Community Management Standard for meeting the minimum requirements as required by the International Finance Corporation Standards.
MM10	Number and percentage of operations with closure plans.	Sustainability Report - Biodiversity, Land Management and Closure section, pp.22: All Trevali facilities have a closure plan in place that is registered with the relevant authorities in each jurisdiction of operation.