

**RioTinto**

**Sustainability Glossary 2020**

## Basis of reporting glossary

Term	Definition
All injuries	All injuries refers to the combination of lost time injuries and medical treatment cases.
Annual allocation usage	The actual water volume used from the operation's permitted allocation over a calendar year.
Biodiversity	Biodiversity is the variety of life on Earth – the different animals, plants and micro-organisms, their genes and the ecosystems in which they live.
Brownfield exploration	Brownfield exploration is directed at sustaining or growing our existing businesses. With processing infrastructure already in place, the cost of developing brownfield orebodies is usually lower than in a greenfield setting.
Community complaint	A notification provided by a community member, group or institution to the business that they have suffered some form of offence, detriment, impairment or loss as a result of business activity and/or employee or contractor behaviour.
Community grievance	A community grievance is a complaint or dispute that has escalated to the point where it requires third party intervention or adjudication to resolve.
Community Investments	Community Investments are voluntary financial commitments, including in-kind donations of assets and employee time, made by Rio Tinto to third parties to address identified community needs or social risks.
Consumption (water)	The volume of water used by the site or operational facility and not returned to the water environment or a third party.
Contractor	<p>Contractor is a person or organisation providing services to an employer at the employer's workplace in line with agreed specifications, terms and conditions.</p> <p>In the context of our Rio Tinto's health, safety and environmental standards, we classify contractors in three categories:</p> <ul style="list-style-type: none"> <li>– Category 1: Individuals working on temporary contracts within existing operations</li> <li>– Category 2: Companies or individuals hired for a discrete project which will be carried out in a designated area separate from existing operations</li> <li>– Category 3: Companies or individuals contracted to carry out specific tasks or provide specified services within existing operations.</li> </ul>
Development contributions	Non-discretionary financial commitments, including in-kind donations of assets and employee time, made by Rio Tinto to a third party to deliver social, economic and/or environmental benefits for a community, which Rio Tinto is mandated to make under a legally binding agreement, by a regulatory authority or otherwise by law.
Direct economic contribution	Direct economic contribution is the total value of value add, payments to suppliers, development contributions, payment to landowners and community investments during the year.
Discharge (water)	The volume of water removed from the site or operational facility to the water environment and/or a third-party supplier.
Diversion (water)	Water actively managed by a site or operational facility but not used for any operational purposes. Diversions are reported as either withdrawals or discharges depending upon circumstances.
Emission (air) incident	Emission (air) incident refers to an environmental incident in which material and/or energy is released in an uncontrolled way into the atmosphere, or to emissions that are not compliant with agreed licences, including dust, noise, vibration and blasting incidents.
Employee	Employee is a person in full or part-time employment at a Rio Tinto business and listed on the payroll.

# Basis of reporting glossary

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Term	Definition
Energy use	<p>Energy use includes energy associated with the combustion of fuels, as well as energy from electricity and other sources such as steam and hydropower. Energy use for anodes and reductants is evaluated from a carbon balance used to evaluate the resultant carbon dioxide emissions.</p> <ul style="list-style-type: none"> <li>– Under our reporting guidelines, any operation not expected to consume 40,000 gigajoules (GJ) of energy in any year over the next three years can be excluded from our data collection processes. Reporting trivial quantities of fuels and emissions may result in a significant workload, so operations can omit or estimate individual emission or energy sources from their inventories subject to these rules:</li> <li>– For non-Australian operations: individual sources that can be excluded should be less than 10,000 GJ. The total of these excluded sources should be less than 5% of the operation's complete inventory.</li> <li>– For Australian operations: the National Greenhouse and Energy Reporting (NGER) Act 2007 requires all sources to be included, but some incidental sources can be estimated. An incidental source is any source that is less than 30,000 GJ of the facility's energy use or energy produced. The total of these incidental sources must be less than 120,000 GJ.</li> <li>– Energy conversion factors must be consistent with Australian National Greenhouse and Energy Reporting Measurement Determination 2008 for Australian operations. For non-Australian operations, we use default factors from the Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA), unless there is a more suitable factor available from local suppliers or government</li> </ul>
Environment	<p>Environment means the surroundings in which an asset is operated, including air, water, land, natural resources, flora, fauna, humans, and the interrelation of all of these.</p>
Fatal injury or occupational illness	<p>Fatal injury or occupational illness means when one or more people die as a result of a work-related injury or occupational illness occurring during their employment. Lost and restricted days are not calculated for fatalities.</p>
Freshwater withdrawn	<p>Freshwater withdrawn is a water volume calculated using the combined volume of:</p> <ul style="list-style-type: none"> <li>– imported surface water (water provided by a third party for our use)</li> <li>– on-site impounded water used in process applications</li> <li>– imported and on-site groundwater</li> <li>– freshwater withdrawn for use as cooling water that's chemically, physically or biologically modified at the final point of discharge and/or returned to the environment with a temperature change of more than five degrees.</li> </ul> <p>Freshwater withdrawn does not include:</p> <ul style="list-style-type: none"> <li>– poor quality water</li> <li>– overflow of water in heavy rain conditions from impoundments which has not had its quality significantly changed by inputs and seepage</li> <li>– water diverted to avoid contamination, but not subsequently withdrawn or intercepted for use</li> <li>– water withdrawn and directly supplied to others, such as for use in agricultural or pastoral properties, for export to third parties or for town use</li> <li>– freshwater withdrawn and used for hydropower generation.</li> </ul>
Freshwater used	<p>Freshwater used is a water volume calculated using the combined volume of:</p> <ul style="list-style-type: none"> <li>– imported surface water (water provided by a third party for our use)</li> <li>– on-site impounded water used in process applications</li> <li>– imported groundwater</li> <li>– on-site groundwater, except that extracted for ground control (dewatering) and discharged without use</li> <li>– freshwater withdrawn for use as cooling water that's chemically, physically or biologically modified at the final point of discharge and/or returned to the environment with a temperature change of more than 5°C.</li> </ul>

# Basis of reporting glossary

## Continued

Term	Definition
Frequency rates	<p>Frequency rates are used as a measure injury or illness performance, for example:</p> <ul style="list-style-type: none"> <li>– All injury frequency rate (AIFR) = number of all injuries x 200,000/hours of exposure</li> <li>– Lost time injury frequency rate (LTIFR) = number of lost time injuries x 200,000/hours of exposure</li> <li>– Rate of new cases of occupational illness (NCOI) = number of all new cases of occupational illnesses x 10,000/number of employees (based on average monthly statistics)</li> </ul> <p>We use AIFR to assess performance against our goal of zero safety injuries or all employees and all categories of contractors.</p> <p>We calculate our health target (rate of new cases of occupational illness) using employee data only, for managed operations only. While we record diagnosed occupational illnesses for contractors, we don't use this data within the calculation of the rate of new cases of occupational illness. Developing operations and acquisitions after 31 December in the previous reporting year are also excluded when assessing performance against these targets. Divested and closed operations are removed from the baseline when assessing performance against these targets.</p>
Freshwater	<p>Potable water or good quality raw water that satisfies Type 1 water quality requirements.</p> <p>This category aligns with our external GRI reporting requirements.</p>
Greenfield	<p>'Greenfield' is a term used to describe investments, sites or projects that have been previously undeveloped or unexplored for commercial purposes.</p>
Greenhouse gas emissions	<p>Greenhouse gas emissions are the six groups of gases we report against as included in the Kyoto Protocol: carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorinated carbon compounds and sulphur hexafluoride.</p> <p>Under our reporting guidelines, individual operations not expected to exceed 3,000 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>-e) emissions in any year over the next three years can be excluded from our data collection processes. Reporting trivial quantities of fuels and emissions can result in a significant workload.</p> <p>Operations can omit or estimate individual emission sources from their inventories subject to these rules:</p> <ul style="list-style-type: none"> <li>– For non-Australian operations: individual sources that can be excluded should be less than 1,000 tCO<sub>2</sub>-e. The total of these excluded sources should be less than 5% of the operation's complete inventory.</li> <li>– For Australian operations: the Australian NGER Act 2007 requires all scope 1 and scope 2 emission sources to be included, but some incidental sources can be estimated. An incidental source is any source less than 3,000 tCO<sub>2</sub>-e of scope 1 emissions and less than 3,000 tCO<sub>2</sub>-e of scope 2 emissions for the facility. The total of these incidental sources must be less than 12,000 tCO<sub>2</sub>-e of scope 1 emissions and less than 12,000 tCO<sub>2</sub>-e of scope 2 emissions for the facility. The global warming potential (GWP) emission factors for all greenhouse gases are consistent with the IPCC Fourth Assessment Report (AR4 – 100 year).</li> </ul>
GRI	<p>GRI is the Global Reporting Initiative, an independent organisation with an international framework and standards for sustainability reporting on an organisation's economic, environmental and social performance. The GRI Standards include mandatory requirements for disclosure.</p> <p>An organisation preparing a report in accordance with the GRI Standards can choose one of two options (Core or Comprehensive), depending on the degree to which the GRI Standards have been applied.</p>
High quality water	<p>Water that satisfies Type 1 and Type 2 quality requirements. This category aligns with our external ICMM reporting requirements.</p>
HIV/AIDS	<p>HIV/AIDS refers to a disease of the human immune system (acquired immune deficiency syndrome, or AIDS) caused by the human immunodeficiency virus (HIV).</p>
Hours of exposure	<p>Hours of exposure is the total number of actual hours where one or more employees/contractors are working or are present as a condition of their employment and are carrying out activities related to their employment duties.</p> <p>For employees: this can be calculated either as "planned time + overtime – all absences" or actual time (collected by gate pass or timesheet systems) or through reasonable estimates made by a Rio Tinto supervisor.</p> <p>For contractors: hours worked are either provided by the vendor or through reasonable estimates made by a Rio Tinto supervisor. These hours are recorded by month, vendor, work area and organisation unit to reflect the total time spent by contractors on our sites.</p>

# Basis of reporting glossary

## Continued

Term	Definition
Incident	<p>Incident is a single event or continuous/repetitive series of events that results in, or could have resulted in, one or more of the following:</p> <ul style="list-style-type: none"> <li>– an occupational injury or illness</li> <li>– damage to physical assets (plants or equipment), the environment, process, product or reputation</li> <li>– disruption to a community</li> <li>– exposure to legal liability</li> <li>– a security threat</li> </ul> <p>We evaluate an incident both by its actual consequence and the maximum reasonable outcome for each of these potential impacts.</p>
Injury	<p>Injury refers to any injury such as a cut, fracture, sprain or amputation resulting from a work-related event during a single shift. All occupational injuries are reported as safety incidents with safety impact. All occupational injuries bringing major revenue. Examples of key products include iron lump, iron fines, copper cathode, gold, borates, uranium oxide, steel powder and molybdenum oxide.</p>
Key products	<p>Key products are products from which major business revenue is obtained (&gt;10% of revenue per product). This includes major products sold by businesses from which &gt;10% net revenue is gained and waste or by-products bringing major revenue. Examples of key products include iron lump, iron fines, copper cathode, gold, borates, uranium oxide, steel powder and molybdenum oxide.</p>
Land footprint	<p>Land footprint is land that has been disturbed for mining, processing and related activities including infrastructure (whether currently disturbed or rehabilitated), as at 31 December of the current reporting period.</p>
Life cycle assessment	<p>Life cycle assessment involves collating the environmental inputs and outputs related to a process, product or service (life cycle inventory) to determine the environmental impacts (life cycle impact assessment) associated with each stage and the complete lifecycle. Described by ISO 14040 series.</p>
Local Water Stewardship Targets	<p>Local water stewardship targets are targets set by managed operations and approved by the operation's managing director or general manager. These local stewardship targets reflect specific operational circumstances and aim to improve site-specific water performance under the following water stewardship areas: water import reduction, water intensity and efficiency, aquifer reinjection and inventory reduction.</p> <p>The selection of sites with local water stewardship targets was informed by the outcomes of 2018 water risk review of all managed operations in the portfolio facilitated by the Group water expert in the Environment Area of Expertise.</p> <p>Where appropriate, target trajectories for the local stewardship targets have been established to enable tracking and assessment of yearly performance. Changes to local water stewardship target statements and/or associated target trajectories can be considered in the circumstances described below. Local water performance targets can be changed to make sure they stay relevant within the context of the local water risk and to drive performance improvement in managing water risk.</p> <p>A change is one that alters the level of performance necessary to meet a local water stewardship target or internal water target trajectory. We consider changes to local targets or trajectories only when there's a substantial change in production, conformance/compliance, reputation, community or environment circumstances that was not planned at the start of the target period and that makes the current target inappropriate for an operation. Each change must be approved by the product group chief executive and the global head of health, safety, environment and security before being used.</p> <p>An administrative change is one that adjusts the way a local target or trajectory is worded or premised without changing the level of performance necessary to meet the target or trajectory. These are only considered when needed to add clarity to the target or to correct the calculation of baseline or trajectory. An administrative change to a target and/or trajectory must be approved by the global head of health, safety, environment and security.</p>
Lost day injury (LDI) or occupational illness	<p>Lost day injury (LDI) or occupational illness is an injury or occupational illness that results in one or more days/shifts away from work, excluding the day of the incident. The number of lost or restricted calendar days and shifts reported for lost day injuries/illness must be counted until the person is cleared by a medical practitioner and either returns in a full-time unrestricted capacity to their pre-injury/illness role or (in the case of a recordable work injury) is permanently moved to another role.</p>
Lost time injury or occupational illness	<p>Lost time injury or occupational illness is the total of fatal, lost day and restricted work day injuries or illnesses.</p>
Low quality water	<p>Water that satisfies Type 3 quality requirements. This category aligns with our external ICMM reporting requirements</p>

# Basis of reporting glossary

## Continued

Term	Definition
Managed operation	<p>Managed operation is an operation where:</p> <ul style="list-style-type: none"> <li>– Rio Tinto wholly owns the operation; or</li> <li>– A management agreement is in place naming Rio Tinto as the manager, or</li> <li>– Rio Tinto management systems and processes are fully implemented</li> </ul>
Management costs	Personnel costs incurred by Rio Tinto in managing Community Investments and Development Contributions.
Materiality	Materiality in sustainability, as opposed to financial materiality, is the threshold at which an issue or topic becomes important enough to be reported externally, taking into account the impact and level of perceived importance from stakeholders.
Medical treatment case injury or occupational illness	<p>Medical treatment case injury or occupational illness is a work-related injury or occupational illness not classified as lost time resulting in loss of consciousness or medical treatment other than first aid.</p> <p>Medical treatment includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>– Administering prescription medication</li> <li>– Using wound closing devices such as sutures, staples, or wound adhesives (glue). Where glue is used to protect a wound (not requiring sutures) as a precaution against infection in wet environments and in place of an adhesive dressing, this can be considered first aid treatment if supported in writing by a doctor or registered nurse.</li> <li>– Using devices with rigid stays or other systems designed to immobilise parts of the body</li> <li>– Using eye patches (except as a precautionary measure, and not extending into the next shift)</li> </ul> <p>Medical treatment does not include:</p> <ul style="list-style-type: none"> <li>– Visits to a physician or other licensed health care professional solely for observation or counselling, or diagnostic procedures, such as x-rays, blood tests and the administration of prescription medications solely for diagnostic purposes (eye drops to dilate pupils) or as a single dose administered on first visit for a minor injury or discomfort.</li> <li>– Injuries where the original or first treating doctor used sutures but is prepared to document that this was not necessary to treat the injury. This might happen, for instance, if steri-strips or butterfly bandages were not available.</li> </ul>
Mineral waste	<p>Mineral waste includes waste rock, tailings and slag.</p> <ul style="list-style-type: none"> <li>– Waste rock is composed of soils or bedrock that are removed to uncover or access ore during mining.</li> <li>– Tailings is the ground-up rock mixed with process water remaining after the minerals of economic interest have been removed from the ore.</li> <li>– Slag is generated by smelting operations and is the glassy material that remains after metals, such as copper, have been removed from the ore concentrate.</li> </ul> <p>Mineral waste is typically produced in very large volumes, and its handling and storage can directly impact the land. Mineral waste is usually permanently stored on site where it's used as in pit backfill or held in engineered repositories. Most mineral waste is inert, but some is chemically reactive and must be appropriately handled to protect people, wildlife and water quality.</p>
Musculo-skeletal illness	<p>Musculo-skeletal illness is a condition of the musculo-skeletal system associated with repetitive work-related trauma and/or exposure over time, lasting more than one shift (see also occupational illness).</p> <p>A case is reportable where a medical practitioner diagnoses musculo-skeletal disease which meets defined diagnostic criteria, is due to repeated workplace exposure (other than vibration) and results in medical treatment, restricted work days, lost days or permanent damage. This includes recurring musculo-skeletal conditions counted as a new case and reported only if the medical practitioner thinks the worker had fully recovered from the previous condition. This can include repetitive strain injuries, also known as occupational overuse syndrome.</p>
New case/recurrence	New case/recurrence is an injury or illness classed as new because the employee hasn't previously experienced an injury or illness of the same type, or when the employee has completely recovered from the previous case and a new incident has caused the condition to reappear. If not then additional time lost is linked back to the original injury or illness and is considered a recurrence of the original injury or illness.

# Basis of reporting glossary

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Term	Definition
Noise-induced hearing loss (NIHL)	<p>Noise-induced hearing loss (NIHL) is hearing loss related noise exposure as assessed by an occupational physician, an audiologist or other equivalent qualified professional. Audiometric tests must be pure tone, air conduction, hearing threshold examinations, including the test frequencies 0.5, 1, 2, 3, 4, 6 kHz and 8 kHz as a minimum. A loss without recovery plus a history of noise exposure should also be regarded as NIHL.</p> <p>For cases meeting the above criteria, the following are considered to determine whether or not a case of NIHL meets our reporting criteria:</p> <ol style="list-style-type: none"> <li>1. Has the person been occupationally exposed to noise (eg &gt; 85 dB(A) TWA)?</li> <li>2. Have they also sustained a standard threshold shift (see definition)?</li> <li>3. Is there also non-age corrected average hearing loss over 2, 3 and 4 KHz of the audiogram, in one or both ears, of more than or equal to 25 dB as compared with audiometric zero?</li> </ol> <p>If the case meets these criteria, it should be recorded as a Permanent Damage Occupational Illness (PDOI) if it carries a whole body impairment of <math>\geq 30\%</math> as per the American Medical Association guidelines 5<sup>th</sup> edition. If the hearing loss is due to age factors alone, this is not work related and should be excluded. Hearing loss due to a one-time high exposure is considered an injury. This excludes category 2 and 3 contractors.</p>
Non-mineral waste	<p>Non-mineral waste is primarily composed of the auxiliary materials that support our mining and mineral processing operations. This includes familiar materials such as used oil, tyres, old batteries and office waste, as well as more specialised waste such as spent pot liners from aluminium smelters. Non-mineral waste is produced in much smaller volumes than mineral waste, and is most commonly managed through recycling, off-site treatment and disposal, or placement in on-site engineered landfills.</p>
Occupational illness	<p>Occupational illness is an illness or disease, as distinct from an injury. One event cannot be both.</p> <p>An occupational illness or disease results from a workplace-related exposure of more than one shift, such as noise-induced hearing loss (NIHL) or carpal tunnel syndrome. A person can only be diagnosed once with the same occupational illness or disease, unless they have completely recovered from the original case. All occupational illnesses are reported as health incidents with health impact.</p>
Occupied building	<p>Occupied building refers to a building, whether permanent or temporary (portable), that's intended to be occupied. This is typically a building where at least two people do a significant portion of their work or where people may gather, even for a short time (such as crib rooms). Buildings that employees visit infrequently to do brief tasks or monitor a process are not typically defined as occupied buildings.</p>
On-site greenhouse gas emissions	<p>On-site greenhouse gas emissions refers to scope 1 greenhouse gas emissions, such as direct greenhouse gas emissions owned or controlled by Rio Tinto. They include fuel use, on-site electricity generation, anode and reductant use, process emissions, land management and livestock.</p>
Operational land holdings	<p>Operational land holdings are split into two categories:</p> <ol style="list-style-type: none"> <li>i. Land disturbed for mining, processing and related activities, including rehabilitated land. This is known as our operational footprint.</li> <li>ii. Land outside our operational footprint area, which may be used in the future for mining, processing and related activities, as well as other land uses. This is known as our land holding balance.</li> </ol>
Permanent damage injury or illness	<p>Permanent damage injury or illness refers to more than 30% body impairment, as per the American Medical Association Guidelines (5<sup>th</sup> edition), likely to last one year or more.</p>
Permitted surface water allocation	<p>The water volume licensed, permitted or approved to be extracted and used by the operation by a regulating authority</p>
Plague	<p>Plague is an infectious disease caused by the bacteria <i>Yersinia pestis</i>, usually found in small mammals and their fleas. It is transmitted between animals through fleas. Humans can be infected through:</p> <ul style="list-style-type: none"> <li>– The bite of infected fleas</li> <li>– Unprotected contact with infectious bodily fluids or contaminated materials</li> <li>– The inhalation of respiratory droplets/small particles from a patient with pneumonic plague.</li> </ul>

# Basis of reporting glossary

## Continued

Term	Definition
Process safety incidents with a major or catastrophic consequence	<p>Process safety incidents with a major or catastrophic consequence are process safety incidents involving actual or potential unplanned or uncontrolled loss of primary containment of hazardous process material or process energy that could result in:</p> <ul style="list-style-type: none"> <li>– Chemical and physical explosions</li> <li>– Fires involving process material</li> <li>– Loss of containment of toxic, asphyxiant, corrosive, reactive, hot materials in bulk</li> <li>– Engulfment or physical impact from failure of bulk storage and process tankage</li> </ul> <p>These types of incident resulting in a single fatality or severe permanent impairment to a person (&gt;30%), such as loss of hand or lower limb (at knee), paraplegia or multiple fatalities or severe permanent impairment to multiple people (&lt;5 people) are seen as process safety incidents with a major or catastrophic consequence respectively.</p>
Process	Process means the activities associated with the process of mining or refining. These include mining, milling, slurring, washing ore, suppressing dust, treating wastewater/sewerage, generating power, operating ancillary services (such as camp, canteen, offices), irrigating rehabilitated land and wash down.
Restricted work day injury or occupational illness	Restricted work day injury or occupational illness occurs when the employee, because of the job-related injury/illness, is physically or mentally unable to perform all or any part of his or her normal assignment during all or any part of the normal workday or shift, after which the injury/illness occurs.
Rio Tinto management system	Rio Tinto management system supports standardisation of corporate and business health, safety, environment and communities management processes. The system is designed on the principles of leadership and planning, management of risk through operational control and continuous improvement through performance review as is the intent of common international standards such as ISO14001:2004, ISO9001:2001.
Scope 1 and Scope 2 greenhouse gas (GHG) emissions	<p>Rio Tinto plc and Rio Tinto Limited combined (Rio Tinto) use Scope 1 and Scope 2 emissions definitions that are consistent with the World Resource Institute (WRI) and World Business Council for Sustainable Development's (WBCSD) Greenhouse Gas (GHG) Protocol: A Corporate Accounting and Reporting Standard. This standard defines Scope 1 greenhouse gas emissions as direct greenhouse gas emissions from facilities owned or controlled by an operator, including fuel use, on-site electricity generation, anode and reductant use, process emissions and land management. Greenhouse gas emissions from the generation of electricity, heat or steam brought in from third parties are defined as Scope 2 (indirect emissions).</p> <p>Scope 1 and 2 emission factors for our Australian operations are consistent with the Australian National Greenhouse and Energy Reporting (Measurement) Determination 2008. For non-Australian operations, factors from the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories (2006) are used for scope 1, and where possible factors for scope 2 are sourced from electricity retailers or the appropriate regional and sub-regional factors.</p>
Scope 3 greenhouse gas (GHG) emissions	Scope 3 emissions are indirect GHG emissions generated as a result of activities undertaken either upstream or downstream of our operations. To identify and calculate scope 3 emission sources across our operations, we have used the Greenhouse Gas (GHG) Protocol: A Corporate Accounting and Reporting Standard and the associated Standard and Guidelines on scope 3 emissions, published by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI). For consistency with the reporting of scope 1 and 2 emissions, the 2020 scope 3 emissions inventory has been prepared on an equity basis, taking in to account Rio Tinto's relevant interest in all managed and non-managed operations.
Senior management	Senior management are general managers, Group advisers and chief advisers, as well as employees in business units or in functional leadership roles who are direct reports of Executive Committee members.
Significant environmental incident	Significant environmental incident is an incident with an actual consequence rating of major or catastrophic. We measure and rate incidents according to their actual environmental and compliance impacts using five severity categories: minor, medium, serious, major, or catastrophic. Major and catastrophic environmental incidents are usually reported to the relevant product group head and Rio Tinto chief executive as soon as possible.
Sustainable development	Sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". ( <i>Our Common Future, Report of the World Commission on Environment and Development, World Commission on Environment and Development, 1987. Published as Annex to General Assembly document A/42/427, Development and International Co-operation: Environment August 2, 1987.</i> Available at: <a href="http://www.undocuments.net/wced-ocf.htm">www.undocuments.net/wced-ocf.htm</a> )
Surface water allocation average catchment runoff	The annual runoff volume (based on average annual rainfall) that recharges the catchment that the permitted surface water allocation is sourced from.

# Basis of reporting glossary

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Term	Definition
Whistleblower programme	<p>Rio Tinto's whistleblowing programme is available to employees and third parties. It is a confidential and independent avenue for reporting concerns. Our whistleblowing programme provides a mechanism to raise concerns confidentially and anonymously where permitted. A Group Incident Management System is used to capture all incidents that form part of our performance indicators whether these are reported directly through the programme, compliance managers or team leaders. The report intake and hotline system are independently operated by a third party service provider.</p> <p>Reporting case classes are: Personnel; Business Integrity; Health, Safety and Environment; Communities; Finance; Information Security and Miscellaneous.</p>
Whistleblower programme case class – Personnel	<p>Matters involving employees (co-workers, supervisors &amp; management) or Rio Tinto consultants, agents, contractors and suppliers that involve a personal nature concerning, but not limited to; all forms of harassment, sexual harassment and misconduct, bullying and other abusive behaviour.</p> <p>This also includes concerns related to unfair HR processes including recruitment practices, benefits and compensation, job assignment and performance, breaches of labour standards, issues related to payroll, remuneration, benefits and compensation and/or matters relating to inclusiveness, discrimination (age, gender, disability, diversity, nationality, race, religion, sexual orientation).</p>
Whistleblower programme case class – Business integrity	<p>Matters involving employees (co-workers, supervisors &amp; management) or Rio Tinto consultants, agents, contractors and suppliers regarding conflicts of interest, bribes/facilitation payments, retaliation, fraud, misuse/abuse of travel and expenses, inappropriate benefits/gifts, intentional breaches of company policies or code of conduct, or any other unethical behaviour and unfair business practices.</p> <p>This also includes matters involving circumvention of processes and controls or breaches of policies, procedures and standards including but not limited to, competition issues, insider trading, circumvention of procurement policies, international trade and sanction breaches, unfair business practices and breaches of the acceptable use of electronic resources.</p> <p>Concerns raised regarding human trafficking, breaches of human rights, involvement of employees in political matters or campaigns are also classified in this category</p>
Whistleblower programme case class – Health, safety and environment	<p>Matters involving employees (co-workers, supervisors &amp; management) or Rio Tinto consultants, agents, contractors and suppliers regarding workplace health, workplace safety and security issues, including breaches of safety laws and regulations, company policies, procedures, standards and local directives, local safety hazards, unsafe working conditions and practices and any other negative effects on employee health and safety.</p> <p>Security incidents and concerns and otherwise workplace conditions representing dangerous physical situations to employees and others. Environmental concerns regarding potential harm or a situation with a potential to cause actual or perceived loss or damage to people, the environment, or plant and equipment.</p>
Whistleblower programme case class – Communities	<p>Matters involving employees (co-workers, supervisors &amp; management) or Rio Tinto consultants, agents, contractors and suppliers, concerning regarding the company's activities and relationship with communities, such as tensions, disputes, or other matters which may affect the company's reputation, partnerships and licence to operate. This category also includes failure to operate in accordance with the UN Declaration on the Rights of Indigenous Peoples (jurisdictionally applicable).</p>
Whistleblower programme case class – Finance	<p>Matters involving employees (co-workers, supervisors &amp; management) or Rio Tinto consultants, agents, contractors and suppliers, concerning deliberately failing to keep accurate financial records, alteration, inaccurate and/or anomalies relating to financial recording and book keeping. Audit irregularities and other irregular financial practices, including the making of false financial statements internally or externally and other activities including altering or destroying company records, inventory and supply issues and concerns relating to delegated financial authority provisions.</p>
Whistleblower programme case class – Information security	<p>Matters involving employees (co-workers, supervisors &amp; management) or Rio Tinto consultants, agents, contractors and suppliers, whereby there has been a failure to comply with the Rio Tinto Data Privacy Standard and Principles, including failure to comply with local legislation applying to the collection, usage, processing, storage, disclosure and transfer of personal data. This also includes failure to process data for legitimate business purposes or related purposes, in breach of the data subject and disclosure or misappropriation of confidential information.</p>
Whistleblower programme case class – Miscellaneous	<p>Other matters not mentioned above which are of concern and which should be reported for review including observations, criticisms and suggestions.</p>
Tier 1 resources	<p>Tier 1 resources are low-cost, expandable resources that are profitable at all phases of the natural price cycle and bring a sustainable competitive advantage.</p>
Tier 1 water target	<p>Target included in the external limited assurance programme</p>

# Basis of reporting glossary

## Continued

Term	Definition
Tier 2 water target	Target not included in the external limited assurance programme
Total greenhouse gas (GHG) emissions	Total greenhouse gas (GHG) emissions are Scope 1 GHG emissions plus Scope 2 GHG emissions minus GHG emissions associated with electricity and steam exported to others in case of 100% managed basis, and scope 1 emissions plus scope 2 emissions in case of equity basis.
Total greenhouse gas emissions (GHG) intensity index	<p>Total greenhouse gas emissions (GHG) intensity index is a measure of the change in GHG emissions per unit of product compared with a baseline intensity, evaluated for each of our commodities. Commodities are products sold to the market from operations of comparable scope. Examples include mined bauxite, smelter grade alumina refined from bauxite, primary aluminium smelted from alumina, copper concentrate from mine to concentrator, and copper cathode from mine to refinery.</p> <p>Our total greenhouse gas emissions intensity target is evaluated as the percentage difference between actual total greenhouse gas emissions in the target year and the equivalent emissions expected from the target year production at the baseline year emissions intensity for each commodity.</p> <p>Any business or operation, such as Rio Tinto Exploration, that does not produce a saleable product is excluded from the target assessment. Developing operations are included in the assessment once production exceeds 60% of nameplate production in a reporting year. We index our performance relative to 2008 as a baseline year.</p>
Type 1 quality water	Water of a high quality that may require minimal and inexpensive treatment (for example disinfection and pond settlement of solids) to raise the quality to appropriate drinking water standards. Type 1 water has total dissolved solids (TDS) less than 1,000 milligrams per litre and pH between 6 and 8.5.
Type 2 quality water	<p>Water of a medium quality that would require a moderate level of treatment such as disinfection, neutralisation, removal of solids and chemicals to meet appropriate drinking water standards.</p> <p>Type 2 water has total dissolved solids (TDS) between 1,000 -5,000 milligrams per litre and pH between 4-10.</p> <p>Typically, this category of water would be suitable for agricultural/livestock or irrigation use (based on local/regional/national guidelines).</p>
Type 3 quality water	<p>Water of a low quality with individual constituents encompassing high values of total dissolved solids, elevated levels of dissolved metals or extreme levels of pH. It would require significant treatment to remove dissolved solids and metals, neutralise and disinfect to meet appropriate drinking water standards.</p> <p>Type 3 water has total dissolved solids (TDS) greater than 5,000 milligrams per litre, or TDS between 1,000 – 5,000 milligrams per litre with pH less than 4 and greater than 10.</p> <p>Typically, this category of water represents poor quality water that would not be suitable for agricultural/livestock or irrigation use.</p>
Use-of-force (UOF)	Use-of-force (UOF) refers to the lawful and proportional amount of force (effort) required by authorised security personnel to make an unwilling suspect or person comply to achieve a legitimate security objective. It involves the use of various means and techniques of force that are applied starting with the least to the most force. The UOF is governed by country laws and is usually authorised in a progressive series of actions, referred to as a “use of force continuum”, that make provision for the use of a lesser, non-lethal and graduated force options.
Value add	Value add refers to the value that a business adds to the materials and services it has bought. It is equivalent to the sum of all labour payments, payables to governments, returns on capital invested in operations – including interest payments, profits paid out to shareholders, and money held in the business for future investment and to replace depreciated assets – and non-government payments. This figure includes management costs for the calendar year.
Water risk	<p>Water risk is one with the potential to have a high or critical impact on a managed operation with consequences on production, conformance/compliance, reputation, community or environment.</p> <p>Water risks require proactive management by the specific managed operation.</p>
Wellbeing/wellness programme	Wellbeing/wellness programme is a proactive, preventive approach to help people change their lifestyle to move toward a state of optimal health: a balance of physical, emotional, social, spiritual, and intellectual health. It's an active process of enhancing awareness and skills, changing behaviour and values, and creating an environment that supports good health practices and increases people's abilities to enjoy a balanced and fulfilling life.
Withdrawal (water)	The volume of water received by the site or operational facility from the water environment and/or a third-party supplier.

# Materiality descriptors

## Climate change

We address the climate change challenge by measuring and mitigating carbon emissions from our operations and reducing these through our steel value chain. This includes energy supply and demand management, developing and deploying low-carbon technology, and considering the physical impacts of climate change on our portfolio and integrating these considerations into our business processes.

## Biodiversity and ecosystems

Mining by its very nature requires disturbance to the land and environment – including air, water and biodiversity – and can have impacts on communities. We work to manage potential impacts on biodiversity and the natural resource dependencies of host communities in the regions that we operate.

## Closure

From design to decommissioning, we consider closure through the lifecycle of assets. This incorporates remediation and any long-term management obligations, such as water treatment, including of legacy assets, whether or not we operate them.

## Materials stewardship and circular economy

There is strong consumer and investor focus on our sustainability practices, including the way we produce materials. This encompasses the full value chain – from responsible sourcing and waste management through to the accreditation and certification of our products. We also explore ways to develop our participation in the circular economy across our value chain by minimising waste, maximising the use of minerals and promoting the regeneration of natural systems.

## Emissions from our operations

We work to prevent and minimise impacts – such as from air, light and noise emissions – from our operations on the surrounding environments and communities, including management controls and programmes to help manage inherent risks.

## Tailings and structures

Our operations produce tailings, residues created as part of mining, refining, smelting and water treatment processes that need to be permanently and safely stored. This includes water storage facilities at some of our assets.

## Water

Our processing plants, refineries, smelters and mines use water to process ore, manage dust and promote rehabilitation. In some instances, we use water to produce hydroelectricity to power our operations. We consider ourselves stewards of this valuable resource and aim to balance our operational water needs with those of the local communities and natural environment.

## Automation

Technological development changes the type of work that we do, how and where we do it. As we continue to automate our operations, we look for ways to help our employees and communities adapt to changing workforce requirements.

## Communities (including respect for indigenous peoples' rights and cultural heritage)

Mining by its very nature requires disturbance to the land and environment and can have impacts on surrounding communities. We work to respond to community concerns, optimise benefits and reduce negative impacts. This includes the way we engage communities, agreement-making, economic and social development and managing cultural heritage impacts.

## Diversity

A diverse workplace is not just the right thing to do, it is essential to our success. Diversity includes the fair representation of race, gender, nationality, ethnic origin, religion, age, sexual orientation or anything else that makes us different.

## Safety, health and wellbeing

Safety is one of our core values, and part of who we are and the way we work, every shift, every day. We focus on injury prevention and elimination, mental health, reducing exposure to industrial diseases, and on improving wellbeing.

## Economic contribution

We work to maximise the benefits Rio Tinto and its work delivers to the communities that host us. This includes the taxes and royalties we pay, salaries and wages to our workforce, the development contributions we make to communities and our payments to suppliers.

## Human rights

There is growing interest in the rigour of our systems, our due diligence and performance in our own business and our supply chain. This includes respecting the human rights of all people along our value chain, across areas such as security, land access, climate change and environment and labour rights (including modern slavery).

## Workforce

We aim to create a workplace that is safe, inclusive, empowering and engaging.

## Business resilience

We prepare for, and respond to, internal and external events that have the potential to impact on our business.

## Corporate behaviour and culture

Our corporate culture refers to the values and behaviours of our Group. It guides the way we do business, including how we engage on public policy and legislative issues.

## Cyber security

As technology plays an increasingly important role in our business, so too does the need for a strong approach to cyber security practices. This includes ensuring the security of our autonomous infrastructure and enabling remote working for our employees and contractors.

## Ethics and integrity

Integrity is one of our five core values. It is underpinned by values and behaviours that guide how we work together as colleagues, and the way we engage with our external communities and stakeholders. It includes topics such as competition, bribery and corruption, conflicts of interest, benefits, sponsorships and donations, fraud, other financial crimes, third party due diligence and data privacy.

## Governance

This is fundamentally about considering the right things, at the right time with the right people and insights. This includes strong foundations and rules that enable the Board to oversee risks and support and challenge the Executive Committee, ensuring alignment of our sustainability approach to our business strategy.

## Non-managed operations

These are assets that we have a participating ownership interest in, but do not have the operating or management rights.

## Materiality descriptors

### Continued

#### **Transparency and information disclosures**

We believe that greater transparency and accountability are key to building trust and achieving better social and economic outcomes over the long term. This includes disclosing information on our sustainability performance, taxes paid, beneficial ownership and contractual agreements.

#### **Value chain**

We manage regulatory and sustainability risks and opportunities in delivering our product to market. We work toward building a responsible, innovative and reliable value chain – from the way we work with our suppliers to adopting responsible sourcing practices.