## Basis of reporting glossary

| Term | Definition |
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| 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 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. |
| Contractor | Contractor is a person or organisation providing services to an employer at the employer's workplace in line with agreed specifications, terms and conditions. <br> In the context of our Rio Tinto's health, safety and environmental standards, we classify contractors in three categories: <br> - Category 1: Individuals working on temporary contracts within existing operations <br> - Category 2: Companies or individuals hired for a discrete project which will be carried out in a designated area separate from existing operations <br> - Category 3: Companies or individuals contracted to carry out specific tasks or provide specified services within existing operations. |
| 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 and community investments during the year. |
| 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. |
| Energy use | 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. <br> 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: 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. - 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 $30,000 \mathrm{GJ}$ of the facility's energy use or energy produced. The total of these incidental sources must be less than 120,000 GJ. <br> - 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 |
| Environment | Environment means the surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans, and the interrelation of all of these. |
| Fatal injury or occupational illness | 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. |


| Term | Definition |
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| Freshwater withdrawn | Freshwater withdrawn includes: <br> - imported surface water (water provided by a third party for our use) <br> - on-site impounded water used in process applications <br> - imported and on-site groundwater <br> - 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. <br> Freshwater withdrawn does not include: <br> - poor quality water <br> - overflow of water in heavy rain conditions from impoundments which has not had its quality significantly changed by inputs and seepage <br> - water diverted to avoid contamination, but not subsequently withdrawn or intercepted for use <br> - 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 <br> - freshwater withdrawn and used for hydropower generation. |
| Freshwater used | Freshwater used includes: <br> - imported surface water (water provided by a third party for our use) <br> - on-site impounded water used in process applications <br> - imported groundwater <br> - on-site groundwater, except that extracted for ground control (dewatering) and discharged without use <br> - 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 $5^{\circ} \mathrm{C}$. |
| Frequency rates | Frequency rates are used as a measure injury or illness performance, for example: <br> - All injury frequency rate (AIFR) = number of all injuries $\times 200,000$ /hours of exposure <br> - Lost time injury frequency rate (LTIFR) $=$ number of lost time injuries $\times 200,000 /$ hours of exposure <br> - 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) <br> We use AIFR to assess performance against our goal of zero safety injuries or all employees and all categories of contractors. <br> 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. |
| Freshwater | Freshwater refers to drinkable or good-quality water with total dissolved solids less than 1,500 milligrams per litre, $\mathrm{pH} 5-9$, and individual dissolved constituents (metals, anions) at concentrations suitable for agricultural, livestock or irrigation use based on local, regional or national guidelines. |
| Greenfield | Greenfield exploration aims to establish completely new operating business units, involving geographic or commodity diversification away from our existing operations. |


| Term | Definition |
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| Greenhouse gas emissions | Greenhouse gas emissions are the six groups of gases we report against as included in the <br>  <br> Kyoto Protocol: carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorinated carbon |
| compounds and sulphur hexafluoride. |  |
|  | Under our reporting guidelines, individual operations not expected to exceed 3,000 tonnes of carbon <br> dioxide equivalent (tCO2-e) emissions in any year over the next three years can be excluded from our <br> data collection processes. Reporting trivial quantities of fuels and emissions can result in a significant |
| workload. |  |
|  | Operations can omit or estimate individual emission sources from their inventories subject to |
| these rules: |  |
|  | - For non-Australian operations: individual sources that can be excluded should be less than |
| 1,000 tCO2-e. The total of these excluded sources should be less than 5\% of the operation's |  |
| complete inventory. |  |


| Term | Definition |
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| Life cycle assessment | Life cycle assessment is a technical analytical procedure that involves collating the environmental <br> inputs and outputs related to a production process (life cycle inventory), followed by a scientific <br> assessment of the potential environmental impacts of a product (life cycle impact assessment). <br> Described by ISO 14040 series. |
| Local Water Stewardship Targets | Local water stewardship targets are targets set by managed operations and approved by the <br> operation's managing director or general manager. These local stewardship targets reflect specific <br> operational circumstances and aim to improve site-specific water performance under the following <br> water stewardship areas: water import reduction, water intensity and efficiency, aquifer reinjection and <br> inventory reduction. |
| The selection of sites with local water stewardship targets was informed by the outcomes of 2018 water <br> risk review of all managed operations in the portfolio facilitated by the Group water expert in the |  |
| Environment Area of Expertise. |  | | Where appropriate, target trajectories for the local stewardship targets have been established to enable |
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| 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 makes sure they stay relevant within the context of the |
| local water risk and to drive performance improvement in managing water risk. |


| Term | Definition |
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| Medical treatment case injury <br> or occupational illness | Medical treatment case injury or occupational illness is a work-related injury or occupational illness not <br> classified as lost time resulting in loss of consciousness or medical treatment other than first aid. |
|  | Medical treatment includes, but is not limited to: |
|  | $-\quad$ Administering prescription medication |


| Term | Definition |
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| Noise-induced hearing loss (NIHL) | 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 , $1,2,3,4,6 \mathrm{kHz}$ and 8 kHz as a minimum. A loss without recovery plus a history of noise exposure should also be regarded as NIHL. <br> For cases meeting the above criteria, the following are considered to determine whether or not a case of NIHL meets our reporting criteria: <br> 1. Has the person been occupationally exposed to noise (eg >85dB(A) TWA)? <br> 2. Have they also sustained a standard threshold shift (see definition)? <br> 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? <br> If the case meets these criteria it should be recorded as a Permanent Damage Operational Illness (PDOI). 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. |
| Non-mineral waste | 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. |
| Occupational illness | Occupational illness is an illness or disease, as distinct from an injury. One event cannot be both. 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 <br> 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. |
| Occupied building | 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. |
| On-site greenhouse gas emissions | 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. |
| Operational land holdings | Operational land holdings are split into two categories: <br> i. Land disturbed for mining, processing and related activities, including rehabilitated land. This is known as our operational footprint. <br> 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. |
| Permanent damage injury or illness | Permanent damage injury or illness refers to more than $30 \%$ body impairment, as per the American Medical Association Guidelines (5th edition), likely to last one year or more. |
| Permitted surface water allocation | The water volume licensed, permitted or approved to be extracted and used by the operation by a regulating authority |
| Plague | Plague is an infectious disease caused by the bacteria Yersinia pestis, usually found in small mammals and their fleas. It is transmitted between animals through fleas. Humans can be infected through: <br> - The bite of infected fleas <br> - Unprotected contact with infectious bodily fluids or contaminated materials <br> - The inhalation of respiratory droplets/small particles from a patient with pneumonic plague. |

## Basis of reporting glossary continued

|  | Definition |
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| Term | Process safety incidents with a major or catastrophic consequence are process safety incidents |
| Process safety incidents with | involving actual or potential unplanned or uncontrolled loss of primary containment of hazardous |
| a major or catastrophic |  |
| consequence | process material or process energy that could result in: |


|  | Definition |
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| Term | 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". (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. Available at: |
|  | www.undocuments.net/wced-ocf.htm) |

## Basis of reporting glossary continued

| Term | Definition |
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| 'Talk to Peggy’ case class Information security | Matters involving employees (co-workers, supervisors \& management) or Rio Tinto consultants, agents, contractors and suppliers, whereby there has been a failure to comply with the Rio Tinto Data Privacy Standards 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. |
| 'Talk to Peggy' case class Miscellaneous | Other matters not mentioned above which are of concern and which should be reported for review including observations, criticisms and suggestions. |
| Tier 1 resources | Tier 1 resources are low-cost, expandable resources that are profitable at all phases of the natural price cycle and bring a sustainable competitiveadvantage. |
| 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 minus net carbon credits voluntarily purchased from, or sold to, recognised sources. |
| Total greenhouse gas emissions (GHG) intensity index | 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. <br> 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. <br> 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. |
| 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 | 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. Water risks require proactive management by the specific managed operation. |
| 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. |

