SOUTH32

2020

SUSTAINABLE
DEVELOPMENT
REPORT

About us

SOUTH32 IS A GLOBAL MINING AND METALS COMPANY

We produce bauxite, alumina, aluminium, energy and metallurgical coal, manganese, nickel, silver, lead and zinc at our operations in Australia, Southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

Making a difference

Our **purpose** is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources.

Find out how **we make a difference** on page 20 of our Annual Report

Optimise, Unlock, Identify

Our purpose is underpinned by a simple **strategy** which is focused on optimising the performance of our operations, unlocking their potential and identifying new opportunities to create value for all our stakeholders.

Discover more about **Our strategy** on page 10 of our Annual Report

Care, Trust, Togetherness and Excellence

While our strategy outlines what we do to achieve our purpose, our **values** of care, trust, togetherness and excellence guide how we do it. Every day, our values shape the way we behave and the standards we set for ourselves and others.

Discover more about **Our people** on page 27

See the documents that make up the rest of our reporting suite at *https://www.south32.net/ investors-media/investor-centre/ annual-reporting-suite*, including:

Annual Report

Corporate Governance Statement
Our corporate governance practices and a description of our approach to responsible and ethical behaviour.

The photos used throughout our reporting may have been taken before the social distancing requirements in response to COVID-19.

We acknowledge the Indigenous Peoples and local communities of the lands on which South32 is located and where we conduct our business around the world.

We respect and acknowledge the unique cultural and spiritual relationships that Indigenous Peoples and local communities have to the land, waters and seas, and their rich contribution to society.

In the spirit of respect and reconciliation, we will continue to support initiatives that strengthen culture and ways of life to ensure their legacy continues and extends to future generations.

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www.south32.net

DELIVERING ON OUR PURPOSE

I am pleased to present our Sustainable Development Report for FY20. At South32, sustainable development is at the heart of our purpose and forms an integral part of our strategy. We are committed to continually improving our sustainability performance and minimising the impact of our operations.

This year, we have consolidated information about our sustainability approach and performance into one Sustainable Development Report, published alongside our Annual Report. Consolidated reporting aligns the management of our environmental and social risks and opportunities with South32's System of Risk Management and enables us to report on our sustainability performance as an integral part of progress against our strategy.

Throughout this report, we have further aligned our approach with the International Council on Mining and Metals (ICMM) Mining Principles and demonstrated how it is informed by the United Nations Sustainable Development Goals and the United Nations Global Compact Ten Principles. We became a signatory to the United Nations Global Compact in FY20, and we are pleased to include in this report our first Communication on Progress.

It is devastating that this year one of our colleagues went to work and did not return home to their family. Tragically, Duncan Mankhedi Ngoato was fatally injured while working at the Ifalethu colliery in South Africa Energy Coal. Our response included providing support to Mr Ngoato's family, conducting a full investigation in conjunction with his employer Modi Mining and sharing the learnings across our business and with his employer to prevent a similar tragedy occurring again. We remain committed to everyone going home safe and well at the end of every shift - for us, nothing is more important.

Historically we have reported fatalities that occur where South32 has control of the activities or location. This year, we have also disclosed fatalities for contractor activities associated with our operations, but that take place in locations where we do not have control. Very sadly, two people from our contracting companies lost their lives in separate offsite incidents during transport of our product to their shipping ports. These incidents were associated with our Cerro Matoso and South Africa Manganese operations. We offered our support to the contractor companies and their employees and participated in the investigations for both events.

The COVID-19 pandemic has had a profound impact around the globe and on our business. In response, we have focused on keeping our people safe and well, maintaining safe and reliable operations and supporting our communities, all of which are critical to protecting the future of our business.

As we focused on responding to the unique challenges of COVID-19 in the locations where we have a footprint, it proved more challenging to progress some of our improvement activities during the second half of FY20. However, we are pleased to have achieved our goals for many of our sustainability targets and made progress on several initiatives.

Notably, our injury rates continued to reduce year-on-year and the integration of significant hazard reporting in our performance metrics led to an increase in reported hazards. This reporting enables us to eliminate hazards that have the potential for significant injury or fatality before an event can occur.

"Regardless of the headwinds caused by COVID-19, sustainability is integral to our strategy - keeping people safe and well, maintaining safe and reliable operations, and supporting our communities has been critical during this time."

We made progress on our diversity commitments, with year-on-year increases in both the representation of women across our business and the representation of Black People in our South African operations. However, we have more to do and will keep working to achieve continuous improvement against our objectives.

FY20 was the fourth year of working towards our short-term target of keeping FY21 Scope 1 emissions below our FY15 baseline, and we remain on track to meet that target. At the same time, we have progressed decarbonisation studies which are key to helping us achieve our goal of net-zero emissions by 2050. To ensure our work with industry associations is consistent with our climate change objectives, we reviewed the positions of some associations in comparison to our own and will continue to engage in FY21.

Our water stewardship plans were improved this year by re-focusing our water targets and management on the direct needs of their catchments, particularly for Hillside Aluminium and Mozal Aluminium where there are droughts in the region.

Implementation of community investment plans for each operation continues, and in FY20 we developed a framework that will enhance how we measure our impact and consistently improve our approach. We also matured our human rights due diligence activities in our supply chain by improving the breadth and depth of our risk assessments.

Our commitment to the safe management of our tailings storage facilities saw assessments being completed for the majority of our facilities against the Australian National Committee on Large Dams guidelines. We also supported the Global Tailings Review which resulted in the launch of the Global Industry Standard on Tailings Management in August 2020. South32 is proud to have contributed to

this work together with our peers through the ICMM. The Standard represents a significant step forward for the mining and metals industry in safely managing tailings storage facilities. We will progressively integrate the new requirements into our standards and practices.

Looking ahead to FY21 we anticipate COVID-19 will continue to challenge us. However, we will continuously improve how we protect our people, maintain safe and reliable operations and support our communities throughout the health and economic impact of the pandemic. Regardless of the headwinds caused by COVID-19, sustainability is integral to our strategy and we will progress these critical activities to deliver strong health and safety, environment and social performance for our business and our stakeholders for years to come.

Rowena Smith
Chief Sustainability Officer

DIVERSIFIED PORTFOLIO WITH A BIAS TO BASE METALS

AMBLER METALS
Copper, Lead, Gold, Silver & Zinc

FREEGOLD VENTURES
Copper & Gold

VANCOUVER

EMX ROYALTY CORP
Copper & Gold

SILVER BULL RESOURCES
Zinc, Silver, Lead & Copper

HERMOSA
Zinc, Lead & Silver

CERRO MATOSO
Nickel

MINERAÇÃO RIO DO NORTE (MRN)
Bauxite

BRAZIL ALUMINA
Alumina

AUSQUEST
Copper & Gold

MINSUD RESOURCES
Copper, Gold & Molybdenum

- ● Office
- ● Upstream operations
- ● Downstream processing facilities
- ● Divestment or placed on care and maintenance
- ● Development option
- ● Exploration partnership/project
- ● South32 investment

OUR COMMODITIES

We mine metallurgical coal and manganese ore which are used to produce steel and we produce alumina, aluminium, ferronickel, silver, lead and zinc, which have applications in industry, transport and consumer goods. We have operations in Australia, Southern Africa and South America and a geographically diverse customer base.

PORTFOLIO OUTLOOK

We are actively reshaping and improving our portfolio by embedding growth options with a bias to base metals, where we expect to see growth as the world transitions to a lower carbon economy. We are on a pathway to exit our lower returning businesses, including energy coal and manganese alloys, which is expected to improve margins and lift return on invested capital.

ADVENTUS MINING CORPORATION
Zinc, Lead & Silver

LONDON

EAGLE DOWNS
Metallurgical coal

NORTH QUEENSLAND RESOURCES
Copper, Zinc, Lead, Silver & Gold

CANNINGTON
Silver, Lead & Zinc

SINGAPORE

AUSQUEST
Copper & Gold

GEMCO
Manganese ore

SOUTH AFRICA ENERGY COAL
Energy coal

JOHANNESBURG

MOZAL ALUMINIUM
Aluminium

HOTAZEL MANGANESE MINES
Manganese ore

AUSQUEST
Copper & Gold

AUSQUEST
Zinc

METALLOYS
Manganese alloy

HILLSIDE ALUMINIUM
Aluminium

PERTH HEAD OFFICE

WORSLEY ALUMINA
Alumina

TEMCO
Manganese alloy

AUSQUEST
Copper, Lead, Silver & Zinc

ILLAWARRA METALLURGICAL COAL
Metallurgical coal

CREATING LONG-TERM VALUE

As a global mining and metals company, we create value by producing commodities that are used in all aspects of modern life. Our operations and development options are diversified by commodity and geography. We work to minimise the impact of our operations and aim to create enduring social, environmental and economic value.

Our pipeline of development options and early stage exploration partnerships is central to our strategy to further reshape and improve our portfolio and create long-term value.

Our operations focus on safe and reliable production, minimising their impact and continually improving their competitiveness to maximise return on investment.

MINE
Bauxite[1]
Energy coal[2]
Lead
Manganese ore
Metallurgical coal
Nickel ore[1]
Silver
Zinc

REFINE
Alumina

SMELT
Aluminium
Ferronickel
Manganese alloy[2]

Our marketing team generates revenue from the sale of our commodities and purchases raw materials. They also build a view of commodities and their markets that informs our strategy, business planning and investment decisions.

Construction

Transport

Energy

Consumer goods

Our strategy guides how we optimise our business, unlock its full value and identify ways to create value for all stakeholders.

For more information on **Progress against our strategy** in FY20, see page 12 of our Annual Report

(1) We mine and refine bauxite to produce alumina; we mine nickel ore to produce ferronickel.
(2) A binding conditional agreement was signed in FY20 for the sale of South Africa Energy Coal and, subject to a number of material conditions being satisfied, is on-track for completion in H1 FY21. The Metalloys manganese alloy smelter was placed on care and maintenance in July 2020 and a binding conditional agreement was signed for the sale of the Tasmanian Electro Metallurgical Company Pty Ltd manganese alloys smelter in August 2020.

MINE

Manganese ore and metallurgical coal are essential materials to produce steel for construction of buildings and infrastructure. We are the world's largest producer of manganese ore from our operations in Australia and South Africa.

Lead, silver and zinc from our Cannington mine have a range of applications, including batteries, renewable energy generation, construction and consumer electronics.

Energy coal is used for power generation. We primarily supply coal to domestic power stations that are close to our mines in South Africa. We sell some energy coal on the seaborne market[2].

REFINE

Alumina is used to produce aluminium. Worsley Alumina and Brazil Alumina refine bauxite which is used to produce alumina. Approximately 50 per cent of the production from Worsley Alumina is shipped to our aluminium smelters in South Africa and Mozambique and we sell 50 per cent plus our share of production from Brazil Alumina on the seaborne market. Worsley Alumina is one of the world's largest and lowest cost alumina producers.

SMELT

Aluminium has a range of applications including in the automotive sector where it can reduce the carbon footprint of a vehicle. Aluminium is infinitely recyclable and also used in construction and consumer goods like electronics and household items. Hillside Aluminium in South Africa is the largest aluminium smelter in the southern hemisphere.

Ferronickel is used to make stainless steel which is used to produce household items, surgical instruments and vehicle parts. Cerro Matoso mines nickel ore which is smelted in electric arc furnaces to produce ferronickel.

Manganese alloy is used in the production of steel[2].

770
kilograms of metallurgical coal is used to make 1 tonne of steel

7%
of global lead production comes from Cannington

60%
of all zinc consumed goes towards protecting steel from corrosion

Approximately
20%
of the manganese ore seaborne market is supplied by our joint venture

Approximately
65%
of global lead production is used in automotive batteries

More than
66%
of nickel production is used to produce stainless steel

Our strengths, capabilities and key differentiators

We have a strong focus on safety, operational performance, capital discipline and developing future opportunities for our business.

– We focus on safety; stable and predictable performance; and cost competitiveness. We have robust systems and an integrated approach to risk management across the business;

– We are structured for agile decision-making and have an entrepreneurial mindset that allows us to respond quickly to changes in the market; and

– This combination means we are well positioned to identify and pursue future growth options for our business with a bias towards the base metals that will remain essential to people's daily lives for years to come.

We build an inclusive workplace which enables continuous improvement.

– We have a shared purpose and work with integrity and in line with our values; and

– We trust in our teams and there is a strong dialogue with leadership, empowering decision-making at a local level.

We aim to be trusted by our stakeholders because we deliver on our commitments.

– We aim to create value through our social and environmental performance and build relationships based on trust and transparency; and

– Our approach is to engage all stakeholders who have an interest in our business to understand their perspectives and identify ways we can work together and create long-term value.

DEVELOPING NATURAL RESOURCES TO CHANGE LIVES FOR THE BETTER

At South32 we believe that, when done sustainably, the development of natural resources can change people's lives for the better. This is integral to our purpose - to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources.

Our purpose is underpinned by a simple, yet powerful strategy which is focused on optimising the performance of our operations, unlocking their potential and identifying new opportunities. While our strategy outlines what we do to achieve our purpose; our values of care, trust, togetherness and excellence guide how we do it. Every day, our values shape the way we behave and the standards we set for ourselves and others.

We produce commodities that are used in all aspects of modern life. Our minerals and metals are relied upon for infrastructure development, energy generation, consumables and vehicles. We create local jobs, empower and invest in local communities, contribute to economies by paying taxes and royalties, and source goods and services through our global supply chain.

Sustainability is a fundamental element of delivering on our strategy and we expect our joint venture partners, suppliers and contractors to support this. Our approach to sustainability is based on the International Council on Mining and Metals (ICMM) Mining Principles, United Nations Global Compact (UNGC) Ten Principles, the United Nations Sustainable Development Goals (UN SDGs) and our legal requirements. It

also considers our interactions with our people, the environment, communities and society. Our Sustainability Policy affirms our commitment to sustainable development and outlines our commitment to governance and transparency on sustainability matters.

We build on these foundations by applying responsible business practices in our operations and throughout our value chain, to not only minimise and manage impacts on people and the environment, but also to maximise opportunities for our communities and other stakeholders.

The expectations of our stakeholders are continually evolving. Global shifts that impact current and future generations – such as the COVID-19 pandemic, climate change, inequality and water scarcity – require and motivate us to respond in a way that delivers social, environmental and economic value.

This report provides an overview of how our business-wide processes support our sustainability objectives, how we manage our most important sustainability issues and the progress we made during the 2020 financial year.

Governance and integrity

We set high standards of corporate governance and integrity which are aligned with our purpose, values and with ICMM Mining Principle 1 – Ethical Business.

Corporate governance

At South32, good governance is essential to the way we work – not just in what we do, but in how we act, how we communicate and how we evaluate our behaviour. For more details see our Corporate Governance Statement at *www.south32.net*.

Our Board continues to acknowledge the unique relationship connecting resource companies, the communities in which they operate, and the standards and expectations of our company to act lawfully, ethically and responsibly.

Our Board is assisted by the Sustainability Committee and the Risk and Audit Committee to manage the sustainability aspects of their responsibilities, which include health, safety, human rights, environmental and social performance.

Our Sustainability Committee's responsibilities include:

– Reviewing and monitoring the appropriateness of the sustainability management systems and frameworks;

– Reporting to the Risk and Audit Committee on identified material sustainability risks;

– Reviewing and monitoring systems for compliance with applicable sustainability related legal and regulatory compliance and associated performance of the Group;

– Reviewing and endorsing to the Risk and Audit Committee the health, safety, environment and community (HSEC) section of the annual internal audit plan;

– Recommending to the Remuneration Committee key performance indicators for the sustainability component of the annual incentive plan for the Chief Executive Officer and Lead Team and determining the outcome for referral to the Remuneration Committee;

– Reviewing and endorsing the Group's public sustainability targets; and

– Reviewing and approving sustainability reporting and other significant positions and public statements.

At the end of FY20, the Sustainability Committee members were:

– Mr Keith Rumble (Chair);

– Mr Guy Lansdown;

– Dr Xiaoling Liu;

– Mr Wayne Osborn; and

– Ms Karen Wood.

The Risk and Audit Committee's responsibilities include:

– Overseeing corporate reporting processes designed to safeguard the integrity of reporting and facilitate independent verification;

– Reviewing and monitoring related party transactions;

– Monitoring and reviewing the independence and performance of the external auditor;

– Overseeing the effectiveness, independence and objectivity of the internal audit function including the implications of internal audit findings;

– Overseeing management's implementation of the risk management framework in light of the risk appetite set by the Board;

– Recommending to the Remuneration Committee key performance indicators for the risk management component of the annual incentive plan for the Chief Executive Officer and the Lead Team and determining the outcome for referral to the Remuneration Committee;

– Recommending to the Remuneration Committee its assessment of any risk issues that may warrant adjustments to variable remuneration outcomes; and

– Assisting the Board in considering, approving and overseeing matters pertaining to capital structure and allocation, tax, resource and reserve and other significant matters as delegated to the Committee from time to time.

At the end of FY20, the Risk and Audit Committee members were:

– Mr Frank Cooper AO (Chair);

– Mr Guy Lansdown;

– Dr Xiaoling Liu; and

– Dr Ntombifuthi (Futhi) Mtoba.

The Sustainability Committee and Risk and Audit Committee's Terms of Reference can be found at *www.south32.net*.

Our Chief Executive Officer is accountable for the sustainability performance of our business. Working under the supervision of our Chief Executive Officer, our Leadership Team deliver on our strategy in line with our values, our Code of Business Conduct, the risk appetite set by the Board and our Sustainability Policy.

Integrity

Our Code of Business Conduct

Our Code of Business Conduct (Code) sets the standards for our people to act ethically, responsibly and lawfully. It applies to our people (Directors, executive management, employees and contractor staff), our suppliers and our joint venture partners acting on our behalf in a controlled or operated joint venture. A copy of our Code can be found at *www.south32.net*.

We released an updated Code in November 2019 which includes our global Speak Up Policy. During FY20, we also published an Addendum to our global Speak Up Policy to meet new Australian whistleblower protection laws. Our Speak Up Policy outlines the options for reporting a business conduct concern. Anyone can report a business conduct concern, including anonymously via our confidential EthicsPoint reporting hotline. We inform our Risk and Audit Committee and our Board of material business conduct concerns and material breaches of our Code.

Anti-bribery and corruption

Our Code of Business Conduct prohibits fraud, bribery and corruption in any form, and requires compliance with applicable anti-bribery and corruption laws wherever we conduct business. Our standalone Anti-Bribery and Corruption (ABC) Policy was also released with our updated Code in November 2019. We operate a risk-based anti-bribery and corruption (ABC) compliance program across our business which our Chief Executive Officer, Lead Team and Board support.

Details of our compliance program and copies of our ABC and Speak Up policies can be found at *www.south32.net*.

Transparency

We are committed to open and transparent dealings with all our stakeholders. We publish information on our operational, financial and sustainability performance in a timely manner through several communication channels, including media releases, stock exchange announcements, social media, newsletters and community and investor meetings. We respond to stakeholder enquiries and requests for information, where appropriate.

At South32, good governance is essential to the way we work – not just in what we do, but in how we act, how we communicate and how we evaluate our behaviour.

Risk management

Risk management is fundamental to maximising the value of our business and informing its strategic direction. Effective risk management enables us to identify priorities, allocate resources, demonstrate due diligence in discharging legal and regulatory obligations, and meet the standards and expectations of our stakeholders.

Our risk management approach is delivered through our System of Risk Management, which is aligned to the principles of the International Standard for Risk Management AS/NZS ISO31000:2018. It applies to all employees, Directors, contractors and our subsidiaries.

Our risk management approach is governed by our Risk Management Framework, which has been in place since 2015. Our internal material risk management standard defines the minimum mandatory requirements for management of risks that have a material impact on our purpose, strategy and business plans. These risks are regularly assessed and managed at both a company-wide strategic level and at an operational and project level.

Our approach to managing the sustainability aspects of our business-wide strategic risks and our operational-level material sustainability risks are detailed in this report.

With the impact of COVID-19, our current risk management focus is on keeping our people safe and well, maintaining safe and reliable operations, and supporting our communities, all of which are critical to protecting the future of our business.

Sustainability framework

As members of the ICMM and the UNGC, our approach to sustainability is based on ICMM's Mining Principles, the UNGC Ten Principles and informed by the UN SDGs. These are reflected in our Sustainability Policy, our internal standards and our operational procedures. We have mapped the applicability of these frameworks to our sustainability approach throughout this report.

ICMM Mining Principles and Position Statements

The ICMM Mining Principles and Position Statements define good practice environmental, social and governance requirements that support progress towards the global targets of the UN SDGs and the Paris Agreement on climate change. The ICMM Mining Principles and Position Statements are designed to respond to evolving stakeholder expectations of the industry. South32 participates on the ICMM Council and various working groups.

UN Sustainable Development Goals

The UN SDGs are a set of 17 goals and 169 targets adopted by all 193 UN member states in 2015. The SDGs are at the heart of the 2030 Agenda for Sustainable Development. The key to achieving the SDGs is working together with other stakeholders to develop and implement actions that contribute to the SDGs universal social, environmental and economic aspirations.

UN Global Compact

As a signatory to the UNGC, we are committed to the Ten Principles which relate to the four areas of human rights, labour, environment and anti-corruption. These principles are embedded in our approach to sustainability, and our Communication on Progress against these principles is detailed on page 77.

Stakeholders and collaboration

Key related ICMM Principles

Key related SDG

Our stakeholders are integral to the success of South32. The nature of our business means we operate in diverse geographies and markets and have a diverse range of stakeholders with many interests and needs. We work to build positive relationships with our stakeholders in a meaningful and respectful way, guided by ICMM Mining Principles 9 - Social Performance and 10 – Stakeholder Engagement, our Code of Business Conduct and internal standards.

We regularly engage our stakeholders and receive information that helps us to manage risk, continuously improve and inputs to our annual sustainability materiality assessment. It also helps us to increase engagement among our people, communicate our positions on relevant issues, maintain our licence to operate and create enduring social, environmental and economic value. Our stakeholder groups include:

– Business partners;
– Community-based organisations;
– Customers;
– Governments and regulators;
– Industry peers and associations;
– Investment community;
– Labour unions;
– Local and Indigenous communities;
– Media;
– Non-government organisations;
– Our employees and contractors;
– Civil society partners; and
– Suppliers.

The way we engage with our stakeholders on a range of topics and issues is detailed on page 69.

The sustainability issues facing our industry can be complex and multi-faceted. Our approach to sustainability is supported by membership of industry associations, which provide opportunities to understand, learn and contribute to industry best practice, and influence matters affecting our business.

The size and scope of the industry associations vary considerably, representing interests at international, national, provincial and local levels. For us, they include mining industry and commodity associations, business groups, think tanks, bilateral councils, networking and research groups.

We acknowledge the significant interest from investors and other stakeholders in these memberships. Our Approach to Industry Associations document provides an overview of our industry association memberships, our approach to participation and how we manage our memberships. It is available at *www.south32.net*.

Materiality

We conduct a materiality analysis each year to ensure a current understanding of the sustainability issues that matter most to our business and our stakeholders. We use the results of this process to review our sustainability approach, and to inform the focus and structure of the issues for our annual sustainability reporting.

The most significant material issues identified through our FY20 analysis are described in Table 2.1. The Global Reporting Initiative (GRI) content index on page 78 includes our responses to the GRI Standards for general and topic-specific disclosures, and GRI Mining and Metals sector supplement indicators, where we have determined the issues to be material to South32.

Table 2.1 FY20 material issues

Material issue[1]	Description	Report reference
Employee health and safety	The health, safety and wellbeing of our employees is fundamental to our business. Stakeholders expect consistent performance and the disclosure of any exceptions. Keeping our people safe and well has been a core focus as we respond to the COVID-19 pandemic.	Staying safe and well (page 31)
Biodiversity and land	There is an increasing expectation in society for companies to commit to 'no net loss' of biodiversity and improve land management practices to address biodiversity loss globally.	Land and biodiversity (page 48)
Business continuity	The COVID-19 pandemic has focused the attention of our business and our stakeholders on business continuity as we implement crisis management plans and respond to market volatility. Maintaining safe and reliable operations has been a core focus during our COVID-19 response.	Our response to the COVID-19 pandemic (page 24)
Climate change	There is growing stakeholder awareness of both the energy intensity of mining and metals production, and the opportunities to contribute to low-carbon economies with a focus on emissions reductions.	Climate change (page 34)
Community relationships, health, safety and development	Our relationships with local communities are essential to our licence to operate. Communities want to benefit from our activities and expect that we are managing the risks and impacts associated with our activities. Supporting our communities has been core to our response to COVID-19.	Working with communities (page 56)
Economic contributions	Our economic contribution is directly linked to our licence to operate and the value we contribute to our local communities and society.	Economic contribution (page 20)
Ethics and business integrity	Our stakeholders expect us to maintain sound governance and transparency of our activities. There is increasing focus from external stakeholders on environmental, social and governance matters.	Governance and integrity (page 10)
Engaged workforce	Our people are fundamental to our success. Our focus on building an inclusive workforce is supported by inclusion and diversity, talent acquisition, retention and wellbeing approaches.	Our people (page 27)
Human rights	New and emerging legislation, particularly around modern slavery, looks to increase disclosure of how human rights risks are measured and monitored across our business and supply chain.	Human rights (page 22)
Operational environment	Governments, communities and investors continue to expect good environmental performance, including how we manage effluents, waste and emissions at our operations to meet compliance obligations and maintain our licence to operate.	Environmental stewardship (page 47)
Responsible supply chain	There is growing societal interest in the sustainability risks, impacts and opportunities across our full value chain.	Responsible value chain (page 21)
Tailings management	Communities and other stakeholders remain concerned about failure risk and seek assurance that our management of tailings storage facilities is effective. Global industry focus on tailings management is growing through the development of a new international standard for safe tailings management.	Tailings (page 64)
Technology and innovation	Advances in technology and innovation influence future mining strategies, including the way we explore, operate and close our operations. This also links to our recruitment and retention of talented employees, who are attracted to companies that adopt technology and innovation to create value.	Annual Report (page 15)
Water stewardship	The protection and security of water supply and quality is an ongoing concern for stakeholders. In the mining industry, there is a strong stakeholder focus on mining impacts in water stressed areas. Climate change will have direct consequences for water security.	Water (page 50)

(1) In accordance with the GRI Standards, the boundary for each material topic has been identified. The boundary describes where the material topic impacts South32's business and stakeholders.
For the purpose of this report, South32 refers to material topics as 'issues'. In FY20, the boundary for our material issues is both internal and external to South32. Internal boundary includes business partners, employees, contractors and the investment community. External boundary includes community-based organisations, customers, governments and regulators, industry peers and associations, labour unions, media, non-government organisations, civil society partners and suppliers.

Performance

We set company-wide and operational-level targets focused on our key performance areas of health, safety, environment and community. These are aligned with ICMM Mining Principles 5 (Health and Safety), 6 (Environmental Performance) and 9 (Social Performance). We track our performance against these targets using key performance indicators, which are endorsed by the Sustainability Committee and form part of our Business Scorecard each year.

The indicators are monitored and reported to the Sustainability Committee on a quarterly basis to assess progress. The Sustainability Committee determines and reports the outcome of its evaluation of the sustainability component of the annual Business Scorecard to the Renumeration Committee. The Business Scorecard outcome, together with individual outcomes, determines the short-term incentive payment to our Chief Executive Officer and Lead Team.

We review and revise our targets and their indicators every year, informed by our continuous improvement objectives, performance in the previous year, strategic and material risk profile, regulation, ICMM Mining Principles, stakeholder expectations and benchmarking.

Our sustainability targets and performance in FY20 are listed in Table 2.2. Further detail on our remuneration approach and FY20 outcomes can be found on page 66 of our Annual Report. Our actions to maintain or improve performance in these areas is described throughout this report.

One of our FY20 targets was to complete the first draft of our social performance framework and a plan for its implementation. While we did complete the first draft of our framework and conducted a review at our Groote Eylandt Mining Company (GEMCO) operation to test and refine it, its completion and implementation was put on hold during FY20 due to COVID-19. The work will be assessed in FY21 to determine the forward plan.

Table 2.2 Our FY20 targets and progress made during the year

Our FY20 targets	FY20 progress
Health and safety	
A 15 per cent reduction in Total Recordable Injury Frequency (TRIF) compared to FY19.	We are deeply saddened by the loss of one of our colleagues following an accident at South Africa Energy Coal.
	We reduced our TRIF to 4.2 during FY20, a reduction of nine per cent compared to FY19. This continues our trend of improved year-on-year TRIF performance since FY17 but it did not meet our FY20 target of a 15 per cent reduction year-on-year.
A 1:3 ratio of significant hazards identified to significant events, which encourages the reporting of hazards.	In FY20, our hazard reporting improved, exceeding our target. We achieved a 1:4 ratio of significant hazards identified to significant events.
A 10 per cent reduction in potential material occupational exposures from the FY19 baseline, plus plans in place to reduce the number of workers exposed above the Occupational Exposure Limit (OEL) by a further 10 per cent in FY21.	In FY20, while we achieved OEL reductions at Hillside Aluminium, our indicator of potential material exposures >100 per cent of the OEL increased overall. This was due to re-baselining of potential material exposures at Khutala and Worsley Alumina following a review of hygiene management practices. Exposure reduction measures were implemented as planned at Cerro Matoso and Wessels; however, their resulting exposure reduction could not be confirmed due to COVID-19 activity restrictions.
	Plans have been developed to reduce potential exposures in FY21, with projects identified at Cerro Matoso, Hillside and Mozal.
People	
Meet our measurable objectives to increase representation of employees and leaders who are women.	Overall representation of women increased by one per cent across our business year-on-year to 19 per cent.
	Representation of women on our Board was 37.5 per cent and in our Lead Team was 44 per cent, consistent with our target.
	Representation of women in our Senior Leadership Team remained stable at 36 per cent, below our target of 40 per cent.
	Representation of women in our Operational Leadership Teams remained stable at 18 per cent, under our target of 20 per cent.
Meet our measurable objectives for representation of Black People[1] in our South African workforce and leadership.	Representation of Black People in our workforce and management in South Africa is 83 per cent and did not meet our target, but increased by one per cent compared to FY19.
	Overall, 92 per cent of new hires were Black People.
A two per cent increase in employee engagement against the FY19 baseline.	We conducted our annual survey to measure employee engagement, however it was impacted by the COVID-19 response, and analysis of the findings was delayed and simplified. The overall results indicate that engagement has remained stable at 60 per cent, which did not meet our target of a two per cent increase against the FY19 baseline.

(1) As defined in the *Broad-Based Black Economic Empowerment Amendment Act 2013* (South Africa).

Table 2.2 Our FY20 targets and progress made during the year continued

Our FY20 targets	FY20 progress
Environment	
Achieve Scope 1 and 2 emissions at or below the 24,672kt CO_2-e forecast.	In FY20, our Scope 1 and 2 emissions were 23,250kt of CO_2-e, six per cent below target.
Remain on track to meet our FY21 greenhouse gas emissions target to hold our Scope 1 emissions at or below our FY15 baseline in FY21.	We are on track to hold our Scope 1 emissions at or below our FY15 levels in FY21.
Progress decarbonisation prefeasibility studies at Worsley Alumina and Illawarra Metallurgical Coal.	We progressed our decarbonisation prefeasibility studies at Worsley Alumina and Illawarra Metallurgical Coal, where we are targeting substantial reductions in our Scope 1 emissions.
Community	
Develop a three-year plan for strategic community investment.	We developed a three-year strategic investment plan; however, with the emergence of COVID-19 in the second half of FY20, we put some of these activities on hold and reallocated the funding to support our communities through the pandemic.
Implement Community Investment Plans for each operation and collect data to report positive social impact.	We continued to implement community investment plans at all operations and invested US$24.5 million in community initiatives and activities during FY20. This included US$7 million pledged to support our communities' response to the COVID-19 pandemic. During FY20 we developed a community investment impact measurement framework to measure the impact of our investments across the areas of education, economic participation, health and social wellbeing and natural resource resilience.

In FY20 we were recognised and awarded for our sustainability performance. Key highlights included:

– Illawarra Metallurgical Coal was named Mining Operation of the Year at the New South Wales Minerals Council's 2020 NSW Mining Industry and Suppliers Awards. This was in recognition of business focus on operational excellence, meaningful contributions to local communities and ensuring its future is sustainable;

– Our pursuit of inclusion and diversity across our Australian operations was recognised by the 2019 Women in Resources National Awards, which celebrates the contribution women make to the resources industry and their work to improve gender diversity and inclusiveness in mining. GEMCO's rehabilitation team won the Excellence in Diversity Programs and Performance award for its gender diversity program. Finalists from GEMCO, Tasmanian Electro Metallurgical Company (TEMCO) and Cannington were also recognised for their contributions across other award categories;

– Our flexible family care options made the Top 10 companies in a list of the best workplaces in Australia for new dads. The list was compiled by insurer HBF's website Direct Advice for Dads and compared the paid leave policies for primary and secondary carers offered by Australia's largest revenue-producing companies;

– Our graduate program was recognised with a ranking in the GradConnection Top 100 list. The list was compiled using the number of unique student and graduate applications. We were also ranked by GradConnection as one of the Top 10 Most Popular Engineering and Resources Employers; and

– Our participation in the 2019 Dow Jones Sustainability Indices (DJSI) assessment resulted in South32 being selected as an index component of the DJSI, specifically the DJSI Asia Pacific and DJSI Australia.

MEMBER OF

Dow Jones Sustainability Indices

In collaboration with ⬤SAM
a RobecoSAM brand

Reporting

Aligned with our Code of Business Conduct and ICMM Mining Principle 1 – Ethical Business, we are committed to transparent and accountable reporting on our sustainability performance to our stakeholders. We encourage and welcome feedback, which supports our efforts to continually improve.

We prepare our annual Sustainable Development Report in accordance with the GRI Sustainability Reporting Standards (Core option) and the GRI Mining and Metals Sector Supplement. Through this framework, we demonstrate how we address the ICMM Mining Principles and Position Statements, and the UN SDGs.

In line with our ICMM membership requirements and transparency commitments, each year we complete site-level validation of our alignment with the ICMM Principles and Position Statements, and independent assurance of our sustainability approach and data. Read our FY20 Independent Assurance Report on page 90.

In line with our membership to the UNGC, this is our first year of issuing our annual Communication of Progress (COP) which is integrated in this report. Refer to the UNGC COP index on page 77.

We report our approach to climate change in line with the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations, which aim to ensure climate-related financial disclosures are consistent, comparable, reliable, clear and efficient, and provide decision-useful information to lenders, insurers and investors.

We issue an annual Modern Slavery Statement in accordance with the Australian *Modern Slavery Act 2018* (Cth) and as a voluntary statement under the United Kingdom's *Modern Slavery Act 2015*. All published statements can be found at *www.south32.net*.

We participate in external third party performance benchmarking initiatives and sustainability related assessments, including environment, social and governance (ESG) ratings agencies, proxy advisor questionnaires and data collection tools. In participating in these assessments, we seek those that are the most informative regarding our sustainability approach and performance in comparison to our peers, and those that are broadly recognised by our stakeholders. We use the results of these assessments to inform our planning for continuous improvement.

During FY20, we responded to or participated in:

– FTSE Russell;

– ISS Governance, Environmental & Social Disclosure QualityScore;

– MSCI;

– S&P Global;

– Sustainalytics;

– Transition Pathway Initiative;

– Vigeo Eiris; and

– Workforce Disclosure Initiative.

This year, we also continued to respond to individual requests for information on our sustainability approach and performance from investors and customers.

The quality of our corporate reporting is assessed by third-party organisations, such as the Australian Council of Superannuation Investors (ASCI). South32 has been included in the ACSI ASX200 composition for corporate reporting on ESG disclosures since 2016. The most current ASCI assessment rated South32's sustainability reporting as sector 'Leading'. We apply the outcomes of these assessments to inform our planning for continuous improvement in our reporting.
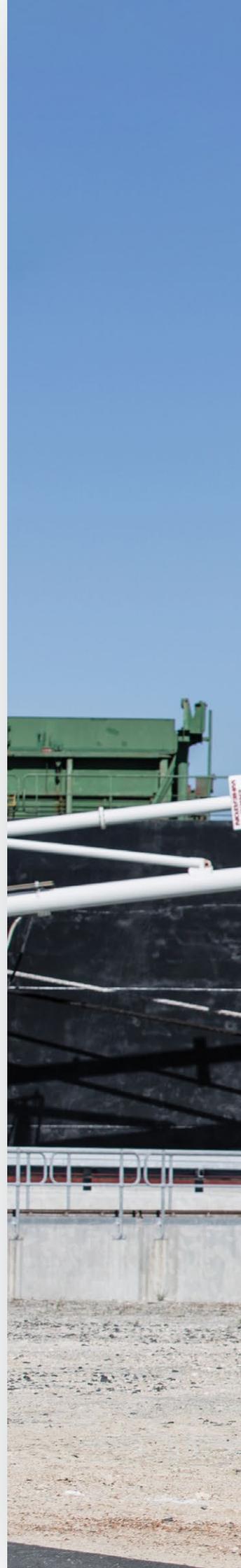
Working with integrity

DELIVERING ON OUR COMMITMENTS

Economic contribution

Key related ICMM Principle

1 ETHICAL BUSINESS

Key related UN SDGs

10 REDUCED INEQUALITIES

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Key related UNGC Principles

HUMAN RIGHTS

ANTI-CORRUPTION

We contribute to the sustainable development of the countries and communities where we operate. Economic benefits generated by our activities include payment of taxes and royalties to local and national governments, paying dividends to shareholders and wages to employees, developing our people and our local suppliers, investment in infrastructure, payments to suppliers and investment in community programs.

OUR APPROACH AND PERFORMANCE

We support initiatives that require companies to publicly share information on payments made to governments and communities, and governments to publicly disclose contracts and licences for the exploitation of minerals and other natural resources.

Our approach is aligned with the ICMM Position Statement on Mineral Revenues and the Extractive Industries Transparency Initiative (EITI), which promotes open and accountable management of mineral resource wealth. Each year, we publish an annual Tax Transparency and Payments to Governments Report, which outlines our approach to tax governance and dealing with tax authorities, details our tax payments to governments by country and by project, and discloses tax expense and international related party dealings on a country-by-country basis. The report also details our contracts for resource development.

In FY20, we paid US$751 million to governments in taxes and royalties and US$24.5 million in community investments.

We source goods and services within our local communities where possible and set targets at many of our operations for local spend, with consideration for government objectives and legislative requirements.

Read more about **our economic contribution** in our Annual Report

Payment of taxes and royalties

US$751m

Community investment

US$24.5m

Responsible value chain

Key related ICMM Principles

2 DECISION-MAKING

8 RESPONSIBLE PRODUCTION

Key related UN SDGs

8 DECENT WORK AND ECONOMIC GROWTH

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Key related UNGC Principles

HUMAN RIGHTS

LABOUR

ENVIRONMENT

ANTI-CORRUPTION
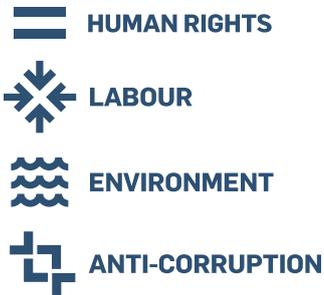
We work with our customers and suppliers to achieve responsible sourcing and product stewardship across our value chain. Our value chain comprises 6,775 direct suppliers in 55 countries and over 300 customers in 41 countries.

We build strong partnerships with our suppliers and customers that are mutually beneficial and aim to work with businesses whose values and standards align with ours.

OUR APPROACH AND PERFORMANCE

Our approach to responsible sourcing across our supply chain is focused on working with our suppliers to minimise health, safety, environmental, human rights and other social risks. Our expectations are outlined in our Code of Business Conduct, Sustainability Policy and our Sustainability and Business Conduct Supplier Requirements. We conduct risk assessments on our suppliers, build the capability of our teams and suppliers to align with our standards, and track the effectiveness of our work. Our approach to respecting human rights within our supply chain, together with our FY20 progress, is detailed in our annual Modern Slavery Statement.

Our approach to the stewardship of our minerals and metals products is based on best practice safe handling, transport and use. It is guided by ICMM Principle 8 – Responsible Production and advice from industry bodies, including the Nickel Institute, the International Manganese Institute, the International Lead Institute, the International Zinc Institute, the International Aluminium Institute, and the Australian Coal Industry Research Program (ACARP).

In FY20, we conducted a review of the risks posed by the bulk shipping of our products against the United Nations (UN) and International Maritime Organisation (IMO) criteria on safe shipping. This review confirmed that the controls we have in place, and the advice we provide to our supply chain partners and customers, are aligned with the UN and IMO criteria.

Also in FY20, in preparation for the United Kingdom (UK) leaving the European Union, and to ensure ongoing access to the European market for our products, we transitioned our 'representative' registration under the European REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) regulations from our UK entity to a reputable external provider of product stewardship services based in Germany.

Diagram 3.1 Our value chain
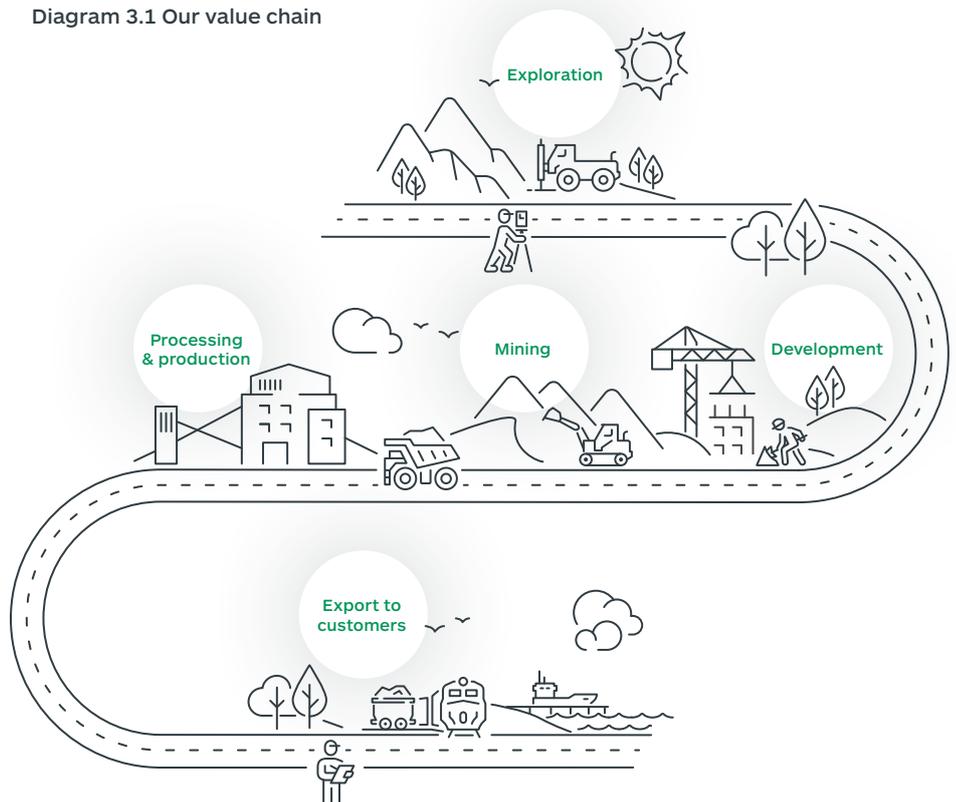
Exploration

Processing & production

Mining

Development

Export to customers

Respecting human rights

3 HUMAN RIGHTS

3 GOOD HEALTH AND WELL-BEING

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

8 DECENT WORK AND ECONOMIC GROWTH

13 CLIMATE ACTION

HUMAN RIGHTS

LABOUR

We promote and respect the human rights of our employees, communities, customers, suppliers and contractors. This is critical to the integrity and success of our business and our long-term business partners.

We know we can improve respect for human rights everywhere we work, including through what we procure or sell within our value chains. Today, our human rights risks are most likely to be related to:

– Workplace health, safety and labour conditions, including freedom from slavery, rights to freedom of association and collective bargaining;

– Equality and non-discrimination, including gender equality, diversity and inclusion and transformation in South Africa;

– Water and sanitation;

– Freedom of movement;

– Security services;

– Land use and access rights; and

– Communities that live near our operations, including Indigenous Peoples.

OUR APPROACH AND PERFORMANCE

Our approach to respecting human rights is guided by internationally recognised human rights principles consistent with the Universal Declaration of Human Rights, ICMM Mining Principle 3 – Human Rights and principles one and two of the UNGC. It is also aligned to our commitments to the Voluntary Principles on Security and Human Rights (VPSHR), and United Nations Guiding Principles on Business and Human Rights (UNGPs). This report and the index on page 77 summarise our progress against the UNGC's Ten Principles and forms our first annual Communication on Progress since joining the UNGC in 2019.

Our approach focuses on identifying and managing human rights risks that would have the most severe impact on our employees, contractors, communities and workers in our supply chain. We invest in community programs wherever we operate and develop local suppliers to improve capability and respect for human rights. Our commitments are incorporated within our Code of Business Conduct, our Sustainability Policy, standards and guidelines, and applied across our business to clearly articulate our expectations of our employees, contractors, suppliers and business partners. Read more about our FY20 performance on respecting human rights in workplace health and safety on page 31, in labour conditions on page 27, inclusion and diversity on page 27, transformation in South Africa on page 61, respecting rights to water on page 50, land use and access rights on pages 50 and 68, and working with our communities including Indigenous Peoples on page 60.

Ensuring we have safe and easily accessible grievance mechanisms is an important part of identifying and managing our risks. Our global Speak Up Policy is available at *www.south32.net* in multiple languages and is for our employees and their relatives, our suppliers, customers, community members, shareholders and anyone else who deals with South32 to raise concerns about our business conduct, including in relation to a human rights violation.

We conduct human rights due diligence across our supply chain, which includes regular risk assessments, training and awareness raising, building capability, remediation and tracking the effectiveness of our approach. In FY20, we improved the depth and breadth of our risk assessments by conducting 400 desktop assessments on higher risk suppliers and independent audits on 11 entities, including sub-suppliers.

We regularly assess the human rights impacts of our operations on our local communities. All our operations and projects have current human rights assessments in place. During FY20 we conducted new human rights impact and risk assessments for our Eagle Downs and Hermosa projects. This year we also completed rapid risk reviews of VPSHR compliance across our higher risk operations. The reviews highlighted areas for improvement against the VPSHR, including training and capability building, maturing our reporting procedures and incorporating our material risks into our Global360 risk management system. We have updated our VPSHR training module which will be released in FY21, and we are working with operations to address the other improvements.

Read more about **our approach and progress**

on managing human rights and modern slavery risks

in our Modern Slavery Statement

To build awareness of human rights across our offices and operations, in FY20 we held events tailored to our local contexts to acknowledge and celebrate international Human Rights Day (10 December) and Human Rights Day in South Africa (21 March). In FY20, we delivered modern slavery and human rights training to 1,242 employees who have regular touch points with human rights risks and trained 34 suppliers on modern slavery risks.

We are committed to effective stakeholder engagement and collaboration to leverage and share learnings regarding human rights. We participate in the ICMM Security and Human Rights Working Group, the Sustainable Shipping Initiative Human Rights Working Group and the Global Compact Network of Australia. We convened and led a resources industry collaborative group to address risks of modern slavery. We also contribute to external forums, such as the UN Business and Human Rights Forum, to support human rights policy and regulatory development. We have an ongoing collaborative relationship with the Minderoo Foundation (Walk Free Initiative), a global organisation with a mission to end modern slavery.

Employees that received modern slavery training

1,242

Desktop assessments conducted on higher risk suppliers

400

Respecting human rights is critical to the integrity and success of our business.

OUR RESPONSE TO THE COVID-19 PANDEMIC

The COVID-19 pandemic had a significant impact on our business in the second half of FY20.

We began monitoring the situation in January 2020 and implemented measures at that time to protect our people and to play our part in managing the spread of the virus. Over the coming weeks and months, we closely followed the advice of the World Health Organization, governments and our own experts. We took decisive action as the virus spread around the world, implementing business continuity plans, revising travel guidance and providing information for our employees. As the situation escalated, we established incident management teams for all our locations and an emergency management team in our corporate office to oversee the crisis response.

In March 2020, we saw significant government action to control the spread of the virus in every location where we

have a footprint. These actions included national lockdowns and the implementation of border controls that required us to rapidly adapt to the new environment. We responded with several actions focused on three areas:

– Keeping our people safe and well;
– Maintaining safe and reliable operations; and
– Supporting our communities.

All these areas are critical to protecting the future of our business, and we stopped or deferred any work that was not business-critical to allow our people to focus on the COVID-19 response and the work that matters most.

Where government measures required us to place operations into temporary care and maintenance, we ceased production in a safe manner and subsequently ramped up again progressively when necessary controls had been implemented and we were permitted to do so.

At all our sites, we developed and implemented appropriate critical controls designed to minimise the risk of potential exposure to COVID-19 and protect our employees and contractors. This has included implementing new ways of working, adapting shift patterns and ensuring social distancing measures are in place at site.

We introduced a self-surveillance app for employees and contractors to complete before coming to site and pre-shift

temperature checks at every operation and office. Employees are only allowed on-site if they pass the screening.

In South Africa, we have testing facilities and can accommodate employees who need to self-isolate but cannot do so at home. For example, at South Africa Energy Coal we partnered with local mining companies to establish an isolation facility in Emalahleni for employees and contractors who test positive for COVID-19.

We continue to closely follow all applicable guidelines from the South African Government. This includes the provision of safe transport for employees to and from operations with additional hygiene measures associated with vehicle use, such as extra cleaning between use, the availability of sanitiser and reduced capacity to allow for social distancing.

As well as acting to minimise the spread of the virus, we recognised the potential impact of the pandemic on the mental health and wellbeing of our people. For more information on supporting our people, see page 30.

We identified potential risks for our communities related to COVID-19, both from a health perspective but also access to essential supplies and the associated economic impact. Through the South32 Global Community Investment Fund, we pledged US$7 million to the areas that need it most. Our COVID-19 community investment plans cover prevention, preparedness, response and recovery. Our support has included provision of water, essential hygiene and medical supplies,

public health awareness and education campaigns, building capacity in local health care systems and supporting those who are unable to access critical goods and services. For more information, see page 58.

At the end of FY20, we were still seeing the emergence of hotspots which are a reminder that COVID-19 will continue to impact us and we cannot afford to be complacent. Our priority is always to keep our people safe and well. We will continue to assess the measures we have in place and address any opportunities for improvement while closely following the advice of governments and local authorities wherever we have a presence.

THE FOUNDATION OF OUR SUCCESS

Key related ICMM Principle

Key related UN SDGs

Key related UNGC Principles

HUMAN RIGHTS

LABOUR

Our people are the foundation of our success. A key part of our strategy to unlock the full value of our business includes engaging and connecting our people to our purpose.

Our values guide the way we work together, the standards that we set and how we hold each other to account. Together, we aim to create an inclusive workplace where our people are empowered to be the best they can be, contributing to exceptional business performance and sustainable outcomes. We want to see our employees not just perform but thrive, and our focus on their wellbeing doesn't begin and end in our place of work.

We have over 14,500 employees across 19 operations and offices in nine countries. Read more about our global footprint in our Annual Report.

OUR APPROACH AND PERFORMANCE

Our people strategy takes a global view, supported by local employees in the countries where we operate. We attract, retain and develop people who want to make a difference through their work. We are proud to be an employer that offers rich opportunities and global development and a work environment where our people can lead change and see the impact of their work every day. Our approach has been recognised by awards which are outlined on page 17.

We are guided by our Code of Business Conduct and our values, and external standards such as the International Labour Organisation's Declaration of Fundamental Principles and Rights at Work, the UN SDG on Gender Equality and ICMM Mining Principle 3 – Human Rights. This year, we redesigned the fundamentals of our people management approach. We have renewed our people mandate, better defined responsibilities, performed a global review of our key policies, procedures and documentation, and built new ways to collaborate and communicate.

Our approach is built around the following areas: inclusion and diversity, capability and development, talent, planning for our future workforce, employee engagement and employee relations.

INCLUSION AND DIVERSITY

We are committed to achieving a truly inclusive and diverse workplace. Our Inclusion and Diversity Policy defines diversity in the broadest possible sense and is supported by our Inclusion and Diversity Framework. We know that to unlock the value of diversity, we must build inclusion as a priority and our Framework is based on three key pillars:

- Build an inclusive workplace;
- Build the future pool of diverse talent; and
- Hire and develop diverse talent.

Ultimately, we seek to create a workforce that reflects the communities where we operate, rich in diversity of thought, and where everyone's contribution is valued, celebrated and rewarded. We recognise and value all aspects of diversity and have long-term ambitions for our workforce to represent the countries and communities where we work. We focus our efforts on those areas where we can deliver significant positive change relevant to the local context. This means increasing the representation of women across our business, and in South Africa increasing the representation of Black People. These commitments are set out in detail in our inclusion and diversity measurable objectives, which our Board reviews and approves annually.

In FY20, our objectives were to:

- Demonstrate year-on-year improvement in the representation of women employees by targeting gender balanced recruitment and voluntary turnover;
- Maintain the representation of women on our Board and South32 Lead Team at greater than 30 per cent and 40 per cent respectively;
- Improve the representation of women in leadership teams, targeting 40 per cent of the Senior Leadership Team and 20 per cent of the Operational Leadership Team by the end of FY20;
- Continue to support and improve employment equity as guided and measured by applicable legislation; and
- Continue to work towards employee pay equity, across gender and ethnicity.

27

We made progress against several of our diversity commitments in FY20. Representation of women continued to increase year-on-year, we achieved our Board and Lead Team targets, and representation of women in our Operational Leadership Teams has remained stable. While we did not achieve our targets for representation of women in our Senior or Operational Leadership Teams, this will be a focus area for FY21.

We achieved gender-balanced recruitment of women in development roles and scholarships, with 45 per cent awarded to women. Overall, 34 per cent of new hires were women (an increase of three per cent from FY19) and in South Africa, 92 per cent of new hires were Black People (an increase of nine per cent from FY19). Refer to page 61 for further information about our progress under the *Broad-Based Black Economic Empowerment* (B-BBEE) Act and the Mining Charter 2018.

Table 4.1 South32 workforce diversity performance

		Stated target		Progress	
Measurable objectives		Target	Target date	FY20	FY19
Improve representation of women in total workforce	Total employees	Year-on-Year improvement		**19%**	18%
Improve representation of women in leadership teams	South32 Board	30%	30 June 2020	**37.5%**	38%
	South32 Lead Team	30%	30 June 2020	**44%**	40%
	Senior Leadership Team[1]	40%	30 June 2020	**36%**	37%
	Operational Leadership Teams[2]	20%	30 June 2020	**18%**	18%
Improve representation of Black People in South Africa	Management roles[3]	70%	30 June 2020	**55%**	49%
	Total employees	85%	30 June 2020	**83%**	82%
Achieve gender pay equity	Funds allocated to address gender and ethnicity pay equity			**US$83,649**	US$63,500

(1) The Senior Leadership Team are our leaders who report directly to the South32 Lead Team.
(2) The Operational Leadership Team includes Managers and General Managers who report to the Vice President Operations or General Managers at an operation.
(3) Management roles are leaders with an identified job grading, based on the requirements of their role and salary rate, of 13 or higher.

We focus on pay equity by gender and ethnicity through global audits of reward levels across our business, with the results reported to our Board annually. Since 2017, we've been a Workplace Gender Equality Agency Pay Equity Ambassador, helping to create change in pay equity and gender equality.

Between FY17 and FY19 we allocated US$2.863 million to address pay equity. Following our annual diversity audit in FY20, we paid a further US$83,649.

In FY20, 73 undergraduates and 44 graduates joined our business through our vacation and graduate programs. We hosted 170 trainees and 66 apprentices at nine of our operations – 49 per cent were women. We recruited an additional 226 learners[4] in South Africa, with 40 ability-impaired learners at our Hillside operation. We granted 380 new scholarships around the world, 250 of which were granted to women.

In FY20, our Hermosa project supported an after-school technology program for Latina girls in Santa Cruz County middle school, Arizona, to promote careers in science, technology, engineering and mathematics (STEM). The program aims to encourage interest in computer programming, coding and robotics by the time the girls reach high school.

To support our ongoing inclusion and diversity efforts, this year we launched an inclusion and diversity toolkit which is available to employees and contractors. The toolkit explains the value of inclusion and diversity, why it's important and how it improves wellbeing and the workplace for everyone. It explains unconscious bias and includes access to online unconscious bias testing. The supporting content aims to de-mystify inclusion and diversity, to make it an approachable topic for all our people.

CAPABILITY AND DEVELOPMENT
We promote a lifelong approach to learning, encouraging our people to drive their own professional development pathways. In turn, we offer opportunities to grow across our business, supported by our performance, development and talent management processes.

Each year, our employees set performance and development goals to improve effectiveness in their current roles, and to guide their future career progression. We communicate our strategy and business plans to enable our employees to set individual goals aligned to our priorities. Our performance and reward systems are linked, so our people understand the relationship between their contributions, the performance of the business, and their recognition and reward.

All employees have access to LinkedIn Learning, an online training platform providing access to skills development through over 7,000 self-paced courses. We aim to provide a consistent approach to training through our SuccessFactors Learning Management System (LMS), which our global training team oversees. Our training programs offered through LMS develop the skills and competency of our people in sustainability, leadership and compliance. We have launched a new global onboarding procedure and support tools, designed to support leaders and new starters from their first interaction with our business.

In FY20, we concluded the Leadership Capability Program (LCP), completing a three and a half year journey to build insights and targeted development plans for our 1,320 leaders. The core tools from this program have since been made available to all employees. Based on insights from the LCP, we commenced work on the Leadership Fundamentals Program, a globally aligned but locally tailored leadership program for our frontline leaders which will be rolled out from FY21.

(4) Learners refers to learnership, which is an experiential workplace learning linked to an occupation which is assessed by a statutory body and forms part of a nationally recognised qualification in South Africa.

TALENT

Our ability to identify, attract, support and retain talented people is fundamental to delivering our business strategy. We take a broad view of talent, development and training to build technical, operational and functional skillsets as well as leadership capability.

Our talent management process aims to:

– Promote the movement of key talent within the organisation;

– Align those people with challenging work; and

– Maximise value and to identify and develop internal successors for critical roles within South32.

Our Senior Leadership meet regularly to hold talent discussions to enable collaboration of our people across the business. This enables us to share key open roles, profile employees who would benefit from further development opportunities, and identify gaps to close in our talent pipeline.

We have a range of programs in place to build our global talent pipeline including graduate programs, traineeships and scholarships. We also work externally to build the mining industry's future talent pipeline. We work with governments, education providers and our communities to demonstrate the value of a career in STEM within mining. Every year we provide opportunities for primary and high school students to learn and develop skills in STEM, and to encourage girls to consider mining careers.

In South Africa, we sponsor the National Science and Technology Forum's annual awards which recognise outstanding contributions to STEM and innovation.

In Australia, we sponsor the Inspiring Girls Careers Forum which aims to increase awareness of the range of diverse career pathways available in the resources sector, promote the benefits and opportunities available and build partnerships between industry and school communities. We also granted three South32 David Crawford engineering scholarships, providing financial and work experience support for undergraduate and postgraduate engineering students.

EMPLOYEE ENGAGEMENT

We know that engaged people strengthen our performance and contribute to the long-term success of our business. By promoting honest and transparent dialogue, we continuously learn and develop. As part of this, we conduct global employee surveys annually to understand what's working well and what can be improved in our workplace.

In FY20, we conducted our annual survey which focused on health and safety, leadership, engagement and our employees' experience at work.

Analysis and release of results was delayed and simplified this year to enable our people to focus on the COVID-19 pandemic response and business critical activities. The overall results indicate that engagement has remained stable at 60 per cent. Participants reported a positive overall employee experience (an increase of one per cent to 62 per cent) and an increase in perceptions of leadership capability (by two per cent to 71 per cent). Employees responded favourably to safety questions, with 86 per cent agreeing that 'In my team, safety issues are raised and acted upon' and 80 per cent agreeing that 'At South32, people will always stop work if conditions are unsafe'. We surveyed our people about their health perceptions for the first time and recorded a positive perception, with 78 per cent agreeing that 'fitness for work issues are raised and acted upon'.

EMPLOYEE RELATIONS

Our approach to employee relations is set out in our principles-based global employee relations framework, which is embedded in each operation and function.

We hold our people to a high standard and expect them to treat everyone fairly, with respect and care. We're committed to providing a work environment free from harassment or any form of discrimination, where everyone is encouraged and supported to speak up when our values and standards are not being followed. Our principles include respect for our people's right to freedom of association, representation and collective bargaining. Where collective agreements specify further consultation obligations, we meet these commitments. At a minimum, our negotiations comply with relevant legislation and aim to create outcomes that balance both our business and employee needs.

In FY20, 63 per cent of our employees were engaged under collective bargaining agreements. This year, we successfully re-negotiated three collective agreements across our operations without any industrial stoppages or incidents. These included agreements at Hillside Aluminium, Mozal Aluminium and Cannington port operations.

When we need to make a significant operational change or provide notice of termination of employment our processes are, at a minimum, compliant with all local legislation in the jurisdictions where we work. In many cases, we provide notice well in excess of minimum standards, and we always engage with our people as soon as practicable if we identify a requirement to make a significant change to the business. This includes informing employees who may be affected at the time or during the period where we intend to make changes.

Percentage of employees who are women

19%

Participants in Leadership Capability Program

1,320

Supporting our people – tools for mental health and wellbeing

The COVID-19 pandemic has presented a unique global challenge with the potential to impact both the mental and physical wellbeing of our people. To proactively manage this, we've taken steps to enhance and expand our approach and support our people when they've needed it most, including:

– Launching a dedicated mental health and wellbeing intranet site;

– Expanding the information available on our existing family and domestic violence support intranet page;

– Providing additional mental health and wellbeing awareness and guidance for our leaders;

– Holding regular company-wide and operation-specific Q&A calls with health and wellbeing themes;

– Funding mental health support services at Groote Eylandt;

– Establishing a dedicated COVID-19 group on Yammer, our internal social network, to increase connectivity;

– Introducing online exercise and mindfulness routines at our operations in Australia and Colombia; and

– Creating medical clinics at GEMCO and Cerro Matoso to provide health care for our workforce and community.

While these tools were developed and implemented in direct response to the unique mental health and wellbeing risks associated with COVID-19, they will continue to be used across the business.

EMPLOYEE ASSISTANCE PROGRAM

All our employees and their families have access to our Employee Assistance Program (EAP), a confidential counselling and support service. It can help with a broad range of concerns, including dealing with self-isolation and disruption, being disconnected from loved ones, financial and legal questions, relationships, children's needs, balancing work and home, remote work, and dealing with change, stress and uncertainty. During this challenging period our people's use of the EAP increased.

DOMESTIC AND FAMILY VIOLENCE SUPPORT

In line with our values and our Code, we do not accept violence in any form. It's important that our people are safe from violence both at work and at home, and that they are supported to ask for help when they need it. We have a range of family and domestic violence materials designed to support all our people, regardless of their gender, sexuality or other characteristics. We have policies and procedures to support those at risk of family or domestic violence, including referral to appropriate local services.

We have a long history of supporting '16 Days of Activism' against gender-based violence in South Africa, and we're proud to be part of an industry-led initiative in Australia to help end domestic and family violence. In November 2019, we came together with 11 other organisations from the Western Australian resources sector to take a strong stance against family and domestic violence.

Staying safe and well

Key related ICMM Principle

Key related UN SDG

Key related UNGC Principle

Nothing is more important than the health, safety and wellbeing of our employees, contractors, suppliers and communities. We are committed to working together safely and continually improving our systems and processes at all our operations.

Most fatality and significant event risks are common across our industry. We have defined a set of minimum controls for the prevention of nine common safety-related fatality risks across our operations. These are:

– Arc flash;

– Confined spaces;

– Dropped and falling objects;

– Electrocution;

– Entanglement;

– Fall/movement of ground;

– Falls from height;

– Lifting; and

– Light vehicles/mobile equipment.

Health-related fatalities in the mining industry include long latency disease. We have also defined a set of minimum controls for the prevention of five common health-related fatality risks across our operations. These are:

– Airborne contaminants;

– Non-ionising radiation and thermal stress;

– Hazardous substances;

– Communicable and infectious diseases; and

– Fitness for work.

OUR APPROACH

Our commitment and approach to everyone going home safe and well is aligned with ICMM Mining Principle 5 – Health and Safety, and executed through our Sustainability Policy, our internal health and safety performance standards, and operational procedures, which are regularly updated. Our approach focuses on health and safety risk management, leadership, capability, assurance and performance. Improvement in our performance is driven by enhancing the capability of our operational employees to manage health and safety risks, learning from our significant events and striving for continuous improvement in everything we do.

HEALTH AND SAFETY RISK MANAGEMENT

Our health and safety risks are managed through our system of risk management, with a focus on common fatality risks.

In FY19 we updated our internal safety standard and conducted a comprehensive review across all our operations against the updated standard. In FY20, we implemented improvement opportunities in the controls and supporting processes for our common fatality risks. We also increased our focus on the identification, reporting and control of fatality risks. This focus resulted in a 58 per cent increase in our hazard reporting compared to FY19.

We also updated our internal health standard in FY20. This included a review of our Occupational Exposure Limits (OELs) against airborne contaminants, supported by international and peer benchmarking, and external expert review and internal review of our exposure data. As a result, material changes have been made to our OELs for respirable coal dust, respirable crystalline silica and both respirable and inhalable manganese dust. In FY21, we will continue to develop projects to reduce potential exposures across our business. We will prioritise implementation of those that reduce our highest potential exposures, with focus on respirable coal dust, respirable crystalline silica and both respirable and inhalable manganese dust.

Another area of our health focus is 'Fitness for Work', which addresses physical and mental health and wellbeing, drug and alcohol use and fatigue management within our workforce. As part of our COVID-19 response we have prioritised our focus on mental health and wellbeing across our business (refer to page 30 for more detail).

To further mature our approach to health and safety risk management, in FY20 we conducted a detailed review of the way we disclose fatalities for contractor activities associated with our operations that occur in locations that we do not control. As a result of this review, for FY20 and going forward we will disclose these incidents in our annual reporting. We also improved our processes to influence offsite contractor transport related activities and are contributing to an ICMM working group looking at ways to improve fatality reporting.

Safe operations during COVID-19

To keep our people and communities safe and well during the COVID-19 pandemic we established transmission prevention controls at all our workplaces. Steps taken include:

– Reducing and, in many cases, ceasing travel;

– Isolating and supporting people confirmed to have COVID-19 or had been exposed;

– Introducing screening and surveillance to identify at-risk personnel and potential cases;

– Modifying the workplace and work structures to maintain physical distancing;

– Providing facilities for improved personal hygiene;

– Increasing cleaning regimes and sanitisation of high use areas and equipment; and

– Issuing a new COVID-19 infectious disease management procedure for use during an outbreak.

While the COVID-19 pandemic had a significant impact on our business in the second half of FY20, strong collaboration enabled our controls to be rapidly developed, implemented, communicated and improved. It also resulted in a growth in the number of people who have actively engaged with our risk management system to manage material health risk.

HEALTH AND SAFETY LEADERSHIP AND CAPABILITY

We ask all our people to speak up and stop work when it is not safe to continue. Everyone has a responsibility to look out for themselves and each other. Together, we aim to ensure our work is well-designed and that activities are executed in a safe and predictable manner.

Highly engaged, effective and accountable leaders are critical to everyone going home safe and well. In FY20, we introduced a workplace interactions module in our Global360 risk management system to support our leaders' safety engagements in the field, and we have recorded more than 50,000 interactions since its introduction. Our enhanced engagement and reporting has also enabled stronger engagement on health and safety risk between our leaders and the broader workforce.

Over the last two years we have grown our health and safety capability globally, building a team with diverse experience and skills to address both strategic and operational health and safety challenges across our business.

ASSURANCE

Assurance is a key component of our health and safety management system, and we use the three lines of defence assurance model.

Our first line consists of checks by front line employees and managers on a routine basis to ensure that controls are in place as tasks are being carried out.

Our second line involves reviews by functional experts, focused on improving the systems that support the operations. In FY20, we completed second line reviews against our nine common safety fatality risks at all our operations in accordance with our updated internal safety standard.

Our third line involves internal and external audits conducted by independent experts to ensure that our systems are effective and meet international standards. Each year our independent external sustainability auditors review our health and safety systems at selected operations.

HEALTH AND SAFETY PERFORMANCE

The health and safety of our workforce is our priority. We also seek to influence and improve health and safety performance in environments associated with our operations that we do not control.

We are deeply saddened by the loss of one of our colleagues, Duncan Mankhedi Ngoato, a Diesel Mechanic Assistant for Modi Mining, following an accident at the Ifalethu colliery at South Africa Energy Coal on 27 May 2020. We express our deepest sympathies to Mr Ngoato's family, friends and colleagues and we provided support and counselling to them. A detailed investigation into this incident was undertaken and led by a member of our Senior Leadership Team, with the results reviewed by the Chief Executive Officer, management team and Board. The key learnings have been shared across our operations.

Also in FY20, two people from our contracting companies tragically lost their lives in separate offsite road incidents during transport of our product to the shipping ports. These incidents were associated with our Cerro Matoso and South Africa Manganese operations. We seek to influence and improve the health and safety practices of our contractors undertaking activities associated with our operations that occur in locations that we do not control. We offered our support to our contractor company and their employees following these incidents and participated in the investigations for both events. We also supported our contractors to action the investigation findings.

Continuous improvement in our health and safety performance is critical to our goal that everyone goes home safe and well. To evaluate our progress, we track and measure a range of health and safety indicators as part of our Business Scorecard, as detailed on page 16.

In FY20, we reduced our Total Recordable Injury Frequency (TRIF) by nine per cent to 4.2. This continues our trend of improved year-on-year performance since FY17 and is a net reduction of 28 per cent in TRIF since FY15. While our improvement in TRIF indicates that the design and execution of our approach to safety is effective, the FY20 outcome did not meet our target of a 15 per cent reduction.

In FY20, while we achieved OEL reductions at Hillside Aluminium, our indicator of potential material exposures >100 per cent of the OEL increased overall. This was due to re-baselining of potential material exposures at Khutala

and Worsley Alumina following a review of hygiene management practices. Exposure reduction measures were implemented as planned at Cerro Matoso and Wessels; however, their resulting exposure reduction could not be confirmed due to COVID-19 activity restrictions.

The reduction in potential exposures at Hillside Aluminium resulted in:

– Potential exposures to carcinogens >100 per cent OEL (Coal Tar Pitch Volatiles or CTPV) reduced from 90 to 10, influenced by completion of exposure reduction projects during FY20; and

– Potential exposures to carcinogens >200 per cent OEL (CTPV) reduced from 10 to four, due to improvements at the Hillside Aluminium paste plant.

Plans have been developed to reduce potential exposures in FY21, with projects identified at Cerro Matoso, Hillside and Mozal Aluminium.

During routine inspections at Illawarra Metallurgical Coal in August 2019 we identified defects in the seals of some of our compressed air breathing apparatus (CABA) units, which are used by underground workers to protect them from harmful gasses in emergency situations. In response, we limited underground access while we investigated the cause and repaired or replaced all CABA units, after which normal operations resumed.

Musculoskeletal illness and injury remain the most prominent sources of ill health and injury in our business, accounting for 45 per cent of total recordable occupational illness. In FY19, we piloted the introduction of an ergonomics program at our Australia Manganese operations to reduce the risk of hazardous manual tasks and reduce the prevalence of musculoskeletal illness and injury. During FY20 we extended this program to other Australian operations, with its global delivery put on hold due to COVID-19.

We have progressively built leading indicators into our metrics to drive improved health and safety performance. In FY20, we introduced significant hazard reporting as a leading indicator to our performance reporting. This enables us to identify and eliminate hazards that have the potential for significant injury or fatality before an event can occur. We achieved a ratio of four significant hazards reported for every significant event in FY20, which is better than our target of three to one.

Table 4.2 Overview of safety and health performance

	FY20	FY19	FY18	FY17
Fatalities from safety and health incidents – total[1]	**1**	0	1	1
Total recordable injury frequency (TRIF) (per 1,000,000 hours worked) – total	**4.2**	4.6[2]	5.1	6.1
Total recordable illness frequency (TRILF) (per 1,000,000 hours worked) – total	**1.4**	1.3	1.7	1.3

(1) Incidents are included where South32 controls the work location or controls the work activity.
(2) Figure has been restated since it was previously reported due to a reclassification or recalculation of data.

Diagram 4.1 Total recordable injury frequency FY17 - FY20
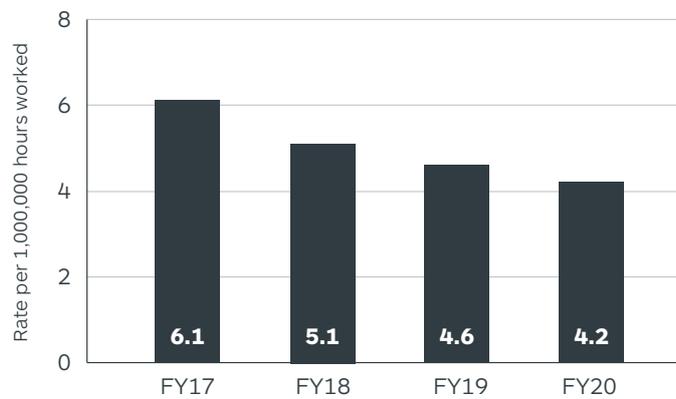
RISING TO THE CHALLENGE OF CLIMATE CHANGE

Key related ICMM Principle

6 ENVIRONMENTAL PERFORMANCE

Key related UN SDGs

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

Key related UNGC Principles

HUMAN RIGHTS

ENVIRONMENT

The impacts of climate change are increasingly being felt around the world and as a responsible global business, our investors, communities, governments and other stakeholders expect us to manage the associated risks and opportunities.

As a direct and indirect emitter of greenhouse gases through our operations and value chain, we are committed to achieving the objectives of the Paris Agreement, and to achieving net zero emissions by 2050.

OUR APPROACH

Our approach to climate change is guided by international standards, including the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), ICMM Climate Change Position Statement and UN SDG 13, as well as regulatory schemes such as the National Greenhouse and Energy Reporting (NGER) Scheme in Australia, and the South African Carbon Tax.

We have been reporting our climate change approach in line with the TCFD since 2017. In FY20, we commenced the process of benchmarking our approach to climate change and sustainability more broadly against the Sustainability Accounting Standards Board Standards.

Our approach is underpinned by our positions on key climate change matters. This year, we have defined these positions to support our external engagement with stakeholders. We support:

– The Paris Agreement objectives to limit global temperature rise to below 2°C this century, and to pursue efforts to limit the increase to 1.5°C. We will regularly review our approach in the context of the United Nations Framework Convention on Climate Change (UNFCCC) actions, credible sources of climate science and emerging regulation;

– Principle-based carbon price mechanisms that promote least-cost abatement, collaboration and international transfers. There should be bi-partisan policy linking to the Paris Agreement objectives, and flexibility in carbon market design during a transition period to accommodate sector- and country-specific challenges;

– Technology-neutral energy policy that balances affordable access to reliable energy and emissions reduction, and technology-banded policy or subsidies to accelerate technology deployment; and

– Collaboration across the value chain to strengthen product stewardship, encourage innovation and decrease emissions.

TCFD | TASK FORCE ON CLIMATE–RELATED FINANCIAL DISCLOSURES

Governance

The Sustainability Committee and Risk and Audit Committee of the Board assist the Board with management of climate change risk and opportunity, emissions reduction targets and disclosures. Read more about our approach to governance for sustainability on page 10.

The Sustainability Committee receives regular progress reports on climate change from the Lead Team, which is regularly updated on developments in climate science, policy, regulation, technology and stakeholder expectations, from both internal and external experts. Our Board is also briefed on climate change developments by an external expert annually.

Our approach to climate change is focused on three pillars: emissions reduction, climate change opportunity and resilience.

EMISSIONS REDUCTION

In 2016, we set our long-term goal of achieving net zero emissions by 2050, in line with the Paris Agreement. Our path to achieve this is set through short-term emissions reduction targets, which we review every five years. Commitment to these targets is reinforced through our Lead Team's 'at risk' remuneration under South32's Short-term Incentive Plan.

In 2016, we also published our first five-year short-term target to keep our Scope 1 emissions in FY21 below our FY15 baseline, and we remain on track to deliver on this commitment. We have commenced work to review our emissions reduction approach and increase our ambition, along with developing our next short-term emission reduction target which we will publish in FY21. Refer to the 'Metrics and targets' section on page 41.

Our emissions reduction is focused on decarbonisation projects, energy planning, technology development, portfolio optimisation and carbon offsets for our residual emissions, aligned with our strategic objectives. In FY20, we continued to focus our decarbonisation studies on our operations where we believe we can achieve the most material emission reductions – at Worsley Alumina and Illawarra Metallurgical Coal (refer to the 'Metrics and targets' section on page 43).

OPPORTUNITY

Our approach to climate change includes capturing opportunities associated with the global transition to a low carbon economy.

We regularly assess our customer preferences to ensure our products remain in demand and resilient. For example, through our decarbonisation studies, we are actively working to reduce the carbon intensity of our alumina and metallurgical coal products.

We assess the demand of products across a range of possible climate futures. Our pipeline of development options and exploration programs include commodities with a favourable outlook in a low carbon future, with a bias to base metals. This includes, for example, the high-grade zinc, lead and silver Hermosa project in Arizona in the United States. We have also formed the Ambler Metals Joint Venture, a high-grade copper-zinc-lead-gold-silver deposit located in North West Alaska.

We have progressed the divestment of some of our more emissions intensive operations, with the divestment of our South Africa Energy Coal business on track to be completed in December 2020. The sale will enable South Africa Energy Coal to be sustainable into the future as a critical supplier of coal to meet South Africa's energy generation needs, and for the benefit of employees, customers and local communities, consistent with South Africa's transformation agenda.

Resilience and risk assessment

Climate change resilience has been identified as a strategic risk and opportunity for our business. Material climate change risks and opportunities are identified and assessed consistent with our other sustainability and financial matters (refer to the 'Risk management' section on page 12).

Given the uncertainty of how climate change risks will impact our business, we complement our existing risk management approach with scenario analysis, aligned with the TCFD recommendations.

Business resilience assessment – scenario analysis

We've been using scenario analysis since the recommendations of the TCFD were first published in 2017, when we constructed a set of plausible and evidence-based, yet divergent, future scenarios to describe a spectrum of global temperature change outcomes. We assessed the resilience of our business and our strategy against these scenarios from FY17 to FY19. Our Approach to Climate Change Report 2019 describes the staged process we undertook to apply our scenarios, and our conclusions.

We assess our resilience for both transition risk – the risks associated with changes to climate and energy policy and technology necessary to achieve the Paris Agreement objectives – and physical risk – the risks associated with changes in climate if the world fails to meet the Paris Agreement objectives.

We update our resilience assessments at least every two years. Table 5.1 is a summary of our scenarios and how they are applied to assess our resilience. It also details the work we completed in FY20 to prepare for updates of our assessments in the coming years.

Table 5.1 Our scenarios, how we apply them and FY20 progress on resilience assessments

Scenario description and application	FY20 progress
Our central case: 'Patchy Progress'	
This scenario assumes a global temperature rise of 3°C, reflecting current trends and technology developments, with limited additional climate change action. This is our central case applied annually for planning, budgeting and investment. It is updated each year to reflect carbon pricing developments and climate-related commodity market dynamics.	We updated the carbon price forecast in our central case through more detailed analysis of domestic carbon price policy developments in our key operating regions of Australia and South Africa. Our forecast price was updated in the short to medium-term, reflecting current or imminent domestic pricing regimes in each region.
	For the long-term forecast, we set the global carbon price at US$40 per tonne, covering direct emissions. To ensure we continue to make well-informed decisions in an uncertain policy environment, we also set a high-side case assumption for sensitivity analysis at US$100 per tonne.
Our transition resilience assessment case: 'Global Cooperation'	
This scenario assumes a global temperature rise of less than 2°C, reflecting a proactive and collaborative approach by governments, industries and society to reduce carbon emissions in line with the Paris Agreement objectives.	An update of our transition assessment will be completed in FY21 and take into account dynamic global developments around the transition to a low-carbon economy.
This scenario is applied to plan our transition to our net zero goal and assess our resilience to transition risk.	We are reviewing scenarios recently released by the International Energy Agency (including the World Energy Outlook Sustainable Development and Energy Technologies Perspectives scenarios) and other transition scenarios to determine how we integrate this new information. We will also consider emerging developments in the lead up to the postponed 26th session of the Conference of the Parties to the UNFCC (COP26), which is now scheduled for November 2021.
To conduct the assessments, relative demand for each of our commodities under this scenario have been compared to their demand under our 'Patchy Progress' central case, with differences inferring an indicator of resilience.	
Further details of our assessment approach and conclusions are in Our Approach to Climate Change Report 2019 (pages 41-45).	The results and conclusions of the assessment will be integrated in our strategic planning processes and published in our FY21 reports.
Our physical resilience assessment case: 'Runaway Climate Change'	
This scenario assumes a global temperature rise of 4°C, reflecting an emissions trajectory where the world fails to meet the Paris Agreement targets and the physical impacts of climate change are more severe. This includes acute impacts (for example, from extreme weather events) and chronic impacts (for example, from droughts or heatwaves), which could harm the health of society and ecosystems.	Throughout FY20, we have been applying the results of our physical resilience assessments to assess impacts on value and risk across the business. Gaps identified will be progressively closed through our planning processes. Over time, this approach will enable more accurate prediction of the range of anticipated costs resulting from climate change.
To conduct the assessments, we analyse resilience across three key impact categories: asset integrity and production continuity, maintaining supply chain and logistics, and worker health.	In FY20, we conducted internal assurance on our physical resilience assessment approach and identified improvement opportunities to be addressed in our next update.
Further details of the assessment approach and conclusions are in Our Approach to Climate Change Report 2019 (pages 41-45).	This work will incorporate current climate datasets and further integrate physical impact analysis into our business processes and investment decisions.

Resilience and risk assessment continued

Climate change risks

Table 5.2 summarises our material climate-related risks and our response to managing them. These risks will change over time. We will continue to review these risks and their mitigation on an annual basis, and over our short- (3 to 5 years), medium- (6 to 10 years) and long-term (11 to 50 years) time horizons, to ensure they remain current.

Table 5.2 South32's climate change risks

Impact type and risks	Our management response
Policy	
Carbon pricing policies and associated regulatory mechanisms may restrict emissions or increase costs for companies with liable emissions.	We assess policy risks in our resilience assessments using scenario analysis, which is updated every two years. We use the insights we gain from this analysis in our strategic planning.
Policy uncertainty and sudden changes may limit the business' capacity to prepare for a structured transition. This could result in increased costs and disruption to the business.	We annually review the signposts and triggers for changes in carbon pricing policy and how it affects us. This includes progress against the Paris Agreement objectives, government policy and regulation.
Policy change may also affect the demand dynamics for some of our commodities, such as metallurgical coal and aluminium.	In the short- to medium-term, our central case includes carbon prices reflective of current or imminent domestic pricing. We apply a global price of US$40 per tonne over the long-term. This is applied in capital allocation and investment evaluations. To ensure we continue to make well-informed decisions in an uncertain policy environment, we also set a high-side case assumption for sensitivity analysis at US$100 per tonne.
	Emissions reduction is a central pillar of our approach to climate change. We set emissions reduction targets which form a component of our Lead Team's 'at risk' remuneration under South32's Short-term Incentive Plan. We are committed to reviewing and ratcheting down our targets every five years. Through reviewing and achieving these targets, we will progressively reduce our carbon emissions to achieve our goal of net zero emissions by 2050.
Supply chain	
Stakeholders across our supply chain may experience similar changes in policy to those outlined above, and we may face changing regulatory requirements in jurisdictions outside of our own operating environments.	Our scenario analysis incorporates potential policy-based impacts on our supply chain to test resilience of our portfolio to these risks. Our assumptions under these scenarios are updated every two years. We use the insights we gain from this analysis in our strategic planning.
Costs associated with this may be passed on from an upstream perspective, but also may have a downstream impact on the relative competitiveness and demand for some of our commodities and/or operating margins.	We calculate and disclose our annual Scope 3 emissions to identify the scale and sources of our supply chain emissions and transition risks. We calculate these using the World Resources Institute Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and industry-published emission factors where relevant. We disclose details of our Scope 3 calculation approach and reference sources on *www.south32.net*.
	The divestment of South Africa Energy Coal would reduce our Scope 3 emissions by around 50 per cent. Our efforts to reduce the emissions of our metallurgical coal and aluminium supply chain is focused where we can leverage the most influence. Our approach is designed around three pillars: (i) individual engagement, (ii) industry initiatives and (iii) research and development (technology).

Table 5.2 South32's climate change risks continued

Impact type and risks	Our management response
Portfolio and growth	
As pollution concerns or scarcity pressures increase, air quality, water, biodiversity and related environmental regulation may become stricter. This may impact on the costs of, or access to, key inputs such as water, and/or our ability to secure land approvals for greenfield developments or operational expansions.	We closely monitor and manage our environmental risk and opportunity profile and performance. This includes assessment of the expectations of our stakeholders, engagement with local and national governments, and review of emerging regulation. This is supported by the results of our scenario analysis to identify risks. Our internal sustainability standards (described throughout this report) set our approach to managing our environmental risks and impacts, which are aligned to regulatory requirements and the ICMM Mining Principles. These are reviewed on a regular basis to pre-emptively respond to future policies.
Legal	
Governments, companies and directors may face litigation because of climate change impacts associated with greenfield developments or operational expansion, compensation for damages caused by climate change impacts, or further action or adaptation.	We closely monitor legal developments and litigation trends in jurisdictions in which we operate and seek advice on major developments when necessary. To limit our relative litigation exposure, this information is integrated into our proactive approach to climate-related risk assessments, management and disclosures.
Reputation	
Shareholders (including activist groups) and other stakeholders are increasingly focused on the credibility and effectiveness of companies' climate change disclosure, risk management and the activities of their industry associations. If we do not set and implement effective actions to address and disclose our climate-related risks, our credibility and reputation with a range of stakeholders may suffer. Shareholder concerns regarding our climate change approach could lead to shareholder-supported resolutions. Damage to our reputation could impact our capacity to secure investment capital, insurance and approvals for greenfield developments or brownfield expansions. Skilled staff may not want to work with us if they do not support our approach to climate change.	To understand their expectations and communicate our progress, we prioritise regular and open dialogue with our shareholders, proxy advisors, civil society groups, investor representative bodies and other stakeholders on climate change and broader ESG issues. We provide comprehensive, transparent information to stakeholders on our climate change business position, policies, risks and management actions. We were early adopters of the TCFD Framework and have integrated this approach into our business processes. We support a principle-based carbon price mechanism that promotes least-cost abatement, collaboration and international transfers. We set voluntary short-term carbon reduction targets and have committed to transition to net zero emissions by 2050 in line with the Paris Agreement. Our short-term emissions reduction targets form a component of the Lead Team's 'at risk' remuneration under South32's Short-term Incentive Plan. We assess and monitor the climate change and energy positions of our industry associations to test alignment with our own positions.
Technology changes	
Disruptive new low emissions technologies may change demand for our products (see 'Market changes' on page 40). We may experience challenges adopting new technologies necessary to support our emissions reduction targets into our existing systems. The cost and unproven nature of new technology could reduce our productivity and profit margins.	Our scenario analysis considers potential new technology impacts on our operations and commodities. Our assumptions under these scenarios are updated every two years. We use these insights in our strategic planning. We apply an integrated approach to evaluate the suitability of innovation and technology, which considers productivity, cost, safety and our environmental and social footprint. We maximise our success in realising the benefits of new technologies by partnering and collaborating with a range of organisations developing the solutions to reduce emissions across our industry.

Resilience and risk assessment continued

Table 5.2 South32's climate change risks continued

Impact type and risks	Our management response
Market changes	
The supply, demand and price for our commodities may change as technology evolves (including potential substitution of some products) and consumer demands shift.	Our scenario analysis considers potential new technology impacts on our commodities. Our assumptions under these scenarios are updated every two years. We use the insights we gain from this in our strategic planning.
Markets are increasingly directing funding towards greener products and solutions, which creates a risk of comparatively lower or more competitive access to finance, investment and insurance.	Our regular updates on supply and demand forecasts, coupled with detailed market surveillance, enable us to anticipate and respond to technology change in a timely manner.
As governments and other companies act on climate change, there is a chance we could be exposed to higher costs for the products which we rely on, such as power or water.	For long-term changes, our forecasts consider potential technology-based impacts on product demand to test our portfolio resilience and identify new opportunities.
	We are directing our growth and exploration programs to reshape our portfolio towards commodities with a favourable outlook in a low carbon future.
	We believe several of our portfolio commodities would benefit from a transition to a low carbon economy and have identified opportunities to create value by focusing our business on these commodities.
Production and logistics delays	
We run established processing facilities and mine geologically-bound ore bodies, connected by rail, road, ports and sea.	Our scenario analysis assesses resilience of all our operations to the physical impacts of climate change. We are using the outcomes to improve business continuity planning, operational resilience and better understand future adaptation requirements. These assessments allow us to quickly adapt to a changing climate and get back on track following extreme weather or other acute events.
These may experience production and logistics delays because of extreme weather (such as bushfires, cyclones and flooding).	
Droughts, heat extremes or unseasonal weather variability could also create water stress or contribute to worker ill-health and the spread of disease. This could impact our operations.	We use the World Resources Institute's Aqueduct Tool to screen our operations for water scarcity and oversupply risks and we proactively manage or adapt accordingly.
The physical impact of climate change may increase rehabilitation and/or closure liabilities. It may also impact the terms or availability of finance or insurance.	Each of our operations has a closure plan in place, which includes a risk assessment. These plans are routinely updated.
Social impacts	
As we reduce the emissions profile of our business, the actions we take to make this transition may impact surrounding communities, business or employment, causing economic and social impacts. For example, changing energy sources for our operations.	We assess and manage our climate change risks and impacts both to our operations and to our communities, including the use of scenario analysis. Where we could be faced with transition decisions that will impact the resilience and continued prosperity of our communities, we will partner with them and others to manage those impacts.
Physical risks of climate change can turn into social risks, such as conflict over access to natural resources. Our operations in regions with poorly developed social support systems could be more vulnerable to the physical impacts of climate change. This may lead to decreased food and water security and create a challenging operating environment.	We make contributions to development programs to help communities build resilience against the impacts of climate change.

Metrics and targets: our performance

SCOPE 1 AND 2 PERFORMANCE

In FY20, our total Scope 1 emissions (direct emissions) were 10.4 million tonnes of CO_2-e, which is below our FY15 baseline (refer to Diagram 5.1). FY21 is the last year of our first short-term emissions reduction target, which is to keep our Scope 1 emissions below our FY15 baseline. We remain on track to achieve this target.

FY20 reductions in our Scope 1 emissions in comparison to FY19 were due to implementation of our decarbonisation projects, our decision to place our Metalloys smelter on care and maintenance and the country-wide lockdown in South Africa in response to the COVID-19 pandemic (refer to Diagram 5.3).

Our Scope 2 emissions (imported electricity) continue to be dominated by our Hillside and Mozal aluminium smelters, which account for approximately 89 per cent of our global Scope 2 footprint. In FY20, our Scope 2 emissions were 12.9 million tonnes of CO_2-e, partly due to a shortfall in delivery of third-party contracted hydropower to Mozal Aluminium, which necessitated greater consumption of carbon intensive electricity from Eskom (refer to Diagram 5.4).

In FY20, our combined Scope 1 and 2 emissions was 23,250 kilo tonnes of CO_2-e, which was in line with our target to stay at or below our emissions forecast of 24,672 kilo tonnes of CO_2-e (refer to Diagram 5.2).

Diagram 5.1 Scope 1 emissions from FY15 baseline

Diagram 5.2 Scope 1 and 2 emissions
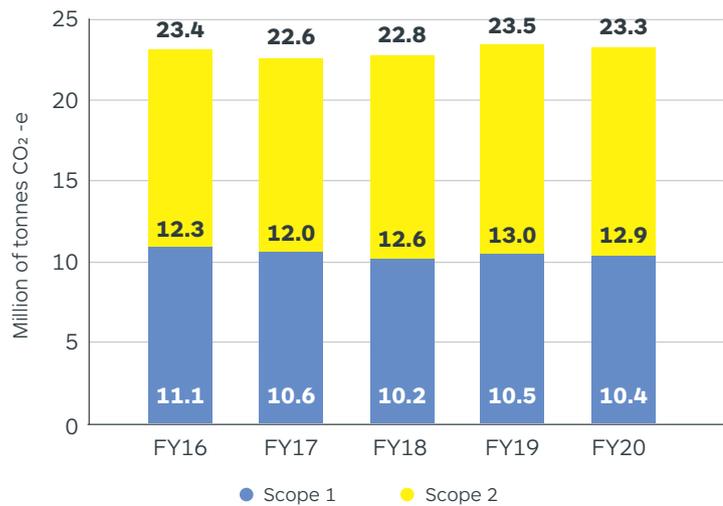
SCOPE 3 PERFORMANCE

Scope 3 emissions are our indirect emissions (not included in Scope 2) that occur in our value chain. We calculate Scope 3 emissions for our business using the methodology detailed in the World Resources Institute Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and apply industry-published emission factors where relevant. Details of our Scope 3 calculation approach and reference sources can be found on *www.south32.net*.

In FY20, our Scope 3 emissions totalled approximately 110 million tonnes of CO_2-e. Most of our Scope 3 emissions are associated with downstream use of sold products, mainly associated with combustion of energy coal from South Africa Energy Coal, accounting for 42 per cent of our Scope 3 emissions or 46 million tonnes of CO_2-e. A further 37 million tonnes of CO_2-e or 34 per cent of our Scope 3 emissions arise from downstream processing of our manganese ores and alloys, alumina and aluminium commodities into various end-products. The remainder of our Scope 3 emissions come from input goods and services including transportation and distribution of our products (refer to Diagram 5.5). We are currently examining options to work with our customers to further reduce our Scope 3 emissions (refer to page 43 for more detail).

EMISSIONS REPORTING

For our Australian operations, we report our greenhouse gas emissions, energy consumption and energy production annually to the Clean Energy Regulator (CER) under the NGER Scheme. Our NGER data is publicly available on the CER website at *www.cleanenergyregulator. gov.au*. We use this data and our forecasts to update our emissions baselines, in accordance with the Australian Government's recently amended Safeguard Mechanism. We expect to complete the submission of relevant applications by the first half of FY21, with updated baselines to be applied following approval by the CER.

Diagram 5.3 FY20 Scope 1 emissions

10.4
FY20 Scope 1 emissions
(Mt CO_2-e)

0.6
3.1
6.7

- Australia
- South Africa
- Colombia
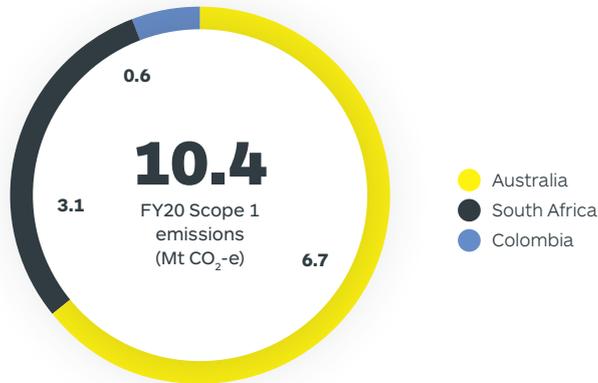
Diagram 5.4 FY20 Scope 2 emissions

12.9
FY20 Scope 2 emissions
(Mt CO_2-e)

0.2
0.4
12.3

- Australia
- South Africa
- Colombia
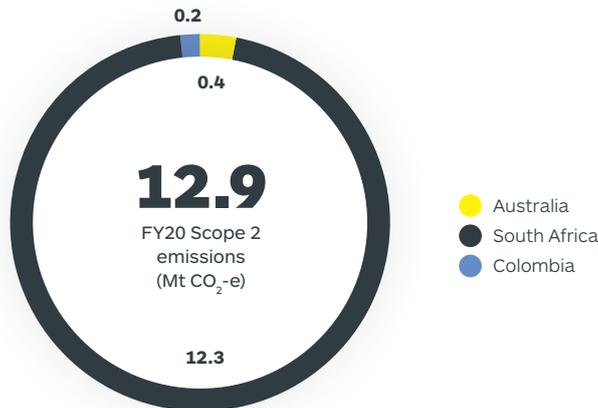
Diagram 5.5 Sources of FY20 Scope 3 emissions

110
Mt CO_2-e
Sources of FY20 Scope 3 emissions (%)

0.7% 1.3% 1.0%
2.5% 1.0%
34.1%
59.4%

- Purchased goods and services
- Capital goods
- Fuel and energy-related activities
- Upstream transportation and distribution
- Processing of sold products
- Use of sold products
- Investments
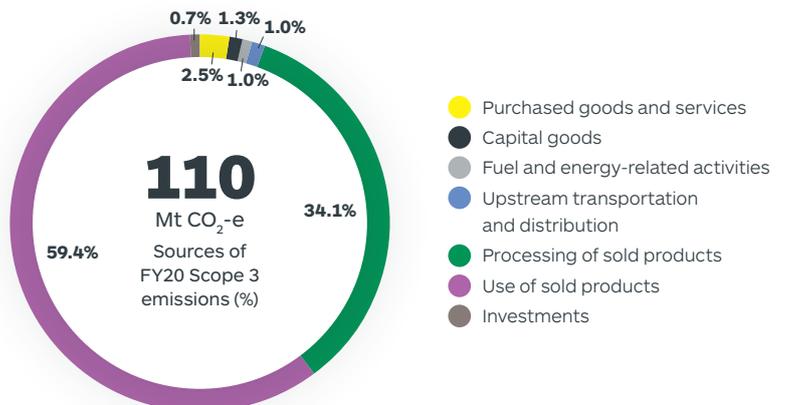
For our South African operations, we report our greenhouse gas emissions and performance annually against our pollution prevention plans under the National Greenhouse Gas Reporting Regulations. FY20 was the first full year of implementation of the South African Carbon Tax and we recently had our combined carbon budgets approved by the Department of Environment, Forestry and Fisheries. We are due to make our first payment in October 2020 for the 2019 tax reporting period.

TARGET REVIEW

We will define and disclose our next set of emissions reduction targets in FY21, with the next target period commencing in FY22. Through these targets, we will define our next short-term targets for Scope 1 and 2, and our high-level approach to achieve net zero by 2050.

FY20 DECARBONISATION PLANNING PROGRESS

Decarbonisation projects

In FY20, we continued to focus our decarbonisation studies at operations where we are targeting substantial reductions in our Scope 1 emissions - Worsley Alumina and Illawarra Metallurgical Coal. These operations make up 59 per cent of our global Scope 1 footprint.

At Worsley Alumina, we processed 18,500 wet metric tonnes of timber waste product (biomass) in place of fossil fuels at our multi-fuel cogeneration facility, abating 23,500 tonnes of CO_2-e in FY20. We also completed a trial to determine the logistical, supply and safety challenges associated with ramping up our use of biomass to achieve further emissions reductions.

While our studies found increased biomass usage at Worsley Alumina is technically feasible and may support regional economic diversification, it also identified supply chain and safety challenges associated with sourcing and processing higher volumes of biomass. As a result, we have focused our decarbonisation studies at Worsley Alumina on energy and water efficiencies related to our mud washing and settling processes. We are also progressing a study that aims to build flexibility into our fuel and energy supply mix, while also substantially reducing the operation's emissions.

We are committed to investing in collaborative research and development initiatives to accelerate our decarbonisation studies. In FY20, we supported a bid to establish a Heavy Industry Low-carbon Transition Cooperative Research Centre

(HILT CRC) in Australia. The purpose of the HILT CRC is to collaborate across the heavy industrial sector, government and research institutions to identify the lowest cost and fastest pathway for companies to accelerate their transition to a low carbon future. Through the HILT CRC, we aim to develop new technologies and innovation that support our long-term decarbonisation at Worsley Alumina.

At Illawarra Metallurgical Coal, our gas drainage system improvement efficiency project is in the execution phase and we achieved post drainage capture efficiency of 56.5 per cent in FY20. The captured methane is either flared or directed to third party to generate power. Both activities significantly reduce the amount of carbon dioxide equivalent (CO_2-e) released into the atmosphere by converting methane to CO_2, providing an abatement of approximately 88,700 tonnes of CO_2-e in FY20.

Also at Illawarra Metallurgical Coal, we completed a pre-feasibility study for our Appin North Goaf Drainage and Flaring projects, and advanced studies on Ventilation Air Methane (VAM) capture and utilisation. VAM capture and utilisation remains one of our biggest opportunities to reduce our carbon footprint at Illawarra Metallurgical Coal. Finding a technological solution to address this source would be a significant achievement for our business and the broader sector. We continue to work in partnership with Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia's national science agency and Low Emissions Technology Australia (LETA), a group of Australian black coal industry representatives investing in the demonstration of low emissions coal technologies, to progress these studies and explore further funding and partnership opportunities to accelerate this work.

We remain focused on identifying and assessing further decarbonisation options across our business, such as energy supply alternatives, new technologies, expansion of decarbonisation projects, and longer-term studies for adaption or replacement of infrastructure. We also continue to review partnership and funding opportunities to accelerate our decarbonisation activities.

Scope 3

Our efforts to reduce emissions across our value chain are focused on where we have the most influence through individual engagement, industry initiatives and research and development (technology).

In FY20, we have explored opportunities to partner directly with customers across our steel and aluminium supply chain to reduce overall emissions. We also continued to collaborate on new technologies. Our support for the HILT CRC may present additional decarbonisation partnership opportunities across our value chain. We will include further details on our Scope 3 progress and opportunities in our FY21 corporate reports.

Voluntary offsets

Based on our expectations of the life of our operations and current technology development trajectories, we anticipate that residual emissions will remain in our portfolio in 2050. In the absence of technology breakthroughs, we anticipate that we will need carbon offsets to reach and maintain our goal of net zero emissions by 2050. We view offsets as a complementary mechanism to support our decarbonisation, particularly where decarbonisation alternatives remain undeveloped, or not technically or economically feasible.

During FY20, we reviewed the offsets market dynamics, assessed offset types in our key jurisdictions, and identified opportunities that may have social and environmental co-benefits, aligned with our broader sustainability objectives. We approached external providers to explore procurement, pricing and project supply options. This information is being used to inform our emission reduction approach and support our planning to comply with regulatory carbon schemes in Australia and South Africa.

Collaboration, partnerships and industry associations

Rising to the challenge of climate change requires a global response. We collaborate with our investment community, civil society groups, industry peers, representative bodies, government and non-government entities, research institutions, customers and other key stakeholders on climate change to accelerate our learning and enhance our knowledge.

We recognise the importance of ensuring the purpose and policy positions of our associations and partners are closely aligned with our own on material matters, including climate change. We also acknowledge the significant interest from investors and other stakeholders in these policies and advocacy undertaken by our association memberships on climate change.

In FY20, we engaged with our investors, and investor-led and civil-society groups on our approach to climate change to understand their expectations. These stakeholders play a critical role in informing our business, the broader industry and governments, while supporting collaborative action.

Our memberships of associations such as the ICMM and the Australian Carbon Market Institute (CMI) support the broader evolution of our approach to climate change. We also work with research groups such as CSIRO, LETA and ACARP to enhance our access to industry knowledge on decarbonisation.

Our engagements with industry associations are managed in line with Our Approach to Industry Associations. Where there is potential misalignment on a material issue between our positions and that of our associations, we engage with the association to explain our position and seek to better understand our differences. We advocate our position on areas of material divergence and explore opportunities for alignment. We remain prepared to terminate our membership where material misalignment prevails that ultimately outweighs the benefits of our membership. You can read Our Approach to Industry Associations on *www.south32.net*.

REVIEW OF INDUSTRY ASSOCIATIONS' POSITIONS ON CLIMATE CHANGE

In FY19, we engaged an independent third party to conduct a high-level assessment of our associations that hold active positions on climate change, to understand any material divergence from our own. The outcomes of this review were disclosed in Our Approach to Climate Change Report 2019, and concluded that despite divergence in some areas, no material departures existed that would cause us to exit any associations at this time.

This year we have undertaken a more extensive review of the climate change positions of a subset of our associations, which were selected due to their profile or exposure to climate change issues. We reviewed current publicly available information such as formal policies, website content, advocacy activity and media articles and directly engaged with each association. These engagements included both informal contact throughout the year as part of our normal association activity, and more formal discussions specifically on climate change.

We acknowledge that an association's position is not only reflected in its published materials, but may also include informal advocacy, which requires clarification and context. This may make it difficult to define an association's position; however, our membership enables us to clarify, query and understand advocacy motivations while maintaining the opportunity to influence on matters of importance to us.

In FY20, we identified that the Queensland Resources Council potentially holds a position that is misaligned with our own, as while its 2018 published Position on Energy and Climate Change includes support for 'global action on climate change', it does not directly reference support for the Paris Agreement. The climate change positions of three associations, the Arizona Mining Association, the Colombian Mining Association and South African National Energy Association were not able to be determined from publicly available information and we were unable to confirm a defined position through direct engagement within the review period. We will continue to engage with these associations in FY21 to clarify their positions, determine any divergence from our own positions and explore opportunities for alignment or further action.

For those industry associations where there is current alignment with our policy positions, we will continue to monitor the advocacy of these associations to ensure they are aligned with their stated position and our own, and that they support the objectives of the Paris Agreement.

Table 5.3 provides a summary of the outcome of our review and the focus of our engagements with these associations into FY21.

Table 5.3 Summary of current alignment with industry associations

🟢 Associations with positions that are aligned with South32's position.

🟡 Associations with positions that are potentially misaligned with South32's position or their position is unclear.

⚪ Associations where publicly available positions are not available and a position wasn't able to be confirmed through direct engagement within the review period for this report.

Industry association	Our focus
Arizona Mining Association, USA (AMA)	AMA's policy position on key climate change matters are not publicly available and weren't able to be confirmed within the review period for this report.
	Consistent with Our Approach to Industry Associations, we are engaging with AMA to better understand their advocacy for thermal coal in America and will encourage them to develop transparent climate change policy positions, aligned with the Paris Agreement.
Australian Coal Association Research Program (ACARP)	ACARP's research objectives are aligned with our policy positions.
	As a research association, ACARP's purpose is to facilitate research and development funded through a levy on saleable coal. Their support for research into improving ventilation air methane (VAM) capture technology is directly relevant to our decarbonisation program at Illawarra Metallurgical Coal.
Business Council of Australia (BCA)	The BCA's policy positions are aligned with our own.
	BCA recently published its position on energy and climate change that states support for the science of climate change, the Paris Agreement and technology-neutral energy policy. We welcome these developments and will continue to engage and advocate with BCA on climate change matters.
Carbon Market Institute (CMI), Australia	The CMI's policy positions are aligned with our own.
	The CMI is a strong advocate for the transition to a net zero emission economy and the objectives of the Paris Agreement. They have also provided valuable insights to support the development of our carbon offsets strategy.
Chamber of Minerals and Energy (CME), Western Australia	The CME's policy positions are aligned with our own.
	We have welcomed CME's confirmation of their support for the Paris Agreement and market-based carbon pricing mechanisms. We continue to support CME's role in facilitating industry collaboration on climate change policy in Western Australia.
Low Emissions Technology Australia (LETA, formerly Coal21)	LETA's research objectives are aligned with our positions.
	In 2019, LETA revised the objectives of its Constitution narrowing its scope to deliver tangible, large-scale projects to develop technologies that support the transition to a low emission global economy. We will continue to engage with LETA to support their research portfolio, focused on projects with potential to support the objectives of the Paris Agreement. This includes LETA's current focus on improving the economics and critical safety controls for scaling up the use of VAM technology, which is relevant to our decarbonisation program at Illawarra Metallurgical Coal.
Asociación Colombiana de Minería (ACM) (Colombian Mining Association)	ACM's policy positions on key climate change matters are not publicly available and weren't able to be confirmed within the review period for this report.
	ACM does not currently have a published policy on climate change and energy but is supportive of Colombia's commitment to the Paris Agreement. We are involved in technical working groups coordinated by ACM focused on environmental and social matters, which are deeply valuable to Cerro Matoso, and we will advocate for the ACM to establish a transparent position on climate change aligned to the Paris Agreement.
Minerals Council South Africa (Minerals Council)	The Minerals Council's policy positions are aligned with our own.
	The Minerals Council is instrumental in facilitating the just transition of South Africa towards a low carbon economy. We will continue to engage with the Minerals Council on climate change, as well as a range of other mining-related matters relevant to our South African operations.
New South Wales Minerals Council (NSWMC)	The NSWMC's policy positions are aligned with our own.
	In 2020, the NSWMC clarified and published their climate change positions. These align with our positions including support for the objectives of the Paris Agreement, and technology neutral energy policy.
Queensland Resources Council (QRC)	The QRC potentially holds a policy position misaligned with our own.
	The QRC published its Position on Energy and Climate Change in 2018 which outlines their support for 'global action on climate change' but does not directly reference support for the Paris Agreement. Consistent with Our Approach to Industry Associations, we have engaged with QRC on this issue and will continue to seek clarity on its position, advocate our own position, and identify opportunities for alignment.
South African National Energy Association (SANEA)	SANEA's policy positions on climate change matters are not publicly available and weren't able to be confirmed within the review period for this report.
	Given our Scope 2 emissions profile in South Africa is as a result of our facilities' current reliance on the coal-dominated energy grid, our membership of SANEA provides us important access to information and collaboration opportunities to address the unique energy, social and climate change challenges in South Africa. We will continue to engage with SANEA and advocate for them to establish a transparent position on climate change matters aligned to the Paris Agreement.

PROTECTING THE ENVIRONMENT

Key related ICMM Principle

6 ENVIRONMENTAL PERFORMANCE

Key related UN SDGs

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

14 LIFE BELOW WATER

15 LIFE ON LAND

Key related UNGC Principles

HUMAN RIGHTS

ENVIRONMENT

At South32, being responsible stewards of the environment is integral to the way we work. Successful environmental management is essential to our business and our relationships with local communities and other stakeholders. We work to protect natural resources including water, air, land and biodiversity so they are preserved for future generations.

We operate in a wide variety of environments which support a diversity of ecosystems. Without responsible stewardship, activities at our operations have the potential to impact these ecosystems through land clearing and removal of habitat and biodiversity, and contamination or degradation of land and water resources.

OUR APPROACH AND PERFORMANCE

Our approach to responsible environmental stewardship is designed to manage our risk profile, and harness opportunities to partner with our local communities and authorities to build the resilience of the ecological values in our areas of influence and in some cases, beyond. It is aligned with our stewardship commitments as a member of the ICMM and guided by ICMM Mining Principle 6 – Environmental Performance, and other recognised industry guidelines and statutory frameworks.

Our commitment to responsible environmental stewardship is embedded within our Code of Business Conduct and Sustainability Policy, and our environmental management approach is codified in our internal environment standard. Additional requirements specific to our local contexts are included in our operational management plans and procedures.

Our environmental management is supported by EQuIS, a global environmental data management database that was implemented during FY19 and FY20 to improve our data recording and information sharing across the business.

Working with our local communities helps us understand our environmental impact, address community concerns and improve our practices. Our community engagement and complaints and grievances processes enable us to record and respond to complaints about environmental issues such as dust, noise and water management in a timely manner. Read more about this on page 59.

Our environmental considerations span the full life cycle of our business. An essential part of our work is securing environmental approvals for our exploration and development projects, as well as life extensions of our existing operations.

We have significant environmental approvals in progress to support our mine plans at Worsley Alumina, Illawarra Metallurgical Coal, GEMCO, Cerro Matoso and to support the development of our Hermosa project.

We undertook a detailed review of our internal environment standard in FY20 to ensure that it supports performance in our key stewardship areas (such as water and biodiversity) and supports the on-ground management of all environmental aspects.

Our systems and standards are regularly reviewed to ensure they reflect current legal requirements and ICMM guidelines. We conduct internal and external assurance to evaluate our performance and identify opportunities to further improve. Through our annual planning, we assess our performance and changing risk profile, to determine priorities for the coming year.

In FY20, we responded to questions and clarified concerns from the Centre for Environmental Rights in South Africa, regarding compliance with our water licences, as part of their broader review of compliance across the South African coal industry.

Land and biodiversity

6 ENVIRONMENTAL PERFORMANCE

15 LIFE ON LAND

ENVIRONMENT

We seek to protect ecosystems and avoid and minimise biodiversity impacts and land disturbance. We recognise the importance of biodiversity conservation, the need for properly designated and managed systems of protected areas, and integrated land use planning. We have undertaken not to explore or mine in World Heritage Areas and to respect legally designated protected areas.

Globally, we have land holdings of around 700,000 hectares, of which 90 per cent are in Australia. Of these landholdings, we have disturbed around three per cent and rehabilitated around two per cent. We have set aside just over 2,000 hectares of land for conservation at Cerro Matoso, South Africa Energy Coal and Illawarra Metallurgical Coal.

Some of our operations are exposed to elevated biodiversity risk due to their proximity to protected areas and high biodiversity value areas, or interaction with threatened species. These include:

– Worsley Alumina is located in the south-west region of Western Australia, which is one of 36 global biodiversity hotspots in the world, as defined by Conservation International. We also manage the spread of dieback (a plant pathogen that can cause disease, death and potential extinction in susceptible plants, and loss of habitat for animals) at this operation;

– At GEMCO, we manage the risk of spread of the cane toad and potential impacts on a number of threatened species, such as the vulnerable Northern Hopping Mouse (*Notomys aquilo*); and

– At Illawarra Metallurgical Coal, we have programs in place to protect and manage a number of sensitive vegetation communities and nationally listed species, such as *Persoonia hirsute*, which occurs within and adjacent to our operations.

OUR APPROACH AND PERFORMANCE

Our approach to managing biodiversity and land is guided by ICMM's Mining Principle 7 – Conservation of Biodiversity and Position Statement on Mining and Protected Areas, as well as industry guidelines and our legal requirements.

Our commitment to land and biodiversity is embedded within our Sustainability Policy and codified in our internal environment and closure standards, with the local/regional biodiversity context considered in the development of operational procedures. Our standards include requirements for assessment of biodiversity risks and opportunities, conservation of high biodiversity value areas, pre-clearance surveys and progressive rehabilitation.

To identify operations with material biodiversity-related risk and opportunity, we apply a screening process that considers:

– Projected changes in climate conditions;

– Proximity of the operation to areas of high conservation value;

– Regional context, development planning and cumulative impact implications;

– Community concerns and perceptions; and

– Media analysis.

Where a material biodiversity-related risk has been identified, we conduct impact assessments, and develop and implement controls. We align our controls with regulatory requirements and the mitigation hierarchy of avoidance, minimisation, restoration through to offsetting where necessary. At Worsley Alumina, we commenced work in FY20 on biodiversity offset planning that will evolve over the coming years to guide our approach to future offsetting over the life of the operation.

We progressively rehabilitate areas no longer required for mining or processing activities. During FY20, we rehabilitated 400 hectares of disturbed land across our operations, increasing our total rehabilitated area to 15,950 hectares. We monitor the success of our rehabilitation against specific end-state performance criteria and continually improve our techniques to increase success rates and ecological value. For example, in FY20 at Worsley Alumina we commenced a seed production trial using a modified rehabilitation technique to construct temporary seed orchards within existing rehabilitation areas. This trial aims to enhance ecological diversity by using our land for cultivation of native seed to complement our wild seed collections. We expect our first harvest in January 2021.

Since 2016, GEMCO has worked in collaboration with the Northern Territory Department of Environment and Natural Resources, the Anindilyakwa Land Council and the Department of Agriculture, Water and Environment to develop a Threatened Species Management Plan. The plan focuses on threatened terrestrial fauna species occurring across the Groote archipelago and maps out management, research and monitoring actions for the next ten years. Key actions from the plan have been described in GEMCO's biodiversity offset strategy and a steering committee has been established to help oversee the implementation of the plan.

We continue to look for opportunities to engage externally to promote improved biodiversity outcomes. We are collaborating with industry peers in the south-west of Western Australia to improve regional biodiversity value and manage dieback around Worsley Alumina. At Illawarra Metallurgical Coal we are supporting research to improve propagation success of *Persoonia hirsute*.

South32's Intelligent Land Management (ILM) program was initiated in 2016 to generate shared financial, social and environmental value from our non-operational lands and assets, while increasing the climate resilience of our operations and host communities. In FY20, we continued our ILM assessments and project development at our Australian operations; however, our work program was delayed due to COVID-19. The program has been deferred in FY21 due to the ongoing impacts of COVID-19 on our business and ILM partners and will be assessed for recommencement in FY22.

GEMCO has worked in collaboration with the Northern Territory Department of Environment and Natural Resources, the Anindilyakwa Land Council and the Department of Agriculture, Water and Environment to develop a Threatened Species Management Plan.

Water

Water is a valuable shared resource that requires integrated management to ensure it is available and suitable for use by everyone. It is a critical input for our business for mining, refining and smelting through to dust suppression, tailings management, drinking and sanitation purposes. Given this reliance on water, it is essential we have security of supply, while avoiding impacting the quality and availability of water for communities and the environment within the catchments where we operate.

Water is a strategic risk for our business due to:

– Security of supply and potential for competition and conflict for water access;

– Climate change and its projected physical impacts on our operations and catchments, including decreasing rainfall and drought, increased extreme weather events and increasing temperatures;

– The growing importance of water as a scarce resource and access to water as a human right; and

– Evolving stakeholder expectations.

Six of our operations and one of our development projects are located in areas of baseline water stress. We determine baseline water stress using the World Resources Institute's (WRI) Aqueduct Tool[1] based on operations within 'medium to high' areas of water stress or above, including 'arid to low water use'[2] areas. For the remainder of our operations:

– Three are located within areas of 'low to medium' baseline water stress; and

– Three are located within 'low' baseline water stress areas.

Almost all the water we source for our operational needs comes from groundwater and surface water, with smaller volumes from sea water and third-party suppliers. Our operations that require the largest volumes of water are Worsley Alumina and South Africa Energy Coal. Approximately half of our water input is low quality water that is considered unsuitable for most purposes. We recycle as much water as possible to limit our dependency on shared water.

Almost 54 per cent of our water input is consumed in our operational processes or evaporated. The remainder is either discharged in line with our regulatory requirements to surface water, groundwater, sea water or piped to third parties.

We have identified material water-related risks at Hillside Aluminium, Mozal Aluminium, Worsley Alumina, Hotazel Manganese Mines and Illawarra Metallurgical Coal. These risks include a range of challenges for long-term security and access to water, for both our operations and neighbouring communities. Read more about our strategic risks on page 24 of our Annual Report.

OUR APPROACH AND PERFORMANCE

Our approach to water stewardship takes a whole of catchment view when looking at our operational water supply. Our objective is to manage and reduce operational risks, protect and optimise our long-term business value, and support our communities to meet future water challenges. Our approach is guided by the ICMM Position Statement on Water Stewardship, is aligned with our legal requirements and codified in our internal environment and closure standards. We report our data in accordance with the Minerals Council of Australia's Water Accounting Framework.

We maintain water balances for all our operations and conduct periodic water resource risk and opportunity assessments, which consider:

– Baseline water stress, as defined by the WRI Aqueduct Tool;

– Rainfall and evaporation predictions;

– The results of our climate resilience assessments;

– Operational water requirements and production forecasts;

– Water supply options in the catchment;

– Socio-economic context; and

– Knowledge from local and regional governments on municipal water supply.

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(1) The WRI Aqueduct Tool has limitations due to the limited detail of datasets for some of these locations, and the exclusion of groundwater resources.

(2) The definition of 'arid and low water use' is derived from the WRI Aqueduct Tool and the descriptions for baseline water stress: Low (<10 per cent); Low to medium (10 - 20 per cent); Medium to high (20 - 40 per cent); High (40 - 80 per cent); Extremely high (>80 per cent); Arid and low water use; and no data.

Our FY20 water data is provided in the 'Sustainability performance data' section on page 74.

For operations with material water-related risks, we implement controls which consider the broader catchment context. For Hillside Aluminium and Mozal Aluminium, we have installed desalination plants to maintain a secure supply through periods of drought, reducing the load on the municipality water network. For Worsley Alumina, we are investigating options to reduce overall water consumption at the refinery, recognising broader water scarcity issues for the region. At Illawarra Metallurgical Coal, we have invested in water treatment plants at Appin West to maximise water reuse and reduce our reliance on the Sydney water network and we are studying options for reuse of our mine discharge water at Dendrobium.

To assist in managing our material water-related risk, we develop contextual water targets. These specific, time-bound commitments aim to deliver an intended outcome based on the environmental and social context of the local catchment. Establishment of our contextual water targets is informed by:

– Existing water-related management activities;

– Targets for water use in operational activities;

– Current and forecast status of catchment conditions;

– Current catchment user needs and local regulatory processes (local water context); and

– Our external water commitments including the UN SDG 6 targets.

Our material water-related risks, contextual water targets and FY20 progress are detailed in Table 6.1.

Table 6.1 Our material water-related risks and contextual water targets[1]

Operation	Water-related material risk/s	Contextual water target	Year it was set	FY20 progress
Hillside Aluminium	Drought in the region means there is a risk of variability and disruptions in water supply to our smelter.	We will develop an integrated and catchment-wide water management plan by the end of FY20, with the expectation that the plans will be fully implemented by the end of FY23.	FY19, currently under review.	This target is under review. We commenced mapping of the current water-related initiatives and context of the Mhlathuze Catchment. This information will be used to revise the target for Hillside Aluminium to align commitments with immediate water needs of the catchment and its communities. This review is planned for the first half of FY21.
Hotazel Manganese Mines	Growing water scarcity, increasing competition for resources and the ageing distribution infrastructure in the region mean there is a water supply risk to Wessels and Mamatwan mines, and the town of Hotazel.	This target will be developed in FY22.	Not applicable.	In FY20, we commenced development of an operational water strategy aimed at sustainable use and management of water security for our future activities, the Hotazel town and communities in the region, to be progressed during FY21.
Illawarra Metallurgical Coal	Growing water scarcity in the region, stakeholder focus and changing regulatory requirements are risks to operational water management, regulatory compliance and the Sydney water catchment.	This target will be developed in FY22.	Not applicable.	In FY20, we continued to build maturity in our water management processes, with a focus on risk management and supporting the life extension of the Dendrobium mine.
Mozal Aluminium	Drought in the region, water restrictions and extreme weather mean there is a risk of variability and disruptions in water supply to our smelter.	Identify opportunities to improve community access to water of the Boane District by June 2022.	FY19, updated in FY20.	We reviewed and updated our target to align commitments with immediate water needs of the catchment and its communities, and specifically within the Boane District in which we operate.
Worsley Alumina	Insufficient water in the refinery catchment lake could result in water supply disruptions to the refinery.	Work towards delivering a 10 per cent reduction in water demand at the refinery by FY28.	FY19	We progressed studies on projects that have the potential to deliver co-benefits in water demand reduction, decarbonisation and energy security.

(1) This table excludes South Africa Energy Coal, which is subject to a current divestment process.

ILLAWARRA:
A PROUD HISTORY WITH
A SUSTAINABLE FUTURE

Illawarra Metallurgical Coal has a proud place in the heart of New South Wales' southern coalfields and a tradition of working in partnership with local communities and supporting local businesses and families.

Illawarra Metallurgical Coal has a long history of mining in the region dating back to 1935. This operation has evolved over the last 85 years and today we operate two large underground longwall metallurgical coal mines – the Appin mine and the Dendrobium mine – as well as the West Cliff and Dendrobium coal preparation plants. We produce high quality metallurgical coal used for steelmaking, which is used domestically and around the world.

The next step in South32's investment in the Illawarra region is the Dendrobium mine extension project to extend the life of the Dendrobium mine. The mine has development consent until 2030; however, its current mineable reserves will be depleted by 2024. The company is seeking approval for the continuation of longwall mining activities within the mine's existing lease.

If approved, the project will support the continuation of 500 direct jobs at the mine as well as create an additional 200 jobs during construction. The extended life of the Dendrobium mine would contribute approximately A\$700 million in royalties, taxes and rates along with a net benefit of A\$2.8 billion to the New South Wales economy. It would ensure the continued support for local businesses and sustain the supply of metallurgical coal to BlueScope Port Kembla Steelworks, which itself is a major local employer.

TAKING A RESPONSIBLE APPROACH
South32 takes its environmental responsibilities seriously and we understand the sensitivities of working in the Metropolitan Special Area, where the Dendrobium mine operates.

To meet our internal water management standards, we have worked to design our current and future mining areas to avoid sensitive surface features. Specific measures include longwall setbacks of up to one kilometre from walls of prescribed dams, and no longwall mining beneath Cordeaux and Avon dams, named watercourses and key stream features including waterfalls and permanent pools.

The outcome of these commitments will leave over 25 million tonnes of coal unmined, supporting our sustainable mining practices while maintaining a viable project well into the future. Additionally, the Dendrobium mine operates under a regulatory framework which includes strict performance criteria and comprehensive monitoring and reporting requirements.

ENGAGING OUR STAKEHOLDERS

Our engagement in relation to the Dendrobium mine extension project has had a strong focus on ensuring the best outcomes for water management and the environment more broadly. The Illawarra Metallurgical Coal team began engaging the community and other stakeholders from an early stage – holding regular discussions on the project. The company has also engaged fully with the New South Wales Government, key agencies and entities including WaterNSW, NSW Department of Planning, Industry and Environment, Dam Safety NSW, Sydney Water, NSW Environment Protection Authority and local government.

Our Environmental Impact Statement – a key part of the Dendrobium mine extension project approvals and planning process – went on public display in July 2019. A total

of 775 submissions have been received. Of those, 720 submissions were from members of the public, with 81 per cent indicating support for the project.

We also supported the work of an independent expert panel established in 2018 by the New South Wales Government to review and report on coal mining activities in the Greater Sydney Water Catchment Special Area. The panel was led by the Office of the NSW Chief Scientist and Engineer and we provided water-related data, briefings and inspections of the catchment in areas relevant to our operations.

The New South Wales Government announced in 2020 that it had accepted all 50 recommendations made by the independent panel, creating greater certainty for all stakeholders and further protection for the region's water supplies. Through working with

our stakeholders, we are progressing opportunities at our operations to improve broader sustainability of water management throughout the catchment.

Illawarra Metallurgical Coal Vice President Operations Wayne Bull said: "The sustainable management of water is critical to the mine's ongoing success. We are committed to the highest environmental standards and working with the community and all levels of government to achieve the best outcomes."

We are proud to be a central part of the Illawarra and Wollondilly communities and remain committed to being a responsible company with a sustainable future. We look forward to many more years of operation, providing jobs, opportunities and support for the communities in which we operate.

Other environmental stewardship responsibilities

The nature of our mining and processing activities can result in gaseous air emissions, dust, noise and waste. We aim to prevent and minimise any effect on neighbouring communities and the environment.

EMISSIONS

The air emissions from our operations include oxides of sulphur (SOx), oxides of nitrogen (NOx) and particulate matter. Our greenhouse gas emissions are detailed in the 'Climate change' section of this report.

Our approach to controlling and monitoring air emissions is focused at their source and on understanding impacts on local airsheds (air catchment areas). To help reduce the potential impact and improve ambient air quality, we actively engage in local airshed forums and studies near our operations. For example, we participate in the Collie airshed study in the south-west of Western Australia, which is within the airshed of Worsley Alumina.

We report annually on the air emissions from our Australian operations to the National Pollutant Inventory which can be viewed at *www.npi.gov.au*.

During FY20, we enhanced our ambient air monitoring programs across a number of our operations with a focus on particulate matter. We increased real-time monitoring capacity at several sites including Metalloys, TEMCO, GEMCO and Cannington. These changes have enabled us to refine and improve our operational management processes and minimise the impact on the surrounding environment. At Cerro Matoso we continue to focus on managing fugitive dust emissions through the development of an improved air dispersion model and an ambient air monitoring program.

Our air emissions data is provided in the 'Sustainability performance data' section on page 73.

WASTE MANAGEMENT

Aside from tailings, which is our highest volume waste stream from our mining operations, we manage various other waste streams including waste rock, wastewater and waste materials containing hazardous chemical or physical properties. Read about our approach to tailings waste on page 64.

Our approach to managing waste is guided by ICMM Mining Principle 8 - Responsible Production, and the mitigation hierarchy of prevention, minimisation, reuse, recycling, energy recovery and disposal. Waste considerations are included in our operational risk assessments.

During FY20, we continued work on a waste reduction methodology to deepen our understanding of our risks and opportunities. This work will assist us to identify initiatives to reduce our footprint.

Working with communities

BUILDING STRONG AND MEANINGFUL RELATIONSHIPS

Working with communities continued

Key related ICMM Principles

Key related UN SDGs

Key related UNGC Principles

HUMAN RIGHTS

LABOUR

ENVIRONMENT

We are a business with a purpose and believe trust and transparency are essential to the way we operate. For us, this means being in touch with the broader community, considering different perspectives and working together to create value for all our stakeholders.

We care about the people and groups who are interested in and have a say in what we do, or who are impacted by our operations.

OUR APPROACH AND PERFORMANCE

Understanding our communities

There is broad socio-economic diversity across the various communities, regions and countries in which we operate, and we work to build strong, honest and meaningful relationships with our communities.

We follow rigorous processes to understand the unique social, cultural and legal contexts we're operating in. Informed by ICMM Mining Principle 9 – Social Performance, our internal community standard describes our community engagement approach and responsibilities. We regularly complete and review social baseline studies, social impact and opportunity assessments, community perception surveys and stakeholder identification and analysis to identify and understand who our stakeholders are and what they need. We have regular, open and honest conversations to better understand what our stakeholders need and expect.

Investing in our communities

From providing jobs and business opportunities, to empowering suppliers and supporting community programs, we know we can make a significant contribution to the way people live and work.

Our operations are just one part of a bigger picture. When planning our community investment, we look beyond the life of our operations and focus on the people surrounding them, working in partnership to create healthier and stronger communities.

Our Community Investment Framework sets priority investment areas aligned with the UN SDGs and reflect our communities' priorities. These are:

– **Education and leadership:** Quality education is the foundation of economic and social prosperity and supports the development of emerging and future community leaders;

– **Economic participation:** Economic opportunity and participation ensure that local and regional economies are resilient now and sustainable into the future;

– **Good health and social wellbeing:** Health and social wellbeing are integral to sustainable development and contribute to vibrant communities; and

– **Natural resource resilience:** Communities that live in balance with their natural environments are resilient and sustainable.

During FY20, we developed an impact measurement framework to measure the impact of our investments across these areas. The framework is being applied to existing and new community investment partnerships in FY21. This will help us consistently improve our community investment approach and enhance our impact.

During FY20, we invested US$24.5 million in community initiatives and activities which included:

- Training 600 local farmers surrounding our Mozal Aluminium operations in agricultural production techniques and improved connections to markets to help build a sustainable agricultural sector in the region;

- Partnering with Queensland Minerals and Energy Academy through Cannington to develop the science, technology, engineering and mathematics (STEM) skills of over 150 students with a focus on increasing women and Aboriginal and Torres Strait Islander representation;

- Sponsoring the Imbumba Foundation's Caring4Girls program in South Africa which aims to keep girls in school when they have their menstrual cycle by providing sanitary packs. The program has supported over 3,000 girls;

- Helping more than 500 families to build and renew their own houses in Colombia, leading to improved health and social wellbeing outcomes;

- Providing over 100 villages with improved access to water and sanitation services at our African operations as part of our COVID-19 response;

- Matching US$207,225 of employee contributions through our Matched Giving Program. Since 2016 we have matched more than US$498,000 of employee contributions; and

- Donating A$1 million to organisations dealing with the Australian bushfire crisis.

Our FY20 community investment included US$5.09 million to areas that urgently needed assistance in responding to the COVID-19 pandemic, supporting our communities' efforts to prevent, prepare, respond and recover from the disease. Read more about our community COVID-19 contributions on page 58.

Read more about **our work with communities**

at *www.south32.net.au*

Diagram 7.1 FY20 community investment by country[1]

1.84
7.44
9.73
24.5
FY20 community investment by country (US$ million)
3.76
1.73

- Australia
- Colombia
- Mozambique
- South Africa
- United States
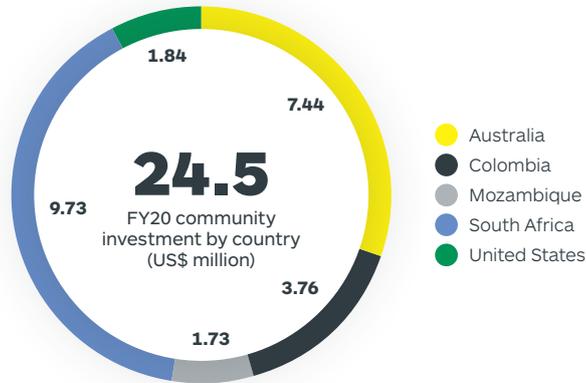
(1) Community investment consists of direct investment, in-kind support and administrative costs.

From providing jobs and business opportunities, to empowering suppliers and supporting community programs, we know we can make a significant contribution to the way people live and work.

Supporting our communities during COVID-19

Our response to COVID-19 is built around three areas – keeping our people safe and well, maintaining safe and reliable operations, and supporting our communities.

As COVID-19 began to spread rapidly around the world, we established a COVID-19 Community Investment Fund, pledged US$7 million to the areas that needed it most. We developed a regional response approach across all our operations using a four-stage framework:

– **Prevention:** Creating awareness and supporting the prevention of an outbreak of COVID-19 in local communities and in the workforce to prevent transmission;

– **Preparedness:** Identifying what needs to be done to respond effectively, and to support local authorities in preparing for an outbreak in communities including capacity and capability building;

– **Response:** Supporting efforts to respond effectively to an outbreak in local communities; and

– **Recovery:** Strengthening health systems and socio-economic resilience of communities to rebuild and respond to similar outbreaks in the future.

As part of this investment commitment, we:

– Donated R10.5 million to the South Africa Solidarity Fund and pledged R50 million to help the local communities surrounding our South African operations;

– Donated A$1 million to support the local communities surrounding our Australian operations, distributed between three organisations – The Royal Flying Doctor Service, Foodbank and Lifeline – to assist people living in regional and remote areas and provide mental health services and essential supplies to those that need it most;

– Matched US$47,804 of employee contributions dollar-for-dollar to causes responding to COVID-19 in South Africa, Mozambique, Colombia, Australia, the United States and Singapore; and

– Partnered with business groups local to the Hermosa project, Cannington, Illawarra Metallurgical Coal, TEMCO and Worsley Alumina on socio-economic recovery initiatives worth US$278,802 in total.

Examples of the community outreach that has taken place across our operations, include:

– In Australia, we donated A$200,000 to support local economic and business recovery post COVID-19, established a new medical clinic on Groote Eylandt to manage impacts on local health services and distributed care packages for Indigenous communities and supplied 233 laptops to support online schooling;

– In Colombia, we distributed 30,000 food parcels, 98,000 items of medical supplies, 125,000 litres of water and 900 COVID-19 testing kits;

– In South Africa, we distributed over 30,000 masks and hand sanitiser, provided screening tools and PPE for field staff for 100,000 households and improved access to water and sanitation services to more than 100 villages;

– In Mozambique, we renovated the Matola health clinic to accommodate COVID-19 patients and distributed over 80,000 items of medical equipment to avoid spread of COVID-19; and

– In the United States, we contributed US$60,000 for the upgrade of medical infrastructure and donated US$50,000 for urgent financial relief to small businesses in Southern Arizona.

Protecting our communities

We are committed to working with our communities to understand and manage the potential impacts of our operations and to keep them healthy and safe.

We actively monitor existing and emerging health risks and trends that may impact communities surrounding our operations. Recent examples of community health risks include nickel exposure, silicosis, coal workers' pneumoconiosis and chronic low-level manganese exposure. Our membership of industry associations, such as the ICMM and the International Manganese Institute, provide guidance and research into best practice management of potential community health impacts.

At our manganese operations which are located close to communities, fit-for-purpose air quality monitoring programs are in place to measure and model the impact of dust. We have redesigned and enhanced the air monitoring programs, including the addition of real-time monitoring equipment at GEMCO, TEMCO and Metalloys, which enables continuous improvement in operational management of fugitive emissions.

Since 2015 Cerro Matoso has run a community participatory environmental monitoring program that has given community members the technical skills to understand and participate in the air and water monitoring. The program is to be expanded with more community members being trained to participate in the environmental monitoring and surveillance and it will be bolstered by the installation of seven new monitoring stations to be placed in the communities later in 2020. The stations will measure particulate matter, nickel and meteorological variable and will also be analysed and presented to the communities on a two-yearly basis by a university that specialises in environmental and public health.

Listening to our communities

We listen to and report complaints and grievances which we receive, anonymously or otherwise, through our complaints mechanism and we address them as a priority.

Our community complaints and grievances process is aligned with the Guiding Principles on Business and Human Rights and the UN's Protect, Respect and Remedy Framework, specifically to:

– Acknowledge, investigate and document all complaints;

– Allow for anonymous reporting of complaints;

– Complete appropriate remedial action;

– Communicate transparently with complainants; and

– Be readily available to all members of host communities.

In FY20, we updated our internal guidance across all our operations to improve our complaints and grievance process. We will continue to assess the effectiveness of our processes.

We received 280 complaints in FY20 compared to 123 complaints received in FY19 (refer to Diagram 7.3). This was mainly due to more noise complaints at Illawarra Metallurgical Coal and Worsley Alumina. Fifty-nine per cent of the complaints were noise-related and of these, 46 per cent were recorded at Illawarra Metallurgical Coal and 50 per cent at Worsley Alumina.

At Illawarra Metallurgical Coal, in response to complaints related to driver behaviour, we implemented training and drivers code of conduct guidelines. To better manage noise, we have reduced vehicle reversing alarms, improved monitoring and coordination between personnel, and regular briefing of the workforce on the importance of minimising impacts on our local communities.

Diagram 7.3 FY20 community complaints by type

- Noise
- Traffic
- Other
- Dust
- Engagement
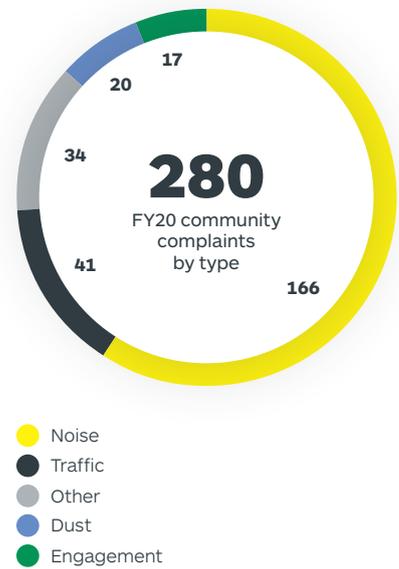
Working with Indigenous Peoples

We recognise the traditional rights and values of Indigenous Peoples and respect their cultural heritage.

We work to obtain free prior and informed consent before we operate, consistent with the ICMM Position Statement on Indigenous Peoples and Mining and the International Finance Corporation's Indigenous Peoples Performance Standard. As a company, we understand the importance of engaging and working with our Traditional Owners and Indigenous groups in relation to our activities and processes.

AGREEMENTS

We currently have 10 formal agreements with Indigenous Peoples' communities at GEMCO and Cerro Matoso. Three agreements with the Traditional Owners of Groote Eylandt and the Anindilyakwa Land Council enables us to mine in the western and eastern leases and conduct exploration in the island's southern areas. In Colombia, Cerro Matoso has seven community agreements with the Indigenous Zenu People for improved health and socio-economic outcomes and we have voluntarily entered into another eight agreements with Cerro Matoso non-Indigenous communities including the two Afro Colombian communities of San José de Uré and Boca de Uré. Developed in consultation with our communities, these agreements lay the foundation for improved health and socio-economic outcomes.

CULTURAL HERITAGE

We support the preservation of cultural heritage. We recognise and respect sites, places, structures and objects that are culturally or traditionally significant.

We conduct heritage surveys in consultation with traditional and local communities to identify and protect areas and objects of significance. Governed by our community and environment standards, we ensure our governance processes and cultural heritage approvals meet legal and stakeholder requirements. Our work is supported by cultural awareness training of our employees, which is tailored to the local context at each location.

In Australia, we engage with Aboriginal and Torres Strait Islander peoples across our operations to ensure we understand our commitments to manage cultural areas of significance. Our operations and projects intersect many areas of cultural significance such as anthropological sites which have spiritual importance, and significant waterways with links to Dreamtime stories shared by the Traditional Owners. Management measures such as cultural heritage management plans and chance finds procedures are in place to meet our commitments in line with agreements and legislative approvals.

Our internal processes to manage cultural heritage are integrated across the business so that site work programs take account of areas of cultural significance and the views of traditional and local communities. In late FY20, we commenced a review of our approach to cultural heritage management to determine where we may need to strengthen or enhance our systems.

RECONCILIATION IN AUSTRALIA

South32's vision for reconciliation is for an Australia that embraces the histories and cultures of Aboriginal and Torres Strait Islander peoples and that, as a nation, we work collectively towards supporting all Australians. Our Reconciliation Action Plan (RAP) outlines how we'll do this, and what we'll do to create and sustain meaningful and respectful relationships.

We recognise that to achieve our purpose we must contribute to the societal efforts of reconciliation. Built on mutual respect, these relationships will result in real opportunities for both Aboriginal and Torres Strait Islander peoples and the business. We want to be a partner in the success of Aboriginal and Torres Strait Islander peoples in and around the communities where we operate.

While several of our operations have longstanding relationships with Aboriginal and Torres Strait Islander communities, we commenced our formal reconciliation journey in October 2018 when we officially launched our first RAP. This helped us establish the foundations of our approach.

Some of our key achievements since the launch of our 'Reflect' RAP include:

– Incorporating reconciliation objectives into our Community Investment Framework and stakeholder engagement plans;

– Hosting National Reconciliation Week and NAIDOC Week events at our operations around Australia to celebrate the unique cultures of our Traditional Owners;

– Implementation of an Indigenous Participation Plan at GEMCO to further increase participation for the Anindilyakwa people;

– Increasing local Aboriginal and Torres Strait Islander contracting spend at GEMCO by more than 13 per cent; and

– Joining Supply Nation to increase opportunities for Aboriginal and Torres Strait Islander businesses across Australia to work with us.

During FY20, through our community investment plans across Australia, we continued key partnerships that support our RAP:

- The MJD Foundation on Groote Eylandt, which works with people suffering from Machado-Joseph Disease, to support the funding of new medical equipment and technology, services such as physiotherapy, and improvements to remote community service delivery;

- The Polly Farmer Foundation learning clubs on Groote Eylandt to tutor and support primary school-age children; and

- Boddington District High School for an Aboriginal student engagement and achievement strategy to help increase the attendance and performance of Aboriginal and Torres Strait Islander students.

During FY20 we established a partnership with the Australian Indigenous Education Foundation for a national Indigenous secondary school scholarships and employment pathways program and commenced scoping and design for an Indigenous Leadership and Governance Program at GEMCO, Groote Eylandt.

We were proud to launch our Innovate RAP in September 2020, which raises the bar on our previous commitments as we work towards embedding reconciliation activities in our core business practices and decision-making. Our Innovate RAP represents the next phase of work across the Relationships, Respect and Opportunities Framework, consolidating what we have done to date and introducing new goals. Our Innovate RAP commits us to supporting reconciliation by:

- Establishing ourselves as an employer of choice for Aboriginal and Torres Strait Islander peoples and growing our Aboriginal and Torres Strait Islander workforce by five per cent year-on-year;

- Increasing the procurement of goods and services from Aboriginal and Torres Strait Islander businesses by 10 per cent year-on-year;

- Ensuring our people are culturally aware and possess the skills and knowledge to respectfully engage with Aboriginal and Torres Strait Islander peoples in their day-to-day work; and

- Building and maintaining strong relationships with Aboriginal and Torres Strait Islander peoples in the communities where we operate.

TRANSFORMATION IN SOUTH AFRICA

Transformation in South Africa refers to change that enables Black People to participate meaningfully in the main streams of the economy, by ways of owning, managing and controlling productive assets. Legislation has been passed to redress South Africa's historical socio-economic inequalities including the *Broad-Based Black Economic Empowerment (B-BBEE)* Act and the Mining Charter.

In September 2018, the new Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry (Mining Charter 2018) introduced changes to targets to strengthen meaningful transformation of the mining and minerals industry. In December 2018, the new Implementation Guidelines for the Mining Charter 2018 was released.

We report our progress against targets in the Mining Charter 2018 on an annual basis, with reports submitted to the Department of Mineral Resources and Energy (DMRE).

Transformation plan

South Africa's transformation imperative aligns to our purpose. Each operation in South Africa has a transformation plan based on transformation objectives and legislative requirements. The plans include actions and initiatives that support year-on-year improvements.

To transform our business in South Africa, we focus on local interests. By seeking local talent, suppliers and new business opportunities, we're contributing to improved competitiveness and economic growth.

While we made good progress in delivering our FY20 projects in line with our transformation plans, the impact of COVID-19 in South Africa delayed implementation of some projects due to national lockdown restrictions.

Department of Trade and Industry B-BBEE Scorecard

All our South African operating entities are audited annually for transformation progress in terms of the Department of Trade and Industry (DTI) *B-BBEE* Act 2003 as amended by Act 46 of 2013. The DTI released new Codes of Good Practice on preferential procurement, enterprise and supplier development, skills development, general principles, and updates on interpretations and definitions which became effective in December 2019.

Our South African operations will be assessed against these Codes with respect to the FY20 measurement period. We will include the findings in our FY21 reporting.

Our transformation plans have helped us increase our B-BBEE recognition points from FY19. Table 7.1 shows our scorecard increase from FY18 to FY19.

Table 7.1 DTI B-BBEE recognition points

Operation	FY18 Points	FY19 Points	FY19 Level
Hillside Aluminium	80.48	82.09	5
Hotazel Manganese Mines	72.64	81.43	5
Metalloys Alloy Smelter	62.98	76.64	6
South Africa Energy Coal	70.21	81.47	5

Levels as defined by the South African DTI B-BBEE Codes of Good Practice. The maximum score achievable is 111 points, and compliance is above 41.[1] Certificates are issued in October each year for the preceding financial year.

(1) Greater than 100 Level 1 - Compliant status with 135 per cent B-BBEE recognition.
Greater than 95 but less than 100 Level 2 - Compliant status with 125 per cent B-BBEE recognition.
Greater 90 but less than 95 Level 3 - Compliant status with 110 per cent B-BBEE recognition.
Greater than 80 but less than 90 Level 4 - Compliant status with 100 per cent B-BBEE recognition.
Greater than 75 but less than 80 Level 5 - Compliant status with 80 per cent B-BBEE recognition.
Greater than 70 but less than 75 Level 6 - Compliant status with 60 per cent B-BBEE recognition.
Greater than 55 but less than 70 Level 7 - Compliant status with 50 per cent B-BBEE recognition.
Greater than 40 but less than 55 Level 8 - Compliant status with 10 per cent B-BBEE recognition.
Less than 40 - Non-Compliant status with zero per cent B-BBEE recognition.

Social and Labour Plans and enterprise supplier development

We are committed to delivering socio-economic upliftment as detailed in our Social and Labour Plans (SLPs) for our mines and our socio-economic development plans. These have been developed in consideration of socio-economic baseline information and in alignment with the Integrated Development Plans (IDPs) of local authorities. Consultations with the local authorities and key stakeholders were conducted through the IDP process resulting in the selection of the projects to be supported.

At Hotazel Manganese Mines, our SLP for the period FY19-FY23 was approved by the DMRE with 11 community projects at an estimated value of R87 million (US$5.4 million) to be implemented over the five years. During FY20, we commenced implementation of the second year of these projects, including an education program aimed at improving high school students' performance and providing career guidance and support to apply for post-school opportunities.

We made positive progress on delivering against commitments in the SLP for South Africa Energy Coal. Highlights included construction of the Rockdale community health centre, a community skills development program and training of local Small, Medium and Micro Enterprises to provide services to South Africa Energy Coal's operational and community projects.

Through enterprise and supplier development (ESD), our goal is to develop and empower small local businesses to be financially and operationally independent in line with our transformation plans.

We are satisfied with the maturity levels of our ESD framework, which has a theme of 'value beyond compliance'. Our focus in FY20 has been to increase our local suppliers and ensure sustainability for all our beneficiaries. All our approved ESD businesses have been enrolled for business development support to ensure that directors are equipped with the skills and knowledge to run their businesses.

In FY20, we spent over US$4.59 million across our South African operations on the development of suppliers through our ESD programs in line with our FY20 transformation plans. All suppliers are based in the communities in which we operate.

Approximately 91 businesses participated in our ESD grant funding program in FY20 through various forms of support including assets, equipment, materials, and tools as well as business mentorship and coaching programs.

Employment equity and skills development

Our transformation plans include targets for year-on-year improvements in demographic representation across all levels of management, at all our operations in South Africa.

The skills development plans for each operation are aligned with the objectives of the SLP, DTI codes and employment equity, to ensure the supply and availability of skilled, competent and empowered employees. It also provides career development for employees and the communities in which we operate.

In FY19, the representation of Black employees across our South Africa operations was 72 per cent of our junior management, 59 per cent of middle management, 45 per cent of senior management and 69 per cent of our top management.[1]

SOUTH AFRICA ENERGY COAL DIVESTMENT

In November 2019, we entered into a binding conditional agreement with Seriti Resources for the sale of South Africa Energy Coal, with the intention that it becomes sustainable, black-owned and operated in line with the South African Government's transformation agenda. As part of the agreement, Seriti Resources will also fund the acquisition of shares in South Africa Energy Coal for two trusts which will hold equity on behalf of employees and communities.

Subject to a number of material conditions being satisfied, the transaction remains on track to be completed in the December 2020 half year.

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(1) Representation figures for FY20 are available in October as part of the certification of the South African DTI B-BBEE recognition.

Responsible operations

MANAGING OUR MINING AND PROCESSING ACTIVITIES
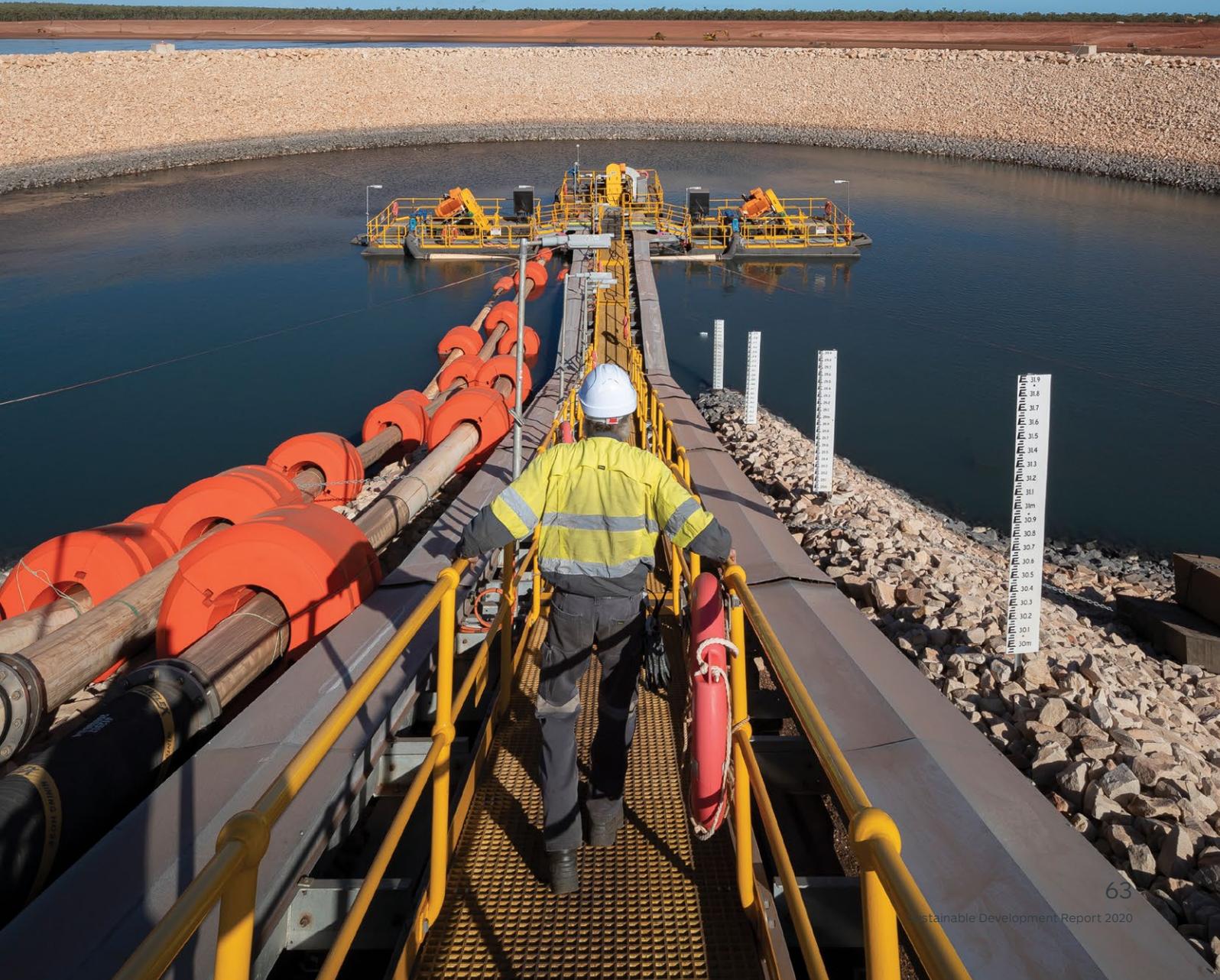
Tailings

8 RESPONSIBLE PRODUCTION

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

15 LIFE ON LAND

ENVIRONMENT

Management of tailings and water retaining dams is an integral part of our mining and processing activities. We are committed to the safe and responsible management of our tailings storage facilities (TSFs).

Tailings dam failure is a strategic risk for our business due to the potential for catastrophic consequences to communities, the environment and our business. We have 37 TSFs across our operations, and 20 of these are active. Sixteen of our TSFs use the upstream construction method across seven locations. A directory of our TSFs at each operation is available on *www.south32.net*, including the TSFs of our non-operated interests. At an operational level, we manage tailings dam failure as a material risk at GEMCO, Worsley Alumina, Cannington, Illawarra Metallurgical Coal (the water dam) and South Africa Energy Coal.

OUR APPROACH AND PERFORMANCE

Our approach to TSF management is designed to maintain their structural integrity. We design, construct, operate, monitor, maintain and decommission all our TSFs consistent with regulatory requirements, applicable guidelines, standards and obligations. We apply this rigour across all phases of the TSF life cycle, from initial planning and site location through to closure, rehabilitation, post-closure monitoring and maintenance.

Our approach is consistent with the ICMM Tailings Governance Framework and Position Statement on Preventing Catastrophic Failure of Tailings Storage Facilities and industry practices such as the Australian National Committee on Large Dams (ANCOLD) guidelines. These requirements are embedded within our internal dam management standard, which includes:

- **Accountability and competency:** Our tailings specialists set our standards, oversee implementation and integrate improvements to support our health, safety and environment teams or operational tailings experts;

- **Long-term tailings planning:** Long-term planning and budgeting for new TSFs, including evaluation of alternative storage practices and locations;

- **Design and construction requirements:** Our TSFs must be designed and constructed using the ANCOLD guidelines as the minimum standard using suitably qualified engineers and independent specialists for review;

- **Operating and monitoring requirements:** All TSFs must have an Operations, Maintenance and Surveillance (OMS) manual, must be operated and monitored according to the OMS manual and are monitored and managed by the engineering teams at each site with no excess water; and

- **Risk management:** All tailings and water retaining structures must be classified according to the ANCOLD consequence category (hazard rating) classification. The classification should be determined with the assistance of independent expertise and use appropriate dam break scenarios and methodologies.

As a member of ICMM, we are working with our peers to better understand and implement best practices to manage TSF risks. We are supportive of the new Global Industry Standard on Tailings Management developed by the Global Tailings Review (a joint initiative between the ICMM, United Nations Environment Program and Principles for Responsible Investment). We will review the new requirements in conjunction with ICMM implementation guidelines and will progressively integrate requirements into our standards and practices.

We review and audit TSFs regularly, including internal and independent external assurance activities, to monitor the controls in place and confirm compliance with our standards. We also work closely with our joint venture partners at our non-operated sites to support the effective management of TSFs.

In line with our approach to ensure all our dams globally are classified and managed in accordance with ANCOLD, we completed an assessment of the majority of our dams against these guidelines in FY20. Our progress was disrupted by COVID-19 as the lockdown restrictions prevented site work.

In addition to our normal operational monitoring of TSFs, in FY20 we implemented Group-wide Interferometric Synthetic Aperture Radar (InSAR) monitoring at our operations, using satellite data to evaluate deformation.

In November 2019, we became aware of occasional burning of the coal slurry within the Rietspruit TSF at the closed Rietspruit mine in Mpumalanga. This was identified through work being conducted to assess our dams under ANCOLD standards. Mitigation measures were implemented to minimise any potential impact to the structure. This included covering burning areas, digging a drainage channel that enabled excess water run-off to be managed and construction of a berm to provide an additional barrier. We have also increased monitoring of the TSF while the closure plan is being implemented.

We support the transparent disclosure of our TSF management and respond to stakeholder requests for information. For example, in response to the Investor Mining and Tailings Safety Initiative in 2019, we published our Tailings Storage Facilities Management report with details on our TSF inventory at the time.

REMEDIATING DECADES OF LEGACY MINE WASTE

The Hermosa project is a high-grade zinc, lead and silver development option near the town of Patagonia in southern Arizona. South32 became the owner of the Hermosa project following the acquisition of Arizona Mining in August 2018.

Nestled in the Patagonia Mountains in Santa Cruz County, around 1,600 metres above sea level, the area around the Hermosa project is unique in terms of biodiversity and ecotourism. Protecting the local environment and preserving the character of the local community is a key focus for the team.

The Hermosa project is located at a site that was first developed in the late 1890s and mined for its lead, zinc and, to a lesser extent, silver. It includes the remains of the former Trench Mine, a closed mine which was last operated more than 50 years ago, and this brought with it some environmental legacy issues that needed to be addressed.

Waste material, known as tailings, is produced in the mineral recovery process and usually takes the form of a liquid slurry made of water and fine mineral particles that are created when mined ore is crushed, ground and processed.

The existing tailings at the site of the Hermosa project, left behind from decades of mining activity, had a high moisture content and were located directly on undisturbed ground. This once-common type of tailings storage allowed stormwater to soak through the tailings, reach the undisturbed ground and enter local waterways during heavy rainfall, carrying various contaminants in the process.

As the Hermosa project is located on a site which required remediation, in 2017 the team set about designing a new tailings storage facility (TSF) and water treatment system that would reduce the risk of contamination of local waterways.

Identifying the most appropriate method of tailings storage was important to ensure the safe and sustainable operation of the facility. The design and approach adopted was a dry stack facility, which means the tailings are highly compressed with low moisture levels, minimising seepage risk and maximising stability. A multilayer liner system beneath the dry stacked tailings collects any water that soaks through or runs off the tailings and channels it to a water treatment plant. The liner system also includes a leak detection system designed to verify design performance.

The redesigned TSF meets the highest standards of safety in tailings storage and water conservation and complies with the Australian National Committee on Large Dams (ANCOLD) – a globally recognised industry standard for tailings management.

The project to remediate more than two million tonnes of waste from historic mining was carried out over two years and concluded in December 2019. It cost more than US$30 million and involved over a million combined work hours from South32 employees and contractors, most of them local to Santa Cruz County.

Today, the TSF is safer and more stable. The facility is managed and monitored by our engineers on an ongoing basis, in accordance with the highest safety standards in the industry.

With the Hermosa project nearing the conclusion of a pre-feasibility study into options for future mine development, it was important that the remediation demonstrated South32's operating standards in order to build trust with communities in and around the town of Patagonia. Members of the local community and other stakeholders have visited the site to learn more about the remediation work that has been undertaken.

Pat Risner, President of the Hermosa project, says: "South32 works to high standards and that matters deeply to our stakeholders, whether they own wells downstream from our site, own livestock close to the waterways, or own shares in our company. It also matters deeply to everyone who works at Hermosa. We need to be able to hold our heads high when we talk about our work, and I'm proud to say that we can do that. We have gone above and beyond the requirements of the state of Arizona in our approach to remediating the legacy tailings."

The remediation work was conducted under the Voluntary Remediation Program (VRP) of the Arizona Department of Environmental Quality, a program designed to encourage property owners and other interested parties to voluntarily invest in recovering contaminated sites to the appropriate standards. The program director, Laura Malone, says: "South32 has done a great job in designing and working with the VRP to ensure that we have the right system in place to address everything that's coming off their property, to include their future processing.

"It's a win for the environment, and that's first and foremost. It's a win for South32, because they have a viable mine site, and they're going to be able to be in that area for a long time. And it's a win for the agency, because we know we have a site that is being managed appropriately and works well with the agency to address any of our concerns."

See more about our dry stack tailings storage facility on *www.south32.net*.

Closure

11 SUSTAINABLE CITIES AND COMMUNITIES

HUMAN RIGHTS

ENVIRONMENT

Planning for the closure of our operations and sites is an essential part of the mining life cycle. We aim to achieve safe, stable closure outcomes which are aligned with our business, environmental and social objectives.

Operations within our portfolio that are late in their life where closure planning has commenced include GEMCO and Cannington. Areas of focus to manage closure risk include review of regulatory requirements, approach to decommissioning and dismantling infrastructure, cost estimation, removal or treatment of waste materials, remediation of any contaminated sites, rehabilitation of disturbed areas, and impacts on local economies and communities where we have a significant presence. As part of this work, we seek opportunities to partner with our communities and governments to identify post-closure land uses that generate environmental, social and economic value.

OUR APPROACH AND PERFORMANCE

Our approach to closure is integrated with our life of operation planning. We aim to optimise our closure outcomes by planning for closure during the design of our operations and ensuring our activities during operations are consistent with achieving our closure objectives, including progressive rehabilitation.

Our approach is guided by the ICMM Integrated Mine Closure Good Practice Guide, aligned with our regulatory requirements and codified within our internal closure standard. These requirements are embedded in our closure plans for each operation, which are routinely updated. Each plan outlines closure criteria, final land use options, providing the basis for closure cost estimates and associated financial provisions in our financial statements. Our life of operations plans provides guidance for progressive rehabilitation, which is planned annually and budgeted for by each operation.

During FY20, we continued to implement our closure plans across our operations and executed a range of progressive closure activities, including:

– Rehabilitation of 400 hectares of previously mined areas across our operations;

– An update of closure plans for Cerro Matoso, Illawarra Metallurgical Coal, Metalloys and the Hermosa project;

– Progressing closure planning of tailings storage at GEMCO to the feasibility study stage;

– Completion of remediation of tailings from a closed mine located on our present-day Hermosa project site. Read more about our remediation work on page 66;

– Continuation of removal of redundant infrastructure at Illawarra Metallurgical Coal, such as power poles and power lines no longer in use; and

– Active participation in industry closure forums such as ICMM's closure working group and the establishment of a Co-operative Research Centre (CRC) for closure in Australia (CRCTiME).

After consideration of its future economic viability we made the decision with our joint venture partner to place our South African manganese alloy smelter, Metalloys, on care and maintenance. We also progressed the review of TEMCO, our Australian manganese alloy smelter, and engaged our employees, governments and all other stakeholders throughout the process. In August 2020 we entered into a binding conditional agreement for the sale of GEMCO's shareholding in TEMCO to an entity within GFG Alliance.

At the end of FY20, the total closure and rehabilitation provision for our business amounted to US$1,830 million.

Our stakeholders

Stakeholder	Why we engage	How we engage
Business partners Joint venture partners.	We engage our joint venture partners to ensure risks are being adequately managed, appropriate governance mechanisms are in place and that value is delivered for shareholders.	Joint Venture Boards and Committee meetings, Joint Venture operational review calls and assurance audits. We engage frequently through a regular schedule and as required.
Community-based organisations Not-for-profit organisations at the community level.	We maintain regular contact with local environmental groups and community-benefit organisations and charities to understand their interests or concerns about our operations and planned activities, so their feedback can inform our approach.	Group meetings and briefings, one-on-one meetings, newsletters, phone calls and general correspondence. Our interactions are regular and as required.
Customers Companies that buy our products.	We are committed to reliable product supply including volume, quality, cost and delivery.	We closely engage with our customers on all issues, including ensuring that our products are used in the most efficient way. We also participate in product stewardship initiatives and customer surveys. We engage frequently through a regular schedule and as required.
Employees and contractors People that work for us.	We recognise the value of our people and the importance of timely and transparent engagement. With a well-informed and engaged workforce, the business is best placed to achieve its strategy.	We engage with our people using a variety of communications channels. This includes meetings, videos, toolbox talks, newsletters, forums, presentations, and web-based forums including SharePoint, Teams and Yammer. The frequency of our engagement is daily, weekly, monthly, quarterly, half yearly and annually depending on the engagement channel.
Governments and regulators At local, national and international levels.	We rely on a high level of public policy certainty to make commercial and operational decisions, in order to develop mineral resources with a minimum of risk. We build and maintain positive relationships to ensure governments and regulators understand policy and regulatory impacts on the business.	Engagement with government and regulators is wide-ranging, depending on the local context and issue. We engage through face-to-face meetings, emails, submissions, telephone calls and mail correspondence, as required.
Industry peers and associations Associations of shared interest groups.	Membership of key industry associations provides opportunities to understand, learn and contribute to industry best practice. Our participation provides an avenue to engage in and influence matters affecting our industry.	Through regular participation in meetings, working groups, committees and policy feedback processes.
Financial community Including lenders, shareholders, debt and equity analysts.	Our Lead Team present our performance, strategy, operations and prospects to shareholders and potential investors, in accordance with securities law, to achieve fair valuation of South32 securities in the equity markets. We engage with our lenders, rating agencies and other financial institutions to ensure the South32 credit profile is accurately assessed to support the Group's ability to maintain a diversity of finding sources.	We present on matters, including performance metrics and results, in a timely manner. We answer shareholder and investor requests (phone, email and face-to-face discussions). We meet with the financial community annually through engagements such as roadshows or conference calls, including Lead Team or Board members in these engagements, as required.
Labour unions Employees and contractors are represented by unions at many of our operations.	We engage with labour unions to discuss various aspects of workers' rights and interests.	We connect with employee representatives and representative groups via telephone conversations, face-to-face meetings, negotiations, letters and emails, as required.
Local and Indigenous communities Local communities, including Indigenous groups, that have interests and concerns in relation to our operations.	We recognise our operations can have both a positive and negative impact on our communities. We support community practices that empower people to make choices and enable communities to increase control over decisions that affect their lives, beliefs, institutions, wellbeing and the lands they occupy or otherwise use.	Our engagements vary depending on the location of the operation and the stakeholder, in accordance with our Stakeholder Engagement Plans. Engagements typically include face-to-face meetings, community consultative committees and forums, operational open days, newsletters, web-based information, telephone conversations and site visits. We also take part in community activities and engage through various community initiatives.

Our stakeholders continued

Stakeholder	Why we engage	How we engage
Media Print, online, broadcast and social media.	We acknowledge the role the media plays as a source of information about our operations and planned activities. We engage regularly with print, online, broadcast and social media to ensure our information is offered in balance to other information.	Engagement with media is carried out via telephone, face-to-face meetings, news releases, briefings, presentations, site visits, web-based information and web-broadcasts, as required.
Non-government organisations (NGOs) Organisations that hold specific interests in environmental, social and human rights issues.	NGOs are interested in specific issues relevant to their group, such as human rights (including health and safety), environmental issues or transparency.	We monitor NGO campaigns and seek to engage with groups at local, national and international level, where relevant.
Civil society partners Public or private organisations that we partner with on specific projects that have a societal benefit.	To ensure that we and our partners operate in a way consistent with values and performance.	We engage with potential partners through the project process and through regular project updates as required.
Suppliers Large and small businesses that we procure items from.	We require surety in supply of the various products we purchase, as well as understanding the supply chain we are purchasing from.	The various responsible entities for procurement will engage suppliers regularly through contractual agreements, performance reviews and training, and according to our internal standards and ongoing updates.

Sustainability performance data

The following sustainability performance data across people, environment and economic aspects are reported for financial years and unless stated otherwise represent operations that are wholly owned by South32 or operated by South32 in a joint venture operation, from 1 July 2019 to 30 June 2020.

Where there have been changes to previously reported data, this is denoted (shown in italics). Restatements occur due to changes in multipliers outside of our control, such as emissions factors, or where we have improved the way we apply our reporting standards.

Refer to the glossary on page 88 for abbreviations, terms and definitions used.

PEOPLE

Employee, safety and health overview

	FY20	FY19	FY18	FY17
Employees[1]	**14,554**	14,244	14,192	14,002
Fatalities from safety incidents[2] – employees	**0**	0	1	0
Fatalities from safety incidents[2] – contractors	**1**	0	0	1
Fatalities from health incidents[2] – employees	**0**	0	0	0
Fatalities from health incidents[2] – contractors	**0**	0	0	0
Value of fines and prosecutions – safety (US$)	**0[4]**	45,730	1,336	0
Total recordable injuries – total	**225**	264[5]	268	288
Total recordable injuries – employees	**114**	131	151	188
Total recordable injuries – contractors	**111**	133	117	100
Total recordable injury frequency (TRIF) (per 1,000,000 hours worked) – total	**4.2**	4.6[5]	5.1	6.1
Total recordable injury frequency (TRIF) (per 1,000,000 hours worked) – employees	**4.3**	4.7	5.6	7.1
Total recordable injury frequency (TRIF) (per 1,000,000 hours worked) – contractors	**4.1**	4.4	4.6	4.8
Total actual significant events[3]	**1**	1	1	1
Total potential significant events	**331**	297	194	202
Total recordable occupational illness – employees	**63**	55	74	54
Total recordable occupational illness – contractors	**15**	18	15	10
Total recordable illness frequency (TRILF) (per 1,000,000 hours worked) – total	**1.4**	1.3	1.7	1.3
Total recordable illness frequency (TRILF) (per 1,000,000 hours worked) – employees	**2.4**	2.0	2.7[5]	2.0
Total recordable illness frequency (TRILF) (per 1,000,000 hours worked) – contractors	**0.5**	0.6	0.6	0.5

To ensure that incident classification definitions are applied uniformly across our workforce, we have adopted the United States Government Occupational Safety and Health Assessment guidelines for the recording and reporting of occupational injuries and illnesses.

(1) Employee numbers are direct employees and exclude Non-Executive Directors except where stated otherwise.
(2) Incidents are included where South32 controls the work location or controls the work activity.
(3) Total actual significant events result in an actual severity level 4 or greater HSEC impact and includes injury or illness, environmental, equipment damage and community impacts.
(4) In FY20, we recorded no fines or prosecutions relating to safety performance.
(5) Figure has been restated since it was previously reported due to a reclassification or recalculation of data.

Workforce distribution

	Gender		Age groups			Employment type[1]		
	Female	Male	Under 30	30-50	Over 50	Permanent	Temporary	Total employees
Australia	745	4,173	404	3,271	1,243	4,678	240	4,918
Brazil	7	9	0	13	3	16	0	16
Canada	2	5	0	6	1	7	0	7
Colombia	109	773	40	608	234	836	46	882
Mozambique	95	949	57	829	158	1,019	25	1,044
Singapore	73	47	4	100	16	109	11	120
South Africa	1,681	5,750	930	4,971	1,530	6,876	555	7,431
United Kingdom	24	13	0	27	10	33	4	37
United States	30	69	19	63	17	97	2	99
Total	**2,766**	**11,788**	**1,454**	**9,888**	**3,212**	**13,671**	**883**	**14,554**

(1) Employment contract type is for direct South32 employees only.

Employees by gender and employment type[1]

	Female	Male	Total
Permanent – total[2]	2,441	11,230	13,671
Permanent – full time	2,376	11,209	13,576
Permanent – part time	74	21	95
Temporary	325	558	883
Total	**2,766**	**11,788**	**14,554**
Percentage	19%	81%	

(1) Employment contract type is for direct South32 employees only.
(2) Figures for total permanent employees includes full time and part time permanent employees.

Sustainability performance data continued

Workforce diversity

	Gender		Age groups			
Percentage	Female	Male	Under 30	30-50	Over 50	Black People[1]
South32 Board[2]	37.5	62.5	0	12.5	87.5	12.5
Executives and senior management[3]	37.5	62.5	0	59	41	75
Management	26	74	0	77	23	54
Supervisory/professional /operational support	19	81	10	68	22	84

(1) Black People refers to Africans, Coloureds and Indians who are citizens of the Republic of South Africa by birth or descent (as more fully defined in the South African Broad-Based Black Economic Empowerment Amendment Act 2013).
(2) Board includes Non-Executive Directors. Black People percentage on the Board include members of the Board who are Black / Total members regardless of location.
(3) Executives and Senior Management include members of the South32 Lead Team and Senior Leadership Team.

Diversity representation

Percentage	FY20
Women representation of total workforce	19
Women represented on South32 Board	37.5
Women represented in South32 Lead Team	44
Women represented in Senior Leadership Team[1]	36
Women represented in Operational Leadership Teams[2]	18
Representation of Black People in South Africa in total workforce	83
Representation of Black People in South Africa in management roles[3]	55

(1) The Senior Leadership Team are our leaders who report directly to the South32 Lead Team.
(2) The Operational Leadership Team includes Managers and General Managers who report to the Vice President Operations or General Managers at an operation.
(3) Management roles are leaders with an identified job grading, based on the requirements of their role and salary rate, of 13 or higher.

Pay ratio of women to men based on salary[1]

	Australia	Colombia	Mozambique	Singapore	South Africa	United States	Total
Executives[2] and senior management	1.08	0.00	0.00	0.52	0.00	0.00	1.02
Management	0.94	0.91	0.96	0.79	0.96	0.79	0.94
Supervisory/professional/ operational support	1.00	1.23	1.05	0.76	1.02	1.04	0.98

(1) Countries with less than 50 South32 employees are not listed, however the data is included in the overall total.
(2) Executive figures exclude key management personnel.

Parental leave profile

	Employees	Women	Men
Employees that took parental leave during FY20	510	229	281
Employees who were expected to return from parental leave during FY20	429	158	271
Employees who did return from parental leave during FY20	421	152	269
Return to work rate of employees who took parental leave (percentage)	98	96	99

Employee hiring rate per region

	Gender		Age groups			
Percentage	Female	Male	Under 30	30-50	Over 50	Total hiring rate
Africa	13.46	6.08	24.11	6.57	1.60	7.62
Asia	19.18	6.38	50	14	6.25	14.17
Australia	20.67	9.08	37.13	9.94	4.67	10.84
Europe	41.67	15.38	0	29.63	40.00	32.43
South America	62.50	55.41	63.16	59.42	44.44	57.55
North America	10.34	3.32	27.50	4.03	0.84	4.23
Total	**16.23**	**7.28**	**28.40**	**8.03**	**3.11**	**8.98**

Employee turnover per region

	Gender		Age groups			
Percentage	Female	Male	Under 30	30-50	Over 50	Total turnover rate[1]
Africa	2.31	3.15	2.13	2.57	4.86	2.97
Asia	4.11	4.26	0	5	0	4.17
Australia	11.54	5.22	9.16	5.87	6.03	6.18
Europe	0	7.69	0	3.70	0	2.70
South America	0	33.78	26.32	17.39	44.44	23.58
North America	6.90	3.32	2.50	3.38	5.06	3.79
Total	**4.99**	**4.10**	**4.40**	**3.84**	**5.51**	**4.27**

(1) Turnover rates are calculated using the total number of employees per region for FY20 as the denominator and the total count for FY20 as the numerator. Turnover rates include employees who left South32 voluntarily or due to dismissal, retirement or death in service. These figures exclude employee departures as a result of redundancy or end of contract.

ENVIRONMENT

Operational environment overview

	FY20	FY19	FY18	FY17
Significant environmental incidents	**0**	1	0	0
Value of fines and prosecutions – environment (US$)	**0**[(1)]	23,719	506,802	110,390
Total energy used (petajoules)	**172**	176	174	174
Oxides of sulphur emissions (tonnes)	**41,625**	37,586[(2)]	35,803	39,192
Oxides of nitrogen emissions (tonnes)	**12,156**	24,763	10,892	10,425
Mercury emissions (tonnes)	**0.60**	0.85	0.72	0.86
Total hazardous mineral waste (kilotonnes)	**24,148**	23,741	22,627	16,226
Total non-hazardous mineral waste (kilotonnes)	**4,849**	5,458	5,909	16,236

(1) In FY20, we recorded no fines or prosecutions relating to environmental performance.
(2) Figure has been restated since it was previously reported due to a reclassification or recalculation of data.

Landholdings, biodiversity and closure

	FY20
Total South32 landholdings – land owned, leased or managed (hectares)	**689,083**
Biodiversity management plans implemented, where required (percentage)	**100**
Operations with closure plans in place (percentage)	**100**

Land disturbance, rehabilitation and conservation

	FY20
Total land disturbed (hectares)	**23,553**
Total land rehabilitated (hectares)	**15,950**
Total land disturbed and not yet rehabilitated (hectares)	**7,603**
Total land rehabilitated against land disturbed (percentage)	**40**
Newly disturbed land during FY20 (hectares)	**806**
Newly rehabilitated land during FY20 (hectares)	**400**
Land set aside for conservation during FY20 (hectares)	**0**
Total land set aside for conservation (hectares)	**2,010**

Designated protected areas per South32 country presence

	Areas adjacent to land managed by our operations (number)	Areas on or containing portions of land managed by our operations (number)	Portion of owned, leased or managed land in the area or containing portions of designated protected areas (hectares)
Australia			
Terrestrial	2	12	41,063
Freshwater	0	0	0
Maritime	1	0	0
Colombia			
Terrestrial	3	1	334
Freshwater	1	0	0
Maritime	0	0	0
Mozambique			
Terrestrial	0	0	0
Freshwater	0	0	0
Maritime	0	0	0
South Africa			
Terrestrial	1	0	0
Freshwater	0	0	0
Maritime	0	0	0
Total for South32			
Terrestrial	6	13	41,397
Freshwater	1	0	0
Maritime	1	0	0

IUCN Red List species and national conservation list species with habitats per South32 country presence

Number	Critically endangered	Endangered	Vulnerable	Near threatened	Least concern
Australia	3	5	13	12	497
Colombia	7	10	22	10	535
South Africa	3	7	8	11	423

Water accounting overview

		Water quality					FY20			
	Source / destination	Type 1	Type 2	Type 3	High	Low	Total	FY19 total	FY18 total	FY17 total
Inputs/Withdrawal (megalitres per annum)	Surface water	17,436	6,726	25,164	24,162	25,164	**49,326**	46,370	56,376	49,419
	Groundwater	8,536	8,163	18,567	16,699	18,567	**35,266**	38,763	33,087	29,295
	Seawater	0	0	195	0	195	**195**	456	863	415
	Third party water	2,897	3,309	310	6,206	310	**6,517**	3,704	4,746	13,107
	Total	**28,869**	**18,198**	**44,236**	**47,067**	**44,236**	**91, 304**	89,293	95,072	92,236
Outputs/Discharge (megalitres per annum)	Surface water	5,210	4,547	1,706	9,757	1,706	**11,463**	12,828	13,581	15,163
	Groundwater	25	0	1,088	25	1,088	**1,113**	14,352	14,270	3,585
	Seawater	0	1,969	381	1,969	381	**2,350**	2,769	4,034	3,570
	Third party water	174	0	3,116	174	3,116	**3,289**	3,260	2,382	11,505
	Other	42,439	630	6,490	43,069	6,490	**49,559**	45,724	43,046	38,613
	Total	**47,848**	**7,146**	**12,781**	**54,994**	**12,781**	**67,774**	78,932	77,313	72,436
Consumption (megalitres per annum)	**Total**	This is intentionally blank as this is not reported by type					**49,559**	45,724	43,046	38,613
Efficiency – all South32 sites (percentage)	**Total**	This is intentionally blank as this is not reported by type					**56**	59	55	53
Recycling and reuse (megalitres per annum)	**Total**	This is intentionally blank as this is not reported by type					**115,042**	129,653	117,516	102,264

Water data has been presented in accordance with the Minerals Council of Australia (MCA) Water Accounting Framework (WAF) and meets the ICMM disclosure requirements for water quality.

The water quality categories in the MCA WAF are directly linked with current ICMM definitions. Types 1 and 2 are considered 'High Quality' and type 3 considered as 'Low Quality'. The GRI definitions of water quality are divided into 'freshwater' (water with concentration of total dissolved solids equal to or below 1,000 mg/L) and all remaining quality as 'other water'. The GRI definition of 'freshwater' aligns with the MCA WAF definition of type 1. 'Other water' links to types 2 and 3.

Our operational reporting model does not include the reporting of diversions, being water that is diverted away from or actively managed by a site but not used for any operational purposes.

The sum of the categories may vary to the total figure due to rounding.

Operations with water-related material risk

Megalitres per annum	Source / destination	Worsley Alumina Refinery	Mozal Aluminium	Hillside Aluminium	Illawarra Metallurgical Coal	South Africa Energy Coal[1]	Hotazel Manganese Mines[2]
Inputs/Withdrawal	Surface water	10,361	491	3	374	19,884	13
	Groundwater	3,940	0	0	2,373	14,105	1,060
	Seawater	0	195	0	0	0	0
	Third party water	3,313	53	702	735	324	202
	Total	**17,615**	**739**	**706**	**3,482**	**34,314**	**1,275**
Output/Discharge	Surface water	0	305	0	1,445	5,144	0
	Groundwater	0	0	0	0	0	109
	Seawater	0	100	0	1,969	0	0
	Third party water	0	0	266	143	2,674	7
	Other	9,703	51	440	868	10,004	450
	Total	**9,703**	**455**	**706**	**4,425**	**17,823**	**566**
Consumption	**Total**	**9,703**	**51**	**440**	**868**	**10,004**	**450**

Water data has been presented in accordance with the Minerals Council of Australia Water Accounting Framework and meets the ICMM disclosure requirements for water quality.

The sum of the categories may vary to the total figure due to rounding.

(1) Water for South Africa Energy Coal includes Ifalethu, Wolvekrans, Khutala, Klipspruit and Mine Closure NPI operations.
(2) This is a cumulative figure of South32 mines in the region.

Operations in areas of baseline water stress

Megalitres per annum	Source / destination	Water quality					FY20 Total
		Type 1	Type 2	Type 3	High	Low	
Input/Withdrawal	Surface water	11,595	2,219	24,608	13,813	24,608	**38,422**
	Groundwater	7,932	7,739	17,793	15,670	17,793	**33,464**
	Seawater	0	0	0	0	0	**0**
	Third party water	1,043	3,309	310	4,352	310	**4,662**
	Total	20,570	13,266	42,711	33,836	42,711	**76,548**
Output/Discharge	Surface water	5,210	0	1,323	5,210	1,323	**6,534**
	Groundwater	25	0	511	25	511	**536**
	Seawater	0	1,969	281	1,969	281	**2,250**
	Third party water	174	0	2,165	174	2,165	**2,339**
	Other	36,999	353	5,841	37,351	5,841	**54,851**
	Total	42,408	2,322	10,121	44,730	10,121	**56,557**
Consumption	**Total**	This is intentionally blank as this is not reported by type					**42,129**
Efficiency – all South32 sites (percentage)	**Total**	This is intentionally blank as this is not reported by type					**44**
Recycling and reuse (megalitres per annum)	**Total**	This is intentionally blank as this is not reported by type					**43,803**

As defined using the World Resources Institute (WRI) Aqueduct Tool found at https://www.wri.org/our-work/project/aqueduct. Accessed July 2020.

Water data has been presented in accordance with the Minerals Council of Australia Water Accounting Framework and meets the ICMM disclosure requirements for water quality.

These figures exclude Cerro Matoso, Hillside, Metalloys, Mozal, TEMCO, Worsley Alumina Mine and Materials operations, Bayside, Eagle Downs and Mine Closure NPI projects, and corporate offices.

Primary sources of energy used

Petajoules	FY20
Coal and coke	**51**
Distillate and gasoline	**8**
Electricity	**78**
Natural gas	**27**
Other	**8**
Total energy used[1]	**172**
Renewable sources	**33**

(1)   Total energy used excludes renewable sources.

Sources of greenhouse gas emissions

Millions of tonnes of CO_2-e	FY20	FY19	FY18	FY17
Electricity	**12.9**	13.0	12.6	12.0
Fugitive sources	**2.8**	2.7	2.5	3.0
Coal and coke	**4.7**	3.8	3.8	3.8
Other sources	**0.9**	1.9	1.9	1.9
Natural gas	**1.4**	1.4	1.4	1.4
Distillate and gas	**0.6**	0.7	0.6	0.5
Total	**23.3**	23.5	22.8	22.6

Total greenhouse gas emissions

Millions of tonnes of CO_2-e	FY20	FY19	FY18	FY17
GHG – Scope 1[1]	**10.4**	10.5	10.2	10.6
GHG – Scope 2 market-based[1]	**12.9**	13.0	12.6	12.0
GHG – Scope 2 location-based[2]	**21.1**	19.6	19.8	19.6
GHG Scope 1 and 2	**23.3**	23.5	22.8	22.6
GHG Scope 3[3]	**110**	116	117	125

The sum of the categories may vary to the total figure due to rounding.

(1)   Measured according to the World Resources Institute and World Business Council for Sustainable Development Greenhouse Gas Protocol.

(2)   In accordance with the GHG Protocol Scope 2 disclosure requirements, our location-based Scope 2 emissions were 21.1Mt of CO_2-e, which is 8.2Mt of CO_2-e higher than our market-based emissions. This difference is associated with our purchased of hydroelectric power at Mozambique Aluminium. Unless otherwise noted, all Scope 2 emissions reported are calculated using the market-based method.

(3)   The calculation of our Scope 3 emissions is in accordance with the methodologies in the World Resources Institute and World Business Council for Sustainable Development Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Sustainability performance data continued

Scope 3 greenhouse gas emissions by category

Millions of tonnes of CO_2-e	FY20	FY19
Purchased goods and services	**2.7**	3.4
Capital goods	**1.4**	1.3
Fuel and energy-related activities	**1.1**	2.2
Upstream transportation and distribution	**1.1**	1.2
Processing of sold products	**37.5**	37.9
Use of sold products	**65.3**	69.6
Investments	**0.8**	0.8
Total	**109.9**	116.4

South32 currently uses Global Warming Potentials (GWPs) from the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 4 (AR4). The calculation of our Scope 3 emissions is in accordance with the methodologies in the World Resources Institute and World Business Council for Sustainable Development Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

ECONOMIC

Economic contributions overview

	FY20	FY19	FY18	FY17
Total revenue (US$ million)	**6,075**	7,274	7,549	6,950
Underlying EBIT (US$ million)	**446**	1,440	1,774	1,648
Underlying earnings (US$ million)	**193**	992	1,327	1,146
Basic underlying earnings per share (US cents)	**3.9**	19.7	25.7	21.6
Profit/(loss) after tax (US$ million)	**(65)**	389	1,332	1,231
Capital expenditure (US$ million)	**676**	652	430	316
Exploration expenditure (US$ million)	**61**	74	40	27
Wages, salaries and redundancies (US$ million)	**864**	969	1,008	858
Government and other royalties paid and payable (US$ million)	**165**	181	147	178
Community investment (US$ million)	**24.5**	17.3	20.4	14.3
Total corporate income tax paid (US$ million)	**407**	557	496	244
Total corporate income tax accrued on profit/loss (US$ million)	**249**	543	333	402

Community investment by country

US$ million	FY20
Australia	**7.44**
Colombia	**3.76**
Mozambique	**1.73**
South Africa	**9.73**
United States	**1.84**
Total	**24.5**

Reporting framework indices

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

We support the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations and have committed to the completion of business activities that will result in South32 quantifying its climate-related financial risk. Below we have mapped the recommendations against specific South32 references.

TCFD focus area	Recommended disclosure	Reference location
Governance	South32 is required to disclose the organisation's governance around climate-related risks and opportunities.	Our sustainability approach - Governance and integrity (page 10)
		Climate change - Governance (page 36)
		Corporate Governance Statement
Strategy	South32 is required to disclose the actual and potential impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	Annual Report - Risk management (page 24)
		Climate change (pages 34 - 45)
		Our Approach to Climate Change Report 2019
Risk Management	South32 is required to disclose how the organisation identifies, assesses, and manages climate-related risks.	Climate change - Governance - Resilience and risk assessment (page 37)
		Annual Report - Risk management (page 24)
		Our Approach to Climate Change Report 2019
Metrics and Targets	South32 is required to disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	Climate change – Metrics and targets: our performance (page 41)

UNITED NATIONS GLOBAL COMPACT COMMUNICATION ON PROGRESS

We uphold the Ten Principles of the United Nations Global Compact (UNGC) relating to human rights, labour, environment and anti-corruption. South32 joined the UNGC in August 2019, and this Sustainable Development Report serves as our first Communication on Progress, as we describe our progress in embedding these principles into South32's strategies and operations. In our first year of reporting, we have mapped the principles against specific report sections or other standalone reports. We will continue to work towards improving our alignment against the UNGC Ten Principles and improving the description of our performance outcomes.

UNGC aspect	Principle	Reference location
Human rights	Principle 1. Businesses should support and respect the protection of internationally proclaimed human rights.	Our sustainability approach - Governance and integrity (page 10)
		Working with integrity - Economic contribution (page 20); Responsible value chain (page 21); Respecting human rights (page 22)
	Principle 2. Make sure that they are not complicit in human rights abuses.	Our people - Our people (page 27); Staying safe and well (page 31)
		Climate change (pages 34 - 45)
		Environmental stewardship - Environmental stewardship (page 47); Water (page 50)
		Working with communities (pages 55 - 62)
		Responsible operations - Closure (page 68)
Labour	Principle 3. Business should uphold the freedom of association and the effective recognition of the right to collective bargaining.	Working with integrity - Responsible value chain (page 21); Respecting human rights (page 22)
		Our people - Our people (page 27)
	Principle 4. The elimination of all forms of forced and compulsory labour.	Working with communities (pages 55 - 62)
	Principle 5. The effective abolition of child labour.	Modern Slavery Statement
	Principle 6. The elimination of discrimination in respect of employment and occupation.	
Environment	Principle 7. Business should support a precautionary approach to environmental challenges.	Working with integrity - Responsible value chain (page 21); Respecting human rights (page 22)
		Climate change (pages 34 - 45)
	Principle 8. Undertake initiatives to promote greater environmental responsibility.	Environmental stewardship - Environmental stewardship (page 47); Land and biodiversity (page 48); Water (page 50)
	Principle 9. Encourage the development and diffusion of environmentally friendly technologies.	Working with communities (pages 55 - 62)
		Responsible operations - Tailings (page 64); Closure (page 68)
Anti-corruption	Principle 10. Business should work against corruption in all its forms, including extortion and bribery.	Our sustainability approach - Governance and integrity (page 10)
		Working with integrity - Economic contribution (page 20); Responsible value chain (page 21)
		Corporate Governance Statement

GRI content index

We have applied the reporting principles of GRI 101: Foundation 2016 standard in this report.

GENERAL DISCLOSURES

Disclosure number	Disclosure title	Reference location or explanation
Organisational profile		
102-1	Name of the organisation	Annual Report
102-2	Activities, brands, products and services	Annual Report – Operating and financial review (pages 1 – 23)
102-3	Location of headquarters	Annual Report – Company directory (Inside back cover)
102-4	Location of operations	Annual Report – South32 at a glance (page 2)
102-5	Ownership and legal form	Annual Report – Financial and operational performance summary (pages 32 – 55)
102-6	Markets served	Annual Report – Our business model (page 8)
102-7	Scale of the organisation	South32 at a glance (page 4)
102-8	Information on employees and other workers	Our people (page 27)
		Sustainability performance data – People (page 71)
102-9	Supply chain	Working with integrity (pages 19 - 25)
102-10	Significant changes to the organisation and its supply chain	Annual Report – From the Chair and CEO (page 4)
102-11	Precautionary Principle or approach	Annual Report – Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10); Risk management (page 12)
102-12	External initiatives	Our sustainability approach – Sustainability framework (page 13); Performance (page 16); Reporting (page 18)
		Our sustainability approach – Stakeholders and collaboration (page 14)
		Climate change – Collaboration, partnerships and industry associations (page 44)
102-13	Membership of associations	South32 Industry associations and memberships
Strategy		
102-14	Statement from the most senior decision-maker	Annual Report – From the Chair and CEO (page 4)
		From the CSO (page 2)
102-15	Key impacts, risks and opportunities	Annual Report – Risk management (page 24); Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10); Risk management (page 12); Sustainability framework (page 13)
Ethics and integrity		
102-16	Values, principles, standards and norms of behavior	Corporate Governance Statement
		Code of Business Conduct and Speak Up Policy
102-17	Mechanisms for advice and concerns about ethics	Corporate Governance Statement
		Our sustainability approach - Governance and integrity (page 10)
		EthicsPoint reporting hotline
Governance		
102-18	Governance structure	Annual Report – Governance (pages 56 - 87)
102-19	Delegating authority	Annual Report – Directors' report (page 60)
102-20	Executive-level responsibility for economic, environmental, and social topics	Annual Report – Governance (pages 56 - 87)
		Our sustainability approach – Governance and integrity (page 10)
102-21	Consulting stakeholders on economic, environmental, and social topics	Our sustainability approach – Stakeholders and collaboration (page 4)
102-22	Composition of highest governance body and its committees	Annual Report – Governance (pages 56 - 87)
102-23	Chair of the highest governance body	Annual Report – Governance (pages 56 - 87)
102-24	Nominating and selecting the highest governance body	Annual Report – Governance (pages 56 - 87)
102-25	Conflicts of interest	Annual Report – Governance (pages 56 - 87)
102-26	Role of highest governance body in setting purpose, values, and strategy	Annual Report – Governance (pages 56 - 87)
102-27	Collective knowledge of highest governance body	Annual Report – Governance (pages 56 - 87)
102-28	Evaluating the highest governance body's performance	Annual Report – Governance (pages 56 - 87)

Disclosure number	Disclosure title	Reference location or explanation
Governance continued		
102-29	Identifying and managing economic, environmental, and social impacts	Annual Report – Risk management (page 24)
		Our sustainability approach – Governance and integrity (page 10); Risk management (page 12); Sustainability framework (page 13); Materiality (page 15)
		Sustainability Policy
102-30	Effectiveness of risk management processes	Annual Report – Risk management (page 24)
		Risk and Audit Committee
		Risk Management Framework
102-31	Review of economic, environmental, and social topics	Annual Report – Risk management (page 24); Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10); Risk management (page 12); Sustainability framework (page 13); Materiality (page 15)
102-32	Highest governance body's role in sustainability reporting	Our sustainability approach – Governance and integrity (page 10)
		Sustainability Committee
102-33	Communicating critical concerns	Annual Report – Risk management (page 24); Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10)
102-35	Remuneration policies	Annual Report – Remuneration report (page 66)
		Renumeration Committee
102-36	Process for determining remuneration	Annual Report – Remuneration report (page 66)
Stakeholder engagement		
102-40	List of stakeholder groups	Our sustainability approach – Stakeholders and collaboration (page 14)
		Appendices – Our stakeholders (page 69)
102-41	Collective bargaining agreements	Our people – Employee relations (page 29)
102-42	Identifying and selecting stakeholders	Our sustainability approach – Stakeholders and collaboration (page 14)
		Appendices – Our stakeholders (page 69)
102-43	Approach to stakeholder engagement	Our sustainability approach – Stakeholders and collaboration (page 14)
102-44	Key topics and concerns raised	Our sustainability approach – Materiality (page 15)
		Appendices – Our stakeholders (page 69)
Reporting practice		
102-45	Entities included in the consolidated financial statements	Annual Report – Financial report (page 88)
102-46	Defining report content and topic Boundaries	Our sustainability approach – Materiality (page 15)
102-47	List of material topics	Our sustainability approach – Materiality (page 15)
102-48	Restatements of information	Any restatements are noted
102-49	Changes in reporting	No significant changes have been made from the previous reporting period
102-50	Reporting period	Financial year 01 July 2019 – 30 June 2020
102-51	Date of most recent report	This report, 04 September 2020
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	South32ESG@South32.net
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option
102-55	GRI content index	This GRI content index
102-56	External assurance	Annual Report – KPMG Independent Auditor's Report (page 139)
		KPMG Independent Assurance Report (page 90)

GRI content index continued

Management approach to disclosures

An overview of the process used to determine the South32 material issues* together with the reason why they have been deemed material to our business is provided in the 'Materiality' section on page 15.

Further detail, including our approach to managing the underlying issues associated with these issues, is discussed in the relevant pages referenced within this section. Information on our current activities and actual performance is provided throughout this report, this GRI content index and in the FY20 Annual Report.

More specific information, including publicly available copies of relevant information, can be found at _www.south32.net_ where indicated for each GRI disclosure below.

MATERIAL TOPICS

Disclosure number	Disclosure title	Reference location or explanation
Economic performance		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Economic contributions**	Annual Report – Financial report (page 88)
		Working with integrity – Economic contribution (page 20)
		Tax Transparency and Payments to Governments Report
103-3	Evaluation of the management approach	Annual Report – Financial report (page 88)
		Working with integrity – Economic contribution (page 20)
		Sustainability performance data – Economic (page 76)
201-1	Direct economic value generated and distributed	Working with integrity – Economic contribution (page 20)
201-2	Financial implications and other risks and opportunities of climate change	Climate change (pages 34 - 45)
201-4	Financial assistance received from government	Annual Report – Financial report (page 88)
Market presence		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Engaged workforce**	Our people (page 27)
103-3	Evaluation of the management approach	Our people (page 27)
		Sustainability performance data – People (page 71)
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	South32 complies with local laws and regulations. We ensure our entry level wages are equal to minimum wages according to the local regulations.
Indirect economic impacts		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Economic contributions and Community relationships, health, safety and development**	Annual Report – Progress against our strategy (page 12); Our contribution (page 20); Financial report (page 88)
		Working with integrity – Economic contribution (page 20)
		Working with communities – Investing in our communities (page 56)
103-3	Evaluation of the management approach	Our sustainability approach – Performance (page 16)
		Sustainability performance data – Economic (page 76)
203-1	Infrastructure investments and services supported	Annual Report – Financial report (page 88)
		Working with integrity – Economic contribution (page 20)
		Working with communities – Investing in our communities (page 56)
203-2	Significant indirect economic impacts	Working with communities – Investing in our communities (page 56)
Procurement practices		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Working with integrity – Responsible value chain (page 21)
		Working with communities – Transformation in South Africa (page 61)
103-3	Evaluation of the management approach	Working with integrity – Responsible value chain (page 21)
		Working with communities – Transformation in South Africa (page 61)
204-1	Proportion of spending on local suppliers	Working with integrity – Economic contribution (page 20)

*For the purpose of this report, South32 refers to material topics as 'issues'.

Disclosure number	Disclosure title	Reference location or explanation
Anti-corruption		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Annual Report – Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10)
		Corporate Governance Statement
		Code of Business Conduct and Speak Up Policy
		Anti-Bribery and Corruption Policy
103-3	Evaluation of the management approach	Annual Report – Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10)
		Corporate Governance Statement
205-2	Communication and training about anti-corruption policies and procedures	Our sustainability approach – Governance and integrity (page 10)
205-3	Confirmed incidents of corruption and actions taken	Corporate Governance Statement
Anti-competitive behavior		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Annual Report – Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10)
		Corporate Governance Statement
		Code of Business Conduct and Speak Up Policy
103-3	Evaluation of the management approach	Annual Report – Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10)
		Corporate Governance Statement
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Annual Report – Directors' report (page 60)
		Corporate Governance Statement
Tax		
207-1	Approach to tax	Annual Report – Financial report (page 88)
		Working with integrity – Economic contribution (page 20)
		Tax Transparency and Payments to Governments Report
207-2	Tax governance, control and risk management	The current Tax Transparency and Payments to Governments Report refers to information to 30 June 2019.
		The Tax Transparency and Payments to Governments Report 2020 will be published later in the year on *www.south32.net*.
207-3	Stakeholder engagement and management of concerns related to tax	The current Tax Transparency and Payments to Governments Report refers to information to 30 June 2019.
		The Tax Transparency and Payments to Governments Report 2020 will be published later in the year on *www.south32.net*.
207-4	Country by country reporting	The current Tax Transparency and Payments to Governments Report refers to information to 30 June 2019.
		The Tax Transparency and Payments to Governments Report 2020 will be published later in the year on *www.south32.net*.
Energy		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Climate change**	Climate change (pages 34 - 45)
		Our Approach to Climate Change Report 2019
103-3	Evaluation of the management approach	Climate change (pages 34 - 45)
		Our sustainability approach – Performance (page 16)
302-1	Energy consumption within the organisation	Climate change (pages 34 - 45)
		Sustainability performance data – Environment (page 73)
302-4	Reduction of energy consumption	Climate change (pages 34 - 45)

GRI content index continued

Disclosure number	Disclosure title	Reference location or explanation
Water and effluents		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Water stewardship**	Annual Report – Risk management (page 24)
		Environmental stewardship – Water (page 50)
		Our Approach to Water Stewardship Report 2019
103-3	Evaluation of the management approach	Annual Report – Risk management (page 24)
		Environmental stewardship – Water (page 50)
		Our sustainability approach – Performance (page 16)
		Sustainability performance data – Environment (page 73)
303-1	Interactions with water as a shared resource	Environmental stewardship – Water (page 50)
		Feature story: Illawarra a proud history with a sustainable future (page 52)
		Working with communities (pages 55 - 62)
303-2	Management of water discharge-related impacts	Environmental stewardship – Water (page 50)
		Working with communities (pages 55 - 62)
303-3	Water withdrawal	Sustainability performance data – Environment (page 73)
303-4	Water discharge	Sustainability performance data – Environment (page 73)
303-5	Water consumption	Sustainability performance data – Environment (page 73)
Biodiversity		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Biodiversity and land, Climate change**	Climate change (pages 34 - 45)
		Environmental stewardship – Land and biodiversity (page 48)
103-3	Evaluation of the management approach	Climate change (pages 34 - 45)
		Environmental stewardship – Land and biodiversity (page 48)
		Sustainability performance data – Environment (page 73)
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside of protected areas	Sustainability performance data – Environment (page 73)
304-3	Habitats protected or restored	Environmental stewardship – Land and biodiversity (page 48)
		Sustainability performance data – Environment (page 73)
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	Sustainability performance data – Environment (page 73)
MM2	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 performance data – Environment (page 73)
Emissions		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Climate change**	Annual Report – Risk management (page 24)
		Climate change (page 34 - 45)
		Our Approach to Climate Change Report 2019
103-3	Evaluation of the management approach	Our sustainability approach – Performance (page 16)
305-1	Direct (Scope 1) GHG emissions	Climate change (pages 34 -45)
		Sustainability performance data – Environment (page 73)
305-2	Energy indirect (Scope 2) GHG emissions	Climate change (pages 34 -45)
		Sustainability performance data – Environment (page 73)
305-3	Other indirect (Scope 3) GHG emissions	Climate change (pages 34 -45)
		Sustainability performance data – Environment (page 73)
305-5	Reduction of GHG emissions	Sustainability performance data – Environment (page 73)
305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	Sustainability performance data – Environment (page 73)

Disclosure number	Disclosure title	Reference location or explanation
Environmental compliance		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity, Operational environment**	Annual Report – Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10)
		Environmental stewardship (pages 46- 54)
103-3	Evaluation of the management approach	Annual Report – Directors' report (page 60)
		Our sustainability approach – Governance and integrity (page 10)
		Environmental stewardship (pages 46 -54)
307-1	Non-compliance with environmental laws and regulations	Annual Report – Directors' report (page 60)
		Sustainability performance data – Environment (page 73)
		In FY20, we had no environmental events that resulted in a major impact to the environment. We recorded no fines or prosecutions relating to environmental performance.
Supplier environmental assessment		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Working with integrity – Responsible value chain (page 21)
		Sustainability and Business Conduct Supplier Requirements
103-3	Evaluation of the management approach	Working with integrity – Responsible value chain (page 21)
308-1	New suppliers that were screened using environmental criteria	Working with integrity – Responsible value chain (page 21)
		Sustainability and Business Conduct Supplier Requirements
308-2	Negative environmental impacts in the supply chain and actions taken	Working with integrity – Responsible value chain (page 21)
		Sustainability and Business Conduct Supplier Requirements
Employment		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Engaged workforce**	Our people (pages 26 - 33)
		Inclusion and Diversity Policy
103-3	Evaluation of the management approach	Our people (pages 26 -33)
		Our sustainability approach – Performance (page 16)
		Sustainability performance data – People (page 71)
401-1	New employee hires and employee turnover	Sustainability performance data – People (page 71)
401-3	Parental leave	Sustainability performance data – People (page 71)
Labor / management relations		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Engaged workforce**	Our people – Employee relations (page 29)
103-3	Evaluation of the management approach	Our people – Employee relations (page 29)
402-1	Minimum notice periods regarding operational changes	Our people – Employee relations (page 29)
MM4	Strikes and lock-outs exceeding one week's duration	Nil.
		Our people – Employee relations (page 29)

GRI content index continued

Disclosure number	Disclosure title	Reference location or explanation
Occupational health and safety		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Employee health and safety**	Our people – Staying safe and well (pages 31 - 33)
103-3	Evaluation of the management approach	Our sustainability approach – Performance (page 16)
		Sustainability performance data – People (page 71)
403-1	Occupational health and safety management system	Our people – Staying safe and well (page 31)
403-2	Hazard identification, risk assessment, and incident investigation	Our people – Staying safe and well (page 31)
403-5	Worker training on occupational health and safety	Our people – Staying safe and well (page 31)
403-6	Promotion of worker health	Our people – Staying safe and well (page 31)
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Our people – Staying safe and well (page 31)
403-8	Workers covered by an occupational health and safety management system	Our people – Staying safe and well (page 31)
403-9	Work-related injuries	Our people – Staying safe and well (page 31)
		Sustainability performance data – People (page 71)
403-10	Work-related ill health	Our people – Staying safe and well (page 31)
		Sustainability performance data – People (page 71)
Training and education		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Engaged workforce**	Our people – Capability and development (page 28)
103-3	Evaluation of the management approach	Our people – Capability and development (page 28)
404-1	Average hours of training per year per employee	As migration of our operations to the Learning Management System is in process, we are unable to report our training completion rates and average hours with confidence. We expect to be able to disclose training data in FY21.
404-3	Percentage of employees receiving regular performance and career development reviews	In line with our response to the COVID-19 pandemic, the FY20 annual performance review process did not take place as usual. While all our people continued to maintain regular performance conversations and check-ins, these were not recorded in our online performance management system, and we did not allocate individual performance outcomes. As such, we are not able to report a percentage of employees who completed online performance reviews this year, though we are confident regular performance discussions occur as a priority throughout our business.
Diversity and equal opportunity		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Engaged workforce**	Our people (pages 27 – 30)
		Inclusion and Diversity Policy
		Corporate Governance Statement
103-3	Evaluation of the management approach	Our sustainability approach – Performance (page 16)
		Sustainability performance data – People (pages 71 - 72)
405-1	Diversity of governance bodies and employees	Annual Report – Governance (pages 56 - 87)
		Our sustainability approach – Performance (page 16)
		Our people – Inclusion and diversity (page 27)
		Sustainability performance data – People (pages 71 - 72)
405-2	Ratio of basic salary and remuneration of women to men	Annual Report – Remuneration report (page 66)
Non-discrimination		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Governance and integrity (page 10)
103-2	Management approach on **Ethics and business integrity**	Our sustainability approach – Governance and integrity (page 10)
103-3	Evaluation of the management approach	Our sustainability approach – Governance and integrity (page 10)
406-1	Incidents of discrimination and corrective actions taken	Our sustainability approach – Governance and integrity (page 10)

Disclosure number	Disclosure title	Reference location or explanation
Freedom of association and collective bargaining		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Engaged workforce**	Our sustainability approach – Respecting human rights (page 22)
		Our people – Employee relations (page 29)
103-3	Evaluation of the management approach	Our sustainability approach – Respecting human rights (page 22)
		Our people – Employee relations (page 29)
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Our people – Employee relations (page 29)
Child labor		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Our sustainability approach – Respecting human rights (page 22)
		Modern Slavery Statement
103-3	Evaluation of the management approach	Our sustainability approach – Respecting human rights (page 22)
408-1	Operations and suppliers at significant risk for incidents of child labor	Nil.
		Our sustainability approach – Respecting human rights (page 22)
		Modern Slavery Statement
Security practices		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Our sustainability approach – Respecting human rights (page 22)
103-3	Evaluation of the management approach	Our sustainability approach – Respecting human rights (page 22)
410-1	Security personnel trained in human rights policies or procedures	Nil.
		Our sustainability approach – Respecting human rights (page 22)
Rights of Indigenous Peoples		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Our sustainability approach – Governance and integrity (page 10)
		Working with integrity – Respecting human rights (page 22)
		Working with communities – Working with Indigenous Peoples (page 60)
		Corporate Governance Statement
		Conflicts Minerals Statement
103-3	Evaluation of the management approach	Our sustainability approach – Governance and integrity (page 10)
		Working with integrity – Respecting human rights (page 22)
		Working with communities – Working with Indigenous Peoples (page 60)
		Corporate Governance Statement
411-1	Incidents of violations involving rights of Indigenous Peoples	Our sustainability approach – Governance and integrity (page 10)
		Working with integrity – Respecting human rights (page 22)
		Working with communities – Working with Indigenous Peoples (page 60)
		Corporate Governance Statement
MM5	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	Working with communities – Working with Indigenous Peoples (page 60)

GRI content index continued

Disclosure number	Disclosure title	Reference location or explanation
Human rights assessment		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity, Human rights**	Our sustainability approach – Responsible value chain (page 21); Respecting human rights (page 22)
		Working with communities – Listening to our communities (page 59)
		Modern Slavery Statement
103-3	Evaluation of the management approach	Our sustainability approach – Responsible value chain (page 21); Respecting human rights (page 22)
		Working with communities – Listening to our communities (page 59)
		Modern Slavery Statement
412-1	Operations that have been subject to human rights reviews or impact assessments	100 per cent.
412-2	Employee training on human rights policies or procedures	Our sustainability approach – Respecting human rights (page 22)
Local communities		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Community relationships, health, safety and development**	Annual Report – Our contribution (page 20)
		Working with communities (pages 55 - 62)
103-3	Evaluation of the management approach	Annual Report – Our contribution (page 20)
		Working with communities (pages 55 - 62)
		Our sustainability approach – Performance (page 16)
		Sustainability performance data – People (page 71); Economic (page 76)
413-1	Operations with local community engagement, impact assessments, and development programs	100 per cent.
MM6	Significant disputes relating to land use, customary rights of local communities and indigenous peoples	Nil
MM7	Grievance mechanisms used to resolve disputes relating to land use, customary rights of local communities and Indigenous peoples, and the outcomes	This relates to MM6.
		Our sustainability approach – Governance and integrity (page 10)
		Working with communities – Listening to our communities (page 59)
Supplier social assessment		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Responsible supply chain**	Our sustainability approach – Responsible value chain (page 21); Respecting human rights (page 22)
		Working with communities – Listening to our communities (page 59)
		Sustainability and Business Conduct Requirements
103-3	Evaluation of the management approach	Our sustainability approach – Responsible value chain (page 21); Respecting human rights (page 22)
		Working with communities – Listening to our communities (page 59)
414-1	New suppliers that were screened using social criteria	Our sustainability approach – Responsible value chain (page 21)
		Sustainability and Business Conduct Requirements
Public policy		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity**	Annual Report – Governance (pages 56 - 87)
		Code of Business Conduct and Speak Up Policy
		Corporate Governance Statement
103-3	Evaluation of the management approach	Annual Report – Governance (pages 56 - 87)
		Code of Business Conduct and Speak Up Policy
		Corporate Governance Statement
415-1	Political contributions	Annual Report – Directors' report (page 60)

Disclosure number	Disclosure title	Reference location or explanation
Socioeconomic compliance		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on Ethics and business integrity	Our sustainability approach – Governance and integrity (page 10)
		Working with communities – Transformation in South Africa (page 61)
		Corporate Governance Statement
103-3	Evaluation of the management approach	Our sustainability approach – Governance and integrity (page 10)
		Working with communities – Transformation in South Africa (page 61)
		Corporate Governance Statement
419-1	Non-compliance with laws and regulations in the social and economic area	Annual Report – Directors' report (page 60)
		Corporate Governance Statement
Artisanal and small-scale mining		
MM8	Number (and percentage) of company operating sites where artisanal and small-scale mining takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks	Nil
Resettlement		
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	In FY20, we completed settlement of one household within the South Africa Energy Coal extension project.
Closure planning		
103-1	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
103-2	Management approach on **Ethics and business integrity, Working with communities, Operational environment**	Responsible operations – Closure (page 68)
103-3	Evaluation of the management approach	Annual Report – xx (page x)
		Feature story: Remediating decades of legacy mine waste (page 66)
		Responsible operations – Closure (page 68)
MM10	Number and percentage of operations with closure plans	100 per cent
Other material topics		
103-1, 103-2	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
	Management approach and evaluation on **Business continuity**	Annual Report – From the Chair and CEO (page 4)
		Feature story: Our response to the COVID-19 pandemic (page 25)
103-1, 103-2	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
	Management approach and evaluation on **Tailings management**	Annual Report – Risk management (page 24)
		Responsible operations – Tailings (page 64)
		Feature story: Remediating decades of legacy mine waste (page 66)
		Sustainability performance data – Environment (page 73)
MM3	Overburden, rock, tailings and sludges and their associated risks	Sustainability performance data – Environment (page 73)
103-1, 103-2	Explanation of the material topic and boundary	Our sustainability approach – Materiality (page 15)
	Management approach and evaluation on **Technology and innovation**	Annual Report – Progress against our strategy (page 15)

Glossary

Baseline water stress
The ratio of total annual water withdrawals to total available annual renewable supply, accounting for upstream consumptive use. Higher values indicate more competition among users. The values and definition of baseline water stress have been derived from WRI Aqueduct (Working Paper) 2014.

Biodiversity
Refers to the variety of life on Earth – the different animals, plants and micro-organisms, their genes and the ecosystems of which they are a part.

B-BBEE
Broad-Based Black Economic Empowerment.

Black People
Refers to Africans, Coloureds and Indians who are citizens of the Republic of South Africa by birth or descent (as more fully defined in the Broad-Based Black Economic Empowerment Amendment Act 2013 (South Africa)).

Board
The Board of Directors of South32 Limited.

Brownfield
An exploration or development project located within an existing mineral province, which can share infrastructure and management with an existing operation.

Carbon emissions
For our reporting purposes, these are the aggregate carbon dioxide equivalent (CO_2-e) emissions of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6).

We measure emissions according to the World Resources Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol, which includes:

- Scope 1 carbon emissions that are direct carbon emissions from our own operations, including the electricity we generate at our sites;
- Scope 2 carbon emissions that are indirect carbon emissions from the generation of purchased electricity; and
- Scope 3 carbon emissions that are carbon emissions in our supply chain.

Catchment
The area of land from which all surface runoff and subsurface water flows through a sequence of streams, rivers, aquifers and lakes into the sea or another outlet at a single river mouth, estuary, or delta. Catchments include associated groundwater areas and might include portions of waterbodies (such as lakes or rivers). In different parts of the world, catchments are also referred to as 'watersheds' or 'basins' (or sub-basins).

Contractor
Any organisation or individual (other than a South32 employee) who provides labour to South32 pursuant to a contract for service.

CO_2-e
Carbon dioxide equivalent.

Community investment
Contributions made to support communities that we operate in, or have an interest in. Our contributions to community programs comprise direct investment, in-kind support and administrative costs.

COVID-19
Is an infectious coronavirus disease which causes respiratory illness. On 11 March 2020 the World Health Organization declared the COVID-19 outbreak a pandemic affecting many countries globally.

EBIT
Earnings before interest and tax.

EBITDA
Earnings before interest, tax, depreciation and amortisation.

Employee
Any person in full-time, part-time or casual employment engaged by South32 on a temporary or permanent basis pursuant to a contract of service.

Energy coal
Used as a fuel source in electrical power generation, cement manufacture and various industrial applications. Energy coal may also be referred to as steaming or thermal coal.

Energy consumption
Energy consumption for activities where we have operational control includes fuel consumed in both stationary and transport combustion. Where energy is consumed to generate a secondary energy stream (for example electricity generation or transfer of unprocessed natural gas to natural gas ready for distribution), only the primary energy consumption is reported. Excludes energy consumed but not combusted (such as lubricant and solvent use) and energy embodied in waste streams (such as flared gas).

ESG
Environmental, social and governance.

Fatality
A health or safety event where an injury or occupational illness has caused the death of one or more person(s).

FYXX
Refers to the financial year ending 30 June 20XX, where XX is the two-digit number for the year.

Greenhouse gas (GHG)
For our reporting purposes, these are the aggregate anthropogenic carbon dioxide equivalent (CO_2-e) emissions of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). These are measured according to the World Resources Institute/ World Business Council for Sustainable Development Greenhouse Gas Protocol.

Global Reporting Initiative (GRI)
GRI is an international independent organisation that has established an international framework and standards for sustainability reporting. South32 prepare our Group-level annual Sustainable Development Report in accordance with the GRI Sustainability Reporting Standards (Core option) and the GRI Mining & Metals Sector Supplement.

Grade
Any physical or chemical measurement of the characteristics of the material of interest in samples or product (JORC Code).

Greenfield
An exploration or development project located outside the area of influence of our existing mine operations/infrastructure.

Group
Refers to South32 Limited and its subsidiaries and joint arrangements.

Injury
An occupational injury occurs during a single work shift or a single exposure to an agent(s) causing an acute toxic effect, which can be identified by time and place resulting from direct contact with an object following an instantaneous event. Examples include cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipping tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical or radiation burn. Sprain and strain injuries to muscles joints connective tissue are classified as injuries when they result from a slip, trip, fall or other similar accidents.

Intergovernmental Panel on Climate Change (IPCC)
The IPCC is the international body for assessing the science related to climate change. The IPCC was set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Program (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

International Council on Mining and Metals (ICMM)
ICMM is an international organisation dedicated to improving the social and environmental performance of the mining and metals industry. As a corporate member, South32 commit to implementing and reporting on the ICMM Mining Principles, which define environmental, social and governance requirements. South32 participates on the ICMM and various working groups.

International Energy Agency (IEA)
The IEA is a collaborative organisation of 30 member countries. Its aims include energy security and economic development. It develops and publishes a range of reference materials including the WEO and IEA Market Reports.

International Financial Reporting Standards (IFRS)
Accounting standards as issued by the IASB (International Accounting Standards Board).

JORC
Joint Ore Reserves Committee comprising representatives of The Australasian Institute of Mining and Metallurgy (AusIMM), Australian Institute of Geoscientists (AIG) and Minerals Council of Australia (MCA) as well as the Australian Securities Exchange (ASX), the Financial Services Institute of Australasia (FinSIA) and the accounting profession.

JORC Code
The Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition prepared by the JORC.

Management roles
Management Roles are Leaders with an identified job grading based on the requirements of their role and salary rate of 13 or higher.

Materiality
Materiality is the threshold at which an issue or topic becomes sufficiently important that it should be reported. Beyond this threshold, not all material topics will be of equal importance and the emphasis should reflect the relative priority of these material topics and indicators.

Metallurgical coal
A broader term than coking coal that includes all coals used in steelmaking, such as coal used for the pulverised coal injection process.

Musculoskeletal occupational illness
Musculoskeletal disorders are injuries or disorders of the muscles, nerves, tendons, joints, cartilage, and supporting structures of the upper and lower limbs, and spine - that are caused, precipitated or exacerbated by sudden exertion or prolonged exposure to physical factors such as repetition, force, vibration, or awkward posture.

Occupational illness
An occupational illness is any abnormal condition or disorder, other than one resulting from an occupational injury, caused or aggravated by exposures to factors associated with employment. It includes acute or chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion or direct contact.

Occupational Exposure Limit (OEL)
The concentration of a substance or agent, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers.

Occupational Safety and Health Administration (OSHA)
The OSHA of the United States Department of Labor. We adopt these guidelines for the recording and reporting of occupational injuries and illnesses to ensure that classifications are applied uniformly across our workforce.

Operational Leadership Team
The Operational Leadership Team includes Managers and General Managers who report to Vice President Operations or General Managers at an operation.

Paris Agreement
A global climate agreement that was agreed under the United Nations Framework Convention on Climate Change (UNFCCC) at the 21st Conference of the Parties in Paris (30 November to 12 December 2015). The Paris Agreement sets in place a durable and dynamic framework for all countries to take climate action from 2020, building on existing international efforts in the period up to 2020.

Recordable illnesses
The sum of work-related (fatalities + permanent impairment >30 per cent of body + lost time illnesses + restricted work illnesses + medical treatment illnesses).

Recordable injuries
The sum of work-related (fatalities + permanent impairment >30 per cent of body + lost time injuries + restricted work injuries + medical treatment injuries).

Senior Leadership Team
The Senior Leadership Team includes Vice Presidents, Group Managers and Project Directors who report directly to the South32 Lead Team.

Significant environmental incidents
Any environmental events with an impact where the potential severity level is 4 or greater with a major impact/s <five years to land, biodiversity, ecosystem services, water resources or air.

Sustainable development
Defined as supporting the needs of the present without compromising the ability of the future generations to meet their own needs.

Tailings
Those portions of washed or milled ore that are too poor to be treated further or remain after the required metals and minerals have been extracted.

Total Recordable Injury Frequency (TRIF)
The sum of (recordable injuries x 1,000,000) ÷ exposure hours. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Total Recordable Illness Frequency (TRILF)
The sum of (recordable illnesses x 1,000,000) ÷ exposure hours, for employees and contractors. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Transformation
A national strategy in South Africa aimed at attaining national unity, promoting reconciliation through negotiated settlement and non-racism.

Underlying earnings
Underlying earnings is profit after tax and earnings adjustment items. Earnings adjustments represent items that don't reflect our underlying operations. We believe that Underlying earnings provides useful information, but shouldn't be considered as an indication of, or an alternative to, profit or attributable profit as an indicator of operating performance.

Underlying EBIT
Underlying EBIT is profit before net finance costs, tax and after any earnings adjustment items, impacting profit. It's reported inclusive of our share of net finance costs and tax of equity accounted investments. It isn't an IFRS measure of profitability, financial performance or liquidity and may be defined and used in differing ways by different entities. We believe that Underlying EBIT provides useful information, but shouldn't be considered as an indication of, or alternative to, profit or attributable profit as an indicator of operating performance.

Water scarcity
In accordance with the CEO Water Mandate, Corporate Water Disclosure Guidelines, September 2014, water scarcity refers to the volumetric abundance, or lack thereof, of freshwater resources.

Water stress
In accordance with the CEO Water Mandate, 2014; water stress refers to the ability, or lack thereof, to meet the human and ecological demand for freshwater. Stress comprises three primary components: availability, quality, and accessibility and is based on subjective elements and is assessed differently depending on societal values, such as the suitability of water for drinking or the requirements to be afforded to ecosystems.

World Resources Institute Aqueduct Tool
A global water risk mapping tool that helps companies, investors, governments and other users understand where and how water risks and opportunities are emerging worldwide. The tool uses a peer reviewed methodology and the best-available data to create maps of water risk.

Independent Assurance Report

Conclusion

a) Assured sustainability information – Limited assurance

Based on the procedures performed, and evidence obtained, we are not aware of any material misstatements in the Assured Sustainability Information, as described below, which is prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards (GRI Standards), the International Council of Mining and Metals (ICMM) Sustainable Development Framework and the basis of preparation as disclosed in the South32 Limited Annual Report (AR) and Sustainable Development Report (SDR) for the year ended 30 June 2020.

b) GHG Emissions – Reasonable assurance

In our opinion, South32 Limited's reported Greenhouse Gas (GHG) Emissions of 23.3 Mt CO_2-e (Scope 1 and 2) for the year ended 30 June 2020 are prepared in accordance with the World Resources Institute and World Business Council for Sustainable Development (WRI and WBCSD) GHG Protocol (market-based method) and the basis of preparation as disclosed in the AR and SDR.

c) Water Inputs and Outputs – Reasonable assurance

In our opinion, South32 Limited's reported Water Inputs of 91,304 megalitres and Outputs of 67,774 megalitres are prepared in accordance with the Minerals Council of Australia's Water Accounting Framework and the basis of preparation as disclosed in the AR and SDR.

ASSURED SUSTAINABILITY INFORMATION

The Assured Sustainability Information comprised the following data and statements:

– Sustainable Development Report (except for Climate Change *Resilience and Risk Assessment* and *Collaboration, Partnerships and Industry Associations*; People[1]; and Feature Stories) available on South32 Limited's (South32) website at *https://www.south32.net/investors-media/investor-centre/annual-reporting-suite*;

– The following sections in the Annual Report available on South32's website at *https://www.south32.net/investors-media/investor-centre/annual-reporting-suite*:

  – "Working safely"

  – *Emissions reduction against FY15 baseline* and *FY20 community investment* disclosures in "Stable and predictable performance while minimising impact"

  – "Create enduring social, environmental and economic value"

  – "Making a difference now and for generations to come"

CRITERIA USED AS THE BASIS OF REPORTING

The criteria used as the basis of reporting includes the GRI Standards (Core level of disclosures), the ICMM Sustainable Development Framework published by the International Council on Mining and Metals (ICMM), the GHG Protocol published by the WRI and WBCSD, the Minerals Council of Australia's Water Accounting Framework, and the basis of preparation disclosed in the AR and SDR, prepared by the Directors and Management of South32 (criteria).

BASIS OF CONCLUSIONS

We conducted our work in accordance with *International Standard on Assurance Engagements ISAE 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information* and *ISAE 3410 Assurance on Greenhouse Gas Statements* (Standards). In gathering evidence for our conclusions our assurance procedures comprised:

– interviews with senior management and relevant staff at corporate and 7 operating sites;

– assessment of the suitability and application of the criteria in respect of the Assured Sustainability Information, GHG emissions and total Water Inputs and Outputs;

– evaluation of the design and implementation of the key systems, processes and controls for collecting, managing and reporting the Assured Sustainability Information, and testing of certain controls for collecting, managing and reporting the GHG emissions and total Water Inputs and Outputs;

– risk analysis, including print, online media and social media searches, to validate the completeness of South32's own materiality assessment and to determine the scope of assurance testing at corporate and operating sites;

– assessment of the reasonableness of the assumptions underlying the forward-looking statements set out in the Assured Sustainability Information;

(1) Employee, safety and health overview within the Sustainability Performance Data has been assured.

BASIS OF CONCLUSIONS CONTINUED

– agreeing the Assured Sustainability Information to relevant underlying sources on a sample basis;

– agreeing the GHG emissions and total Water Inputs and Outputs data to relevant underlying sources in accordance with the International Standard on Auditing ISA 530 *Audit Sampling and Other Means of Testing*;

– an assessment that the indicators reported were in accordance with the GRI Standards Core level of disclosures and Subject Matters 1 to 4 of the ICMM Sustainable Development Framework.

In accordance with the Standards we have:

– used our professional judgement to plan and perform the engagement to obtain assurance that the Assured Sustainability Information, GHG emissions and total Water Inputs and Outputs are free from material misstatement, whether due to fraud or error;

– considered relevant South32 internal controls when designing our assurance procedures, however we do not express a conclusion on the effectiveness of those internal controls; and

– ensured that the engagement team possesses the appropriate knowledge, skills and professional competencies.

HOW WE DEFINE LIMITED AND REASONABLE ASSURANCE

The procedures performed in a limited assurance engagement vary in nature and timing, and are less in extent than for a reasonable assurance engagement. Consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Reasonable assurance is a high level of assurance, but is not a guarantee that it will always detect a material misstatement when it exists.

Misstatements, including omissions, are considered material if, individually or in the aggregate, they could reasonably be expected to influence relevant decisions of the Directors of South32.

USE OF THIS ASSURANCE REPORT

This report has been prepared for South32. We disclaim any assumption of responsibility for any reliance on this report, to any person other than South32, or for any other purpose than that for which it was prepared.

**South32's responsibility**

South32 is responsible for:

– determining that the criteria is appropriate to meet their needs;

– preparing and presenting the Assured Sustainability Information, GHG emissions and total Water Inputs and Outputs in accordance with the criteria;

– determination of South32's GRI Standards Core level of disclosures in accordance with the GRI Standards and guidelines;

– establishing internal controls that enable the preparation and presentation of the Assured Sustainability Information, GHG emissions and total Water Inputs and Outputs that are free from material misstatement, whether due to fraud or error;

– ensuring the basis of preparation in accordance with which the Assured Sustainability Information has been determined and compiled is clearly and unambiguously set out in the AR and SDR;

– telling us of any known and/or contentious issues relating to the information subject to assurance; and

– maintaining integrity of the website.

Our responsibility

Our responsibility is to perform limited assurance in respect of the Assured Sustainability Information, including Subject Matters 1 to 4 of the ICMM Sustainable Development Framework and reasonable assurance in respect of GHG emissions and total Water Inputs and Outputs, and to issue an independent assurance report that includes our conclusions.

Our independence and quality control

We have complied with the independence and other relevant ethical requirements of the Code of Ethics for Professional Accountants of the International Federation of Accountants, and the applicable requirements of the International Standard on Quality Control 1 to maintain a comprehensive system of quality control.
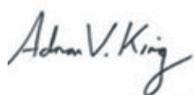
Adrian King
KPMG

Perth
3 September 2020

SOUTH32