

SUSTAINABILITY DATA TABLES

These tables provide the data for the material Global Reporting Initiative Standards (Core), as identified in our GRI Navigator, which is located at www.south32.net.

Metrics describing health, safety, environment and community (HSEC) performance apply to “operated assets” that have been wholly operated by South32, or that have been operated by South32 in a joint venture operation, from 1 July 2017 to 30 June 2018 (FY18). Totals include the corporate and other global office data. Employee data is sourced from our internal Human Resource systems. Employee numbers exclude Non-Executive Directors (except where stated otherwise) and are the total as at 30 June 2018.

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

Safety and Health

	Fatalities FY18	TRIF ⁽¹⁾⁽²⁾ FY16	TRIF ⁽¹⁾⁽²⁾⁽⁴⁾ FY17	TRIF ⁽¹⁾⁽²⁾ FY18	TRILF ⁽²⁾⁽³⁾⁽⁵⁾ FY16	TRILF ⁽²⁾⁽³⁾⁽⁵⁾ FY17	TRILF ⁽²⁾⁽³⁾ FY18	Occupational illnesses ⁽²⁾⁽³⁾ employees FY18	Occupational illnesses ⁽²⁾⁽³⁾ contractors FY18
Workforce data	1	7.74	6.05	5.12	1.46	1.35	1.72	2.76	0.60

(1) Total Recordable Injury Frequency (TRIF): The sum of (fatalities + lost-time cases + restricted work cases + medical treatment cases) x 1,000,000 ÷ actual hours worked, for employees and contractors. Stated in units of per million hours worked.

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

(3) Total Recordable Illness Frequency (TRILF): The sum of total occupational illness x 1,000,000 ÷ actual hours worked, for employees and contractors. Stated in units of per million hours worked.

(4) TRIF restatements appear in italics due to reclassification of one recordable illness to a recordable injury.

(5) In FY18, our second line assurance processes identified that an Australian Standard had been reported against at one operation, rather than the United States Government Occupational Safety and Health Assessment (OSHA) reporting criteria, which is used across the company. As a consequence, previous TRILF and Occupational illness results have been reviewed, resulting in restatements for FY16-17.

Safety fines levied

	2018	Number of fines	Description
Total	US\$ 1,336	1	At our Mozal Aluminum smelter, the Clinic was found to have been operating without an appointed pharmacy technician. This has now been remedied.

People

Employee headcount by age, gender, employment contract and location

	<30 years old	30-50 years old	>50 years old	Female	Male	Permanent	Temporary	Total
Australia	473	2,995	980	640	3,808	4,298	150	4,448
Brazil	1	14	2	9	8	16	1	17
Colombia	50	623	195	89	779	820	48	868
Mozambique	119	882	112	101	1,012	1,092	21	1,113
Singapore	7	105	10	67	55	118	4	122
South Africa	1,052	4,991	1,553	1,520	6,076	7,123	473	7,596
United Kingdom	0	24	4	16	12	25	3	28
Total	1,702	9,634	2,856	2,442	11,750	13,492	700	14,192

Employees by employment contract, employment type and gender

	Female	Male	Total
Permanent	2,198	11,294	13,492
– Full-time	2,147	11,280	13,427
– Part-time	51	14	65
Temporary	244	456	700
Total	2,442	11,750	14,192

Percentage of employees by employee category, gender, age and minority group members

	<30 years old	30-50 years old	>50 years old	Female	Male	Black people ⁽⁶⁾⁽⁷⁾
Board ⁽⁸⁾	0	11	89	33	67	67
Executives and senior management	0	79	21	31	69	39
Management	0	79	21	23	77	47
Supervisory/professional/operational/support	12	68	20	17	83	81

(6) 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)).

(7) Black People percentage is calculated using the total number of employees in South Africa per employee category as the denominator and the total count per employee category as the numerator.

(8) Includes Non-Executive Directors.

Pay ratio of women to men for each employee category, by country (based on salary)

Country ⁽⁹⁾	Australia	Colombia	Mozambique	Singapore	South Africa	Total
Executives ⁽¹⁰⁾ and senior management	0.99	-	-	0.71	0.89	0.97
Management	0.90	0.92	0.76	0.90	0.97	0.94
Supervisory/professional/operational/support	0.98	1.24	1.08	0.80	1.02	1.00

(9) Countries with less than 50 employees are not displayed however the data is included in the overall total.

(10) Excludes Key Management Personnel (KMP).

Percentage of employees recording performance reviews online⁽¹¹⁾

	Female	Male	Total
Executives and senior management	88	80	82
Management	87	95	93
Supervisory/professional/operational/support	94	96	96
TOTAL	93	96	95

(11) Setting of personal performance goals for employees and undertaking regular check-ins between employees and their line manager is encouraged across South32. For FY18, not all performance goals were recorded online. The figures included in the above table reflect only where online forms have been completed.

Employee turnover by region⁽¹²⁾

	<30 years old	30-50 years old	>50 years old	Female	Male	TOTAL	Turnover rate (%) ⁽¹³⁾
Africa	38	187	71	50	246	296	3.4
Asia	0	7	0	5	2	7	5.7
Australia	40	153	72	45	220	265	6.0
Europe	0	1	1	2	0	2	7.1
South America	2	39	24	6	59	65	7.3
TOTAL	80	387	168	108	527	635	4.5

(12) 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.

(13) Turnover rates are calculated using the total number of employees per region for FY18 as the denominator and the total count for FY18 as the numerator.

New employee hires by region

	<30 years old	30-50 years old	>50 years old	Female	Male	TOTAL	New hire rate (%) ⁽¹⁴⁾
Africa	288	230	10	155	373	528	6.1
Asia	2	12	0	5	9	14	11.5
Australia	130	261	56	146	301	447	10.0
Europe	0	3	1	4	0	4	14.3
South America	18	43	0	25	36	61	6.9
TOTAL	438	549	67	335	719	1,054	7.4

(14) New hire rates are calculated using the total number of employees per region for FY18 as the denominator and the total count for FY18 as the numerator.

Environment

Environmental fines levied

		FY18	Number of fines
Total	US\$	\$506,802	4

In FY18, our Metalloys Manganese Smelter in South Africa received an administrative fine under South African environmental legislation, for US\$100,240, which will be paid in tranches by FY20. The fine is in relation to the operation of new technology used in the agglomeration (smelting related) process, which was utilised under the existing Atmospheric Emissions Licence (AEL) but, according to the regulator, required rectification for unauthorised commencement of a new activity, and should only have been utilised following receipt of a new or renewed AEL. The regulator required Metalloys to pay the first administrative tranche of the fine prior to processing an application to renew the existing AEL. The AEL was renewed upon receipt of the first tranche of the fine.

Mozal Aluminium received two fines in FY18. A fine of US\$3,033 was received for alleged spillage of alumina during routine cleaning operations at a port facility. Our Mozal aluminium smelter has formally disputed the fine, however maintenance on related machinery has been undertaken, and training on cleaning and environmental practices refreshed for relevant contractors. A fine of US\$5,055 was received for alleged building and operating of a warehouse at Mozal Aluminium's existing stockyard, and transfer of the discharge point from the Maputo area of the harbour to the Matola area without information and authorisation. Our Mozal aluminium smelter has formally disputed the fine, as the facility was built with Portos e Caminhos de Ferro de Mocambique (Mozambique Ports and Railways Authority) authorisation and within the parameters of the existing environmental management plan. Our Mozal aluminium smelter has engaged in further communication with Government regarding their reporting requirements.

In FY18, our Cerro Matoso operation was fined US\$398,474 by the Regional Environmental Authority (CVS) for alleged air pollution and related health impacts which occurred in August 2013. While Cerro Matoso is required to pay the fine to the CVS, we have applied to the Courts to have the fine annulled. Cerro Matoso operates in accordance with legislated air emissions requirements and our air quality monitoring systems are subject to periodic reviews to ensure that they remain fit for purpose and effective.

Water⁽¹⁵⁾⁽¹⁶⁾

		FY16	FY17	FY18
Inputs				
- water input by quality – type 1	megalitres	18,355	20,051	24,468
- water input by quality – type 2	megalitres	26,296	29,234	23,845
- water input by quality – type 3	megalitres	28,377	42,952	46,666
- water input by source – surface water	megalitres	35,939	49,419	56,376
- water input by source – groundwater	megalitres	26,215	29,295	33,127
- water input by source – seawater	megalitres	0	415	863
- water input by source – third party water	megalitres	10,874	13,107	4,613
Outputs				
- water output by quality – type 1	megalitres	39,446	36,262	39,797
- water output by quality – type 2	megalitres	14,957	21,972	28,198
- water output by quality – type 3	megalitres	9,896	14,203	8,089
- water output by destination – surface water	megalitres	8,857	15,163	13,581
- water output by destination – groundwater	megalitres	4,018	3,585	14,270
- water output by destination – sea water	megalitres	3,043	3,570	4,048
- water output by destination – third party water	megalitres	7,115	11,505	2,382
- water output by destination – other	megalitres	41,265	38,613	41,802
Recycling				
- water recycled and reused	megalitres	97,860	102,264	106,944
Water consumption				
Total water consumption	megalitres	39,523	38,613	41,802
Water efficiency				
Total water efficiency ⁽¹⁷⁾	percentage	57	53	53

(15) South32 reports its water data according to the Minerals Council of Australia's Water Accounting Framework (WAF) and the International Council on Mining and Metals (ICMM) practical guide to consistent water reporting. The WAF is the accepted industry water accounting standard which aims to improve data integrity and comparability across the sector to ensure the continuous improvement of water reporting.

(16) During FY18, we reviewed and updated our basis of preparation for water at GEMCO. Comparatives for FY17 and FY16 will be restated in FY19.

(17) Total water efficiency is calculated as a percentage of the total volume of water recycled and reused from our total water input in accordance with the ICMM updated disclosure requirements.

Land holdings and rehabilitation

		FY16	FY17	FY18
Total land disturbed	hectares	24,047	23,028	23,292
Total land rehabilitated	hectares	14,415	15,144	15,554
Total land set aside for conservation	hectares	2,105	2,107	2,001 ⁽¹⁸⁾
Land owned, leased or managed	hectares	525,577	609,279	607,623

(18) The amount of land in conservation decreased compared to FY17 totals of 2,107, due to conservation land handed over to the Office of Environment and Heritage (New South Wales).

Designated protected areas FY18

	Areas adjacent to land managed by our operations Number	Areas of land managed by our operations Number	Size of common land on or overlapping designated protected area Hectares
Mozambique			
Terrestrial	0	0	0
Freshwater	0	0	0
Maritime	0	0	0
South Africa			
Terrestrial	1	1	3,187
Freshwater	0	1	3
Maritime	0	0	0
Australia			
Terrestrial	2	4	712
Freshwater	0	0	0
Maritime	1	0	0
Colombia			
Terrestrial	4	0	34
Freshwater	1	0	0
Maritime	0	0	0
Total			
Terrestrial	7	5	3,933
Freshwater	1	1	3
Maritime	1	0	0

Biodiversity Management Plans (BMPs)

	FY18
Implemented required BMPs	100% of BMPs have been implemented where required

Energy⁽¹⁹⁾

Total		FY16	FY17	FY18
Energy use – electricity	petajoules	79	79	79
Energy use – coal and coke	petajoules	38	42	42
Energy use – natural gas	petajoules	28	27	27
Energy use – distillate/gasoline	petajoules	7	7	7
Energy use – other	petajoules	22	18	18
Energy use – total	petajoules	174	174	174
Energy use – renewable sources	petajoules	34	37	33

(19) Measured according to the World Resources Institute/World Business Council for Sustainable Development.

Emissions⁽²⁰⁾

Total		FY16	FY17	FY18
GHG – Scope 1 ⁽²¹⁾	millions of tonnes CO ₂ -e	11.1	10.6	10.2
GHG – Scope 2 market-based ⁽²¹⁾	millions of tonnes CO ₂ -e	12.3	12.0	12.7
GHG – Scope 2 location-based ⁽²²⁾	millions of tonnes CO ₂ -e	20.5	20.3	19.9
GHG Scope 1 and 2 ⁽²¹⁾	millions of tonnes CO ₂ -e	23.4	22.6	22.9
Scope 3 ⁽²³⁾	millions of tonnes CO ₂ -e		125	117
Total oxides of sulphur	tonnes	36,965	39,192	35,793
Total oxides of nitrogen	tonnes	10,133	10,425	10,892
Total mercury	tonnes	0.26	0.86	0.72

GHG emissions by source⁽²¹⁾⁽²⁰⁾

		FY16	FY17	FY18
GHG from electricity	kilotonnes CO ₂ -e	12,123	12,029	12,687
GHG from fugitive sources	kilotonnes CO ₂ -e	3,825	3,019	2,520
GHG from coal and coke	kilotonnes CO ₂ -e	3,356	3,750	3,802
GHG from other sources	kilotonnes CO ₂ -e	2,068	1,903	1,904
GHG from natural gas	kilotonnes CO ₂ -e	1,444	1,416	1,397
GHG from distillate and gas	kilotonnes CO ₂ -e	562	513	563
Total	kilotonnes CO₂ -e	23,377	22,630	22,873

(20) South32 currently uses Global Warming Potentials (GWPs) from the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 4 (AR4).

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

(22) In accordance with the GHG Protocol Scope 2 disclosure requirements, our location-based Scope 2 emissions were 19.9Mt of CO₂ -e, which is 7.2Mt of CO₂ -e higher than our market-based emissions. This difference is associated with our purchase of hydroelectric power at Mozambique Aluminium. Unless otherwise noted, all Scope 2 emissions reported are calculated using the market-based method.

(23) The calculation of our Scope 3 emissions is in accordance with the methodologies in the World Resources Institute *Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard*. Detail on the specific methodologies used for each Scope 3 category can be found on our [website](#).

Waste

Total		FY16	FY17	FY18
Hazardous waste – mineral total	kilotonnes	15,905	16,226	22,627
Non-hazardous waste – mineral tailings	kilotonnes	16,649	16,236	5,909
Accidental discharge of water and tailings ⁽²⁴⁾	megalitres	0.0	0.0	0.0

(24) Data reported for environmentally significant events.

Society**Community investment⁽²⁵⁾**

		FY16	FY17	FY18
Community contributions	US\$	\$16,533,840	\$14,327,744	\$20,364,784

Community investment by country FY18⁽²⁵⁾

		Total
South Africa	US\$	\$16,158,400
Colombia	US\$	\$1,527,711
Australia	US\$	\$1,388,760
Mozambique	US\$	\$1,289,913
Total	US\$	\$20,364,784

(25) Community investment consists of cash, in-kind support and administrative costs and includes donations and investment of funds in the broader community where the target beneficiaries are external to the company. The amount accounts for actual expenditures in the reporting period, not commitments, prepared on an accruals basis and representing South32's equity share.

Community complaints

This year we have included more detail on the breakdown of our community complaints

	FY16	FY17	FY18
Dust	8	12	10
Noise	82	62	35
Odour	2	2	4
Traffic management			21
Community amenities			11
Business and employment opportunities			7
Blasting and vibration			7
Other	30	41	20
All	122	117	115

Community engagement plans

	FY18 (%)
Operations with implemented local engagement, impact assessments, and development programs	98

Cultural awareness training

	FY16	FY17	FY18
Employees	5404	1155	571

Human rights training

	FY16	FY17	FY18
Employees	4,980	851	154
Contractors	3248	1254	1138

Human rights reviews conducted

	Human Rights Impact Assessment conducted (%)	Sites reviewed in FY18 (%)
South Africa	100	100
Mozambique	100	100
Australia	100	40
Colombia	100	0 ⁽²⁶⁾

(26) Reviews were not conducted due to ongoing community engagement conditions as part of Court ruling.

Security training

	FY16	FY17	FY18
Number of employees and contractors	678	793	1185