

A close-up photograph of a green leaf, showing the intricate network of veins. The veins are light green and form a complex, branching pattern across the darker green leaf surface. The lighting is soft, highlighting the texture and structure of the leaf cells.

**BHP**

**Sustainability  
Report  
2018**

# BHP

## Our Charter

**We are BHP,  
a leading global resources company.**

### Our Purpose

Our purpose is to create long-term shareholder value through the discovery, acquisition, development and marketing of natural resources.

### Our Strategy

Our strategy is to own and operate large, long-life, low-cost, expandable, upstream assets diversified by commodity, geography and market.

### Our Values

#### Sustainability

Putting health and safety first, being environmentally responsible and supporting our communities.

#### Integrity

Doing what is right and doing what we say we will do.

#### Respect

Embracing openness, trust, teamwork, diversity and relationships that are mutually beneficial.

#### Performance

Achieving superior business results by stretching our capabilities.

#### Simplicity

Focusing our efforts on the things that matter most.

#### Accountability

Defining and accepting responsibility and delivering on our commitments.

### We are successful when:

Our people start each day with a sense of purpose and end the day with a sense of accomplishment.

Our teams are inclusive and diverse.

Our communities, customers and suppliers value their relationships with us.

Our asset portfolio is world-class and sustainably developed.

Our operational discipline and financial strength enables our future growth.

Our shareholders receive a superior return on their investment.



**Andrew Mackenzie**  
Chief Executive Officer

May 2017

### Forward looking statements

This Sustainability Report contains forward looking statements, including statements regarding plans, strategies and objectives of management; closure or divestment of certain assets, operations or facilities; and regulatory developments.

Forward looking statements may be identified by the use of terminology including, but not limited to, 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believe', 'expect', 'may', 'should', 'will', 'continue' or similar words. These statements discuss future expectations or provide other forward looking information.

These forward looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control and which may cause actual results to differ materially from those expressed in the statements contained in this Sustainability Report. Readers are cautioned not to put undue reliance on forward looking statements.

Actual results may differ materially from those expressed in such statements as a result of a variety of factors, including our ability to profitably produce and transport the minerals, petroleum and/or metals extracted to applicable markets; the impact of foreign currency exchange rates on the market prices of the minerals, petroleum or metals we produce; activities of government authorities in the countries where we are exploring or developing projects, facilities or mines, including increases in taxes, changes in environmental and other regulations and political uncertainty; labour unrest; and other factors identified in the risk factors set out in our Annual Report 2018, available online at [bhp.com](http://bhp.com).

Except as required by applicable regulations or by law, BHP does not undertake to publicly update or review any forward looking statements, whether as a result of new information or future events.

Past performance cannot be relied on as a guide to future performance.

For details on the approach, boundary and scope of this Sustainability Report, refer to page 6.



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## BHP at a glance

**BHP**  
has been around for  
**133 years**



We employ over  
**62,000**<sup>(1)</sup>  
employees and contractors



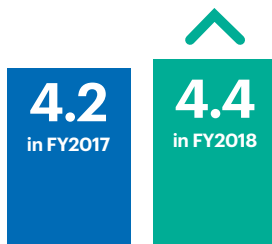
Who work in over



locations worldwide<sup>(1)</sup>

### In FY2018

Disappointingly,  
our total recordable injury  
frequency (TRIF) increased  
by 5% from last year<sup>(1) (2)</sup>



We made a  
social investment of  
**US\$77.1 million**  
to communities  
around the world<sup>(1)</sup>



We continue to take action  
on climate change,  
despite a  
**1%** increase in  
operational greenhouse  
gas emissions from FY2017<sup>(1)</sup>



### Our Operating Model

#### Assets

##### Minerals Australia

Coal, copper, iron ore, nickel

###### Operated assets

Western Australia Iron Ore  
Queensland Coal (BMA and BMC)  
New South Wales Energy Coal  
Olympic Dam  
Nickel West

##### Minerals Americas

Coal, copper, iron ore, potash

###### Operated assets

Escondida  
Pampa Norte  
Jansen

###### Non-operated assets

Antamina  
Cerrejón  
Samarco

##### Petroleum

Petroleum

###### Operated assets

Shenzi  
Angostura  
Pyrenees  
Macedon  
Onshore US<sup>(3)</sup>

###### Non-operated assets

Atlantis  
Mad Dog  
Bass Strait  
North West Shelf

#### Marketing and Supply

#### Functions

#### Leadership

(1) Includes data for Continuing and Discontinued operations for the financial years being reported.

(2) TRIF is calculated based on the number of recordable injuries per million hours worked.

(3) On 27 July 2018, we announced that we had entered into agreements for the sale of our entire interest in the Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets.

## Chief Executive Officer's Review



**'Sustainability is ingrained in every action we take across our business.'**

Thank you for downloading BHP's Sustainability Report 2018.

Throughout this Report we voluntarily disclose our progress across a range of health, safety, environmental and community measures. This is the first time this Report has been made available solely in a digital format. It is a small but important step that further underscores our commitment to embed sustainability in all we do.

Sustainability is ingrained in every action we take across our business. We put the health and safety of our people first, we invest in our host communities, and we work towards better environmental outcomes in the areas where we operate.

While FY2018 was a strong year operationally for BHP, two of our colleagues died at our operated assets – Daniel Springer at our Goonyella Riverside mine in August 2017, and a contractor at our Permian Basin operations in November.

We achieve nothing if we don't do it safely. These tragic fatalities are a stark reminder that we must do everything possible to make sure all our people return home safely at the end of their day. Their health and safety is our number one priority.

During the year, our leaders conducted safety engagements in the field with a record number of employees and contractors across the Group. I'm encouraged that our relentless pursuit of safety excellence has helped reduce the number of events with the potential to cause a fatality by eight per cent. This is a substantial reduction from FY2017 and a key indicator of our future safety performance across our business.

We are also vigilant about our environmental performance, with no significant environmental events reported in any of our operated assets in FY2018. Our focus remains on the recovery of communities and ecosystems that were affected by the 2015 Samarco dam failure. The Fundação Renova has started construction on the Bento Rodriguez resettlement program, which was a major priority for BHP. I'm very pleased to reach this milestone as we work to rebuild the communities that were impacted by this tragedy.

In FY2018, we made progress against many of our performance targets for FY2022 and beyond. These targets were set in alignment with the principles of the United Nations Global Compact, and we remain committed to this initiative.

Among these targets is our commitment to reduce FY2022 fresh water withdrawal by 15 per cent from FY2017 levels. In FY2018, we made some progress, with fresh water withdrawal reduced by two per cent. But we have much more to do.

Water is a globally shared resource and access to clean water is an essential human right. This year, we launched our inaugural Water Report – the first of its kind for our industry. It represents a major step in our long-term efforts towards better water management and governance. We hope the disclosure of our water performance will encourage others to report on their water usage and increase corporate transparency and accountability for water stewardship. It is available on our website and I encourage you to read it.

As a major producer and consumer of fossil fuels, we also accept our responsibility to take action on climate change and reduce our greenhouse (GHG) emissions. Our operational emissions for FY2018 rose marginally due to increased production at our Chilean copper assets. We will reverse this small increase and remain committed to our five-year target to maintain total operational emissions at or below FY2017 levels, and our longer-term goal of net-zero operational GHG emissions in the latter half of this century.

BHP could not operate without healthy, prosperous and engaged host communities. In FY2018, our voluntary social investment of more than US\$77 million benefitted local communities across the globe. This has placed us on track to meet our five-year community targets that tackle the sustainable development challenges of our generation.

While this Report is a snapshot of our performance in FY2018, our commitment to sustainability began long ago. Over this time, we have worked hard to strengthen safety and improve our environmental performance, and we will continue to make progress towards our long-term targets.







Our progress would not be possible without our people. I thank them all for their dedication and the part they play in creating a safer and more sustainable future.

**Andrew Mackenzie**  
Chief Executive Officer







## BHP locations (includes non-operated)











## Minerals Australia

Ref	Country	Asset	Description	Ownership
1	Australia	 Olympic Dam	Underground copper mine, also producing uranium, gold and silver	100%
2	Australia	 Western Australia Iron Ore	Integrated iron ore mines, rail and port operations in the Pilbara region of Western Australia	51–85%
3	Australia	 New South Wales Energy Coal	Open-cut energy coal mine and coal preparation plant in New South Wales	100%
4	Australia	 BHP Billiton Mitsubishi Alliance	Open-cut and underground metallurgical coal mines in the Queensland Bowen Basin and Hay Point Coal Terminal	50%
5	Australia	 BHP Billiton Mitsui Coal	Two open-cut metallurgical coal mines in the Bowen Basin, Central Queensland	80%
6	Australia	 Nickel West	Integrated sulphide mining, concentrating, smelting and refining operation in Western Australia	100%

## Minerals Americas

Ref	Country	Asset	Description	Ownership
7	Chile	 Escondida	Open-cut copper mine located in northern Chile	57.5%
8	Chile	 Pampa Norte	Consists of the Cerro Colorado and Spence open-cut mines, producing copper cathode in northern Chile	100%
9	Peru	 Antamina <sup>(1)</sup>	Open-cut copper and zinc mine in northern Peru	33.75%
10	Brazil	 Samarco <sup>(1)</sup>	Open-cut iron ore mines, concentrators, pipelines, pelletising facilities and dedicated port	50%
11	Colombia	 Cerrejón <sup>(1)</sup>	Open-cut energy coal mine with integrated rail and port operations	33.3%
12	Canada	 Jansen	Our interest in potash is via development projects in the Canadian province of Saskatchewan, where the Jansen Project is our most advanced	100%

## Petroleum

Ref	Country	Asset	Description	Ownership
13	US	 Onshore US <sup>(2)</sup>	Onshore shale liquids and gas fields in Arkansas, Louisiana and Texas	<1–100%
14	Australia	 Australia Production Unit	Offshore oil fields and gas processing facilities in Western Australia and Victoria	39.99–90%
15	US	 Gulf of Mexico Production Unit	Offshore oil and gas fields in the Gulf of Mexico	35–44%
16	Trinidad and Tobago	 Trinidad and Tobago Production Unit	Offshore oil and gas fields	45%
17	UK	 UK Production Unit <sup>(1)</sup>	Offshore oil and gas fields	16–31.83%
18	Algeria	 Algeria Joint Interest Unit <sup>(1)</sup>	Onshore oil and gas unit	29.3%
19	Australia	 Australia Joint Interest Unit <sup>(1)</sup>	Offshore oil and gas fields in Bass Strait and North West Shelf	12.5–50%
20	US	 Gulf of Mexico Joint Interest Unit <sup>(1)</sup>	Offshore oil and gas fields in the Gulf of Mexico	4.95–44%

## BHP principal office locations

Ref	Country	Location	Office
21	Australia	Adelaide	Minerals Australia office
22	Australia	Brisbane	Minerals Australia office
23	Australia	Melbourne	Global headquarters
24	Australia	Perth	Minerals Australia office
25	Canada	Saskatoon	Minerals Americas office
26	Chile	Santiago	Minerals Americas office
27	China	Shanghai	Corporate office
28	India	New Delhi	Corporate office
29	Japan	Tokyo	Corporate office
30	Malaysia	Kuala Lumpur	Global Asset Services Centre
31	Philippines	Manila	Global Asset Services Centre
32	Singapore	Singapore	Marketing and corporate office
33	UK	London	Corporate office
34	US	Houston	Petroleum office
35	US	New York	Corporate office

 Copper
  Iron Ore
  Coal
  Nickel
  Potash
  Petroleum

(1) Non-operated joint venture.

(2) On 27 July 2018, we announced that we had entered into agreements for the sale of our entire interest in the Eagle Ford, Haynesville, Permian and Fayetteville Onshore US oil and gas assets.

# About this Sustainability Report

## Reporting approach

In this Sustainability Report, the terms 'BHP', the 'Company', the 'Group', 'our business', 'organisation', 'we', 'us', 'our', and 'ourselves' refer to BHP Billiton Limited, BHP Billiton Plc and, except where the context otherwise requires, their respective subsidiaries as defined in note 27 'Subsidiaries' in section 5.1 of BHP's Annual Report 2018. Those terms do not include non-operated assets in which we have an interest which may operate according to standards that are different to BHP's standards. The Boards of Directors of BHP Billiton Limited and BHP Billiton Plc are referred to collectively as 'the Board'.

This Sustainability Report aligns with the International Council on Mining and Metals' Sustainable Development Framework and is prepared in accordance with the Global Reporting Initiative Standards comprehensive-level reporting.

As signatories to the principles of the United Nations Global Compact (UNGC), this Sustainability Report serves as our UNGC Communication on Progress on implementation of the principles and support for its broader development objectives.

Further details are available online at [bhp.com](http://bhp.com) and we invite readers to access case study information and topic-specific detail via this platform. KPMG has provided independent assurance in respect of this Sustainability Report. A copy of KPMG's assurance report is on page 69.

## Reporting boundary and scope

This Sustainability Report covers BHP's assets (including those under exploration, projects in development or execution phases, sites and closed operations) that have been wholly owned and/or operated by BHP and assets that have been owned as a joint venture<sup>(1)</sup> operated by BHP (referred to in this Report as 'assets' or 'operated assets' or 'operations') during the period from 1 July 2017 to 30 June 2018. Our Marketing and Supply business and our functions are also included.

On 27 July 2018, BHP announced that we had entered into agreements for the sale of our entire interests in our Onshore US assets, subject to the satisfaction of customary regulatory approvals and conditions precedents. Unless otherwise stated, information and data in this Sustainability Report has been presented on a Continuing and Discontinued operations basis to include the contribution from Onshore US assets.

Nickel West has not been fully integrated into the BHP Operating Model and has been granted exemptions from certain *Our Requirements* standards, including the requirements to conduct a human rights impact assessment every three years; have a quantified water balance model (unless required by a material risk); identify opportunities to reduce greenhouse gas (GHG) emissions outside of certain approved activities; and develop GHG public reduction targets. Statements in this Sustainability Report concerning these matters do not apply to Nickel West.

BHP also holds interests in assets that are owned as a joint venture but not operated by BHP (referred to in this Sustainability Report as 'non-operated joint ventures' or 'non-operated assets'). Our non-operated joint ventures are **not** included within the scope of this Sustainability Report, unless otherwise stated. Data for non-operated joint ventures is not presented in this Sustainability Report, unless otherwise stated. Comparative information includes divested assets unless otherwise stated.

## Our stakeholders

As a global company, we interact with a range of stakeholders. Our methods and frequency of engaging with and listening to stakeholders are diverse:

- Globally, we communicate via our Annual General Meetings, corporate publications (including the Annual Report, Sustainability Report and other topic-specific reports), our website ([bhp.com](http://bhp.com)), releases to the market and media, analyst briefings, speeches and interviews with senior executives.
- At a regional and local level, each asset is required to plan, implement and document stakeholder engagement activities. This includes community forums, newsletters and reports; community perception surveys and consultation groups; implementing community complaints and grievance mechanisms; representation on specific industry association committees and initiatives; and engagement to develop community programs.
- As a key stakeholder group, we also engage with our people (employees and contractors) via tailored internal channels. These channels include our intranet; email and newsletters; town halls; and by inviting feedback and comment through employee perception surveys. Key internal announcements and videos are made available in English and Spanish.

Our key stakeholders include:

- BHP's Forum on Corporate Responsibility
- business partners
- community-based organisations
- employees and contractors
- governments and regulators
- industry peers and associations
- labour unions
- local and Indigenous communities
- media
- non-governmental organisations
- shareholders and investment organisations
- suppliers and customers

Anyone seeking to use information in this Sustainability Report or seeking to draw conclusions from the data presented should email [hsecenquiries@bhp.com](mailto:hsecenquiries@bhp.com) for assistance.





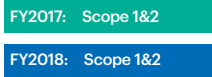

## Voluntary initiatives and public commitments



(1) References in this Sustainability Report to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.



# Our FY2018 sustainability performance <sup>(1)</sup>

	Target	Result	
People	Zero work-related fatalities.	<b>Workplace fatalities</b> <b>2</b>	
	Year-on-year improvement of our total recordable injury frequency <sup>(2)</sup> (TRIF) per million hours worked.	<b>Total recordable injury frequency (TRIF)</b> per million hours worked <b>4.4</b>	
	50 per cent reduction in the number of workers potentially exposed <sup>(3)</sup> to our most material exposures of DPM, silica and coal mine dust as compared to our FY2017 <sup>(5)</sup> baseline by FY2022.	<b>Occupational exposures reduction</b> <b>31%</b>	
Society	Zero significant community events <sup>(4)</sup> .	<b>Significant community events</b> <b>0</b>	
	Not less than one per cent of pre-tax profits <sup>(5)</sup> invested in community programs that contribute to improved quality of life in host communities and support the achievement of the UN Sustainable Development Goals.	<b>Community investment spend (US\$ million)</b> <b>77.1</b> <sup>(6)</sup>	
	By FY2022, implement our Indigenous Peoples Strategy across all our assets through the development of Regional Indigenous Peoples Plans.	Regional Indigenous Peoples Plans have been developed across all geographically relevant assets.	
Climate change	By FY2022, maintain greenhouse gas (GHG) emissions at or below FY2017 levels <sup>(7)</sup> <sup>(8)</sup> while we continue to grow our business.	<b>Greenhouse gas emissions</b> <b>1% increase</b>	
Protecting the Environment	Zero significant environmental events <sup>(4)</sup> .	<b>Significant environmental events</b> <b>0</b>	
	Reduce FY2022 fresh water withdrawal <sup>(9)</sup> by 15 per cent from FY2017 <sup>(7)</sup> levels.	<b>Fresh water withdrawal reduction</b> <b>2%</b>	
	By FY2022, improve marine and terrestrial biodiversity outcomes by developing a framework to evaluate and verify the benefits of our actions, in collaboration with others.	Commenced development of framework to evaluate and verify the benefits of our actions, in collaboration with others.	

(1) Data includes Continuing and Discontinued operations for the financial years being reported.

(2) The sum of (fatalities + lost-time cases + restricted work cases + medical treatment cases) multiplied by 1 million ÷ actual hours worked by our employees and contractors. Stated in units of per million hours worked. We adopt the US Government's Occupational Safety and Health Administration Guidelines for the recording and reporting of occupational injuries and illnesses.

(3) For exposures exceeding our FY2017 baseline occupational exposure limits discounting the use of personal protective equipment, where required. The baseline exposure profile (as at 30 June 2017) is derived through a combination of quantitative exposure measurements and qualitative assessments undertaken by specialist occupational hygienists consistent with best practice as defined by the American Industrial Hygiene Association.

(4) A significant event, resulting from BHP operated activities, is one with a severity rating of four and above, based on our internal severity rating scale (tiered from one to seven by increasing severity) and aligned to the *Our Requirements for Risk Management* standard.

(5) Our voluntary social investment is calculated as one per cent of the average of the previous three years' pre-tax profit.

(6) Expenditure includes BHP's equity share for operated and non-operated joint ventures, and comprises cash, administrative costs, including costs to facilitate the operation of the BHP Billiton Foundation.

(7) FY2017 baseline will be adjusted for any material acquisitions and divestments based on asset occupational exposures, water withdrawal and/or GHG gas emissions at the time of transaction.

(8) With the use of carbon offsets, as required.

(9) 'Withdrawal' is defined as water withdrawn and intended for use (in accordance with 'A Practical Guide to Consistent Water Reporting', ICMM (2017)); and we define 'fresh water' as waters other than sea water, irrespective of quality.

(10) The FY2017 baseline for the purposes of this target has been adjusted to account for the materiality of the strike affecting water withdrawals at Escondida in FY2017.

(11) Data represents total FY2018 inputs excluding sea water, as per the Environmental Performance data in the Appendix of this Report.



## Our sustainability approach

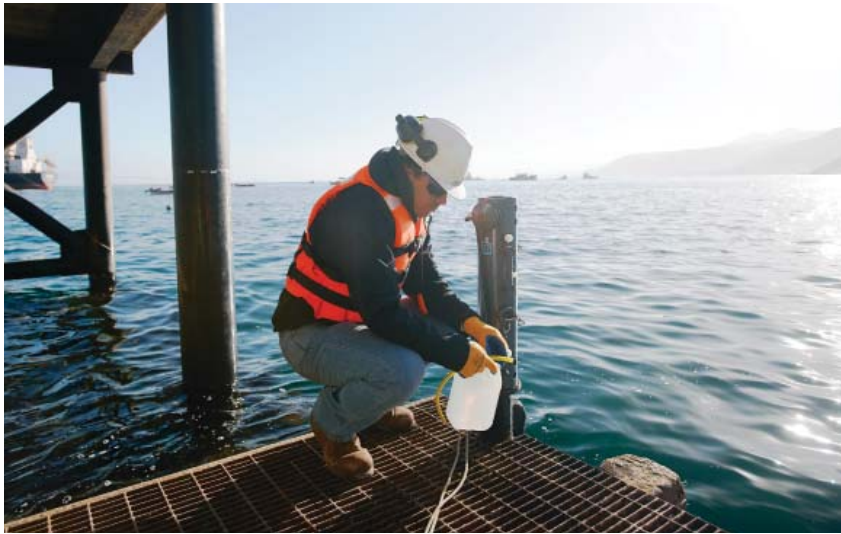
Sustainability is one of BHP's core values. It means putting health and safety first, being environmentally responsible and supporting our communities. The wellbeing of our people, the community and the environment is considered in everything that we do.



### In this section:

Sustainability at BHP  
Sustainability at our non-operated minerals joint ventures and petroleum non-operated assets  
Samarco

# Our sustainability approach



**BHP's purpose is to create long-term shareholder value through the discovery, acquisition, development and marketing of natural resources. We do so by owning and operating large, long-life, low-cost, expandable, upstream assets diversified by commodity, geography and market.**

## Sustainability at BHP

BHP's strategy of owning and operating long-life assets means that we need to think and plan in decades. We can create long-term value only if we safeguard the sustainability of our operations with the support of the communities in which we work. To do that, we must form and maintain deep, authentic and respectful relationships with all of our stakeholders.

Sustainability is one of the core values set out in *Our Charter*. To us, sustainability means putting health and safety first, being environmentally responsible and supporting our communities. The wellbeing of our people, the community and the environment is considered in everything that we do.

### Our people

We look to create a culture of care and trusted relationships with our people through strong leadership and open communication.



### Environment

We aim to minimise the environmental impacts from our activities and work in partnership with others to support environmental resilience.



### Society

We support the development of diversified and resilient local economies that contribute to improved quality of life beyond the life of our operations.



## How we operate sustainably

Our social licence is an informal set of enabling relationships that exist between BHP and our local, regional and global stakeholders. Our social licence is built on and sustained by the quality of our relationships, our operational and environmental performance, our social impacts and the lasting benefits we create.



**'For BHP, our social licence is central to our business case and provides a foundation for all value creation.'**

Ken MacKenzie, BHP Chairman

## Contributing to sustainable development

The United Nations Sustainable Development Goals (SDGs) are ambitious goals to improve the wellbeing of present and future generations. The 17 SDGs aim to tackle the world's most pressing challenges through the promotion of sustainable development. As a global company, many of these challenges are clearly evident to us around the world.

We contribute towards the achievement of the SDGs through:

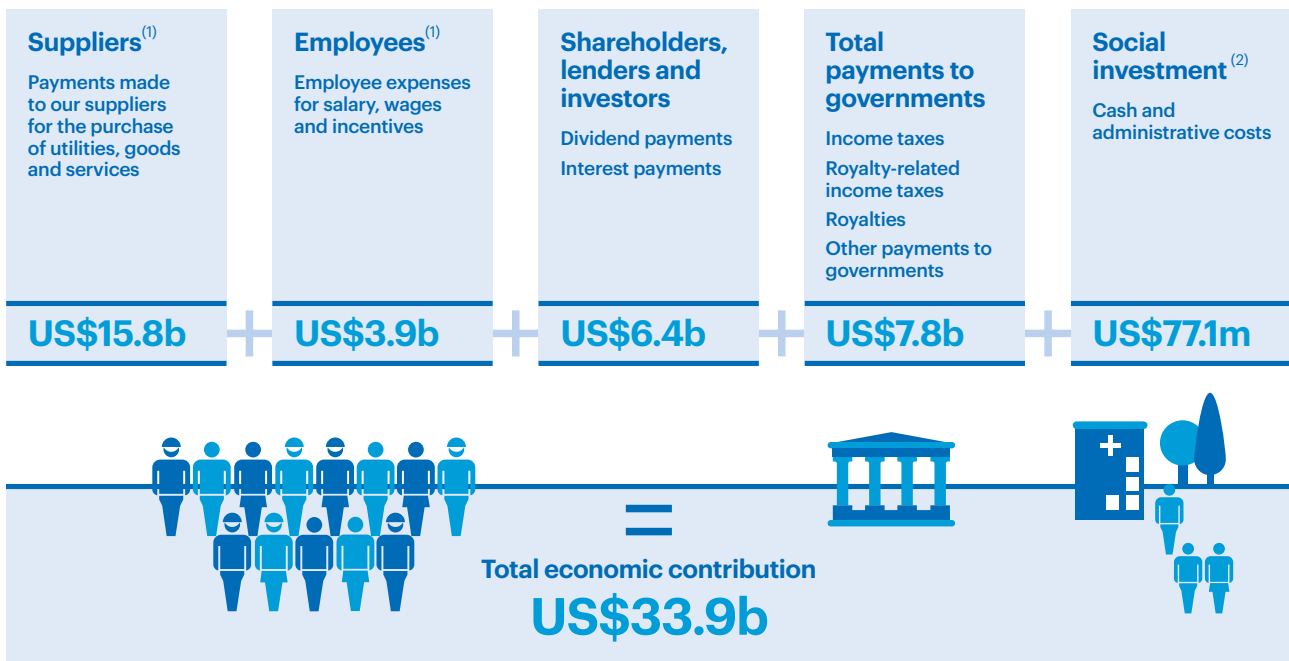
- our direct business activities – the products we produce and the way we produce them;

- the use by host governments of the taxes and royalties we pay, the direct and indirect employment opportunities we create, and our supply chain;
- our voluntary social investment.

This approach means we can work in genuine partnership with others towards shared outcomes, with a focus on three themes: governance, human capability and social inclusion, and environment.



## Total economic contribution in FY2018



Figures are rounded to the nearest decimal point and include data for Continuing and Discontinued operations for the financial years being reported.

(1) Calculated on an accrual basis.

(2) Total social investment includes community contributions and associated administrative costs (including US\$1.54 million to facilitate the operation of the BHP Billiton Foundation), and BHP's equity share in community contributions for both operated and non-operated joint ventures. Our social investment target is not less than one per cent of pre-tax profits invested in community programs, including cash and administrative costs, calculated on the average of the previous three years' pre-tax profit. Priorities and focus areas are outlined in our Social Investment Framework, detailed in our Sustainability Report 2018.

## Social investment

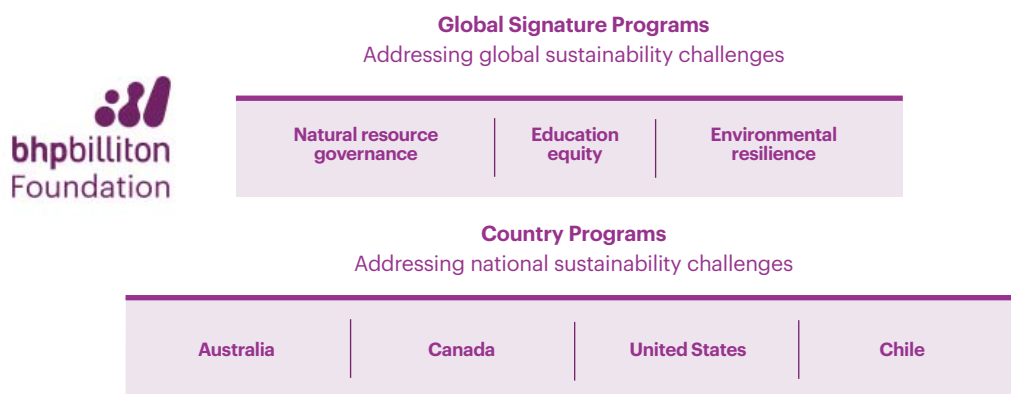
At BHP, we recognise our responsibility to make a positive contribution to sustainable development. We contribute to this through our direct business activities, economic contribution and our social investment. We have a longstanding commitment to invest not less than one per cent of our pre-tax profits<sup>(1)</sup> to support programs that aim to improve the quality of life for people around the world and to contribute to environmental resilience. This investment is made in line with our Social Investment Framework, which underpins our voluntary social investment.

Through our Social Investment Framework, we aim to make a meaningful contribution to addressing the sustainable development challenges of most relevance to our business

and stakeholders. We believe this will enable us to work in genuine partnership with others towards shared outcomes. At the highest level, the Framework is built on relevant United Nations Sustainable Development Goals in the areas of governance, human capability and social inclusion, and environment.

In FY2018, our voluntary social investment totalled US\$77.05 million, comprising US\$66.56 million in direct community development projects and donations, including US\$7.16 million BHP equity share to non-operated joint venture programs and US\$10.49 million in administrative costs, which includes US\$1.54 million to facilitate the operation of the BHP Billiton Foundation.

## Our approach to social investment



## BHP Social Investment framework

Funded by a longstanding commitment to invest not less than one per cent of pre-tax profits



## Local community projects

Supporting the priorities of BHP host communities



(1) Calculated on the average of the previous three years' pre-tax profit.

(2) Not including social investment categorised as 'Other', social investment administration costs or non-operated joint venture community contributions, which total US\$21.57 million.

## The BHP Billiton Foundation

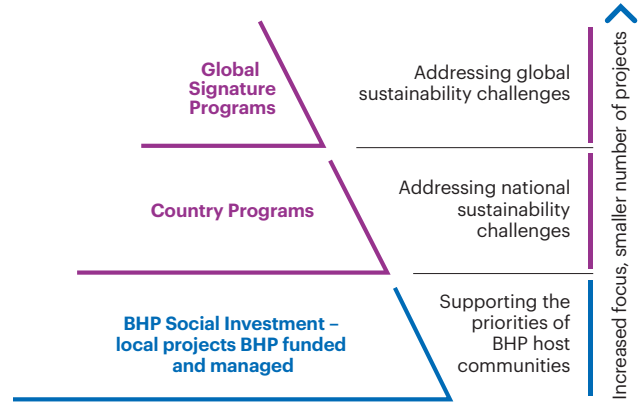
The BHP Billiton Foundation is a charitable organisation established and funded by BHP. The Foundation works to address some of the most critical global sustainable development challenges facing our generation. By working in partnership with others it seeks to raise the bar, find new solutions and set new standards for the future.

Its Global Signature Programs are focused on Natural Resource Governance, Education Equity and Environmental Resilience. Additionally, Foundation Country Programs are designed to support national sustainable development priorities in Australia, Canada, Chile and the United States.



Further details and case studies are available online at [bhp.com/Foundation](http://bhp.com/Foundation).

## Working from local to global



## Natural Resource Governance

Raising standards of governance and transparency is essential to ensuring that the wealth created by the global resources sector helps improve living standards of millions of people around the world.



## Education Equity

Quality education is the pathway through which people build the skills and knowledge to seize the opportunities to improve their lives and enhance communities and societies.



## Environmental Resilience

Resilient environments sustain peoples' cultures, livelihoods and food security, retain biodiversity, maintain water resources, combat climate change and underpin thriving societies around the world.



## Sustainability governance

BHP's Board oversees our sustainability approach, with the Board's Sustainability Committee assisting with governance and monitoring. The Sustainability Committee also oversees health, safety, environment, community (HSEC) and other human rights matters, including the adequacy of the systems in place to identify and manage HSEC-related risks, legal and regulatory compliance and overall HSEC and other human rights performance. Members of the Sustainability Committee are Non-executive Directors who have been determined by the Board to be appropriately skilled in HSEC matters. The Board's Risk and Audit Committee assists with oversight of the Group's systems of risk management.

The Sustainability Committee recommends to the Board the approval of the Sustainability Report for publication. The Committee also guides the Remuneration Committee in setting HSEC-related scorecard targets and offers guidance on performance against those targets. The BHP Forum on Corporate Responsibility provides us with access to leading sustainability experts that help us engage with our stakeholders to address important local and global sustainability issues. This group advises our local stakeholders and operations as well as BHP's Sustainability Committee and Board.

## Sustainability targets

We set clear targets to challenge ourselves, drive improvement and allow stakeholders to assess our performance in areas that matter most. Our transparent reporting on that performance assists our stakeholders to hold us accountable.

To realise these targets, we embed sustainability performance measures throughout the Group, from Group-wide key performance indicators to balanced scorecards for individual employees.

FY2018 was the first year of performance against our five-year targets set in FY2017 (outlined on page 7 and in each relevant section). These targets were created in consultation and collaboration with our assets and key internal and external stakeholders and were approved by the Sustainability Committee.

These targets help us to operate safely, manage water sustainably, reduce our environmental impact, look after our people and contribute to improved quality of life in host communities. Achieving these goals is fundamental to the success of our business and our commitments to the Paris Agreement and the UN SDGs.

## Forum on Corporate Responsibility

To help us engage with our stakeholders and ensure that we have access to leading specialist expertise, we regularly seek advice from external experts and forums on sustainability issues.

The BHP Forum on Corporate Responsibility (the Forum) is a key part of our stakeholder engagement program. The Forum comprises eight independent civil society leaders in various fields of sustainability, who make a vitally important contribution to our approach to a range of social and environmental issues and the development of our standards. They provide insight into current and emerging issues, challenge our thinking and allow us to understand and consider the broader impacts of our actions.

The Forum met twice during FY2018 and discussed a range of topics, including water stewardship, inclusion and diversity and climate change strategy, as well as visiting our Port Hedland operations. The members of the Forum also met with members of the Board's Sustainability Committee and discussed themes, including social licence, corporate purpose and the Forum's visit to Port Hedland.



## Managing sustainably

We set clear accountabilities in relation to sustainability. Everyone involved in our operations, our global operated assets, Marketing and Supply, and functions is guided in the execution of these accountabilities by *Our Charter* and supported by *Our Code of Conduct* and the *Our Requirements* standards.

The *Our Requirements* standards and related functional controlled documents outline our mandatory minimum performance and establish the requirements for management systems at our assets. They are consistent with the International Council of Mining and Metals (ICMM) Sustainable Development Framework, the United Nations (UN) Global Compact, the UN Declaration of Human Rights and the Voluntary Principles on Security and Human Rights.

Although these standards are for internal use, we have made the HSEC-related elements of several of the *Our Requirements* standards and related functional controlled documents publicly available on our website (bhp.com) where we believe they clarify our management approach; and/or where there is a broader community or industry benefit.

We are committed to complying with the laws and regulations of the jurisdictions in which we operate and aim to exceed legal and regulatory requirements where they are less stringent than our own.

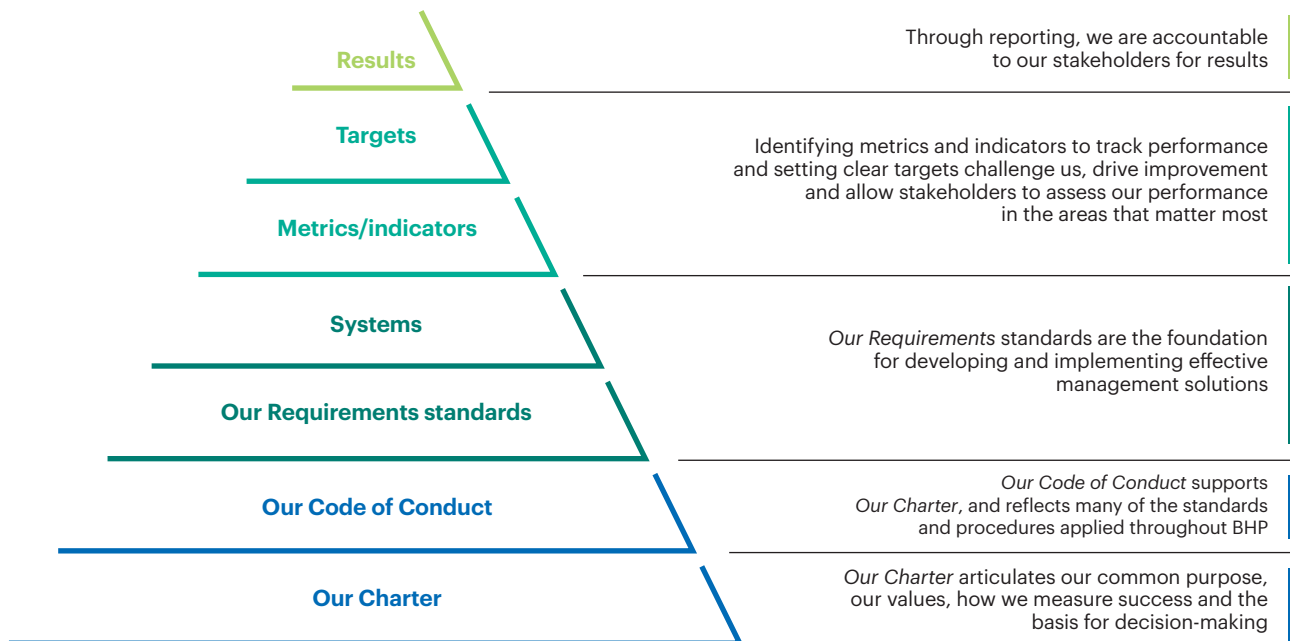
## Managing risk

Our assets and functions are required to identify and manage material risks across our business activities, functions and processes in accordance with the *Our Requirements for Risk Management* standard. This is designed to allow us to consistently apply a risk-based approach to sustainability. The potential health, safety, environmental, community, reputational, legal and financial impacts of risks are to be identified in our assessments of material risks. We look for ways to continuously improve the way we embed risk management into our work processes and critical business systems.

We employ multiple levels of risk management throughout BHP, including verification by risk owners, functional assurance, and independent assurance by our Internal Audit and Advisory (IAA) function.

IAA evaluates the design and effectiveness of our sustainability processes every year. These results are considered in the development of plans to address improvements where required. Results are reported to the Executive Leadership Team and senior operational leaders, with summary reports provided to the Sustainability Committee and the Risk and Audit Committee. Third-party assurance providers also visit selected assets and evaluate the content of our Sustainability Report to ensure we accurately represent our commitments and actions. A broader discussion of our risk factors and management approach, including our approach to climate-related risk, is provided in our Annual Report 2018, available online at bhp.com.

## Keeping ourselves accountable





## Our material sustainability issues

We conduct a materiality assessment every year to identify the sustainability issues that are most critical to our business and to our stakeholders. This process assists us to both track ongoing issues and identify emerging ones. This analysis informs our sustainability strategies and enables us to provide transparent coverage of key topics in line with Global Reporting Initiative (GRI) principles.

As part of this assessment, we analyse our risk registers and other inputs and engage with internal and external stakeholders to identify the issues of most concern to them.

The Sustainability Committee reviews the assessment and provides feedback on the issues.

The material issues identified by the materiality assessment we conducted in FY2018 are outlined below, with links to where those issues are discussed in this Report, our Annual Report 2018 or online.



Our materiality assessment and stakeholder engagement processes are detailed in our 2018 Sustainability Reporting Navigator available online at [bhp.com](http://bhp.com).

Our material issues	Section	Page number
<b>Governance over non-operated joint ventures; sustainable procurement; product stewardship.</b>	Our sustainability approach	8–18
<b>Update on Samarco.</b>	Samarco	19–20
<b>Our approach to anti-corruption compliance; transparency and disclosure.</b>	Ethics and business conduct	21–23
<b>Diversity and inclusion; talent development; workforce composition and engagement.</b>	People	25–28
<b>Safety of our employees and contractors.</b>	Safety	29–31
<b>Health impact of our operations; workforce mental health; health impacts in local communities.</b>	Health	32–35
<b>Supporting local communities.</b>	Supporting communities	37–44
<b>Human rights.</b>	Respecting Human Rights	45–46
<b>Indigenous community engagement.</b>	Indigenous peoples	47–50
<b>Portfolio resilience; physical impacts of climate change; managing and minimising greenhouse gas emissions from our operations and the use of our products; energy management and security.</b>	Climate change	51–57
<b>Water management and access; biodiversity and land management; environmental incidents; air emissions; closure planning; exit from operations; effluent and waste management; dams and tailings facilities.</b>	Protecting the environment	58–63
<b>Hydraulic fracturing.</b>	Online at <a href="http://bhp.com">bhp.com</a>	



### Sustainability, our partners and our value chain

*Our Charter* identifies accountability as one of our core values. This means we define and accept responsibility and deliver on our commitments. We hold ourselves accountable for operating in a responsible and sustainable way.

Likewise, we strive to ensure that those with whom we work also put sustainability at the heart of their operations. Contractors working at our assets are required to comply with our HSEC standards. We also engage with and encourage our suppliers, agents and service providers to maintain business practices and workplace standards that are comparable to our own, and to minimise safety, health and other human rights, environmental, and climate impacts throughout our value chain.

#### Promoting sustainability in our supply chain

We require our direct suppliers to apply our standards of health, safety, anti-corruption and environmental protection. Potential suppliers are assessed on their compliance with our requirements using a risk-based approach that is based on a combination of questionnaires, due diligence and third-party data.

In FY2018, we introduced new supplier management processes to strengthen our compliance controls, particularly in relation to anti-corruption and sanctions.

We recognise that integrating human rights due diligence into our supply chain requires a multi-year, cross-functional approach, designed to align, formalise and continuously review and deepen our understanding and assessment of suppliers. This includes engaging with our direct suppliers to assess and encourage continuous improvement in their own capacity to manage human rights risks (including modern slavery) in their subcontractors and broader supply chain.

### Sustainable shipping

As one of the largest global shippers of bulk commodities, one of the most important ways we can promote sustainability is through our relationships with our transport providers.

Our first priority is safety: we led the formation of the Dry Bulk Forum, which is raising safety standards across the ocean freight shipping industry. Additionally, the industry is a significant emitter of greenhouse gas emissions. We now use data analytics to measure greenhouse gas emissions generated by the marine fleet on all our voyages. Having benchmarked this output, we are working on initiatives with our business partners to reduce emissions.

We continue to work to strengthen our assessment and monitoring of our transport providers' sustainability.

#### Supporting sustainable use of our products

We encourage the responsible design, use, reuse, recycling and disposal of our products throughout our value chain, in line with the ICMM Sustainable Development Framework.

We participate in product stewardship initiatives, such as the Australian Steel Stewardship Forum, as well as commodity and industry associations that seek to bring together the participants in a product's life cycle to improve sustainability performance, such as the International Copper Association.

Where possible, we also work directly with those involved in the processing and use of our products to improve environmental performance throughout the value chain and to promote the sustainable use of our products.

BHP produces Premium Low Volatile (PLV) coking coals that produce high strength metallurgical coke, which allows our customers to increase productivity and lower external energy requirements in the blast furnace. In addition, our iron ores are among the lowest in terms of sulphur and other minor trace elements, such as vanadium, zinc and arsenic, which allows steel mills to reduce environmental emissions and comply with increasingly stringent emissions standards. We are also working in partnership with others to accelerate the deployment of carbon capture and storage (CCS) in industrial processes, for example via our partnership with Peking University that focuses on addressing the barriers to CCS deployment, with a focus on China's iron and steel industry.

## Delivering technical excellence

Resource engineering expertise underpins BHP's projects and operations. To support their decisions, our leaders need expert advice that helps them maximise the value of the resources we extract, keep our people safe and minimise impacts to the environment and community.

Decisions in mine design, petroleum subsurface design, resource extraction techniques, tailings dam management, geotechnical or geomechanical engineering, water management and closure require technical training and understanding, operational experience and access to the latest research and tools.

BHP has established the Resource Engineering Centre of Excellence to meet that need. The intent of the Centre is to develop excellence in resource engineering across our business through standardised processes, sharing of good practices and systematic improvements in processes, data and expertise across BHP. The Centre also coordinates BHP's involvement in research and partners with academic institutions and industry bodies. This collaboration helps drive innovation and define solutions across the resource sector, as well as within BHP.

### Driving safety, productivity and value creation

The expertise that the Centre supports is vital to the safe and efficient running of our day-to-day operations. For example, resource engineering provides our mine supervisors with the information that guides the safe excavation of our open pits, through identifying and assessing the strength of rock material and faults, helping to predict the location of potentially destabilised pit walls and providing the recommended support or redesign to keep our people safe.

Technical expertise is fundamental to the creation and delivery of resource plans, which aim to maximise value and minimise risk based on scientific knowledge and tested engineering. To promote sharing and consistent practices across our assets, the Centre develops standards and

minimum design and operating requirements on critical areas requiring technical expertise, such as tailings dam management and mine closure. Technical working groups connect subject matter experts across the business to develop and share solutions to complex challenges.

### Taking a long-term view

The impacts of resource extraction on the environment, water resources and communities can take decades or even centuries to materialise. Understanding those potential impacts requires a long-term view that is based on a robust analysis of a complex set of interactions and variables. BHP's assets plan and operate to mitigate potential contamination of water resources from the release of acid waters and metals from stockpiles and tailings dams, or from the reinjection of water in some petroleum processes, long after the operation has been completed. This requires management, handling and storage of waste material during extraction and a strong technical understanding of geochemical characterisation and groundwater hydrology. As data gathering and analytics become increasingly sophisticated, the Centre will help BHP keep abreast of the latest thinking and drive BHP's contribution to that knowledge.

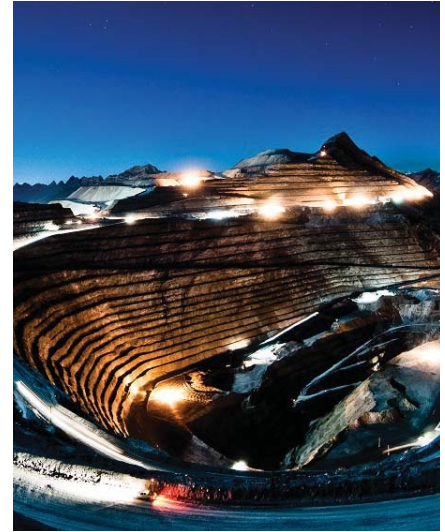
Through the Centre, BHP has partnered with Caltech on research to understand and identify liquefaction of tailings and with the University of Western Australia on static liquefaction in tailings dam failures. BHP is also an industry partner of McGill University in Montreal, working on modelling uncertainty in mine planning.

Over the next two years, the Centre will work with BHP's geoscience experts on creating standards for all technical disciplines, strengthening our data capture and analysis, further improving capability and continuing to support BHP's focus on water stewardship, tailings, closed mines and geotechnical engineering.





Cerrejón



Antamina

## Sustainability at our non-operated minerals joint ventures and petroleum non-operated assets

BHP holds interests in companies and joint ventures that we do not operate. We engage with our partners and operator companies around sustainable development through formal governance structures and technical exchanges. These are described in BHP's Annual Report 2018, available online at [bhp.com](http://bhp.com).

### Petroleum non-operated assets

In our current petroleum non-operated assets, we have processes in place to identify and manage risks within the rights afforded by the respective joint operating agreements. This includes (as permitted by the relevant operator and/or joint operating arrangements) verification of risk control strategies through field visits, review and analysis of the operator's performance data, participation in operator audits and sharing of BHP risk management strategies and processes.

### Non-operated minerals joint ventures

Our non-operated minerals joint ventures (NOJVs) include Antamina (33.75 per cent ownership), Cerrejón (33.33 per cent ownership), Resolution Copper (45 per cent ownership), Samarco (50 per cent ownership) and Nimba (43 per cent ownership).

We engage with our NOJV partners and operator companies through our Non-Operated Joint Ventures team, to sustainably maximise returns and manage risks of our investment in NOJVs. The team engages with our NOJV partners and companies and other relevant internal and external stakeholders and provides a single point of accountability for all NOJVs within BHP. While NOJVs have their own operating and management standards, we seek to influence operator companies to adopt appropriate governance and risk management standards (within the limits of the relevant joint venture agreements).

Tragically, in January 2018, a dozer operator died as a result of an incident at Cerrejón. BHP led the incident investigation with a team including other partner shareholders and Cerrejón personnel. BHP and its partner shareholders will support Cerrejón to ensure learnings and actions from the incident investigation are implemented and closed out.

Supporting safety and strong risk management practices at non-operated sites is a priority for BHP. We have performed BHP Field Leadership Program activities across various NOJV sites. These activities are designed to facilitate safe work discussions to identify potential safety issues, promote near miss and hazard reporting and to use real-time safety investigations to improve awareness and culture. The goal of the Field Leadership Program is to promote a 'resilient' safety culture where safety issues are owned by everyone.

Health, community and environment are also key priority areas for BHP. We support our NOJV operators to reduce the risk of water and air quality impacts for workers and communities and seek to ensure communities are adequately consulted, informed and have access to appropriate complaints and grievance mechanisms. Collectively we strive to strengthen our NOJVs to not only comply with national regulations but to align with the International Council of Mining and Minerals Sustainable Development Framework.



Further information on our NOJVs is available in our Annual Report 2018, available online at [bhp.com](http://bhp.com).

# Samarco

## The Fundão dam failure

On 5 November 2015, the Fundão tailings dam operated by Samarco Mineração S.A. (Samarco) failed. Samarco is a non-operated joint venture owned by BHP Billiton Brasil Limitada (BHP Billiton Brasil) and Vale S.A. (Vale), with each having a 50 per cent shareholding.

A significant volume of tailings (water and mud-like waste resulting from the iron ore beneficiation process) was released. Tragically, 19 people died – five community members and 14 people who were working on the dam when it failed. The communities of Bento Rodrigues, Gesteira and Paracatu were flooded. A number of other communities further downstream in the states of Minas Gerais and Espírito Santo were also affected by the tailings, as was the environment of the Rio Doce basin.

## Our response and support for Fundação Renova

Over two years into the recovery process, we remain committed to doing the right thing for the people and the environment in the Rio Doce region, in a challenging and complex operating context.

In accordance with the Framework Agreement with the relevant Brazilian authorities that was signed in March 2016, work to restore the environment and re-establish communities is being undertaken by Fundação Renova. Fundação Renova is a not-for-profit, private foundation, established by BHP Billiton Brasil, Vale and Samarco. As well as remediating the impacts of the dam failure, Fundação Renova is implementing a range of compensatory actions aimed at leaving a lasting positive legacy for the people and environment of the Rio Doce.

On 25 June 2018, Samarco, Vale and BHP Billiton Brasil, the other parties to the Framework Agreement, the Public Prosecutors Office and the Public Defense Office agreed an arrangement which, among other things, enhances community participation in decisions related to the remediation and compensation programs under the Framework Agreement and establishes a process to renegotiate those programs over two years. More information on the Governance Agreement is available in BHP's Annual Report 2018 at [bhp.com](http://bhp.com).

BHP is focused on supporting Fundação Renova's operations through representation on the Board of Governors and Board Committees, making available secondees who work within the Foundation to provide their technical expertise on priority areas, and regular peer engagement on issues such as safety, risk management, human rights and compliance.

## Fundação Renova

The activities of Fundação Renova are overseen by an independent Interfederative Committee comprising representatives from the Brazilian Federal and State Governments, local municipalities, environmental agencies, impacted communities and the Public Defense Office, who monitor, guide and assess the progress of actions agreed in the Framework Agreement.

Fundação Renova is governed by a Board of Governors, comprising representatives nominated by BHP Billiton Brasil, Vale, Samarco and the Interfederative Committee. The Board of Governors appoints an Executive Board, including the CEO, which is responsible for the operational management of the Foundation. Fundação Renova's Chief Executive is Roberto Waack, a biologist with an extensive background in sustainability-related organisations, including

World Wide Fund for Nature (WWF) Brazil, Global Reporting Initiative, Forest Stewardship Council, Ethos Institute and the Brazilian Biodiversity Fund.

Fundação Renova's governance structure also comprises a Fiscal Council, Advisory Council, seven Board Committees, a technical sub-committee, a Compliance Manager and an Ombudsman. The Advisory Council includes representation from impacted communities, and community development and education experts.

Fundação Renova's staff of approximately 500 people is supported by around 5,000 contractors. Its CY2018 budget is R\$2.19 billion.

Due to the diversity, scale and complexity of the programs, Fundação Renova collaborates and engages broadly with affected communities, scientific and academic institutions, regulators and civil society.

An independent scientific technical and advisory panel, established by the International Union for Conservation of Nature (IUCN), is providing expert advice to Fundação Renova. Chaired by Yolanda Kakabadse, formerly Environment Minister for Ecuador and President of WWF International, the panel meets monthly. In addition, the panel has undertaken two field visits to the impacted areas in Brazil, incorporating extensive engagement with affected and interested parties. Guided by the principles of independence, transparency, accountability and engagement, the panel will publish short-term issues papers and longer-term thematic papers, with the first paper scheduled for release in the first quarter of FY2019. Other papers planned will cover topics such as the ecological processes to maintain coastal lakes, the impact of fishing bans and economic alternatives for the region.

## Resettlement

One of Fundação Renova's priority social programs is the livelihood restoration program to relocate and rebuild the communities of Bento Rodrigues, Paracatu and Gesteira. A key to the success of this program is the participation of affected community members, their technical advisers, State Prosecutors, municipal leaders, regulators and other interested parties.

The process involves the identification and acquisition of land, design and planning for the urban development, including all services and public buildings (schools, health centres, squares, covered sports grounds and religious buildings) and construction of new houses for the affected people. The resettlement also involves the employment of community members and provision of support services to help them resume their way of life.

The resettlement of Bento Rodrigues is progressing, with active participation of community members, government agencies and local prosecutors. Following the selection of the preferred location for the new town in 2016, the land has been acquired. On 8 February 2018, the community members voted overwhelmingly in favour of the town plan they helped to design, and in May they commenced working with architects to design their new homes. Preparations for site works, including laydown areas and construction site facilities, are underway. On 5 July 2018, the state environment regulator issued the licence in a public ceremony. The authorisations of the State Urban Planning Regulator and Municipality were issued on 1 August 2018, allowing the construction of the Bento community to commence.

The same process is being followed for Paracatu. The land has been selected and the urban plan is expected to be approved in September 2018. Progress at Gesteira, the smallest of the three resettlements, has been delayed by a series of land access issues and discussions around the exact number of families to be included in the resettlement. Fundação Renova has worked hard to resolve these issues and is now working with the community and its technical advisers to determine a solution.

Based on current planning, it is expected that all resettlements will be completed by mid-2020.

## Remediation

Through FY2018, Fundação Renova's work included the continued monitoring and maintaining of the emergency vegetation established on the terrestrial areas impacted by the initial tailings flow along the rivers and tributaries, resulting in ongoing improvements to water quality. Negotiations commenced with regulators and landowners to determine the long-term remediation plans of these areas for biodiversity, agricultural and urban uses.

A pilot study was completed to assess the methodology for evaluating alternative tailings remediation options. It concluded that the river was quickly re-establishing its geomorphological processes and that large-scale actions to try and remove tailings from the bed or banks of rivers would likely lead to greater environmental harm than allowing the normal river processes to naturally remediate the tailings material. The pilot study was submitted to the regulators in May 2018 for review and will be subject to further discussions as to how the methodology could be applied to other sections of the rivers.

Water quality in the Gualaxo do Norte River has achieved the turbidity target set in the Framework Agreement a year earlier than required. All immediate river and tributary remediation activities to limit further contribution of tailings have been completed. Longer-term remediation measures are in the process of being designed in consultation with regulators and other stakeholders.

Water quality, aquatic habitat and fish surveys continue to be conducted in the rivers and coastal zone to understand the impact of the tailings flow and the rate of recovery of the ecological systems. Results from these studies indicate that, while sediment in the river channels along the spill flow path upstream of Candonga continues to limit the re-establishment of habitats and aquatic fauna diversity and abundance, the natural sediment transport processes will ultimately restore suitable habitat. Methods to enhance the rate of habitat recovery are being investigated.

The studies clearly demonstrate that the fish are safe for human consumption in terms of metal concentrations. Fishing bans remain in place for native species in the



Revegetation of fast growing species on river banks

Rio Doce and impacted tributaries in Minas Gerais and all species along a zone of the Espírito Santo coast. Regulators have required more studies to be undertaken along the river and coast by research institutions, with preliminary results scheduled for late CY2019. Given the significant impacts of the fishing bans on the livelihoods of commercial and subsistence fishermen and the social cohesion within their communities, BHP Billiton Brasil has been providing technical support to Fundação Renova to accelerate the collection of data to address the concerns of regulators and the community. This includes analysis of the safety of fish for human consumption and the status of fish populations to support lifting of the bans.

Environmental compensation programs for the rehabilitation of 40,000 hectares are in the final stages of design, with 3,000 hectares scheduled to be completed in CY2019. More than 500 degraded natural springs have been revegetated as part of a Framework Agreement commitment to rehabilitate 5,000 springs over 10 years.

The retention structures to contain the tailings material remaining within the Fundão Valley continue to operate as designed and limit further contributions from this source to river turbidity.

## Financial assistance and compensation

Fundação Renova has distributed around 9,500 financial assistance cards to those whose livelihoods were impacted by the dam failure, including registered and informal commercial fishermen who are unable to fish due to the imposition of fishing bans in the Rio Doce and along the coast of Espírito Santo. The payments are designed to ensure that those impacted have the capacity to support themselves and their families pending the re-establishment of conditions that enable them to resume their economic activities.

During FY2018, assistance was expanded to include a number of new geographic areas and to cover subsistence fishermen who rely on fish for food security. The form of assistance is still being finalised.

A mediated compensation program is also being implemented throughout the impacted regions, which is intended to fairly compensate all individuals impacted by the dam failure. It comprises two key components:

- The Water Damages component compensated people for an interruption to public water supplies for seven to 10 days following the dam failure. Of 440,000 people who were eligible for compensation just over 260,000 participated in the program, at a cost of R\$265 million.
- The General Damages component covers all other impacts, including loss of life, injury, property, business impacts, loss of income and moral damages. The program was designed based on inputs from public agencies, technical entities and impacted families, and has been validated by the Interfederative Committee. Around 20,000 people have been registered under the program, with around 6,600 people having received their payments by 27 July 2018. Claimants who choose not to participate in the program or are deemed to be ineligible under the program rules, retain the right to progress their claims through the courts.

## Restart

Restart of Samarco's operations remains a focus but is subject to separate negotiations with relevant parties and will occur only if it is safe, economically viable and has the support of the community. Resuming operations requires the granting of licences by state and federal authorities, community hearings and an appropriate restructure of Samarco's debt.



## Ethics and business conduct

**Our values of integrity, respect and accountability underpin how we do business. We are committed to behaving ethically, to being transparent, and to working with integrity and respect.**



### **In this section:**

Transparency and accountability  
Our conduct  
Anti-corruption

## Ethics and business conduct



**Our Charter values of integrity, respect and accountability, in addition to performance, underpin how we do business. We are committed to behaving ethically and always strive to enhance systems and processes to support that commitment.**

### Transparency and accountability

Transparency and accountability are fundamental to trust. It is trust that underpins the social contract in which corporations, governments and communities agree to work together for our mutual best interest. Without transparency, there cannot be accountability for sharing the proceeds of wealth and fair distribution of taxes.

#### Extractives and transparency: Why we care

As one of the world's largest resources companies, BHP's business model is premised on trust and public acceptance. Our operations are inherently immobile. Our mines – often with a 100-year lifespan – cannot be moved across jurisdictions in response to a breakdown in trust, changing societal expectations or regulatory requirements. Our investments can span dozens of election cycles and require long-term thinking.

Our commitment to transparency goes beyond complying with regulation. We need to demonstrate that we are playing our part in the social contract to maintain our licence to operate for the long term. Our tax and royalty payments to governments help to fund healthcare, education, infrastructure and other essential services. These are the cornerstones of human development. Conversely, corruption and poor governance of natural resources, divert funding from those basic provisions and diminish our contribution.

#### Our commitment to transparency

Our approach is guided by our Transparency Principles of responsibility, openness, fairness and accountability. We were the first company in our sector to disclose payments to governments on a project-by-project basis in 2015. This year, we have also disclosed our profit, number of employees and adjusted effective tax rates on a country-by-country basis.

Economic transparency is not our only focus. We have a strong record of supporting robust reporting on climate change issues. We were one of the first companies to report

in accordance with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures in our Annual Report.

In August 2018, we published a comprehensive report of our water risks and usage, available at [bhp.com](http://bhp.com). Water stewardship is an increasingly important issue around the world; it is central to the resilience of our communities and environment. It is also critical to our operations. Our hope is that improving transparency around water needs and usage will encourage governments, industry and communities to work together to safeguard our water supplies for future generations.

#### Encouraging a broader dialogue

Our commitment is also reflected in our support of global transparency initiatives. We work in partnership with Transparency International to contribute to the global transparency and anti-corruption agenda. BHP was a founding signatory in FY2018 to the Responsible Tax Principles of the B Team, a not-for-profit initiative formed by a global group of business leaders to catalyse a better way of doing business.

We are represented on the Board of the Extractive Industries Transparency Initiative (EITI). EITI requires its 51 implementing countries to develop 'road maps' towards the establishment of beneficial ownership registers. We also support and participate in OpenOwnership, the first public global database of company ownership information, and look for opportunities to encourage our suppliers and partners to do the same. Disclosure of beneficial ownership is an important element in making sure company assets and income are fully disclosed to relevant regulatory bodies, including revenue authorities, to promote compliance with taxation laws.

Our support of global transparency initiatives is complemented by the work of the BHP Billiton Foundation. The core aim of the Foundation's Natural Resource Governance Global Signature Program is to improve governance across the entire resources value chain – from consultation and consent processes before licences and contracts are awarded through to citizen services and infrastructure funded by the payment of taxes and royalties. Projects under this Program work to provide citizens with access to information that shows the flow of funds related to natural resources in their country and to strengthen the governance capacity of civic and public institutions.



**Our approach to transparency and tax is detailed in our Economic Contributions Report 2018 and is available online at [bhp.com](http://bhp.com).**



## Our conduct

Wherever we operate, we strive to do so with integrity – doing what is right and doing what we say we will do. This is fundamental to building and maintaining the trust we need for long-term value creation.

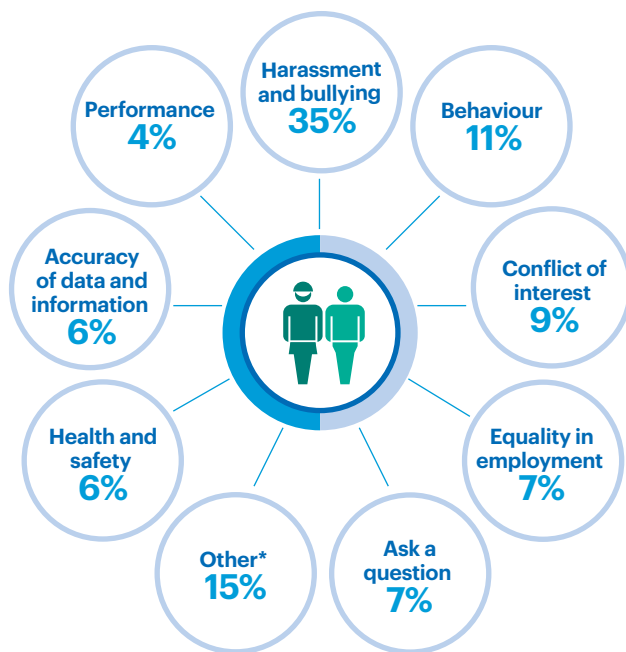
*Our Code of Conduct (Our Code)* sets the standard for our commitment to working with integrity and respect. *Our Code* sets out standards of behaviour for our people in their dealings with governments and communities, third parties, and each other. *Our Code* guides us in our daily work and demonstrates how to practically apply the commitments and values set out in *Our Charter*. Acting in accordance with *Our Code* is a condition of employment for everyone who works for and on behalf of BHP, and is accessible to all our people and external stakeholders on our website (bhp.com). All our people are required to undertake annual training on *Our Code*.

*Our Code* is regularly reviewed to ensure it reflects evolving expectations of workplace conduct. In FY2019, BHP will launch an updated version of *Our Code*. Key updates will address enhanced whistleblower protections, guidance on social media use, and clarifying our expectations of those who work with us (third parties).

### Reporting and investigations

We have mechanisms in place for anyone to raise a report if they feel *Our Code* has been breached. Employees and contractors can raise reports through line leaders or Human Resources. Processes for the community to report potential breaches of *Our Code* are available at the asset level.

### Business conduct cases by category



\*Other: protecting BHP assets; unfair dismissal; physical theft or loss; alcohol, drug and tobacco use; personal information and privacy; maintaining supplier relationships; communicating externally; cyber security; absenteeism; engaging with our communities; corruption; competition and antitrust; accepting gifts, hospitality and entertainment; use of business partners; working with governments; respecting human rights; political contributions and activities.

Reports can also be raised by anyone through EthicsPoint, a 24-hour, multilingual service for confidential reporting of potential misconduct. This service is accessible online or via the phone and is managed by an independent third party. Reports can be raised anonymously.

We acknowledge, investigate as appropriate and document all matters reported. Where matters are investigated and substantiated, we take appropriate remedial actions, advise the reporter (where possible) and document the outcome.

BHP does not tolerate any form of retaliation against anyone who speaks up about potential misconduct or participates in an investigation.

## Anti-corruption

Corruption misallocates resources, reinforces poverty, undermines the integrity of government and community decision-making and wastes opportunities that arise from resource development. We are committed to contributing to the global fight against corruption and working with business, government and civil society to support this effort.

Our commitment to anti-corruption compliance is embodied in *Our Charter* and *Our Code*. We also have a specific anti-corruption procedure that sets out mandatory requirements to identify and manage the risk of anti-corruption laws being breached. We prohibit authorising, offering, giving or promising anything of value directly or indirectly to a government official to influence official action, or to anyone to encourage them to perform their work disloyally or otherwise improperly. We also require our people to take care that third parties acting on our behalf do not violate anti-corruption laws. A breach of these requirements can result in disciplinary action, including dismissal.

Our Ethics and Compliance function has a mandate to design and govern BHP's compliance frameworks for key compliance risks, including anti-bribery and corruption. The function is independent of our assets and asset groups, and comprises teams that are co-located in our main global locations and a specialised Compliance Legal team. The Chief Compliance Officer reports twice a year to the Risk and Audit Committee and separately to the Committee Chairman, also twice a year.

Our anti-corruption compliance program is designed to meet the requirements of the US Foreign Corrupt Practices Act, the UK Bribery Act, the Australian Criminal Code and applicable laws of all places where we do business. These laws are consistent with the standards of the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. We regularly review our anti-corruption compliance program to make any changes required by regulatory developments.

In addition to anti-corruption training as part of annual training on *Our Code*, additional risk-based anti-corruption training was completed by 7,406 employees in FY2018 and numerous employees of business partners and community partners.



**More information on our anti-corruption compliance program (including risk assessments, training and communication) is available online at [bhp.com/anticorruption](http://bhp.com/anticorruption).**



## People

Our global workforce is the foundation of our business. Providing our people with a safe and healthy work environment is our top priority. Supporting their wellbeing and promoting an inclusive and diverse culture are vital for maintaining a competitive advantage.



### In this section:

- Our people
- Safety
- Health

## Our people

**We are committed to investing in our workforce so they have the right skills and a healthy culture in which to thrive.**

Our workforce is empowered to find safer, more creative, and more efficient ways of working to fulfil our plan for a safe and productive BHP. Our investments in technology and simplifying processes help our people achieve this vision.

At BHP, we provide competitive remuneration to reward employees for their expertise and commitment to fulfilling our business strategy and contribution to our long-term success. Our remuneration frameworks and principles inspire our employees to embrace the core objectives and values that reflect our commitment to safety, culture and productivity.

The primary focus areas for FY2018 included building a culture that promotes trustful relationships and care, increasing the capability of our leaders and recruiting a diverse workforce. In particular, we work with our leaders to develop their capabilities, recognising the vital role they play in creating engaged employees and supporting ongoing improvements in safety and productivity.

### Building a culture of care and trustful relationships

Through our Engagement and Perception Survey (EPS) in FY2018, our employees told us they feel proud to work at BHP and describe the work environment as collaborative and inclusive. They have the freedom to express ideas and the confidence their colleagues will listen. Our EPS results show improvement in nine of the 10 broad survey categories over the past 12 months.

The most significant improvements related to team work and trustful relationships at work (six point increase); a focus on employee development (three point increase); and being engaged and invested in BHP (two point increase). Of the employees surveyed, 81 per cent agreed that their team starts from a position of trust. This is a strong result given that trust and the quality of work relationships are critical to BHP's sustainable performance.

The results revealed some areas where we need to step up our efforts to improve employee engagement. Many employees faced too many obstacles to doing their jobs well and believed that processes could be more efficient. There was also room for improvement in how the leadership group communicated change and the impact their decisions had on the workforce. FY2019 presents an opportunity to address obstacles, streamline processes and increase technology capability. The survey showed that our leaders have improved in their ability to manage change, which will improve people's experiences at work.



### Supporting strong leadership

Over the past four years, BHP has invested in developing frontline leaders, with a particular focus in FY2018 on helping them to encourage and manage a flexible workforce and build an inclusive team. The EPS results demonstrated the progress we have made in specifically shifting leader behaviours for how they engage, lead change and develop their teams, and over the past five years we have seen significant increases (up to nine per cent) across these EPS measures.

We developed new programs and tools, such as a digital coach and leadership podcasts to improve the quality of leadership. In FY2018, 40 General Managers from our operations around the globe, who are responsible for 75 per cent of BHP's workforce, attended 10 days of face-to-face workshops and contributed to projects aimed at solving complex business problems. They received intensive technical and leadership training that formed part of a strategy to cultivate a diverse general manager cohort with the capability to run safe, effective and efficient operations. The leadership programs will be expanded to include more operational managers in FY2019.

More than 90 per cent of maintenance managers from Minerals Australia attended our Maintenance Academies, a development initiative from our Maintenance Centre of Excellence. The sessions broadened leaders' technical knowledge, leadership capability and collaboration with peers.

We are now focused on developing frameworks and processes to further raise leadership and cultural capability. We will more clearly define the specific capabilities our future leaders require to deliver strong safety and productivity outcomes at each level of management.

Outside of leadership capability, we will streamline our systems, processes, tools and behaviours to improve operational capability. The BHP Operating System (BOS) framework will lay the foundation for long-term and in-depth learning and development. BOS training will reinforce basic technical and problem-solving skills as part of a broader push to help our people solve problems and come up with sustainable solutions.



## Inclusion and diversity

At BHP, we believe that all our people should have the opportunity to fulfil their potential and thrive in an inclusive and diverse workplace. Inclusion and diversity promote safety, productivity and wellbeing within BHP. We employ, develop and promote people based on merit and do not tolerate any form of unlawful discrimination, bullying or harassment. Our systems, processes and practices empower fair treatment.

## Gender balance

We have an aspirational goal to achieve gender balance globally by CY2025. At the end of FY2018, there were 915 more women employees at BHP than the same time last year, contributing to an increase in the representation of women by 1.9 per cent up to 22.4 per cent<sup>(1)</sup>. These results show we are making progress, although we did not achieve the three per cent annual growth to which we aspire.

The external hiring ratio of 39.8 per cent women and 60.2 per cent men remains the strongest contributor to improved female representation outcomes, and is a marked increase in female hiring compared to FY2015 (10.4 per cent). The turnover of women (9.7 per cent) is still higher than the rate for men (6.5 per cent). However, the take up of flexible working (a key lead indicator of improving the representation of women) has increased to 46 per cent in FY2018 from 41 per cent in FY2017.

The focus areas of our strategy to achieve a more diverse and inclusive workplace include:

- embedding flexibility in the way we work;
- encouraging and working with our supply chain partners to support our commitment to inclusion and diversity;
- uncovering and taking steps to mitigate potential bias in our behaviours, systems, policies and processes;
- ensuring our brand is attractive to a diverse range of people.

## Flexible working

Flexible work promotes greater workforce diversity. We introduced 'flex principles' to clarify what we mean by flexible working at BHP, prompting an increase in the number of employees that embraced flexible work arrangements. Some 46 per cent of our people now work flexibly, up from 41 per cent in FY2017. A further 2,183 people (8.6 per cent) indicated that they plan to work flexibly in the next 12 months. Those who are formally working flexibly also report a significant increase in wellness compared to the Group average.

We have seen both long-distance commuters and residential employees at our operations implement flexible rosters, job share arrangements and take breaks from work. This has challenged the prevailing mindset that flexibility is only available to office-based employees. For example, in Western Australia Iron Ore, 28 (seven per cent) of our train drivers are now working flexibly via part-time job sharing arrangements.

(1) Based on a 'point in time' snapshot of employees as at 30 June 2018, as used in internal management reporting for the purposes of monitoring progress against our goals. This does not include contractors. This methodology differs from the data reported in the Appendix of this Report, which is calculated based on the average of the number of employees at the last day of each calendar month for a 10-month period to April, which is then used to calculate an average for the year to 30 June.



### Working with suppliers

BHP's Supply team continues to lead a comprehensive program of work to build inclusion and diversity incentives into contracts in Australia. We engage with mobile equipment manufacturers to design tools and equipment for use by a diverse workforce and encourage them to embrace diversity in their work teams. BHP has encouraged suppliers to support greater diversity through ergonomic design and product development.

### Mitigating potential bias

Our employees have been trained to recognise and mitigate potential bias through more inclusive behaviour towards all employees. Policies and systems have been changed to reduce potential bias. BHP has taken steps to reduce potential bias in recruitment and conducts an annual pay gap review, the results of which are reported to BHP's Remuneration Committee. Together, these will address future pay disparities between men and women.

### Employer brand

Inclusion and diversity continue to be a strong theme in our internal communications to our employees. To ensure BHP and our industry is attractive to a diverse range of people external to the business, we implemented a number of initiatives in FY2018. For example, we ran proactive media and online campaigns that highlighted our progress in flexible work and our broader inclusion and diversity agenda.

The capability of our leaders to effectively manage diverse teams and make people feel more included is improving; eight out of the 11 questions in the EPS relating to inclusion increased significantly in FY2018.

### LGBT+ inclusion

At BHP, we want to provide a safe, inclusive and supportive workplace for all. It's part of bringing your whole self to work.

Jasper is BHP's employee inclusion group for BHP's lesbian, gay, bisexual, transgender and others (LGBT+) community and its allies. Formally endorsed by the Executive Leadership Team and Global Inclusion and Diversity Council, Jasper's aim is to drive a safe and inclusive work environment for everyone by providing advice on ways to reduce bias and ensure LGBT+ people are respected and valued no matter their sexual or gender identity.

A number of local Jasper chapters have been established, with diverse representation from across our business. Awareness sessions have been held at BHP locations around the world to build understanding and acceptance and raise awareness of the challenges and discrimination experienced by the LGBT+ community.

### Indigenous employment

We aim to provide employment opportunities in our host communities that contribute to sustainable social and economic benefits for Indigenous people. For more on our approach to Indigenous employment and our performance to date, see the Indigenous peoples section on page 47.

### Employee relations

The culture of care and trustful relationships is a fundamental principle of our employee relations strategy at BHP. We are committed to full compliance with legislative workplace requirements and agreements, both individual and collective, and we aim to continually improve our relationships through better engagement with our people.

In FY2018, BHP Mitsubishi Alliance (BMA) concluded a two-year negotiation of its primary enterprise agreement in Australia with no lost time due to industrial action. Overall, BHP has achieved a year with only 24 hours of lost time due to industrial action in Minera Escondida Limitada. On 17 August 2018, Escondida successfully completed negotiations with Union N°1 and signed a new collective agreement, effective for 36 months from 1 August 2018.

## Case study

### Supporting diversity at our operations



The commercial case for improving diversity is compelling. BHP's most inclusive and gender diverse operations have outperformed our average on a range of measures, including lower injury rates, adherence to work plans and meeting production targets.

This change will not happen overnight, but we are making cultural, operational and process changes that we need to bring us closer to a balanced and inclusive workplace. Some examples of the initiatives underway at our assets, and the changes they are creating, are outlined below.

#### **Our first female shovel operator at Escondida**

Cristina Ledezma González is an extraction equipment operator at Minera Escondida. Cristina is qualified to operate electro-mechanical shovels, which requires high levels of technical skill and knowledge.

Since starting with BHP 13 years ago, BHP has supported Cristina to work towards her goal of operating high-tonnage machinery. Through a structured career development plan and with the support of her managers, Cristina is contributing to breaking down traditional gender divides at BHP and making a high-value contribution to our operations.

#### **Attracting diverse trainees at Mt Arthur Coal**

Mt Arthur Coal decided to introduce a trainee program, rather than look for experienced hires to fill operator roles. This was an opportunity to source candidates who might not otherwise have taken up opportunities in the mining industry, particularly female and Indigenous trainees.

Mt Arthur Coal focused on candidate attitude and behaviour over prior work experience in the recruitment process, and designed the training program with enough time to allow for developing all the skills and experience required, including supporting the trainees in adjusting to shift work.

Since February 2017, over 113 trainees have commenced their traineeship with 69 (61 per cent) female participation and 28 (24.8 per cent) Aboriginal and Torres Strait Islander participation. The Program was a finalist in the New South Wales Women in Mining Awards Excellence in Diversity Programs and Performance.

#### **A diverse contractor workforce**

Building a more diverse workforce through engagement with our contractors and labour suppliers is an important part of our inclusion and diversity strategy. Over 60 per cent of our workforce are contractors, and we work with around 9,000 suppliers of contract and other services, including labour suppliers.

Our Supply function works closely with those suppliers to provide incentives and support for them to increase the diversity of the workforces they are able to make available to BHP. This has resulted in a three per cent increase in female labour hire contractors across Australia since September 2017. Olympic Dam in South Australia saw a 12.7 per cent increase in female contractor participation in the 12 months prior to May 2018.

# Safety

**Our highest priority is the safety of all those impacted by our operations, including our employees and contractors and the communities in which we operate. We achieve nothing if we do not do it safely.**

There are inherent hazards in many of our operations, because of their nature and location. Tragically, two of our colleagues died at work in FY2018. In August 2017, Daniel Springer, a contractor from Independent Mining Services, suffered fatal injuries as a result of an incident while removing a curved wear plate from the back of an excavator bucket at Goonyella Riverside Mine. In November 2017, a sub-contractor from our Onshore US assets, suffered fatal injuries when he was struck by a forklift during well-completion operations in the Permian Basin.

Following both events, teams were established to identify organisational improvements that could prevent similar events from occurring again. The investigations were facilitated by an external expert and led by independent senior leaders.

In response to these incidents, Group-wide actions have been taken to review and improve our management processes. Building upon existing safety requirements in our regions and assets, we are in the process of establishing Group-wide minimum safety requirements for engaging and managing contractors. A Global Risk Improvement Plan has also been developed to simplify and improve our existing global risk framework and enable risk informed decision-making.

To strengthen our safety leadership and culture, we are educating our people to be mindful of the possibility of what could go wrong and are encouraging a healthy reporting culture where it is safe to speak up and report hazards and incidents. One of the objectives of our global Field Leadership Program is to promote improvements in reporting culture. We monitor reporting culture across all of our operations. Reporting of hazards with fatality potential has increased nearly six times since the second half of FY2017. Near miss reporting has also increased over this period. Identifying fatal hazards before they result in a near miss or injury event is a key indicator of positive progress for fatality prevention. We will continue to help coach and support our leaders in FY2019. We will also look to formally partner with the University of Western Australia Centre for Safety in their research activities on safety leadership to further improve in this area.

Key findings from the fatality incidents were reviewed and discussed with the Board's Sustainability Committee and the ICMM. The findings were also shared with all our employees and contractors with 'stop for safety' sessions held Group-wide to reflect on the lessons from these incidents. Detailed sessions were held with senior leaders prior to the rollout of the 'stop for safety' sessions for Goonyella Riverside and the Permian Basin to explore in depth the investigation findings and lessons. Materials were tailored for the frontline, operational leaders and offices/functions to bring the lessons closer to their own reality. Leaders were encouraged to review the effectiveness of their own processes and culture based on the organisational lessons in the field, and create actions to close any gaps identified.

## Safety incident investigations

BHP has a goal of zero work-related fatalities. In pursuit of that goal, we set a priority in FY2018 to enhance how we investigate and share lessons from safety incidents. We reviewed how we investigate incidents and found there were opportunities to improve process, leadership and culture so that we can more effectively embed the lessons from safety incidents across our business.

As a result, during FY2018 we implemented the *Our Requirements for HSEC Event and Investigation Management* standard for investigations following health, safety, environment and community (HSEC) incidents. This standard sets out a consistent approach to investigations that applies to all our assets and functions, and is supported by standardised tools and templates. We prioritise near misses and injuries with fatality potential for in-depth investigation and appoint those with investigation expertise to facilitate and lead these investigations. To date, more than 600 people across the organisation have been trained in this approach. Senior leaders are now actively involved in leading high potential incident investigations, providing them with an opportunity to learn through practice, which we believe will positively impact their ability to share lessons and influence learning across their existing leadership networks and routines.

Organisational, cultural and leadership factors are also examined to understand how they may have contributed to the incident. A repository of investigation findings from across the Group has been created, with investigation findings presented in a standard format that can be filtered and searched with alert notifications controlled by the user. The learning approach has been tested and improved as part of the 'stop for safety' sessions outlined above, and feedback on the approach to learning has been positive.

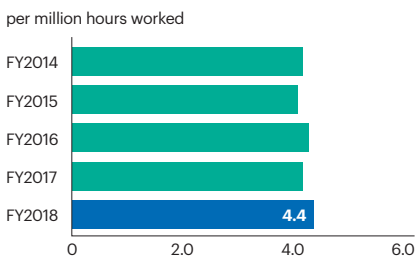
In FY2019, we will continue to focus on embedding our learning approach. We will establish a network of investigation facilitators across the Group. The network will work with leadership teams to tailor Group-wide material for delivery to their respective teams, to promote changed thinking and behaviour, and to coach leaders on effective engagement. We will also start to focus on positive investigations – investigating and sharing lessons on things that go right in safety.

## Our safety performance

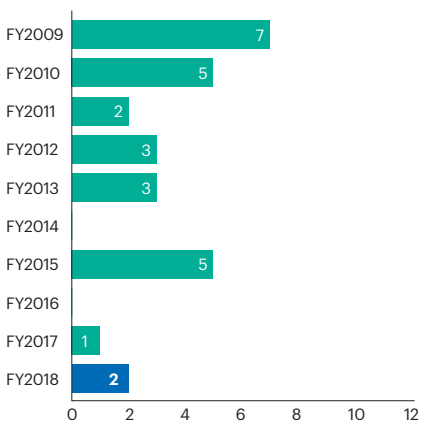
In FY2018, our total recordable injury frequency (TRIF) performance increased by five per cent to 4.4 per million hours worked, compared to 4.2 in FY2017. This was due to an increase in low severity sprain and strain type injuries in Minerals Australia, which occurred primarily in Western Australia Iron Ore and Olympic Dam. These events were not injuries that had fatal or serious potential. Through Field Leadership engagement and formal awareness programs, we are improving the identification and management of the hazards that cause sprain and strain injuries in task-based risk assessments done by the workforce every day. Minerals Americas achieved an 18 per cent reduction in TRIF performance to a level less than two, which is the benchmark we have set ourselves for TRIF.

Importantly, high potential injuries declined by eight per cent from FY2017 due to a significant reduction in high potential injuries in Western Australia Iron Ore and further improvement in Petroleum. High potential injury trends remain a primary focus to assess progress against our most important safety objective: to eliminate fatalities.

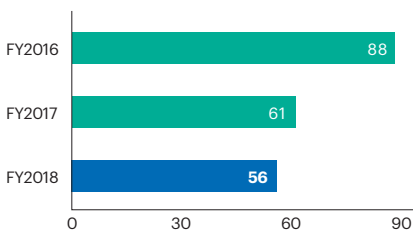
### Total recordable injury frequency <sup>(1)</sup>



### Workplace fatalities (FY2009–FY2018) <sup>(1)</sup>



### High potential injury events <sup>(1) (2)</sup>



Our global safety priorities that were established in FY2016 continue to evolve as we embed and improve our programs. However, our plan remains essentially unchanged as we continue to prioritise doing few things very well:

- reinforce that safety comes before productivity;
- focus on in-field verification of material and fatal risks through embedding field leadership;
- enhance our internal investigation process and widely share and apply lessons;
- enable additional quality field time to engage our workforce.

In FY2019, as part of our focus on in-field verification, we will specifically look at critical control design (controls that alone or in conjunction with other controls significantly reduce the likelihood and/or impact of material risks). We will look to remove people from sources of danger through standardised work and the application of technology. We will continue to embed our new global approach to increase the quality of our safety incident investigations, with the focus shifting to improving organisational learning. The Field Leadership Program remains one of our core leadership activities and the focus in FY2019 will be on the quality of engagements in the field.

Hazard identification and reporting will continue to be a priority in FY2019. A healthy reporting culture should provide us with the signals as to when we need to respond urgently. This will be supported by a new incident management system and process.



(1) This data covers Continuing and Discontinued operations for the financial years being reported.

(2) Includes recordable injuries and first aid cases where there was the potential for a fatality.





## Field leadership

Leaders spending time in the field is key to delivering safe operations and is an area we have been promoting. Through our Field Leadership Program, our leaders from all levels of our business spend time in the field engaging with employees and contractors about safety. They are also responsible for verifying fatality risk controls that are behavioural in nature and ensuring that elements of our HSE management system are working as intended. Through this engagement, positive behaviours are reinforced, at-risk behaviours are addressed and opportunities for system improvements are identified.

FY2018 saw the successful deployment of a Group-wide common approach to field leadership, including common training and a system to support the recording of field leadership activities. Since deployment, we have completed more than one million field leadership activities with our employees and contractors, which highlights how well this program has been embedded into our daily leadership routines. We monitor field leadership participation and coaching in all operations, which has supported continual improvement and embedment of the program. As an example, field leadership participation almost tripled from the September 2017 quarter to the June 2018 quarter in Petroleum with coaching levels doubling over the same period.

During FY2018, work centred on:

- embedding field leadership activities with operational leaders in each asset;
- strengthening linkages between field leadership and our leadership development programs;
- implementing a Group-wide governance model to continue to monitor and review the effectiveness of the system, process and tools that have been implemented.

We have established the following lead indicators for field leadership to track the quality and further enhance the overall program. These form part of the performance scorecard for our executives in FY2019 and include:

- increasing leaders coaching field leadership activities;
- identifying and analysing critical control failures and implementing improvement plans;
- ensuring all risks that have behavioural controls are covered and completing the field leadership activities to plan;
- timely completion of actions to address critical control failures.

We are working on guidance that will enable each region to assess their field leadership capability and identify opportunities for improvement.

## High occupancy vehicles

Every month, our people drive 640,000 kilometres in high occupancy vehicles and each day 6,000 employees and contractors are transported in buses or minibuses. The extensive use of high occupancy vehicles across the Group presents a high potential material risk exposure. A global project team with representatives from each of our regional teams was established to develop a set of recommendations on the minimum requirements for high occupancy vehicles. The recommendations were provided to our Sustainability Committee in June 2018, with the high occupancy vehicle minimum requirements to be implemented in FY2019.

We are also actively working with the National Road Safety Partnership Program (NRSPP), which is part of the Australian Road Research Board (ARRB). A working group has been established, with participants from different organisations across a number of business sectors, to develop and implement strategies to better manage and monitor high occupancy vehicles. This will include undertaking research into effective safety management practices.

# Health

## Recognising that our operations can impact the health of our people, we set clear requirements to manage and protect the health and wellbeing of our workforce, now and into the future.

We set minimum mandatory controls to identify and manage health risks for both employees and contractors. Health risks at our workplaces include occupational exposure to diesel particulate matter (DPM), silica and coal mine dust, musculoskeletal stressors, noise and mental health impacts.

As our knowledge of health risks has improved and through advances in technology and improvements in reporting, there is an increased understanding of the link between potential health exposure and disease, and the prevalence and impact of non-communicable diseases, including mental health conditions.

We keep abreast of emerging issues and trends through our membership of industry associations, informal benchmarking and networking, professional associations, participation in national and international conferences, monitoring of scientific journals, occupational health regulatory setting and advisory agencies.

Across the resources sector we expect to see a trend of increasing recognition and reporting of long latency diseases. This emphasises the importance of our well-developed health systems, designed to identify and manage health risks, which are subject to periodic audit, regular review and continuous improvement.

We manage exposures to DPM, silica, coal mine dust and other potentially harmful agents through the setting of internally specified occupational exposure limits (OELs). In setting those OELs for our most important exposures, we monitor and review scientific literature, engage with regulators and OEL-setting agencies, benchmark against peers and seek expert independent advice. Our process for continuous monitoring and evaluation of our internal OELs is designed to ensure they remain in line with, or more stringent than, applicable regulated health limits.

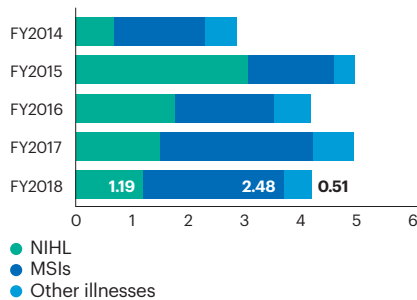
Periodic medical surveillance is conducted to detect signs of potential illness at an early stage and assist our people in the recovery and management of illness that is a result of exposure at our workplace. In FY2019, we will review our medical testing programs to look for opportunities to improve the programs and further enhance our ability to detect potential issues.

In line with *Our Charter* and our culture of care, activities to enhance the physical and mental wellbeing of our people include the provision of preventative health measures, such as influenza vaccinations, gym facilities and healthy food alternatives at our worker accommodation camps. Following a successful pilot in FY2018, we expect to find new ways to improve the management of jet lag in our more than 3,500 business travellers, with resulting mental health and physical benefits. In addition, our Mental Health Framework is focused on awareness, support and proactive management of mental wellbeing.

## Occupational illness

The majority of our reported occupational illnesses are musculoskeletal illness (MSI) and noise-induced hearing loss (NIHL). Over the medium term, we anticipate our requirement for fit testing for hearing protection devices (going above and beyond regulatory standards) will result in the reduction in NIHL cases. The ambition for gender balance globally by FY2025 has resulted in even greater focus on ergonomics and manual handling. The identification and more effective control of manual handling hazards will open up employment opportunities to a much more diverse workforce and reduce the inherent risks to the existing workforce.

### Employee occupational illness (per million hours worked)<sup>(1)</sup>



(1) This data covers Continuing and Discontinued operations for the financial years being reported.

The incidence of employee occupational illness in FY2018 was 4.18 per million hours worked, a decrease of 15 per cent compared with FY2017. The reported incidence of contractor occupational illness was 1.92 per million hours worked, an increase of 34 per cent compared with FY2017.

The overall increase in contractor illnesses has been predominantly driven by an increase in MSI cases in Minerals Australia. This is recognised as an area of focus with work planned in FY2019 to address the rise in cases.

We do not have full oversight of incidence of contractor NIHL in many parts of BHP due to regulatory regimes and limited access to data. We are working with our contractors to resolve these issues.

## Occupational exposures

For our most material exposures to DPM, silica and coal mine dust, we have committed to a five-year target to achieve a 50 per cent reduction in the number of workers potentially exposed<sup>(1)</sup> as compared to our baseline exposure profile (as at 30 June 2017<sup>(2)</sup>) by 30 June 2022.

In FY2018, planned exposure reduction projects were implemented across the Group, involving a collaborative effort from operational and maintenance teams, supported by the Health, Safety and Environment, Supply and Technology functions. Many assets exceeded planned exposure reductions; however, increases in production and activity offset reductions in exposures for some assets, resulting in an overall reduction of 31 per cent compared to the FY2017 baseline. Planned growth projects across the Group may result in an increase in some potential exposures over the short term; however, commitments to achieve planned exposure reductions over the five-year target period remain.

(1) For exposures exceeding our baseline occupational exposure limits discounting the use of personal protective equipment, where required.

(2) The baseline exposure profile is derived through a combination of quantitative exposure measurements and qualitative assessments undertaken by specialist occupational hygienists consistent with best practice as defined by the American Industrial Hygiene Association.

In Petroleum, four projects were implemented during FY2018 in our Onshore US assets focusing on DPM and silica control. As a result of the planned exit from our Onshore US assets<sup>(3)</sup>, the FY2019 exposure reduction project pipeline has been amended.

In Minerals Americas, silica exposure reduction projects were successfully implemented at our Escondida and Pampa Norte (Cerro Colorado and Spence) assets in Chile. This included changes to the way cables are handled as well as dust suppression systems for mobile maintenance at Escondida, redesign of the cabin seals (and cleaning methods for the cabins) in mining mobile equipment at Cerro Colorado and dust suppression and collection systems in the dry area mechanical maintenance at Spence.

In Minerals Australia, there was significant exposure reduction achieved for both DPM and coal mine dust, primarily driven by exposure reduction projects at BHP Billiton Mitsubishi Alliance (BMA) in Queensland and Olympic Dam in South Australia, which included:

- **Olympic Dam:**
  - diesel particulate filters retrofitted to underground diesel equipment (including haul trucks, loaders, drills and light vehicles);
  - trial of the first electric light vehicle in June 2018 with a second vehicle expected in FY2019.
- **BMA:**
  - LHD Hino diesel engine upgrade project progressing through execution at the Broadmeadow mine, with the entire fleet of underground production loaders expected to be changed by February 2019;
  - improvements to maintenance practices at Broadmeadow, including tailpipe testing, diesel fuel testing, diesel exhaust filters and exhaust conditioner additives;
  - implementation of controls on the longwall at Broadmeadow to reduce exposures to coal mine dust, including task rotation.

Silica exposure reduction projects will continue to be progressed in FY2019 in Minerals Australia and Minerals Americas. Minerals Australia will have increased focus in FY2019 with projects identified at Olympic Dam and workshops scheduled for early FY2019 to define the silica exposure reduction projects at our coal assets.

In addition to these exposure reduction projects, BHP's leadership and support via the ICMM contributed to the development of a new collaborative initiative. The ICMM is working with the world's leading suppliers of mobile mining equipment to seek to significantly reduce the emissions of DPM (and greenhouse gases) and make mining safer by improving collision management technology.

## Coal mine dust lung diseases

In our Sustainability Report 2017, we reported on the re-identification of coal workers' pneumoconiosis (CWP) in our industry, the number of our current employees and former workers who had been diagnosed with CWP and the steps we had taken in response.

In FY2018, the Queensland regulatory scheme was amended to enable free health surveillance for former coal mine workers (as is the case in New South Wales) and improved access to workers compensation. We have supported the promotion of these important amendments.

As at 30 June 2018, six cases of coal mine dust lung diseases (CMDLD<sup>(4)</sup>) among our current employees had been reported to the Queensland Department of Natural Resources, Mines and Energy. We continue to provide counselling, medical support and redeployment options (where relevant) for all six colleagues (four of the six have been able to continue working).

During FY2018, an additional three former BHP workers had workers compensation claims accepted for CMDLD resulting in a total, as at 30 June 2018, of five former workers diagnosed with CMDLD since January 2016 (noting that no Australian coal mine worker had been diagnosed with CMDLD in the preceding two decades). Our Charter values guide our response and the support we offer, and we continue to review how this can be improved.

We have taken a number of additional steps to better protect the health of our people, including:

- reviewing and enhancing dust controls across all our coal operations in Queensland and New South Wales, including through the examples noted in the previous section;
- committing to a further reduction in our coal mine dust OEL from 2 mg/m<sup>3</sup> to 1.5 mg/m<sup>3</sup> to be achieved as soon as reasonably practicable and no later than 1 July 2020 (as compared with the regulatory OEL of 3 mg/m<sup>3</sup>), noting that all operations have developed exposure reduction plans;
- committing to reduce potential exposure to silica in coal mine workers that exceeds a level 50 per cent lower than the current regulatory level by no later than 1 July 2021;
- providing input to the Queensland Government and the coal mining industry more broadly, both directly and indirectly via industry associations and working groups, to further improve the regulatory framework and health surveillance system, and to share improvements in technical knowledge and controls.

Through the combination of further reductions in coal mine dust and silica potential exposures across BHP sites (driven by our current five-year exposure reduction targets and reductions in OELs, as described earlier) and the statutory health surveillance schemes in Queensland and New South Wales, we believe the necessary controls are in place to prevent serious disabling disease and fatalities in our workforce from existing workplace conditions.

(3) On 27 July 2018, BHP announced that we had entered into agreements for the sale of our entire interests in our Onshore US assets, subject to the satisfaction of customary regulatory approvals and conditions precedent.

(4) CMDLD is the name given to the lung diseases related to exposure to coal mine dust and include CWP, silicosis, mixed dust pneumoconiosis and chronic obstructive pulmonary disease.



## Mental health

Consistent with our culture of care, BHP has supported the mental health of our people as a priority since 2015. Since then, we have made good progress with the implementation of our Group-wide Mental Health Framework. Our initial focus was on culture, aimed at reducing the stigma associated with mental illness and raising awareness of mental health conditions, as well as building capacity and confidence to recognise and support individuals experiencing mental health issues. In FY2018, we expanded our program to include positive activities to support a healthy, thriving workforce. This included the development of a peer-led Resilience Program designed to improve personal and team ability to respond and adapt to changing life circumstances and to build longer-term wellbeing. As at the end of FY2018, more than 850 people had participated in the Program.

In addition to the Resilience Program, we developed a centralised resource to help our people improve their mental health and support colleagues, friends and family: the Thrive mental health toolkit. Thrive includes simple tip sheets for a range of mental health concerns, such as depression and anxiety, and stages of life that can be challenging, such as caring for ageing parents, retirement and becoming a parent. We actively collaborated with our Human Resources function to incorporate a wellbeing category in our Engagement and Perception Survey (EPS), helping inform our mental health strategy and better equipping our leaders to support their people. This category saw a one per cent improvement in the overall wellbeing of the Group from 2017.

A focused program of work was completed to enhance our Employee Assistance Program (EAP), enabling consistency of services offered to our entire Australian and Asian employee base supported by a simpler, more effective communication strategy to promote EAP as a preventative, proactive service. Across the Group, utilisation in CY2017 was as high as 15.7 per cent (Western Australia Iron Ore) and the vast majority of use was undertaken in a non-urgent capacity, an encouraging sign that employees are accessing the services early on. We will continue to proactively promote the use of the EAP across all our operating regions and functions.

Our people supported World Mental Health Day and R U OK?™ Day and we embarked on a global Movember campaign to raise awareness and funds (A\$460,281 as of 30 June 2018) for key men's health issues, including mental health and suicide prevention. BHP was the highest fundraising organisation that supported the 2017 campaign, contributing to the Movember Foundation's ground-breaking programs and research into men's health.

In FY2019, we expect peak uptake of our Resilience Program and will ensure our mental health resources are able to be effectively used by leaders and teams to advance our culture of care. We will continue to collaborate internally, including with our Human Resources function, to better integrate other BHP priorities that support mental health, such as diversity and inclusion, flexible work options and the strengthening of leadership awareness and skills. We will prioritise the development of additional skills in our workforce through programs such as mental health first aid, peer support and proactive use of the EAP.

## Case study

## Supporting mental health in our Petroleum business



The Petroleum team had a challenging year in FY2018. In August 2017, BHP announced its intention to actively pursue options to exit our Onshore US (Unconventional Petroleum) assets<sup>(1)</sup>. In the same week, Hurricane Harvey brought record-breaking rainfall that stalled in southeast Texas and caused widespread devastation to the community. Our mental health programs and initiatives supported our response and enabled our people to better navigate the significant challenges.

### Hurricane Harvey

Hurricane Harvey caused devastation in the greater Houston area and across parts of southeast Texas. Communication systems were tested as the widespread flooding closed offices and schools for many weeks.

Connections between our people, teams and offices were critical. Our Houston team formed a Hurricane Harvey Relief group on BHP's social media and employees across the business joined to offer what help they could. As well as meeting the most visible and urgent impacts, the team also prepared to manage the more enduring effects: stress, psychological trauma and financial hardship. Colleagues called daily to check on one another. Individual counselling and psychological services were organised at our Houston and field offices. Flexible work arrangements allowed

employees to be where they needed to be and temporary housing was offered to displaced employees. Steve Pastor, President Petroleum, urged staff to take the time they needed to care for themselves, their loved ones and neighbours, and the community.

### Onshore US assets

The announcement that BHP intended to actively pursue options to exit our Onshore US assets was also a potential cause of uncertainty and stress for employees. Employees were encouraged to make use of BHP's Employee Assistance Program, an external expert service that provides counselling and support.

The team also held peer-led mental health education and training sessions to build the ability to identify and manage stress and support resilience. More than 120 people volunteered to facilitate the peer-led resilience program and more than 400 people in Petroleum participated.

Petroleum demonstrated that our culture is shaped by everyone and underpinned by *Our Charter* values. While very challenging events, Hurricane Harvey and the Petroleum transition have also unified our workforce, demonstrating a culture of care and a spirit of resilience that has been an inspiration to us all.

(1) On 27 July 2018, BHP announced that we had entered into agreements for the sale of our entire interests in our Onshore US assets, subject to the satisfaction of customary regulatory approvals and conditions precedent.



## Society

**We are committed to making a positive contribution to the quality of life and resilience of communities where we have a presence.**

**BHP aims to work collaboratively with our stakeholders to deliver meaningful and sustainable outcomes and relationships based on respect, honesty and trust.**



### **In this section:**

- Supporting communities
- Respecting human rights
- Indigenous peoples

# Supporting communities

**Our ability to conduct our business is closely tied to understanding our communities and their expectations, avoiding or minimising potential negative impacts and identifying opportunities that deliver a sustainable future for all.**

As demand for resources grows and community expectations change, we need to ensure that the way we interact with community and other stakeholders continues to be effective. In FY2018, we committed to an in-depth review of how we understand and support social licence. That review is ongoing and its findings will be used to further embed considerations of sustainability and social licence across our business.

BHP acknowledges that the extractive industry needs to work harder at developing trust through engaging in more meaningful dialogue with stakeholders. We believe this can be achieved through a collective approach of working with non-governmental organisations (NGOs), governments, local communities and other civil society groups to share knowledge, challenge our thinking and help address some of the most significant challenges our industry faces.


Our Social Investment Framework, developed to align with relevant United Nations (UN) Sustainable Development Goals, provides a consistent framework for our investment to achieve local, regional, national and global outcomes and underpins our voluntary social investment approach. Guided by the Framework, we voluntarily invest not less than one per cent of pre-tax profit to improve quality of life in our host communities and support the achievement of the UN Sustainable Development Goals. The Framework includes three themes: governance, human capability and social inclusion, and environment, under which sit eight specific focus areas (refer to Social investment section of this Report for BHP's Social Investment Framework).

We have continued to voluntarily invest not less than one per cent of our pre-tax profit in community development programs since 2001. In FY2018, our voluntary social investment totalled US\$77.05 million, comprising US\$66.56 million in direct community development projects and donations, including US\$7.16 million BHP equity share to non-operated joint venture programs and US\$10.49 million in administrative costs, which includes US\$1.54 million to facilitate the operation of the BHP Billiton Foundation.

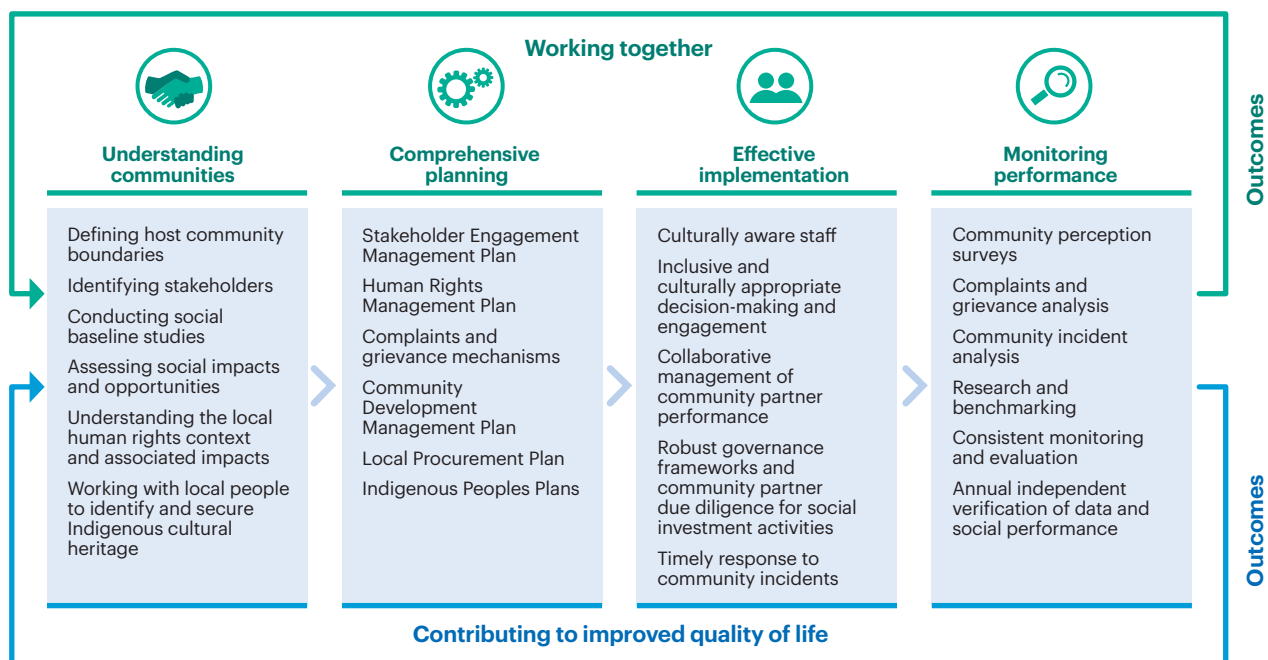
## Engaging with host communities

We seek to build good relationships with our stakeholders based on mutual respect, open and ongoing communications and transparency over our activities. Our community practitioners use a range of tools that are tailored to the needs of our stakeholders. We plan, implement, evaluate and document stakeholder engagement activities, ensuring we include a range of culturally and socially inclusive engagement activities and update our plans annually. Tools include stakeholder mapping, complaints and grievance reporting procedures, perception surveys, social impact and opportunity assessments and human rights impact assessments. Through these we gain valuable insights into what we do well and where we need to improve our performance.

We also seek opportunities to actively participate in forums and discussions on themes that span our global communities, such as the environment, energy, sustainable development, transparency and human rights.

 **Our public commitments and voluntary initiatives are listed on our website ([bhp.com](http://bhp.com)).**

## Our collaborative community approach



## Mitigating social risks and impacts

We recognise that the nature of our business can create concerns as a result of our activities. Aligned with the UN Guiding Principles on Business and Human Rights, all our assets are required to have local mechanisms to support our engagement with the community, record complaints and grievances, and address these in a timely, culturally appropriate and consistent manner.

Open channels of communication with local communities help us to build a common understanding of the issues, strengthen support for our operational activities and build trust. Our community practitioners manage complaints and grievances through informal interactions, community forums and formal complaint procedures, with the aim of having ongoing and proactive communication and achieving resolution.

BHP has a target of zero significant community events, recognising our responsibility to respect the health, safety and wellbeing of our host communities. The risk of a significant community event is identified, managed and assessed through our global risk management framework, which is overseen by the Risk and Audit Committee. No significant community events were recorded in FY2018. Two grievances raised in FY2016,

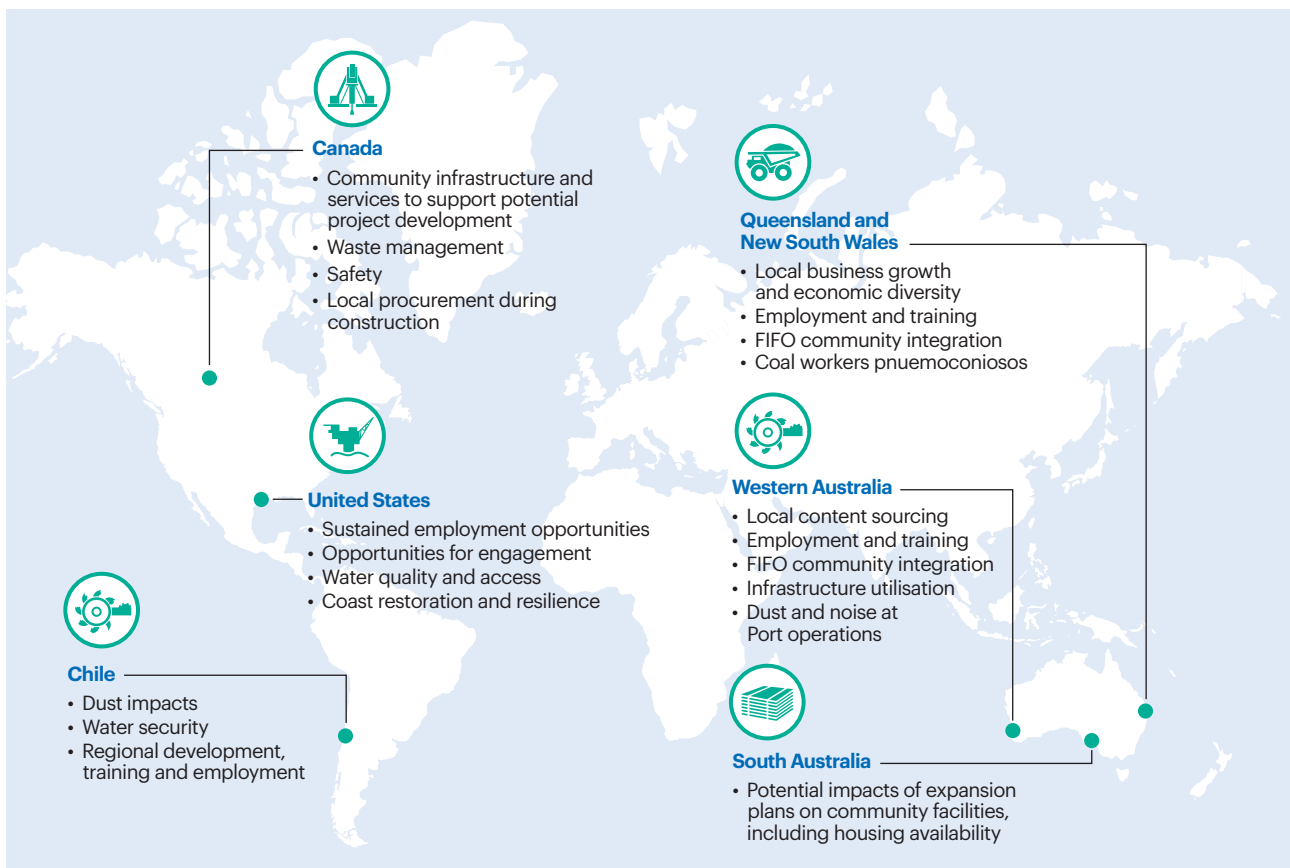
related to BHP Billiton Mitsubishi Alliance's (BMA) operational activities (referenced in the Sustainability Report 2017) were addressed during the FY2018 period. In addition, no new social, environmental or human rights grievance cases were recorded by our asset teams during FY2018. We received 71 community complaints through our local complaints and grievance mechanisms and there were a number of community concerns raised that BHP has worked with stakeholders to address during the course of FY2018. These are outlined below.

## Community concerns raised in FY2018

Environmental impacts (particularly in relation to water usage and access), employment and business growth opportunities, and local infrastructure usage are some of the most common concerns raised by host communities. These concerns have the potential to impact communities and develop into far-reaching stakeholder opposition to our activities. Our Communities teams seek to proactively engage with stakeholders to address these concerns in a timely manner.

An overview of stakeholder concerns relating to BHP's operating assets raised in FY2018 is provided below:

## BHP stakeholder concerns by region





## Responding to community concerns

### Australia

#### Western Australia

Our Communities team is piloting a new approach to community social and economic engagement, called 'Hedland Collective'. Based on the principles of collective action, this program brings together local stakeholders, including companies, government and community representatives. The participants work together to develop a common approach to managing the impact of, and realising benefits from, resource sector operations. This program is based on a BHP initiative developed in Chile and is also being piloted by BMA in Moranbah, Queensland.

#### Queensland and New South Wales

We have engaged with regulators and community leaders to discuss a collaborative approach to fostering opportunities for local business growth and economic diversity, as well as employment and training. To support this, BHP established the Local Buying Program to support small local businesses to supply goods and services to BHP, BMA and BHP Billiton Mitsui Coal (BMC). The Program is delivered in a strategic partnership between BHP and C-Res – a cost neutral organisation. The program has been operating in Queensland since 2012, in New South Wales since 2016 and more recently extended to South Australia in 2017.



For more information, refer to [c-res.com.au/](http://c-res.com.au/).

BHP's coal operations in Queensland are a major source of employment across Central Queensland. We work closely with the Queensland Government to ensure compliance with the Strong and Sustainable Resource Communities Act, which came into effect in March 2018 and prohibits a 100 per cent fly in, fly out (FIFO) workforce for large resource projects with a nearby regional community.

### South Australia

We continue to hold discussions with the workforce and community regarding FIFO and roster changes for our Olympic Dam asset, to manage perceived local impacts associated with planned expansion activities, specifically in relation to concerns of increased pressure on housing and public services. Our management team prioritises regular face-to-face meetings with community representatives and key stakeholders to share BHP's plans and intentions and seek to address issues or concerns raised.

### Canada

Our team is updating social-economic research with the aim of enhancing BHP's understanding and identification of opportunities to develop local capabilities, address issues associated with community infrastructure and public services, and grow local procurement prospects. Implementation of identified opportunities are dependent upon the Jansen Potash Project receiving future development approval by the Board.

### United States

Coastal restoration and environmental and social capacity building in local communities are the focus of social investment in our Petroleum business. Through our programs, we aim to develop sustained employment opportunities, safeguard water quality and access, and limit cumulative impacts on coastal areas.

### Chile

We are working to improve internal processes and mechanisms to more effectively manage the perceived impacts of dust and to secure water quality and supply for local communities. We are also collaboratively working with authorities and communities in the region to develop a cohesive approach to fostering regional development, training and employment.



## Case study

### Hedland Collective: A collaborative focus on community enhancement



The remote town of Port Hedland, in Western Australia's Pilbara region, has been at the heart of BHP's iron ore operations for more than 50 years.

Located 1,800 kilometres north of Perth and with a population of approximately 16,000 people from diverse backgrounds, the town is proud of its reputation as Australia's largest bulk export port and its outdoor lifestyle and wide range of community services. As an important part of the local economy, BHP was looking for ways to join forces with industry, government and community representatives to develop a common approach to maximising the benefits from resource sector operations.

That desire led to the creation of the Hedland Collective in 2017. One of its early initiatives involved community consultation to understand local challenges and existing efforts to address them.

The Collective identified three areas for collaboration:

- strengthening local employment, training and business development;
- coordinating social services to ensure support for all community members;
- building and communicating community vibrancy and culture.

Working groups are looking at ways to address priorities from each of those areas, including:

- **Pathways to opportunity** – focusing on developing the education, training and support resources that connect community members with career pathways.
- **Resources sub-working group** – consisting of major mining company representatives and suppliers, this group is addressing issues directly relating to resource companies and their suppliers, and how the resources industry can support priorities of other working groups.
- **Supportive Hedland** – aims to strengthen the suite of supportive services for the Hedland community by building capacity, aligning existing services and coordinating community outreach.
- **Vibrant Hedland** – addressing the social and cultural aspects of Hedland life, to create a positive narrative and experiences that attract and retain people.

The Hedland Collective is already delivering results. A recent Career Expo focused on trades and other opportunities in the resources sector, rather than having individual stalls for each company. The industry group has also established a sub-committee with the local high school to improve coordination around work experience, mentoring and employment opportunities.

In coming years, the Hedland Collective plans to transition to a standalone, not-for-profit entity that will complement other ongoing community efforts and respond to changing community needs.

## Our contribution to communities

Under our Social Investment Framework theme of governance, we invested US\$3.67 million in projects that aim to reduce corruption, enhance transparency and strengthen institutions in Australia, Canada, Chile, China and Trinidad and Tobago. In FY2018, more than 560 NGOs and approximately 203 small businesses participated in BHP-funded capacity building activities and eight organisations we partner with received anti-corruption training.

Under the theme of human capability and social inclusion, our projects aim to increase the number of people with improved health and wellbeing, access to quality education and vocational training and enhanced livelihood opportunities. In FY2018, we contributed US\$36.53 million in programs in Australia, Canada, Chile, China, Singapore, Trinidad and Tobago and the United States.

Our contribution to environmental projects totalled US\$15.28 million in Australia, Canada, Chile, China, Kenya, Peru, Trinidad and Tobago and the United States. These programs aim to contribute to enduring environmental and social benefits through biodiversity conservation, water stewardship and climate change mitigation and adaptation. Through these investments, 63,000 tonnes of greenhouse gas emissions were reduced and 123,000 hectares of habitat was improved through restoration activities.

An additional total of US\$3.92 million was invested in other initiatives, including disaster relief and workplace giving.

In FY2018, our human capability and social inclusion projects focused on:

- **Education and training:** activities that improve pre-primary, primary, secondary and tertiary educational outcomes. In FY2018, approximately 500,000 students participated in community programs and more than 470 scholarships were awarded, including 140 that were granted to Indigenous peoples. More than 17,800 people had new or improved access to health services. Over 650 people received job-related training through community partners.
- **Health and wellbeing:** activities that aim to provide better access to health services and resources. Time for Wellbeing, a collaborative initiative of BHP's Olympic Dam asset in South Australia, local community health service Roxby Health Forum and health and community development consultancy Healthy Environs is an example of an initiative aiming to bring local residents, workers and organisations together to promote better health and wellbeing in the region. Activities are focused on supporting mental health in the community, promoting good physical health and supporting early childhood development.
- **Social inclusion:** activities that improve access to essential community services and increase participation by marginalised and vulnerable groups. Our Escondida asset in Chile, in partnership with the regional government and social justice NGOs, aims to strengthen the capacities and resources of the migrant settlements that have built up around the city of Antofagasta through a social inclusion initiative. The program works to connect the families of the settlements with public services and improve the labour skills of the residents. More than 2,000 families from 21 camps have been reached by the program.



## Case study

### Time for Wellbeing: Working together to promote community health



BHP Olympic Dam's vision is to 'contribute to a sustainable and resilient workforce and communities by supporting healthy lifestyles in both a physical and mental capacity and across all ages'.

Roxby Downs, a remote South Australian mining town nearly 600 kilometres north of Adelaide, supports BHP's Olympic Dam operation. Roxby Downs is a modern and dynamic mining town with a strong sense of community. BHP-driven social research, along with the community itself, has identified health and wellbeing as a priority, with the need to address physical health risk factors and to support social wellbeing, especially for residents living remotely from their extended family and support networks.

The Time for Wellbeing Community Health Partnership, is a collaborative initiative of BHP, the Roxby Health Forum and Healthy Environs. The program recognises the challenges of living and working remotely and aims to deliver community-wide health outcomes for Roxby Downs and nearby towns and focuses on three priority pillars: Early childhood development; Mental wellbeing; and Physical health.

Time for Wellbeing adopts a model of community collaboration and takes a broad approach to promoting community health through healthy places, healthy lifestyle education and promoting the health support services available.

Now in its third year, Time for Wellbeing has achieved a range of outcomes across the three partnership pillars:

- **Early childhood development** – Education partners in the region are establishing kitchen gardens and teaching students about positive food habits through the Stephanie Alexander Kitchen Garden Foundation. Local students have also learnt about healthy habits through the Life Education program.
- **Mental wellbeing** – The partnership has supported the Rock and Water self-awareness and social functioning program for 170 students in Roxby Downs, while local community members have participated in mental health awareness training through the Rural and Remote Mental Health Service.
- **Physical health** – The partnership is working with Good Sports to address health risk behaviours (including alcohol consumption) in club environments (with 14 sporting clubs rolling out the program to date). Time for Wellbeing has supported the local 'Community Foodies' in healthy food preparation and continued work with Roxbylink to promote physical activity options. Five local businesses are delivering the Time for Wellbeing Toolbox Talk health education series.

Local residents have also valued the opportunity for networking, information sharing and activities through the new Community Hub (a shared space for all BHP community partnership programs in Roxby Downs).



More information is available online at [timeforwellbeing.com.au](http://timeforwellbeing.com.au).

## BHP Billiton Sustainable Communities

Alongside the BHP Billiton Foundation (US based), the original BHP Billiton-funded charity BHP Billiton Sustainable Communities (BSC) (UK based) partner with organisations to deliver large-scale, long-term social and environmental development projects.

As we transition to a single BHP-funded charity (the BHP Billiton Foundation), BSC continues to support its existing project commitments. During FY2018, BSC provided US\$10.1 million to continue its support for multi-year projects that aim to increase social inclusion and quality of life for vulnerable groups in Australia, Colombia, South Africa and Mozambique.

### Matched Giving Program

We encourage our employees to support not-for-profit organisations through our Matched Giving Program, under which BHP matches employees' personal financial donations up to a prescribed limit of US\$10,000. More than 2,420 of our employees participated in the Matched Giving Program in FY2018, with support provided to 372 not-for-profit organisations. In total, these organisations received US\$3.70 million through the Program.

## Supporting local economic growth

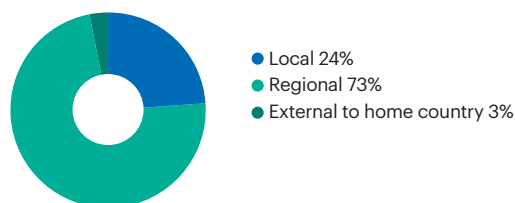
We support local businesses by seeking to source products and services locally. All our assets are required to have local procurement plans that benefit local suppliers, create employment and build capacity through training of small business entrepreneurs.

During FY2018, 24 per cent of our external expenditure was with local suppliers. An additional 73 per cent of our supply expenditure was within the regions in which we operate. Of the US\$16 billion paid to more than 10,000 suppliers across the globe, US\$3.8 billion was paid to local suppliers in the communities in which we operate, supporting their further development.

Our expenditure with local suppliers in FY2018 was mostly made in the United States (81 per cent), Trinidad and Tobago (47 per cent), Chile (20 per cent) and Australia (13 per cent).

BHP also seeks to support growth and diversification of local economies, to ensure sustainability post-mining.

### Distribution of supply expenditure <sup>(1)</sup>



(1) Local spend refers to spend within the communities in which we operate. Regional and national spend refers to spend within the regions, such as states and provinces, and the home country of operation, excluding local spend.

### Case study

#### Window of opportunity

During FY2018, BSC's commitment to the Window of Opportunity (WinOp) project came to an end. The six-year WinOp project commenced in 2013 under a US\$25 million agreement with PATH, an international not-for-profit global health organisation. The project focused on integrating maternal and child health services and childhood development interventions in South Africa and Mozambique.

The project worked to make a sustainable difference to infant and maternal health by focusing on the first 1,000 days of a child's life through multi-faceted initiatives in the health system, including within the district, facility-level health providers and caregivers as well as community-based health education.

The project supported 24 community health organisations to improve their financial and organisational performance, and provided technical capacity development for a further 40 organisations. More than 270,000 people were reached through almost 75,000 household visits. These activities contributed over the life of the project to a 10 per cent decrease in neonatal mortality, a 55 per cent increase in breastfeeding and a 54 per cent increase in early initiation of antenatal care.

The project focused on securing the sustainability of its inter-sectoral collaborations at the district level, ensuring that local leadership will continue to bring together multiple partners and stakeholders to plan and implement maternal, newborn, child health, and nutrition and early childhood development interventions in accordance with local needs.



Case study

**Supporting Women of the Sea**



Our Escondida asset in Chile is helping local business development by supporting an initiative run by a group of women in the small fishing port of Coloso. The women make and sell diving suits to support the local fishing community.

The Mujeres del Mar (Women of the Sea) Union was established in 2009. The economy of Coloso currently relies almost exclusively on fishing; a profession that is heavily male dominated. The Union's purpose is to build an alternative industry for the community and an independent means for the women of the community to contribute to their household incomes. Currently, the Union members include fisherwomen, seafood processors, food vendors and boat owners.

With support from Escondida, the women have developed the technical and business skills required to design, manufacture and sell diving suits. The business' unique proposition is that it is able to create customised suits, at a lower cost than those offered by big companies. The Union plans to go into other lines of business, such as the fabrication of suits for surfing and bodyboarding, and the fabrication of other diving accessories such as fins, hoses and belts.

The Union is now establishing networks, agreeing contracts and forecasting future demand. It is also developing government and municipal networks to enable access to public funds, to support the building of an independent, sustainable livelihood for the women and their community.



## Respecting human rights

**Respecting human rights wherever we operate is critical to the sustainability of our business and is consistent with our commitment to operate in a manner consistent with the United Nations (UN) Declaration on Human Rights, the UN Guiding Principles on Business and Human Rights, the Voluntary Principles on Security and Human Rights and the 10 UN Global Compact Principles.**

Society increasingly expects businesses to respect human rights throughout the value chain and we continue to work closely with our stakeholders to understand opportunities to make a positive contribution towards human rights.

### Managing human rights risks

The most relevant human rights risks for BHP are rights related to occupational health and safety, security, labour conditions and the rights of Indigenous peoples and communities impacted by our operations.

Human rights are integrated into BHP's risk management system through the *Our Requirements* standards. We seek to identify and manage human rights risks and perform due diligence across all our activities. We engage regularly with communities, investors, civil society and industry associations on human rights-related issues and impacts of our operations on communities.

Our asset teams are required to identify and document key potential human rights risks by undertaking a Human Rights Impact Assessment (HRIA), which is reviewed whenever there are changes that may affect the impact profile. Where a HRIA identifies a material risk, a Human Rights Management Plan (HRMP) is required to be implemented and reviewed annually. For example, a HRMP continues to be implemented at our Olympic Dam asset in South Australia where two key areas relating to use of and access to BHP-owned pastoral stations and local governance were identified in FY2014. A review was conducted in November 2017 and the human rights profile remains unchanged.

In FY2018, a HRIA was conducted at our Escondida asset in Chile, focusing on the rights of Indigenous peoples and water, with findings concluding that the engagement and participation approach is both rights based and above the national standard. As no material risks were identified, a HRMP was not required.

Decisions around acquisitions and divestments, new activities in high-risk countries and major capital projects are required to take a risk-based approach that includes consideration of human rights risks and community impact issues.

### Setting requirements for our people and suppliers

Our expectations of our people, contractors and suppliers (where under relevant contractual obligation) are set out in *Our Code of Conduct* and other relevant standards. Performance against those standards is overseen by our management and subject to internal audit.

We set minimum mandatory requirements for all our suppliers and of non-traded goods and services, including zero tolerance in relation to child labour, forced or compulsory labour, freedom of association, living wage, non-discrimination and diversity, workplace health and safety, community interaction and treatment of employees. We acknowledge the challenges of respecting human rights throughout our value chain and we are committed to working with our suppliers and business partners to adopt principles and standards similar to BHP's.

### Security-related human rights risks

We seek to manage security according to our values, risks and business requirements. This involves reviewing our alignment with the Voluntary Principles on Security and Human Rights annually and completing improvement plans to address any gaps.

There were no significant security-related incidents with possible human rights implications in FY2018.

## Global Business Initiative on Human Rights

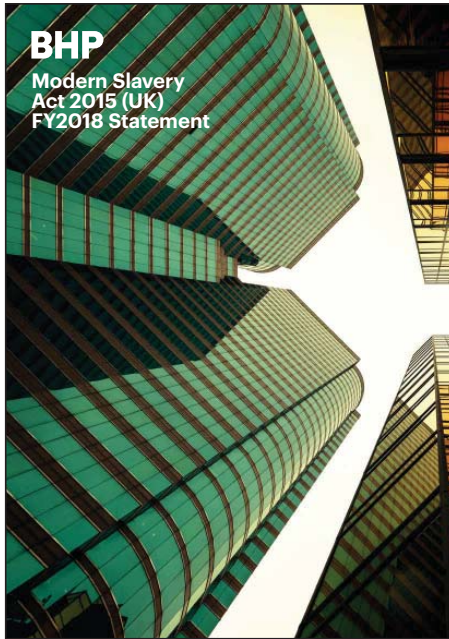
In FY2018, BHP became a member of the Global Business Initiative on Human Rights, a global business-led initiative to advance corporate respect for human rights through peer learning and by strengthening business practice. This forum provides the opportunity for practitioners responsible for human rights initiatives within their respective companies to regularly engage with other businesses, civil society and governments to share, contribute to and strengthen the corporate response to global human rights challenges.



GLOBAL BUSINESS INITIATIVE  
ON HUMAN RIGHTS

## UK Modern Slavery Act

In accordance with the Modern Slavery Act 2015 (UK), we publish an annual statement describing the steps we take to seek to ensure that our business and supply chains are free from slavery and human trafficking. We are committed to building an ongoing dialogue with stakeholders, including suppliers and regulators, to improve our understanding of these risks.



## Australian Modern Slavery Act reporting requirement

In 2017, BHP welcomed the opportunity to participate in the consultation process in response to the Australian Government's Public Consultation Paper and Regulation Impact Statement relating to the Modern Slavery in Supply Chains Reporting Requirement. We note the Final Report issued by the Australian Commonwealth Department of Home Affairs into Modern Slavery in Supply Chains Reporting Requirement, as well as the introduction of legislation to Parliament on 28 June 2018 to enact a Commonwealth Modern Slavery Act (MSA). Once passed, the MSA would establish a Modern Slavery Reporting Requirement applicable to companies earning more than A\$100 million annual consolidated revenue. We remain supportive of the introduction of a Modern Slavery Act in Australia.

We note that the Parliament of New South Wales (Australia) has enacted the Modern Slavery Act 2018 (due to commence upon proclamation).

## Enhancing our management of human rights

In FY2017, BHP's Human Rights Working Group reviewed our current approach to human rights across the business, following a benchmarking exercise against the UN Guiding Principles on Business and Human Rights. Based on the review, the following actions have been taken in FY2018 to strengthen our approach to human rights management across third-party relationships, community risk and reporting and environment.

### Supply due diligence

Tailored human rights risk-related questions have been included in the supplier assessment questionnaire in our new Global Contractor Management System and our Supply team completed the next phase of its work to improve the transparency and confidence of human rights risk management in our supply chain.

### Seafarers' human rights

A project was commenced by our Marketing team to better understand the potential exposure of shipping crews on our charter vessels to human rights and ethics concerns and to develop an inspection process that was designed to ensure any such exposures are identified, assessed and controlled.

### Water stewardship

Our global strategy on water stewardship includes a social and human rights perspective. This includes mapping the project vision and activities against human rights best practice and reviewing trends and expectations regarding the human right to water and sanitation.

In FY2019, we intend to build on our FY2018 progress with a focus on the understanding, assessment, management and reporting of human rights-related risk and to consolidate our approach to human rights across the business.



Information relating to BHP's systems and processes for meeting the UN Guiding Principles on Business and Human Rights, human rights governance, our zero tolerance requirements in relation to human rights in our supply chain and BHP's UK Modern Slavery Act Statement is available online at [bhp.com/respectinghumanrights](http://bhp.com/respectinghumanrights).



# Indigenous peoples



**Around the world, many of our operations are located on or near traditional lands. Indigenous peoples are significant partners for BHP and critical to the sustainability of the Group.**

BHP understands that Indigenous peoples often have profound and special connections to lands and waters and that these are tied to their physical, spiritual, cultural and economic wellbeing. We acknowledge that historically our activities have had impacts on Traditional Owners, culture, places and connection to country. We recognise that we are still evolving our understanding of the impacts and the results of our actions and are committed to working with Indigenous stakeholders to ensure we contribute to the full realisation of the rights of Indigenous peoples.

We also recognise Indigenous peoples in many regions of the world have been and remain some of the most vulnerable and disadvantaged groups.

Our approach to engaging and supporting Indigenous peoples is articulated in our Indigenous Peoples Statement, which is aligned with the ICMM Indigenous Peoples Policy Statement.

## Indigenous Peoples Strategy

The BHP Indigenous Peoples Strategy guides implementation of our Indigenous Policy Statement across our global assets. The Strategy seeks to position BHP as a partner of choice for Indigenous peoples through which our relationships contribute to economic empowerment, social development needs and cultural wellbeing.

We have a five-year target to implement our Indigenous Peoples Strategy across all our geographically relevant assets through the development of Regional Indigenous Peoples Plans by FY2022. Progress on that target is outlined in the following table.

Australia
2017–2020 Reconciliation Action Plan (RAP) was launched in June 2017 and the Australian Indigenous Peoples Working Group meets monthly. The RAP is the vehicle that implements the Strategy in Australia. We have developed a new reporting framework to integrate the RAP priorities into our business in Australia.
South America
The South American plan was launched on World Indigenous Peoples Day (9 August 2018) and a local working group commenced in April 2018 to oversee the implementation of the plan. Much of the focus of the Plan is on our operated assets in Chile, but its scope is across South America, to ensure our exploration activities and opportunities presented through our non-operated joint ventures are captured.
North America
The regional plan was launched in April 2017 and since then, work has been focused in Canada, as primary interaction with Indigenous peoples in North America is with First Nations people through the Jansen Potash Project.

 Further details on our Indigenous Peoples Policy Statement and Strategy are available online at [bhp.com](http://bhp.com).

## Progress in FY2018

The Global Indigenous Peoples Working Group, a cross-functional internal body, was established in FY2016 to provide global leadership, govern and manage the implementation of our Indigenous Peoples Statement and Strategy, promote a consistent position on Indigenous peoples' issues and support regional teams to develop and implement Regional Indigenous Peoples' Plans. The group meets on a regular scheduled basis, with clear aims and operating principles to ensure BHP is gaining maximum benefit of the expert advice and guidance this group can provide.

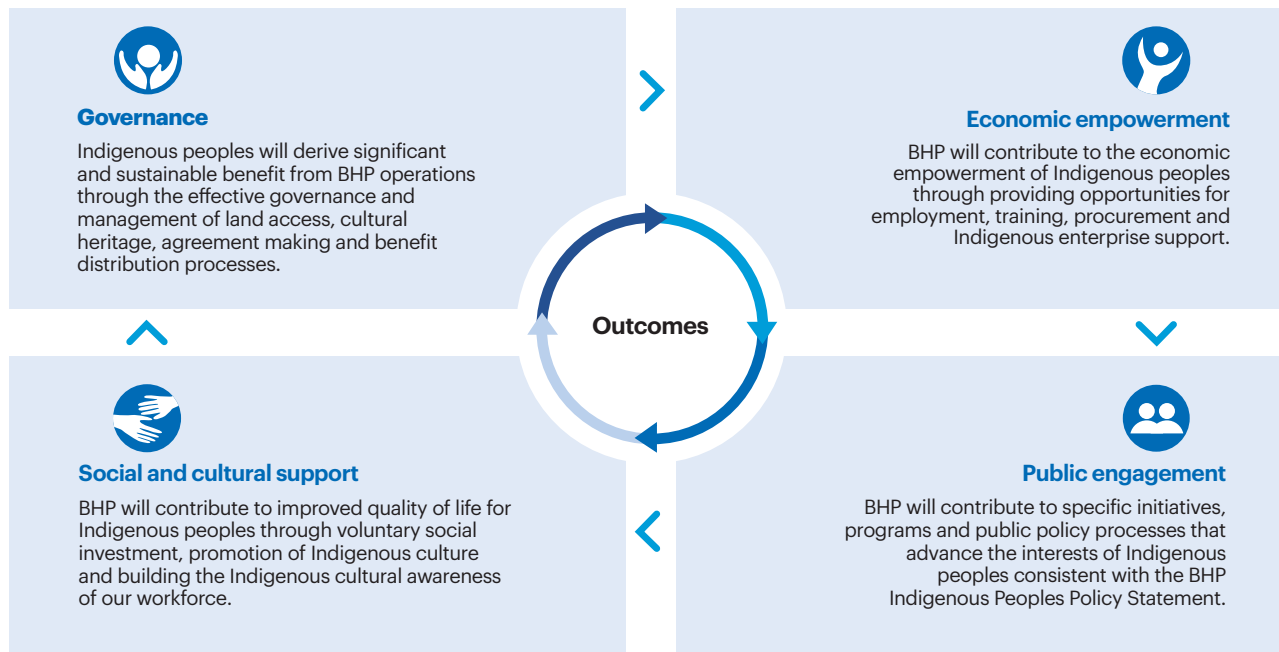
Our Indigenous Peoples Strategy has four streams: Governance; Economic empowerment; Social and cultural support; and Public engagement (with a particular focus on Australia). Our progress in each of those streams is outlined on the next page.

## BHP Indigenous Peoples Policy Statement

BHP aims to be a partner of choice for Indigenous peoples through which our relationships contribute to their economic empowerment, social development needs and cultural wellbeing.



## BHP Indigenous Peoples Strategy



## BHP Good Practice Guidance

### Governance

In Chile, we are updating and standardising the participation and dialogue process we follow with Indigenous communities, the development of Opportunity Agreements, our approach to local procurement and cultural heritage management.

As the transition to desalinated water at Escondida continues over the next decade, BHP plans to gradually decrease our use of water drawn from the aquifer underlying the Monturaqui wellfield. That planning is taking place in close consultation with the Lickanantay Indigenous communities to understand and minimise any impacts from this ongoing extraction of water on their cultural, spiritual and social values.



More information on the Escondida water strategy (EWS) is in our Water Report 2018, available online at [bhp.com](http://bhp.com).

### Economic empowerment

The primary focus of our Economic empowerment workstream is to promote Indigenous employment, training and local procurement opportunities. We aim to provide employment opportunities in our host communities that contribute to sustainable social and economic benefits for Indigenous peoples.

An Indigenous Employment Plan for Minerals Australia is integrated into the 2017–2020 RAP and commits our Australian operations to work towards achieving 5.75 per cent Indigenous representation in the workforce by FY2020.

The results from our efforts have been encouraging. In Minerals Australia, Indigenous employment increased from 4.1 per cent to 4.4 per cent and 25 per cent of all apprentices and 7.2 per cent of graduates were Aboriginal and Torres Strait Islander peoples. The Indigenous Development Program supported 38 Aboriginal and Torres Strait Islander employees to build their capabilities in readiness for future leadership roles. In FY2019, our Australian Indigenous Employment Plan will focus on higher levels of Indigenous representation in leadership and professional roles, through the continuance of our Indigenous Development Program, targeted external recruitment and leveraging opportunities through our intern and graduate programs.

The North American Indigenous employment and training opportunities have been focused on working with our contracting partners to support the employment of First Nations and Métis people, who comprise 6.2 per cent of our workforce at the Jansen Potash Project.

The South American Indigenous Peoples Plan focuses on establishing targets and designing a pilot program to recruit and retain Indigenous peoples. This program will promote the selection, recruitment, hiring and retention of Indigenous peoples in the workforce to address low levels of Indigenous employment across our Chilean assets.

### Social and cultural

Building the Indigenous cultural awareness of our workforce and promoting Indigenous culture is a pillar of our Indigenous Peoples Strategy. At Warrawandu Village at Western Australia Iron Ore's Jimblebar operation, a 2.6-kilometre walking trail was constructed in 2014 which includes interpretative signs located around the trail that profile different aspects of Niyaparli culture, including spirits, hunting, living and environmental resources, and demonstrate the importance of Niyaparli culture. The signage demonstrates how the Niyaparli people live in the landscape, in both the past and present.

Niyaparli representatives played a leading role in determining and developing the content and themes for the signage by providing cultural knowledge and identifying appropriate themes and information on the signage. Karlayura, a Niyaparli Indigenous Contractor, was engaged to complete the construction of the trail and signage.

Surveys of employees who have walked the trail believe it helps increase awareness of the Niyaparli people, who also visit the trail. In FY2019, the trail will be visited by delegates from an archaeological conference.

### Public engagement

BHP is proud of the sustained leadership interest and belief in our commitment to Indigenous peoples. In Minerals Australia, having senior leadership visibly committed to the RAP has helped significantly to cascade down the accountabilities that sit within the RAP across a range of operations and functions.

Our assets are showing a continued commitment to championing Indigenous peoples issues and events such as:

- our Western Australia Iron Ore Asset President and many BHP employees participated in the Walk for Reconciliation during National Reconciliation Week;
- multiple events across Australia to build awareness of the RAP with our workforce;
- the implementation of the Acknowledgement of Country – to be used across all global assets as a standard and respectful act before all significant events and speeches;
- formal recognition of the traditional territories in our Saskatoon office and in all external presentations given by Potash employees;
- participating in an annual ceremony led by the Indigenous Quechua community of Quipisca at our Cerro Colorado operation in Chile;
- celebration of Canada's National Indigenous Peoples Day by recognising the unique heritage, diverse cultures and outstanding contributions of First Nations, Inuit and Métis peoples.

### Respecting customary rights

We seek to identify the customary owners, occupiers and users of land who may be affected by our activities. Following this identification process and collaboration with Indigenous peoples' representative organisations, we may amend work plans to reduce potential impacts on landowners and users.

While our projects are designed to avoid or minimise the resettlement of individuals and communities, if resettlement is required (voluntary or involuntary), we are committed to implement programs consistent with the International Finance Corporation's Performance Standards 5, Land Acquisition and Involuntary Resettlement. This includes acting in a participatory manner that leads to demonstrable improvement in the livelihoods of displaced people or communities.

During FY2018, more than 2,400 of our people who engage with Indigenous peoples from host communities were provided with cultural awareness and competency training.



Case study

**Getting back on Country: Kokatha Pastoral**



The Kokatha people are the Traditional Owners of a large section of the land in the north of South Australia. This includes the land surrounding BHP's Olympic Dam asset and three pastoral stations to the south of Olympic Dam: Roxby Downs, Andamooka and Purple Downs. BHP holds leases over these properties, but the stations have not been in operation for many years.

The Kokatha's Native Title over the area was formally awarded in September 2014, following a 20-year journey to recognition. BHP supported the determination of Native Title and also agreed to award sub-leases over the pastoral stations to the Kokatha people as part of an Indigenous Land Use Agreement (ILUA).

Kokatha are upgrading the infrastructure on the pastoral stations with financial support from BHP. The aim is to return the properties to fully operational cattle stations. Significant progress has been made to date with a major refurbishment to the Roxby Downs Homestead, installation of solar power generation, replacement of fences, cleaning of dams and repairs to other water supply infrastructure. At present, Kokatha attract income to manage its properties through an agistment agreement with Saltbush Ag, owners of the neighbouring Arcoona Station, with plans to purchase its own herd in the future.

**'Getting our people back onto Country is a fantastic outcome. Our people have a strong and ongoing connection to the area, so the sub-leases not only provide us with an opportunity for economic empowerment but also get us back onto the lands, which are an important part of our culture.'**

Kokatha Chairperson, Chris Larkin

**'The pastoral stations provide Kokatha with work readiness education and training to provide access to full-time employment with BHP's Olympic Dam mine or other resource industry operators within the Kokatha footprint to drive towards their long-term goals. I am really proud of the Pastoral team to date and we thank BHP for its ongoing support.'**

Kokatha Pastoral Chairperson, Glen Wingfield



Five Rivers Reserve. Photo: Matthew Newton.

# Climate change

**We manage and minimise greenhouse gas emissions, build resilience of our portfolio to climate change risks, and work to build operational, community and ecosystem resilience to the physical impacts of climate change.**



## **In this section:**

- Climate change as a priority governance issue**
- Reducing our operational emissions**
- Promoting product stewardship**
- Managing risk and opportunity**
- Contributing to the global response**

## Climate change

**Our climate change strategy focuses on reducing our operational greenhouse gas (GHG) emissions, investing in low emissions technologies, promoting product stewardship, managing climate-related risk and opportunity and working with others to enhance the global policy and market response.**



More information on each element of our strategy is available online at [bhp.com/climate](http://bhp.com/climate).

### Climate change as a priority governance issue

Responding to climate change is a priority governance and strategic issue for us. Our Board is actively engaged in the governance of climate change issues, supported by the Sustainability Committee. Management has primary responsibility for the design and implementation of our climate change strategy.

Reducing our operational emissions is a key performance indicator for our business and our performance against our targets (outlined below) is reflected in senior executive and leadership remuneration.

### Stakeholder engagement

Our climate change strategy is supported by active engagement with our stakeholders, including investors, policy makers, peer companies and non-governmental organisations.

We periodically hold one-on-one and group meetings with investors and their advisers. In FY2018, our climate-related investor engagement included meetings held in Australia, the United Kingdom, the United States and South Africa.

We also seek input and insight from external experts, such as the BHP Forum on Corporate Responsibility (FCR). The FCR, which is composed of civil society leaders and BHP executives, has played a critical role in the development of our position on climate change. During FY2018, the FCR met twice, with both meetings including discussion of the delivery of our climate change strategy, including our emissions reduction targets.

Informed by this engagement, we regularly review our approach to climate change in response to emerging scientific knowledge, changes in global climate policy and regulation, developments in low emissions technologies and evolving stakeholder expectations.

### Climate-related financial disclosures

We have participated in CDP (formerly the Carbon Disclosure Project) since its inception. More recently, we were one of the first companies to align our disclosures with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). We believe the TCFD recommendations represent an important step towards establishing a widely accepted framework for climate-related financial risk disclosure and we have been a firm supporter of this work. Our Vice President of Sustainability and Climate Change, Dr Fiona Wild, is a member of the Task Force.

We are committed to continuing to work with the TCFD and our peers in the resources sector to support the wider adoption of the TCFD recommendations and the development of more effective disclosure practices within the sector.



For information on our TCFD-aligned disclosures on climate-related financial risk, refer to our Annual Report 2018, available online at [bhp.com](http://bhp.com).

## Reducing our operational emissions

As a major energy consumer, managing energy use, ensuring energy security and reducing GHG emissions at our operations are key components of our climate change strategy.

### Delivering against our emissions reduction targets

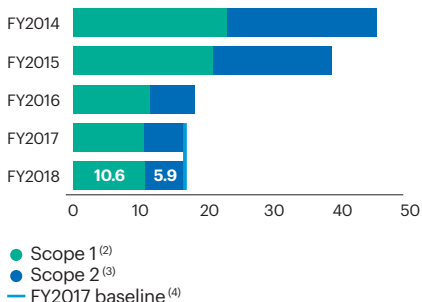
In FY2018, we began working towards a new five-year GHG emissions reduction target. Our new target, which took effect from 1 July 2017, is to maintain our total operational emissions in FY2022 at or below FY2017 levels while we continue to grow our business. Our new target builds on our success in achieving our previous five-year target.

Our operational emissions (Scopes 1 and 2 combined) in FY2018 totalled 16.5 million tonnes of carbon dioxide equivalent (CO<sub>2</sub>-e). This is a one per cent increase compared to the FY2017 baseline, and is primarily due to an increase in Scope 2 emissions from our Minerals Americas business as a result of increased production at our Escondida and Pampa Norte copper assets in Chile, as well as the commissioning of the new Escondida desalination plant.<sup>(1)</sup>

(1) Production-related increases in emissions were partially offset by a change to the electricity emissions factor for Minerals Americas resulting from the interconnection of Chile's northern (mainly fossil fuel-based) and southern (which has a higher proportion of hydropower and other renewables) grid systems.

## Greenhouse gas emissions (Scope 1 and 2) <sup>(1)</sup>

million tonnes CO<sub>2</sub>-e



- (1) Scope 1 and 2 emissions have been calculated on an operational control basis in accordance with the *GHG Protocol Corporate Accounting and Reporting Standard*. Includes data for Continuing and Discontinued operations for the financial years being reported. Comparisons of data over the period shown should note the demerger of South32 during FY2015 (data from FY2015 onwards excludes emissions from assets that were demerged with South32 from the date of completion of the demerger (25 May 2015)).
- (2) Scope 1 refers to direct GHG emissions from operated assets.
- (3) Scope 2 refers to indirect GHG emissions from the generation of purchased electricity and steam that is consumed by operated assets (calculated using the market-based method).
- (4) FY2017 is the base year for our current five-year GHG emissions reduction target, which took effect from FY2018. The FY2017 baseline will be adjusted for any material acquisitions and divestments based on GHG emissions at the time of the transaction; carbon offsets will be used as required. Note that FY2017 was also the final year of our previous five-year target (which we achieved), which was to keep our absolute emissions below an FY2006 baseline (adjusted for material acquisitions and divestments).

In addition to our five-year target, we have set the longer-term goal of achieving net-zero operational GHG emissions in the latter half of this century, consistent with the Paris Agreement.

Our five-year target and our longer-term emissions reduction goal underpin our strategy and are an important driver of internal performance. In FY2019, we will continue to focus on the delivery of our five-year target and defining a pathway to net-zero emissions over the coming decades.



## Investing in low emissions technologies

Defining a pathway to net-zero emissions for our long-life assets requires planning for the long term and a deep understanding of the development pathway for low emissions technologies. Our strategy is to develop emerging and deploy existing technologies that make step-change reductions in GHG emissions, both from our own operations and from the downstream processing and use of our products (as described below).

We have a suite of initiatives currently underway aimed at achieving reductions across our major operational emissions sources:

- **Zero-carbon electricity supply:** emissions from electricity use make up 46 per cent of our operational emissions <sup>(2)</sup>. This includes both the power we generate ourselves and the power we buy from grids around the world. Our strategy seeks to accelerate the transition to lower carbon sources of electricity while balancing cost, reliability and emissions reductions.
- **Zero-carbon material movement:** emissions from fuel and distillate make up 35 per cent of our operational emissions, primarily from the consumption of diesel in the course of material movement (for example haul trucks). Our strategy is to accelerate and de-risk technologies and innovations that can transition operations over time to alternate fuels and greater electrification of mining equipment and mining methods.
- **Fugitive emissions:** fugitive methane emissions from our petroleum and coal assets make up 18 per cent of our operational emissions. Our strategy is to pursue innovation in mitigation technologies for these emissions, which are among the most technically and economically challenging to reduce.

In evaluating low emissions technology investment opportunities, we:

- consider technologies with the potential to deliver results across a range of time horizons;
- emphasise investments that can deliver material GHG savings;
- consider the ability of projects and technologies to leverage our global Operating Model (replicability, scale and market breadth);
- evaluate the potential for building capacity, capability and internal awareness across our business.

As well as helping us to reduce our own emissions, lessons from our low emissions technologies projects will be shared with others in our sector and more broadly. For example, we are participating in the Lakeland Solar and Storage Project, a three-year knowledge sharing partnership to demonstrate connecting large-scale battery storage to a fringe-of-the-grid solar project in regional Queensland, Australia. Outcomes of an extensive test program at Lakeland will provide insight for BHP and the resource sector with respect to security of energy supply. We are also working in collaboration with Australia's national research agency, CSIRO, to scope a project designed to determine the viability of measuring fugitive methane emissions in near real time from open-cut coal mining environments.

(2) Includes Scope 1 emissions from our natural gas-fired power generation as well as Scope 2 emissions from purchased electricity.

## Case study

### Light electric vehicles



Our Olympic Dam asset in South Australia relies on diesel equipment for development, production, ore handling and mine services. A trial is underway to deploy light electric vehicles (LEVs) powered by lithium ion batteries in Olympic Dam's underground fleet.

Data will be collected on the performance, power supply, maintenance support requirements, vehicle utilisation (charging time) and corrosion resistance of the vehicles during the 12-month trial period.

As well as reducing GHG emissions, LEVs can also lower operating costs and reduce worker exposure to diesel particulate matter (DPM). The trial is part of a broader initiative aimed at reducing DPM exposure to the lowest level technically feasible, in accordance with our occupational exposure limit.

In FY2019, a decision will be made on the full roll-out of LEVs to Olympic Dam's underground fleet. Knowledge gathered during the trial will also be shared within BHP to identify opportunities to accelerate the deployment of LEVs to reduce GHG emissions, DPM exposure and costs across our business.

A community of practice has been established to facilitate effective knowledge sharing. Additional studies are underway to assess the feasibility of electrifying other types of vehicles and mobile equipment, including at the Broadmeadow underground coal mine in Queensland, the Jansen Potash Project in Canada and at Western Australia Iron Ore.



## Promoting product stewardship

While reducing our operational emissions is vital, emissions from our value chain (Scope 3 emissions) are significantly higher than those from our own operations. We recognise that we have a stewardship role in working with our customers, suppliers and other value chain participants to seek to influence emissions reductions across the full life cycle of our products.

### Managing our value chain emissions

In FY2018, Scope 3 emissions in our value chain were 596 million tonnes of CO<sub>2</sub>-e. The most significant contributors to this total were emissions from the downstream processing and use of our products, which accounted for around 97 per cent of total Scope 3 emissions. In particular, Scope 3 emissions emanating from the steelmaking process (the processing and use of our iron ore and metallurgical coal) accounted for over 65 per cent of the total.

During FY2019, we will work to develop a more comprehensive approach to understanding, managing and communicating climate-related opportunities and risks across our value chain. This will include activities aimed at improving how we measure and track Scope 3 emissions in our value chain and identifying additional opportunities to work with others in our value chain to influence emissions reductions.



More information on Scope 3 emissions associated with our business and the methodologies used to calculate them is available online at [bhp.com/climate](http://bhp.com/climate).

## Greenhouse gas emissions (Scope 3)<sup>(1)</sup>

Scope 3 category	FY2018 emissions (million tonnes CO <sub>2</sub> -e)
Processing of sold products <sup>(2)</sup>	322.6
– Iron ore to steel	317.4
– Copper cathode to copper wire	5.2
Use of sold products	253.8
– Metallurgical coal	112.3
– Energy coal	71.0
– Natural gas & natural gas liquids (NGLs)	40.9
– Crude oil & condensates <sup>(3)</sup>	29.6
Upstream and downstream transportation and distribution	8.6
Other Scope 3 <sup>(4)</sup>	11.4
<b>Scope 3 total<sup>(5)</sup></b>	<b>596.4</b>

- (1) Scope 3 refers to all other indirect GHG emissions (not included in Scope 2) from activities across our value chain, including upstream emissions related to the extraction and production of purchased materials and fuels; downstream emissions related to the processing and use of our products; both upstream and downstream transportation and distribution; and emissions from our non-operated joint ventures. Scope 3 emissions have been calculated using methodologies consistent with the *GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard*.
- (2) All iron ore production is assumed to be processed into steel and all copper metal production is assumed to be processed into copper wire for end-use. Processing of nickel, zinc, gold, silver, ethane and uranium oxide is not currently included, as production volumes are much lower than iron ore and copper and a large range of possible end uses apply. Processing/refining of petroleum products is also excluded as these emissions are considered immaterial compared to the end-use product combustion reported in the 'Use of sold products' category.
- (3) All crude oil and condensates are conservatively assumed to be refined and combusted as diesel.
- (4) Includes upstream emissions from purchased goods and services (including capital goods); fuel and energy related activities; business travel; and employee commuting. Also includes emissions from investments (i.e. the Scope 1 and 2 emissions (on an equity basis) from assets that are owned as a joint venture but not operated by BHP).
- (5) There is an element of double counting across emissions categories for our iron ore and metallurgical coal products; both are used in the same process (steelmaking) further downstream, which inflates the total Scope 3 emissions figure.

## Sustainable shipping

BHP is one of the largest global shippers of bulk commodities. Emissions resulting from the transportation and distribution of our products represent a material source of Scope 3 emissions. We are working on initiatives to reduce our freight emissions and seek to drive change more broadly within the shipping industry.

In order to control the emissions from the vessels we charter, we first need to understand them. Over the last few years we have collaborated with RightShip to develop a calculation methodology for measuring a vessel's GHG emissions. RightShip is a leading maritime risk management and environmental assessment organisation equally owned by BHP, Rio Tinto and Cargill. Using this calculation methodology, the Existing Vessel Design Index (EVDI), we can now measure, benchmark and track emissions performance across the freight associated with our business.

Based on the EVDI, a practical GHG emissions rating on an A to G scale has also been developed for use across the industry. This allows transparent comparison of a ship's emissions performance relative to vessels of a similar size and type. As part of our commitment to sustainable shipping, in FY2018 we decided not to accept (almost without exception) vessels with the lowest F and G ratings.

As an early adopter of the RightShip rating in our vessel vetting criteria, we are already seeing the impact on the Scope 3 emissions profile for transport and distribution.

There are a number of examples where application of our vetting criteria has resulted in significant reductions in GHG emissions for individual voyages. For example, for a voyage involving approximately 180,000 tonnes of iron ore being shipped from Port Hedland to China, an F-rated vessel was rejected and an A-rated vessel was selected. In this case, the selection of a more efficient vessel resulted in an emissions saving of over 400 tonnes CO<sub>2</sub>-e, or 23 per cent of the total voyage emissions.

We have also started to see a response from the shipping industry. Examples of actions taken by our strategic partners (ship owners) include:

- A US-based ship owner, which operates 17 vessels, has engaged with its main engine manufacturer to carry out engineering modification to reduce emissions.
- A Greece-based ship owner, which operates over 40 vessels, has carried out a variety of technical adjustments to reduce emissions, including limiting engine power output, installing propulsion improvement devices and applying advanced silicon paints.

## Accelerating the development of carbon capture and storage

We are working in partnership with others across our value chain to accelerate the development of technologies with the potential to reduce emissions from the processing and use of our products. Carbon capture and storage (CCS) is a key low emissions technology with the potential to play a pivotal role in reducing emissions from industrial processes, such as steel production, as well as emissions from the power sector and from oil and gas production.

While we recognise that progress is required in developing policy frameworks to support the wider deployment of this technology, our CCS investments and partnerships focus on mechanisms to reduce costs and accelerate development timeframes. Our investments include activities aimed at knowledge sharing from commercial-scale projects, development of sectoral deployment roadmaps and funding for research and development at leading universities and research institutes.

For example, we established the International CCS Knowledge Centre to share lessons from SaskPower's Boundary Dam CCS project in Saskatchewan, Canada. We are working with Peking University and other partners to identify the key policy, technical and economic barriers to CCS deployment in the industrial sector, with a particular focus on the iron and steel industry in China. We have also established a research collaboration between the University of Melbourne, University of Cambridge and Stanford University to support fundamental research into the long-term storage mechanisms of CO<sub>2</sub> in sub-surface locations.

## Managing risk and opportunity

We recognise the physical and non-physical impacts of climate change may affect our assets, productivity, the markets in which we sell our products and the communities in which we operate. Risks related to the physical impacts of climate change include acute risks resulting from increased severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns. Non-physical risks arise from a variety of policy, legal, technological and market responses to the challenges posed by climate change and the transition to a lower carbon economy.

A broader discussion of our climate-related risk factors and risk management approach is provided as part of our TCFD-aligned disclosures in our Annual Report 2018 and online at [bhp.com](http://bhp.com).

## Adapting to the physical impacts of climate change

We take a robust, risk-based approach to adapting to the physical impacts of climate change. We work with globally recognised agencies to obtain regional analyses of climate science to inform resilience planning at an asset level and improve our understanding of the potential climate vulnerabilities of our operations and host communities.

Our operations are required to build climate resilience into their activities through compliance with the *Our Requirements for Environment and Climate Change* standard. We also require new investments to assess and manage risks associated with the forecast physical impacts of climate change. As well as this ongoing business resilience planning, we continue to look at ways we can contribute to community and ecosystem resilience.

We recognise the body of scientific knowledge about the potential impacts of climate change is rapidly expanding and, in FY2019, we will undertake a review of our adaptation approach in light of the latest climate science.

## Evaluating the resilience of our portfolio

We consider the impacts of climate change in our strategy process. We recognise the world could respond in a number of different ways to address climate change. We use a broad range of scenarios to consider how divergent policy, technology, market and societal outcomes could impact our portfolio, including low plausibility, extreme shock events. We also continually monitor the macro environment for climate change-related developments that would serve as a call to action for us to reassess the resilience of our portfolio.

Our investment evaluation process includes an assessment of non-quantifiable risks such as those that could impact the people and the environment that underpin our licence to operate. The process has also incorporated market and sector based carbon prices for more than a decade.

Our Climate Change: Portfolio Analysis (2015) and Climate Change: Portfolio Analysis – Views after Paris (2016) reports, which are available online at [bhp.com/climate](http://bhp.com/climate), describe in more detail how we have used scenario analysis to evaluate the resilience of our portfolio to both an orderly and a more rapid transition to a 2°C world.

We are committed to keeping our stakeholders informed of the potential impact of climate change on our business, and continue to review and consider developing best practices and evolving stakeholder expectations. Following the release of the TCFD recommendations, in FY2019 we will also review our approach to the public disclosure of this ongoing work.



## Contributing to the global response

Climate change is a global challenge that requires collaboration. We prioritise working with others to enhance the global policy and market response.

### Supporting the development of effective climate and energy policy

Industry has a key role to play in supporting policy development. We engage with governments and other stakeholders to contribute to the development of an effective, long-term policy framework that can deliver a measured transition to a lower carbon economy.

We believe an effective policy framework should include a complementary set of measures, including a price on carbon, support for low emissions technology and measures to build resilience. We are a signatory to the World Bank's 'Putting a Price on Carbon' statement and a partner in the Carbon Pricing Leadership Coalition, a global initiative that brings together leaders from industry, government, academia and civil society with the goal of putting in place effective carbon pricing policies.

We also advocate for a framework of policy settings that will accelerate the deployment of CCS. We are a member of the Global CCS Institute and, in FY2018, we joined the UK Government's newly formed Council on Carbon Capture Usage and Storage (CCUS).

We contribute to policy reviews throughout our global operating regions. For example, we made submissions in response to the Australian Government's 2017 Review of Climate Change Policies and Independent Review into the Future Security of the National Electricity Market (Finkel review) and its 2018 Consultation on the operation of the Emissions Reduction Fund Safeguard Mechanism. We also engaged with the Australian Energy Security Board in FY2018, both directly and through our industry association memberships, on the design of the National Energy Guarantee.

### Industry association membership

We believe industry associations have the capacity to play a key role in advancing the development of standards, best practices and constructive policy that are of benefit to members, the economy and society. We also recognise there is increasing stakeholder interest in the nature and role of industry associations and the extent to which the positions of industry associations on key issues are aligned with those of member companies.

During FY2018, we completed a review of our membership of those industry associations that hold an active position on climate and energy policy. Our industry association review report, published in December 2017, sets out a list of the material differences between the positions we hold on climate and energy policy and the advocacy positions on climate and energy policy taken by industry associations to which we belong. It also describes the outcomes of the review of our membership of those industry associations. In light of the material difference identified by the review and the narrow range of activities of benefit to BHP from membership, we determined to cease membership of the World Coal Association (WCA).



More information on our approach to industry associations, including the industry association review report, is available online at [bhp.com](http://bhp.com).

## Promoting market mechanisms to reduce global emissions

In addition to measures to reduce our own emissions, we support the development of market mechanisms that reduce global GHG emissions through projects that generate carbon credits.

Our climate change strategy includes a focus on reducing emissions from deforestation through support for REDD+, the UN program for reducing emissions from deforestation and forest degradation. For example, in partnership with the International Finance Corporation (IFC) and Conservation International (CI) we developed a first-of-its-kind US\$152 million Forests Bond, issued by the IFC in 2016. We provide a price-support mechanism for the bond, which supports the Kasigau Corridor REDD project in Kenya. During FY2018, we purchased additional carbon credits from the Kasigau Corridor project and continued our support of the Alto Mayo REDD+ project in Peru.

In partnership with CI and Baker McKenzie, in FY2018, we launched the Finance for Forests (F4F) initiative, which aims to share our experiences to help encourage replication of these investments and the exploration of other innovative private finance tools to conserve forests and further advance REDD+. We co-hosted (along with CI and Baker McKenzie) F4F roundtables in the United States and the United Kingdom, which were attended by representatives of the public, private and philanthropic sectors.

In FY2019, we will continue to deliver our REDD+ strategy and plan to collaborate with others to scope our next project investment. We are also exploring investments in 'blue' carbon, the carbon captured in coastal and marine ecosystems.



Kasigau Corridor in Kenya.



## Protecting the environment

We focus on minimising and mitigating our impact on water, land, air quality and biodiversity, and working with stakeholders on effective solutions to complex environmental challenges.



### In this section:

- Minimising environmental impacts
- Our environmental performance
- Contributing to a resilient environment
- Dams and tailings management

## Protecting the environment

**Pressure on land and water resources is growing, amplified by climate change. Maintaining the right to access these resources relies on our ability to demonstrate responsible management and contribute to a resilient environment. We do this by minimising the environmental impacts from our activities and by working in partnership with others to support environmental resilience.**

### Minimising environmental impacts

We recognise our operations inherently impact the environment. BHP has comprehensive governance, risk management, policies and processes to help reduce that impact.

#### Protecting threatened environments

We are committed to not conducting operations in areas where the risk of impacts on threatened environments from mining would be too great. Our commitments are:

- We do not explore or extract resources within the boundaries of World Heritage-listed properties.
- We do not explore or extract resources adjacent to World Heritage-listed properties, unless the proposed activity is compatible with the World Heritage outstanding universal values.
- We do not explore or extract resources within or adjacent to the boundaries of the International Union for Conservation of Nature (IUCN) Protected Areas Categories I to IV, unless a plan is implemented that meets regulatory requirements, takes into account stakeholder expectations and contributes to the values for which the protected area is listed.
- We do not operate where there is a risk of direct impacts to ecosystems that could result in the extinction of an IUCN Red List Threatened Species in the wild.
- We do not dispose of mined waste rock or tailings into a river or marine environment.

#### The mitigation hierarchy

The mitigation hierarchy is an approach that helps us to minimise, and if necessary compensate for, potential environmental impacts. The first two steps of the hierarchy – avoid and mitigate – seek to prevent any adverse impacts, as far as possible. The second two steps – rehabilitate and compensate – seek to reduce the effect of those impacts.

Our assets are required to put in place controls and plans that reflect the mitigation hierarchy.

Avoid	Mitigate	Rehabilitate	Compensate
Avoid negative impacts to the environment within our area of influence.	Minimise the severity of any unavoidable impact.	Rehabilitate disturbed areas that are no longer required for operational purposes, including closed mines. See Rehabilitation and closure on page 60 for more information.	Implement appropriate, effective and enduring compensatory measures for any residual impacts.

### Environmental management

BHP's approach to environmental management is set out in the *Our Requirements for Environment and Climate Change* and *Our Requirements for Risk Management* standards. These standards have been designed taking account of the ISO management system requirements, such as ISO14001 for Environmental Management. The *Our Requirements* standards also include specific minimum performance standards in a number of areas.

Compliance with the *Our Requirements* standards is checked by our internal audit processes, which are designed to cover operating sites at our assets on a two-year rotation. External assurance of this Sustainability Report reviews the data and processes referenced, through a sampling of asset sites based on materiality and a rotation of coverage across successive years.

### Our environmental performance

Progress against our five-year and longer-term environmental targets for water and biodiversity in the past year, as well as other key environmental stewardship activities, is outlined below. A particular priority in FY2018 was to advance a global strategy for BHP on water stewardship. To enable us to achieve our targets, our people have been identifying and implementing on-ground improvement projects and investigating technology solutions that will assist them to monitor and reduce potential environmental impacts. We are also increasingly looking for opportunities to collaborate with governments, communities and other industries to share information and enable effective collective action.

While no significant environmental events occurred at any BHP operated assets in FY2018, activities are ongoing to address the significant environmental impacts of the tailings dam failure at our non-operated joint venture, Samarco, in November 2015 (see page 19).

#### Supporting biodiversity

BHP owns or manages more than 10 million hectares of land, with just over 1.5 per cent of it disturbed for operations. Our activities on this land have inherent risks for land, marine and aquatic biodiversity. We are committed to reducing those risks and to contributing to a resilient environment beyond the immediate areas of our operations.

We have a five-year target to improve marine and terrestrial biodiversity outcomes by developing a framework to evaluate and verify the benefits of our actions, in collaboration with others. In FY2018, we commenced development of that framework through collaborations with Conservation International and also with Proteus, a voluntary partnership between the United Nations Environment World Conservation Monitoring Centre (UNEP-WCMC) and 12 extractive industry companies. The utility of the proposed approach is being piloted using data from selected BHP sites in each region and from one of our social investment projects. The framework will be used to measure BHP's achievement of our longer-term biodiversity goal: 'in line with United Nations Sustainable Development Goals (UN SDGs) 14 and 15, BHP will, by FY2030, have made a measurable contribution to the conservation, restoration and sustainable use of marine and terrestrial ecosystems in all regions where we operate.'

In FY2019, we will continue to develop the biodiversity measurement framework with our conservation partners and actions to support effective progressive rehabilitation and closure activities.

BHP also looks for opportunities to improve the conservation, restoration and sustainable use of marine and terrestrial ecosystems in all regions in which we operate, both through our own activities and in collaboration with others. In FY2018, our Petroleum business partnered with Pemex to appraise the

Trion field and explore for additional opportunities in the Gulf of Mexico. As the first foreign company to operate in the deepwater offshore from Mexico, BHP has been working with the Mexican Government as it develops its offshore petroleum regulatory framework, by sharing leading practice environmental guidance from networks such as IPIECA (the global oil and gas industry association for environmental and social issues) and the International Association of Oil and Gas Producers.

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## Rehabilitation and closure

Closure of part or all of an operation brings with it potentially significant financial, environmental and social impacts. Recognising this, in FY2017, BHP developed a new *Our Requirements* standard for closure. The new standard will apply to exploration, projects and operational or closure activities for all our sites, including both our operated assets and non-operated assets (where commercial terms allow). The standard will also apply to our investment or divestment decisions. It is a clear, simple and consistent framework for our entire portfolio that will help BHP make risk-based and strategically aligned decisions regarding closure.

BHP considers the entire life cycle of our assets, including closure, in our planning and decision-making. Our assets are required to develop a closure plan, including a financial assessment, to minimise closure-related risks over the life of the asset. Our Internal Audit and Advisory function tests the effectiveness of these plans, with findings reported to senior operational leaders and summary reports provided to the Risk and Audit Committee.

In the past, the resources industry has tended to focus largely on environmental impacts when considering rehabilitation and closure. Recognising that returning to a pre-disturbed state is not always the best option (and often is not possible), our closure standard focuses on achieving an 'optimal closure outcome', in consultation with local communities and other stakeholders. That outcome may include not only environmental rehabilitation, but also recreational or other community uses, or further economic opportunities. Where appropriate, we would also consider divestment and relinquishment.

One example of an alternative land use is currently being investigated by BHP's North American Closed Sites team. The team has been partnering with the Rocky Mountain Institute to identify sites with the potential for installation of independent solar or wind power plants, supporting both the environment and local communities. A site in Arizona and a site in New Mexico progressed to design and permit phases in FY2018.

Our standards also require us to minimise the potential of adverse environmental impacts following closure. Our closed sites are required to have closure management plans, with long-term monitoring to verify that controls are effective and performance standards are maintained.

Rehabilitation of areas no longer required for operational purposes is also a priority and we regularly reassess our approach for opportunities to improve. In FY2018, the rehabilitation and closure strategies for Minerals Australia's iron ore and coal assets were progressed. Improved alignment between planning and operations supported the delivery of more than 700 hectares of rehabilitation in FY2018.

BHP also invests in long-term research activities to better understand critical success factors for progressive rehabilitation and closure. An example of this includes the Restoration Seed bank initiative, a five-year partnership that commenced in 2013 between Western Australia Iron Ore, the University of Western Australia and the Botanic Gardens and Parks Authority, to address science, knowledge and technical skill gaps to cost-effective and scalable rehabilitation in the Pilbara.

In FY2018, BHP responded to the Australian Government's Senate Inquiry on rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities, including organising a site visit following a request by the Committee.



Information about BHP's financial provisions related to closure liabilities is available in our Annual Report 2018, available online at [bhp.com](http://bhp.com).

## Case study

## Supporting biodiversity through innovation



Motus towers used to track Ghost Bats, Pilbara Leaf-nosed Bats and Northern Quolls. Photo: Brendan Stratton, BHP.

BHP undertakes long-term biodiversity assessments prior to new operations. One of the inputs into the regulatory approvals to develop the South Flank Mine at Western Australia Iron Ore was a comprehensive Strategic Environmental Assessment (SEA) that considered our Pilbara footprint for the next 50 to 100 years.

Subterranean invertebrate fauna – microscopic animals called stygofauna and troglifauna that live in small spaces below the ground's surface – were identified as species that could be impacted by mining and mine dewatering activities. These fauna show high species diversity and localised occurrence, so detailed mapping of subterranean habitats and fauna, including a collaborative modelling project between BHP and Australia's national research agency, CSIRO, was undertaken to assess potential impacts and appropriate management actions to avoid or minimise those impacts.

The ghost bat (*Macroderma gigas*) was identified as another species potentially impacted by the development of the mine. The ghost bat was listed as a 'Matter of National Environmental Significance' under Australian Federal legislation in 2016. A comprehensive research program with government departments and universities has been underway since 2010. Research has included the use of novel technologies, such as 3D laser mapping of caves, infra-red lit high-speed video and genetic analysis of scat materials. In FY2018, the program introduced the use of the Motus ([www.motus.org](http://www.motus.org)) wildlife tracking system radio telemetry, its first application in Australia. The data obtained from these studies has been used to mitigate impacts to the species, through modification of mine plans to reduce potential disturbance to ghost bat colonies and the construction of two artificial roosts ahead of mine development in the coming year. BHP's long-term investment in understanding this species will contribute to broader scale management of this important species in the Pilbara.

## Towards water stewardship

Water is essential to life, and plays a central spiritual, cultural, recreational, ecological and economic role in every landscape. Access to clean, safe water is a basic human right, vital for health and wellbeing and central to the eradication of poverty. A sustainable, unpolluted water supply is critical to the health of the environment on which we all depend.

Water is also critical to our business. Our total water inputs<sup>(1)</sup> in FY2018 from ground, surface and sea waters was 345,710 megalitres. It's also a crucial resource for other enterprises and industries, and, without a secure supply of water, whole economies cannot function.

The United Nations has declared 2018–2028 as the action decade for water – a focus that BHP fully supports. While we have reported our water withdrawals and discharges for more than 15 years, we have the opportunity to learn from past performance and pursue continuous improvement as our understanding of water-related risks continues to evolve. Together with our stakeholders, we intend to advocate for transparent, socially equitable, environmentally sustainable and economically beneficial governance of water.

We recognise we need to start at home in our operations, to build a foundation from which we can credibly contribute. We all must work more cooperatively to effectively balance multiple needs and safeguard water supplies for future generations.

Transparency through appropriate disclosure of water use, performance and interactions across all sectors is critical to effective water governance. In August 2018, BHP published our inaugural Water Report: a first step towards more accessible and transparent reporting of our interactions with water – from extraction to use and discharge – and of our water-related performance and risks. The Report is available online at [bhp.com](http://bhp.com).

The water stewardship priority supports our longer-term goal for water: 'in line with SDG 6, BHP will collaborate to enable integrated water resource management in all catchments where we operate by FY2030'. We also have a five-year target to reduce FY2022 fresh water withdrawal<sup>(2)</sup> by 15 per cent from FY2017 levels<sup>(3)</sup>. In FY2018, we achieved a two per cent reduction of fresh water withdrawal from FY2017 levels. This was largely attributable to the commissioning of the desalination plant at Escondida and the reduction of reliance on the region's aquifers.

## Reducing air emissions

We manage and monitor our air emissions at source to reduce the potential for impacts on surrounding communities and ecosystems. In some locations, impacts can be influenced by other activities in the area, including adjacent mining or petroleum operations.

Technology has an important role in minimising air emissions. In our Petroleum operations, we are increasingly applying detection technologies, such as optical gas imaging and drones, to detect and address fugitive methane emissions. Through our membership of One Future ([onefuture.us](http://onefuture.us)), a group of natural gas companies collaborating to reduce methane emissions across the natural gas supply chain, BHP is committed to achieving an average rate of emissions of one per cent (or less) of total produced and delivered natural gas. This is the point at which natural gas clearly maintains its greenhouse gas benefits over other fossil fuels.

At our mining operations in Australia and Chile, we utilise real-time air monitoring networks to provide live feedback to operations on the potential for off-site dust impacts. This allows operations to make real-time adjustments to production and dust mitigation activities in response to changes in weather, product properties, or combined impacts from adjacent operations. In some instances, this data can also be shared with community and regulatory authorities to provide visibility on our air emissions performance and effectiveness of mitigation actions.

## Contributing to a resilient environment

We look beyond our own operations for opportunities to contribute to environmental resilience. We support the conservation and sustainable use of natural environments for the benefit of future generations through community engagement, strategic partnerships and voluntary investment in projects through our Social Investment Framework.

Since 2011, we have committed more than US\$60 million to biodiversity conservation through our alliance with Conservation International and with other partners. This was in addition to the environmental management activities at our assets. Our investments with Conservation International include the Five Rivers Conservation Area in Tasmania, Australia, Valdivian Coastal Reserve in Chile, Raine Island in Queensland, Australia, Alto Mayo in Peru and the Kasigau Corridor in Kenya. These contributions have contributed to the conservation of more than 620,000 hectares of land and 16 threatened species, improved the livelihoods of around 2,500 people and protected watersheds that provide more than 900 million cubic metres of fresh water in Chile and Australia. As sustainable financing is an important aspect of conservation projects, endowments were established at the Five Rivers Conservation Area and the Valdivian Coastal Reserve towards this objective.

During FY2018, we commenced a new project in the US state of Louisiana, partnering with the America's Wetlands Foundation and Resource Environmental Solutions on the Terrebonne Biodiversity and Resilience Programme. Over six years, BHP will invest more than US\$3 million towards the restoration of cypress-tupelo swamp habitat and protective marsh terraces. These works will support water quality improvement, fisheries enhancement, erosion protection and flood protection, as well improve carbon sequestration in the wetlands.

In Australia, we renewed our partnership with the Australian Government supporting Bush Blitz, which involves scientific surveys and species discovery by specialist taxonomists, Indigenous communities, rangers, landowners, teachers, students and BHP employees. Together they are making an extraordinary contribution to the protection of Australia's natural heritage. In the last eight years, Bush Blitz has recorded around 45,000 plants and animals (many of them threatened species) and discovered more than 1,700 new species.

In FY2019, we plan to continue our support for ongoing social investments and seek further projects where BHP can contribute to the management of areas of national or international conservation significance.

(1) Refer to the *Water accounting* section of the BHP Water Report 2018 for the definition of water inputs.

(2) Withdrawal is defined as water withdrawn and intended for use (in accordance with 'A Practical Guide to Consistent Water Reporting', ICMM (2017)); and we define 'fresh water' as water other than sea water, irrespective of quality.

(3) FY2017 baseline for the purposes of this target has been adjusted to account for the materiality of the strike affecting water withdrawals at Escondida in FY2017.



## Dams and tailings management

Tailings management involves addressing risks such as increased fresh water use in mine production due to water losses in the tailings facility, groundwater impact due to seepage and potential consequences of a tailings dam failure.

Following the failure of Samarco's Fundão tailings dam on 5 November 2015 (see page 19), we have sought to enhance our tailings management governance and risk assessment processes.

In addition to our regular annual risk assessments, we performed dam safety reviews following the procedures recommended by the Canadian Dam Association for significant active, inactive and closed tailings facilities across our business. The reviews included a thorough evaluation of risks associated with the tailings facilities and implementation of the recommendations is currently in progress. No significant deficiencies that represent an immediate threat to the stability of the dams have been identified. The monitoring systems at all sites have been reviewed, and supplemented where significant deficiencies had been identified. The monitoring systems at all sites will continue to be improved as a part of the critical controls design, and as new instruments and methods are being identified. Funding has been provided to several universities to develop early warning technologies and improve the industry's knowledge of liquefaction.

Progress has been made in working with vendors on testing and development of advanced tailings dewatering methods. BHP funded a trial of the FLSmidt Colossal filter at our Escondida asset in Chile to evaluate the performance of this tailings filter press; the largest ever developed. In addition, we performed trials of a range of tailings dewatering equipment at our Queensland Coal operations.

Improvements to the governance process include:

- appointment of a Global Practice Lead Tailings, who provides centralised governance and technical expertise;
- appointment of Responsible Dam Engineers and Dam Owners for all active and most inactive or closed tailings dams, and high-risk water dams. Responsible Dam Engineers are accountable for coordinating all tailings management activities and Dam Owners provide a single point of accountability for tailings management;
- appointment of external Engineers of Record for all active and most inactive or closed tailings dams and high-risk water dams;
- development of internal governance procedure covering all activities related to the management of active, inactive or closed tailings dams.

Designs and major studies for tailings dams are being reviewed by an independent third party, until Tailings Stewardship Boards are established and can undertake reviews for all active and most inactive and closed tailings dams. A trial of the stewardship program has been completed at our Olympic Dam asset in South Australia, and a plan for the implementation of the program has been developed with a goal of completion by the end of FY2019. An important component of the program is providing site-specific training for the tailings dam operators on a regular basis.

Our focus for FY2019 will be on:

- appointing Engineers of Record to the remaining tailings dams and significant water dams;
- completing implementation of the stewardship program for all active and some inactive and closed tailings dams and high-risk water dams;
- working closely with universities and other organisations on advancing new monitoring and dewatering technologies.



Nickel West, Mount Keith operation.

# Appendix

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# Performance data: People <sup>(1)</sup>

## Workforce data by region

	Fatalities	TRIF	Employee occupational illness incidence	Contractor occupational illness incidence	Average absenteeism rate (hours per employee per hour) <sup>(2)</sup>	Average number (and %) of employees <sup>(3)</sup>	Average number (and %) of contractors <sup>(4)</sup>
Asia	0	0	0	0	33.19	1,368 5.04%	195 0.55%
Australia	1	6.0	4.35	2.78	75.61	16,504 60.76%	21,267 60.22%
Europe	0	0	0	0	13.83	70 0.26%	3 0.01%
North America	1	2.1	0	0.44	36.61	2,490 9.17%	1,329 3.76%
South America	0	1.8	5.19	0.85	60.49	6,729 24.77%	12,521 35.46%
<b>Total</b>	<b>2</b>	<b>4.4</b>	<b>4.18</b>	<b>1.92</b>	<b>67.00</b>	<b>27,161 100.00%</b>	<b>35,315 100.00%</b>

## Regional safety fines levied

	FY2018	Number of fines
Australia	US\$310,479	1
North America	US\$1,000	1
South America	US\$24,356	3

## Employees by Gender and Employment Type

	Total %	Male %	Female %
Full-time	95.24	80.19	19.81
Part-time	2.52	52.21	47.79
Fixed term full-time	2.18	43.29	56.71
Fixed term part-time	0.04	30.77	69.23
Casual	0.02	50.00	50.00
<b>Total</b>	<b>100.00</b>	<b>78.65</b>	<b>21.35</b>

## Employee by region and gender

	Male %	Female %
Asia	40.58	59.42
Australia	80.30	19.70
Europe	51.67	48.33
North America	69.76	30.24
South America	85.34	14.66
<b>Total</b>	<b>78.65</b>	<b>21.35</b>

## Employee by Category and Diversity <sup>(5)</sup>

	Total %	Gender %		Age Group %				Average Basic Salary US\$	Average Total Remuneration US\$
		Female	Male	Under 30	30-39	40-49	Over 50	Ratio male to female	Ratio male to female
Senior Leaders	0.94	23.34	76.66	0.00	11.46	54.86	33.68	1.05	1.08
Managers	3.06	27.55	72.45	0.96	30.98	46.41	21.65	1.09	1.14
Supervisory and professionals	38.89	28.58	71.42	13.01	40.81	29.28	16.90	1.19	1.25
Operators and general support	57.11	16.06	83.94	15.19	31.28	29.29	24.23	1.28	1.32
<b>Total</b>	<b>100.00</b>	<b>21.35</b>	<b>78.65</b>	<b>13.77</b>	<b>34.79</b>	<b>30.05</b>	<b>21.39</b>	<b>1.10</b>	<b>1.15</b>

## Employee new hires and turnover

	Total	Gender		Age Group				Region				
		Male	Female	Under 30	30-39	40-49	Over 50	Asia	Australia	Europe	North America	South America
Employee new hires	4,039	1,698	2,341	1,473	1,505	743	318	492	2,781	10	119	637
	<b>13.26%</b>	<b>7.09%</b>	<b>35.99%</b>	<b>35.11%</b>	<b>14.20%</b>	<b>8.11%</b>	<b>4.88%</b>	<b>35.91%</b>	<b>14.00%</b>	<b>16.00%</b>	<b>4.59%</b>	<b>9.66%</b>
Employee turnover	2,534	1,749	785	581	841	649	463	152	1,648	8	329	397
	<b>8.32%</b>	<b>7.30%</b>	<b>12.07%</b>	<b>13.85%</b>	<b>7.94%</b>	<b>7.09%</b>	<b>7.11%</b>	<b>11.12%</b>	<b>8.30%</b>	<b>14.00%</b>	<b>12.71%</b>	<b>6.02%</b>

## Remuneration<sup>(6)</sup>

	Average basic salary US\$	Average total remuneration US\$	Total remuneration	Salary increase	Ratio standard entry level wage to local minimum wage	
	Ratio male to female	Ratio male to female	Ratio highest paid individual to median	Ratio highest paid individual to median	Female	Male
Asia	1.88	2.10	64:1	–	3.82	3.74
Australia	1.11	1.15	54:1	–	1.83	2.08
Europe	1.10	1.11	8:1	1:1	2.81	2.91
North America	1.25	1.33	22:1	–	4.64	5.61
South America	0.88	0.96	111:1	–	2.71	3.60
<b>Total</b>	<b>1.10</b>	<b>1.15</b>				

- (1) Proportional data in our People section are based on the average of the number of employees at the last day of each calendar month for a 10-month period which is then used to calculate an average for the year to 30 June. The exception is the average number (and %) of employees in data table by region which shows the weighted average number of employees based on BHP ownership. There is no significant seasonal variation in employment numbers.
- (2) Absenteeism comprises Sick Leave, Hospitalisation Leave, Injury on Duty, Short Term Disability, Unauthorised Absence, Industrial Action, Union Absence, Unpaid Absence, and Workers' Compensation. Additionally, in FY2018, 1,521 employees made use of parental leave, of which 36.69 per cent were women and 63.31 per cent were men. 96.16 per cent of males and 95.88 per cent of females returned to work following parental leave.
- (3) For UK law purposes, we are required to show information for 'senior managers', which are defined to include both senior leaders and any persons who are directors of any subsidiary company, even if they are not senior leaders. In FY2018, 290 senior leaders comprised the top people in the organisation. There were 15 Directors of subsidiary companies who are not senior leaders, comprising 13 men and 2 women. Therefore, for UK law purposes, the total number of senior managers was 235 men and 70 women (23 per cent women) in FY2018. In FY2018, 90 per cent of our people worked in their country of nationality, including 62 per cent of our senior leaders. Senior leaders are defined as organisational levels A–D. A number of our assets have practices to hire people from the local community.
- (4) Contractor data is collected from internal surveys and 1 SAP from July 2017 to April 2018 and averaged for a 10-month period.
- (5) As at 30 June 2018 the Boards of our significant subsidiary companies have 49 Directors comprising 18 per cent women, 11 nationalities, and 53 per cent are aged between 40 and 49 years.
- (6) Remuneration:
- Contractors are excluded from the report.
  - The highest paid individual in each significant region has been excluded from the median determination.
  - The highest paid individuals in each region with the exception of Europe did not receive a salary increase in FY2018.
  - Salary increases do not include promotional increases.
  - Individuals classified as entry level are those in an Operators and General Support role, and have been with the organisation for less than one year.
  - Minimum wage is determined for all locations except for Singapore and Switzerland, as they do not have a minimum wage mandated by the government.

## Performance data: Society

### Community complaints

	2018	Country	Operations located in or adjacent to Indigenous peoples' territories	Operations with formal agreements with Indigenous communities
Dust	16	Australia	26	12
Noise	11	Canada	1	1
Odour	3	Chile	2	2
Other	41			

## Performance data: Environment

		2018	2017 <sup>(1)</sup>
<b>Land<sup>(2)</sup></b>			
Land owned, leased or managed	hectares	<b>10,001,500</b>	10,225,900
– Land disturbed	hectares	<b>141,500</b>	134,700
– Land rehabilitated <sup>(3)</sup>	hectares	<b>27,180</b>	26,100
– Land set aside for conservation <sup>(3)</sup>	hectares	<b>28,000</b>	28,000
<b>Water<sup>(4)</sup></b>			
<b>Inputs</b>			
Water input by quality – Type 1	megalitres	<b>28,940</b>	26,460
Water input by quality – Type 2	megalitres	<b>52,700</b>	55,470
Water input by quality – Type 3	megalitres	<b>264,070</b>	174,190
Water input by source – Surface water <sup>(5)</sup>	megalitres	<b>48,590</b>	46,350
Water input by source – Groundwater <sup>(5)</sup>	megalitres	<b>127,870</b>	127,770
Water input by source – Sea water	megalitres	<b>169,250</b>	82,000

<b>Water<sup>(4)</sup></b>			
<b>Outputs</b>			
Water output by quality – Type 1	megalitres	<b>74,130</b>	58,620
Water output by quality – Type 2	megalitres	<b>6,730</b>	7,940
Water output by quality – Type 3	megalitres	<b>183,000</b>	132,430
Water output by destination – Surface water	megalitres	<b>1,850</b>	1,050
Water output by destination – Groundwater	megalitres	<b>2,020</b>	1,690
Water output by destination – Sea water	megalitres	<b>114,940</b>	65,280
Water output by destination – Evaporation and Entrainment	megalitres	<b>144,730</b>	130,570
Water output by destination – Third party	megalitres	<b>320</b>	400
<b>Recycling</b>			
Recycled and Reused	megalitres	<b>265,720</b>	241,160
<b>Energy<sup>(6)</sup></b>			
Energy use – Electricity	petajoules	<b>35</b>	28
Energy use – Coal and coke	petajoules	<b>1</b>	1
Energy use – Natural gas	petajoules	<b>31</b>	33
Energy use – Distillate/Gasoline	petajoules	<b>81</b>	76
Energy use – Other	petajoules	<b>2</b>	2
Energy use – Total	petajoules	<b>150</b>	140
Energy Use – Renewable Sources	petajoules	<b>0.38</b>	0.26
Energy intensity <sup>(7)</sup>	gigajoules per tonne of copper equivalent production	<b>21</b>	19
<b>Emissions<sup>(8)</sup></b>			
<b>GHG – Scope 1 &amp; 2</b>			
GHG – Scope 1	millions of tonnes CO <sub>2</sub> -e	<b>10.6</b>	10.5
GHG – Scope 2 <sup>(9)</sup>	millions of tonnes CO <sub>2</sub> -e	<b>5.9</b>	5.8
GHG Scope 1 & 2 Total <sup>(10)</sup>	millions of tonnes CO <sub>2</sub> -e	<b>16.5</b>	16.3
GHG Scope 1 & 2 intensity <sup>(7)</sup>	tonnes CO <sub>2</sub> -e per tonne of copper equivalent production	<b>2.3</b>	2.2
<b>GHG – Scope 3<sup>(11)</sup></b>			
<b>Upstream</b>			
Purchased goods and services (including capital goods)	millions of tonnes CO <sub>2</sub> -e	<b>8.2</b>	7.7
Fuel and energy related activities	millions of tonnes CO <sub>2</sub> -e	<b>1.4</b>	1.4
Upstream transportation and distribution <sup>(12)</sup>	millions of tonnes CO <sub>2</sub> -e	<b>3.6</b>	3.2
Business travel	millions of tonnes CO <sub>2</sub> -e	<b>0.1</b>	0.1
Employee commuting	millions of tonnes CO <sub>2</sub> -e	<b>&lt;0.1</b>	<0.1
<b>Downstream</b>			
Downstream transportation and distribution <sup>(13)</sup>	millions of tonnes CO <sub>2</sub> -e	<b>5.0</b>	2.8
Processing of sold products <sup>(14)</sup>	millions of tonnes CO <sub>2</sub> -e	<b>322.6</b>	313.7
– Iron ore to steel	millions of tonnes CO <sub>2</sub> -e	<b>317.4</b>	309.5
– Copper cathode to copper wire	millions of tonnes CO <sub>2</sub> -e	<b>5.2</b>	4.2
Use of sold products	millions of tonnes CO <sub>2</sub> -e	<b>253.8</b>	254.1
– Metallurgical coal	millions of tonnes CO <sub>2</sub> -e	<b>112.3</b>	105.5
– Energy coal	millions of tonnes CO <sub>2</sub> -e	<b>71.0</b>	72.1
– Natural gas	millions of tonnes CO <sub>2</sub> -e	<b>36.4</b>	38.3
– Crude oil and condensates <sup>(15)</sup>	millions of tonnes CO <sub>2</sub> -e	<b>29.6</b>	33.1
– Natural gas liquids	millions of tonnes CO <sub>2</sub> -e	<b>4.5</b>	5.1
Investments (i.e. our non-operated assets) <sup>(16)</sup>	millions of tonnes CO <sub>2</sub> -e	<b>1.7</b>	1.9
<b>GHG Scope 3 – Total<sup>(17)</sup></b>	millions of tonnes CO <sub>2</sub> -e	<b>596.4</b>	584.9
Total oxides of sulphur	tonnes	<b>15,400</b>	16,700
Total oxides of nitrogen	tonnes	<b>80,600</b>	73,700
Total mercury	tonnes	<b>0.0</b>	0.0

		2018	2017 <sup>(1)</sup>
<b>Waste</b>			
Hazardous waste – Mineral total	kilotonnes	<b>13,100</b>	14,400
Non-hazardous waste – Mineral tailings	kilotonnes	<b>137,000</b>	90,110
Accidental discharges of water and tailings <sup>(18)</sup> (19)	megalitres	<b>0</b>	0

<b>Business Data Summary</b>	<b>2018</b>		<b>Energy Use: Electricity Petajoules</b>
	<b>GHG Scope 1 &amp; 2 millions of tonnes CO<sub>2</sub>-e</b>	<b>Total Energy Use Petajoules</b>	
Petroleum	2.6	24.4	0.3
Copper	5.3	44.2	24.6
Iron Ore	2.2	30.5	1.2
Coal	5.4	39.9	5.2
<b>BHP Total<sup>(20)</sup></b>	<b>16.5</b>	<b>150.0</b>	<b>34.5</b>

<b>Regional environment fines levied<sup>(19)</sup></b>	<b>2018</b>	<b>Number of fines</b>
Australia	US\$68,186	8

- (1) Data in italics indicates that data has been adjusted since it was previously reported. Water restatements are because this is our first year assuring water data at an asset level and we expect subsequent changes in our data as we further strengthen our data quality. Energy and GHG intensities have been adjusted to use production figures based on BHP operational control, consistent with energy and GHG reporting boundaries (previously reported based on equity share production).
- (2) Land data is calculated as the total land area at the time of reporting.
- (3) Data does not include land managed for rehabilitation and conservation as part of social investment.
- (4) Data has been rounded to the nearest ten to be consistent with the more detailed data presented in BHP's Water Report (see bhp.com/water).
- (5) Includes volumes supplied by third parties.
- (6) Measured according to the World Resources Institute/World Business Council for Sustainable Development.
- (7) Copper equivalent production has been calculated based on FY2018 average realised product prices for FY2018 production, and FY2017 average realised product prices for FY2017 production. Production figures used are consistent with energy and emissions reporting boundaries i.e. BHP operational control.
- (8) BHP currently uses Global Warming Potentials (GWP) from the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 4 (AR4) based on 100-year timeframe.
- (9) Unless otherwise noted, our reported Scope 2 emissions have been calculated using the market-based method using supplier specific emissions factors, in line with the GHG Protocol Scope 2 Guidance. Our market-based Scope 2 emissions were 5.9 million tonnes CO<sub>2</sub>-e which compares to 6.0 million tonnes CO<sub>2</sub>-e if calculated using the location-based method. A residual mix is currently unavailable to account for voluntary purchases and this may result in double counting between electricity consumers.
- (10) Scope 1 and 2 emissions have been calculated on an operational control basis in line with the GHG Protocol Corporate Accounting and Reporting Standard.
- (11) Scope 3 emissions have been calculated using methodologies consistent with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
- (12) Includes product transport where freight costs are covered by BHP, for example under Cost and Freight (CFR) or similar terms, as well as purchased transport services for process inputs to our operations.
- (13) Product transport where freight costs are not covered by BHP, for example under Free on Board (FOB) or similar terms.
- (14) All iron ore production is assumed to be processed into steel and all copper metal production is assumed to be processed into copper wire for end-use. Processing of nickel, zinc, gold, silver, ethane and uranium oxide is not currently included, as production volumes are much lower than iron ore and copper and a large range of possible end uses apply. Processing/refining of petroleum products is also excluded as these emissions are considered immaterial compared to the end-use product combustion reported in the 'Use of sold products' category.
- (15) All crude oil and condensates are conservatively assumed to be refined and combusted as diesel.
- (16) For BHP, this category covers the Scope 1 and 2 emissions (on an equity basis) from our assets that are owned as a joint venture but not operated by BHP.
- (17) Scope 3 emissions reporting necessarily requires a degree of overlap in reporting boundaries due to our involvement at multiple points in the life cycle of the commodities we produce and consume. A significant example of this is that Scope 3 emissions reported under the 'Processing of sold products' category include the processing of our iron ore to steel. This third party activity also consumes metallurgical coal as an input, a portion of which is produced by us. For reporting purposes, we account for Scope 3 emissions from combustion of metallurgical coal with all other fossil fuels under the 'Use of sold products' category, such that a portion of metallurgical coal emissions is accounted for under two categories. This inflates the total Scope 3 emissions figure. This is an expected outcome of emissions reporting between the different scopes defined under standard GHG accounting practices and is not considered to detract from the overall value of our Scope 3 emissions disclosure.
- (18) Data reported for environmentally significant incidents.
- (19) Does not include the dam failure at Samarco, our non-operated minerals joint venture.
- (20) Total includes Functions, Potash and Nickel West.

## Our conclusions:

### 1) Sustainability Report 2018 – Limited assurance

Based on the procedures performed, and evidence obtained, we are not aware of any material misstatements in the BHP Sustainability Report 2018 for the year ended 30 June 2018 ('Sustainability Report 2018'), which is prepared in accordance with the GRI Standards, the ICMM Sustainable Development Framework and the basis of preparation as disclosed in the Sustainability Report 2018.

### 2) GHG emissions – Reasonable assurance

In our opinion, in all material respects, BHP's reported greenhouse gas (GHG) emissions of 16.5 Mt CO<sub>2</sub>-e (Scope 1 and 2) for the year ended 30 June 2018, are prepared in accordance with the World Resources Institute/World Business Council for Sustainability Development (WRI/WBCSD) GHG Protocol (market-based method) and the basis of preparation as disclosed in the Sustainability Report 2018.

## Criteria used as the basis of reporting

The criteria used as the basis of reporting include the GRI Standards published by the Global Reporting Initiative (GRI), the ICMM Sustainable Development Framework published by the International Council on Mining and Metals (ICMM), the GHG Protocol published by the WRI/WBCSD, and the basis of preparation disclosed in the Sustainability Report 2018 prepared by the Directors and Management of BHP Billiton Limited and BHP Billiton Plc (collectively BHP).

## 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 22 operating sites;
- assessment of the suitability and application of the criteria in respect of the disclosed information;
- evaluation of the design and implementation of the key systems, processes and controls for collecting, managing and reporting the information within the Sustainability Report 2018 and testing of certain controls for collecting, managing and reporting the GHG emissions;
- risk analysis, including print and social media searches, to validate the completeness of BHP'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 Sustainability Report 2018;
- agreeing the information included in the Sustainability Report 2018 to relevant underlying sources on a sample basis;
- agreeing the GHG emissions 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 information reported was in accordance with the GRI Standards Comprehensive level of disclosures and Subject Matters 1 to 4 of the ICMM Sustainable Development Framework.

Our work has not covered case studies.

GHG emissions quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

In accordance with the Standards we have:

- used our professional judgement to plan and perform the engagement to obtain assurance that the Sustainability Report 2018 and GHG emissions are free from material misstatement, whether due to fraud or error;
- considered relevant internal controls when designing our assurance procedures, however we do not express a conclusion on their effectiveness;
- ensured that the engagement team possesses the appropriate knowledge, skills and professional competencies.

## How we define limited and reasonable assurance

Limited assurance consists primarily of enquiries and analytical procedures as described above. 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, due to the use of sampling techniques, it is not a guarantee that it will always detect a material misstatement when it exists.

## BHP's responsibility

BHP is responsible for:

- determining that the criteria is appropriate to meet its needs;
- preparing and presenting the Sustainability Report 2018 and GHG emissions in accordance with the criteria;
- determining BHP's GRI level of disclosures in accordance with the GRI Standards;
- establishing internal controls that enable the preparation and presentation of the Sustainability Report 2018 and GHG emissions that are free from material misstatement, whether due to fraud or error;
- maintaining integrity of the website.

## Our responsibility

Our responsibility is to perform:

- limited assurance in respect of the Sustainability Report 2018, excluding case studies;
- reasonable assurance in respect of the GHG emissions; and to issue an assurance report that includes our conclusions.

## Use of this Assurance Report

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

## 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.



KPMG  
Melbourne  
6 September 2018

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### Group Company Secretary Margaret Taylor

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## How to access information on BHP

BHP produces a range of publications, which are available online at [bhp.com](http://bhp.com). If you are a shareholder, you can also elect to receive a paper copy of the Annual Report through one of the Share Registrars listed above.

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