

SUSTAINABILITY REPORT 2019

Report Boundary and Scope

This report covers all of the wholly owned operations, and assets that operate as joint ventures, of Centennial (being Centennial Coal Company Limited (Centennial) and its subsidiaries) for the period 1 January 2019 to 31 December 2019. Centennial has elected to produce a Global Reporting Initiative referenced sustainability report for 2019 (GRI Report), to detail specific information relevant to our economic, environmental and social impacts. All data is reported to GRI 100 Universal Standards. The Report also demonstrates the linkage between Centennial's sustainability performance and the United Nations' Sustainable Development Goals.

There is no significant difference in material topics compared to the previous year.

Greenhouse and energy data, and safety data has been externally assured. Centennial is committed to expanding the external assurance scope in the future.

Note: all data is reported on a 100% basis, unless specified otherwise.

Front cover and back cover: Clarence Employees from left to right. Front cover - Jill Auld, Jack Turner, Bruce Bulkeley. Back cover - Frank Bodnar, Dallas Thurlow and Mick Quinn.

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MESSAGE FROM OUR CEO

Welcome to Centennial's 2019 Sustainability Report.

We produce this report to make sure our stakeholders are kept up to date about our sustainability journey and specifically our environment, social and governance (ESG) performance. Our ESG includes business ethics, health, safety, community and environmental measures. We all have a role to play in delivering high quality and effective ESG outcomes. Although this is a voluntary report, we know strong governance and regulatory compliance are fundamental to our success – it is our minimum standard from which we will not waver. We aim to be a trusted community member by all our stakeholders.

We have aligned our sustainability strategy with the United Nations Sustainable Development Goals (SDGs), a set of global goals to address the world's most pressing social, environmental and economic challenges. Accordingly, we have developed specific commitments in relation to the SDGs as we complete our initial sustainability goals up to 2020 and move onto our next five-year period (2021-25).

Our business is evolving, it is transitioning from one based solely on coal, to a diversified energy company with three pillars: **Energy Resources, Energy Generation,** and **Energy Technology.**

Our new strategic direction will deliver the best opportunities and outcomes for our business, the environment and communities we operate in, and our people. This strategy aligns with our owner, Banpu Public Company Limited (Banpu), who strives to be the Asian energy company at the heart of innovation, technology, and sustainability.

Technology and the digital economy will dramatically change what is possible for our business. Technology is disrupting businesses, creating opportunity and will lead to a new way of doing business for us all. As part of the Banpu family, we have embraced digital transformation to strengthen our core business of coal mining and draw on new skills as we transition into a diversified energy company.

Renewable energy and technology, smart grids, energy storage and agile systems are areas for future investment to maintain economic sustainability. As an example, we have an extensive land portfolio with several sites being decommissioned. Each site will be assessed to see how it can best contribute to a sustainable future – solar farms as well as pumped hydro projects will all be considered as part of site rehabilitation option studies.

The past 12 months was a significant year in our digital journey, with the launch of our digital capability centre (DCC) at Cooranbong in Lake Macquarie, an innovation centre focussed on prototyping and building new capabilities for business improvement. It was a year in which we saw substantial progress on various technologies and agile processes to improve our day to day business, and we further developed the underground mining assistant (UMA), a mobile device to allow access to real-time operational data for our people underground, delivering significant improvements to safety and productivity. These initiatives will continue to grow and transform our business.

In 2019, several mines transitioned to new mining areas and unfortunately encountered unfavourable mining conditions. This combined with lower coal prices conspired to make for a challenging year. But the year also had its highlights that deserve celebration:

- There were no significant environmental incidents during the period
- The Airly narrow panel extraction system successfully commenced in June and immediately delivered new production records for the mine
- Clarence introduced a new extraction system late in the year, which is showing significant improvements in both safety and productivity
- Despite a slight increase, our lost time injury frequency rate remains at near record lows
- We have developed a new three-year Safety and Environment Strategy to progress towards zero lost time injuries in our operations and zero harm to the environment.

The Group's first "behind the meter" solar farm, located at Airly in our western region, a two megawatt (MW) facility on land adjacent to the mine surface, is in the final commissioning stage. We also have a small solar installation at our closed Awaba site. These projects reflect the required balance needed between intermittent renewables and base load conventional coal fired electricity generation to ensure a reliable power system.

At Mandalong, the installation of an 8MW gas engine facility to generate electricity is well advanced and will utilise waste methane that is drawn from the coal seam for safe operating reasons. This will reduce our greenhouse gas emissions and our electricity bill. We have also commenced research into the feasibility of pumped hydro electricity generation in our underground mining voids to add to our renewable and low carbon energy portfolio.

Finally, I would like to pay tribute to the many emergency service personnel and volunteers who responded to the 2019/20 summer bushfires across Australia. This was an unprecedented set of circumstances resulting in so much heartache and tragedy, but also many tales of selfless heroism. Many of our employees are volunteers in the Rural Fire Service that did so much to protect property and lives in their communities. Some of our mines were also in the path of these fires. By good planning and preparation and together with the expertise of local fire crews and our own employees, impacts to our operations were relatively minor. Thank you to all who did so much for our local communities and business.

On behalf of the Centennial Board and our owners Banpu, I would like to express my gratitude and appreciation to all our employees for their commitment, innovation and passion. Together we look forward to an exciting new decade and a sustainable future.

Peter Parry



CEO and Managing Director.



OUR COMPANY

Centennial is a 100% owned subsidiary of Banpu Public Company Limited.

BANPU

Banpu Public Company Limited is a leading integrated energy solutions company with 3 core groups of businesses: energy resource, energy generation and energy technology across 10 countries — Thailand, Indonesia, China, Australia, Lao PDR, Mongolia, Singapore, Japan, the United States of America and Vietnam. As of 31 December 2019, Banpu's assets totalled USD 8.542 billion, an increase of USD 88 million compared to the total assets as of 31 December 2018.



Banpu has a vision to be at the heart of innovation, technology, and sustainability, pursuing a Greener & Smarter strategy. Its business management philosophy is committed to leading the company into a new era of energy and sustainability.

Banpu's mission is to:

- Build sustainable value for all stakeholders as a trusted partner, with emphasis on care for the earth and society
- Promote innovation, synergy, sustainability, and integration across the energy supply chain, between thermal and new energy technologies
- Foster our corporate values, operational excellence, and uphold Banpu's reputation for integrity, professionalism and best practices

In 2019, Banpu was selected for a sixth consecutive year as a member of the Dow Jones Sustainability Index (DJSI). The DJSI operates in collaboration with RobecoSAM, the international standard sustainability index.

See **www.banpu.com** for more information on Banpu.

Mrs. Somruedee Chaimongkol, Chief Executive Officer of Banpu Public Company Limited recently revealed,

"Looking forward, we will continue to strengthen and balance the business ecosystem between our core business groups — Energy Resources, Energy Generation, and Energy Technology with a focus on creating business growth that responds to the energy trend of the future. Supporting the production and use of clean energy, and leveraging innovation and technology are pivotal to our concrete business progress in 2020."

Passionate, innovative, committed ... these are the Banpu Heart three core values, which Banpu believes will guide our journey towards a sustainable future. Banpu Heart is being integrated into our local Australian operations.

OUR COMMON PURPOSE

Vision:

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The Australian energy company at the heart of innovation, technology and sustainability.

/MA

Values:

- Financial and operational excellence
- No compromise on safety
- Listen to, understand and provide opportunities for our employees
- Communicate honestly and openly with our stakeholders
- Encourage innovation
- Strive for synergy through collaboration
- Respect our reputation and social licence to operate in our effort to be a good corporate citizen

CENTENNIAL

Centennial is an energy company based in NSW, Australia. Our vision is to be the Australian energy company at the heart of innovation, technology and sustainability.

We have five operating coal mines and a variety of projects underway, including renewable energy projects, potential new mining projects and rehabilitation projects. This year, we are proud to report the installation of a two MW solar facility at Airly in our western region, along with another small installation in our Lake Macquarie region.

Whilst diversification plays a significant role in us being a "future-fit" company, we will continue to supply coal to essential domestic and export energy markets.

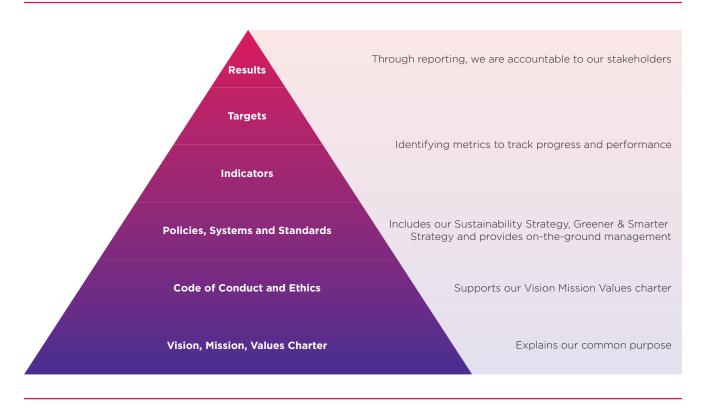
We are a significant part of the Banpu organisation. Through digitisation, technology and diversification, we are on a path to being Greener & Smarter. We will continue to align our corporate culture and operations with Banpu as we move into the future.

We are here as a long-term energy provider and we know how important it is to have clear objectives that:

- meet legislative requirements
- manage risk
- maintain our social licence to operate
- provide a return to our shareholder, Banpu.



KEEPING OURSELVES ACCOUNTABLE



OUR BUSINESS

DIGITAL CAPABILITY CENTRE (DCC)

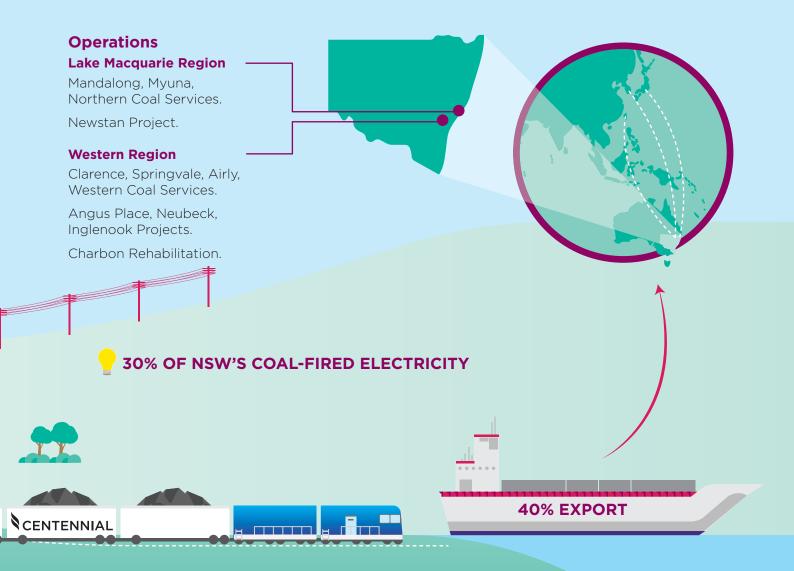
1.

Underground Mining

Our high energy, low ash coal results in high quality thermal coal.

Key Highlight

- Production efficiencies realised from real-time data
- Digital processes
- New mining systems
- Potential gas resources to generate electricity





Processing

Coal is crushed and/or washed to improve quality.

Washing reduces ash and increases energy content, thereby increasing energy efficiency and market value.

3.

Transport

Domestic coal is transported to customers (power stations)

Export coal is transported via trains to the Port of Newcastle or Port Kembla and shipped to Asia (mainly Taiwan, Japan and Korea).

Key Highlight

Our assets are well located close to domestic customers and extensive infrastructure enables us to be a reliable supplier of energy coal.

4. 7

Distribution

60% Domestic Coal

Providing 30% of NSW's coal-fired electricity keeping the lights on in NSW.

40% Export Coal

Providing affordable energy for millions of people.

OUR APPROACH

TO BE SUSTAINABLE INTO THE FUTURE, WE NEED TO

- Have a clear vision that creates shareholder value ... and be productive and efficient in getting there.
- Obtain and maintain a social licence to operate ... through good environmental performance backed by strong systems and regular, consistent and informative community engagement.
- Look after our people ... by providing a workplace of choice, where safety is paramount and our workforce is valued, skilled and sees a positive future.

Our business sustainability is based on a solid foundation of good governance, a culture of risk management, and an innovative mindset that frames responsible interactions and practices within the environment, social and fiscal areas of our business.

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Business value and sustainable value are one.

ESG AND SUSTAINABILITY

We use environment, social and governance (ESG) criteria to assess the sustainability of Centennial. ESG is about risk and opportunity and we are integrating goals and metrics to address these broader industry and societal risks for long-term value creation.

MANAGING RISK

Managing risk is integral to our business and is entrenched in our work practices.

It is important we apply a risk-based approach to sustainability and understand and effectively manage our risks, such that we provide greater protection to our people, our environment, our communities, our customers, our assets and stakeholders. A consistent, consultative and precautionary approach is applied through embedding risk management processes into our business units, such that risks are identified, evaluated, managed and mitigated where possible and practical.

We employ multiple levels of risk-management tools and processes, ranging from the SLAM (Stop, Look, Assess, Manage) pocket book that provides employees with task-level riskmanagement process, to formal site-based risk assessments (SBRA) and enterprise-wide risk assessments (EWRA).

We have a team of internal risk and assurance specialists to deliver guality compliance and assurance management for the Group.



CORPORATE GOVERNANCE

A sound system of governance responds to ever-changing needs and societal expectations.

Centennial's governance structure incorporates the Centennial Board of Directors (Board), committees, management and subsidiaries. Centennial's Board is a uni-tiered structure with three sub-committees; the Audit and Risk Committee, Health, Safety, Environment and Community (HSEC) Committee, and the Remuneration Committee.

The Board comprises experienced and qualified Directors. Appointment is based on qualifications, including experience, knowledge, skills and expertise.

CEO and senior Executive Management remuneration is determined by KPIs and includes performance measures relating to sustainability, including environmental and social objectives.

The Board has endorsed policies that cover areas including health and safety, environment and community, climate change, human resources, and procurement. These policies set the requirements for each of the sustainability areas and lead the delivery of management systems comprising standards, plans and procedures.

Executive Management meets weekly to ensure priority areas of the business are regularly considered including Health, Safety, Environment, Risk and Compliance. Environmental and social performance is monitored by the HSEC Committee, Executive Management and also externally by local Community Consultative Committees (CCCs). Mine sites are required by regulators to make a range of planning and environmental performance information publicly available on the Centennial website.

INNOVATION

To compete in an ever-changing market, Centennial must anticipate change and drive innovation. This involves building digital capabilities and shifting to a smarter mindset.

In 2017, Centennial completed a Step Change Productivity programme, with a key outcome being the establishment of an operational excellence, or OpEx Team. This team concentrates on innovation in engineering solutions and/or technology to improve the health and safety of our people, improve environmental performance, and maintain a focus on productivity.



OUR KEY ISSUES

To identify sustainability topics for this report and areas for targeted action, we used materiality data originally collected from a range of stakeholders in 2018, revised for the 2019 period. This reconfirmation and revision resulted in the consideration of human rights in our supply chain. The 2018 Sustainability Report noted this area for future focus, with greater context around sustainable supply chain management and modern slavery included in this year's report.

These key issues, relevant indicators and performance are linked to the GRI Standards and are reported on herein.

Being a responsible corporate citizen and considering global sustainability issues is important to both our parent company Banpu and the Centennial leadership team.

We have identified five United Nations (UN) Sustainable Development Goals (SDGs) as being of particular relevance to our business and have mapped these to our material issues. To be a sustainable supplier of energy we must:

- seek zero harm to people and the environment
- productively and efficiently mine quality coal
- increase company value
- leave a community with greater capacity than when we arrived
- attract, develop, motivate and retain a diverse workforce
- maximise the value of the resources we use
- secure new resources



| Stakeholder Material Issue | GRI Reference/SDG Reference/Other |
|--|--|
| Social licence to operate - Changing expectations, reputation, brand | 303 - Water, 304 - Biodiversity, 307 - Environmental compliance SDG 6, 8, 15 |
| Engagement of our people - Attracting, retaining, training, performance | 401 – Employment 404 – Training and education |
| Health and safety of our people | 403 – Occupational health and safety SDG 8 |
| Climate change response | 305 – Emissions SDG 13 |
| Regulator and community relationships | 102 - General disclosures, 307 - Environmental compliance, 413 - Local communities |
| Vision, long term outlook, access to quality resource, diversification | SDG 7 Good practice/shareholder expectation |
| Productivity, automation, improved environmental technologies | SDG 8 Good practice/shareholder expectation |

COMPANY COMMITMENTS

A five year 'Vision 2020' statement was developed in 2015 as part of our Sustainability Strategy. We have achieved some of these aspirational targets and have learned a great deal in attempting to achieve others. We have commenced development of a new set of targets for the next five years (2021-2025) that recognise our material issues and align with broader Banpu strategy and our prioritised UN SDGs.

The final progress against the remaining goal is summarised below.



Lower our greenhouse gas emissions by 25%*

We have lowered our greenhouse gas emissions by just over 20% since 2015, a little shy of our stretch target of 25%. We continue to lead industry research in this area and invest in ventilation air methane research programmes, seeking to identify future viable systems. Refer to page 40 for more information.

* Compared to 2010

GROUP 2019 SNAPSHOT



Produced 10.7MT of coal



Contributed \$68M in royalties to the NSW Government



Used local suppliers for 59% of goods & services



*Achieved a 31% reduction in water discharged



Employed 1,691 people



*Achieved a 6% decrease in total recordable injury frequency rates



Abated approximately 775,000 tonnes of carbon dioxide



Built our first solar farm



Provided 24,000 hours of training for our people



Contributed \$660M to the local economy through goods & services



Used mine water for 56% of our total water use



Managed 912 hectares for biodiversity



Launched 12 digital use cases

* Compared to 2018



FINANCIAL



Our financial strength and viability are at the heart of our success, creating economic and social value. We operate as part of a Greener & Smarter strategy within Banpu.

MANAGEMENT APPROACH

It remains Centennial's priority to productively and efficiently grow our business to ensure our continued commercial viability, whilst striving for continual improvement in safety, environmental and social performance.

Centennial seeks a balanced sales portfolio between domestic and export markets. Coal contracts with domestic generators tend to be for the longer-term, with volumes and prices negotiated and settled in advance. This provides Centennial with a high degree of business certainty for a substantial portion of its output.

PERFORMANCE

As a resource company we are exposed to external financial pressures; most notably the \$US coal price and the \$A/\$US exchange rate. However, through Centennial's long-held balanced sales strategy, the Company has, in part, a natural hedge from \$A/\$US volatility and a shelter from the higher end of the exchange rate range. Centennial's export split for 2019 was 42%, slightly higher than the previous year.

Earnings before interest and tax (and unrealised foreign exchange losses on \$US denominated debt) decreased 11% to 308 million – primarily due to higher export prices. During 2019, Centennial sold 11.8 million tonnes of coal (100% basis), down 26% on the previous year. During the year various production records were achieved at Airly and Mandalong, despite Mandalong encountering difficult geological conditions. Mandalong required four, and Springvale one longwall changeover during the year (each incurred an extended changeover).

In 2019, Centennial continued to focus on cost control and productivity improvements. Specifically, through a focus on operational excellence, production growth, automation and Digital Transformation, we aimed to increase our competitiveness and improve our position on the cost curve.

While social and financial pressures on coal mining continue, demand for high-quality Australian black coal remains strong throughout Asia, giving Centennial and Australian coal a competitive and real advantage.



HIGHLIGHT STATS



\$1,107м sales revenue

\$308_M EBITDA - earnings before interest, tax, depreciation & amortisation

\$68M NSW Government royalty

OPPORTUNITIES

Global demand for coal is strong. By supplying high-quality coal to growth markets, Centennial has a role in providing access to secure, reliable and affordable energy. It is more evident than ever that, to remain sustainable, we must balance financial returns with environmental and social concerns. Strong and positive environment, social and governance outcomes are critical, together with the deployment of new technologies.

The key initiative for 2019 was the substantial continuation of groundwork performed under the Greener & Smarter framework to unlock the Company's digital future. This Digital Transformation includes not only giving greater real-time access to information and communication tools, but substantially upskilling our people, enhancing physical and virtual digital capability centres, and providing a positive economic return over the coming years.

DIGITAL CAPABILITY CENTRE



Together with Banpu, we established a digital centre of excellence at Cooranbong, Lake Macquarie in December 2018. Known as our Digital Capability Centre (DCC), this is where ideation and prototype development happens and new innovations come to life. We have a team of digital architects and coaches to create end products that are delivering continuous improvement across our business.

12 digital use products launched and integrated in 2019

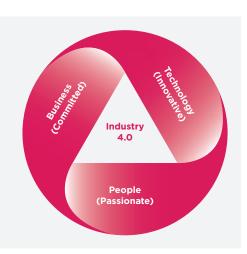
Our Aim: Leverage the possibilities and opportunities of new technologies with an agile mindset to achieve strategic business goals, improving our business performance.

Our Digital Capability Centre: Incubates and develops business opportunities into digital products, builds awareness of new technologies, builds capabilities, and establishes new ways of working to address business needs.

The approach is delivery of a triple transformation strategy, through business, technology and people, connected to our 'Banpu Heart' that sets a future mindset for our business. We have adopted Fourth Industrial Revolution (Industry 4.0 or 4IR) technologies, embraced by leading companies. This technology adoption will fortify our strengths, access our potential, and allow us to remain competitive.

We have disrupted ourselves before we are disrupted

- Customer backed solutions with clear impacts and targets for productivity growth
- New ways of working, new mindset, and building capabilities for the future
- Fast prototyping and quick deployment of technologies and creation of ecosystem partners



Spotlight on UMA, PMC, SCIPI

Our DCC has created digital technology solutions that have given our mines the capability to be managed remotely and centrally. The remote operations management centre puts all of the key people in one room to make timely and accurate decisions by having real time insights, hindsight and foresight information.

Centrepiece applications are grouped into UMA (Underground Mining Assistant, PMC (Performance Monitoring Centre) and SCPI (Supplier Compliance and Performance Indicator). We incubate and accelerate Banpu value





UMA (Underground Mining Assistant)

UMA (Underground Mining Assistant) is a group of digital use cases or software products bringing real-time critical information to underground crews. It is also a real-time communication platform for crews to contact supervisors on the surface.

The equipment tracking application, for example, provides real-time information, enabling deputies to readily locate equipment and order materials, such as drill bits or bolts, taking away pain points that cause delays. This results in higher productivity each shift.

Similarly, the conveyor belt monitoring application tracks belt operation and status, resulting in efficient resolution of potential belt delays outbye, contributing to higher productivity.



Real-time data and analytics platform

A real-time data and analytics platform or Performance Monitoring Centre (PMC) based on real-time equipment monitoring using sensors, interactive dashboards and response systems was created, so our people have the right information to make informed real-time decisions to extract maximum operational efficiency.

Digital Reporting is now a reality, where production and statutory reports for example are digitised and securely versioned. An example is SCPI (Supplier Compliance and Performance Indicator) facilitating digital monitoring and assessment of contractor performance.

With the collection of UMA and PMC platforms, our Digital reporting platform, real-time equipment performance condition monitoring and longwall automation use cases and applications, our mines now have the capability to be managed more efficiently and effectively to meet our future business needs.

To bring our people on board with this agile way of thinking, several e-learning interactive modules through the Banpu Digital Academy have been completed. People from our Lake Macquarie operations visited during 2019 to experience first hand the DCC's activities and an agile workplace.

SUPPLIER MANAGEMENT

Our large and complex supply chain includes providers from across Australia and around the world, including everything from steel, mining equipment and conveyors to oils and fuels, and personal protective equipment.

In 2019, our contracts and procurement team continued to develop a strong strategic sourcing function with a category management focus to deliver value for money and fit for purpose quality goods and services.

Our strategic sourcing category management and savings focus is now being applied across key supply areas, including:

- 1. Longwall move equipment hire
- 2. Longwall move labour hire
- 3. Equipment overhauls

Further strategic sourcing categories are in various stages of development, with completion expected during Q2 2020.

The team also implemented the Icertis contract management software programme to realise wholesale efficiency gains from the automation of extensive manual processes.

The new digital SCPI supplier management tool was rolled out in 2019. SCPI provides a platform for capturing supplier performance and compliance information. The data will be used by the contracts and procurement team for supplier due diligence and performance management reviews.

Modern Slavery

Modern slavery, a human rights issue, is an umbrella term and refers to situations of exploitation involving forced labour, servitude and human trafficking in vulnerable groups of people. There is a broad social and environmental governance movement to address this global issue as part of improving sustainability in supply chains. We, as a corporate citizen have a fundamental responsibility to operate with sound governance and respect for human rights.

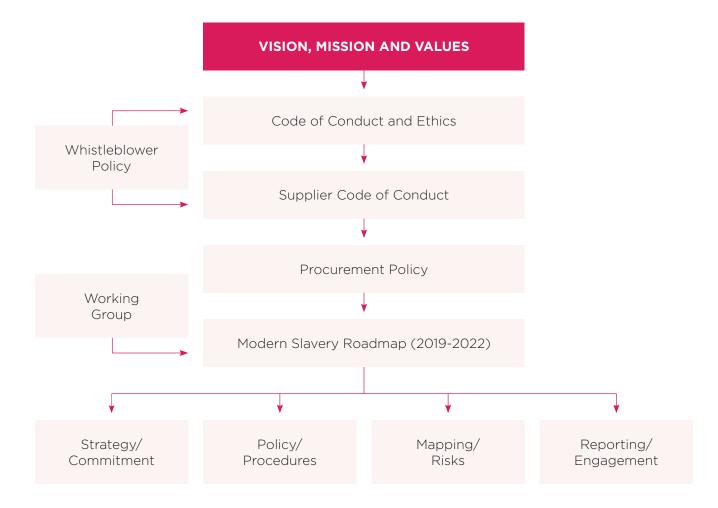
Under the Commonwealth Modern Slavery Act 2018, which came into effect on 1 January 2019, we are required to prepare and publish a Modern Slavery Statement.

The Statement requires disclosure of the modern slavery risks present in our operations and supply chains and the actions taken by us to assess and address those risks. In order to achieve this, we are reviewing processes within our organisation and along our supply chains.

Our approach to modern slavery is summarised into key focus areas:

- Commitment at the highest level of our organisation
- Policies and procedures review
- Supplier mapping and prioritisation of risks
- Engagement and training

We are working through our three-year roadmap as a foundation for practical action to identify and address adverse impacts across our business and our suppliers. This process is facilitated and monitored by our Modern Slavery/Sustainable Supply Chain Working Group.



We believe in ethical business practices and transparency in all we do and are committed to improving our processes with respect to modern slavery. We aim to ensure that human rights are understood, respected and upheld and that no worker is exploited. We are taking active steps to address this universal issue within our circle of influence. We support globally recognised declarations, principles and goals, including UN Guiding Principles on Business and Human Rights (UNGPs), the UN Global Compact (UNGC) and the UN SDGs.

We have made substantial progress and at the end of 2019 we have:

- Reviewed and updated our relevant policies and our Employee Code of Conduct and Ethics
- Developed a supplier Code of Conduct which sets out our minimum expectations
- Engaged internally, and
- Identified and engaged with our high-risk suppliers.

Once finalised, our Modern Slavery Statement will be available on our website at **centennialcoal.com.au**



SOCIAL



We are committed to principles that guide our approach to health and safety and strive for a workplace where we always take care and responsibility for our safety and the safety of our workmates. We must continue to think safe, work safe, and get home safely to our families.

MANAGEMENT APPROACH

Safety is our highest priority. We are uncompromising in our commitment to health and safety and zero harm/zero negative impact on our people. This requires the commitment of every person in every part of our organisation.

We require individual accountability, expect all employees in the business to adhere to our operational standards and actively participate in and support the advancement of our health and safety practices and safety culture.

Safety is the responsibility of all employees. From Executives to the workforce, we all share a responsibility to ourselves, our fellow workers, our families and communities. We have well developed, fully-integrated systems to support our people in their daily work. Achievement of our corporate goals are enhanced through better understanding of our obligations and identifying opportunities for improvement that minimise our impacts on people. We believe every person has the responsibility to work safely and have the right to return home at the end of the day free from injury.

We will continually seek to improve our processes and demonstrate leadership in this key risk area.

Our long-term vision outlined in the Centennial Safety Improvement Strategy (2019-22), is to prevent injury and illness to employees and others involved in our business. The strategy is based on the core belief that safety management relies on continuous improvement in four fundamental areas:



Initiatives are owned by operational teams across the organisation, with the objective of developing centres of excellence.



Safety culture is a pivotal safety initiative aligned with our goal to achieve zero harm.



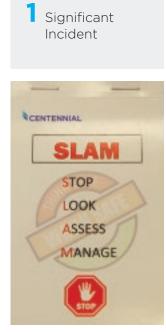
Completed

survey

LTIs

TRIs

Safety culture





PERFORMANCE

To achieve our vision, we continually seek to identify opportunities arising through engagement, innovation, personal development and risk reduction activities. Our safety improvement programmes are developed in the short to medium term based on current industry practice, research, performance evaluation and incident learnings.

The Strategy in 2019 focussed on improving safety culture dimensions, fatal risk management, and the engineering out and re-design of hazardous manual tasks.

During 2019, the Group experienced a slight deterioration in the key performance indicator, lost time injury frequency rate (LTIFR). This was offset by a 6% improvement in total recordable injury frequency rate (TRIFR). We will continue to strive to improve performance and safety culture across our business.

The mining environment is inherently hazardous and it is incumbent on us to provide a safe place of work and safe systems of work. Health and safety performance indicators have improved significantly during the past decade, however, there remains the need to redefine what we do and how we do it to continue to improve performance.

In 2018, an incident occurred at Clarence and Springvale in which workers suffered injuries. Learnings from these two incidents have contributed to ongoing improvements in safety at the mines.

In 2019 Springvale instigated a process which supported the mine in refocussing on key safety management processes. This 'one team' approach has resulted in improvements at the mine.

An incident occurred at Springvale mine in February 2019 where a worker suffered a fractured ankle, when a towing arrangement being used to pull a load failed. Recoiling components of the towing assembly struck the employee in the lower leg causing the injury. A full internal investigation has been conducted and the Resources Regulator has also been investigating the incident.

Sites have had a significant focus on personal risk management in the form of stop, look, assess and manage (SLAM) processes and this has resulted in an increased level of use of these programmes.

Regular site visits by corporate leaders have been increased to facilitate a collaborative and visible commitment to health and safety management. This process, supported by incident and event analysis from both within the Group and from the broader industry, has identified "targeted topics" to further improve health and safety. Engagement on leading practice expectations within these targeted areas for continual improvement has commenced.

LTIFR and TRIFR

(person/million man-hour)



OPPORTUNITIES

Our challenge is to continue to reinforce the importance of safety, and improve our safety culture, reducing exposure to risk and maintaining quality of life for our people. We must understand our opportunities and focus our efforts on harnessing the benefits of technology with automation a key opportunity.

We recognise that improving statistics does not mean we have it right; there is always more work to do.

Our opportunities for 2020 include completing and implementing the Pulse Analytics WHS Dashboard. This is a work, health and safety performance dashboard that will provide real-time information through our intranet on incident data with trends for each site, and the Company as a collective.

The development of an online reporting system for safety incidents is also planned for 2020. It will feature real time capture of incidents and the contributing factors, better scrutiny and review and support for the employee communication and feedback loop.

Visible leadership will be further improved by active engagement with the workforce at all sites and on all shifts.



We will reinforce the belief that no job is so important that it can't be done safely.







OUR PEOPLE

Our people are our key asset and are at the heart of both our achievements and challenges; they are critical to our success, helping drive us forward to a future fit Centennial.

MANAGEMENT APPROACH

We have formal and informal processes in place to ensure we directly engage with our people in an open, transparent and honest manner. This is guided by a suite of human resource policies including our

- Employee Code of Conduct and Ethics
- Harassment and Bullying Policy
- Gifts and Benefits Policy
- Whistleblower Policy.

These policies are part of our governance framework, and also act as protection mechanisms for our people. The Code of Conduct and all policies are regularly reviewed to ensure they reflect an evolving workplace and societal expectations. Our Code of Conduct was reviewed during 2019 to incorporate human rights inclusions.

10 BEHAVIOURS

Pas**sion**ate

- Striving for the future -
- 1. Pursue for success
- 2. Can do more 3. Be agile and change
- 4. Express care and share

Innovative

Transcend the trend
Ideate and get real
Learn fast, do first

Committed

Adhere to integrity and ethics
Synergize and network
Engage to sustainability development



HIGHLIGHT STATS

14 hours of

training

28 apprentices

hosted

per employee

Banpu Heart

We believe people are our greatest asset, and we want to attract and retain good people. We do that by providing training, leadership and an evolving agile workplace. There are two critical factors that will help us deliver on our strategies and be an employer of choice; our culture and our brand.

We continued to embrace the 'Banpu Heart' message during 2019. This is the Banpu corporate culture and core values statement and is an evolution of the Banpu Spirit. Banpu Heart consists of three core values –

- Passionate
- Innovative
- Committed

These values are supported by 10 key behaviours to guide expectations and empower people.

Passionate

Com mitted

8 trainees

12 graduates



PERFORMANCE

With Banpu, we continue to invest in developing and supporting business leadership.

Leadership and Management Training Programme

We were successful in securing government funding to facilitate training courses in leadership and management for employees new to or aspiring to supervisory/leadership roles across our business.

We partnered with local training provider Hunter Valley Training Company (HVTC) to deliver a customised version of Certificate IV in Leadership and Management (formally known as Certificate IV Frontline Leadership) to 21 employees from the northern and western regions. Students of our course focused on leadership and project management and participated in face-to-face sessions throughout the year. They identified and presented areas of improvement within the business to demonstrate both competencies throughout the course and also work towards improvements beneficial to the business and aligned with our core values and goals.

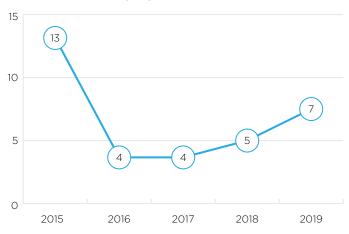
Success Factors project

SuccessFactors is Banpu's HR information platform used by all 10 countries. It includes a real-time staff database with information about employee data, recruitment, onboarding, succession planning, learning management, performance and goal setting and compensation management.

The SuccessFactors project team completed extensive testing of the system prior to go-live of phase one to ensure the accuracy and integrity of the data migration.

In the later part of the year, the project team worked with Banpu to develop a project roll out plan to launch and train employees in early 2020.

Phase one roll out includes Employee Central where staff can view and edit their personal profile, update details, search for employees and view company organisational charts within the whole Banpu family.



Employee Turnover (%)



The SuccessFactors project will help strengthen our people, in and across each country, encouraging collaboration, building synergy and networking towards our shared success.

Employee Turnover

Our employee turnover remains low at 7%, providing us a stable workforce, critcal for sustained success

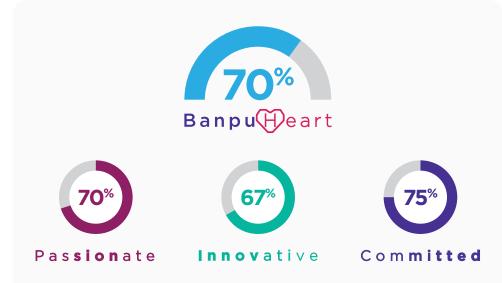
Banpu Heart Corporate Culture Survey

Banpu successfully continued the development of the 'Banpu Heart' corporate culture in 2019. This cultural initiative was launched in 2018 across all of Banpu's subsidiaries.

Banpu Heart leverages our diversity to create a happy and harmonious workplace, achieving fast and effective operations. This has improved value creation, competitiveness and created synergy to drive innovation for the organisation into the future.

Banpu also organised a wide range of Banpu Heart activities to strengthen and foster a clear understanding of corporate culture, which is to be upheld and practiced by all employees and management across the business in all company processes.

One of these activities included, for the first time, an annual survey of employee views toward the corporate culture within Banpu. The survey measured an alignment of employee behaviours with the corporate culture. The survey results for Centennial revealed:



On average 70% of employee behaviours align to the corporate culture





Training Efforts Rewarded

We have partnered with HVTC for over 15 years providing apprenticeships, traineeships and relevant, quality training opportunities for young people in our local community.

In May 2019 Centennial was named Large Host Employer of the Year at the HVTC Excellence Awards.

This category is awarded to a HVTC host company that demonstrates extensive and quality training solutions for its employees, increasing productivity and achievement within the workforce.

We had to demonstrate the importance of a 'training culture' across the organisation, with inclusion of training and development in business planning in innovative, collaborative and creative ways.



Innovation Conference

In April 2019, the 7th Annual Banpu Innovation Conference was held in Bangkok. Representatives from Centennial were in attendance to present projects for our Myuna and Clarence Mines.





Banpu Global Leadership Programme for First Line Leaders

Six leaders from across our operations participated in Banpu's First Line Leaders programme in Bangkok. This programme is designed to enhance and develop leadership of our people in divisional management roles, enabling our management to drive success today and into the future.

Graduate Programme

Our graduate programme provides an exciting opportunity for university graduates to join the Centennial family. Each year, we employ graduates from a broad range of disciplines for a period of two years. Graduates learn and grow as they master the business world through training, hands-on experience and mentoring.

During the two years, they work at different mines which provides a wide range of environments and diverse experiences. Introducing young professionals to mining in a structured and supportive way ensures the graduate programme helps them identify where their professional passion lies and allows us to make a positive impact on our future leaders.

In 2019, we welcomed six new graduates from mining engineering, electrical engineering, environmental management and geology.



Opportunities

We will continue to focus on our SuccessFactors project during 2020, and deliver training to all staff. Additional training will also follow for General Workforce employees.

There will also be continual development and testing of additional modules to use within the system including recruitment, on/off boarding and learning management.





COMMUNITY

Our community is a key stakeholder in our operations, and we aim to forge relationships to gain and maintain trust. We do this through authentic engagement and meaningful conversations.

MANAGEMENT APPROACH

Proactive engagement with our communities is our priority. We operate in the local government areas of Lake Macquarie, Lithgow and Mid-Western Region, which despite having long associations with mining and power generation, are diverse in both their natural and social environments. Through our daily business activities, stakeholders we regularly engage with include:

- employees
- community
- policy makers and regulators
- suppliers
- customers
- industry groups
- non-government organisations (NGOs) and social interest groups
- financial institutions
- media

We are committed to developing and maintaining meaningful relationships across the communities in which we operate. We recognise that our consultation and engagement, that happens in a variety of ways, must reflect the diversity of each community's characteristics, including their values and aspirations. We also acknowledge that our community is not just located within the immediate areas of our operations, but reflects a broader network of attitudes and opinions about our industry. We know that open communication and listening to our stakeholders' concerns is of great value.

PERFORMANCE

Community Engagement

The operation of the Community Consultative Committees (CCC) continues to be a key engagement activity and point of contact with the communities in which we operate . During 2019, we have ensured that each CCC has had at least one site visit to see different parts of our operations. For example, the Clarence CCC visited the rehabilitation trial area being prepared for future rehabilitation of reject emplacement area (REA) III. REA III is of particular interest to the Clarence CCC, and the broader community, as it was the site of the environmental incident that resulted in coal fines (very small coal particles) entering into the Wollangambe River. Accordingly, it is important planting is successful as it helps create a safe and self sustaining landform, minimising erosion and promoting biodiversity creation.



Rehabilitation trial site at Clarence

HIGHLIGHT STATS



Mine water discharge is an important issue for many in the community. Throughout 2019, we engaged with our communities via the CCCs and directly with special interest groups to demonstrate our commitment to this matter. In our western region, consultation and engagement has focussed on the management of mine water discharge from Springvale and Angus Place Mines, where CCC members viewed the Springvale water treatment plant and were taken underground to view the infrastructure for the temporary water treatment plant at Angus Place (now dismantled). In the north, special interest groups such as the Five Bays Sustainable Neighbourhood Committee toured the Newstan water treatment plant.



Stakeholders visit: Lithgow Environment Group visiting Angus Place Colliery viewing our water treatment infrastructure.



Stakeholders visit: Five Bays Sustainable Neighbourhood Committee vising the Newstan water treatment plant.



Stakeholders visit: isitors to the Springvale water treatment plant.



Stakeholders visit: Visitors to the Springvale water treatment plant.

Consultation with the Airly community has been undertaken about increased production (from 1.8 million tonnes to 3.0Mt per year) and increasing the number of employees from 155 to 200. In addition, it is recognised that the community has long standing concerns in relation to subsidence, groundwater and other impacts arising from Airly Mine. Accordingly, we have sought to address specific operational issues raised by local communities through focussed engagement, with the CCCs a key process/opportunity for this two way exchange.

These issues were again raised in relation to this modification. In response, Airly held a series of community-based workshops to provide further clarity about the limited extent of impact relating to surface and ground water. Information about the area's geology that, in effect, separates the potential area of impact from the mine to the downstream areas of Glen Davis, Glen Alice and surrounding communities, was also explored. Airly will undertake additional ground water monitoring which will be independently reviewed, with the results presented to the community by the independent reviewer.

Rural Fire Service Remote Area Firefighting Team Training Centre

The Rural Fire Service (RFS) Remote Area Firefighting Team (RAFT) training centre at Blackmans Flat was completed during the year. In 2016, Lithgow City Council sought a site for the centre and we were able to provide land at Blackman's Flat.

The all-weather training centre provides the opportunity for volunteers to undertake training in helicopter operations including winching, hover entry/exit operations and helicopter safety. It also has the capability for specialist volunteers to train in vertical access and roping techniques in a controlled environment.

The RAFT will provide a range of economic and social benefits to Lithgow. It will be used at least once a month and depending on the training occurring, will involve 16-20 people at a time and will significantly increase the capability of the NSW RFS in providing a regional location for the training of specialist volunteer firefighters, reducing the requirement for volunteers to travel to Sydney to undertake training.

Supporting Local Communities

Our sponsorship programme continues to demonstrate the value we place on our relationship with local communities. We actively participate and invest in many community networks and volunteering activities that are not directly mine-related, because we understand they are important to the communities where our people live and work.

In addition to financial sponsorship, many groups receive in-kind contributions. We have supported:

- Rathmines Catalina Association Festival by preparing a business case scenario
- Meals on Wheels ongoing participation
- The use of non-operational land for community activities
- Use of equipment (including donating surplus equipment); and
- Participating in events such as the Westpac Rescue Helicopter's Wests Cycle Classic.

Our employees also supported a range of charities, seeking fundraising support from their colleagues for issues they are passionate about.

We sponsor a range of community activities such as the opening of the roadside garden at Toronto and Rathmines Catalina Association and other sport, art, cultural and educational activities.



SHARING OUR KNOWLEDGE

Our stakeholder engagement and social impact in-house expert headed across the ditch to New Zealand to headline a seminar on the importance of engaging effectively with stakeholders.

Group Manager Stakeholder Engagement James Marshall was invited to head up the seminar by Bathurst Resources, a New Zealand based operation with mining facilities in Southland, Canterbury, Waikato and the West Coast.

James said Bathurst Resources was keen to make sure their staff had access to industry best practice techniques and asked Centennial to share its experiences and knowledge.

"It reinforced the need to understand the concept of social licence by exploring the risks to business if stakeholder engagement was not undertaken correctly."

"The visit to Bathurst Resources was a really positive experience. Sharing industry expertise and knowledge in the engineering and operations side of mining is commonplace, so it is great to see knowledge sharing expanding into other areas of the business as well."

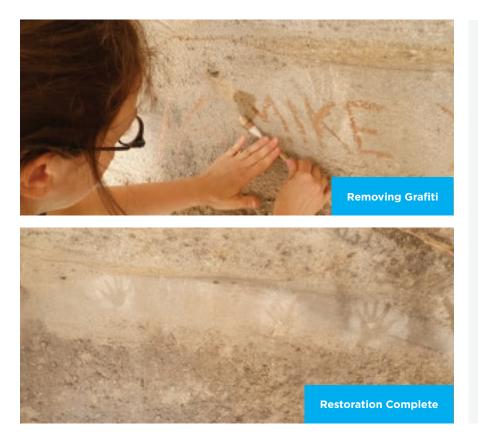
The seminar included sessions on stakeholder engagement, working with community and social impact assessment.



CASE STUDY: ROCK ART RESTORATION

In 2016 a meeting with Registered Aboriginal Parties was undertaken for the purpose of monitoring all known Aboriginal sites within the Charbon lease holding. The inspection included a rock shelter with stencilling which is located on the southern boundary of the site. The rock shelter has been covered in 'geo-textile' (as described in our 2017 report) to protect the site from dust and prevent any further vandalism of the art.

We commissioned an art restoration expert to examine the performance of the geo-textile covering that was placed over the entrance to the shelter and whether the graffiti could be removed.



Summary of site condition

- The site is in a stable condition with only minor delamination in the ceiling rock.
- The site has been extensively vandalised although a lack of photographic records makes it difficult to determine the rate of it occurring.
- Dust is present over the painted surface but at levels to be expected for a partially exposed shelter set in lightly timbered woodland. The study did not provide any evidence that mining operations in the area contributed to dust in the shelter.

A specialist art restoration company (ArtCare) was commissioned to undertake the restoration works which included:

- removing all graffiti from the site
- removing dust from all surfaces; and
- removing termite and insect nests from rear wall

The restoration work was completed in December 2019. Ongoing preservation of the site will be undertaken through camouflaging the site to minimise access and ongoing inspections to ensure the artwork is not deteriorating.



ENVIRONMENT



Environmental management is one of our core responsibilities and is integrated into our business objectives. We work to minimise our impacts, go beyond compliance, contribute to improved environmental stewardship and advance sustainability.

MANAGEMENT APPROACH

We recognise that our operations have the potential to impact the environment and communities in which we operate. We understand access to natural resources is a privilege, not a right, and we must treat these assets responsibly now and into the future. We are answerable to ourselves and our stakeholders for minimising our impacts and contributing to an improved environmental future, all the while being recognised as a valued member of the community and industry.

We will continue to do this by ensuring that the identification and management of risks remains an integrated component of our business model.

Key to our success will be:



operational excellence

Our aim is to surpass compliance and improve environmental performance, while developing and maintaining effective community relationships.

Achievement of our corporate goals will be enhanced through better understanding of our obligations and identifying opportunities for improvement that minimise our impacts on the environment.

We see environmental management as an integral part of the way we operate, led and assisted by a team of people across the breadth of our business, supported by systems and infrastructure.

Our approach to environmental management is set out in our Environment and Community Policy, forming part of a broader Environmental Management Strategy and supported by environmental standards.

Compliance with our requirements is checked by our internal audit processes, as well as periodic external audits, to ensure we identify and address areas for improvement. Greenhouse gas emissions are subject to an annual independent audit and are also reported publicly.

We continue to implement strategies to address regulatory change, minimise risk and promote innovation by harnessing the abilities of our people to build on our past successes by:

Design, planning, equipment and culture

Developing our people Analysing our performance Learning from our experience



HIGHLIGHT STATS

1st solar

farm/array

• regulatory fines/significant

incidents

Non Compliances

PERFORMANCE

We want improved environmental outcomes from our activities with ongoing further integration of environmental obligations into all mine-operating systems. In order to help achieve this, workshops conducted during 2019 to review environmental compliance obligations and risks to operational departments identified opportunities where environmental obligations could be better assimilated into site operational systems. Following these workshops, the Environmental Management System was reviewed and updated. An environmental management standard and data management projects are under development with subsequent site integration in 2020.

From stakeholder engagement, we understand issues of significance to environmental sustainability include water, greenhouse gas (GHG) emissions, biodiversity, tailings management and compliance.

GREENHOUSE

Reducing greenhouse gas emissions remains one of our highest environmental priorities and given the broad social concerns around global warming, this is a critical obligation for our business. Accordingly, we continue to pursue a strategy of minimising emissions and maximising opportunity.

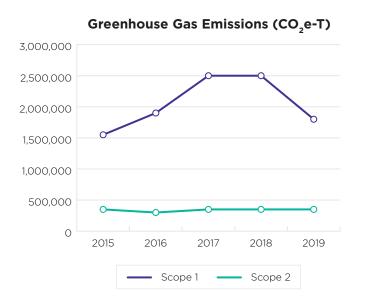
In 2019, the gas management systems at Mandalong Mine were upgraded to accommodate increasing natural underground gas make. The management system is now able to fully extract and flare this gas, greatly reducing the quantum of greenhouse gas emissions. As maximising opportunity is the second arm to our GHG Strategy, Mandalong is now preparing to install gas engines to make beneficial use of this gas, while still maintaining a lower emission profile.

The main source area of emissions is the low concentration methane that is exhausted through mine ventilation fans. The low concentration in high volume air flows, makes this emission source difficult to mitigate. We continue to lead industry research into viable mitigation strategies, with the support of Coal 21 and the Australian Government Department of Industry, Innovation and Science Coal Mine Abatement Technology Support (CMATS) programme. It is anticipated that the research project will deliver a mitigation process with validated design parameters in 2020.



Our Mandalong emissions fell by over $470,000 \text{ CO}_2\text{e-T}$, or 28%, when compared to 2018.

Mandalong abated approximately 775,000 CO₂e-T.



Scope 1 Emissions – direct emissions (for example fugitive emissions from mining and diesel use) Scope 2 Emissions – indirect emissions (electricity) CO₂e-T - Tonnes of carbon dioxide equivalent

WATER

Water is an essential shared resource, with high environmental, social and economic value and as such remains a key focus area for us. Record low rainfall during 2019 has highlighted the need to maximise efficient water use. We are committed to using and managing water responsibly.

Water Use

Security of water supply is currently not a material issue for our business, with the exception of Airly. Due to below average rainfall it was predicted that Airly would have a water deficit in 2019. This was a significant risk for the business. To address this risk, a project was developed to utilise water from Charbon (now closed) which was surplus for site management or rehabilitation.

Airly and Charbon are joined by a rail line so water was able to be transported from Charbon to Airly via rail. From mid 2019, trains transporting water from Charbon, sustained Airly's water demands for mining operations.

Transferring water from one site to the other provides benefits to Airly from an employment and economic perspective securing 130 regional jobs and ensuring continued coal supply to customers, while avoiding trucks on the road and the cost of trucking in water to the operations.

The water transferred from Charbon by train is surface water run-off either from existing onsite water storage dams or Reedy Creek Dam, in accordance with current water licences.

Where possible and where geological conditions allow, we use in-seam mine water for our operations, reducing the dependence on town water supply. Across our mine sites in 2019, our total water input was 1,607 ML. Of this water, 56% was mine water and 36% from town supply. A small portion (8%) was sourced from harvested rainwater.

Mine Site Management of Water

The use and discharge of water presents an opportunity to better use and share this resource for common benefit.

Our broad approach to water resource management encompasses community-based initiatives, water balance modelling, monitoring and mitigating impacts and developing alliances/ partnerships with neighbouring industry to facilitate the beneficial reuse of mine water.

A key focus in 2019 has been on continuing water management improvements at Clarence, Springvale and Angus Place, to the benefit of the local community.

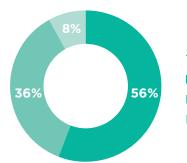
The Springvale water treatment project:

- Construction substantially completed by the end of 2019
- Facility has commenced receiving mine water which has enabled the removal of Springvale and Angus Place mine water discharge from the Coxs River catchment
- Water transferred from existing underground mine dewatering facilities for reuse at the Mount Piper Power Station cooling towers
- Springvale ceased discharges from their Licence Discharge Point (LDP) 9 in June 2019
- Angus Place ceased discharges from LDP 1 in December 2019

The project is significant in geographical extent, cost and environmental benefit with

- 15km water transfer pipeline,
- transfer of up to 42 megalitres a day of mine water,
- a desalination plant and
- 5km pipeline to the Springvale coal services area for residual water





2019 Water Usage % by source

- Groundwater (mine water)
- Town water
- Other source

Clarence was involved in a detailed regulatory review of its water management and environmental protection licence (EPL). As a result, the Environment Protection Authority (EPA) varied the licence to include revised water quality discharge limits for metals and pH. Following this variation, consultation with a range of agencies and stakeholders occurred to determine options to reuse mine site discharge water for community benefit.

Throughout 2019, there was ongoing consultation and negotiation with the EPA regarding options to cease water discharge into the Wollangambe River catchment from Clarence. Clarence committed to a Pollution Reduction Programme (PRP) to complete an environmental assessment including stakeholder consultation, to build and operate infrastructure to transfer treated water into the Coxs River, which would otherwise be discharged into the Wollangambe River, by the end of 2019.

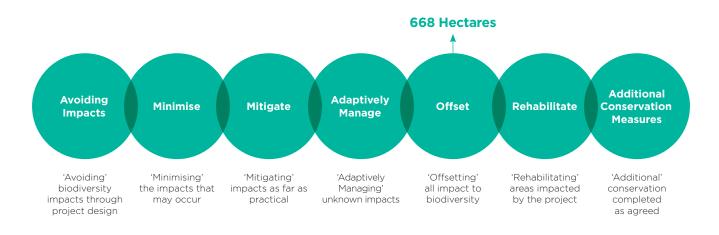
Achieving this objective has proven difficult with viable options either requiring reliance on third party agreements, a permissible approval pathway and/or an achievable and realistic time frame. Significant work has been undertaken and completed to date to progress an Environmental Impact Statement to support an application for the project, however, this cannot be completed until a project and approval pathway is confirmed.

Centennial anticipates 2020 will see significant progress in this area and remains committed to achieving the objectives of the PRP.

BIODIVERSITY

We capture all actual and potential impacts (negative and positive) on biodiversity associated with our operations under Regional Biodiversity Management Plans, supported by site specific actions.

These Plans meet the regulatory requirement for each operation. Site-specific plans identify baseline ecological values, land management actions to improve biodiversity and ecological monitoring programmes. We follow a pragmatic approach to biodiversity with the overarching aim to achieve long term net positive impact on biodiversity





In 2019, 912 hectares were managed for conservation of which 668 hectares is protected in perpertuity by biodiversity agreements

Impact from bush fires to biodiversity offset sites

In late 2019, there were significant bush fires near our western region operations. The bush fires extended to biodiversity offsets areas that we manage for the long-term protection and conservation of threatened species. In 2020, we will be documenting the impact of the bush fires and the actions required to promote restoration of the sites.

We are very pleased to identify the critically endangered orchid species Variable Midge Orchid *Genoplesium insigne* at the Mandalong biodiversity offset site during our ecological monitoring in 2019. The orchid naturally grows in heathy woodlands of the NSW Central Coast, and our discovery has added to the handful of locations the species has been sighted.

The Mandalong biodiversity offset site is one of few in NSW that manages agricultural grazing and conservation values on the same site. The identification of the Variable Midge Orchid is a positive indicator of the restoration and management of this biodiversity offset site. We have installed fencing to protect the species to avoid impact on this native orchid.

Case Study: Persoonia hindii Research Programme - Translocation in 2019

Persoonia hindii is an endangered plant species in NSW with a restricted range of occurrence to the area of the Greater Blue Mountains World Heritage Area, including the Newnes State Forest. We support research into the conservation success for the collection, propagation and translocation of the species with the Australian Royal Botanic Gardens.

Vegetative cuttings were taken in 2015 from plants that were to be impacted by our operations on the Newnes State Forest. Since then, we have worked with the Australian Coal Association Research Programme (ACARP) to progress the understanding of the collection, propagation and translocation.

A report, documenting the works completed, was released in January 2020 and showed the success of translocating the species is dependent on identifying the species habitat range, using mulch during planting and watering after planting. The translocations will continue to be monitored to determine the success of transplanting this species.

TAILINGS

Following a number of significant international tailings dams failures, communities, regulators, operators and insurers are placing a higher focus on the governance standards for tailings storage facilities across all sectors of the mining and resources industry. In many respects, Centennial was pro-active in this regard, having put in place a number of initiatives following the Clarence incident in July 2015. These included the establishment of an Reject Emplacement Oversight Committee, development of a Corporate REA Standard, and a schedule of regular internal audits across all our facilities. The Committee meets twice each year to review the Standard and our governance of tailings facilities, together with conducting site visits and audits for each site.

In 2019, there were a number of specific activities and events that maintained our focus in this area. Centennial participated in a Minerals Council of Australia (MCA) workshop and communique that established a set of commitments applicable to all MCA member companies with regard to tailings storage facilities. In November, the new NSW Dams Safety Act 2015 and Dams Safety Regulation 2019 came into effect, further strengthening the regulatory oversight of Declared Dams in NSW. This applies to the facilities at Newstan and Western Coal Services. The relevant Community Consultative Committee for each mine was also briefed on activities relating to tailings and rejects storage. And finally, late in the year, the NSW Resources Regulator announced that tailings storage facilities will be one of their key focus areas in 2020 for their regular targeted assessment programme, with government inspectors visiting all NSW sites during the year.

Storage facilities across the business use either a dry stacking emplacement system or a downstream construction method. These are considered more stable and less risky than facilities using the upstream method that have featured in the recent major failures overseas. Many of our facilities are now in-active and awaiting decommissioning and rehabilitation.





Nonetheless, Centennial appreciates the critical need for best practice management of our tailings and emplacement facilities, and is committed to ensuring all sites apply a whole of life approach to their design, operation and rehabilitation. Sound risk management practices are applied together with regular internal and independent external audits.

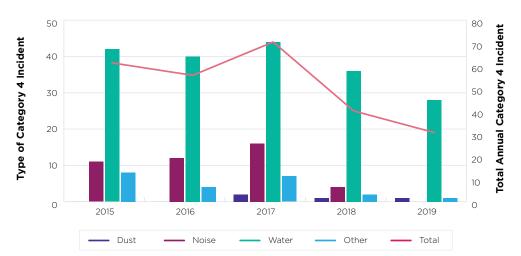
Centennial is committed to work cooperatively with all relevant stakeholders to ensure safe, stable and compliant reject disposal.

COMPLIANCE

All of our sites are subject to environmental protection licences from the EPA and conditions of consent from the Department of Planning, Industry and Environment (DPIE). Compliance with these environmental regulations is always a focus and our sites all maintain environmental incident response plans.

We are committed to eliminating material environmental events and incurring no fines, penalties or prosecutions. Compliance performance showed a pleasing improvement on previous years. The key indicator of our performance is the number of Category 4 (non-compliance) incidents that occur during the reporting period.

A significant reduction of Category 4 incidents was recorded in 2019 compared to 2018 and previous years primarily due to water management initiatives such as the Springvale Water Treatment Plant, resulting in zero discharge from LDP9, a temporary water treatment facility at Angus Place and water treatment plant enhancements at Clarence.





OPPORTUNITIES

Water issues are a focus for environmental management and performance. Compliance is a precursor for sustainability and we believe all water noncompliances are avoidable. In 2019, we continued a project to modernise technology and connect LDPs remotely to site control rooms. We also installed early warning and mitigation options. A review of technology gaps and preferences was undertaken and a capital works programme developed. This significant step-change uses smart technology data analytics and will continue throughout 2020.

To support this smart technology, we have investigated an improved data management platform and this will be developed by our DCC in 2020. The aim is to better inform environmental decision making, reporting, strategy and action. Key outcomes are to improve the environmental data management system by implementing digital tools and integrating data captured into our Geographical Information System (GIS). Environmental data processes have been mapped, with the outcomes analysed and prioritised.

In collaboration with Hunter Water, Mandalong, Northern Coal Services and Myuna are developing Water Efficiency Management Plans (WEMP). These plans will seek to reduce potable (drinking) water usage from each site.

A WEMP is now in place at Mandalong, our largest user of potable water. WEMPs for our remaining sites will continue to be developed in early 2020.

Key improvements within the WEMPs are to increase water efficiency through implementing water saving taps and shower heads, high efficiency nozzles, and undertake a general ongoing site monitoring programme for leak detection.

Continuous improvement at the Clarence water treatment plant has included detailed monitoring, improvements to flocculent capture and management of treated water discharges has resulted in treatment efficiencies being achieved of greater than 95% and a reduction in non-compliances. Investigations have also included laboratory testing of alternative treatment technologies to determine whether further improvements can be achieved.

We regularly provide qualitative assessment of climate related business risks through this and previous Sustainability Reports and we are now preparing to undertake quantified risk assessments and disclosures in line with the recommendations of the Task Force on Climate Related Disclosures (TCFD). This will consider physical risks to our assets as well as transitional risks to our business.





OUR FUTURE

DIVERSIFICATION

The Australian energy mix is changing to reflect the global decarbonisation trend. Significant new renewables and firming capacity (supplementary energy supply) will be required to replace coal fired generation as it retires over the coming decades. Centennial is a key supplier of energy to NSW and we are actively reviewing our role in this changing energy mix.

Centennial has a great opportunity to leverage the transition undertaken by its parent company Banpu; a journey from a fossil fuel based company to a full energy value chain encompassing significant renewable and low carbon technology aspects of its business.

To that end, we have established a sister Company, Centennial Energy Pty Limited. With a vision of creating a sustainable energy business that is innovative, synergistic and technologically advanced, Centennial Energy will diversify the Centennial brand.

A small solar farm has been built at Airly Mine which became operational in April 2020. It will provide a significant portion of daytime energy requirements for Airly Mine and give us valuable insight into the required system integration and technical aspects of a solar installation at a mine. Our DCC has installed a range of hardware and software to help us gain valuable insights into solar generation and operation which will provide a basis for future expansion in solar.

Large scale renewables require some form of storage and dispatch to meet the full 24-hour energy demands. Typically referred to as firming, pumped hydro potentially has a significant role in providing firming. As such it could become a key enabler for the shift to a decarbonised energy future. We are researching the feasibility of using old underground mine voids for pumped hydro storage.

Our short-term transition will see us advance further low carbon organic projects and expand on our existing skills and capabilities. This will provide a strong platform for greater expansion into the Australian energy market in the future.

UN GLOBAL COMPACT

At the time of publishing, Banpu had been accepted as a participant in the United Nations Global Compact (UNGC) 10 principles on human rights, labour, environment and anti-corruption. This will require Centennial to formally incorporate these principles into our strategy and goals. This important commitment will see us advance our governance, social and environmental performance. Information on Banpu's profile is available on the UNGC website at https://unglobalcompact.org/participant/139249.









OUR PERFORMANCE

PERFORMANCE DATA - FINANCIAL

| Financial | 2017 | 2018 | 2019 |
|--|-------|-------|-------|
| Saleable Production (million tonnes) | 14.2 | 13.3 | 10 |
| Sales Revenue (\$ million) | 1,317 | 1,559 | 1,107 |
| EBITDA - Earnings before interest, tax, depreciation & amortisation (\$ million) | 343 | 347 | 308 |
| NSW Government Royalty (\$ million) | 84.5 | 87.2 | 68.2 |

PERFORMANCE DATA - PEOPLE

| People | 2017 | 2018 | 2019 |
|------------------------------------|-------|-------|-------|
| Employees | | | |
| Male | 1,496 | 1,598 | 1,624 |
| Female | 63 | 68 | 67 |
| Total | 1,559 | 1,666 | 1,691 |
| Employees by category ¹ | | | |
| Mine Workers | 689 | 739 | 733 |
| Electrical Trade | 148 | 159 | 159 |
| Mechanical Trades | 180 | 190 | 188 |
| Washery | 44 | 46 | 45 |
| Deputies | 143 | 152 | 154 |
| Staff - Male | 260 | 279 | 319 |
| Staff - Female | 57 | 62 | 61 |
| Senior Management - Male | 32 | 33 | 26 |
| Senior Management - Female | 6 | 6 | 6 |
| Employees by region | | | |
| North | 797 | 872 | 886 |
| West | 731 | 761 | 773 |
| Sydney | 31 | 33 | 32 |
| Employees by employment type | | | |
| Permanent | 1,488 | 1,592 | 1,620 |
| Fixed Term | 57 | 62 | 57 |
| Part Time | 14 | 12 | 14 |
| Employees age distribution (years) | | | |
| Under 30 | 184 | 189 | 160 |
| 30-39 | 415 | 483 | 479 |
| 40-49 | 435 | 457 | 468 |
| Over 50 | 525 | 537 | 584 |

PERFORMANCE DATA - PEOPLE

| People | 2017 | 2018 | 2019 |
|---|-----------|-----------|-----------|
| Number and rate of employee turnover by gender ² | | | |
| Total number and percent | 65 (4%) | 76 (5%) | 113 (7%) |
| Male | 62 (95%) | 71 (93%) | 102 (90%) |
| Female | 3 (5%) | 5 (7%) | 11 (10%) |
| Number and rate of employee turnover by age group | | | |
| Under 30 | 11 (17%) | 6 (7%) | 21 (19%) |
| 30-39 | 10 (15%) | 15 (20%) | 35 (31%) |
| 40-49 | 7 (11%) | 8 (11%) | 13 (11%) |
| Over 50 | 37 (57%) | 47 (62%) | 44 (39%) |
| Number and rate of employee turnover by region | | | |
| North | 26 (40%) | 42 (55%) | 48 (42%) |
| West | 34 (52%) | 33 (44%) | 64 (57%) |
| Sydney | 5 (8%) | 1 (1%) | 1 (1%) |
| Number and rate of new employee hires by gender | | | |
| Total number | 150 | 185 | 138 |
| Male | 142 (95%) | 176 (95%) | 128 (93%) |
| Female | 8 (5%) | 9 (5%) | 10 (7%) |
| Number and rate of new employee hires by age group | | | |
| Under 30 | 60 (40%) | 67 36%) | 50 (36%) |
| 30-39 | 51 (34%) | 72 (39%) | 52 (38%) |
| 40-49 | 27 (18%) | 35 (19%) | 25 (18%) |
| Over 50 | 12 (8%) | 11 (6%) | 11 (8%) |
| Number and rate of new employee hires by region | | | |
| North | 81 (54%) | 118 (64%) | 67 (48% |
| West | 67 (45%) | 66 (36%) | 70 (51%) |
| Sydney | 2 (1%) | 1(0%) | 1 (1%) |
| 1 All female employees are staff or senior management 2 Voluntary and retrenched employees | | | |
| | | | |

PERFORMANCE DATA - SAFETY

| | | | 2017 | | | 2010 | | | 2010 | |
|------------------------------------|----------------------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|
| Data | Unit | | 2017 | | | 2018 | | | 2019 | |
| | | Employee | Contractor | Combined | Employee | Contractor | Combined | Employee | Contractor | Combined |
| Fatal Injuries | Person | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lost Time Injury (LTI) | Person | 28 | 7 | 35 | 23 | 2 | 25 | 28 | 4 | 32 |
| Restricted Work Duty Injury (RWDI) | Person | 104 | 16 | 120 | 112 | 5 | 117 | 117 | 14 | 131 |
| Medical Treatment Injury (MTI) | Person | 22 | 3 | 25 | 41 | 5 | 46 | 24 | 5 | 29 |
| First Aid | Person | 100 | 16 | 116 | 128 | 23 | 151 | 149 | 19 | 168 |
| Near Miss ¹ | Case | 2 | 0 | 2 | 2 | 0 | 2 | 165 | 7 | 172 |
| Total Recordable Injury (TRI) | Person | 154 | 26 | 180 | 176 | 12 | 188 | 168 | 23 | 191 |
| Working Time | Man-Hour | 2,589,765 | 732,391 | 3,322,156 | 2,679,533 | 932,331 | 3,611,864 | 2,832,534 | 1,051,284 | 3,883,818 |
| TRI Frequency Rate (TRIFR) | Man/Million Man-Hour | 59.46 | 35.50 | 54.18 | 65.68 | 12.87 | 50.90 | 59.31 | 21.88 | 49.18 |
| LTI Frequency Rate (LTIFR) | Man/Million Man-Hour | 10.81 | 9.56 | 10.54 | 8.58 | 2.15 | 6.92 | 9.89 | 3.80 | 8.24 |

¹ The maturity of data collection systems for capturing near misses increased in 2019, thereby resulting in a more accurate representation of this indicator.

PERFORMANCE DATA - ENVIRONMENT

| | | Unit | 2017 | 2018 | 2019 |
|------------------------------------|---------------------------------|-----------------------------|------------|------------|------------|
| Energy | | | | | |
| | Direct Energy | | | | |
| | Diesel (Company & Contractor) | GJ | 223,877 | 220,818 | 273,097 |
| | Petroleum Oils and Greases | GJ | 40,221 | 47,959 | 62,852 |
| Energy Consumption - | Gasoline (Company) | GJ | 3,444 | 3,669 | 4,005 |
| by fuel type | Energy Use (Other) ¹ | GJ | n/a | 2,156,340 | 1,708,441 |
| | Indirect Energy | | | | |
| | Electricity Purchased (Company) | GJ | 1,075,646 | 1,112,181 | 1,075,736 |
| | Energy Intensity | GJ/ROM T | 0.09 | 0.26 | 0.29 |
| GHG Emissions | | | | | |
| | Scope 1 Emissions | | | | |
| | CO ₂ | Tonnes of CO ₂ e | 82,364 | 146,290 | 145,499 |
| Direct GHG Emissions ² | CH4 | Tonnes of CO ₂ e | 2,419,853 | 2,330,610 | 1,632,077 |
| Direct GHG Emissions- | N ₂ O | Tonnes of CO ₂ e | 62 | 94 | 106 |
| | SF ₆ | Tonnes of CO ₂ e | 36 | 36 | 34 |
| | Total Scope 1 | Tonnes of CO ₂ e | 2,502,315 | 2,477,030 | 1,777,716 |
| Indirect GHG | Scope 2 Emissions | | | | |
| Emissions ² | Total GHG Emissions (Scope 2) | Tonnes of CO ₂ e | 249,446 | 254,843 | 243,558 |
| Direct and Indirect | Total Scope 1 and Scope 2 | Tonnes of CO ₂ e | 2,751,761 | 2,731,873 | 2,021,274 |
| Emissions | Scope 1 and 2 Intensity | CO ₂ e/ROMT | 0.19 | 0.21 | 0.20 |
| Indirect GHG Emssions ³ | Scope 3 Emissions | Tonnes of CO ₂ e | 35,930,303 | 32,958,640 | 25,841,648 |

PERFORMANCE DATA - ENVIRONMENT

| | | Unit | 2017 | 2018 | 2019 |
|---------------------------------------|--|--------------------|--------|--------|--------|
| Air Quality | | | | | |
| | NOx | Tonnes | 190 | 190 | 291 |
| Air Emissions | SOx | Tonnes | 0.13 | 0.12 | 0.17 |
| - by type | Volatile organic compounds (VOC) | Tonnes | 25 | 19 | 28 |
| | Particulate Matter (PM) | Tonnes | 349 | 255 | 316 |
| Water Input | | | | | |
| | Surface fresh water | ML | 0 | 0 | 0 |
| | Salt/brackish water | ML | 0 | 0 | 0 |
| | Ground water ⁴ | ML | 1,533 | 994 | 893 |
| Water withdrawn - by source | Rain water | ML | 48 | 84 | 131 |
| | Waste water from external organisation | ML | 0 | 0 | 0 |
| | Municipal water | ML | 544 | 601 | 583 |
| | Other source (please specify) | ML | 0 | 0 | 0 |
| Water recycled and reused | | ML | 521 | 3,669 | 161 |
| Water Output | | | | | |
| Water discharged - by destination | Surface water | ML | 16,578 | 20,266 | 13,959 |
| | На | %Compliance status | 100% | 100% | 99.8% |
| | TSS | %Compliance status | 99.9% | 100% | 99.8% |
| | Fe | %Compliance status | 100% | 100% | 100% |
| | Mn | %Compliance status | 100% | 100% | 100% |
| Compliance status of water quality | Arsenic | %Compliance status | 100% | 100% | 100% |
| | EC | %Compliance status | 99.9% | 98.0% | 99.8% |
| | Cobalt | %Compliance status | 99.9% | 90.0% | 99.0% |
| | Nickel | %Compliance status | 99.9% | 90.0% | 100% |
| | Zinc | %Compliance status | 99.9% | 98.0% | 97.1% |
| Land | | | | | |
| | Amount of land owned | Hectare | 15,335 | 12,375 | 12,367 |
| | Accumulated area disturbed | Hectare | 992 | 845 | 846 |
| Land distributed and rehabilitated | Area disturbed during the year | Hectare | 19 | 9 | 8 |
| | Accumulated area rehabilitated | Hectare | - | 337 | 351 |
| | Area rehabilitated during the year | Hectare | 102 | 49 | 14 |
| Biodiversity | | | | | |
| | High biodiversity area⁵ | | | | |
| | Number of sites owned or operated by Company ⁶ | Site | 10 | 10 | 10 |
| | Number of site operations located inside protected area | Site | 0 | 0 | 0 |
| High biodiversity area & BMP | Number of site operations located adjacent to protected area | Site | 1 | 1 | 3 |
| | Number of site operations that contain a portion of protected area | Site | 9 | 9 | 3 |
| | Number of site operations located in relation to high biodiversity area outside protected area | Site | 1 | 1 | 0 |

PERFORMANCE DATA - ENVIRONMENT

| | | Unit | 2017 | 2018 | 2019 |
|---|--|-------------------|---------|---------|---------|
| Biodiversity | | | | | |
| | BMP implementation | | | | |
| High biodiversity area & BMP | Sites operations implemented Biodiversity Management Plan (BMP) | Site | 5 | 10 | 10 |
| Waste | | | | | |
| | Reuse | Tonnes | 0 | 0 | 0 |
| | Recycle | Tonnes | 722 | 1,221 | 977 |
| Hazardous waste - by disposal | Landfill | Tonnes | 0 | 0 | 0 |
| | On-site Storage | Tonnes | 2,256 | 4,005 | 4.713 |
| | Other | Tonnes | 254 | 70 | 52 |
| | Reuse | Tonnes | 0 | 0 | 0 |
| - | Recycle | Tonnes | 1,236 | 2,137 | 1,406 |
| Non-hazardous waste - by disposal | Landfill | Tonnes | 2,372 | 2,678 | 2,756 |
| | On-site storage | Tonnes | 0 | 0 | 0 |
| | Other | Tonnes | 0 | 0 | 0 |
| | Hazardous waste transported | | | | |
| | Hazardous waste imported from external sources | Tonnes | 0 | 0 | 0 |
| - | Hazardous waste exported to external sources | Tonnes | 976 | 1,291 | 1,029 |
| Transport of hazardous waste | Hazardous waste transported among the company's sites | Tonnes | 0 | 0 | 0 |
| | Hazardous waste treated | | | | |
| | Hazardous waste treated within company | Tonnes | 2,256 | 4,005 | 4,713 |
| | Hazardous waste treated outside company | Tonnes | 976 | 1,291 | 1,029 |
| Tailings & Mineral Waste | | | | | |
| Tailings | Tailings generated | Tonnes dry weight | 333,596 | 295,066 | 410,697 |
| Mineral waste | Total overburden generated | BCM | 0 | 0 | 0 |
| (overburden) | Potential Acid Forming (PAF) material generated | BCM | 0 | 0 | 0 |
| Significant spill | Tailings spill | Case | 0 | 0 | 0 |
| - by material | iainigs spin | Litre | 0 | 0 | 0 |
| Return on Environment Ir | vestment | | | | |
| Environmental | Capital investment | AUD | 1.2M | 1.9M | 0.8M |
| expenditures and cost - saving | Operating expense | AUD | 14.6M | 31.5M | 16.3M |
| Compliance | | | | | |
| | Significant fines/penalty | Case | 2 | 2 | 0 |
| En den norstelle | (\$15,000 and above/case) | AUD | 30,000 | 30,000 | 0 |
| Environmental non- compliance ⁷ | Non-monetary sanctions | Case | 2 | 0 | 0 |
| compliance [,] | Case brought through dispute resolution mechanism | Case | 0 | 0 | 0 |

¹ Energy use from waste gas flared and vented from gas drainage plant

² Centennial currently uses Global Warming Potentials (GWP) f rom the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 4 (AR4)

³ Scope 3 emissions have been calculated in line with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and includes processing of sold coal product only

⁴ Mine water is classed as groundwater

⁵ Definition of protected areas was updated in 2019, consistent with Banpu, and State Forest land was removed

⁶ Definition of Centennial 'operations' changed in 2017 to include both operating and non-operating sites

⁷ Non-compliances are recorded against the year the incident occurred for consistency and not when a fine was levied.

All data is calendar year



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| Governance Structure | | | | | |
| | Roles & Responsibilities | | | | |
| Board of Directors | Oversee and protect the Company, and enhance shareholder value while maint responsiveness to social and environmental aspects. | aining sound governar | ce principles, awareness and | | |
| Board Committees | | | | | |
| Audit & Risk Committee | Assists the Board in fulfilling its responsibilities in relation to financial reporting management and external audit functions. | , internal control struct | ures, risk | | |
| HSEC Committee | Assists the Board in fulfilling its responsibilities in relation to health, safety, environment and community (HSEC) matters; consider, assess and monitor whether or not the Company has in place the appropriate policies, standards, systems and resources required to meet the Company's HSEC commitments; provide necessary focus and guidance on HSEC matters through monitoring of regulations, performance and compliance. | | | | |
| Remuneration Committee | Considers and reviews, on behalf of the Board, the Company's remuneration ar | rangements and make | recommendations to the Board. | | |
| Chief Executive Officer | Managing the Company's business operations, incorporating sustainability and social licence. | an appropriate balanc | e between business growth and | | |
| Subsidiaries | The Centennial Group has about 30 subsidiaries, many of whom are single-pur Board, made up of Executive Management. Each mine generally sits within a su | | nt. Each subsidiary has its own | | |
| Management | Implements Board-approved strategy and guides the day-to-day operational fu operational and corporate risk; ensures provision of sufficient, accurate and tim and business affairs, paying particular attention to corporate performance, fisca | ely information relating | | | |

| Disclosure | Description | Page | Detail |
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| 102-51 | Date of most recent report | | 2018 |
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| 401-1 | New employee hires and employee turnover | 50 | |
| 401-2 | Benefits provided to full-time employees that are not provided to temporary or part-time employees | | Benefits are standard regardless of employment type. |
| 401-3 | Parental leave | | 50% of female employees and 100% of male employees returned after parental leave. |
| 404-3 | Percentage of employees receiving regular performance and career development reviews | | 100% of employees |
| GRI 403: Occupational | Health & Safety 2018 | | |
| 103-1 | Explanation of the material topic | 23 | |
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| 404-2 | Programmes for upgrading employees skills | 30, 31 | |
| 404-3 | Percentage of employees receiving regular performance and career development reviews | | 100% of employees |
| GRI 413: Local Commu | nities 2016 | | |
| 103-1 | Explanation of the material topic | 33 | |
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| 413-1 | Operations with local community engagement, impact assessments and development programmes | | 100% of operations implemented local community engagement and impact assessments |
| 413-2 | Operations with significant actual and potential and negative impacts on local communities | 33-35 | |

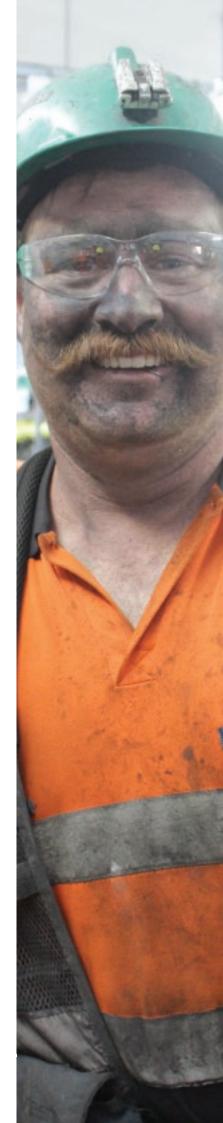
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