

# **2018 YEAR IN REVIEW**



3.5
TRIFR INCREASED



22%
SERIOUS POTENTIAL
INCIDENTS DECREASED



MALARIA AND TYPHOID CASES REDUCED BY ~50%



# **FEMALE REPRESENTATION**

BOARD **29%** EXECUTIVE **40%** 



# SOUTH AUSTRALIAN PREMIER'S AWARDS

- Excellence in Diversity
- Excellence in Innovation Environmental Management



# HUMAN RIGHTS POLICY RELEASED



# CLIMATE CHANGE APPROACH DEVELOPED

aligned with TCFD recommendations



LAND REHABILITATED 806ha
LAND DISTURBED 888ha



DEMOLITION OF REDUNDANT ASSETS AND CLEAN-UP OF SITES



**TAX STRATEGY PUBLISHED** 



# LEADING SUSTAINABILITY PERFORMER

Member of Australian DJSI and FTSE4Good Index



\$980K SOCIAL INVESTMENT



# **CONTENTS**

From the Managing Director	2
About Iluka	4
About this Report	8
Health and Safety	15
People	20
Social Performance	27
Environment	33
Governance	42
Economic Responsibility	45
Performance Data	50

# DELIVER SUSTAINABLE VALUE

Iluka's full financials are provided in its 2018 Annual Report available on the Iluka website www.iluka.com.

Currency is in Australian dollars unless otherwise indicated.

# FROM THE MANAGING DIRECTOR

#### **WELCOME TO OUR 2018 SUSTAINABILITY REPORT**

Over the past year we have redefined our strategy – the Iluka Plan – and our purpose – to deliver sustainable value. This places sustainability at the very centre of Iluka's business.

Underpinning our approach to sustainability is the recognition that the key pillars - our people, health and safety, social performance, environment, economic responsibility and governance - are mutually reinforcing. To deliver sustainable profits necessitates a workforce that is skilled, engaged, diverse and empowered. It is also dependent on the ongoing trust of our communities. That trust is earned primarily from delivering on our commitments - doing what we say we will do and reporting on our progress transparently. Finally, our ability to invest in our people and communities relies on sustainable financial performance.

The health and safety of our workforce is paramount. It was with great sadness that we reported the death in March 2018 of Glenn Morton – a member of the BCE Surveying team, subcontracted by Watpac as part of the Cataby project early site works. Glenn suffered a severe reaction to what is believed to have been a bee sting and, despite the efforts of the people at site and medical professionals, passed away 14 days later. Iluka's Chairman acknowledged Glenn's tragic passing at the company's 2018 Annual General Meeting.

Across the business, thirty-four people sustained recordable injuries while at work in 2018 resulting in an end of year TRIFR of 3.5, an increase from 2.8 in 2017. Two of the associated incidents had the potential to result in severe permanent disabling injuries or fatalities which was a significant reduction from eight such incidents in 2017. The reduction in serious potential incidents was pleasing. The severity rate of injuries also declined from 97.1 to 90.1, while the LTIFR remained the same as 2017 at 1.0 per million hours worked.

In acquiring Sierra Rutile, Iluka was cognisant that operating in a developing country would present new challenges. The operation performed unacceptably in 2018 with production impacted by a range of technical, industrial and external issues. Although substantial, the company does not regard these challenges as insurmountable and we are focused on achieving long-term stability in the operating environment.

As reported with the full year results, lluka and the International Finance Corporation (IFC), a member of the World Bank Group, have been in discussions to commence a strategic partnership in Sierra Leone. While this is still subject to due diligence and final approvals, we believe that partnering with the IFC would provide benefits to Iluka, IFC and the people of Sierra Leone by promoting the continued, sustainable development of the Sierra Rutile operation.

lluka's global footprint requires us to address a broader range of social issues, risks and impacts, in particular the protection of human rights. In October 2018 the Board approved our Human Rights Policy, which expresses the commitment to respecting human rights and seeking to prevent any negative impacts from our operations or activities. The Policy covers a range of areas including land acquisition, resettlement and the rejection of any form of slavery or child labour. During the year we completed the resettlement of Foinda village in Sierra Leone to allow for mining of the areas below the village footprint. More than 800 people were re-established at a new village site. The project has seen significant improvements in housing, water and sanitation, shared facilities for the community, and includes a focus on livelihood restoration

Our approach to environmental stewardship is based on understanding and minimising potential impacts on the environment. We have had fewer level 3 and above environmental incidents in 2018 than 2017 and we continue to focus on strengthening our closure processes.

Mining tailings dam tragedies around the globe have reinforced the efforts mining companies must make to ensure best practice tailings management. Iluka operates active tailings storage facilities at Jacinth-Ambrosia and Sierra Rutile, with no upstream raised tailings containments at either location. Since acquisition in December 2016, Sierra Rutile has significantly improved the management of its tailings structures through a programme of physical works, monitoring, regular operational inspections and internal and external audits.

# **RECOGNISED AS A LEADING SUSTAINABILITY PERFORMER ON THE DOW JONES SUSTAINABILITY INDEX (DJSI) AUSTRALIA**

We have undertaken a review of the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD). We are supportive of the Paris Agreement objectives and accept the Intergovernmental Panel on Climate Change (IPCC) assessment of climate change science. We are working towards alignment with the TFCD recommendations over the next three years. This will enable us to identify, understand and assess our material risks and potential opportunities relating to physical and transitional impacts from climate change; and, over time to develop plans to mitigate these risks and take up opportunities.

We share economic benefits with the communities we operate in through job creation, building community infrastructure, local procurement, social investment and paying taxes and royalties. In 2018, we contributed over \$980,000 to initiatives in our operational regions and made payments to contractors and suppliers of over \$300 million.

We have published an Approach to Tax Statement, which publicly expressed the underlying principles of our tax strategy and tax risk management framework. Paying tax in accordance with our legal obligations plays an important part in building and maintaining trust. In 2018 we paid \$57.3 million in income taxes, royalties and other payments to national, regional and local governments.

This report sets out our 2018 performance and our targets for 2019 and beyond. These targets consider our material sustainability risks as well as the global challenges facing the resources sector today. Iluka remains committed to reporting transparently to our stakeholders and improving our sustainability performance.

Tom O'Leary Managing Director and Chief Executive Officer



# **ABOUT** ILUKA

Iluka Resources Limited (Iluka) is an international mineral sands company with expertise in exploration, project development, mining operations, processing, marketing and rehabilitation.

The company is the largest producer of zircon globally and a major producer of highgrade titanium dioxide feedstocks (rutile and synthetic rutile). Our products are used in an increasing array of applications including home, workplace, medical, lifestyle and industrial uses.

The company has a global exploration programme; operations in Australia and Sierra Leone; projects being developed in Australia, Sierra Leone and Sri Lanka; and rehabilitation programmes in the United States, Australia and Sierra Leone

Iluka holds a royalty over iron ore sales revenues from areas of BHP Billiton's Mining Area C province in the north west of Western Australia.

The company is listed on the Australian Securities Exchange and is headquartered in Perth, Western Australia.

# MINERAL SANDS PROCESS

Iluka is involved in all of the main stages of the mineral sands process, from exploration through to delivery of products to customers.

# **GEOLOGICAL SETTING**

Mineral sands are heavy minerals found in sediments on, or near to the surface of ancient beach, dune or river systems. Mineral sands include minerals such as rutile, ilmenite, zircon and monazite.

# **MINING APPROACH**

Mineral sands mining involves both dry mining and wet (dredge or hydraulic) operations. Mining unit plants and wet concentrator plants separate and concentrate the heavy mineral sands from waste material.

# MINERAL SEPARATION

The heavy mineral concentrate is transported from the mine to a mineral separation plant for final product processing. The plant separates the heavy minerals zircon, rutile and ilmenite from each other in multiple stages by magnetic, electrostatic and gravity separation.

# SYNTHETIC RUTILE

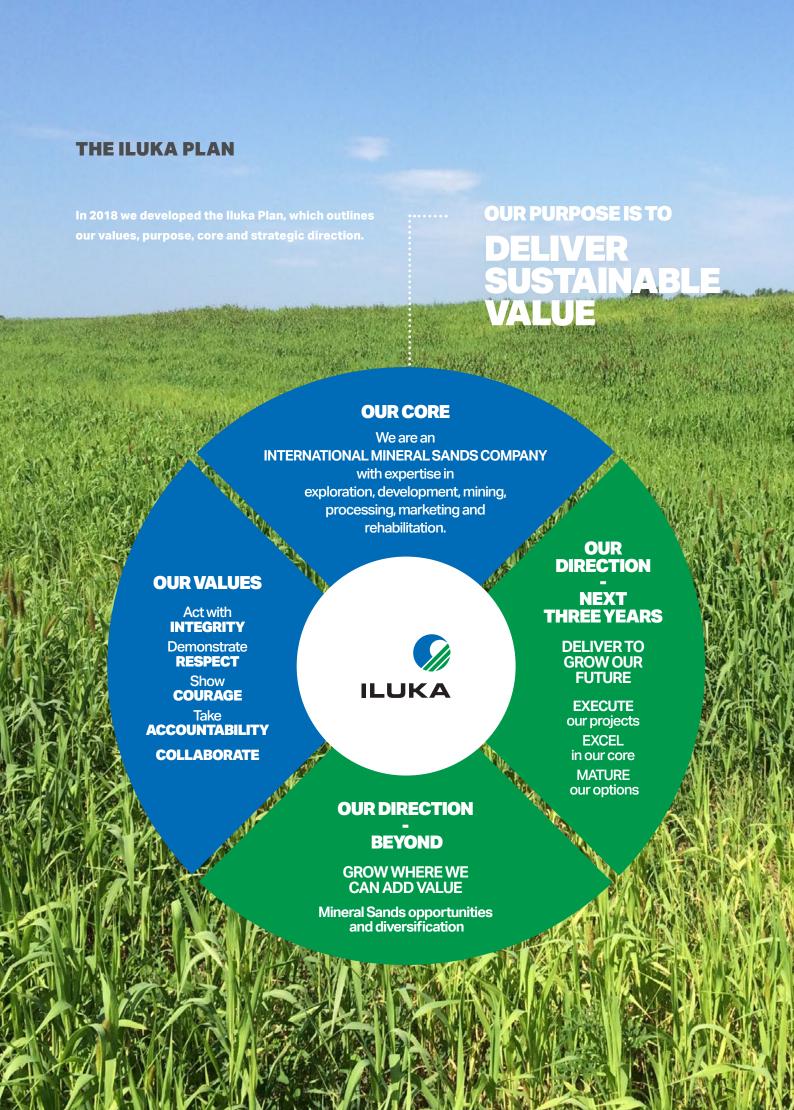
lluka also produces synthetic rutile from ilmenite that is upgraded by high temperature chemical processes.

# REHABILITATION

As mining progresses, the mining pit is backfilled and covered with stockpiled soils that were removed at the start of the mining process. Rehabilitation is progressively undertaken to return land to a form similar to its pre-mining state and suitable for various uses including agricultural, pastoral and native vegetation.

# MARKETING

lluka transports the final products of zircon, rutile, synthetic rutile and ilmenite to customers around the world.



# **SUSTAINABILITY APPROACH**

Our sustainability approach spans six pillars:

# **GOVERNANCE**

In the conduct of our business we adhere to the highest standards of corporate governance.

# **ECONOMIC RESPONSIBILITY**

We aim to create sustainable economic outcomes, which allow us to share economic benefits with our host communities and deliver sustainable value.

# **PEOPLE**

We seek to attract and retain the best people while building and maintaining a diverse, inclusive and high-achieving workforce.

# **HEALTH AND SAFETY**

We strive to maintain a fatality-free workplace, minimise injuries and protect the health and wellbeing of our people.

# **SOCIAL PERFORMANCE**

We respect human rights, engage meaningfully with stakeholders and look to make a positive difference to the communities in which we operate.

# **ENVIRONMENT**

We seek to manage our impact on the environment, use resources efficiently and leave positive rehabilitation and closure outcomes.



### **Voluntary initiatives and public commitments**

To inform our sustainability approach, we participate in, and align with, a range of global initiatives. Further information on lluka's commitment to these can be found throughout this report.

Initiative		Page
www.icmm.com	International Council on Mining and Metals (ICMM) Sustainable Development Framework	13
<b>(f)</b> IFC	International Finance Corporation Performance Standards	on 3
SUSTAINABLE DEVELOPMENT GOALS	United Nations Sustainable Development Goals	9
ET Schwiften Statesten Statesten	Extractive Industries Transparency Initiative (EITI)	13, 46
VOLUNTARY PRINCIPLES ON SEGURITY O HUMAN RIGHTS	Voluntary Principles on Security and Human Rights	28
TCFD ASS FORE OF CHART SHARE CONCLOSURES	Task Force Climate Change Related Disclosures	3, 38
www.globalreporting.org	Global Reporting Initiative	8, 13
Dow Jones Sustainability Indices In Collaboration with RobecoSAM (©	Dow Jones Sustainability Index	i
	FTSE4Good Index	i

FTSE4Good

### **Sustainable Development Goals**

The United Nations Sustainable Development Goals (SDGs) define a set of universal targets to address global sustainability challenges. The 17 goals have been adopted by world leaders and came into effect in 2016.

The SDGs span across economic development, social inclusion and environmental conservation, and their success is dependent on collaboration between governments, business and communities.

At Iluka, we contribute to the achievement of the SDGs through:

- **Economic development:** Our business activities support economic growth through employment of people, purchasing goods and services, payment of taxes and investing in the communities where we operate.
- Social inclusion: Through development of our workforce, and increasing the participation of Indigenous peoples and women, we facilitate social inclusion.
- Environmental conservation: Managing our impact on the environment, using resources efficiently and leaving positive rehabilitation and closure outcomes supports environmental conservation.

We will continue to map our sustainability strategy against the SDGs in 2019 and include our progress in future Sustainability Reports.





The 2018 Sustainability Report details our sustainability approach, key material issues and performance for the 12-month period ended 31 December 2018.

The report complements Iluka's 2018 Annual Report, available on the company's website www.iluka.com. It has been prepared to align with the core option of the Global Reporting Initiative (GRI) Standards, including the Mining and Metals Sector Disclosure Supplement. Iluka's Executive team and Board of Directors reviews this report.

There are no material re-statements of the 2017 Sustainability Report data or content. The previous year's reporting data can be found on www.iluka.com.

All dollar figures in this report are in AUD currency, unless otherwise stated.

In this publication, the collective expressions "Iluka" and "Iluka Group" are used for convenience where reference is made in general to those companies. Likewise, the words 'we', 'us', 'our' and 'ourselves' are used in some places to refer to the companies of the Iluka Group in general. These expressions are also used where no useful purpose is served by identifying any particular company or companies.

THIS REPORT COVERS OUR OPERATIONS GLOBALLY, COMPRISING **EXPLORATION, PROJECT DEVELOPMENT, MINING, PROCESSING** AND REHABILITATION ACTIVITIES.



### **MAP LEGEND**

- Operations and projects
- Marketing and distribution
- Mining Area C

- Corporate office
- Employees (number of people at 31 December 2018)

# **SUPPLY CHAIN MANAGEMENT**

Contractors and suppliers form an integral part of our business. In 2018 we engaged with more than 2,100 suppliers, of which approximately 67% are located in Australia and 33% internationally.

We support economic development in the communities in which we operate through our procurement processes. Iluka proactively identifies and includes local businesses in tender and sourcing activities, which are evaluated on a range of criteria including, health, safety, environment, technical, service, innovation and value. This approach provides businesses the opportunity to be competitive on total value, rather than just the cheapest price.

Iluka's Procurement Policy outlines the company's approach to procuring goods and services. Before engaging our suppliers we require them to demonstrate that they have effective health, safety, environmental and community systems appropriate to their activities, products or services. Compliance with these requirements is routinely assessed using a risk-based approach.

# **PRODUCTION ACTIVITY**

The following chart presents lluka's production activities in 2018 and expected activities for 2019.

Location	2018	2019
Australia		
Jacinth-Ambrosia (J-A) mining South Australia	100% utilisation	100% utilisation Commence mining at Ambrosia in Q4
Murray Basin mining Victoria	Rehabilitation and closure of Kulwin, Douglas and WRP	Rehabilitation and closure of Kulwin, Douglas and WRP
Hamilton mineral separation plant (MSP) Victoria	ldle	Idle
Tutunup South mining South West Western Australia	100% utilisation until mining was completed in Q1, followed by rehabilitation and closure	Rehabilitation and closure
Cataby mining Mid West Western Australia	Construction of mine and wet concentrator was ongoing for full year	First heavy mineral concentrate (HMC) production in March
Narngulu MSP Mid West Western Australia	100% utilisation	100% utilisation
Capel dry plant South West Western Australia	llmenite circuit operational for first half of the year	ldle
Synthetic rutile (SR) kiln 1 South West Western Australia	ldle	ldle, feasibility study
SR kiln 2 South West Western Australia	100% utilisation	100% utilisation
North Capel separation mill South West Western Australia	100% utilisation	100% utilisation
Sierra Leone		
Lanti dredge mine Sierra Rutile	100% utilisation	100% utilisation until mining completion in March
Lanti dry mine Sierra Rutile	100% utilisation	100% utilisation Capacity expansion H2
Gangama dry mine Sierra Rutile	100% utilisation	100% utilisation Capacity expansion H2
Sierra Rutile MSP Sierra Rutile	100% utilisation	100% utilisation
United States		
Brink and Concord mining Virginia	Rehabilitation	Rehabilitation
Stony Creek MSP Virginia	Care and maintenance	Care and maintenance
Green Cove Springs mining Florida	Rehabilitation	Rehabilitation

# **MARKETS AND PRODUCTS**

Iluka is a global supplier of zircon and titanium minerals, distributing to a variety of customers, reflecting the diverse end uses of mineral sands products. Iluka also recovers and markets by-products of the synthetic rutile process – activated carbon and iron concentrate.

Through its sales and marketing network, the company supplies its products to more than 250 direct customers with sales in more

### **Mineral Sands Products**

#### **MANUFACTURING**

Zircon (Zr) is heat resistant and non-reactive and is used in steel and glass manufacturing and metal casting.

#### **CERAMICS**

Most types of ceramic tiles used for floor and wall coverings contain zircon. Zircon contributes to whiteness, opacity and the abrasion and chemical resistance that tiles provide.

#### **NANOMATERIALS**

The photocatalytic properties of titanium dioxide (TiO<sub>2</sub>) nanomaterials has led to the creation of innovative new applications for titanium dioxide products. Titanium dioxide nanoparticles are used in sunscreens and self-cleaning windows, light emitting diodes and solar cells.

#### **PIGMENTS**

Paint coatings, inks, plastic and ceramics use titanium dioxide in the form of pigment.

#### ROOF/BUILDING/CONSTRUCTION

Solar panels, electrical insulators, bricks/cement, fibre optics. exterior and interior paint, tiles, anti-pollution coatings.

#### **BATHROOM/LIFESTYLE**

Ceramics, sanitary and toilet basins, glass, faucets for taps, cosmetics, pharmaceutical products, toothpaste, antiperspirants, sunscreens.

# **HOME/OFFICE**

Mobile phones, plastic, printer inks, paper, packaging.

# **AUTOMOTIVE**

Brake linings/pads, car parking sensors, automotive paint, catalytic converters, automotive electrics, rubber products.

#### **KITCHEN**

Light bulbs, dishes, glasses, clock parts, food colouring, ceramic knives, pans.

### **SPORTING GOODS AND RECREATION**

Golf clubs, tennis racquets, bicycle frames.

### **HEALTHCARE AND MEDICINE**

Prosthetics, orthopedic implants, medical instruments.

# **AIRCRAFT AND INDUSTRY**

Titanium metal, desalination plants, zirconium metal, corrosion resistant coatings.

# REPORT APPROACH

Each year, we conduct a materiality assessment to prioritise sustainability issues that are most important to both the business and our stakeholders. The outcomes of the assessment determine the content of this report.

Our assessment is comprised of a four-stage process: identification, prioritisation, validation and reporting.

# **IDENTIFICATION**

Material sustainability issues are identified by considering both internal and external factors, including a review of current and emerging sustainability topics impacting the industry, risk assessments, internal policy, peer benchmarking and regular internal and external stakeholder engagement.

# **VALIDATION**

The list of material issues outlined in the table are reviewed by senior decision makers of the business, including the Board, throughout the preparation of this report.

# **PRIORITISATION**

Each issue is assessed and prioritised based on the significance of the potential impact it may have on the business and the influence it may have on stakeholder assessments and decisions.

# REPORTING

Additional sustainability topics have been included in this report to meet expectations of stakeholders and other reporting requirements.

Our top material issues ([MI]) identified during the 2018 process are shown below. A full description and their impact boundary is provided in the Performance Data section.

# **Material Issues**

Health and Safety	People	Social Performance	Environment	Governance	Economic Responsibility
Fatality-free and minimising injuries	Labour and working conditions	Stakeholder engagement	Mineral waste management		Economic contribution –
Exposure to occupational illness	Attracting, developing and retaining employees	Human rights Resettlement	Land rehabilitation investment and closure	including social investment and tax transparency	
Other topics include	d in this report:				
Community health	Diversity and inclusion	Indigenous relations and cultural heritage	Climate change	Risk management	Supply chain management
			Biodiversity		
			Water use		
			Environmental incidents		
			Product stewardship		
			Energy efficiency and greenhouse gas emissions		

# PERFORMANCE IMPROVEMENT TARGETS

Commencing in 2017, Iluka set public performance improvement targets against each of its material sustainability challenges. Our performance against these targets is shown below. These targets enabled common understanding, both internally and externally, of our sustainable development goals and performance.

### **Our 2018 Performance**

	Targets	How we performed in 2018
ANCE	Targeted training on anti-bribery and corruption for employees working in higher risk areas is maintained at greater than 90%	>90% training maintained
GOVERNANCE	Alignment to the ICMM sustainable development principles to be completed by 2020, including reporting in accordance with the GRI framework	On track  Key achievements for 2018 include Human Rights Policy published and climate change approach established
ECONOMIC RESPONSIBILITY	Integrate Sierra Rutile into Iluka's annual Tax Transparency Report (published 2018) and ensure reporting requirements are met under the Extractive Industries Transparency Initiative (EITI) in relevant jurisdictions	Integrated reporting Disclosure of taxes paid by Sierra Rutile has been integrated into Iluka's annual tax transparency reporting (this Report)  Approach to Tax Statement which includes support of EITI has been published
PEOPLE	Continue to improve female and Aboriginal participation in the Australian workforce to meet diversity targets of 30% female and 8% Aboriginal participation by 2018	24% Female participation  6% Aboriginal participation
SOCIAL PERFORMANCE	Local-level grievance mechanism established for all sites and projects by 2018, that enables effective capture and resolution of complaints	Grievance mechanism implemented and grievance process actively shared with communities
	Develop and implement human rights work programme by 2018	Human Rights Policy published and work programme developed
>	Zero fatalities and total permanent disabling injuries across the Iluka Group	fatality following severe reaction to what is believed to be a bee sting*
VD SAFET	A year on year reduction in annual total recordable injury frequency rate (TRIFR) at Australian, United  States and exploration sites	2.8 to 3.5 increase in TRIFR
HEALTH AND SAFETY	Drive an improvement in reporting culture at Sierra Rutile targeting a 10% increase in new hazards reported per quarter	>10% increase in hazard reporting
I	A reduction in potential occupational exposure to noise and airborne contaminants at Australian sites relative to baseline	15% reduction compared to previous year
ENVIRONMENT	All sites to have closure plans in accordance with lluka Group standard and legislative requirements by 2018	100% sites are in alignment with closure requirements
	All sites have up-to-date surface water management plans and site water balances by 2018	100% sites reviewed surface water management plans to reflect site conditions
	Drive an improvement in reporting culture at Sierra Rutile targeting a 10% increase in new environmental incidents reported per quarter	>10% increase in incident reporting

<sup>✓</sup> Complete

★ Target not met

 In progress and expect to meet target

As disclosed in 2018 AGM Chairman and Managing Director Address to Shareholders and in 2019 Sustainability Report Managing Director Introduction

# 2019+ Targets

Our performance targets for 2019 and beyond came into effect on 1 January 2019. In the development of these targets we considered our material sustainability risks as well as global challenges - including those defined by the SDGs, ICMM and the world economic forum's Global Risk Report – ranging from climate change to gender equality.

We will publish our progress on these targets annually through our sustainability reporting.

	Targets	By when
GOVERNANCE	No material incidents of bribery and corruption	Annual
GOVER	Complete alignment to the ICMM sustainable development principles by 2020	2020
IC SIBILITY	Develop corporate Social Investment Strategy	2019
ECONOMIC RESPONSIBILITY	Maintain tax transparency reporting through public disclosure annually	Annual
J.E	Implement Leadership development programmes across the group, including a specific focus at Sierra Rutile to build technical and leadership capabilities	2020
PEOPLE	Improve female and Aboriginal participation in the Australian workforce to meet diversity targets of 30% female and 8% Aboriginal participation	2023
_	Zero fatalities or total permanent disabling injuries or illnesses	Annual
HEALTH AND SAFETY	Reduction in annual Group total recordable injury frequency rate (TRIFR) with a target to achieve less than 2.6	2019
HEALTH SAFETY	A reduction in potential occupational exposure to noise and airborne contaminants at Australian sites	Annual
ΙØ	Establishment of baseline exposure levels for Sierra Rutile	2019
NCE	Zero major social events (Level 5 as defined by Iluka's incident classification matrix)	Annual
SOCIAL PERFORMANCE	Implement human rights training programme to support the new Human Rights Policy	2019
SOCIAL	Develop work programme to support Modern Slavery Reporting, inclusive of a supplier risk assessment	2020
F	Zero major environmental events (Level 5 as defined by Iluka's incident classification matrix)	Annual
NO NA	Reduction in Iluka Group rehabilitation liability through achievement of Closure Index target	Annual
ENVIRONMENT	Implement climate change work programme in accordance with Task Force on Climate-related Financial Disclosures (TCFD) recommendations	2022





# Iluka's safety approach focuses on creating a culture which requires all members of our workforce to be leaders in creating a safe work environment.

This is supported by the Health, Safety, Environment and Community (HSEC) Management System which contains standards outlining minimum requirements of performance; the implementation of targeted programmes and facilitated training; and incident investigation processes.

The health and wellbeing of our people is equally important. We seek to identify and manage occupational exposure risks, minimise occurrences of occupational illness and promote healthy lifestyles.

# **FATALITY-FREE [MI]**

We strive to maintain a fatality-free workplace and minimise the severity and frequency of injuries.

In 2018, we integrated the Sierra Rutile safety performance data with the remainder of the Group for the reporting of worker hours, recordable injuries and serious potential incidents.

Tragically, one fatality occurred in 2018 when a contractor died following a severe reaction to what is believed to have been a bee sting at the Cataby site in Western Australia.

"THE HEALTH AND SAFETY OF OUR WORKFORCE IS PARAMOUNT AND DEMANDS OUR UNWAVERING ATTENTION."
TOM O'LEARY, MANAGING DIRECTOR

# Safety performance summary

2018	2017
3.5	2.8
1.0	1.0
34	26
Comprising:	Comprising:
10 lost time injuries	9 lost time injuries
19 medical treatment injuries	13 medical treatment injuries
5 restricted work case injuries	4 restricted work case injuries
2 of these injuries had the potential to be severe permanent disabling injuries or fatalities	8 of these injuries had the potential to be severe permanent disabling injuries or fatalities
888	899
47	60
Majority were related to surface mobile equipment and falling objects	Majority were related to light vehicles and surface mobile equipment
	3.5  1.0  34  Comprising: 10 lost time injuries 19 medical treatment injuries 5 restricted work case injuries  2 of these injuries had the potential to be severe permanent disabling injuries or fatalities  888  47  Majority were related to surface mobile

per million hours worked by employees and contractors

# **Leading indicators**

We also use leading indicators to improve our performance. These range from field based safety visits and workplace inspections, to the reporting of near hits and hazards.

SAFETY VISITS

22,523

**WORKPLACE INSPECTIONS PER EMPLOYEE UP** 

19%

PLANNED WORKPLACE INSPECTIONS COMPLETED

**HAZARD REPORTING** UP

>300%

**AUSTRALIA** 

**SIERRA RUTILE** 

<sup>\*\*</sup> Injuries and near hits are recorded as a serious potential incident (SPI), where there is a risk of fatality or permanent disabling injury regardless of likelihood. These are monitored and investigated to ensure lessons are learned and appropriate controls are put in place.



# **EXPOSURE TO OCCUPATIONAL ILLNESS IMIT**

Iluka undertakes occupational exposure monitoring and health surveillance across the business to assess potential exposure to identified contaminants, assess the effectiveness of risk mitigation strategies and proactively identify any potential adverse health outcomes.

Monitoring programmes are based on qualitative and quantitative risk assessments and are guided by our standards and guidelines. Programmes are in place at Australian and US sites, with the introduction of a structured programme to commence at Sierra Leone in 2019 following capacity building in 2018.

Based on our operational risk profile, programmes typically focus on monitoring exposure to airborne contaminants including respirable dust, respirable crystalline silica, inhalable dust, noise and radiation. Management plans are developed and implemented at site level for significant occupational hygiene risks and include detail on risk controls, monitoring programmes, designated responsibilities, objectives, targets and timeframes.

In Australia, there were 33 exceedances of occupational exposure levels recorded in 2018, all attributed to noise. Noise exposure remains a potential risk across all Australian sites. As a result, a focus on reducing exposure has been included in the sustainability performance improvement targets. Radiation monitoring results and dose assessments for all employees and contractors were well below 50% of the regulatory annual dose limit. For more on lluka's management of naturally occurring radioactive material (NORM), refer to the Environment section of this report.

In 2018, Iluka reported 10 cases of occupational illness. Five of these cases related to employees contracting malaria, typhoid or dengue fever while undertaking short-term assignments at international locations other than their usual place of work; four were reactions to animal or insect bites; and one a repetitive strain injury.

# **COMMUNITY HEALTH**

Many of our operations are located within or near local communities. We take extra care to manage our activities that can potentially affect community health and where possible, seek opportunities to have a positive impact on community health. These range from mitigating impacts such as dust and noise, to helping reduce the occurrence of communicable diseases, to providing local health and wellbeing initiatives.

In 2018 our Sierra Rutile operation focused on improving the capture of communicable disease data. The data enabled the identification of high risk areas for implementing disease prevention programmes. Malaria and typhoid remain a significant threat in the region, however good progress has been made in reducing the frequency of these diseases. From 2017 to 2018 there was approximately a 50% reduction in employee cases of typhoid and malaria. Initiatives which contributed to the reduction in cases included: typhoid vaccinations, testing, provision of community information; improvements in water quality management; and investment in better equipping the Sierra Rutile clinic, as described in the case study - Improving medical services at Sierra Rutile.





### **HEALTH SCREENING**

Our South West Operations in Western Australia rolled out "Get Checked Out", a preventative health screening programme, during the year. This programme was designed to provide health benefits to an ageing workforce and generate teamwork. Employees and family members were encouraged to visit their doctor and discuss a checklist of health issues including: blood pressure, cholesterol, blood sugar, prostate/pap smear and skin checks. A partnership was set up with a local practice (Brecken Health) for the programme and prizes offered as an incentive to encourage participation.

This was an extremely successful health promotion programme with high participation levels and benefits to people's lives. Multiple health issues were identified throughout the programme which enabled early intervention and treatment.

### **ELECTRICAL SAFETY MANAGEMENT**

A series of independent electrical safety audits were completed in 2018. These provide a baseline for electrical safety compliance across our Australian operations. The audit was based on statutory and internal standards.

The average score from all four operations audited was 84% with no major non-compliances identified. The audit programme identified an opportunity to establish several business improvement projects including: a detailed review of lluka electrical technical standards; the continuation of electrical apparatus arc flash studies; and the update of group electrical standards with supporting training packages.

WE STRIVE TO MAINTAIN A FATALITY-FREE WORKPLACE, MINIMISE INJURIES AND PROTECT THE HEALTH AND WELLBEING OF OUR PEOPLE.





### **IMPROVING MEDICAL SERVICES AT SIERRA RUTILE**

In 2018 the Sierra Rutile Clinic was subject to a major review and improvement programme. The clinic services our employees, their dependents and, in times of emergency, the local community. The clinic sees over 30,000 visits per year.

In addition to implementing disease prevention programmes, improvements have included:

- Increased staffing. Clinic staffing levels have increased to provide more doctors, additional nursing, administrative staff and security personnel.
- Training and new equipment. Medical and emergency response staff training provided for disease prevention and treatment; as well as use and maintenance of new diagnostic equipment - such as for the new ultrasound and electrocardiograph machine.
- Improved patient records. Data management system introduced to improve clinic record keeping and realise efficiencies.
- Emergency response vehicles. Two new vehicles purchased to enhance emergency response on site and improve transfers of patients to external referral hospitals if required, which can be several hours from site.



Our people are our most important asset. We seek to attract the best people to build and maintain a diverse and high achieving workforce that reflects the local communities in which we operate. We are focused on ensuring our employees are engaged, have development opportunities and are supported in the management of their careers.

Our five values - Integrity, Respect, Courage, Accountability and Collaboration reflect how we work together across the business.

We employ over 3,200 employees globally. The majority of our employees are based in Australia and Sierra Leone. In Sierra Leone we are one of the largest private sector employers.

#### Sierra Leonean workforce profile

- 2,467 employees
- ~800 contractors (average)
- 215 new employees
- 8% female / 92% male
- 98% Sierra Leonean
- 2.1% employee initiated turnover

# Australian workforce profile

- 735 employees
- ~ 500 contractors (average)
- 241 new employees
- 24% female / 76% male
- 11.3% employee initiated turnover

Iluka's People Policy, and supporting policies and procedures, set out our approach to recruiting, developing and retaining an engaged, diverse and capable workforce.

Our fair work policies strive to provide our employees with a safe working environment where they are treated with dignity and respect. These policies cover equal employment opportunity, bullying and harassment. We applied significant focus to this area in 2018, delivering refreshed and updated Behavioural Expectations training.

# ATTRACTING, DEVELOPING AND RETAINING EMPLOYEES IMIT

Iluka prioritises employee development and invests in building capabilities and skills.

Learning and development opportunities enable our employees and contractors to build the appropriate skills, knowledge and behaviours to fulfil their positions safely and effectively. In 2018 we developed a new leadership framework to support the building of talent within our business. The framework creates a common language and outlines our expectations on leadership at all levels within the business. We have developed a structured development approach with tools and resources to support leaders at all stages of their careers.

## LEADERSHIP DEVELOPMENT FRAMEWORK



Iluka integrated leadership programmes

Leadership coaching

Leadership skills programmes

**Iluka Leadership Community** 

Leadership model and components



To reinforce lluka's leadership framework, senior, middle and emerging level leadership programmes and a "Leadership Community" are being implemented in 2019. The Leadership Community will provide access to tools, resources and online training as a self-directed mechanism for leader development.

In addition, Iluka maintains pipeline and talent development programmes including:

- sponsoring and/or employing apprenticeships and traineeships;
- employing vacation students and graduates; and
- providing technical and professional development opportunities.

Through regular talent management processes we identify high performing individuals and facilitate succession planning across all levels of the company. Succession planning and development plans are in place for leadership positions, including the Managing Director and his direct reports and key critical roles.

2018 saw the continuation of Mineral Sands Operations' Operational Excellence Programme at Australian operational sites. The programme is designed to ensure the transition from low to high utilisation environments is well managed with a focus on safety, costs, throughput and quality.

Training initiatives for Sierra Rutile focused on building technical and leadership capabilities, including:

- completion of a skills gap assessment for trades employees to identify training needs going forward;
- implementation of operator training to support expansions planned for 2019;
- implementation of a leadership enhancement programme;
- delivery of cultural awareness training to members of the leadership team.

# **LABOUR AND WORKING CONDITIONS IMIT**

lluka recognises our employees' rights to collectively bargain. In each operational region in Australia, collective agreement conditions are renewed approximately every four years through bargaining with the employees' representatives. The majority of Sierra Rutile employees are covered by a collective bargaining agreement negotiated with all mining companies in Sierra Leone and the United Mineworkers' Union every three years.

We are committed to having an engaged and collaborative relationship with our employees. Iluka respects our employees' rights to freedom of association, including the right of each individual to join a union. Iluka does not inquire into employees' union membership and does not keep union membership statistics. During collective bargaining some employees choose to be represented by unions, or they can nominate a representative from their own workforce.

lluka has a pay-for-performance remuneration structure which rewards employees competitively for their expertise and contribution. We observe minimum conditions of employment under local laws, but remuneration is paid according to market which for most employees is well above minimum entitlements. All employees have the opportunity for additional reward based on individual and company performance.

Where Iluka is making significant operational changes, we provide timely disclosure and consult with employees in accordance with mechanisms under relevant industrial instruments. Through consultation we take into account employees' circumstances and needs, and all reasonable measures are taken to mitigate adverse effects of the changes on employees.

#### Sierra Rutile strike actions

In late 2018, Sierra Rutile Limited (SRL) temporarily halted mining operations as a result of unlawful strike actions taken by a contingent of its operational workforce. Mining was halted to ensure the safety of SRL employees and the integrity of its assets. Management engaged with employees and the United Mineworkers' Union officials to understand the rationale for the strike actions, as well as with ministers and senior officials of the Government of Sierra Leone to seek assistance in resolving the dispute.

Following meetings on 26 November between SRL, the union and government, operations recommenced on 30 November.

A government taskforce was appointed to investigate the strikes. It found the strikes were illegal and that SRL had taken appropriate measures to ensure the safety of its people and assets. Iluka continues to work closely with the Government of Sierra Leone, the union and the Sierra Leone workforce to achieve a stable operating environment.

# **DIVERSITY AND INCLUSION**

We respect and encourage workplace diversity and aim to create a flexible and inclusive workplace environment which assists employees to balance their responsibilities. The Managing Director and Executive team promote awareness of diversity and inclusion and integrate those principles into company activities, including recruitment, training, talent management and employment policies.

#### Female representation in management\*

Level	Female representation (%)
Board	29
Executive management	40
Other management levels	14
Total Iluka Group (ex Sierra Rutile)	24
Total Sierra Rutile	8
Total Iluka Group	12

<sup>\*</sup> as at 31 May 2018, per Workplace Gender Equality Agency Report

### **Australian targets**

In 2014, measurable objectives were set and approved for gender and Aboriginal diversity relating to Iluka's Australian operations. Our target was to achieve 30% female participation and 6% Aboriginal participation in the workforce by 31 December 2018. We ended the period with 24% female participation and 6% Aboriginal participation.

Positively, we have seen increased female representation in managerial, senior managerial and executive roles (through internal movements and promotions) as well as more females in operations roles (through a greater proportion of female new hires than proportion of terminations). These positive trends were, however, offset by a decrease in female representation in professional, technical and clerical roles.

The number of Australian Aboriginal employees increased slightly from 2017 to 6% employees overall. The majority of our Aboriginal employees are based at the J-A operation in South Australia, which has 23% Aboriginal employment. Our targeted recruitment activities for Cataby achieved 7% Aboriginal employment for the site. Partnership programmes with the Clontarf Foundation and SHINE focus on creating employment pathways for Aboriginal youth and provide opportunities for Iluka to further increase Aboriginal representation in the future.

In order to continue our focus on increasing diversity within our organisation, our People and Performance Committee approved continuation of targets at the same levels as the previous period (30% gender and 8% Aboriginal representation), again with a fiveyear timescale for achievement.

# WE SEEK TO ATTRACT THE BEST PEOPLE TO BUILD AND MAINTAIN A DIVERSE AND HIGH ACHIEVING WORKFORCE THAT REFLECTS THE COMMUNITIES IN WHICH WE OPERATE.

# **Diversity and Inclusion Work Plan**

Area of focus	Objectives	Progress
Establishment of Diversity and	Establish and launch a cross-	Group to be chaired by the Managing Director
sta	functional working group of senior stakeholders to identify and drive diversity and inclusion initiatives	The group will identify and champion diversity and inclusion initiatives throughout the organisation
Promote awareness of diversity	Employees and stakeholders have access to meaningful diversity information	Iluka's People Policy and Diversity Standard is accessible to employees online and at Iluka locations
		Diversity progress against targets are reported to the Executive team and the People and Performance Committee of the Board
		Sponsorship partnership with Clontarf Foundation and SHINE in Geraldton
		Iluka sponsored the Inspiring Girls Initiative for the 2018     Women in Resources Awards
Integrate workplace diversity principles into company activities	People management practices implemented to reflect diversity and inclusion	Behavioural expectation (Code of Conduct and EEO) training was refreshed and rolled out throughout the business in 2018
		Gender pay equity review completed annually
		Australian Workplace Gender Equality Agency Report submitted annually
		Succession planning and high potential identification and development plans
		Relationship with Edge Employment Solutions, to provide employment for people with disabilities
Create a flexible workplace culture which assists employees to balance their responsibilities	Flexible employment arrangements supported	Promotion of flexible work arrangements, including part- time, working from home and modified start and finish times

# **Sierra Rutile Local Employment**

We strive to maximise local employment at Sierra Rutile, with 98% of our workforce being made up of Sierra Leoneans. Our commitment to employing locally is guided by the Sierra Rutile Local Content Policy and the Sierra Leone Local Content Agency Act (2016).

Wherever possible, we also seek to engage local companies and suppliers to support economic development in the region. This has included engaging local service providers for implementing coaching and development programmes as described in the Attracting, developing and retaining employees section.





# **DIVERSITY IN ACTION**

In 2018 Iluka and the Far West Coast Aboriginal Corporation made a joint submission to the South Australia Premier's Awards for Excellence in Diversity and subsequently won the Diversity in Action - resources sector category award.

J-A have proven to be an industry leader in recruiting, developing and retaining an Aboriginal workforce - a direct result of our commitment to the implementation of the Native Title Mining Agreement (NTMA) which was negotiated between the Far West Coast (FWC) Native Title Group and Iluka.

A strong relationship with the FWC has resulted in the achievement and maintenance of a 20% employment target of Aboriginal people throughout mining operations, including the 18-month idle period in 2016 and 2017.

The Premier also noted that the Iluka and FWC relationship is exemplary for its diversity and social inclusion outcomes. It is also a model of how the resources sector can partner with local communities to deliver positive socio-economic outcomes, even when there are market downturns.

# **SERVICE AWARDS -INSIGHTS FROM JIMMY AND NEIL**

We value our employees' contributions and celebrate their achievements

We are proud to be able to introduce you to two of our longest serving team members - Jimmy Carter and Neil McMulkin - and share some of their memories and sustainability insights.

### **Jimmy Carter**

Mr James ("Jimmy") Carter was recognised as our longest serving employee in 2018. Jimmy's wealth of experience across our US sites has contributed to their safe and sustainable decommissioning and rehabilitation. He is currently working as the Site Supervisor of our Green Cove Springs site in Florida.

What year did you commence with Iluka?

Which sites have you worked at? Green Cove Springs, Florida; Lulaton, Georgia; and Virginia

What are some of your favourite sustainability achievements in? The management of the safe decommissioning and closure activities of the Green Cove Springs, Florida and Lulaton, Georgia sites. With a conscientious awareness of being a former mining operation, ensuring that the daily practices were sustainable as possible to advance and secure our legacy in Florida and Georgia.

In addition, managing the site safety, health and environmental process with positive results before, during and currently. We have had a great safety record in Florida over the years, recording zero lost time incidents for the past 16 years along with having the last medical treatment injury nearly 8 years ago.

I am also proud of the numerous awards given by the Florida state agencies recognising Iluka's outstanding environmental and sustainability practices.

What have you enjoyed about working with Iluka? Being given the autonomy and the tools to do the work efficiently. Also, the camaraderie of the numerous individuals whom I have had the pleasure of working and serving with since 1973.

How have rehabilitation practices evolved over your time with

Practices in numerous areas have evolved over my tenure of 46 years. Advanced technology, equipment, mine planning, safety, health and environmental educational techniques.





### **Neil McMulkin**

This coming year marks 30 years since Mr Neil McMulkin joined Iluka. Neil, one of our longest serving rehabilitation specialists, has had the opportunity to work across the majority of our Western Australian sites and has been integral to their rehabilitation success. Currently Neil is working in our Mid West region as the Native Vegetation Superintendent.

What year did you commence with Iluka? 1989

#### Which sites have your worked at?

Eneabba, Cataby, Gingin, Waroona, Wagerup, North and South Capel, Busselton, Yoganup and Yoganup West, Cloverdale, Tutunup South, Stratham West, Boyanup and Yoganup Extended.

What are some of your favourite sustainability achievements? Full closure and landowner sign-off at seven sites in Western Australia. All had their own unique challenges, one even involved a river restoration!

Also being part of the team awarded a Golden Gecko award for an outstanding environmental approach while working through the constraints placed on it by the redevelopment of the Wonnerup-Tutunup Road. The company upgraded an existing minor country road to accommodate the haulage of heavy mineral concentrate from its mine without impacting on the high value ironstone plant communities in the road reserve.

What have you enjoyed about working with Iluka? The people. The company's commitment to doing the job properly and being part of great teams that care about how we leave the land after we have mined it.

I also enjoy sharing the store of knowledge I have collected about each of our sites from an ecological and plant propagation perspective, that has been really rewarding.

How have rehabilitation practices evolved over your time with Iluka?

When I started there were no computers.

Now, planning rehabilitation is supported by a range of technology. In conjunction with our landowners, we can spatially link together aspects such as soil, water, landform shape, to plan for rehabilitation success.



L-R, Jake, Morgan and Paige at the ATC Midwest award service

#### **REGIONAL AWARDS FOR OUR APPRENTICES AND TRAINEES**

ATC-Midwest (ATC) provides apprenticeship and traineeship opportunities to the Mid West community in Western Australia. Since 2000, Iluka's Narngulu operations have collaborated with ATC to successfully support and train almost 40 people. Awards are held each year by ATC to recognise the achievements of apprentices and trainees in the Mid West region.

At the 2018 awards, Iluka's Narngulu operations were well represented in various finalist categories. In particular we would like to congratulate:

- Morgan Gasper who won both the Fourth Year Apprentice of the Year and ATC Mid West Regional Apprentice of the Year Award for 2018. Morgan was recognised for his high level of commitment to learning his trade and a strong focus on teamwork and safety.
- Jake Bullin was the winner of the Third Year Apprentice of The Year Award. Jake was recognised for his willingness to learn from his team mates and a strong desire to continue to develop and improve.
- Paige MacGregor received the award for the overall Trainee of the Year for the Mid West Region for 2018. Paige is engaged with Narngulu operations through our partnership with SHINE and ATC. Paige ensures that all visitors to Narngulu feel welcome and aims to provide any assistance required.

**ILUKA PRIORITISES EMPLOYEE DEVELOPMENT AND INVESTS** IN BUILDING CAPABILITIES AND SKILLS.



Our social performance is based on understanding and minimising the potential impacts of our activities on communities and managing social risks to the business. We seek to respect human rights, engage meaningfully with stakeholders and make a positive difference to the social and economic development of the communities in which we operate.

Social performance includes the following activities:

- the identification, management and monitoring of social impacts and risks;
- meaningful engagement with stakeholders;
- responsive management of grievances;
- the sharing of benefits; and
- addressing location or project-specific social considerations such as cultural heritage management, human rights, local employment and procurement, and resettlement.

Compliance with legislative requirements is a minimum standard that should be achieved whilst also striving to perform beyond these requirements where possible. Our global footprint in countries outside Australia has heightened our proactivity in identifying and addressing a broader range of social issues, risks and impacts. This is particularly relevant with our operations in Sierra Leone and project development in Sri Lanka.

Our HSEC Policy and Social Performance Standard guide our approach to working with communities and other stakeholders. The standard, and related procedures, provide a framework of mandatory social performance requirements. Sites and projects are subject to periodic assessments and audits, and initiatives to strengthen social performance practice are ongoing.

# STAKEHOLDER ENGAGEMENT [MI]

We seek to engage early in open, inclusive and meaningful communication and incorporate stakeholder views into our decision-making processes.

Iluka recognises that the success of our business is linked to our relationships with our neighbours and stakeholders.

Relevant stakeholders and their interests are identified, analysed and mapped to inform impact and risk assessments and social management plans. All sites and projects are required to establish a process to ensure affected stakeholders receive relevant up-todate information, are provided with opportunities to express their views on decisions that may affect them, and that these views are considered in decision-making processes.

We strive to build strong relationships with stakeholders and effectively manage the impact of our business activities on communities, however we recognise that complaints will occur from time to time. In 2018 a significant effort was placed on implementing lluka's new grievance management procedure which was released in late 2017. The grievance procedure was developed in accordance with the United Nations Guiding Principles on Business and Human Rights.

During 2018, we delivered grievance training and worked with sites to ensure each site had an appropriate grievance mechanism in place that was actively shared with the community. 69 complaints were received and investigated in 2018, an increase from 39 in 2017. Implementation of improved local grievance processes, coupled with efforts to raise awareness with local communities in 2018, may account for some of the increase in complaints received.

Stakeholders should feel comfortable about contacting us to report any issues or concerns, and all complaints are taken seriously and investigated.

# **SOCIAL INCIDENTS**

lluka has historically required all health, safety and environment incidents be recorded. From 1 January 2018 social incidents have also been recorded.

Social incidents are either:

- unplanned or unwanted events which involve the local community, or other external stakeholders, and have the potential to affect the security, safety and/or reputation of Iluka employees, contractors, site visitors and/or assets;
- unplanned or unwanted events associated with Iluka sites, projects or personnel that affect communities or community members:
- a community complaint/grievance; or
- a breach of Iluka's social obligations.

Iluka uses an event management system to record social incidents, which are then classified according to the severity of the incident. Level 1 incidents have no or minimal impact, while Level 5 incidents have the greatest potential impact. All Level 3 and above incidents are reported to the Board. For 2018, 132 social incidents were recorded for the Group, with 14 of those being Level 3 and above.

**ILUKA'S HUMAN RIGHTS POLICY WAS RELEASED IN 2018** WWW.ILUKA.COM

# **HUMAN RIGHTS [MI]**

lluka's global footprint requires us to address a broader range of social issues, risks and impacts, in particular the protection of human rights. Our Human Rights Policy was launched in October 2018 to express our commitment to respecting human rights and seeking to prevent or mitigate any negative human rights impacts from our operations or activities.

The Human Rights Policy is aligned with the UN Guiding Principles on Business and Human Rights and covers a range of areas including land acquisition, resettlement and the rejection of any form of slavery or child labour. It also sets out our commitment to the recognition of the rights of Indigenous peoples, respecting their culture and acknowledging their connections to lands and waters

While many aspects of the protection of human rights are already covered in existing Iluka policies and practices, the Human Rights Policy is supported by a work programme that translates our commitments into actions. For example, we conducted an internal assessment of our alignment with the Voluntary Principles on Security and Human Rights for our business in Sierra Leone, and in Australia we continued our work to prepare for the Australian modern slavery legislation introduced by the Federal Government in November 2018.

# RESETTLEMENT [MI]

We seek to avoid or minimise project-induced displacement of people in all planning activities. However the expansion of our Sierra Rutile operation has and will continue to result in displacement and resettlement.

lluka has committed to managing all project-induced displacement in alignment with the International Finance Corporation (IFC) Performance Standard 5: Land Acquisition and Involuntary Resettlement. This includes avoiding or minimising any adverse social and economic impacts from land acquisition or restrictions on land use and ensuring all affected people are able to improve, or at least restore, their livelihoods and standards of living once resettled.

Sierra Rutile has a Resettlement and Community Development team, headed by a resettlement practitioner reporting to the CEO of Sierra Rutile. A Resettlement Policy Framework was developed in 2018 to provide a locally appropriate, standard framework to govern any displacement induced by Sierra Rutile. This includes physical displacement leading to resettlement, as well as economic displacement requiring compensation and livelihood restoration support.

# INDIGENOUS RELATIONS AND CULTURAL HERITAGE

We acknowledge the special connection that Indigenous peoples have with land and we seek to work together to build constructive and respectful relationships.

At locations where cultural heritage is identified, a Cultural Heritage Management Plan is implemented to ensure the protection of sites and to meet regulatory requirements. This is especially important when our projects are located on land traditionally owned by, adjacent to, or under customary use by Indigenous peoples. In these instances specific engagement is undertaken.

Iluka currently has two agreements in place with Aboriginal people for its Australian operations. Iluka's Native Title Mining Agreement with the Far West Coast (FWC) Native Title holders has been in place since 2007 at J-A in South Australia. In Western Australia, Iluka has a voluntary agreement with the Yued People for our Cataby mineral sands project.

Both agreements act as a foundation to guide our collaboration and the development of constructive and respectful relationships with Traditional Owners. They include activities such as training and business opportunities, employment, Aboriginal heritage protocols and cultural awareness training, while also providing a forum for regular engagement.

In 2018 the team at our J-A site and representatives from the FWC collaborated on a joint submission to the South Australian Premier's Award for Excellence in Diversity. Together, we won the Diversity in Action award for the resources sector category. The award was recognition of the strong relationship between Iluka and FWC to recruit, develop and retain an Aboriginal workforce at our J-A site.

During 2018, there were no incidents of violations involving the rights of Indigenous peoples.





#### STAKEHOLDER PERCEPTION SURVEY

In 2018 Iluka commissioned KPMG to conduct a stakeholder perception survey across exploration, project development, mining operations, rehabilitation and closure activities in Australia. The survey provided us with additional insight into the views and thoughts of stakeholders and communities in the areas we operate. It was also an opportunity for stakeholders to provide feedback they may not have felt comfortable providing directly to an Iluka representative and we therefore see the study as a critical component of our long-term external engagement planning.

The survey was a mix of qualitative and quantitative questions via face-to-face meetings and phone calls to a wide cross-section of stakeholders including local residents, community organisations, regulatory authorities, neighbours, landholders, Traditional Owners and suppliers. Respondents were asked their thoughts on Iluka's impacts, information sharing, engagement methods, contributions and partnerships.

Feedback from the survey indicated that in general, Iluka has established a good level of trust in the communities in which it operates, but there are opportunities for improvement in the areas of stakeholder engagement, impact management, local economic benefit and community contributions. Findings from the survey will inform lluka's engagement actions for all of our activities in Australia throughout 2019 and beyond.





### **FOINDA VILLAGE RESETTLEMENT**

In late 2017, Sierra Rutile recommenced the Foinda village resettlement project in Sierra Leone to allow for mining of the areas below the village footprint. Foinda was planned to be resettled in 1994, however this was interrupted by the civil war. The community indicated a strong willingness to be relocated and a renewed initiative to relocate the village commenced in November 2017. By August 2018, 822 people were reestablished at a new village site.

The Foinda resettlement project has seen significant improvements in housing, water and sanitation, and communal facilities for the community. Previously the old village had only two pit latrines for all residents, now all houses have a pit latrine, shower room and a separate kitchen block. Four bore holes have also been constructed to replace hand-dug wells, providing residents with improved water access.

The previous two-classroom primary school has been replaced with four large classrooms. This has coincidently come at the same time as the new government's policy on free and quality education, thereby providing much needed space for the increased number of children now attending school. A market facility has been established and the community is already demonstrating an increase in commercial activity between neighbouring residents and villages.

As the residents settle in to the new village area, transitional support is being provided and livelihood restoration initiatives are being introduced. These initiatives include: financial management training and the establishment of a village savings and loan scheme, the development of a new apprentice scheme in partnership with local enterprises, and a comprehensive agriculture support programme.

Agriculture initiatives include training farmers on new, more sustainable agriculture practices suitable to the local environment. A successful example of this is the new greenhouse initiative that has been set up in partnership with World Hope International (WHI) described in the Greenhouse Farming Programme case study.

The Foinda resettlement project will be subject to independent monitoring and a completion audit to ensure all affected people have had the opportunity to restore or ideally improve their livelihoods as a result of being resettled.







#### SIERRA RUTILE GREENHOUSE FARMING PROGRAMME

Sierra Rutile launched the Greenhouse Farming Programme to improve farming productivity and create viable produce markets for local communities. Socio-economic and household surveys of the Foinda and Madina villages near the Sierra Rutile site identified that agriculture was the primary livelihood for 71% of the population, a finding which was reinforced in community meetings and by additional government data.

Developed in collaboration with WHI and Sierra Rutile's catering contractor All-Terrain Services (ATS), the programme has seen the introduction of WHI greenhouses. Sierra Rutile provided funds to WHI to establish the greenhouses and is playing an active role in engaging farmers in agricultural training.

The programme commenced with the establishment of cooperative farmer groups, who were then supported by the provision of seedlings and tools. Training and ongoing support has been provided to the groups as they adapt to the new farming practices.

Whilst in its early stages, produce from the greenhouses has led to an increase in vegetable yields. In addition to providing improved food security, the programme is also creating viable markets. ATS is now a regular client of the farmers, purchasing cucumbers and lettuce, with okra and cabbage being sold locally.

The community feedback provided to date is that the programme has:

- improved overall farming practices;
- increased knowledge and skills on how to grow vegetables;
- created easier access to sell produce; and
- increased income levels, thereby improving livelihoods.







### **WORKING WITH THE YUED PEOPLE**

Iluka's Cataby project was in construction throughout 2018 and will be fully operational in 2019.

The increased activity in the area provides a number of opportunities for the local community.

To foster this opportunity, we have developed the Yued and Iluka Implementation Committee, which met five times in 2018 to progress our voluntary cooperation agreement.

The committee is working to maximise opportunities for Yued people, with initiatives undertaken including:

- heritage monitoring work for Yued people on site;
- NAIDOC week celebrations and events;
- cultural awareness training for all Cataby employees; and
- cultural ceremonies to ensure Cataby and its workforce respect the traditional practices of the Yued people.

The committee is also working to develop a community programme to build the capacity of the local Yued workforce with the aim of increasing Aboriginal employment at Cataby. The Cataby operation achieved 7% Aboriginal employment in 2018.

> SOCIAL PERFORMANCE IS A CRITICAL COMPONENT OF THE SUSTAINABILITY OF ILUKA'S ACTIVITIES ACROSS OUR ENTIRE BUSINESS LIFECYCL



Iluka's approach to environmental stewardship is based on understanding and minimising the potential impacts of our operations on the environment.

lluka pursues leading practice through all business activities from exploration, planning, research and project development, through to operation, rehabilitation and closure.

We make every reasonable effort to reduce and prevent negative impacts on existing and potential environmental values while enhancing positive benefits for the communities and environment surrounding our operations.

Studies are undertaken to ensure that the environmental consequences of a project are fully understood and residual impacts are adequately managed. The individual environmental requirements of each site are considered and site-specific procedures and management plans are developed in compliance with our HSEC management system.

Sierra Rutile has undertaken a comprehensive Environmental, Social and Health Impact Assessment (ESHIA) of the Area 1 Mining Lease including the Gangama, Gbeni and Lanti deposits within Sierra Rutile's current operations. The Environment Protection Agency of Sierra Leone approved the ESHIA together with the Environmental, Social and Health Management Plan, and an Environmental Impact Assessment licence issued was in 2018. These are available to view in the Sustainability section of the website: www.sierrarutile.iluka.com.

# **BIODIVERSITY**

Iluka owns, leases or manages a number of operational, rehabilitation and future project sites that contain areas of high biodiversity value in Australia and Sierra Leone. A hierarchy of controls - avoidance, minimisation, restoration, biodiversity offsets or other conservation actions - is followed to prevent impacts from occurring and if this is not possible, to limit their significance to an acceptable level.

The protection and enhancement of biodiversity is formalised in a range of management measures and considered within each of the planning, operational and rehabilitation phases. Biodiversity baseline studies are done by experts in the field to collect information on the current biodiversity values of a site. These values can include fauna and flora species, habitats and ecological systems present before a project commences. The baseline studies provide assessment of the biodiversity values of the site and contribute to facilitating effective mitigation of impacts and design of biodiversity management strategies.

Operational sites have a number of management plans that build on the pre-mining biodiversity assessment. These plans include measures to control access to areas of important and protected biodiversity, controls for flora and/or fauna removal prior to disturbance, and monitoring of specific biodiversity aspects during the life of a mine. Collection of seed may occur prior to mining which is stored and/or treated for later replanting use during rehabilitation. Similarly, vegetation on the mine path can be removed prior to mining and stored separately for later replanting use or as mulch for soil stabilisation. Management measures are also put in place to prohibit the introduction and spread of pest or invasive species especially in operational and rehabilitation areas.

We contribute to the conservation of biodiversity by undertaking scientific research in partnerships with research institutions.

# WE CONTRIBUTE TO THE CONSERVATION OF BIODIVERSITY THROUGH PARTNERSHIPS WITH RESEARCH INSTITUTIONS.





# **KEY PARTNERSHIPS**

### The University Of Western Australia (UWA)

Work under the Chair in Vegetation Science and Biogeography on restoration of areas of kwongan heathland at Eneabba in the Mid West of Western Australia continued during 2018. Two PhD students also completed their studies during the year.

Our Principal Rehabilitation Specialist, Mark Dobrowolski, co-authored two peer-reviewed articles published from the UWA Iluka Chair research in 2018: Community patterns and environmental drivers in hyper-diverse kwongan scrub vegetation of Western Australia<sup>1</sup>; and Impact of ecological redundancy on the performance of machine learning classifiers in vegetation mapping<sup>2</sup>.

In April 2018, our Eneabba site hosted UWA students to enable them to undertake field work measuring and sampling plants in the existing rehabilitated and undisturbed areas. The third year biology and environmental science students spent their annual field trip investigating the nutrition and water use physiology of native plants in these areas. The students were able to see the complexity of practices required to rehabilitate a mine site and better understand how scientific theory is put into practice.

- https://onlinelibrary.wiley.com/doi/abs/10.1111/avsc.12399
- https://onlinelibrary.wiley.com/doi/pdf/10.1002/ece3.4176

#### **Murdoch University**

To continue the work undertaken with the Iluka Chair, a new partnership has been formed with the Harry Butler Institute at Murdoch University. The partnership involves sponsorship of the Chair in Vegetation Science and Biogeography with a five-year term.

During 2018, we also continued a three-year project investigating the significance of damping-off which is a horticultural disease or condition caused by several different pathogens that kill or weaken seeds or seedlings before or after they germinate.

### **University of Adelaide**

lluka has a strong history of supporting ecological research at J-A in South Australia, through its partnership with the University of Adelaide. The research programmes and partnerships complement the onsite rehabilitation activities and contribute to the broader understanding of revegetation in saline and arid environments.

A project investigating the seeding triggers of the local species Maireana sedifolia (pearl bluebush) continued during 2018. The researchers, in collaboration with the J-A rehabilitation team. are investigating methods for inducing regular seeding events in the pearl bluebush which is a dominant chenopod in the local vegetation association.

## **Botanic Gardens and Parks Authority**

Iluka continues to collaborate with the Botanic Gardens and Parks Authority of Western Australia, supporting research on the critically endangered plant species Styphelia longissma, which occurs on Iluka-owned property at Eneabba. Iluka is also supporting research investigating the bird and insect pollination of rehabilitated native vegetation at Eneabba, an important ecosystem function to be re-established in former mine sites.

### Virginia Tech

Iluka has a long history of cooperative research with the Department of Crop and Soil Environmental Sciences at Virginia Tech (Virginia Polytechnic Institute and State University) commencing in 2004.

Research has included:

- management and analysis of crop rotation, yields and farming practices at the Carraway-Winn Research Farm as well as extensive water quality sampling around our mine sites:
- development of active mine site soil reconstruction and revegetation protocols and continued monitoring of previously installed trials and plots;
- a study to determine the effectiveness of current versus alternative deep ripping and soil reconstruction protocols for remediating adverse post-mining soil physical and chemical conditions with respect to plant rooting and water percolation;
- water sampling to determine net effects of mining on postdisturbance water quality and levels;
- native species revegetation trials;
- documentation of spatial distribution of soils and tailings during landform reconstruction; and
- a study on loblolly pine establishment and response to cultural treatments.

During 2018, Iluka and Virginia Tech focused on three primary areas: determination of net effects of tillage and soil reconstruction practices on post-mining soil productivity and associated physical/chemical properties; loblolly pine response to cultural treatments; and continued monitoring of soil reconstruction and material handling and placement activities.



Our ongoing support of research science that protects rare and endangered flora that occur on our Australian tenements continued in 2018 with our Principal Rehabilitation Scientist, Mark Dobrowolski, presenting at two conferences:

- Revegetating the Regions Seminar (Revegetation Industry Association of WA, September 2018): Revegetation practice improvements in kwongan of the Mid West; and
- Society for Ecological Restoration Australasia 2018 Conference (September 2018): Soil imprinting with an artificial soil crusting agent dramatically increases broadcast seed emergence.

# LAND REHABILITATION AND CLOSURE [MI]

lluka's land management and rehabilitation efforts are aligned with leading practice and undertaken in a socially and environmentally responsible manner.

Every site has an overarching Closure Framework which consists of a number of closure components that can be contained in a singular closure plan or maintained in multiple documents in a central database.

Closure components are at a level of detail that is appropriate for the phase and current understanding of site conditions. These components are reviewed as required to reflect changing circumstances of a site such as transitioning of each project phase, changes in operational activities, mining methods and site layout or processes.

Planning for closure commences at the feasibility phase and is maintained throughout the life of the asset - from feasibility studies, execute, operations, closure through to close out, evolving over time as more information becomes available.

During the early phases of a project, closure planning identifies uncertainties related to closure objectives or criteria, and potential rehabilitation research or engineering required to address these uncertainties. A detailed handover of all closure components occurs at the transition of each phase of a project.

Iluka prefers progressive rehabilitation during operations as it:

- minimises the final closure footprint;
- assists with understanding and evaluating risks;
- identifies knowledge gaps;
- targets research and development of specific completion criteria: and
- refines closure provision estimates.

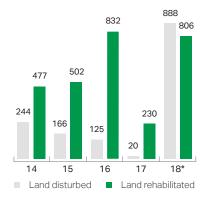
In 2017, a performance target was set for all sites to have closure plans in accordance with the internal standard and legislative requirements by the end of 2018. This target was met with all sites implementing the Closure Framework and having closure plans in place

741ha was reported as rehabilitated in the 2018 full year results presentation. This included demolition areas (13ha) and did not include areas rehabilitated at US Florida operations (78ha).

During 2018, the rehabilitation of 806\* hectares of land in Australia, the United States and Sierra Leone was completed. 888 hectares of land was disturbed in 2018. Construction of the Cataby mine equates to 60% of the disturbance during 2018 whilst 26% is attributed to opening up the Ambrosia area ahead of the mine move from Jacinth to Ambrosia at J-A mine.

lluka continues to refine and improve our land clearing and rehabilitation information with improvements in technology. In 2018 substantial effort was spent to ensure up-to-date land clearing and rehabilitation information for the Sierra Rutile operations. This included the integration of a combination of spatial information technologies such as surveys, Geographic Information System (GIS) mapping and aerial imagery, providing the ability to verify independently data via aerial photography. Definition standardisation across all jurisdictions was also undertaken. The total open area reported change from 4.727 hectares in 2017 to 10,632 hectares in 2018, is largely due to the addition of Sierra Rutile to the dataset.

### **LAND DISTURBED AND REHABILITATED (HECTARES)**



includes Sierra Rutile

# **MINERAL WASTE** MANAGEMENT [MI]

Mineral waste is defined as materials removed from the mine void that are separated from the valuable minerals over various processing stages. These are handled, stored and disposed of according to their properties, environmental factors and regulations. Many wastes are returned to the mine void to enable landform restoration similar to the pre-mining environment. For 2018, around 18,500 kt of mineral waste was handled and disposed of by Iluka - comprising overburden, rock, mine and processing tailings.

Where mineral waste is contained in a slurry form, either within mine voids or in off-path storage, lluka utilises engineered tailings storage facilities (TSFs). We seek to minimise, and, where practicable, eliminate risks to the environment, people and property associated with the use of TSFs. Mineral wastes stored in TSFs include clay fines, sand tails, co-disposal (sand and clay) tailings, and tailings from mineral separation and synthetic rutile plants. Currently, Iluka operates active TSFs at J-A and Sierra Rutile, which are audited annually.

We reduce the risk of a tailings dam failure with the following controls:

- tailings facility design by suitably experienced and qualified specialists, according to the Australian National Committee on Large Dams (ANCOLD) guidelines;
- where there is a need, to raise dam walls utilising the downstream raising design method (no upstream raises);
- review of storm water spillway requirements in high rainfall
- construction supervision and quality assurance;
- surveillance systems (inspections and monitoring);
- internal geotechnical risk reporting for operational and rehabilitation sites (monthly); and
- independent external geotechnical audits.

Since acquisition in December 2016, Sierra Rutile has significantly reduced the geotechnical risk of its tailings structures through undertaking a programme of remedial and improvement works. Quarterly inspections by external geotechnical specialists have continued and their recommended actions incorporated into work plans managed by means of regular tailings management meetings.

## Naturally occurring radiation and mineral sands

Mineral sands, as with other minerals such as clay, soils, rocks and many ores, contain levels of natural occurring radioactive material (NORM). This is associated with low level, naturally occurring uranium and thorium contained within the grains of the minerals monazite, xenotime, zircon and sometimes ilmenites.

While the level of NORM in most natural substances is low, any operation in which material containing radiation is extracted from the earth and processed can potentially concentrate NORM in the mineral sands products, by-products and waste (residue) materials. For this reason, stringent, internationally-accepted radiation management standards are adopted to minimise the risk to human health and the environment.

We apply radiation management practices that are aligned with international best practice according to the publications of the International Commission on Radiological Protection, the International Atomic Energy Agency, as well as the relevant country's legislation. We identify, assess and control risks associated with NORM, radon gas and man-made sources through all phases of our activities - exploration, project development, operations, rehabilitation and closure. Our Group Radiation Management Standard and site-specific radiation management plans ensure exposure to radiation meets the prescribed statutory limits and is as low as is reasonably achievable.

## PRODUCT STEWARDSHIP

lluka's product stewardship approach seeks to guide the application of mineral sands products to ensure a thorough understanding of their health, safety and environmental benefits and risks and to promote their responsible use.

Product stewardship is integrated throughout business decisions and materials management. We engage with customers to create opportunities that promote the responsible use of mineral sands products. We also support scientific research activities and participate in industry consortia to support productive utilisation of products.

All of our products and by-products sold into global markets have associated Safety Data Sheets (SDS). The SDS contains product specification details, including chemical and radiological elements, and provides information on the possible hazards, safe storage, handling and disposal of those materials.

We seek market opportunities for a number of by-products (or secondary products) including iron concentrate, activated carbon and gypsum which support responsible reuse of our product throughout the value chain and reduces rehabilitation legacies.

Iluka is a foundation member of the **Zircon Industry Association** (ZIA), which provides a forum for the cooperation and exchange of ideas on information on scientific and technical matters related to the zircon value chain. The ZIA completed the first ever cradle-to-gate life cycle assessment for zircon sand to quantify its environmental impact, with results released in 2018. The study confirmed that zircon has a low environmental impact, mainly associated with upstream mining. The study went on to compare the environmental impacts when using zircon as a whitener in ceramic tile production with the main alternative product - alumina. It found that tile production using zircon generated a significantly lower environmental impact over a range of environmental indicators selected for the study, according to international standards<sup>3</sup>. Further information is available on the associations, website: www.zircon-association.org

Zircon Industry Association, Demonstrating the low environmental impact of zircon in ceramic tile production, 2018

# **CLIMATE CHANGE**

Iluka is supportive of the Paris Agreement objectives and accepts the Intergovernmental Panel on Climate Change (IPCC) assessment of climate change science. The Board and management are taking steps to implement the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD). We recognise that climate change has the potential to change our operating context.

During 2018, Iluka undertook a review of our climate change approach and the recommendations made by the TCFD. As a result, we are working to identify and manage our climate-related risks and respond to opportunities for our business. We undertook a gap analysis against each of the four elements of the TCFD and developed a three-year programme for alignment with the TCFD recommendations. In 2019 we are undertaking a review of Iluka's risk management approach to test that it can effectively take account of climate-related risks, including those risks that may be highly uncertain or create impacts over a longer time horizon (+10 years). We are also conducting a climate-related physical impacts assessment for all material lluka assets, our supply chain and where relevant, assessing risks for customers.

# **ENERGY CONSUMPTION AND** GREENHOUSE GAS EMISSIONS

We use standard methodologies to calculate direct (Scope 14) greenhouse gas (GHG) emissions, including direct measurements of energy sources consumed, calculations based on site-specific data and calculations based on published criteria (such as emission factors and global warming potential).

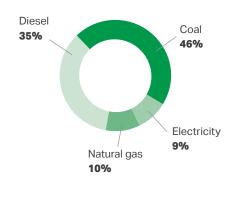
In general, we report our emissions and energy consumption under the country of operation's regulations and policies. For example, in Australia, we report our emissions and energy consumption under the National Greenhouse and Energy Reporting System (NGER).

The majority of our GHG emissions are generated from energy use during mining and processing. Energy consumption for 2018, 7.0 petajoules, increased slightly over 2017 levels. Scope 1 and Scope 2<sup>5</sup> emissions, 509 ktCO<sub>2</sub>-e, were also slightly higher due to:

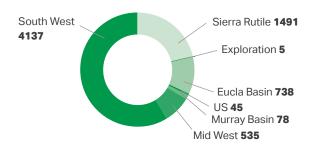
- 100% utilisation of mining and concentrating activities at J-A after recommencement at the end of 2017;
- 100% utilisation of Narngulu MSP; and
- commencing construction of the Cataby mine.

Scope 1 emissions at our North Capel synthetic rutile operation are largely related to the use of coal in the process, which makes up 46% of energy resources used. In the synthetic rutile production process, coal is used for the metallurgical processing of ilmenite into synthetic rutile, which is high in titanium. Scope 1 emissions at our Sierra Rutile operation are largely related to the use of diesel in vehicles and the power station for the generation of electricity. The power station consists of four engine-driven generators with marine fuel oil as a fuel source and operates all year to supply electricity to the operations.

#### **ENERGY RESOURCES USED %**



#### **ENERGY USED BY REGION** (TERAJOULES)



- Scope 1 greenhouse gas emissions are the emissions released to the atmosphere as a direct result of an activity, or series of activities at a facility level.
- Scope 2 greenhouse gas emissions are the emissions released to the atmosphere from the indirect consumption of an energy commodity. For example, 'indirect emissions' come from the use of electricity produced by the burning of coal in another facility. Scope 2 emissions from one facility are part of the Scope 1 emissions from another facility.

## **WATER USE**

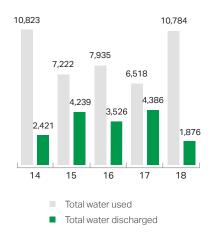
Iluka considers water a precious shared resource and acknowledges mining, processing and separation processes are significant users of water.

We have an important role in the sustainable management of water resources. This is of particular importance in water-stressed areas and in areas where we share water resources with the community. We strive to continually develop efficient and improved solutions for our water use such as the use of hyper saline water and recycled water in process plants. If we can recycle process water through the system there is a reduced need for water extraction and only minor losses due to evaporation and infiltration.

Recognising that water connects an operation to the surrounding landscape and communities, water management at Sierra Rutile is very important. During 2018, an integrated water balance was developed to improve water management at our Sierra Rutile operations. Due to high rainfall in the region, Sierra Rutile is able to use rainfall and natural inflows in historic ponded areas as its water resource without impacting on other water users

2018 saw a significant increase in water use across our operations due to the return to full operations at J-A, doubling of production at Narngulu MSP, and the construction of the Cataby mine.

#### **TOTAL WATER USED AND DISCHARGED (MEGALITRES)**



# **ENVIRONMENTAL INCIDENTS**

Iluka uses an event management system to record environmental incidents, which are then classified according to the severity of the potential impact to the environment. Level 1 incidents have no or minimal impact and Level 5 incidents have the greatest potential cumulative impact over time.

The number of Level 3 and above environmental incidents for the Group decreased from 27 in 2017 to 20 in 2018. This reduction is attributable to improved management measures implemented at our Sierra Rutile operations.

The overall number of incidents reported increased from 953 in 2017 to 1,641 in 2018 and is attributable to an increase in reporting environmental incidents at Sierra Rutile and construction commencing at the Cataby mine.



## **CASE STUDIES**



### **RECYCLED PIPE HELPS ENDANGERED FAUNA**

During 2018, redundant polyethylene pipe from our Eneabba operations was donated to the Landcare Serpentine Jarrahdale group in South West of Western Australia.

Volunteers from this group turn old pipe into nesting boxes (or 'cockatubes') for the endangered Carnaby's Black Cockatoo (Calyptorhynchus latirostris). The cockatubes contribute to black cockatoo conservation as they are specifically designed to provide effective nest hollows and thereby improve breeding success.



## **WETLAND RESTORATION IN GREEN COVE SPRINGS**

Green Cove Springs is located within a subtropical environment consisting of low lying near level topographies, acidic sandy soils and poor drainage. Historically these lands were composed of dense plantations of production pine trees (Pinus elliottii). Scattered in these plantations were isolated forested wetlands or interconnected swales dominated by cypress (Taxodium distichum), tupelo (Nyssa sylvatica var. biflora) and other hardwoods, many of which were impacted by silviculture operations.

Forested wetlands are an important ecosystem of the south eastern United States that harbour a rich variety of plant species, contribute an array of ecosystem functions and provide habitat for numerous animals. In Florida, forested wetlands cover 2.3 million hectares or about 14% of the state.

The Florida Administrative Code states that wetlands disturbed by mining must be restored 'at least acre-for-acre and type-for-type', often requiring the reinstatement of wetlands within production pines.

During the 1990s, Iluka's restoration efforts shifted to an innovative practice by placing hummocks - small soil mounds - within the wetland flooded areas. These hummocks were carefully placed within the range of seasonal water fluctuation to create more niches for re-establishing diverse vegetation and habitat for fauna.

The restoration of wetlands includes detailed pre-mine planning, hydrological and topographical surveys to ensure water flows are reinstated, topsoil reuse, mulch application and the planting of appropriate tree species in submerged, transition and upland zones. The restored wetlands' hydrology, vegetation and fauna are monitored, usually for seven years, to demonstrate that the government requirements/criteria have been met and the area can be released.

A more detailed assessment of the monitoring data conducted during 2016 found that the restored wetland vegetation quality was superior to agricultural and urban wetlands from northern Florida and within the range exhibited by wetlands of conservation value.







# CASE STUDIES

The restored wetlands are also well integrated in the landscape of surrounding pine plantations thereby ensuring good prospects that the wetland quality will be maintained or improve. This is important because one of the biggest challenges facing wetland restoration efforts is their quality degrading over time, particularly if adjacent to high intensity land

In addition to the wetland vegetation quality, the restored areas include land cover types that are classified rare or imperiled in Florida. These are described in the Florida Natural Areas Inventory (FNAI) and include wet prairie, upland mixed woodland and mesic hammock.

The restored wetland areas are also well utilised by fauna with over 103 different vertebrate species observed. Additionally 14 imperiled fauna are also known to occur in the restoration including Sherman's fox squirrel, Florida sandhill crane, gopher tortoise, alligator snapping turtle and the iconic American alligator.

The strategy of establishing hummocks in restored wetlands was not required under regulatory permits at the time but has since been incorporated into Florida reclamation standards due to its success. This best practice, combined with vegetation and fauna indicators, show that Iluka's Green Cove Springs wetland restoration is of high quality and well integrated within the landscape.









# OUR VALUES OF INTEGRITY, RESPECT AND ACCOUNTABILITY GUIDE US IN OUR EVERYDAY DECISIONS.

Iluka is committed to being transparent, behaving ethically and conducting its business in accordance with the highest standards of corporate governance through its systems and processes.

## **OUR LEADERSHIP**

Iluka's Board is comprised of six independent, non-executive directors and one executive director (the Managing Director).

Our Board is responsible for the overall corporate governance of Iluka including approving and overseeing our strategic direction, strategies and financial objectives, assessing the performance of management and reporting on performance, including for sustainability. The directors review the company's sustainability performance monthly and implemented additional sessions in 2018 to enable increased focus on environmental, social and governance issues.

The Board has a corporate governance framework which complies with the Australian Securities Exchange Corporate Governance Council Principles and Recommendations and encompasses policies, procedures and charters. The framework is reviewed regularly and revised in response to changes in law, developments in corporate governance and changes to our business. During the year, this included a review of the key findings on the Australian Prudential Regulation Authority Inquiry into the Commonwealth Bank of Australia. We compared the findings with Iluka's framework to identify potential gaps and guide future actions. Iluka's governance framework is available on the company's website www.iluka.com.

The Board has three established committees: Audit and Risk Committee; Nominations and Governance Committee; and the People and Performance Committee.

Iluka also has a stand-alone Executive Sustainability Committee attended by all executives and chaired by the General Manager – People and Sustainability. This forum met three times in 2018 with key focus areas including:

- climate change strategy;
- Human Rights Policy and work programme progress; and
- review of key safety risks.

Performance incentive payments for all employees are linked to sustainability related objectives. The targets are set based on a combination of industry best practice and improvement over past performance.

Image above (L-R):

Marcelo Bastos, Xiaoling Liu, Tom O'Leary, Greg Martin, Rob Cole, Jennifer Seabrook, James (Hutch) Ranck

# **POLICIES**

Iluka's sustainability framework is underpinned by a series of policies that guide behaviour and business practice within the company.

#### **CODE OF CONDUCT**

Iluka seeks to maintain a high standard of conduct.

#### **ANTI-BRIBERY AND CORRUPTION POLICY**

Iluka has zero tolerance for bribery or corruption in its business.

## **RISK MANAGEMENT POLICY**

The identification and systematic management of risk is fundamental to achieving our objective to deliver sustainable value.

#### **PEOPLE POLICY**

Iluka fosters employee accountability, commerciality and engagement by recruiting, developing and retaining a high performing, diverse workforce.

## **HEALTH, SAFETY, ENVIRONMENT AND COMMUNITIES POLICY**

Iluka pursues industry leading practice in the areas of health, safety, environment and community.

## **PROCUREMENT POLICY**

Suppliers of goods and services are required to demonstrate effective HSEC standards.

### **HUMAN RIGHTS POLICY**

Iluka is committed to respecting human rights and believes that all people should be treated with dignity and respect.

## TAX RISK POLICY AND APPROACH TO TAX

Iluka manages its tax affairs globally in a responsible manner recognising that meeting its tax obligations is integral to being a responsible corporate citizen.

Cataby, Western Australia

# ETHICS AND CONDUCT [MI]

Iluka's business activities and operations are located in jurisdictions with varying degrees of political and judicial stability, including some countries with a relatively high inherent risk with regards to bribery and corruption. This exposes Iluka to the potential risk of unauthorised payments or offers of payments to or by employees, agents or distributors that could be in violation of applicable anti-corruption laws.

## **Anti-bribery and corruption**

Iluka has zero tolerance for bribery or corruption. The Antibribery and Corruption Policy, supported by the Anti-bribery and Corruption Procedure, sets out the standards and behaviour Iluka expects of its directors, officers, employees, agents, contractors and representatives, and links with the Whistleblower Procedure for the reporting of any actual or suspected breaches of the policy. All reported incidents of non-compliance or potential non compliance are taken seriously, reviewed and investigated. Serious incidences are reported to the Managing Director within 24 hours and to the Audit and Risk Committee at its regular meetings.

Sierra Rutile has a location specific Anti-bribery and Corruption Policy tailored to reflect operating conditions and local laws in Sierra Leone. It contains the key elements of Iluka's Group policy, including zero tolerance for bribery and corruption.

Iluka maintains Gift Registers as a record for the issue and receipt of entertainment or gifts.

Anti-bribery and corruption training is provided to key personnel via direct and on-line training.

A copy of Iluka's Anti-bribery and Corruption Policy can be found in the Governance section of our website www.iluka.com.

### **Code of Conduct**

Iluka seeks to maintain the highest standards of conduct and has a Code of Conduct that identifies the standard of ethical conduct expected of all lluka employees and contractors.

The Code of Conduct describes the objectives, values and standards of behaviour that employees and contractors must apply to all business practices. In addition, the Board has specifically adopted a Directors' Code of Conduct which establishes standards for appropriate ethical and professional behaviour for directors

Iluka treats actual or suspected breaches of its Codes of Conduct and policies seriously and has adopted mechanisms to ensure that suspected breaches are reported and acted upon fairly and effectively. The Codes of Conduct are supported by Iluka's Antibribery and Corruption Policy and Whistleblower Procedure.

We encourage all employees, directors, contractors and consultants to raise concerns regarding any misconduct that they believe constitutes a breach of the Code of Conduct, Iluka's policies or the law. Our Whistleblower Procedure sets out the mechanism by which staff can confidently, and anonymously if they wish, raise concerns in a responsible manner without fear of discriminatory treatment, recrimination or reprisal, and with Iluka's commitment to properly investigate any issues.

Copies of the Code of Conduct, Directors' Code of Conduct and Whistleblower Procedure can be found in the Governance section of Iluka's website www.iluka.com

# **MANAGING RISK**

We systematically identify and manage risk across all our business activities.

The Risk Management Policy sets the commitment, direction and intention of how we apply risk management. The policy is supported by a risk management framework which is aligned to the International Standard for Risk Management, ISO 31000.

The Board, through the Board Charter, delegates responsibility for identifying and managing risks to management. Management report to the Board every six months on those risks which could have a material impact on the company's business. The Audit and Risk Committee assists the Board in overseeing the company's risk management practices.

Through the risk management framework we seek to:

- embed a culture of risk awareness by integrating risk management into business activities;
- identify, assess and manage risks in a structured and systematic manner;
- enable prudent risk taking in line with business objectives and strategies; and
- establish and monitor appropriate controls in line with agreed risk tolerances.

We assess the consequence of risk across a number of areas including environment, health, safety, reputation, stakeholder, compliance, financial and company objectives.

Pages 44 and 45 of the Annual Report provide further detail on Iluka's key risks and mitigations.

# ILUKA HAS ZERO TOLERANCE FOR BRIBERY AND CORRUPTION.



#### Iluka pursues sustainable economic outcomes allowing us to share economic benefits with our host communities.

For 2018, Iluka recorded a net profit after tax of \$304 million. A net cash position of \$2 million was achieved, which marked a significant improvement from the position of net debt of \$506 million in 2016 following the Sierra Rutile acquisition. Through this two-year period, mineral sands revenue grew by greater than 70% to \$1,244 million in 2018. Strong free cash flow was sustained at \$304 million.

Full details of lluka's financial results and economic performance can be found in the Iluka 2018 Annual Report, available on the company's website www.iluka.com.

## **ECONOMIC CONTRIBUTION [MI]**

Our business activities create direct and indirect economic benefits to countries and communities in which we operate, including:

- employment opportunities;
- investment in community infrastructure and services;
- taxes paid to government;
- local procurement supporting community businesses wherever practicable; and
- community support through sponsorships and partnerships.

Iluka contributes to a large number of community programmes and events. Some of these programmes are tied to business objectives, such as employee diversity, environmental excellence and local employment and procurement, while others are influenced by regional and local development priorities.

In 2018, we contributed over \$980,000 globally to initiatives in regions where Iluka has a presence, as well as a small number of corporate programmes. This includes \$380,000 of statutory payments made in accordance with agreements in Sierra Leone including the Sierra Rutile Agricultural Development Fund and Community Development Agreement. In addition to this, \$170,000 of voluntary, non-statutory payments were made in Sierra Leone. The remaining \$430,000 was voluntary, non-statutory payments to partnerships and donations within Australia.

Some of our key partners included the Clontarf Foundation, which provides education, life skills and employment prospects to young Aboriginal and Torres Strait Islander men and SHINE, which supports the education of young women to promote their personal and career development. Since 2015 we have been a sponsor of the Royal Flying Doctor Service (RFDS) Wings of Life Gala, which we continued to support in 2018.

Other partners included:

- Rotary Australia;
- voluntary fire brigades in Australia and the US;
- The Ruby Rose Educational and Resource Centre in Sierra Leone;
- Without Borders (Sri Lanka); and
- Harry Perkins Ride for Cancer.

In 2019 we are reviewing our social investment strategy and guidelines to further improve our community support and partnerships processes.

lluka does not grant applications for support of religious or political activities and does not provide funds to political parties.

### **ECONOMIC RESPONSIBILITY - ECONOMIC CONTRIBUTION**

Additional to community investment, a summary of the economic value generated and distributed from Iluka's activities in 2018 is provided below. Iluka's payments to government for taxes and royalties is provided separately in the Tax Transparency section.

#### 2018 economic contribution

			Suppliers and Contractors	
		Employees	Payments made to suppliers and contractors for the purchase	Government
		Expenses for salary,	of utilities, goods and services	Total taxes borne
A\$ million	Revenue	wages and benefits	(operating and capital cost)	and collected
Australia	1,011.5	118.1	466.6	63.2
Sierra Leone	203.9	40.4	180.4	40.4
Other	28.7	6.0	11.7	(0.8)
Total	1,244.1	164.5	658.7	102.8



### **Tax transparency**

We support the transparent disclosure of our taxes, royalties and fees to government. We recognise this forms part of our economic contribution to the regions in which we operate.

Iluka has adopted the Australian Board of Taxation's Voluntary Transparency Code, and integrated tax transparency reporting into the annual reporting suite. More recently, we published an Approach to Tax Statement - a public statement communicating the underlying principles of Iluka's tax strategy and tax risk management framework. Iluka's Approach to Tax will be subject to annual review by the Board and can be found on www.iluka.com.

In 2018 Iluka paid \$57.3 million in income taxes, royalties and other payments to national, regional and local governments; and collected \$45.5 million in respect of employee payroll taxes and withholding taxes on behalf of such governments.

The information provided in this report, together with data published in Iluka's 2018 Annual Report, reflects the disclosure requirements under the Australian Voluntary Tax Transparency Code and the tax strategy requirements of the UK Finance Act 2016. Part A information (including commentary on Iluka's Group and Australian effective tax rates) is reflected in Iluka's Annual Report. Part B requirements are addressed in this report.

#### Approach to tax

Our Approach to Tax Statement\* sets out the guiding principles upon which Iluka's tax risk management framework is based. It recognises that paying tax in accordance with our legal obligations plays an important part in building and maintaining trust in our communities, which is essential to sustainable operations.

The principles include:

- managing our tax affairs in a responsible, efficient, transparent and sustainable manner;
- fully complying with relevant tax laws, including paying taxes on time;
- ensuring related party dealings reflect arm's length principles in accordance with Organisation for Economic Cooperation and Development (OECD) guidelines; and
- developing and maintaining relationships with tax policy developers and revenue authorities.

### Tax risk governance

The guiding principles in Iluka's Approach to Tax underpin Iluka's Tax Risk Policy.

Iluka's tax governance framework, including its Tax Risk Policy, emphasises a prudent, responsible approach to tax risk management and operates within our broader governance and risk management framework. The Tax Risk Policy and Approach to Tax is reviewed annually by the Board and sets out the accountability and reporting framework for managing Iluka's tax risks. The policy makes it clear that the Board assumes ultimate responsible for Iluka's tax risk governance.

**ILUKA PURSUES SUSTAINABLE ECONOMIC OUTCOMES ALLOWING** US TO SHARE ECONOMIC BENEFITS WITH OUR HOST COMMUNTIES

The broader tax governance framework operates to ensure that Iluka is compliant with statutory reporting and disclosure obligations and that all material tax risks are recognised, managed and recorded in a manner consistent with:

- the Board-approved Tax Risk Policy including the Approach
- the Group's risk management philosophy, framework and
- generally accepted industry practice and global corporate governance standards;
- guidance from regulatory authorities, including the Tax Risk Management and Governance Guide of the Australian Taxation Office (ATO); and
- shareholder expectations.

Tax issues are regularly reported to and considered by the Board and executives at meetings of the company's Audit and Risk Committee.

Tax management is undertaken in this context, with material tax risks identified at the earliest opportunity and risk mitigation strategies implemented.

In structuring Iluka's commercial activities, the company considers - among other factors - the tax laws of the countries in which it operates, with a view to maximising value on a sustainable and responsible basis for shareholders. Tax is always considered in the light of both economic substance and commercial objectives and with regard to the potential impact on lluka's reputation.

Given the scale of Iluka's business and volume of tax obligations, risks will inevitably arise from time to time in relation to the interpretation of tax law and the associated nature of our compliance arrangements. We proactively seek to identify. evaluate, manage and monitor these risks. Where there is significant uncertainty or complexity, external advice will be sought to clarify interpretations and practices.

The company acts with integrity in dealing with all stakeholders, including tax authorities, with whom Iluka maintains transparent, respectful and professional relationships.

www.iluka.com/about-iluka/governance

### **ECONOMIC RESPONSIBILITY - ECONOMIC CONTRIBUTION**



## International related party dealings

All international related party transactions take place in accordance with the arm's length principles contained in the OECD guidelines and local laws. Iluka obtains independent advice from transfer pricing experts to ensure that the transactions are compliant with legal and local tax requirements and are priced on an arm's length basis, with appropriate supporting documentation, as required by the tax laws of each respective jurisdiction.

Our operating model results in the provision of intra-Group services and transactions, including management and other support services, the sale, purchase and marketing of commodities and financing arrangements. The aggregate value of these intra-Group transactions comprises less than 3% of sales revenue.

#### Tax contribution summary

Taxes constitute a significant part of our economic contribution to the main countries in which we operate. The table below represents the material taxes borne, collected and paid by Iluka in 2018 to national, regional and local governments in jurisdictions where Iluka conducts operations.

Corporate income tax borne for Australia for 2018, as reflected in the table below, excludes a final tax payment of approximately \$137.5 million expected to be payable in respect of the 2018 Australian corporate income tax liability due in 2019.

Corporate income tax borne in Sierra Leone reflects the terms of the Sierra Rutile Agreement (Ratification) Act 2002 and, for 2018, is based on 3.5% of turnover.

## Total payments made by country

								Employee			
	Corporate			Employer	Customs		Total tax	payroll	Withholding	Total tax	Taxes
A\$ m	income tax	Royalties	Fees <sup>1</sup>	taxes <sup>2</sup>	duty	Other <sup>3</sup>	borne	taxes4	taxes <sup>5</sup>	collected	refunded <sup>6</sup>
Australia	0.38	28.2	1.9	5.1	0	0	35.5	27.7	0	27.7	(46.7)
Sierra Leone <sup>7</sup>	5.8	7.1	1.5	0	6.6	2.9	23.9	10.8	5.7	16.5	_
US <sup>7</sup>	(3.6)	0	0	0.4	0	1.1	(2.1)	1.3	0	1.3	_
Total	2.5	35.3	3.4	5.5	6.6	4.0	57.3	39.8	5.7	45.5	(46.7)

#### Notes

- Note 1 Payments made to governments for the right to use an area for exploration or extractive activities.
- Note 2 Payments made to governments in Iluka's capacity as an employer. This includes payroll taxes and Australian fringe benefits tax.
- Note 3 Property and sales tax paid to state governments and fuel import and excise duty directly paid to government.
- Note 4 Payroll and employee taxes withheld from employee remuneration and paid to governments.
- Note 5 Taxes withheld on payments made to suppliers of services and paid to governments.
- Note 6 Net refunds of transactional taxes, such as goods and services tax (GST) and fuel tax credits.
- Note 7 Foreign denominated taxes were converted to A\$ using an average daily exchange rate for 2018 of 0.705 from the Reserve Bank of Australia.
- Note 8 Excludes final 2018 income tax payment of approximately \$137.5 million payable in 2019.

<sup>&</sup>quot;tax borne" is tax paid to governments by Iluka on its own behalf

<sup>&</sup>quot;tax collected" is tax paid to governments by Iluka on behalf of other taxpayers

# **CASE STUDIES**





## **IMPROVING LOCAL EDUCATION IN SRI LANKA**

Iluka Lanka Resources, Iluka's subsidiary domiciled in Sri Lanka, partnered with local not-for-profit social enterprise Without Borders in 2018 to pilot a teacher training programme to improve local education in the Wanathawilluwa district. Without Borders has been operating in Sri Lanka for the past three years, and is focused on developing innovative training and education models to transform the local education sphere.

During the seven-month programme, our support helped provide training and resources for 38 volunteer teachers in 13 schools in the district, upskilling local educators and improving educational outcomes for school children.

As part of this programme, Iluka was invited to participate in a leadership programme held in September 2018 and also the end of year graduating ceremony at the end of November 2018.

## SIERRA RUTILE SCHOLARSHIPS

A core theme of Sierra Rutile's community development programme is education. As a major employer in the region, Sierra Rutile is investing in education to provide mutual benefits to the local communities by improving educational outcomes for children, but also creating a pipeline of talent for our future workforce.

The Sierra Leone government recently implemented free education for all children; however ensuring their children can access education can still be problematic for parents. By supporting education scholarships, Sierra Rutile is helping parents cover the costs of uniforms, books, resources and, for those who live more remotely, the cost of travel and living expenses.

In 2018 Sierra Rutile's Education Scholarship Programme awarded a total of 56 scholarships to students in the five mining chiefdoms in Sierra Leone. The scholarships provide support to primary and secondary students, and are delivered in addition to other Sierra Rutile education programmes.

# **Economic Responsibility**

	2014	2015	2016	2017	2018
Financial performance					
Mineral sands revenue (million)	725	820	726	1018	1244
Underlying mineral sands EBITDA (million)	189	232	103	301	545
Mining Area C EBITDA (million)	67	62	48	69	56
Underlying Group EBITDA (million)	256	293	151	361	600
Net profit (loss) after tax (million)	(63)	54	(224)	(172)	304
Free cash flow (million)	196	156	47	322	304
Net (debt) cash (million)	(59)	6	(506)	(183)	2
Total taxes borne *	-	-	-	47	57

<sup>\*</sup> refer to Tax Transparency section

# People

	2014	2015	2016	2017	2018
Gender diversity (Australia)					
Male (%)	73	71	73	73	76
Female (%)	27	29	27	27	24
Gender diversity (Sierra Leone)					
Male (%)	-	-	-	93	92
Female (%)	-	-	-	7	8
Gender diversity (Total Iluka Group)					
Male (%)	-	-	-	88	92
Female (%)	-	-	-	12	8
Indigenous diversity (Australia)					
Non-Indigenous (%)	95	95	95	95	94
Indigenous (%)	5	5	5	5	6
Employee turnover					
Employee initiated turnover Australia (%)	5	5	11	7	11
Employee initiated turnover Sierra Rutile (%)	-	-	-	2	2
Employee number by region					
Australia	678	763	643	599	735
Asia	18	11	10	25	17
Europe	2	2	3	1	3
Africa	1	1	1	1,986	2,467*
Americas	154	140	55	32	37

<sup>\*</sup> the increase in employee number in 2018 was attributed to the transition of contract security employees and the absorption of casual employees into the permanent workforce

# **PERFORMANCE DATA**

# **Safety**

	2014*	2015*	2016*	2017	2018
Proactive or leading metrics (excludes Sierra Rutile)					
Safety visits (number)	24,564	25,252	25,030	21,132	22,523
Planned workplace inspections per employee per month	0.34	0.37	0.52	0.52	0.62
Hazard cards	6,564	4.657	4,012	2,218	2,914
Training compliance (%)	60	84	87	79	79
Book and other walls of					
Reactive or trailing metrics#					
Workplace fatality (injury)	0	0	0	0	0
Lost time injuries (LTI)	3	5	1	9	10
Lost time injury frequency rate (LTIFR)	0.9	0.9	0.4	1.0	1.0
Medical treatment injuries (MTI)	6	17	8	13	19
Medical treatment injury frequency rate (MTIFR)	1.8	5.2	2.9	1.4	1.9
First aid (FA) and minor injuries upgraded					
to restricted work case (RWC) injuries	3	2	3	4	5
Total recordable injuries	12	22	12	26	34
Total recordable injury frequency rate (TRIFR)	3.6	6.7	4.4	2.8	3.5
Severity – number of days lost	74	8	3	899	888
Severity rate	21.9	2.4	1.1	97.1	90.6
Serious potential incidents	11	21	13	60	47

## Health

	2014	2015	2016	2017	2018
Workplace fatality (illness)	0	0	0	0	1
Confirmed occupational illness	3	2	2	5	10
Occupational exposure level exceedances	Establi	ishment of	83	84	33
(Australia only)	baseline expo	sure levels			

## **Social Performance**

	2016	2017	2018
Public complaints (number)			
Sierra Rutile	n/a	30	52
All other Iluka sites	27	9	17
Total public complaints received	27	39	69
Social incidents (number)			
Level 3 social incidents	n/a	n/a	10
Level 4 social incidents	n/a	n/a	4
Level 5 social incidents	n/a	n/a	0
Total Level 3-5 social incidents	n/a	n/a	14

<sup>\* 2014-2016</sup> excludes Sierra Rutile (pre-acquisition, December 2016)
# Total work hours for 2018 were 9,802,247 for employees and contractors for the Iluka group.

# **PERFORMANCE DATA**

# **Environment**

	2014	2015	2016	2017	2018
Environmental incidents					
Level 3 environmental Incidents (number)	30	11	8	6	20
Level 4 environmental incidents (number)	4	3	3	1	0
Level 5 environmental incidents (number)	0	0	0	0	0
Total Level 3-5 environmental incidents (number)	34	14	11	7	20
Fines and prosecutions (number)	-	-	-	0	0
Land footprint					
Land disturbed (hectares)	244	166	125	20	888
Land rehabilitated (hectares)	477	502	832	230	806
Greenhouse gas emissions					
Scope 1 and 2 emissions (ktCO2e)	244	436	386	348	509
Energy use and resources used					
Energy use (terajoules)	2,330	4,537	4,415	4,475	7,029
Coal (%)	0.0	45.7	60.2	66.0	45.5
Electricity (%)	24.7	18.0	19.3	11.0	9.0
Natural gas (%)	24.2	14.3	15.7	15.0	9.7
LPG (%)	0.1	0.0	0.0	0.0	0.0
Diesel (%)	50.3	21.4	12.4	7.5	35.4
Petrol (%)	0.5	0.5	0.2	0.1	0.1
Fuel, oil and greases (%)	0.2	0.1	0.0	0.2	0.2
Mineral waste volumes					
Overburden (kilotonnes)	-	5,943	1,387	981	3,698
Rock (kilotonnes)	-	790	298	110	1,839
Tailings, includes mine and processing tailings, as well as clay fines (kilotonnes)	_	12,195	4,228	1.880	12,997

	2014	2015	2016	2017	2018
Water resource <sup>^</sup>					
Total water used (megalitres)	7,222	7,935	6,518	5,862	10,784
Total water discharged (megalitres)	4,239	3,526	4,386	1,869	1,876
Total water reused and recycled (megalitres)	-	6,707	129	593	6,018
Surface water withdrawn (megalitres)	258	464	25	16	0.04
Ground water withdrawn (megalitres)	6,036	6,414	5,033	4,404	9,548
Rainwater collected directly and stored (megalitres)	483	409	905	1,032	688
Municipal water supplies or other water utilities (megalitres)	598	647	555	410	549

<sup>^</sup> Water resource values exclude Sierra Rutile

# **Environment**

2018 mineral waste disposal locati	ons*				
	Eucla	South	Mid	Sierra	
	Basin	West	West	Rutile	Total
MINING					
Overburden					
Volume (tonnes)	3,697,657	-	-	-	3,697,657
Disposal location	Returned to mine void	Returned to mine void	-	-	n/a
Rock					
Volume (tonnes)	802,922	9,036	-	1,027,092	1,839,050
Disposal location	Returned to mine void	Returned to mine void	-	Off path stockpiles and return to mine void	n/a
Clay fines, sand tails, co-disposal n	naterial (sand and clay)				
Volume (tonnes)	7,004,534	184,628	-	5,692,090	12,887,252
Disposal location	Co-disposal in TSF cells within mine void	Off-path TSF for drying (clay fines) and then return to mine void	-	Co-disposal within mine void	n/a
PROCESSING					
Mineral separation plan tailings					
Volume (tonnes)	-	4,340	49,077	43,954	97,371
Disposal location	-	Returned to mine void	TSF	TSF and then return to mine void	n/a
Synthetic rutile plant tailings					
Volume (tonnes)	-	18,974	-	-	18,974
Disposal location	-	Returned to mine void	-	-	n/a

<sup>\*</sup> No mining and subsequently mineral waste disposal occurred in the Murray Basin or United States region for the 2018 period

# Material issues description and boundary

			Im	pact
Our	Material Issue	Description	Internal	Externa
Governance	10000	2000 Ipalon	corrica	EXCOLLE
Ethics and conduct	(MI)	Corporate governance, ethics and conduct.	<b>V</b>	<b>√</b>
Economic responsibility				
Economic contribution	(MI)	Economic benefits delivered through jobs created, taxes paid and collected, social investment and procurement spend.	✓	✓
People				
Labour and working conditions	(MI)	Working conditions, industrial relations, grievance mechanisms, collective bargaining and discrimination.	✓	
Attracting, developing and retaining employees	(MI)	Talent attraction and retention, human capital development and succession planning.	✓	
Diversity and inclusion		Diverse and inclusive workforce.	✓	
Health and safety				
Fatality-free	(MI)	Focus on activities that have the potential to result in a fatality or permanent disabling injury.	✓	
Exposure to occupational health hazards	(MI)	Protection of the workforce from occupational exposures.	✓	
Community health		Protection and enhancement of community health.	✓	✓
Social performance				
Stakeholder engagement	(MI)	Communicating with and engaging stakeholders to build and maintain support for our presence. Includes how we manage grievances and ensure stakeholder views are considered in decision making processes.	✓	✓
Human rights	(MI)	Upholding fundamental human rights of employees, host communities and others who are affected by lluka's activities. This includes a commitment to work towards ensuring no forms of slavery are present in our business or supply chain as will be reported upon in a publicly available Modern Slavery Statement.	✓	✓
Resettlement	(MI)	Avoidance or minimisation of project-induced displacement. Where unavoidable, undertake resettlement and livelihoods restoration to ensure people are the same or better off as a result of lluka's presence.		✓
Indigenous relations and cultural heritage		Acknowledgement of Indigenous peoples' connections to lands and waters. Engagement with and appropriate inclusion of Aboriginal Australians in opportunities created by Iluka.  Respect for the culture and traditions of all communities where Iluka is present.	✓	✓
Environment				
Land rehabilitation and closure	(MI)	Process of planning for and undertaking rehabilitation and closure activities including land use design and planning, provisioning, rehabilitation execution and land relinquishment.	✓	✓
Mineral waste management	(MI)	Materials removed from the mine void and separated from valuable minerals over various process stages.	✓	✓
Biodiversity		Protection and enhancement of biodiversity.	✓	✓
Energy efficiency and greenhouse gas emissions		Energy consumption and efficiency and greenhouse gas emissions contributing to climate change impacts.	✓	✓
Wateruse		Water supply, use, management and discharge.	✓	✓
Environmental incidents		Uncontrolled impacts on the environment.	✓	✓
Climate change		Assessing, adapting and managing the risks and opportunities of a variable and changing climate.	✓	✓
Product stewardship		Responsible product design, handling, use, reuse, recycling and disposal of products.	✓	✓



