



NORTHERN
TERRITORY
DIVISION



Health & safety

PAGE 9



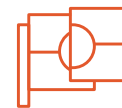
Skills & training

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Stronger communities

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Indigenous partnerships

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Access to land

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Taxes & royalties

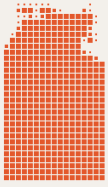
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There's more to
**Territory
Mining**



NORTHERN TERRITORY

Minerals Industry Strategy 2020-24



Snapshot

TERRITORY MINING

\$6.6b

ECONOMIC VALUE

NT resources' contribution to the Territory's economy in 2018-19.

Source: ABS

\$446m

MINING ROYALTIES

Royalties paid in 2018-19 were the same as payroll and stamp duty combined.

Source: MCA calculation

24%

GROSS STATE PRODUCT

Mining accounted for more than 24% of the NT's GSP in 2018-19.

Source: ABS



\$133m

EXPLORATION

NT mining exploration expenditure in 2019 – a 23% increase over 5 years.

Source: ABS

348

EXPLORATION LEASES

Current leases leading to potential new discoveries and mine expansions.

Source: NT Government

0.12%

LAND LEASES

Land covered by active or inactive mining leases in the Northern Territory.

Source: NT Government

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Warning Aboriginal and/or Torres Strait Islander peoples should be aware that this publication may contain the images of people who have passed away.

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AUGUST 2020

13,500

RESOURCES JOBS

Direct and indirect jobs in the mining and METS sectors across the NT.

Deloitte Access Economics

\$1.34b

REHABILITATION BONDS

Value of rehab bonds held by the NT Government as at January 2020.

Source: NT Government

9

OPERATING MINES

With another dozen plus mines expected to be operational in 2-3 years.

Source: NT Government



0.031%

DISTURBED LAND

Proportion of the Northern Territory used for mining activities.

Source: NT Government

3/5

TERRITORY PORTS

3 out of 5 major Territory ports are operated by mining companies.

Source: NT Government

5/9

TERRITORY AIRFIELDS

5 out of 9 major Territory airfields are operated by mining companies.

Source: NT Government



Health & safety

PAGE 9



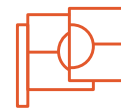
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Cover photograph

Glencore's McArthur River Mine team planted 120,000 plants into the McArthur River channel last year. Since rehabilitation efforts began in 2009, the team has planted more than 664,800 plants.



NT mining ready

Mining's role in sustaining jobs, supporting communities and restoring economic fortunes in the Territory has never been more important.

During the COVID-19 pandemic, government, Aboriginal leaders, business and communities acted early and identified what needed to be done to keep people safe, to keep people employed and to keep the Territory moving. The minerals industry adjusted operations rapidly while continuing to safely support the essential services that met local needs.

As we continue to navigate this health crisis, the challenge will shift to the need for new jobs and a strong economic recovery. There is a jobs pipeline in mining ready to be filled: at least 2600 operations and 5000 construction jobs if we can restart mining development.

We cannot always know what will happen, but we can make the most of these opportunities if we manage those things we can control.



There's more to
Territory Mining

Drew Wagner

MCA Northern Territory Division



to lead economic rebound

Greater policy certainty will support strong continued production in established commodities such as bauxite, zinc, lead, gold and manganese, and the emergence of vital new ones such as rare earth elements, phosphate, lithium and the commodity of the 21st century, copper.

It starts with exploration. The Territory has achieved a great deal but now is the time to accelerate. Competitive and sustainable policy frameworks for environmental assessments and approvals, respectful land access, community development, skills and workforce development, competitive taxation and royalties regimes and a fundamental commitment to health and safety are the key elements of the industry's growth strategy.

A central challenge will be developing the skills of future minerals workers. The success of Australia's resources sector depends on a highly skilled and diverse workforce that covers a range of scientific fields, professional occupations and trades.

In the past, workers might embark on a specific career from higher education or training in the vocational stream. In the future, workers will develop a mix of skills acquired at different types of educational institutions throughout their working life.

Increasingly, workers will operate in dynamic teams which come together for tasks and use a mix of technical and social skills and experience to get the best out of the operation. This agility can already be seen in the industry's COVID-19 response.

The primary goal is new jobs. If the Territory can get operations started then employment opportunities will emerge, the population will grow and the economy will be set on the path to a sustainable future. This document lays out the priorities and roles of the industry and government partnership needed to achieve these goals.

Drew Wagner
Executive Director
MCA Northern Territory Division

“ A central challenge will be developing the skills and training needs of the future minerals workforce. ”

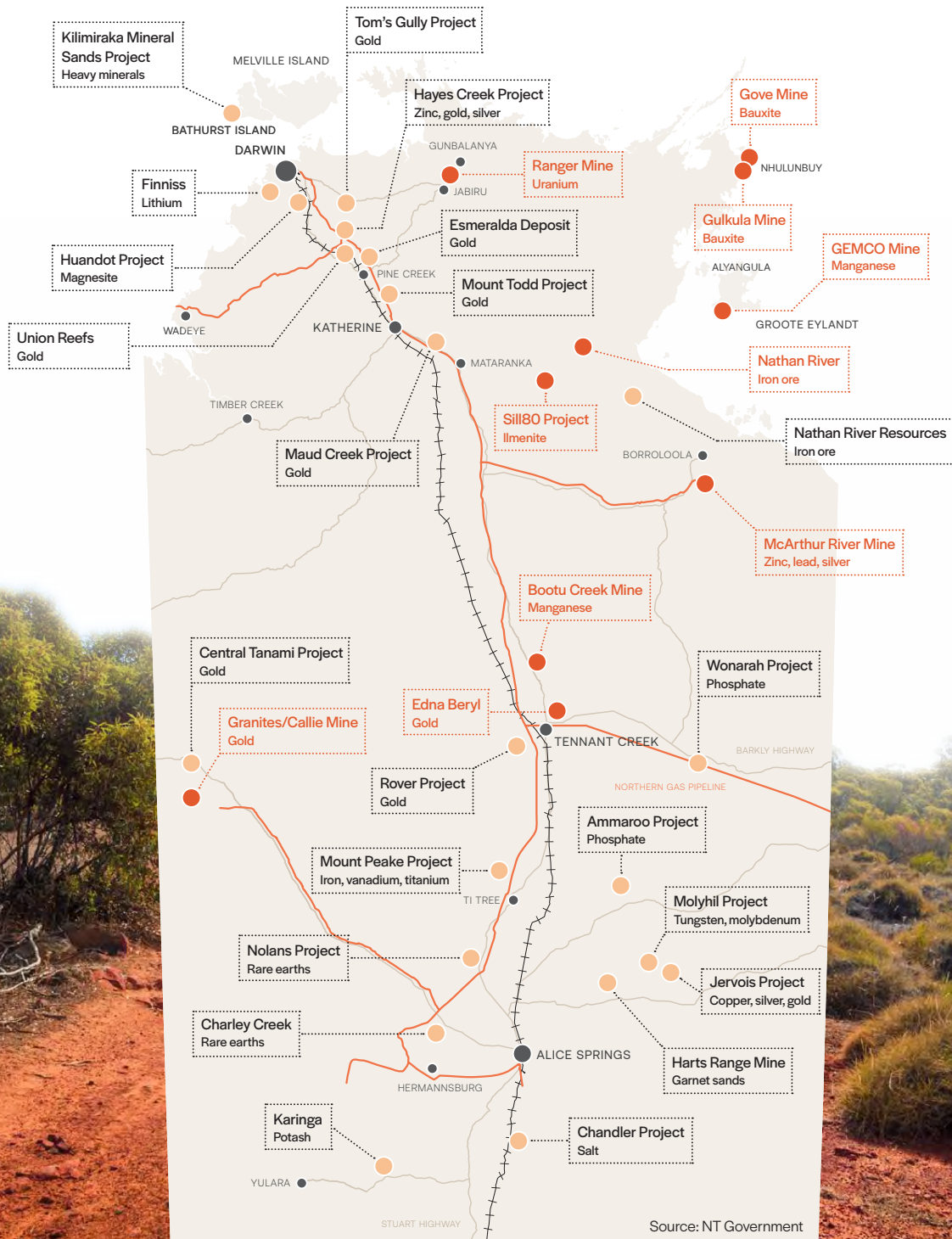
Major mines & future prospects

KEY

● Producing mines

● Potential mineral development

— Gas pipeline





Why long term, stable policy and regulation matter

Territorians expect the minerals industry to deliver what it says it will. Investors expect the same and must be confident that government will not change policy settings without good reason and consultation.

Communities and investors know unexpected events happen and circumstances change. So the challenge for making the most of the Territory's opportunities is to provide a clear and dependable framework to secure global capital, deliver the next generation of jobs, boost economic activity, protect the environment and improve outcomes for Territorians and across Australia.

This can be done by creating dedicated champions that can see projects through all the stages of assessment and approval. Mining in the Northern Territory has a strong record of sharing the benefits between communities, government and miners.

At this time of great change, what matters most is stable, long-term and adaptive policy and a regulatory framework that operates efficiently and achieves the desired outcomes at least cost.

This means communities and government making clear decisions on important economic, environmental, community and social considerations based on evidence, consultation and vision.

The confidence delivered by this framework will help create the jobs, infrastructure and broader investment all Territorians seek.

There have been many government reviews – now is the time to respond. Certainty will come from taking previous good intentions and moulding clear proposals built on consultation and Territorian practicality. A framework that is consistent, efficient and targeted is key to future investment and, coupled with skills development and training, will enable prosperity.

Government must help steer projects from investment to approval where environmental protections are met or exceeded. Within departments a dedicated champion should be appointed to steer projects through necessary processes. This should be coupled with establishing a co-ordinator general mandated to ensure robust project assessments and approvals get done in a timely manner.



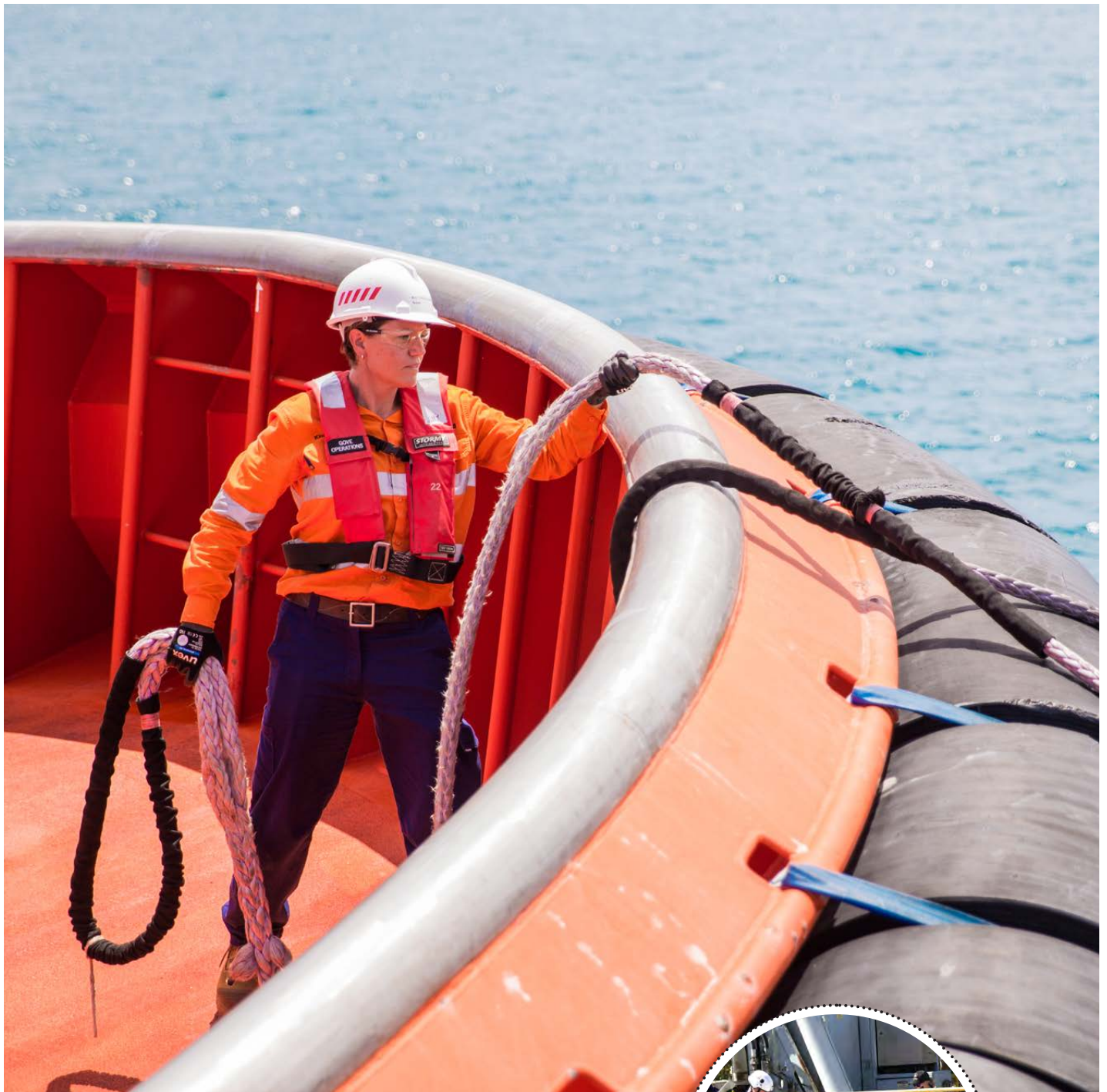


Image courtesy of Rio Tinto

Safe workplaces

Health and safety require vigilance and continuous improvement where all parties work together in support of a safety culture.





Health & safety

Everyone who goes to work in the industry should return home safe and healthy. A safe workplace is the industry's most important goal.

The industry's commitment to health and safety extends from the workforce into the surrounding community. All Territory mining and exploration sites, companies and workers develop and promote a culture of safety and wellbeing.

During the COVID-19 pandemic, the industry mobilised to ensure the highest health and hygiene standards at operations and for engagement with host communities.

The MCA's *Blueprint for Mental Health and Wellbeing* is another signature industry initiative that provides a framework for a safer industry and community.

Health and safety require vigilance and continuous improvement where all parties work together in support of a safety culture based on trust and openness – not an adversarial legal approach based on a blame culture.

Industry priorities:

- Develop an ethic of continuous improvement where all parties work together to create a safety culture based on trust, transparency and learning
- Expand the focus on mental health and wellbeing of workers, families and communities.

The role for government:

- Work with industry to develop an emergency response plan
- Progress uniform national occupational health and safety legislation supported by industry-specific regulation
- Ensure clear and timely explanation of relevant laws and allow for the introduction of practical initiatives
- Financial support for mental health and suicide prevention programs and industry, union and community initiatives such as MATES in Mining.

A CLOSER LOOK

Mine safety the focus of annual competition

Every year the mining industry comes together to test the latest equipment and practice techniques to prevent accidents and keep mine sites safe. At the Northern Australia Emergency Response Competition (NAERC), realistic scenarios allow participants to hone their skills responding to incidents on mine sites and in the broader community, where the industry serves as the first responder in some remote areas.





Images courtesy of National Exploration Undercover School (NExUS)

Future workforce

Modernising skills, training and education will deliver the high-skilled, high-paid Territory jobs of the future.





Skills & training

Mining is a jobs generator. Modernising education, training and skills development will maximise the social, economic and environmental dividends to the Territory.

Nationally, the MCA is leading the renewal of mining skills and training across all levels of post-secondary education. The Commonwealth-supported Mining Skills Organisation Pilot will guide the retraining and reskilling of workers in regional and remote Australia. This will provide the new and innovative skills and qualifications required in the modern mining sector.

The minerals industry will accelerate 1000 new apprenticeships through the pilot, in partnership with the Australian Government and in cooperation with the states and the Northern Territory.

University courses are also changing to bring in new skills and more flexible courses, offering 'micro-credentials' in key areas. The MCA is sponsoring curricula pilots to reinvigorate and strengthen learning opportunities.

Australian mining is a global leader in the development and deployment of new technologies, including data analytics, automation, robotics and artificial intelligence. Programs that equip young workers with the skills they need will support new jobs for the Territory.

Industry priorities:

- Create a culture of life-long learning and identify opportunities for education and training
- Identify and sponsor remote and regional leaders and work with them to create a collaborative development framework.

The role for government:

- Refocus skills curricula to meet future technology needs along the mining and METS value chain
- Encourage STEM education in schools and pathways to jobs in mining in partnership with organisations such as the Industry Skills Advisory Council NT.

A CLOSER LOOK

MCA leads industry with future workforce pilots

'Australian mining needs to do more to spark the interest and imagination of the future pipeline of talent to develop the best possible future minerals workforce. The new learning and capability pilots overseen by the MCA's Workforce and Innovation Committee, with broad member company input, will be crucial to align the needs of industry with the broadest possible talent pool.'

– Tania Constable, MCA CEO





Image courtesy of Glencore

Working together

The Territory is Australia's most diverse society. Mining companies and employees are active participants in host communities.





Stronger communities

The Territory is home to many of the nation's most diverse and resilient communities.

Mining companies and workers actively partner with Traditional Owners, community groups, governments and other sectors to support local aspirations and improve community life. This includes helping to support social and cultural life.

The Territory's minerals industry often provides essential services such as electricity, water and telecommunications as well as first-responder emergency services to the communities in which it operates.

The industry's commitment to contributing to growth, social inclusion and biodiversity conservation is articulated in *Enduring Value – The Australian Minerals Industry Framework for Sustainable Development* and is put into practice across the Territory.

Industry priorities:

- Contribute to the social, economic and institutional development of communities
- Engage at the earliest practical stage with likely affected parties to discuss and respond to issues concerning the management of social impacts
- Encourage partnerships with governments and non-government organisations to ensure community health, education and business development are well designed and effectively delivered.

The role for government:

- Co-invest with industry to enable local communities to achieve long-term community resilience
- Support economic growth, jobs, infrastructure and community partnerships in mining regions
- Provide access to environmental and social impact data in a form and manner that allows communities to actively participate in the progress of a project.



A CLOSER LOOK

An ongoing commitment to remote health services

MCA NT through its Darwin Mining Club has worked with the emergency medical service CareFlight since 2013, and has been able to purchase over \$300,000 worth of equipment for the Top End Aeromedical Service. This has included state of the art flight helmets, monitoring systems, stretcher units and educational tools.



Image courtesy of Glencore

Indigenous partnerships

Territory mining is a partnership which has grown and matured over many years through mutual respect and consultation.





Indigenous partnerships

The mining industry's partnership with Traditional Owners, Aboriginal communities and organisations is founded on respect and a long-term commitment to support local cultural, social and economic aspirations.

The mining industry is proud to be one of the largest permanent employers of Aboriginal and Torres Strait Islander people in the Territory.

Nearly all land in the Northern Territory is covered by Aboriginal land rights and native title regimes. These frameworks provide mechanisms for consultation and negotiation regarding land access for minerals development and shared commitments.

Unlocking minerals potential, supporting and sustaining cultural heritage and stimulating local economic activity and infrastructure are the shared goals of these partnerships.

Industry priorities:

- Respect the culture and heritage of local communities, including Indigenous peoples
- Renew commitment to consultation, learning and cooperation
- Support capacity building.

The role for government:

- Increase support for Traditional Owners to access services, training and economic development opportunities
- Accelerate support for the diverse and innovative Indigenous business sector
- Encourage the active participation of Traditional Owners and communities in precompetitive geoscience activities.

A CLOSER LOOK

Territory hosts first Indigenous-owned bauxite mine

The Gulkula Mine in North East Arnhem Land is Australia's first Indigenous-owned and operated bauxite mine. Operations commenced in 2017 and in May 2018 the first shipment of bauxite from the mine was shipped to China. The Yolngu people work in all areas of the mine, receiving on the job training for careers in mining and related industries.

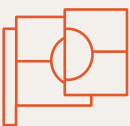




Image courtesy of Newmont

Mining exploration
Caring for the environment is a part of exploration and adds to the understanding of how to assess and protect biodiversity.



Mining exploration

The Territory has a great diversity of mineral types that open a wide scope of opportunities.

Increasing the quantity and quality of mineral discoveries is critical to the future success of the Territory, but explorers have been hit hard by the 2020 pandemic. Government has supported explorers through relief from licence work and fee obligations and the *Resourcing the Territory* exploration and drilling campaign. But more action is needed.

The key to delivering more jobs and a bigger, more diverse mining industry is to encourage exploration for strategically important minerals such as rare earth elements, copper, titanium and vanadium and into previously underexplored provinces such as East Tennant.

Industry priorities:

- Assess the direct, indirect and cumulative impacts of new projects from development through to closure
- Promote the highest standards of consultation and respectful practices as outlined in the *Code of Conduct for Mineral Explorers in the Northern Territory*.

The role for government:

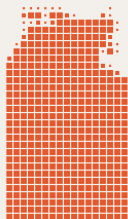
- Provide certain and transparent rules for exploration activity
- Accelerate the NT Government's co-funded drilling and exploration grant program
- Expand the Commonwealth's 2020 *Exploring for the Future* scheme with a targeted grants program for drilling as part of the post-pandemic recovery
- Ensure continued Traditional Owner and community engagement in the *Exploring for the Future* program
- Support strategic minerals project facilitation
- Endorse and release the explorer's code of conduct that outlines the rights and obligations of all parties on leasehold land.

A CLOSER LOOK

Exploration partnerships deliver results

Pre-competitive exploration programs, such as the *Exploring for the Future* program between the NT Government and the Commonwealth, continue to deliver encouraging results. Copper and gold mineralisation in the East Tennant region has been uncovered with a potential gross value of \$12.4 billion.





TERRITORY MINING

Production & prospects

The Territory's minerals diversity is what makes it so attractive. Mining of manganese, gold and bauxite will continue while emerging minerals such as rare earth elements, phosphate, lithium and copper are opportunities for the future.



Bauxite

Production 2018-19	12 Mt (\$517 m)
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NT resources 2018-19	154 Mt
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Did you know?

Gulkula is Australia's first Indigenous owned and operated bauxite mine.

Uses



WIND TURBINES



FOOD PACKAGING



AIRCRAFT



Copper

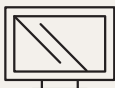
NT resources 2018-19	0.5 Mt
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Prospective areas	Jervois
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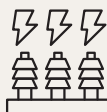
Did you know?

Copper is the third most used metal in the world after steel and aluminium.

Uses



TELEVISION



ELECTRICITY GRIDS



INSTRUMENTS



Gold

Production 2018-19	16.4 tonnes (\$930 m)
--------------------	-----------------------

NT resources 2018-19	610 t
----------------------	-------

Did you know?

Tanami is Australia's third largest underground gold mine.

Uses



MEDICAL DEVICES



SPACECRAFT



JEWELLERY



Iron ore

NT resources 2018-19	248 Mt
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Mines/projects	Roper Bar
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Did you know?

Australia is the world's largest producer and exporter of iron ore.

Uses



TRANSPORTATION



BUILDINGS



APPLIANCES



Lithium

World production 2018	93,000 kt
-----------------------	-----------

Prospective areas	Finniss
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Did you know?

World lithium demand is expected to surge as electric vehicles become more affordable.

Uses



ELECTRIC CARS



SMART PHONES



MEDICATIONS

Manganese

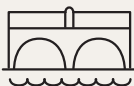
Production 2018-19 6411 kt (\$2.26 m)

NT resources 2018-19 153 Mt

Did you know?

Groote Eylandt is the largest manganese mine in the world.

Uses



BRIDGES



SMART PHONES



ELECTRIC CARS

Rare earth elements

World production 2018 170 kt

Prospective areas Nolans, Charley Creek

Did you know?

Rare earth elements are used in smart phones, electronic vehicles – even hospital equipment.

Uses



COMPUTERS



SPEAKERS



MEDICAL IMAGING

Vanadium

World production 2018 73 kt

Prospective areas Mt Peake

Did you know?

Vanadium gets its name from the Scandinavian goddess of beauty 'Vanadis'.

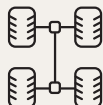
Uses



GRID BATTERIES



JET ENGINES



CAR SUSPENSION

Phosphate

NT resources 2018-19 330 Mt

Prospective areas Ammaroo, Wonarah

Did you know?

The Northern Territory contains Australia's largest undeveloped phosphate resources.

Uses



DETERGENTS



FERTILIZER



WATER TREATMENT

Uranium

Production 2018-19 2094 tonnes (\$211 m)

NT resources 2018-19-19 120 kt

Did you know?

Uranium supports nuclear power which is the world's largest source of carbon free energy.

Uses



SHIPS



ELECTRICITY



MEDICINE

Zinc

Production 2018-19 633 kt Zn-Pb (\$951 m)

NT resources 2018-19 17 Mt

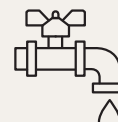
Did you know?

McArthur River Mine is one of the world's largest zinc resources.

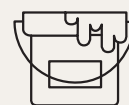
Uses



GRID BATTERIES



WATER PIPES



PAINT

McARTHUR RIVER AIRPORT



Image courtesy of Glencore

Investing in communities

Territory mining provides essential services on behalf of the community, such as transport, water, energy and first responder emergency services.

Image courtesy of Glencore





Access to land

Access to land for minerals exploration and extraction is fundamental to minerals development and rural and regional development more broadly.

Land access depends on honest, open and respectful engagement with landowners, lease holders and communities. It also requires consistent and demonstrated responsible land stewardship. The minerals industry has a strong track record which can be relied upon to deliver the next wave of jobs through infrastructure or economic development.

These principles are based on mutual understanding of the needs of the parties and use collaborative approaches to deliver positive outcomes at local, regional and Territory-wide levels.

Industry priorities:

- Encourage dialogue on the mutual rights and obligations of the minerals industry, landowners and pastoral lease holders
- Support the development and implementation of science-based, inclusive and transparent procedures for integrated approaches to land use planning, biodiversity conservation and mining.

The role for government:

- Ensure land access processes are efficient, transparent and consider all land use values including cultural connection, conservation, agriculture and mineral production
- Support industry and communities' co-investment and engagement.



A CLOSER LOOK

Investing in remote Northern Territory industries

As land becomes available under access arrangements, there is not only the potential for further minerals development but the opportunity to develop other industries through improved transport and logistics access for all seasons. This includes essential services such as power and water to support potential population growth in the region.



Image courtesy of Glencore

Environmental legacy

Rehabilitation is an essential part of mining operations from the first design, throughout operations to post-mine life.





Environmental stewardship

The Territory's minerals industry is committed to high standards of environmental protection and supports efficient, effective and risk-based environmental regulation.

Assessment, approvals and land management processes should be underpinned by science and ensure industry and government resources focus on matters of material risk to the environment.

Government should set strategic performance goals that allow mining companies to plan, enhance and protect biodiversity and natural resources within operating areas.

The science that industry applies to identify and protect biodiversity helps all Territorians better care for the environment.

Industry priorities:

- Pursue development in line with the United Nation's *Sustainable Development Goals*
- Develop projects that are safe, profitable, technically appropriate and environmentally and socially responsible.

The role for government:

- Use the 2020 review of the Commonwealth's *Environment Protection and Biodiversity Conservation Act (1999)* to create a single process for Commonwealth and Territory project assessments and approvals
- Appoint dedicated champions within departments to steer projects through processes
- Assess opportunities for strategic assessments or performance goals for key resource areas
- Allow simple, rapid approval pathways for low-risk and well-understood activities
- Build the capacity and experience of regulators
- Urgently begin the rehabilitation of legacy mine sites through strategic planning and implementation of a legacy mines rehabilitation program.

A CLOSER LOOK

Local knowledge delivers better results

The relationship between uranium miner Energy Resources Australia and local Indigenous business Kakadu Native Plants began in 2005. Through the partnership, local seeds are collected from the mine lease and from within Kakadu National Park to be used to rehabilitate disturbed land across the Ranger project as part of the mine's closure plan.





Image courtesy of Arafura

Rare earths are not, in fact, rare.

They are common in the earth's crust but hard to find in economic quantities and even more complex to extract. One of the world's largest and best defined rare earth deposits is the cornerstone of Arafura's Nolans Project in the Northern Territory.





Energy & climate change

Sustained global action is required to reduce the risk of human-induced climate change while supporting development and a higher quality of life.

The minerals industry supports the Paris Agreement and its goal of net zero emissions, and recognises the need for rapid action to meet climate and development goals. There are new jobs to be created by integrating and rethinking industrial processes.

The Territory has the capacity to develop rare earth elements, lithium and copper deposits as key inputs for renewable energy markets, as well as uranium for nuclear energy.

The MCA's Climate Action Plan outlines actions to support technology and innovation, increase transparency and accountability and share knowledge on emissions reduction. Practical and cost-effective options are already being developed and put in action across the minerals value chain.

Industry priorities:

- Take climate action to achieve net zero emissions in line with the Paris Agreement
- Explore innovative solutions for zero emissions energy production at mine sites
- Facilitate and encourage responsible product design, use, re-use, recycling and disposal of minerals products.

The role for government:

- Support opportunities for mining and processing of minerals for a low emissions future
- Prioritise reliable, affordable and low emissions energy for industry and support solutions for zero emissions energy production at mine sites
- Identify partnerships, including with Aboriginal and Torres Strait Islander peoples, to advance the climate goals of the Paris Agreement.

A CLOSER LOOK

Mining driving lower energy emissions

A proposal to build a \$20 billion solar farm in the Barkly region could create 'massive opportunities' for the mining sector to provide the necessary raw materials. MCA NT Executive Director Drew Wagner told the ABC on 11 February 2020: 'Every single solar panel and its connections, mountings and brackets all get materials from the mining sector. There are 24 different minerals in these solar systems — minerals that we have the opportunity to mine here in the Northern Territory.'





Image courtesy of Glencore

Funding vital services

Mining sustains the Territory's vital services, such as health and education, through royalties and other taxes.





Taxes & royalties

The minerals industry contributed a record \$446 million in royalties to the NT Government last financial year.

The NT Government's royalty system should encourage investment and ensure mutual returns, not act as a brake on exploration and development.

The royalties system should suit the Territory's particular deposit profiles, locations, costs and challenges. The current hybrid royalty of ad valorem and profit tax fails to recognise the cost of capital and risk profile of new projects in the Territory and creates a significant barrier to new investment.

The tax system in the Territory should provide certainty to allow firms to attract the global capital needed to sustain investment and secure the next generation of mining development.

Industry priorities:

- Implement and maintain ethical business practices and sound systems of corporate governance
- Contribute to the social, economic and institutional development of the communities in which companies operate.

The role for government:

- Ensure the royalty system is simple, globally competitive and encourages new investment
- Direct government support for economic growth, jobs, infrastructure and community partnerships to mining regions in recognition of their significant contribution to tax revenue
- Recognise that raising royalties risks investment and will cost Territory jobs.



A CLOSER LOOK

Fuel tax credits support regional Australia

Fuel tax credits are critical to a diverse range of regional industries reliant on diesel, including mining, agriculture and tourism. Fuel tax credits are not a subsidy for fuel use; they are simply a credit for an additional tax paid on a business input. Any move to reduce fuel tax credits would introduce a tax distortion by imposing a tax on industries that are reliant on diesel fuel to generate power and operate heavy machinery and create financial hardship for some of Australia's most remote communities.



NORTHERN
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There's more to
**Territory
Mining**