

Restoring Country: Exploring Indigenous-led participation in mine closure and environmental services

Report on the collaborative webinar series







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Acknowledgments

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Cooperative Research Centres Program

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Taking a new perspective on mine closure:

"When we talk about mine closure, we're talking about one part of the project. I want to see—as an Aboriginal person involved long-term in the industry—that we don't just talk about the end of the project.

What we're talking about is the beginning to the end, 'cradle to grave'. That's what I want to see.

I want to see that these opportunities start at the beginning of the project, not just thinking about what's happening at the end."

(Derek Flucker, Webinar 1)

1. Introduction

The *Restoring Country* webinar series is an initiative by the Cooperative Research Centre for Transformations in Mining Economies (CRC TiME) in collaboration with The University of Queensland's Centre for Social Responsibility in Mining (CSRM).

At its core, the *Restoring Country* collaboration aims to elevate Indigenous perspectives and practical experiences to create structured dialogue around Indigenous-led approaches to post-mining transitions, and participation in mine closure and environmental services. This pilot initiative created an open forum for knowledge exchange across diverse stakeholders, including Indigenous organisations, mining companies, environmental service providers, government representatives, and researchers. The pilot series specifically sought to:

- highlight the scale of upcoming mine rehabilitation work across Australia and identify entry points for Indigenous participation
- document current models of Indigenous engagement in closure activities, including successes and limitations
- capture Indigenous perspectives on how rehabilitation practices align with broader cultural obligations to Country
- articulate visions for genuinely Indigenous-led participation in future mine closure processes.

Through recorded webinars, workshop activities, and engaged discussions, the collaboration has compiled a body of knowledge that reflects real-world experiences, challenges, and aspirations from those at the forefront of Indigenous involvement in mine rehabilitation. Topics covered include:

- **Indigenous participation in mine closure:** exploring opportunities, successes and challenges for Indigenous groups to lead and engage in mine rehabilitation efforts
- **Training and education initiatives:** Highlighting programs aimed at equipping Indigenous people with the skills necessary for active roles in mine closure and environmental services.
- Global perspectives: Sharing international experiences, such as First Nations-based revegetation strategies on Kaska Dena lands in Canada, offering diverse insights into Indigenous-led restoration efforts.

Recordings of the 2024 pilot series are now available at https://crctime.com.au/videos/. Future series are under discussion.

This report synthesises these findings to provide practical insights for improving Indigenous participation in this rapidly developing sector.

Support for CSRM to participate in the collaboration was provided by CRC TiME.³

³ Report authors Barnes and Keenan are researchers at CSRM; Williams and Hamilton are CRC TiME employees.





1.1 About this report

This report outlines the Restoring Country collaboration and documents key aspects and messages from Indigenous people that surfaced through the webinar series.

This report draws on the design process for the webinar series, the presentation and workshop at the CRC TiME Annual Forum, along with substantive content extracted from each of the webinars. The following sections:

- explain the impetus for the webinars and how they were formulated and with whom
- · summarise key topics and aspects discussed through the series
- · provide a snapshot of each of the webinars and highlights.

The presentation to the Annual Forum and summaries of workshopped responses from session participants are contained in the Appendix.

2. Background and scoping of the webinar series

In early 2024, CRC TiME and CSRM collaborated to formulate the webinar series *Restoring Country:* exploring Indigenous-led participation in mine closure and environmental services.

The webinar series was designed as a pilot initiative and aimed to provide an open and constructive space for dialogue across a range of Indigenous interests affected by mine closure transitions. Specific objectives were to:

- raise awareness of the scale and scope of demand for mine closure and rehabilitation activities to be undertaken in Australia, with an emphasis on promoting opportunities for Indigenous groups to participate across multiple aspects
- understand current practices and modes of engagement by Indigenous groups, including outcomes for participants and businesses, challenges and barriers based on real life examples
- learn about Indigenous perspectives through participating in mine rehabilitation and closure, and how those might align with broader 'caring for Country' and community development or nation-building initiatives
- envision what Indigenous-led participation in mine closure and rehabilitation might look like going forward, and identify areas where industry, government, and research partners should support.

2.1 Research backgrounding the webinar series

2.1.1 CRC TiME transforming mine closure and transitions

CRC TiME was established in 2020 to address the complex challenges associated with mine closure and to promote sustainable post-mining futures.⁴ Its mission is to rethink and transform the way we approach mine closure and post-mining transitions. Key areas for change include:

- **Reconceptualising mine closure:** shifting how mine closure and transitions are understood, moving beyond technical and financial considerations to embrace holistic, long-term perspectives
- Collaborative engagement: establishing new ways of working with First Nations and communities to collaboratively address the end of mine life, ensuring their perspectives and aspirations are central
- **Integrated planning:** bringing together cultural, social, environmental, economic, and governance dimensions to create inclusive and comprehensive closure strategies

Established as part of the Australian Government's flagship Cooperative Research Centre Program and expected to run to around 2030 (https://crctime.com.au/).





• **Expanding the scope:** thinking beyond individual mine sites to regional scales, recognising the broader impacts and opportunities that closure presents.

In scoping a research agenda for CRC TiME, Measham et al. (2024) conducted a comprehensive literature review that concluded (among other things) 'Indigenous-led and co-led projects are needed to ensure that post-mining outcomes address the rights, values and needs of First Nations peoples in different contexts'.⁵

Boggs, Measham and D'Urso (2023) recognised the information asymmetry, disparity in resourcing, and complex processes limit First Nations meaningful participation, not only in consultative processes but importantly, the ability of First Nations to capitalise on commercial opportunities, mine closure presents such as land rehabilitation and monitoring.⁶

The webinars represent a response to their call 'to think differently and more holistically about mine closure' along with the need to re-imagine and transform closure outcomes that incorporate Indigenous interests as implored by CRC TiME's First Nations Inclusion Strategy⁷ which emphasises 'the paramount need for land use partnerships with traditional custodians and their direct involvement in research and innovation'.

2.1.2 CSRM social aspects of mine closure research

CSRM has long-standing research interests in mine closure and transitions, particularly through the Social Aspects of Mine Closure Research Consortium, a three-year multi-party, industry-university research collaboration. The collaboration with seven global mining companies operating in Australia commenced in 2019. Its outputs can be found at: https://www.mineclosure.net/.8

The impetus for CSRM's research consortium was the need for updated approaches to industrial transformation, including the social dimensions, as identified in the consortium's 2018 scoping paper by Owen and Kemp. Bainton and Holcombe (2018) identified similar gaps in the technical literature on the social aspects of mine closure. Their report revealed that there are very few examples of successful closure and relinquishment, with social aspects mainly focused on *planning* closure during operations. For Indigenous groups they found that, 'landscape restoration raises complex social, economic, political and cultural considerations', which highlights the need 'to pay attention to the lived experience and future aspirations of the people who inherit these rehabilitated landscapes'.

Research under the consortium concurred over the lack of available insights, finding that 'despite the vast scale of the mining industry, examples of mines closing effectively and responsibly remain few'. 11 Holcombe, Keenan & Mackenzie outlined three cases of community participation in the mine closure planning process, which were generally limited in scope and impact. Significantly, they noted that local Indigenous landowners (Adnyamathanha at the Leigh Creek coal mine in South Australia) wished to be engaged through the rehabilitation but they found no evidence such engagement actually occurring.

Other research through the consortium (Barnes, Holcombe and Parmenter (2020)) scoped and documented examples where local Indigenous groups are engaged in mine environmental management and rehabilitation. Four case studies across remote Australia revealed significant outcomes arising from a variety of activities conducted by local Indigenous groups under differing modes of engagement at mine sites in

8 A 2013 major study into the social aspects of the closure of Century Mine is also found here: https://www.csrm.uq.edu.au/publications/social-aspects-of-the-closure-of-century-mine-combined-report

Measham, Tom, Jim Walker, Fiona Haslam McKenzie, Jason Kirby, Caroline Williams, Jillian D'Urso Anna Littleboy, Agnes Samper, Rebecca Rey, Bryan Maybee, David Brereton, and Guy Boggs (2024) 'Beyond closure: A literature review and research agenda for post-mining transitions', Resources Policy, Vol. 90. https://doi.org/10.1016/j.resourpol.2024.104859

Boggs, Guy, Tom Measham and Jillian D'Urso (2023) 'What are we transitioning into? Re-thinking the model of mine closure', in B Abbasi, J Parshley, A Fourie & M Tibbett (eds), Mine Closure 2023: Proceedings of the 16th International Conference on Mine Closure, Australian Centre for Geomechanics: Perth https://doi.org/10.36487/ACG repo/2315 022.

⁷ CRC TiME (2022). <u>CRC TiME First Nations Inclusion Strategy.</u> Perth.

Owen, J. and D. Kemp (2018) <u>Mine closure and social performance: An industry discussion paper.</u> Centre for Social Responsibility in Mining, The University of Queensland: Brisbane.

Bainton, Nick and Sarah Holcombe (2018). 'The Social Aspects of Mine Closure: A Global Literature Review'. Centre for Social Responsibility in Mining, The University of Queensland: Brisbane.

Holcombe, Sarah, Keenan, Julia, Sarah Mackenzie (2021). <u>Community Participation in Mine Closure Planning Processes</u>. Centre for Social Responsibility in Mining, The University of Queensland.





remote Australia. Recommendations were to pursue further research into the enabling factors and barriers that influence the take-up of opportunities that environmental management and mine closure presents.¹²

2.2 Method and participant selection

2.2.1 Webinar format

The online webinar format was used with a view to enhance impact of existing research because:

- Accessibility: web base presentations offer access to a wide audience and broadens the reach of research outputs and enables Indigenous views and perspectives to be heard first-hand.
- **Efficacy**: CRC TiME possess technical capacity and experience with webinars. Webinars are built into their existing program of knowledge transfer and recordings of webinars endure as an on-going resource readily accessible via the CRC TiME video library on its website.

2.2.2 Design of the webinar series

The design of the webinar series drew on the foundational research into aspects of mine closure and transitions that highlight the intersection of cultural, social, environmental, and economic dimensions.

With respect to First Nations, the research highlights the importance of:

- effectively integrating Indigenous knowledge, priorities, and aspirations into mine closure and rehabilitation processes
- engaging with a wide range of stakeholders, including industry, government, and Indigenous groups, to promote pathways for increasing Indigenous participation
- identifying opportunities and implementing Indigenous-led contributions to mine rehabilitation and closure.

The webinar series was designed to enhance the research discourse by bringing Indigenous voices and perspectives to the fore. Initially five webinars were envisaged. These were to: (1) Introduce and broadly scope the domain of mine closures and transitions from Indigenous perspectives; (2) Revisit examples of Indigenous engagement based on examples found in existing research; (3) Hear directly from Indigenous people involved in these cases about their individual and collective experiences; (4) Showcase First Nations experiences in Yukon, Canada; (5) Elaborate on training and courses planned by CRC TiME to build Indigenous individual and business capacity through training and business promotion.

2.2.3 Participant recruitment

The report authors used existing relationships established with various Indigenous people and organisations through previous research conducted by CSRM and interactions and programs through CRC TiME. A list of potential participants based on these existing connections and networks was assembled and organised around the structure of the planned webinars.

Information about the webinar series intent, benefit, and production was shared with potential participants. Expressions of interest were sought for particularly Indigenous involvement. An email distribution list was with over 140 organisations/individuals was assembled. Recipients were encouraged to participate and also invited to recommend other potential participants.

Based on the responses received and level of interest, a revised series was produced involving four webinars as detailed below. It proved difficult to recruit individuals who would be comfortable talking about their experiences working or being involved in mine restoration activities in such a public setting. As such, the proposed webinar 3, which was aimed at hearing directly from individual participants was not possible.

Barnes, Rodger, Holcombe, Sarah, and Parmenter, Joni (2020). <u>'Indigenous groups, land rehabilitation, and mine closure: exploring</u> the Australian terrain', *Centre for Social Responsibility in Mining*, The University of Queensland: Brisbane.





CREATE CHANGE

2.2.4 Invitation and advertising

Each of the four webinars was held on a Wednesday for consistency.

CRC TiME and CSRM (through SMI) advertised each of the four webinars across their networks including enewsletters and LinkedIn.

Interested persons were invited to register for the respective webinar. Not all people who registered joined for the live webinar.

Recordings of each of the webinars were made available on the CRC TiME website and YouTube channel.



Join us on 15 May for the kick-off of our new webinar series, Restoring Country.

Hosted with the Sustainable Minerals Institute the series will explore First Nations leadership, involvement, and perspectives on mine closure and postmine environmental, social, community, and economic transformations. With the aim of fostering open, constructive dialogue on these critical issues.

Our inaugural session sets the stage with an incredible lineup of speakers: 🎤 Leslie Schultz – Ngadju traditional custodian and ranger leader, sharing insights on Ranger engagement

John Briggs – CEO of Intract, bringing expertise in Indigenous business and post-mining transitions

Jyi Lawton – CEO of Aboriginal Enterprises in Mining Energy and Exploration (AEMEE), advocating for Indigenous business leadership

Derek Flucker – Managing Director of RBY Projects, with a focus on providing opportunities for Indigenous communities in the resource sector

This webinar will feature a presentation by Dominic Banfield and Jillian D'Urso on key findings of the groundbreaking 'Enabling mine closure and transitions: Opportunities for Australian industry' report.

Register with the link below.

If you have inquiries or would like to express interest in joining a panel discussion, contact Caroline Williams, our Engagement Manager (First Nations).



2.2.5 Audience

| Webinar | Registered | Attended | YouTube ¹³ |
|---------|------------|----------|-----------------------|
| 1. | 248 | 147 | 219 |
| 2. | 241 | 143 | 156 |
| 3. | 94 | 54 | 95 |
| 4. | 128 | 74 | 166 |

¹³ At 1 March 2025.





3. Webinar series

The four webinars delivered are outlined below, with details and insights reported in subsequent sections.



Webinar 1 - 15 May 2024

Scoping opportunities for Indigenous leadership and participation in mine closure and environmental services

Participants

- Jillian D'Urso CRC TiME
- Dominic Banfield CSIRO
- Leslie Schultz Ngadju¹⁴
- John Briggs Intract Pty Ltd¹⁵
- Derek Flucker RBY
 Projects / Manaji Projects 16
- Jyi Lawton AEMEE¹⁷



Webinar 2 - 19 Jun 2024

Modes of engagement: ways local Indigenous groups are working on mine environments and restoring Country

Participants

- Craig Le Rossignol CLC¹⁸
- Steve Sharpe Rio Tinto¹⁹ Argyle
- Lachlan Johnson Rio Tinto Weipa²⁰
- Marcus Payne Rio Tinto Weipa



Webinar 3 - 17 Jul 2024

Restoring Country in Canada: Guts'éni – Our Relations: Developing community-based revegetation strategies on Kaska Dena lands

Participants

- Cassia Jakesta Dena Cho²¹
- Camille Jakesta Dena Cho
- Caitlynn Beckett Memorial University, Canada²²



Webinar 4 - 7 Aug 2024

Building Indigenous knowledge and skills to engage in mine closure and transitions

Participants

- Gowan Bush NT Government²³
- Tim Milsom Noongar CCI²⁴
- Zane Hughes CRC TiME

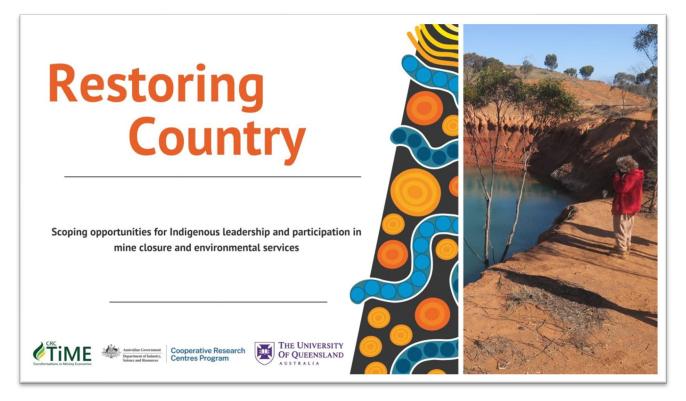
Webinars n=4; Total participants n=16, Indigenous participants n=9

- 14 <u>https://ngadjuconservation.org/</u>
- 15 https://www.intract.com.au/
- ¹⁶ <u>https://www.rby.net.au/</u> / <u>https://www.manaji.com.au/</u>
- 17 https://www.aemee.org.au/
- ¹⁸ https://www.clc.org.au/
- ¹⁹ <u>https://www.riotinto.com/en/operations/australia/argyle</u>
- ²⁰ https://www.riotinto.com/en/operations/australia/weipa
- 21 https://denacho.ca/
- ²² https://www.mun.ca/geography/people/graduate-students/caitlynn-beckett/
- ${\color{red} {\underline{}}}^{23} \quad {\color{red} {\underline{}}} \underline{\text{https://nt.gov.au/industry/mining/legacy-mines-remediation/remediation-projects/rum-jungle-rehabilitation}$
- 24 https://www.ncci.com.au/





3.1 Webinar 1: Scoping opportunities for Indigenous leadership and participation in mine closure and environmental services.



3.1.1 Contributors

Moderator:

• Caroline Williams (Yamatji) - Engagement Manager (First Nations), CRC TiME

Panellists:

- Leslie Schultz (Ngadju) Traditional custodian and native title holder
- John Briggs (Yorta Yorta) CEO Intract; CRC TiME First Nations Advisory Team member
- Jyi Lawton (Bidjara) CEO Aboriginal Enterprises in Mining Energy and Exploration (AEMEE)
- Derek Flucker (Quandamooka) Managing Director RBY Projects; Manaji Projects; and AEMEE Chair

Presenters:

- Jillian D'Urso External Relations and Impact Director, CRC TiME
- Dominic Banfield Senior Manager CSIRO Futures (the strategic and economic advisory arm of Australia's national science agency).





3.1.2 Overview

This seminar introduced the webinar series, focusing on First Nations leadership, involvement, and perspectives on mine closure and post-mine environmental, social, community, and economic transformations.

With the aim of fostering open, constructive dialogue on these critical issues, the webinar opened with a presentation by the lead author of a recently released CSIRO report funded by CRC TiME that provides an overview of current trends and opportunities in mine closure and environmental services, *'Enabling mine'*

closure and transitions: Opportunities for Australian industry'.

The moderator then sought perspectives from Indigenous leaders on the panel. Highlights from the report include:

- Future mine closures: analysis by CSIRO expects closure of nearly 240 Australian mines by 2040, with an estimated annual expenditure ranging from \$4 to 8 billion on mine rehabilitation and closure
- Ongoing industry demand: over 2,220 active mines and tens of thousands awaiting rehabilitation highlight the persistent demand for innovative solutions for restoration in Australia's mining sector
- Global supplier potential: Australia is poised to become a global leader in supplying solutions for mine closures, leveraging domestic challenges to fuel international industry growth.

(CSIRO, 2023: p. vi-vii)



Existing and emerging opportunities for Australian Mine Closure Solutions (MCS) providers were outlined. MCS providers are defined as equipment and technology services that enable mine closure and transitions.

Four categories of mine closure solutions (as shown below in the diagram taken from the presentation) provide a useful way to frame discussion over how Indigenous groups can take advantage of the opportunities available across these categories.







The panel were posed key questions: What do these opportunities look like on the ground? and ... with billions of dollars in expenditure expected on mine closure solutions, how can First Nations groups gain a competitive advantage? The moderated panel discussion considered:

- the role of Indigenous groups and businesses in enabling Indigenous-led participation in restoring country
- · synergies and disconnects with Indigenous Ranger programs and sector challenges
- enablers and barriers for local Indigenous groups in identifying opportunities and engaging with the mining industry.

3.1.3 Key insights

1. Barriers to Indigenous building relationships include: disconnects in values, lack of consistent collaboration, perceptions of tokenistic engagement and legacies of poor practice.

Mining is driven by commercial performance which means it is often out of step with Indigenous responsibilities for managing land. Although there are some good examples of collaboration, these are inconsistent and susceptible to changes in mine ownership and/or changes in company personnel.

Criticism exists regarding tokenistic gestures by companies, and there is a need for education to shift the mindset that Aboriginal participation presents a valuable opportunity, not a burden. 'Be positive!' More cultural awareness is needed to appreciate Indigenous perspectives on land management, caring for land - rather than viewing it just as a resource to exploit, 'Indigenous people were there before mining, and they will be there long after!'

The level of Indigenous involvement in mine closure has not been sufficient and Indigenous perspectives are shaped by legacies of unaddressed environmental and social impacts on communities from mining and a perception that some miners seek to avoid responsibilities.

2. Mining is recognised as a key Indigenous economic driver.

Mining is the biggest economic driver for Aboriginal people in Australia, with significant progress in building relationships across the sector. Aboriginal businesses have grown substantially in recent years, moving beyond a handout mentality to one of self-reliance and pride in their work.

3. Visibility over available opportunities is insufficient, and need to consider the full mining lifecycle.

Indigenous involvement in mine closure <u>should not be an afterthought</u>; Indigenous groups need time to identify and understand where the opportunities are and prepare themselves to take up those opportunities. The Indigenous perspective is far more holistic than non-Indigenous and is not compartmentalised around development, operations and closure phases. The Indigenous panellists say Indigenous people should be <u>involved in every stage of the mine lifecycle</u>, from exploration to closure, monitoring and maintenance. Building strong relationships and creating long-term economic development opportunities is essential to realising opportunities.

4. Policy interventions need to address power imbalances and mandating Indigenous participation.

Legislation, regulation, and policy must be aligned to facilitate Indigenous participation. Regulators need to enforce closure regulations, and mining companies must ensure obligations on contractors for Indigenous participation are met. Positive outcomes are seen where policies are in place, with the quickest path to progress is made where there are <u>mandates for participation</u> rather than it treated as optional. Greater representation and advocacy by Aboriginal peak bodies in the closure transition space is necessary.

5. 'Business as usual' business procurement processes are not fit for purpose for optimal Indigenous economic participation.

Government and industry need to enforce proactive procurement strategies—early in the project life cycle—identifying demand and matching it with capable Indigenous businesses. Aboriginal businesses can meet the





quality, quantity, and safety requirements, but contracts are typically awarded for non-essential tasks that depreciate Indigenous capacity and limit community benefit. The cheapest option does not always deliver optimal outcomes in terms of Indigenous participation.

6. Building on Indigenous business capability needs to be fit for purpose.

Training programs in technical and scientific areas are essential to build Indigenous business capability. Genuine partnerships and involvement in small projects is a way to build knowledge and capacity, and are seen as key to long-term success. Indigenous businesses should have scope to identify areas of best fit where they can focus. As a starting point, sourcing local Aboriginal labour offers great benefits, though there remain concerns over work-readiness and skilled labour availability, which should be addressed by targeted initiatives.

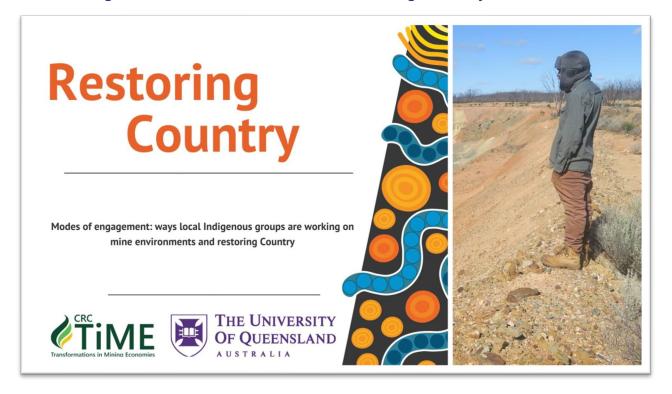
7. Case studies and sharing successes help Indigenous entrepreneurs and groups conceptualise opportunities.

Show-casing success stories is essential for demonstrating the potential of Indigenous involvement in mining. Seeing positive examples in practice can reveal enablers and barriers, which helps Indigenous groups envision what is possible and enables greater participation.





3.2 Webinar 2: Modes of engagement: ways local Indigenous groups are working on mine environments and restoring Country



3.2.1 Contributors

Moderator:

• Rodger Barnes, Research Manager, CSRM

Panellists:

- Craig Le Rossignol (Southern Arrernte/Gurindji) Coordinator Ranger Works, Central Land Council (CLC)
- Lachlan Johnson Superintendent Land and Rehabilitation, Rio Tinto Weipa Operations
- Marcus Payne Specialist Land & Sea Management Program (LSMP) Rio Tinto Weipa Operations
- Steve Sharpe Manager Regional Development/Transition, Rio Tinto Argyle Closure

3.2.2 Overview

This webinar explored examples of local Indigenous groups participating in mine rehabilitation and environmental services in Australia, focusing on modes of engagement, benefits, and challenges. The session opened with a short presentation by Rodger Barnes on CSRM's 2020 scoping report.²⁵

The study highlighted successful collaborations between Indigenous groups and mining companies in environmental management and rehabilitation. The cases demonstrate how such partnerships empower Indigenous groups as custodians of their land while meeting company commitments to social and environmental performance.

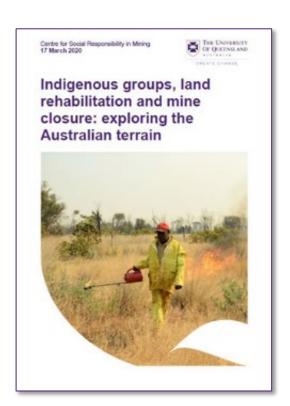
Barnes, R, Holcombe, S, and Parmenter, J (2020) 'Indigenous groups, land rehabilitation, and mine closure: Exploring the Australian terrain', Centre for Social Responsibility in Mining, University of Queensland: Brisbane. https://www.csrm.uq.edu.au/publications/indigenous-groups-land-rehabilitation-and-mine-closure-exploring-the-australian-terrain





Up-scaling these opportunities was identified as a priority, with a range of positive outcomes identified:

- At the Indigenous/mining company interface: through enhanced understanding of respective land management priorities, fostering collaboration on rehabilitation and closure
- For Indigenous groups: skills development, meaningful work on Country, intergenerational knowledge transfer, and diverse career pathways in land management
- For mining companies: by meeting local Indigenous employment obligations, integrating traditional ecological knowledge, and improved relationships with Indigenous landowners smoothing the relinquishment process
- Structural benefits: by leveraging government funding, augmenting Indigenous Ranger programs, and increasing employment while supporting land management goals. Nationally, these efforts improve biodiversity, ecosystem health, and generate positive socioeconomic outcomes.



The panel discussion built on Webinar 1, which highlighted the holistic benefits that Restoring Country initiatives can bring to Indigenous Rangers and affected communities across cultural, social, and economic dimensions. A persistent challenge noted was the lack of visibility over existing partnerships and the necessary requirements for building genuine, effective collaborations.

This webinar aimed to address this by sharing insights from individuals who have led initiatives and those directly involved in work on-the-ground. These examples provided valuable perspectives on how to navigate challenges and harness opportunities in mine closure and environmental services.

The discussion reinforced the importance of continued dialogue aimed at establishing practical pathways for meaningful Indigenous participation in this space. The perspectives share on key topics, included:

- · establishing local Indigenous groups for mine environmental management and rehabilitation
- engaging and working with mining operations, exploring both the benefits and barriers
- identifying future benefits and opportunities in the sector.

3.2.3 Key insights

1. Diverse approaches to Aboriginal engagement have shown success.

Various models, including the Argyle Rangers and Amrun LSMP teams, demonstrate innovative responses to ensuring local Indigenous landowner involvement in mine closure.

These teams were established as company-hosted and evolved to become Rio Tinto employees, although the long-term intent is to transfer control to appropriate Aboriginal entities. Participants are provided with training, skills development, and governance.

The CLC Ranger Works differs as it augments the CLC's existing Ranger program by offering opportunities for personnel to engage in fee-for-service work with funds channelled back into participating Ranger groups.





2. Traditional owner-driven initiatives have enabled engagement from the outset of the Amrun LSMP.

Traditional owners play a key role in driving the involvement of local Aboriginal people in mine closure, with engagement at the Argyle mine built into the Indigenous Land Use Agreement with Rio Tinto.

The Amrun LSMP initiative commenced during the environmental and social impact phase of the mine and followed commitments made to traditional owners through the consultation process over developing the Amrun mine. LSMP is highly significant as it is employing Aboriginal workers from the local communities in mine environmental management and progressive rehabilitation form the <u>outset</u> of project.

Intergenerational cultural connections and leadership is an important component of mine closure and rehabilitation work.

Aboriginal people are recognised as holding cultural responsibility to care for their land, with an emphasis on learning and passing on knowledge to future generations. The Argyle Rangers and Amrun LSMP initiatives are grounded in traditional Aboriginal values, focusing on long-term stewardship of Country. The CLC Ranger Work features pipeline maintenance work that crosses multiple traditional estates and enables learning on Country.

Work on Country fosters leadership and cultural connections, with elders guiding younger generations. Through experiential learning and support from elders, Aboriginal participants learn to 'live in both worlds'.

4. Argyle Rangers facilitate active engagement between traditional owners and Rio Tinto in mine closure.

The goal of mine closure in these cases is ultimately the return of the traditional Aboriginal owners in a condition that is consistent with their caring for Country responsibilities.

The Argyle Rangers play a key role in communication with traditional owners, helping bridge the gulf in understanding that prevails in many aspects, particularly technical aspects, between mining companies and local communities. This approach is exemplified through conversions between Aboriginal team members with Rio Tinto personnel and contractors that generate respect and understanding of the wishes of traditional owners and their priorities for looking after the land.

5. The Rangers programs have given participants exposure to the mining industry's work requirements.

Participating Aboriginal Rangers teams not only gain economic benefit but also important technical insights into the mining industry's practices and policies. Involvement provides much sought-after structured learning and capacity-building. This facilitates understanding and makes undertaking mine-related work achievable and accessible to Aboriginal people.

Fee-for-service engagement supports enhanced Indigenous participation and long-term involvement in mining activities. Income generated can augment capacity for broader Indigenous-led land management activities.

6. Long-term monitoring and maintenance opportunities offer opportunities for collaboration.

Rio Tinto is supporting the Argyle Rangers to continue providing fee-for-service work related to long-term monitoring and maintenance, ensuring local Aboriginal groups can take on these roles in the future. Discussions with traditional owners are ongoing to determine the long-term vision for these opportunities.

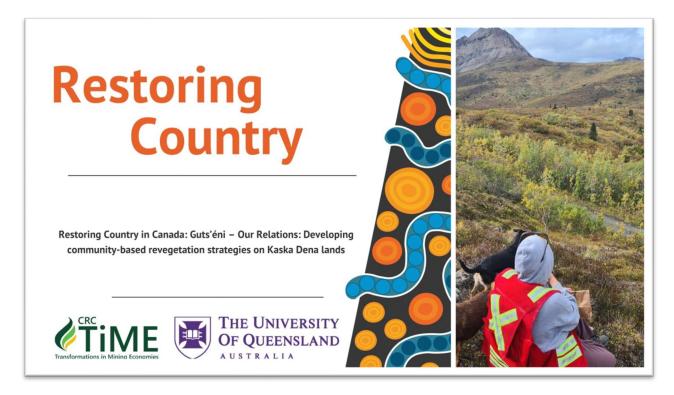
7. Successes have set an example for other mining sites.

The success of the Argyle model has inspired other mining sites to support existing Aboriginal Ranger groups and explore opportunities for fee-for-service work, helping to replicate successful models of Indigenous involvement in mine closure across the industry.





3.3 Webinar 3: Restoring Country in Canada: Guts'éni – Our Relations: Developing community-based revegetation strategies on Kaska Dena lands



3.3.1 Contributors

Moderator:

• Julia Keenan - Research Fellow, CSRM

Panellists

- Cassia Jakesta (Liard First Nation member Kaska Dena and Tahltan and a part of the Crow clan) -Manager Dena Cho Environmental and Remediation Inc.
- Camille Jakesta (Liard First Nation member Kaska Dena and Tahltan and a part of the Crow clan) -Assistant Coordinator Dena Cho Environmental and Remediation Inc.
- Caitlynn Beckett PhD Candidate in Geography at Memorial University at St John's, Newfoundland; Researcher and Project Manager, Ross River Dena Lands Department and Dena Cho Environmental and Remediation Inc.

3.3.2 Overview

This webinar explores the work being undertaken by Dena Cho, a Canadian environmental management company owned and operated by the Ross River Dena Council. The webinar commenced with a presentation, *Developing community-based revegetation strategies on Kaska Dena Lands*. First Nation's restoration work was set against the historical backdrop of dispossession of Kaska Dena land associated with the develop of Faro lead/zinc mine that opened in 1969 in Canada's Yukon.







Dena Cho's dedicated team provides professional services for a range of projects in remediation, mining, and contaminated sites, including environmental assessments, planning, monitoring, technical reviews, and community consultations. They are deeply committed to involving Ross River Dena citizens in environmental initiatives and projects throughout the Kaska territory. Guided by Kaska values, their work prioritises the protection of the natural environment, increasing Indigenous participation, obtaining benefits for Dena people, and creating training opportunities for the Ross River Dena community.

The panellists shared their perspectives on the:

- Faro Mine Remediation Project, one of Canada's largest mine remediation projects
- development of a community-based revegetation strategy
- challenges, lessons, tensions and opportunities for the future.

3.3.3 Key insights

1. Addressing colonial legacies and injustices underpins the project.

The development of the Faro mine is intertwined with the colonial history of the Canadian North, which involved the destruction of Kaska Dena land and disruption of communities. The mine's project reflects a history of land, water, economic, and cultural theft from Kaska Dena territories. Infrastructure development disproportionately benefited settler and mining communities, while Kaska Dena communities suffered from the loss of resources and land. Promises made to the Kaska Dena people were often broken, creating a sense of injustice and a 'curse' on the site.

2. Revegetation and remediation are seen as cultural reconnection.

Deno Cho Environmental and Remediation initiated a community-based revegetation program as a first step towards larger remediation efforts at the Faro mine site. This project serves to engage Dena people, including youth and elders, in cultural and environmental healing. The revegetation efforts are a form of decolonisation, allowing Dena people to reclaim space and connect with their land and ancestors. Through planting, such as white spruce and lodgepole pine, they also incorporate Kaska language, protocols, and spiritual practices.

3. Caring for land is part of cultural identity.

The Kaska Dena people view land stewardship as a cultural responsibility, not just an environmental task. The planting of trees and shrubs is framed as a relational practice—treating plants as relatives that are





nurtured and respected. This cultural approach to caring for the land reflects a broader understanding of land as an extension of cultural identity, not just a resource for exploitation.

Over 100,000 trees have been planted, demonstrating the commitment to restoring the land and involving the community in its care.

4. Intergenerational knowledge transfer is an important component of the work.

The program emphasises the importance of elder involvement in passing on traditional knowledge to younger generations. Elders share stories about historical practices such as berry collection and fishing, which are integral to Kaska culture. Youth are hired alongside elders in the tree planting program, fostering a rich learning environment where traditional practices are maintained and passed on.

5. Participants are learning Western scientific methods alongside Kaska knowledge.

The program also incorporates Western scientific methods, with Kaska representatives touring city science laboratories and learning how plant samples are analysed for heavy metal concentrations. This blending of traditional ecological knowledge with scientific practices is key to the ongoing monitoring and remediation efforts, particularly in areas like seed collection and metal uptake.

6. Kaska communities wan to lead long-term monitoring and maintenance.

Plans for long-term monitoring and governance of the site are in progress, with discussions about establishing a joint venture or cooperative approach to oversight, potentially led by Kaska organisations like the Ross River Lands Department. Elders have expressed the desire for Kaska communities to take the lead in monitoring efforts.

7. The program requires understanding the unique challenges and support needs of communities.

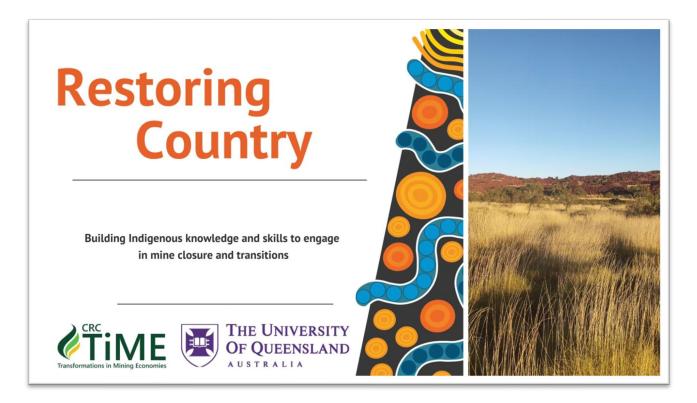
The program faces logistical challenges, particularly with supporting young people who possess limited employment experience. Unconventional and innovative approaches are required to hiring and supervising, including personal calls to families and face-to-face engagement with elders, as many do not have access to modern communication tools like email.

Extra administrative work and logistics is required for program success involving allocation of additional time and resources. This demand is recognised through adequate budgeted and planning.





3.4 Webinar 4: Building Indigenous knowledge and skills to engage in mine closure and transitions



3.4.1 Contributors

Moderator:

• Caroline Williams (Yamatji) - Engagement Manager (First Nations), CRC TiME

Panellists

- Gowan Bush (Ngalakgan) Community Engagement and Training Manager, Rum Jungle Rehabilitation Project, NT Government
- Tim Milsom Executive Officer Noongar Chamber of Commerce and Industry (NCCI)
- Zane Hughes (Waanyi) Project Leader First Nations VET Pathway, Curtin University/CRC TiME

3.4.2 Overview

This webinar highlights existing and prospective training and education initiatives aimed at further equipping Indigenous people with the skills to lead partnerships and actively participate in mine rehabilitation, closure and post-mining transitions.

The panellists shared their experiences and perspectives on:

- · currently available training in mine closure
- what skills are needed now and into the future
- · challenges and opportunities in different contexts.





3.4.3 Key insights

1. Significant growth in Aboriginal businesses has been driven by NCCI's hands-on support initiatives.

The NCCI in WA operates a hub in Subiaco, providing support for Aboriginal businesses, particularly in biodiversity projects. The NCCI also played a role in giving the mining community an understanding of Aboriginal perspectives about working on Country - that they're part of the land, they're part of the spirit, and the expectation of an Aboriginal person is that they need to look after everything.

Starting 15-20 years ago, the hub has been providing hands-on support and mentoring, helped businesses with pre-qualification and securing large contracts, especially during the crucial first few years of business development. The focus is on providing practical assistance with starting and growing businesses, including help with applications, grants, and gaining experience in the process. This has resulted in significant growth, with 10 hub-based businesses moving from \$4 to \$5 million in turnover and 35 employees to over \$60 million and 450 employees.

2. CRC TiME is supporting training and qualifications development.

Efforts to improve education and training for First Nations peoples are ongoing, with initiatives like the CRC TiME project focusing on a mix of VET qualifications and other tertiary qualifications to equip Indigenous people and communities to negotiate over mining projects and engage in a meaningful way with agreement-making over the full life-of-asset. The project also includes development of resources to guide First Nations groups through different stages of mining, including closure, and explores commercial opportunities at each stage. Other qualifications under development include an undergraduate certificate in land, sea, and river management for Rangers and a postgraduate certificate in sustainable mine closure leadership, incorporating First Nations principles.

3. Partnerships with Aboriginal service providers are a step forward.

Partnerships with Aboriginal service providers like Winyama offer culturally relevant GIS training and other certifications. The aim is to integrate First Nations knowledge into the curriculum, such as cultural burning in NSW, while also assessing and awarding micro-credentials for various skills like land management and restoration. This approach ensures that the curriculum is grounded in the community's traditional knowledge and delivered on Country.

4. Training at Rum Jungle rehabilitation project is providing opportunities via different pathways.

At Rum Jungle, there are two main focus areas: land management and infrastructure. Upskilling efforts include traineeships for Certificates II and III in Conservation Ecosystem Management and Workplace Infrastructure Resources, along with fire training and other certifications. The program is also looking into pathways for traditional owners to pursue STEM and higher education.

Business administration trainees gain hands-on experience in IT systems, and collaborations with local councils provide exposure to general workforce environments. Ten local Aboriginal people completed land management traineeships in 2021-2022, with many transitioning into full-time roles. Additionally, eight trainees are working in civil construction plant operations, pursuing multiple qualifications, but they currently lack live site experience. Efforts underway to secure access to a live site for practical training.

5. Micro-Credentials and flexibility support professional development.

Micro-credentials are seen as an effective way to support First Nations peoples in ecological restoration and business sustainability. The curriculum is designed to be delivered on Country and is focused on what trainees need to know for their specific roles. Flexibility in learning pathways is crucial, as it allows participants to pick and choose modules based on their interests and needs.

There is a desire for greater self-determination in Aboriginal communities to guide their own education and workforce development.





6. 'Both ways' learning and embracing technology are essential.

The integration of Western science and traditional knowledge - referred to as 'both ways learning' - is crucial for understanding and managing land. The use of technology, such as remote sensing, drone technology, and GIS mapping, is revolutionising the way Rangers and land managers view and manage their Country. These technologies help gather valuable data and provide a more comprehensive understanding of land restoration.

7. Knowledge sharing and case studies will help practices grow.

Knowledge sharing is a key challenge in the sector, with successful programs often not being communicated effectively. There is a need for better case studies and resources that document successes in the field. The sharing of these learnings can help improve practices across mining sites, but often, the knowledge remains siloed.

8. Proactive procurement policies enable Indigenous participation.

Parts of the resource sector have taken a lead in increasing Indigenous procurement through developing proactive policies to assist Indigenous businesses to take up contracts. Indigenous participation in mining projects is being supported through fit-for-purpose tenders and the genuine effort by government through Indigenous procurement policies. However, there is a disconnect between industry needs and government policy, with the latter sometime lagging the leading mining companies.

9. Government has a role in addressing challenges and expanding opportunities.

Several challenges persist in the sector, including the cyclical nature of policies and the limited flexibility in government-funded training programs. A focus on targeted, tailored skilling grants is needed, with more emphasis on community-driven learning. Industry is seen as leading the change, but government support remains a critical component for long-term success. Additionally, the underrepresentation of rangers in employment data and the lack of succession planning for Aboriginal workers are areas for improvement.





4. Pilot series summary: Indigenous participation in mining closure services

This section summarises the main themes emerging over the series of seminars.

4.1 Trust and engagement challenges

- **Trust deficit**: Indigenous communities often harbour lingering mistrust toward the mining industry due to historical and ongoing damage to Country, although the industry is also recognised as playing a significant role in Aboriginal employment and wealth generation.
- Patchy engagement: positive engagement is sporadic, with the larger mining corporations often leading positive engagement, whereas smaller operators are viewed as less reliable. Indigenous participation through mine closure and transitions should be the norm not the exception. Greater consistency and improved performance across the sector are needed, while bearing in mind that a one-size-fits-all approach does not work.
- Systemic Issues: current commercial procurement practices are inherently unsuitable for fostering meaningful Indigenous participation. Aboriginal groups require sufficient lead time to organise and equip themselves and gain visibility over opportunities. It can be expected that tailored support of business development and building capabilities will be necessary in many settings.
- Adopting a holistic view: Indigenous participation should span the entire mine lifecycle, 'from cradle to grave', rather than being an afterthought. Similarly, participation should not be pigeon-holed or narrowly focused on certain roles but span the range of services/opportunities.

4.2 Opportunities and positive examples

- Capacity to be involved: Indigenous communities have significant potential to contribute, requiring visibility of opportunities and examples of success.
- Sharing success stories:
 - fee-for-service models such as the CLC's Ranger Works showcase the benefits of participation in mine environmental management across multiple domains.
 - company-hosted initiatives driven by traditional owners demonstrably yield positive outcomes for Indigenous people as well as the mining company. Unfortunately, these examples are few and need to be replicated.
- **Cultural importance**: environmental management and mine closure services enable reconnection with Country, and contribute to addressing colonial legacies, fostering intergenerational cultural knowledge transfer. Cultural relevance is a motivating factor for many participants.

4.3 Skills development and training

- Key focus areas: training, skills development, and technical know-how are critical for scaling Indigenous participation, alongside efforts to support participants through training and into employment.
- **Tailored approaches:** initiatives include tailored training packages, flexible micro-credentials, and awards at certificate, bachelor, and master levels. Two-way learning approaches integrate Indigenous and technical knowledge, including new technologies required for mine closure.
- Role of service providers: successful Indigenous service providers play a pivotal role in advancing training and capacity building.





4.4 Pathways for progress

- Policy and collaboration: conducive policy settings, including mandates for Indigenous participation, are essential. Collaboration among government, industry, and Indigenous peak bodies is critical to pave the way for success.
- Celebrating success: Sharing knowledge and showcasing effective examples is vital for inspiring and guiding broader efforts.
- **Empowering Indigenous voices**: Genuine relationships, nurtured through consistent positive engagement and holistic inclusion in the mine lifecycle, are necessary to build trust and ensure sustainable participation.

5. Recommendations for further work

The Restoring Country webinar series generated significant interest from mining companies, government, and Indigenous groups. The webinars made accessible Indigenous views and perspectives on mining transformations and elucidated the benefits available through Indigenous participation across the domains of community engagement, mine rehabilitation and post-closure land use domains.

As a pilot, the webinars demonstrated the interest and desire on the part of Indigenous people to be involved in mining transitions. Examples of participation were canvased, however, details around how to secure the opportunities remain less well understood. Deeper understanding is needed of the enabling factors and key barriers to achieving a substantial level of Indigenous participation.

This series drew on existing research and networks to achieve these outcomes and represents the limit to which a subsequent series could be developed, without further research and development of case study materials. Any consideration of a phase two or a further series would need to be framed around researching further case studies with Indigenous co-design at the forefront.

Other examples of Indigenous involvement in mine closure and transitions exist, however, the 'business case' for the respective Indigenous companies or groups to share their experiences would need to be established up front in order to gain the buy-in to develop further case studies. Of interest is the personal development that occurs through restoring Country, which the webinar format is not conducive to surfacing.

We recommend a different approach for a phase two that involves ensuring active collaborations with Indigenous entities over multiple cases. Active collaboration means the relevant Indigenous entity would be part of designing and producing its case study. A high-quality video/short film format is recommended, as it would present as an opportunity for the Indigenous entity to tell their story.

In terms of knowledge transfer, rather than asking people to appear on a live panel in a webinar, which is quite intimidating, the objective would be to produce an output that they would be keen to share, for example, by pre-recording and providing opportunities to shape and edit a public output. This approach would necessarily entail developing understanding and trust of the relevant Indigenous entity and people involved at a particular site.

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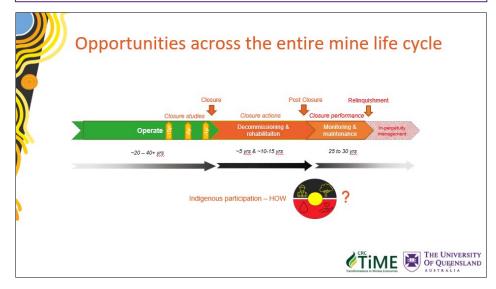


Appendix A Annual Forum 2024

A-1 Presentation







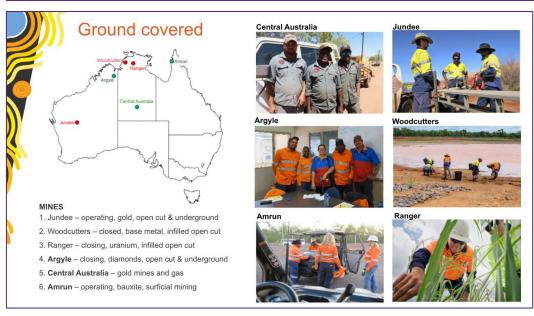


7 August



and transitions

Gowan Bush, Tim Milsom, Zane Hughes









Key things we heard

- · Lingering trust deficit Indigenous people have toward Industry
- On one hand, the industry represents the biggest Aboriginal employer and wealth generator for Aboriginal groups
- · On the other hand, damage miner cause to Country is hurtful and deeply felt
- Positive engagement is patchy, rests largely with the big miners, with juniors tagged as 'roque'
- There is work to do to build trust and for industry to establish consistent good performance
- Business as usual isn't working commercial procurement practices are not fit for purpose
- Aboriginal groups need lead time, need to understand what is needed, to organise equipment, build knowledge and skills
- · they want visibility over what is on offer and understand what is possible
- Instead, genuine relationship need to be built with companies and nurtured through positive engagement and consistent performance
- Aboriginal participation can't be pigeon-holed, 'not everyone wants to Ranger', not everyone wants to chase 'the Yellow Caterpillar Dreaming'



- · Theirs is a holistic view, across the whole-of-life mine cycle from 'cradle to grave'
- · Indigenous participation is CANNOT be an 'afterthought'

Key things we heard

- Training, skills development and building technical know how is key to take up opportunities at scale
- · A lot is happening in this space and much is being developed through CRC-TiME
- Challenges with individuals' participation exist but these can be addressed with effort and positive intent
- · Indigenising curriculum and learning technology is a key area to develop
- · Existing successful Indigenous service providers have an important role in this
- Tailored training packages and awards at certificate, bachelor and masters level are being developed
- · Flexibility in attainment and micro-credentials is 'the way to go'
- Two way or 'both way learning' is also the way to go 'Mob are not scared of technology'
- · Again, sharing knowledge of what works and celebrating success is needed
- Ultimately, conducive policy settings are required, including mandating Indigenous participation
- · Government, industry, and Indigenous peak bodies all have role play to pave the



Key things we heard

- Extraordinary capacity exists to participate
- · Need visibility on what is on offer and see examples of what success looks like
- We heard from groups currently engaged in this space ...
- Outcomes at those sites are extremely positive and result from hard work to address challenges although the current scale is small
- No one size fits all, modes of engagement are context driven
- We heard from company-hosted groups, which are driven by traditional owners who
 want to see their people involved
- We also heard the benefits fee-for-service work delivered by the CLC's Ranger Works
- Being involved in environmental management and rehabilitation provides an active mode of engagement over closure for traditional owners
- Aboriginal people's responsibility to look after Country underpins the success and motivation for involvement
- It presents a form of addressing the colonial legacies and injustices inflicted on Indigenous people through mining
- A way to reconnect with Country, heal Country and people, by bringing older and younger generations together to share cultural knowledge







A-2 Annual Forum Workshop

Aim: the workshop aimed to consolidate insights from the multi-stakeholder dialogue initiated by the Restoring Country webinar series and to generate shared learnings to guide future actions.

The workshop marked the first step in fostering ongoing dialogue and building pathways for sustained collaboration on Indigenous-led participation in environmental management and mine closure initiatives.

- **Presentation of findings**: initial findings from the webinar series were shared with participants to validate and refine the discussions.
- **Response and brainstorming**: participants collaboratively brainstormed recommendations targeting government, industry, community, and research sectors.

A-2-1 Workshop brainstorming summary:

How should we understand 'Restoring Country'? What do we need to consider?

1. Cultural heritage restoration and values

- Define land restoration based on cultural values and sustainability, incorporating cultural recognition and repatriation.
- Prioritise active land management over simple rehabilitation, ensuring cultural expectations are met and integrating cultural values into the restoration process.

2. Inclusion and participation of First Nations Peoples

- First Nations people must be included in every stage of the mining lifecycle and transition process.
- Indigenous-led projects should be created, with First Nations people actively involved in drafting restoration guestions and decisions.
- Present restoration options to communities, enabling them to make decisions based on community benefit.

3. Healing, trauma, and responsibility

- Acknowledge and discuss the trauma caused by the destruction of Country and its emotional impact on First Nations communities.
- Mining companies should focus on healing and take a values-based approach, prioritising cultural values over engineering solutions.
- Consider time as a critical factor in restoration, avoiding fast fixes in favour of long-term, culturally sensitive approaches.

4. Intellectual Property, knowledge, and time

- Cultural Indigenous intellectual property must be respected and compensated for, ensuring knowledge is recorded appropriately.
- Slowing down the restoration process is essential to properly integrate cultural and spiritual values.
- Flexible, tailored approaches are needed, as there is no one-size-fits-all blueprint for effective land restoration and healing.





What are some of the relevant topics we didn't cover in this series? What else could we consider?

1. Government and industry roles

- There is a need for stronger government support, including clearer policies and regulations that incorporate Traditional Owner opportunities and ensure alignment across sectors.
- Governments should facilitate regional consultations and support traditional owner partnerships in transitions.

2. Traditional owner engagement and conflict resolution

- Addressing internal and external conflicts within and between traditional owner groups is essential.
- Representation and conflict resolution efforts should be prioritised

3. Youth, gender, and knowledge sharing

- Youth involvement and women's participation in environmental stewardship are crucial, as is celebrating knowledge holders for their expertise.
- There is also a need to share successful procurement models for better engagement with First Nations groups.

4. Land Use, funding, and future planning

- Post-mine land use, including agriculture, should align with traditional owner values.
- Funding for Aboriginal engagement, and efforts to address the needs of those without native title.
- Culturally respectful language and timelines for mine closure must also be prioritised.

What can be put in place now, and in the future? What further research is needed?

1. Integration in corporate decision-making and models of engagement/collaboration

- Explore the integration of diversity and inclusion across all levels of mining businesses, focusing on how it can improve decision-making and better connect companies with communities.
- Investigate the impact of knowledge sharing and the role of PMLU opportunities in fostering innovative business models within the mining industry.
- Assess co-investment models, such as Yiman's exploration co-investment and the Pilbara Central Land Management Project, to identify best practices for Indigenous community involvement.

2. Community engagement and decision rights

- Examine how community decision rights can be incorporated into closure planning and relinquishment decisions and assess the effectiveness of involving communities earlier in the process.
- Investigate ways to empower communities with greater control over land, focusing on coinvestment opportunities and work pathways that align with community aspirations.

3. Research on legacy, policy, and land transfer

- Conduct research into legacy and land transfer issues, including policy catalysts like critical minerals and energy transition, and how they intersect with mining and closure processes.
- Investigate the role of land relinquishment, residual risks, and community knowledge in improving participation in land use planning.

4. Regional opportunities and collaborative models

- Research regional opportunities for cooperative regional investment and how these models can be applied to mining and post-mining economies.
- Explore how government and industry collaboration could support sustainable land management and remediation efforts, particularly in abandoned mines.







Cooperative Research Centres Program

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