

# Foundations of post-mining transitions

Insights from our foundational research on transformations in mining economies

## WHO WE ARE

Part of Australia's flagship Cooperative Research Centre program, we connect leading researchers with industry, regional and First Nations organisations and governments to help reimagine and transform post-mine transitions for the better.

## KEY INSIGHTS

**A shared understanding of post-mine transition is needed**

Traditionally, mine closure was seen through the lens of the mining lifecycle – the end of a process. Until recently, the economic, social and cultural transition to what's next has received less attention.

Shifting thinking from closure to what's next – or *what you are transitioning from to what you are transitioning to* – is needed.

An important starting point is building shared understanding of what is meant by post-mine, post-mine transitions, and other concepts.

Developing new ways of thinking about and describing post-mine transitions will:

- Help groups work together to envision a positive post-mine future, including how to balance diverse interests
- Support clear, informed collaboration and negotiations over mine life, including with Traditional Owners
- Support long-term, multistakeholder and coordinated planning
- Help identify ways to connect policy and regulation, especially to enable transition to next land use
- Unlock commercial opportunities, particularly through land and asset repurposing
- Inform practical, applicable and transformative research.

Our next research phase will include work to understand what post-mine transition means to different communities, groups and sectors.



## IT'S ALL ABOUT VALUES

What makes a positive post-mine transition is essentially about values. It's about whether what is feasible and viable aligns with what matters most to the local community.<sup>1</sup>

Values are locally-specific and dynamic. Each place has its own set of values, meaning what people and communities give importance to in one region will be different to another.<sup>2</sup>

Understanding local values is essential for post-mine transitions to be net-positive (benefits outweigh costs) and mutually beneficial for different interests incorporating multiple tangible and intangible dimensions (social, cultural and economic).<sup>3</sup>

Understanding values, especially those held by Traditional Owners, requires an investment in relationship-building and deliberation.

<sup>1</sup> T. Foran, M. Barber & F. Ackermann, *Understanding the values of stakeholders in Australian post-mining economies*, CRC TIME Limited, Australia, 2022, p. 3.

<sup>2</sup> See T. Measham, F. Ackermann, J. Barber, F. Haslam-McKenzie & B. Maybee, *Understanding stakeholder values in post-mining economies: a literature review*, Australia, 2022.

<sup>3</sup> See T. Foran, op. cit., p. 10.

## THINKING DIFFERENTLY ABOUT RISK AND OPPORTUNITY

Return to prior state (usually agricultural or native vegetation) is generally the objective of mine closure regulation. Driving this are legitimate concerns about environmental impact and liability to the state if mines and related assets are not closed properly (such as abandoned mines).

However, regional development policy generally focuses on unlocking opportunity. Tensions between these frameworks creates barriers to better outcomes, challenges for transitioning land for next use (through a process known as relinquishment) and can tie up land for decades.<sup>4</sup>

Challenging conversations and new frames are also needed about how we understand risk, and what level of risk is acceptable if there is opportunity to improve social, economic and environmental outcomes.

## MINES AS SIGNIFICANT REGIONAL ASSETS

Mining is a capital-, technology- and infrastructure-intensive industry. In many regional and remote areas, extensive infrastructure – such as airstrips, water, energy, processing and logistics facilities – need to be established for mining to occur.

This creates more than mining infrastructure: it creates significant regional assets.<sup>5</sup>

There are many examples globally – and nationally – of mining-related infrastructure being repurposed for environmental, commercial and community uses, as well as conservation and tourism.<sup>6</sup> Yet awareness of this potential is limited.<sup>7</sup>

Barriers include policy settings focused on return to prior state, the cyclical nature of commodity markets, economic viability of options (particularly due to customer access), and low awareness of the infrastructure value.<sup>8</sup>

## FROM SITE TO REGIONAL SCALE

Mine closure is seen as a proponent-led responsibility, focused on return of the site to prior environmental state.

While intended to reduce environmental and financial risk at a site-level, this limits dialogue on how to manage impacts and risks as well as opportunities associated with change.

Effects are often cumulative and interconnected, especially when more than one mine operates in a region.<sup>9</sup> It also does not reflect the different roles and responsibilities of stakeholders within a region, including as they relate to achieving a positive post-mine transition.

Coordinated, strategic, ongoing and multi-stakeholder planning and action at a regional scale over time would drive better outcomes.<sup>10</sup>

The Regional Cumulative Effects Framework identifies the social, cultural, economic, environmental and institutional information needed to provide a clear picture of the current state and predict potential changes. It provides a strong foundation for our next phase of work.

## WHAT'S NEXT

Building on this, our next tranche of research related to regions in transition will cover:

- Identifying future economic development pathways
- Understanding different ways of undertaking regional cumulative effect assessments, including through Indigenous-led assessments
- Collaborative governance approaches.
- Measures of success from different stakeholder perspectives
- Growth opportunities and potential economic value associated with mine closure and post-mine transitions, including waste management, technology and services delivery, repurposing and environmental management.

## CONTACT

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<sup>4</sup> See G. Boggs, T. Measham, A. Littleboy & F. Haslam McKenzie, 'Transformation for positive post mine futures', Mine Closure 2022: 15th International Conference on Mine Closure, Australian Centre for Geomechanics, Australia, 2022.  
<sup>5</sup> A. Beer, F. Haslam McKenzie, S. Weller, A. Davies, C. Cote, M. Siemski, K. Holmes & J. Keenan, Post-mining land uses, CRC TiME Limited, Perth, 2022, pp. 8-10.  
<sup>6</sup> A. Beer, Post mining land uses: A literature review, CRC TiME Limited, Perth, 2022, p. 13.  
<sup>7</sup> A. Beer. op. cit, 2022, pp. 8-10.  
<sup>8</sup> Ibid, pp. 8-10.  
<sup>9</sup> L. Sinclair, J. Pope, S. Holcombe, L. Hamblin, D. Pershke, R.J Standish, M.E Kragt, F. Haslam-McKenzie, V. Subroy and R. E Young, Towards a framework for regional cumulative impact assessment, CRC TiME Limited, Perth, 2022, p. 9.  
<sup>10</sup> See G. Boggs, op. cit.

## ABOUT US

The Cooperative Research Centre for Transformations in Mining Economies is part of Australia's national innovation ecosystem. Our diverse partnership brings scale, collaboration and coordinated investment to tackle the most complex mine closure and post-mine transition challenges. Together we're rethinking what's possible to improve outcomes for people, communities, the environment and industry.

**We acknowledge the traditional custodians across all the lands on which we live and work, and we pay our respects to Elders both past and present.**