

PROJECT CONCEPT

Implementing Regional Cumulative Impact Assessment for Mine Closure

Proposal proponents

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What is the problem?

While mine closure is regulated and managed at the site level, the environmental, social, economic, and cultural impacts of closure are cumulative and are experienced at the regional scale. Cumulative impacts may be additive or synergistic, and can be either positive or negative. Currently, we do not have the tools, or the necessary governance structures, for predicting, assessing, and managing the cumulative impacts associated with mine closure at a regional scale.

The cumulative nature of the impacts creates challenges both in attributing and managing legacy risks appropriately so that sites can be safely relinquished, and regions transition to a post-mining future during which broader cumulative impacts arise and interact. A successful post-mining transition requires a collaborative process involving a wide range of stakeholders, including Traditional Owners, that both looks back to ensure that legacy issues are appropriately managed, and looks forward to chart positive, economically-diverse futures for mining regions and communities.



Why CRC TiME?

CRC TiME provides a unique platform for the integration of multiple perspectives, disciplines, and stakeholders to address national and global issues such as managing mine closure and supporting regions in transition. This integration enables the development of innovative ideas and solutions to make a step change in understanding the complex interactions in managing mine closure at the regional scale.



How could it be solved?

In 2021, CRC TiME undertook a foundational project that examined current thinking in assessing cumulative environmental, economic, cultural and social impacts of mining and mine closure for indigenous and non-indigenous Australians (Sinclair et al. 2022).

A major output from this research was the development of a high-level framework identifying the key components of a Regional Cumulative Impact Assessment (RCIA) process. This RCIA framework highlights how baseline conditions are not static, deriving from the accumulated past impacts of mining, continuing legacy impacts as well as “reasonably foreseeable” future impacts. Regional planning and RCIA are synergistic for post-mining futures.

STEP 01

Definition and initiation



- Setting objectives
- Regional definition
- Governance arrangements

STEP 02

Understanding baselines



- Identification of key values
- Understanding current conditions
- Land capability assessments

STEP 03

Regional planning informed by RCIA



- Analysis of policy planning context
- Establish a future vision for region
- Assessment of cumulative impacts
- Scenario analysis

STEP 04

Implementation



- Management
- Implement a shared vision for the region
- Assessment of cumulative impacts

STEP 05

Throughout all stages



- Stakeholder engagement
- Integration of Indigenous people in decision making
- Data collection and management

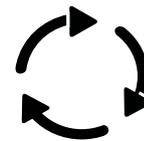
Key strategies include:



Expand on existing knowledge and previous research to develop methodologies for the prediction and assessment of environmental, social, economic, and cultural impacts, including understanding how they interact at a regional scale



Explore leadership and collaborative governance models to identify coordinating agencies, funding models and legislative head powers and regulatory frameworks to facilitate RCIA for mine closure



Link with other CRC TiME projects, that are working on aspects of mine closure planning and regional development to ensure the RCIA process methodology will be complimentary



Build on existing studies, to identify appropriate stakeholder engagement models for RCIA, involving education as well as consultation, which are culturally sensitive and recognise the special role of Traditional Owners



Link with projects outside CRC TiME, likely to include the Department of Agriculture, Water and Environment's pilot of a regional planning framework and other projects such as those occurring under the Resilient Landscapes Hub of NESP2

What are the benefits?

The project will work towards establishing process methodologies and governance models for RCIA that can consistently be applied across Australia to inform mine closure and post-closure planning at a regional scale. These programs aim to facilitate mine closure and relinquishment, abate the occurrence of mine abandonment and support regional communities to post-mining sustainable economies and land-uses for socio-economic benefits.

What are the proposed outcomes?

The project would run for three years, with sub-projects providing interim deliverables as the project works toward its longer-term goals. Examples of anticipated deliverables include:

- Stakeholder engagement model and tools, including for engagement with Traditional Owners, to understand the potential cumulative impacts on important values and assets and how they might be managed.
- Quantitative, semi-quantitative or qualitative RCIA framework and tool(s), for predicting, assessing, and connecting the environmental, social, economic, and cultural dimensions of RCIA to evaluation of closure options and incorporation into regional planning.
- Demonstration of the RCIA framework and tool through case studies, highlighting the benefits of RCIA's.

Why should my organisation get involved?

The need for RCIA is well-recognised by a broad range of stakeholders. We are seeking the involvement of industry (particularly the mining industry), government regulators, development agencies, NGOs and others, each of whom will bring an important perspective to the process. Participation enables direct input into the development of a fit for purpose RCIA process methodology, engagement framework and governance model that reflects the needs of all stakeholders affected by mine closure.

For further details or to indicate your interest, please contact Renee Young; Dr Jason Kirby or Fiona Haslam-Mckenzie



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