

Project 4.7

A systematic approach to Regional Cumulative Effects Assessment (RCEA) to support transitions in mining economies

Why the project?

Australia’s mining regions are experiencing major transformations as mines open and close, target different resources and companies embrace automation as well as shifting to more sustainable business models. Regional transitions of this nature are expected to continue with over 50 percent of Australia’s existing mines expected to close over the next 25 years. The environmental, social, economic and cultural effects of these transitions can be significant, particularly in regional and Indigenous communities where mining activities are concentrated.

These effects are cumulative, with combined effects often being multiplied when considered together. Effects can be both positive and negative. In this context we adopt the terminology ‘cumulative effects’ to include both ‘positive cumulative benefits’ and ‘negative cumulative impacts’. Regional Cumulative Effects Assessment (RCEA) is the term given to the suite of processes and tools that enable understanding and management of cumulative effects at a regional scale and ultimately facilitate the delivery of long-term environmental, social, cultural and economic outcomes.



What are the project objectives?

Through a case study analysis this project will:

- provide regional stakeholders with a clear value proposition for how RCEA in its diverse forms can support regional scale planning and decision-making related to mining transitions, through a review of Australian and international case studies and identification of their success factors, challenges and lessons learnt
- develop a decision-tree to guide stakeholders in identifying when and how RCEA in different forms can add value to decision-making
- generate preliminary insights from practice on acknowledged challenging aspects of RCEA including: regional definitions, governance arrangements, stakeholder engagement models, Indigenous involvement and incorporation of Traditional Knowledge, and analytical tools
- use the research findings for further engagement with to identify future RCEA pilot studies in mining regions.

What will the project deliver?

- clarity on how RCEA in its different forms can support decision-making for transitions in mining economies.
- a value proposition for mining companies and other regional stakeholders to participate in the RCEA process.
- practical insights into the conduct and management of RCEA processes.
- agreement and confidence to conduct RCEA pilot studies in an Australian mining regions.

It is intended to be a phased project. These objectives and deliverables are projected for phase one of three.

Who are the end users?

The project findings, tools and resources will be useful for governments, industry, and regional and Indigenous community stakeholders.

How can I engage?

Potential workshop in early 2024. Steering and advisory groups are providing direction to ensure a pathway to facilitate the uptake of scientific findings.

Timeline

2023 - 2024

How does this align with CRC TiME Impact objectives?

Mines are closed in ways that deliver social, economic and environmental value

Closed sites are repurposed to enable a faster transition to diverse and resilient local economies

Mine closure business solutions drive new commercial and/or regional closure opportunities

Continued investment in Australian resources

Policy, decisions and management systems reduce risks



Project Partners

Project Participants

Western Australian Biodiversity Science Institute, Murdoch University, Hanson Construction, Newmont Mining Services, Roy Hill, Iluka Resources, Rio Tinto

Advisory Participants

MMG, Federation University Australia, The University of Queensland, University of South Australia, Department of Climate Change, Energy, the Environment and Water, Department of Water and Environmental Regulation (WA), Rangelands NRM WA, Pershke Consulting, Pilbara Development Commission, Queensland Resources Council, Conservation Council of Western Australia



Australian Government
Department of Industry,
Science and Resources

AusIndustry
Cooperative Research
Centres Program