

Thinking beyond closure: Issues for sustainable regional succession in mature mining regions

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Mines close – typically after many decades of operation. As mine mature, closure becomes a more salient issue – for the mine operator, the investor, the regulator, the local community and future policy. As high profile operations plan for closure, jurisdictions are moving to tighten regulations and communities are expressing concerns about legacy issues and ongoing livelihoods. Around the world, commentators, regulators, industry practitioners, stakeholders and financial investors are considering how to close mines, the financial and risk liability this represents, and the potential risks to post mining communities, economies and environments.

Generally, closure issues are considered on a site by site basis. However, mine closure is a disruptive event that will radically change performance against key sustainability indicators at various levels: the mine; the community; the region; the state. And in mature mining regions, these disruptive changes have the potential to be cumulative over space and time.

Drawing on the University of Queensland's long track record in developing leading practice in mine environmental sustainability and social performance, this paper will evaluate the scale of cumulative closure risks for mining-rich regions.

Publicly available closure plans will be evaluated and modelled through a database to examine the spatial and temporal accumulation of regional closure stress as mines mature and lead into closure. Indicators of regional closure stress will be proposed. Drawing on experience and recent work on the social aspects of closure and progressive rehabilitation, strategies for reducing the impact of this closure stress on communities will be advanced.