Assessing mine closure preparedness using the Five Capitals Framework

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# Abstract

*Over the life of a mine, mining companies commonly go beyond the legal requirements and support initiatives that contribute to the development of the country and the local communities that host mining projects. Similarly, governments allocate a portion of the royalties and other economic benefits generated to contribute to the wellbeing of the its citizens so they are better off after the mines cease operation.*

*The investments made by the companies and governments include (but are not limited to):*

* *Developing the human capital through education and training (human capital);*
* *Allocating and managing financial resources to advance country’s economic and social development (financial capital);*
* *Investing in infrastructure developments such as schools, hospitals, water facilities, energy distribution and road construction (manufactured capital);*
* *Managing the country’s natural environmental to balance social and industrial activities (natural capital);*
* *Adopting governance systems that promotes transparency fostering collaborative and truthful relationships with the society and communities of interests (social capital).*

*Recognizing that different countries have different experiences and that the knowledge, practice and regulation around mine closure is evolving, the question can be asked “what are the appropriate conditions that contribute to a successful mine closure?” This paper adopts the Five Capitals framework proposed by Goodwin (2003) to assess through desktop analysis a number of mine closure cases globally. The five capitals framework provides a holistic view to complex and multifaceted nature of the mineral resources industry, and can help take an integrated approach to considering the challenges and opportunities related to mine closure. The study allowed for the identification of effective approaches that contribute to positive closure outcomes. Furthermore, the authors use the Five Capitals framework and the findings of the case studies to reflect on the Erdenet mine preparedness for closure and draw insights and recommendations from the case studies with the aim of ensuring that the community is better off post-mining transition.*

**Keywords:** mine closure, five capitals framework, Erdenet mine, post-mining transition