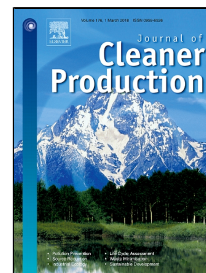


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The state of environmental sustainability considerations in mining

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Abstract

In the Global Mining Initiative, the mining industry came together to understand the industry's role in the transition to sustainable development and to ensure its long-term contribution to sustainable development. The industry has since then come a long way and improved its sustainable development performance in many areas. But how far has the industry been considering environmental (“strong”) sustainability in its approach? And how does this compare to companies in other sectors and leading organizations such as the United Nations, World Business Council for Sustainable Development and the Global Reporting Initiative?

This paper presents results from a literature review, looking at how far the mining industry has considered environmental sustainability in its approach. It explores, if the current efforts of the largest mining companies are aligned with the efforts of companies from other industry sectors, as well as the position of leading organizations.

We conclude that the mining industry is not setting on the wrong sustainability paradigm at this stage, but is at risk of falling behind societal expectations on climate change and the leaders from other industries on natural capital considerations. The industry can improve by considering the Paris Agreement in its approach to climate change, considering natural capital as an industry, e.g. through working with the Natural Capital Coalition and more broadly by pro-actively thinking about what the consequences of “strong sustainability” would mean for their business models.

Keywords

Mining; weak and strong sustainability; planetary boundaries; natural capital; SDGs

1. Introduction

Mining has for centuries, even millennia, been a source of great economic wealth but also social and environmental concern (e.g. Agricola 1556). The “great acceleration” of economic growth after World War II (Steffen et al, 2015a) meant that demand for mineral resources was growing exponentially (e.g. Moser 2016). This increase in production meant that mines became more in numbers and larger and so did the social and environmental consequences – leading to ever more conflicts (e.g. to name just two related to the largest mining companies in the world, BHP and Rio Tinto, Ok Tedi 1984 and Bougainville Copper 1989) and putting ever more pressure on the industry to improve its social and environmental performance.

Based on these concerns, the CEOs of the largest mining companies came together in 1998 at the World Economic Forum in Davos and decided that a new approach to tackle these problems was needed. The Global Mining Initiative (GMI) was launched to define what sustainable development (SD) should mean to the industry and how it would contribute:

One of the greatest challenges facing the world today is integrating economic activity with environmental integrity, social concerns, and effective governance systems. The goal of that integration can be seen as ‘sustainable development’. In the context of the minerals sector, the goal should be to maximize the contribution to the well-being of the current generation in a way that ensures an equitable distribution of its costs and benefits, without reducing the potential for future generations to meet their own needs. The approach taken to achieve this has to be both comprehensive – including the whole minerals chain – and forward-looking, setting out long-term as well as short-term objectives. (IIED 2002)

Since then, mining has progressed in many ways including its understanding of sustainable development, its approach towards health and safety and towards community relations (see e.g. Buxton 2012, Franks 2015). But how far has the industry been considering environmental sustainability in its approach?

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