

SEG 2024 Conference: Sustainable Mineral Exploration and Development

Effective Bottom-Up Social and Environmental Strategies for Exploration Teams: Lessons from an Orphaned Mine

Robin N. Armstrong, Richard J. Herrington, Bio+Mine Team
The Natural History Museum, London, United Kingdom

Future-proofed Environmental and Social Governance (ESG) will demand that the risks associated with a potential mine's closure are better evaluated and considered at the exploration phase. Arguably, social implications and associated risks are amongst the most difficult to evaluate and without clear methods to integrate these with potential environmental impacts. Past operations with legacy issues demonstrate that during the exploration / discovery phase key strands of data were not collected or effectively integrated to 'predict' emerging hazards. This is in part due to a historical dependence solely on hard engineered solutions. In the tradition of the "present is the key to the past," we will present the lessons learnt from a multidisciplinary team working with the indigenous community at the orphaned Sto. Niño copper mine (Benguet, Philippines). This work demonstrates the power of early and transparent community engagement and the need to acknowledge the uniqueness of each site at both the local and regional scale. The Sto. Niño example will illustrate the advantages of effectively integrating geological, environmental (including biodiversity), social data along with indigenous peoples' knowledge early in a project's development. We will present a potential methodology adopted from the social sciences for the analysis of contrasting data types. Our experiences demonstrate that effective Environmental and Social governance must reflect shared values and aspirations between the resident communities and the visiting exploration teams and not be a top-down dictate.