The True Costs of Mining in Northern Australia

Abstract

Mining projects, while providing economic benefits, often impose significant environmental liabilities that extend beyond the life of the mine, impacting ecosystems and communities. Current environmental assessments may overlook significant costs associated with mining activities, particularly in regions like northern Australia. This study assesses the environmental liabilities of the McArthur River Mine in the Northern Territory, focusing on the shift to open-pit extraction and subsequent expansion. We use the Replacement Cost, Welfare Replacement Value, and Basic Value Transfer methods to estimate marketable and non-market environmental costs, including the loss of human well-being benefits, freshwater loss, the opportunity cost of wild aquatic resources, and loss of native vegetation. The study highlights the importance of comprehensively evaluating environmental liabilities to inform decision-making and strengthen regulatory frameworks in the mining sector. This research enhances the understanding of the long-term impact of mining activities on ecosystems and local communities, emphasising the need for more robust environmental evaluations to mitigate adverse effects effectively.