

Sustainable Approach in the Assessment of Safety and Environmental Regulatory Compliance during Mining Activities

Faisal C. Emetumah^{ab*}, Patrice A.C. Okoye^b and Chinedu O. Okoye^b

*^aDepartment of Geography & Environmental Management,
Imo State University, Owerri, Nigeria*

*^bDepartment of Environmental Management,
Nnamdi Azikiwe University, Awka, Nigeria*

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ABSTRACT Optimal resource extraction involves balancing economic, environmental and social aspects. Even though there are regulatory mechanisms, safety anomalies and environmental pollution have persisted during mining activities in Nigeria. The study aims at developing an approach for evaluating safety and environmental regulatory compliance during mining activities, based on effects of noncompliance and having compliance issues. Cross-sectional survey design was used in collecting data from miners operating within active mining sites in Ebonyi State, Nigeria. Results indicate that prevalence of noncompliance effects had a four-component structure, while factorial prediction was a good-fit for having compliance issues. The proposed approach integrates dimensions of noncompliance effects with factors predicted having compliance issues during mining activities. The approach can help mining companies, governments and mining communities in Africa improve safety and environmental regulatory compliance.