عنوان مقاله:

The Environmental and Health Implications of Quarrying Activities in the Host Community of Oba-Ile in Akure, Nigeria

محل انتشار:

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خلاصه مقاله:

Background: Blasting is used for the extraction of hard rocks using explosives and has easy operation and high efficiency. The explosives used in blasting are combined chemical substances, which enter the environment after detonation. This study aimed to investigate the effects of the chemicals released into the environment in blasting. Methods: Water and soil were collected from inside and outside the quarry. Heavy metals and other deleterious constituents were assessed for AAS, and the results were compared with the WHO standards (domestic water use) and FAO (classification of soil macro- and micronutrients). The impact of mining on water and soil was evaluated by comparing the samples of the inside/outside the quarry. Results: The mean pH of the water samples of the inside and outside the quarry was ۵.۵۲ and ۵.۴۷, respectively. Manganese and chromium in both water samples were WHO standard, while lead and cadmium were not detected in these samples. The mean pH of the soil samples of the inside and outside was ۵.۹۸ and ۶.۰, respectively. The heavy metals in the soil samples were FAO standard. Conclusion: Quarrying adversely affects the environment. The EIA and strict implementation of the outlined mitigation measures .should be enforced to guarantee sustainability

کلمات کلیدی:

Blasting, Explosives, Heavy metals, Environmental impact