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Perception of Water Quality in Communities along Rivers in Mining Areas - The Case of Birim Basin in Ghana

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ABSTRACT

Title: Perception. Of Water Quality in Communities along Rivers in Mining Areas - The case of the Birim Basin in Ghana.

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Water bodies contaminated by the activities of Artisanal and Small-Scale Mining place communities, which are mainly rural and dependent on these water bodies, at risk. This raises important issues for both researchers and policy makers, especially because in most cases the waterbodies serve as the main source of water for drinking and other domestic purposes. A survey of 400 respondents was conducted in three mining communities who depend on water from the Birim Basin in Ghana. This study assessed the perceptions of the affected communities on the quality of surface water and groundwater in their area. The communities' perception on the quality of the waterbodies was assessed and compared with measurements of heavy metal concentrations in waterbodies in the Birim Basin. The findings indicate that perception and measurement results for the water quality in the Birim Basin were convergent indicating waterbodies were contaminated and not safe for drinking and domestic purposes. Findings from this research is expected to inform policy. It also serves as a source of information for environmental experts, stakeholders and educational institutions.

Keywords: Artisanal and small-scale mining, water contamination, communities