

IM4DC

Action Research Report

SUMMARY

Researchers:

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School/Centre:

Centre for Water in the Minerals Industry
Sustainable Minerals Institute

University/Institutions:

University of Queensland

Key themes:

Community and environmental sustainability

Key countries:

Ghana

Completion:

October 2014

Research aims:

The purpose of the research was to undertake a scoping study to:

- Identify the stakeholders in the Golden Star Resources Bogoso/Prestea mine site in Ghana
- Understand their water issues
- Pilot the newly developed Social Water Assessment Protocol (SWAP) to capture the intersection of a mine site's water management with the local water context beyond its operational boundaries
- Provide feedback for the developers of SWAP to revise the questions

For further information on this action research:

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Participatory Water Monitoring Scoping Study and SWAP (Social Water Assessment Tool) Pilot in Ghana

Participatory water monitoring, where community members are involved in a company's water monitoring, has the potential to resolve or avoid conflict. A scoping study was carried out around the Golden Star Bogoso/Prestea mining concession. The main objective of the scoping study was to understand the social context of the region and to establish the value of participatory water monitoring in this region. The scoping study was carried out using the newly developed Social Water Assessment Protocol (SWAP) (Collins & Woodley, 2013). The SWAP is a series of questions classified within 14 themes to capture the intersection of a mine site's water management with the local water context beyond its operational boundaries. The tool had not been applied before, so the study was an opportunity to pilot the SWAP and provide feedback for the developers to refine the tool.

The answers to the SWAP came from a desktop review and a field trip to the region to interview stakeholders. A total of 75 people were interviewed, ranging from representatives of the mining company, a women's group, men's groups, a community based organisation, a farmers' group, chiefs and sub-chiefs, artisanal scale miners (galamsey), local government authorities, key informants and a broad cross section of the community.

The pilot tested a tool that had been developed in Australia and applied it to a developing country. Application of the SWAP showed that the tool had been well designed to capture the key elements of the social context of the region. The outcomes of the pilot were that it refined the SWAP questions. It created a table identifying the data sources and stakeholder groups, which could provide the required information for each theme.

The key results that arose from the SWAP are that the community and the mining company are both reliant on groundwater; the surface water is contaminated from current artisanal scale mining, pesticides from farming and coliforms from a lack of sanitary facilities. There are three groups of suppliers of the groundwater to the community: private suppliers, district assembly and the mining company. In general, there is good access to the water but some communities expressed concerns that water from particular water points, when stored, developed a layer of film which made the water unpalatable. It was known that the groundwater was naturally high in iron, so it points to the residue being an iron oxidising bacteria which is not harmful to drink but does make the water unpalatable.

The SWAP results also showed that there was a complex relationship between the company and the communities, characterised by mistrust on both sides. The company appeared to have many formal structures to facilitate communication with the community; however, several community members disputed this with their responses that complaints were not acknowledged and that community meetings were not taking place. Whilst one of the aims of the study was to see if participatory water monitoring could resolve conflict due to concerns with water monitoring conducted by the company, the results showed that the dominant concern regarding water was outside the intent of participatory water monitoring.