



Draft checklist for mine waste facilities

Rwanda Mines, Petroleum and Gas Board

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INTERNATIONAL TRAINING PROGRAMME 308 Mine Water & Mine Waste Management















THE CHANGE PROJECT

The project develops a checklist to be used by mining inspector teams to assess that waste rock is safely stored and managed. The checklist is developed as a draft to be continuously improved and will over time be adopted and in use at inspections of mine and quarry operators. The checklist does not encompass the inspection of tailings storage facilities.

Rwanda's mining sector is predominantly characterized by artisanal and small-scale mining operations. At many mine sites, waste rock and tailings are stored without taking into consideration their characteristics, the site topography, environmental constraints, and the socioeconomic context in which the mine operations are located. Poor mine waste rock and tailings management in the mining sector in Rwanda are contributing to the broader issues of land and water resource degradation in watersheds across the country

The change project is a contribution towards sustainable mining practices. The checklist for mine waste disposal will together with other efforts contribute to the goal of preventing harmful environmental effects by mining.



quality, alter pH and carry metals into natural waterways and into groundwater. Poorly managed waste rock can release contaminants into waterways, impacting the downstream environment and the people living near or downstream the mine sites. Sediment loads in streams and lakes can increase, changing water flows and sediments can accumulate and release contaminants to water used by people and deteriorating habitats. The waters impacted are not only habitats but also used for cattle rearing and for food production. Altogether biodiversity is reduced, and the health of human populations, livestock, and the quality of agricultural products are impacted. Therefore, it is essential to implement strategic long-term planning to prevent and mitigate these harmful environmental effects. The mining sector is a key driver of economic development and is currently after tourism the second largest export sector in Rwanda.



Waste rock at underground mine, Rwanda.

SIGNIFICANCE FOR THE PEOPLE AND THE ENVIRONMENT

Waste rock from mining operations can change water

The Rwanda Mines, Petroleum and Gas Board (RMB) The draft checklist is developed by reviewing water

inspection teams assess that all mineral licensed companies operating in Rwanda safely manage waste rock materials. The inspectors will use this draft checklist and will continue to improve its contents and format. quality data from a selection of mine sites, by reviewing existing guidelines and checklists and by formulating the practical needs of the mine inspectors. Physical characteristics of mine waste facilities to inspect have been identified as well as chemical characteristics to be sampled and tested for. All of this is included in a draft checklist together with water quality standards.

This draft checklist will be used by RMB inspection team to assess that waste rock are safely disposed of by all mineral licensed companies operating in Rwanda. The draft will be used and improved and adopted for all mine inspection by the RMB.

Waste rock is typically deemed valueless but can contain elements that can be economically extracted by alternative methods or when commodity prices change. Mine waste have the potential for use in other industries. These benefits are only realized if the waste is well managed. It is important for the economy, for the people and for the environment that mine waste is managed properly.

RESULTS AND ACHIEVEMENTS

Worker with wheelbarrow moving waste rock.

THE WAY FORWARD