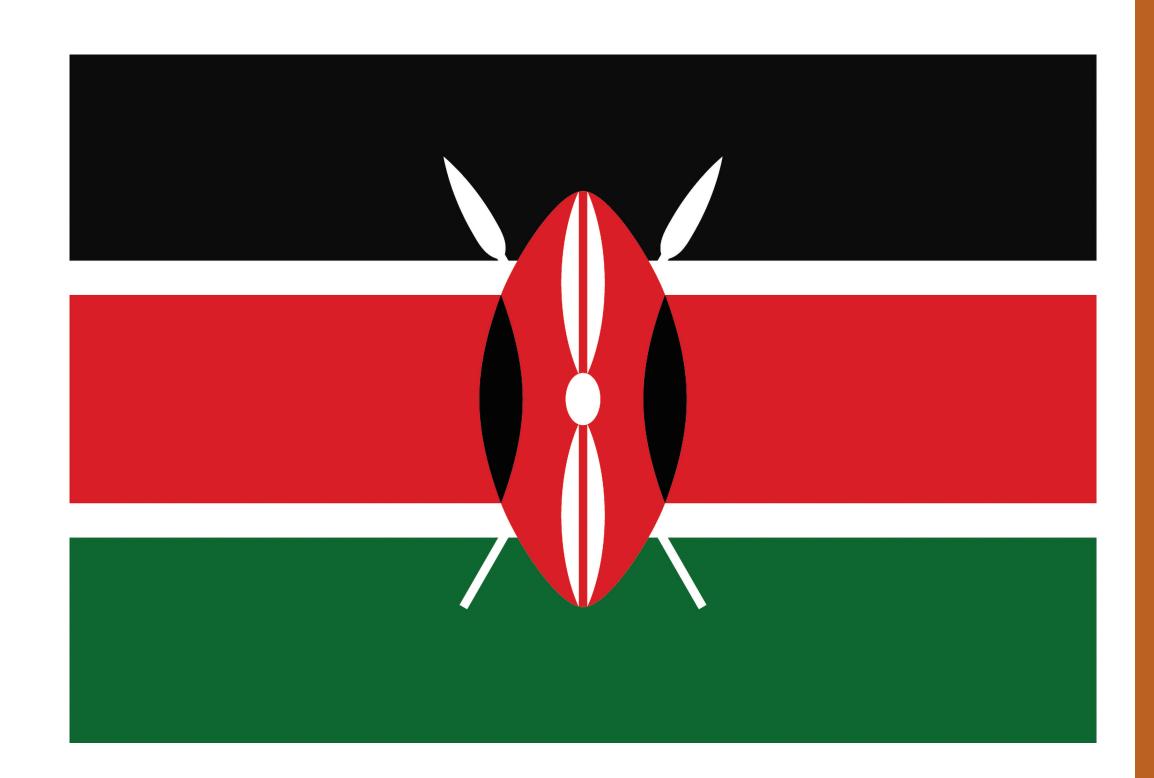
### KENYA



## Rehabilitation plan of abandoned mines in Kenya – case study from Kajiado county

State Department for Mining, Kenya

Roselyne Chelangat Daniel Kioko David Mwangi

**National Environment Management Authority** (NEMA), Kenya

Jessica Kahura Naomi Odero

#### INTERNATIONAL TRAINING PROGRAMME 308

Mine Water & Mine Waste Management









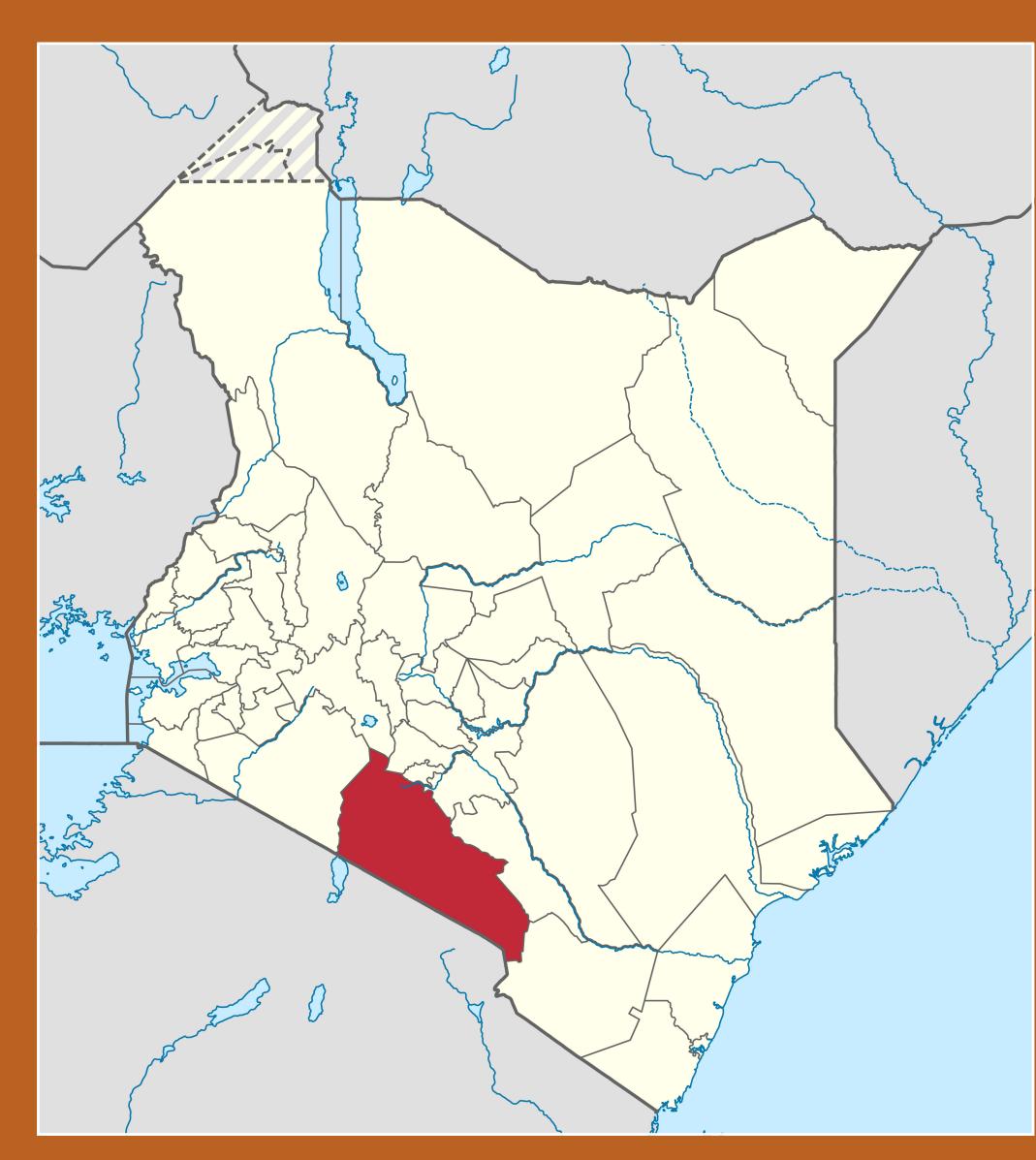




The project presents a rehabilitation plan for the abandoned mines in Kajiado, Kenya. Mining activities are ongoing in the Kajiado West region, situated in the Southern Rift of Kenya. These activities mainly involve artisanal and small-scale miners who extract limestone for local cement manufacturers. Unfortunately, their operations often leave the land degraded, with mine waste left unattended. Rarely do they engage in mine waste management or environmental rehabilitation.

The team assessed the current status of the abandoned mines in the selected area with the aim of establishing the physical, biological and chemical impact of the mine waste to the environment. In so doing mine waste samples and mine water samples were collected for analysis. The team has prepared a sustainable rehabilitation plan of the affected areas based on the mine waste characterization.

**According to The Institute for Security Studies (ISS)** legal artisanal and small-scale mining contributed US\$224 million to the Kenyan economy in 2022, representing over half of the country's mining output. The sector employs roughly 250 000 miners, 40% of whom are women, and supports the livelihoods of over 800 000 people.



Map showing Kajiado county in Kenya. Map: NordNordWest, Creative Commons by-sa-3.0 de



#### SIGNIFICANCE FOR THE PEOPLE AND THE ENVIRONMENT

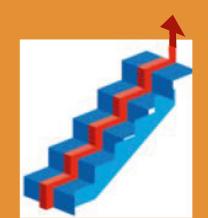
Key beneficiaries are local community, landowners and artisanal miners who are likely to suffer negatively from poor mining practices in the area. In Kajiado, the presence of abandoned limestone mines presents significant environmental, safety, health, and socioeconomic risks that require urgent rehabilitation. These mines pose instability concerns.

Leaving these mines in their current state threatens environmental integrity, affecting the local ecosystem, water quality, public safety, and the well-being of neighboring communities. Furthermore, the absence of a coordinated rehabilitation effort has hindered the potential for sustainable land use, economic development, and community prosperity in the region.





Abandoned limestone quarry in Kajiado county, Kenya.



# RESULTS AND ACHIEVEMENTS

The project team made several visits to abandoned mines in the area selected. Ground physical conditions observations were recorded, abandoned mine waste and mine water samples were collected for laboratory testing and analysis. The team noted that insufficient waste management practices can result in significant environmental harm and health dangers for local communities and miners. This was established from the site visit and in stakeholder consultation.



Observations and sampling were done at several abandoned mines by the project team.



The project can be extended to other areas of the country where artisanal miners activities are concentrated. The exercise will involve mine waste characterization and determining the possible impact of such wastes. This will in turn guide on the proper method of mine waste disposal as well as mine rehabilitation procedure.

The change project has been communicated and discussed to colleagues in both State Department for Mining and NEMA through meetings both physical and online while seeking support of the project from the organizations. For future development of the project the organizations will support implementation of the rehabilitation plan.