

Supporting Inclusive Resource Development (SIRD) East Africa TRAINING PROGRAM 2019





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National Mine Closure Obligations & Rehabilitation

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Presentation Outline

- ■Introduction
- ☐ Mining Cycle in Kenya
- Overview of Legal frameworks on Mine Closure and Rehabilitation
- ☐ Challenges
- ☐ Recommendations

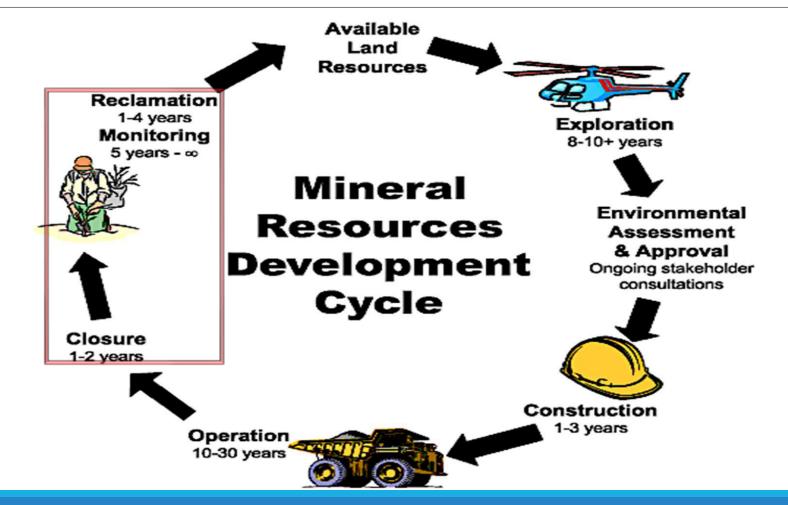


Introduction

- ☐ Kenya is endowed with various mineral resources though not yet fully exploited
- ☐ The players within the Mining sector are both large and small scale although the field is crowded by artisanal and small scale miners (ASM)
- ☐ The ASMs experience inadequate financial and technical capacities to ensure mine closure and rehabilitation that is done for purposes of sound environmental management
- ☐ Mine Closure and rehabilitation dependent on the mining method deployed
- □ Various reforms are still key to support the operations of these ASMs
- ☐ The large scale miners are advantaged due to the financial and technical resource base to undertake any rehabilitation works for disused mines



Typical Mining Cycle in Kenya



Minerals in Kenya

| County | Minerals | |
|---------------|--|--|
| Kwale | Gemstones, heavy mineral sands (Titanium related minerals - Ilmenite, Rutile and Zircon), Silica sand, Niobium and Rare Earth Elements | |
| Kilifi | Titanium related minerals, Manganese, Barytes, Gypsum and Gemstones | |
| Taita Taveta | Iron ore, Gemstones, Manganese and Granites | |
| Tana River | Gypsum | |
| Makueni | Vermiculite and Gemstones | |
| Kitui | Coal, Iron ore, Copper, Gemstones, Limestone, Magnetite, alumina clay and marble | |
| Machakos | Gypsum and Pozzolana | |
| Kiambu | Carbon dioxide and Diatomite | |
| Tharaka Nithi | Iron ore, Gemstones and copper | |
| Isiolo | Gemstones | |



Source: SESA Mining Report, 2017

| Garissa | Gypsum |
|-----------------|---|
| Mandera | Gypsum |
| Isiolo | Gemstones |
| Marsabit | Gold, Manganese, Chromite and Gemstones |
| Elgeyo Marakwet | Fluorspar |
| Baringo | Gemstones (Baringo Ruby) and Diatomite |
| Nakuru | Diatomite and potential fluorite deposits |
| Kajiado | Soda ash, Feldspar, Limestone, Gypsum, Gemstones, Marble and Granite (dimension stones) |
| Uasin Gishu | Carbon dioxide gas |
| Turkana | Gypsum, Oil, Gold and Gemstones |
| West Pokot | Gold, Gemstones and Chromite |
| Samburu | Gold, Manganese, Chromite, Gemstone and vermiculite |



Source: SESA Mining Report, 2017

| Narok (Transmara) | Gold |
|-------------------|--------------------------|
| Nandi (Kibigoni) | Gold |
| Kakamega | Gold and Dimension stone |
| Siaya | Gold and Iron ore |
| Migori | Gold and Copper |
| Homa Bay | Iron ore and Gold |



Legal Frameworks on Mine Closure and Rehabilitation

- The Constitution of Kenya
- ☐ Environmental Management and Coordination Act, No. 8 of 1999
- ☐EIA/EA Regulations 2003,
- ☐ Mining Act, 2016
- ☐ Draft Environmental Deposit Bonds Regulations, 2014
- ☐ The Local Content Bill, 2016



Constitution of Kenya

□ Article 66(2) requiring parliament to enact legislation to ensure that investments in property benefit local communities and their economies

Implies aspects of mine closure should be done in a manner that is not harmful to the people and the environment

□ Article 69 sets out the obligations of the state with regards to the environment, in particular use in a sustainable manner



EMCA, 1999 and EIA&EA Regulations, 2003

- □ Section 108, NEMA can issue restoration orders for the operator of a disused mine site
- □EIA reporting which requires submission of decommissioning phase as part of the EMP of any project including mining activities
- □EIA licensing conditions which provides the requirements for the decommissioning phase
- □EA reporting which also requires reporting on decommissioning activities
- Legal provisions still weak on well articulated aspects of mine closure and post closure monitoring
- ☐ Proponents only submit decommissioning plans without due regard for the complexity of their operations which may require an independent EIA

Section 24 of EMCA, National Environment Restoration Fund

- Object of the Fund is to act as supplementary insurance for the mitigation of environmental degradation
- ☐ Used in cases where the perpetrator of the damage is not identifiable, or exceptional circumstances force the Authority to intervene in the control or mitigation of environmental degradation including the mining sector.
- Sources of this Fund include:
- Money levied by project proponents by notice in Gazette by the Cabinet Secretary
- Money received by way of fees levied or deposit bonds
- Money received by way of donation or levies from industries and other project proponents and investment and interests

Quarry Site in Murang'a, Kenya

Quarry Scars - who shall be responsible for the rehabilitation



Source: Taskforce Report on Quarry Rehabilitation, 2009

Mining Act, 2016

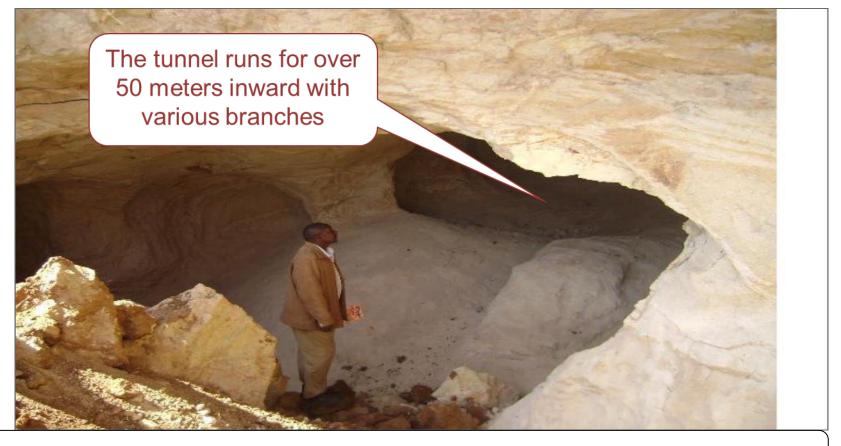
- Section 180 on:
- i) Submission of site mitigation and rehabilitation plans
- ii) Putting in to use the already mined area through reclamation programs; afforestation

■Section 181 on utilizing the environmental bond

☐ Refers to requirements under section 28 of EMCA, 1999



Examples of Disused mining sites

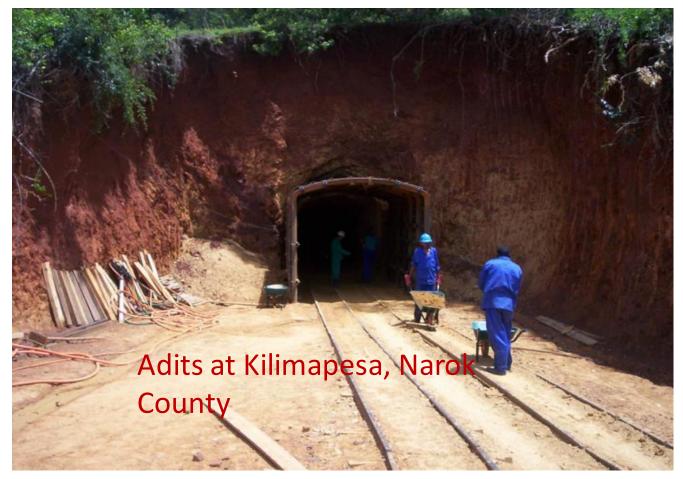


Tunneling in sand mine - land degradation and Occupational safety concerns



Source: Taskforce Report on Quarry Rehabilitation, 2009

Active gold mining site





Source: Taskforce Report on Quarry Rehabilitation, 2009

Draft EMC (Deposit Bonds) Regulations, 2014

- ☐ Formulated pursuant to section 28 of EMCA, 1999
- ☐ Historical perspectives indicate lack of obligation from mine site operators
- ☐ Regulation 10 (1) for existing facilities, the operator of such facility shall submit Environment Deposit Bond Assessment Report as part of Environmental Audit report
- Regulation 10 (2) for proposed facilities, the operator of such facility shall submit Environment Deposit Bond Assessment Report as part of Environmental Impact Assessment report
- ☐ The Deposit Bond Assessment Report shall include among others;
- >existing environmental levies and/or other insurance covers that the facility may have
- remediation, post care and maintenance plan including the required standards of remediation works, the activities involved, time frame (one time remediation works, long-term care and progressive remediation works where applicable), the remediation cost and the monitoring mechanism;
- ☐ First schedule of the draft Regulations provides for list of activities that should pay the prescribe deposit bond

Local Content Bill, 2018

- ■Section 30 requires formulation of a strategic plan on the transfer of technology with respect to various operations in the extractive industry
- Operations may also include mine site decommissioning
- ■33 An operator shall facilitate the transfer of technology by preparing and adopting technology transfer agreements with locals to provide credible and measurable plans on incremental transfer of technological know-how to locals



Highlights on Challenges

- ☐ Decommissioning covered during ESIA only and does not get required attention for effective regulation
- □ No defined formula for calculation of the environmental deposit bond
- Not regulated in the mining cycle
- □ No provision of community participation during the decommissioning phase
- ☐ Post closure of mine not regulated
- No provision for community participation during post closure monitoring
- Weak monitoring and enforcement



Recommendations

- Guidelines on mine closure and rehabilitation should be formulated
- ☐ Priority should be given to gazettement of the draft Deposit Bonds Regulations
- ☐ Compliance assistance programmes should be developed for ASMs
- ☐ Formula for calculation of deposit bonds payable to the Authority should be developed-otherwise it remains unclear
- Need for enhanced enforcement and monitoring



Resources

- Constitution of Kenya
- http://www.kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=Const2010
- ■Environmental Management and Coordination Act

https://www.nema.go.ke/index.php?option=com_content&view=article&id=24&Itemid=163#

- ☐ Environmental Impact Assessment and Audit Regulations, 2003
- https://www.nema.go.ke/index.php?option=com_content&view=article&id=27&Itemid=167
- □ Mining Act, 2016 https://portal.miningcadastre.go.ke/Downloads/Mining_Act_2016_Full.pdf



Resources

- □ The Environmental Management and Coordination (Deposit Bonds) Regulations, 2014 https://www.nema.go.ke/images/Docs/Regulations/EMC%20(Deposit%20Bonds)%20Regulations%202014-1.pdf
- □ The Local Content Bill, 2018 http://www.parliament.go.ke/sites/default/files/2018-11/Local%20content%20Bill.pdf
- □Strategic Environmental Assessment Report for the Mining Sector in Kenya https://www.nema.go.ke/images/Docs/SEA%20Reports/UNDP%20DRAFT%20SEA%20REPORT%2 OFOR%20THE%20MINING%20SECTOR%20IN%20KENYA.pdf
- ☐ Ministry of Mining-Gap Analysis https://www.undp.org/content/dam/kenya/docs/IEG/Ministry%20of%20Mining%20-%20Gap%20Analysis%20Kenya.pdf
- □Integrated National Land Use Guidelines https://www.nema.go.ke/images/Docs/Guidelines/national%20landuse%20guidelines-nema.