



Mineral Development Programme

Semi-Annual Budget Monitoring Report

Financial Year 2023/24

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ABBREVIATIONS AND ACRONYMS

ACEMP	Africa Center for Energy and Mineral Policy
ASM	Artisanal and Small-Scale Miners
BGR	German Federal Institute for Geosciences and Natural Resources
BMAU	Budget Monitoring and Accountability Unit
DGSM	Directorate of Geological Surveys and Mines
DRMS	Domestic Revenue Mobilization Strategy
EAGER	East African Geothermal Energy Resources
ESIA	Environmental Social Impact Assessment
GIS	Geographical Information System
GMIS	Geological and Mineral Information System
GoU	Government of Uganda
HSE	Health Safety and Environment
ICGLR	International Conference on the Great Lakes Region
ICP - EOS	Inductively Coupled Plasma Optical Emission Spectrometry
IFMS	Integrated Financial Management System
ISO	International Organization for Standardization
LMIS	Laboratory Management Information System
MCRS	Mineral Cadaster and Registry System
MDAs	Ministries, Departments and Agencies
MEMD	Ministry of Energy and Mineral Development
MFPEd	Ministry of Finance, Planning and Economic Development
MoJCA	Ministry of Justice and Constitutional Affairs
MLHUD	Ministry of Lands, Housing and Urban Development
MPS	Ministerial Policy Statement
MWAMID	Mineral Wealth and Mining Infrastructure Development
NEMA	National Environment Management Authority
NDP	National Development Plan
OSH	Occupational Safety and Health
PBS	Program Budgeting Software
PGM	Platinum Group Minerals
PIP	Public Investment Plan
PPE	Personal Protective Equipment
PPP	Public-Private Partnership
SEAMIC	Southern and Eastern Africa Mineral Center
SDR	Special Drawing Rights
SMRF	Strategic Minerals Research Facility
TGH	Temperature Gradient Holes
UIA	Uganda Investment Authority
UNBS	Uganda National Bureau of Standards

FOREWORD

At the start of this Financial Year 2023/24, the Government of Uganda outlined strategies to accelerate the country's economic growth agenda. Some of these strategies centered on enhanced domestic revenue mobilization and collection, and effective implementation of various initiatives to improve the efficiency and effectiveness of government programs and projects.

Within your programmes, I urge you to undertake a comprehensive reflective exercise to find out if indeed the interventions being implemented are achieving the true essence of efficiency and effectiveness. If not, why? How can this situation be remedied? Without efficiency and effectiveness, the impact and the ensuing sustainability from the interventions will not be achieved, thus reducing the opportunities for investment in new and more productive ventures.

The government is concerned that some programmes have stagnated at fair performance over the years, although they receive a considerable amount of their budgets annually. These monitoring findings form a very important building block upon which the programmes can begin the reflective exercise. I will be happy to hear your ideas on how the last-mile service delivery can be improved.

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke extending to the right.

Ramathan Ggoobi

Permanent Secretary/Secretary to the Treasury

EXECUTIVE SUMMARY

The overall semi-annual performance of the Mineral Development Programme for the Financial Year (FY) 2023/24 was fair at 60.9%. The programme budget for FY 2023/24 is Ug shs 57.33 billion (bn), of which Ug shs 13.80bn (24.2%) was released and Ug shs 8.31bn (60.2%) spent by 31st December 2023. The fair absorption was due to a delay in concluding procurements for consultants to undertake some of the geothermal and geological activities.

Programme Performance

The Ministry of Energy and Mineral Development (MEMD) was developing the Artisanal Small-Scale Mining (ASM) regulations as well as zoning areas of ASM operations to operationalize the new Minerals and Mining Act 2022. The act aims to enhance the capacity and emphasis on the formalization of the artisanal small-scale miners (ASMs) who contribute to more than 75% of the country's mineral production.

Under mineral exploration, the Karamoja Airborne Survey progressed with phases one and two completed using gravity, magnetic and radiometric techniques. Phase three data interpretation from the magnetic, radiometric and gravity surveys was at 70% progress using electromagnetic surveys and geological mapping. Eight map sheets at a scale of 1:250,000 had been produced from the data from the aerial surveys. However, the survey was behind schedule having been negatively affected by the insecurity in the Karamoja sub-region.

Biometric registration of the artisanal miners continued during FY2023/24. A total of 1,150 artisanal miners (750 males, 450 females) in the mining areas of Kassanda, Busia, Namayingo and Buhweju were sensitized and registered biometrically representing 34% of the semi-annual target. The progress was slow due to low staffing and the release of funds towards the end of quarter two, thus most activities had not been undertaken by half-year. Additionally, a total of 810 miners and mineral license holders were also sensitized.

A total of 174 mineral license applications were reviewed and due diligence was conducted on 43 mineral dealer's license applications. A total of 450 stakeholders were also sensitized on licensing requirements. During this period, a total Non-tax revenue (NTR) of Ug shs 10.34bn (86% of the annual target) was realized from licensing and royalty payments arising from the mining activities.

The MEMD continued to engage partners for more mineral value addition. In that regard, the ministry processed applications for mineral beneficiation licenses for goldsmiths and mineral smelting. The license holder for the Wagagai Gold Mine in Busia District was also in the process of setting up a gold processing plant. Requests for proposals for the re-development of Kilembe copper mines have also been received and were under evaluation.

To improve on monitoring of mining activities and quicken mineral sample analysis, two mineral beneficiation regional centres was established in Fort Portal and Ntungamo districts. However, the first phase for equipping these centres with staff and equipment had slow progress and therefore they were not yet operational. The Terms of Reference (ToRs) were developed and the recruitment process was initiated but was awaiting a no objection from the Public Service Commission. The MEMD should fast-track the equipping and staffing of the resource centres so that they can be operationalized. Additionally, land for the centres in Busia and Gulu districts was acquired.

To improve tracking of mineral production, six weighbridges were acquired and the sites for their installation were identified in Sironko, Katakwi and Napak districts. Geotechnical

investigations were undertaken, however, installation works awaited the conclusion of designs by the Ministry of Works and Transport (MoWT) in partnership with MEMD. Twelve more sites earmarked for weighbridge installations were mapped across the country and the lawful landowners identified to enable the land acquisition.

Challenges

- i) Low funding to the Mineral Development Programme affected the ability to undertake important activities such as training, inspection, and acquisition of the necessary equipment/tools which are required to better regulate the sector and undertake further minerals exploration.
- ii) The mining industry continues to be dominated by artisanal miners whose production levels are low due to the use of unsafe manual and rudimentary techniques for mining.

Recommendations

- i) The MEMD should prioritize funding to the Mineral Development Programme so that the relevant departments are adequately equipped, staffed, trained and facilitated to undertake further mineral exploration and regulation.
- ii) The MEMD and MoWT should expedite the finalization of the weighbridge designs so that weighbridge construction works can commence.
- iii) The Government should focus on attracting large-scale mining companies so that there is increased investment in the sector. This will create more jobs and also increase the revenue from the mining sector.

CHAPTER 1: BACKGROUND

1.1 Background

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, *“To formulate sound economic policies, maximize revenue mobilization, and ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development.”*

The MFPED through its Budget Monitoring and Accountability Unit (BMAU) tracks the implementation of programmes/projects by observing how values of different financial and physical indicators change over time against stated goals, indicators and targets (how things are working). The BMAU work is aligned with budget execution, accountability, and service delivery.

Commencing FY 2021/22, the BMAU began undertaking Programme-Based Monitoring to assess performance against targets in the Programme Implementation Action Plans (PIAPs)/Ministerial Policy Statement. Semi-annual and Annual field monitoring of Government programmes and projects was undertaken to verify receipt and expenditure of funds by the user entities and beneficiaries, the outputs and intermediate outcomes achieved, and the level of gender and equity compliance in the budget execution processes. The monitoring also reviewed the level of cohesion between sub-programmes and implementation challenges.

The monitoring covered the following Programmes: Agro-Industrialization; Community Mobilization and Mindset Change; Digital Transformation; Human Capital Development; Innovation, Technology Development and Transfer; Integrated Transport Infrastructure and Services; Manufacturing; Mineral Development; Natural Resources, Environment, Climate Change, Land and Water Management; Public Sector Transformation; Sustainable Development of Petroleum Resources; and Sustainable Energy Development.

This report presents findings from the semi-annual monitoring of selected interventions under the Mineral Development Programme for the budget execution period from 1st July 2023 to 31st December 2023.

1.2 Programme Goal and Objectives

The Mineral Development Programme contributes to the first objective of the National Development Plan (NDP III) which is to “Enhance Value Addition in Key Growth Opportunities”. The goal of this programme is to increase the exploitation and value addition to selected resources for job-rich industrialization. Its objectives are to:

- i) Increase exploration and quantification of priority minerals and geothermal resources across the country;
- ii) Increase adoption and use of appropriate and affordable technology along the value chain;
- iii) Increase investment in mining and value addition; and
- iv) Expand mineral-based processing and marketing.
- v) Strengthen the legal and regulatory framework as well as the human and institutional capacity.

1.3 Programme Sub-Programme

The Mineral Development Programme is comprised of one sub-programme - Mineral Exploration, Development and Value Addition.

The lead entity for the implementation of this programme is the Ministry of Energy and Mineral Development, other key ministries, departments and agencies (MDAs) include: The National Environmental Management Authority (NEMA), the Ministry of Trade and Industry (MoTIC), the Ministry of Works and Transport (MoWT), and Uganda Investment Authority (UIA).

1.4 Programme Outcomes

The programme outcomes are increased investment in the sector, increased contribution of the mineral sector to GDP and a competitive mining sector.

CHAPTER 2: METHODOLOGY

2.1 Scope

This monitoring report is based on selected interventions in the Mineral development programme. The monitoring covered interventions implemented during the first half of FY 2023/24.

Monitoring involved the analysis and tracking of inputs, activities, processes, and outputs in the Ministerial Policy Statements and Annual and Quarterly work plans, progress and performance reports of MDAs.

Seven (7) were reviewed. The monitored interventions translated into 93.3% coverage of the approved budget for FY2023/24.

The selection of interventions to monitor was based on the following criteria:

- i) Significant contribution to the programme objectives and national priorities.
- ii) Levels of investment and interventions that had a large volume of funds allocated were prioritized.
- iii) Planned outputs whose implementation commenced in the year of review, whether directly financed or not. In some instances, multiyear investments or rolled-over projects were prioritized.

2.2 Data Collection and Analysis

2.2.1 Data Collection

Both qualitative and quantitative methods were used in the monitoring exercise. The physical performance of interventions and planned outputs were assessed through monitoring a range of indicators. The progress reported was linked to the reported expenditure and physical performance.

The monitoring team employed both primary and secondary data collection methods. Secondary data collection methods included:

- i) Literature review from key policy documents including, Ministerial Policy Statements (MPS) FY 2023/24; National and Programme Budget Framework Papers; Re-prioritized Programme Implementation Action Plans (PIAPs), quarterly progress reports and work plans for the respective implementing agencies, Quarterly Performance Reports, Budget Speech, Public Investment Plans, Approved Estimates of Revenue and Expenditure, project reports, strategic plans and policy documents.
- ii) Review and analysis of data from the Integrated Financial Management System (IFMS); Programme Budgeting System (PBS) and Quarterly Performance Reports.

Primary data collection methods on the other hand included:

- iii) Consultations and key informant interviews with Institutional heads, project managers at various implementation levels.
- iv) Field visits to various districts, for primary data collection, observation and photography.
- v) Callbacks in some cases were made to triangulate information.

2.2.2 Data Analysis

The data was analyzed using both qualitative and quantitative approaches.

Qualitative data was examined and classified in terms of constructs, themes or patterns to explain events among the beneficiaries (interpretation analysis) and reflective analysis where the monitoring teams provided an objective interpretation of the field events.

Quantitative data on the other hand was analyzed using advanced Excel tools that aided interpretation. Comparative analyses were done using percentages, averages, and cross-tabulations of the outputs/interventions; and the overall scores. Performance of outputs/interventions was rated in percentages according to the level of achievement against the annual targets. The sub-programme score was determined as the average percentage ratings for the outputs.

The overall programme performance was the sub-programme score assessed. The performance of the programme and sub-programme was rated based on the criterion in Table 2.1. Based on the rating assigned, a BMAU colour-coded system was used to alert the policymakers and implementers on whether the interventions were achieved or had very good performance (green), good performance (yellow), fair performance (light gold), and poor performance (red).

Table 2.1: Assessment guide to measure performance in FY 2022/23

Score	Performance Rating	Comment
90% and above	Green	Very Good (Achieved at least 90% of outputs)
70%-89%	Yellow	Good (Achieved at least 70% of outputs)
50%- 69%	Light Gold	Fair (Achieved at least 50% of outputs)
49% and below	Red	Poor (Achieved below 50% of outputs)

Source: Author's Compilation

Ethical considerations

Introduction letters from the Permanent Secretary/ Secretary to Treasury were issued to the respective MDAs monitored. Entry meetings were held with the Accounting Officers or delegated officers upon commencement of the monitoring exercise. Consent was sought from all respondents including programme or project beneficiaries. All information obtained during the budget monitoring exercise was treated with a high degree of confidentiality.

2.3 Limitation

Lack of disaggregated financial information for some of the outputs.

2.4 Structure of the Report

The report is structured into four chapters. These are: 1) Introduction; 2) Methodology; 3) Programme Performance; and 4) Conclusion, and Recommendations respectively.

CHAPTER 3: PROGRAMME PERFORMANCE

3.1 Overall Programme Performance

Financial Performance

The programme budget was revised from Ug shs 47.329 billion (bn) to 57.329bn. A total of Ug shs 13.80bn (24.1%) was released and absorption was fair at 60.4% (Ug shs 8.33bn). The programme was affected by delayed procurements and inadequate release of Government of Uganda (GoU) funds which constrained the progress of some key activities.

Physical Performance

The overall performance of the Mineral Development Programme was fair at 60.9%. One of the highlights was the commencement of data analysis for phase three under the Karamoja Airborne Survey Project with eight geological and geochemical map sheets produced. Geothermal exploration activities in Panyimur and Kibiro continued with desk studies of other prospects in Kanangarok, Kitagata and Ihimbo ongoing.

Licensing and inspection of 174 mineral rights was undertaken and Ug shs 10.34bn was collected as Non-Tax Revenue (NTR) from the royalty payments. To promote mineral value additions, two licenses for gold processing and mineral smelting were issued.

However, the programme grappled with delays in procurement that affected the acquisition of sample analysis equipment, software and design of additional mineral information systems. The formalization of artisanal miners through sensitization and biometric registration also commenced but had slow progress due to limited staffing and late release of funds towards the end of Quarter two thus low absorption. The recruitment process aimed at addressing some of these challenges was initiated and awaiting a no-objection from the Public Service Commission. The regulations to operationalize the new Minerals and Mining Act 2022 that will support the artisanal miners were also under Parliamentary review. Weighbridge installation at the identified sites in the eastern region with bulk minerals did not commence pending the conclusion of designs by MoWT.

3.2 Mineral Exploration, Development and Value Addition Sub-programme

The sub-programme is responsible for the mineral exploration and investment promotion functions. The sub-programme contributes to four programme objectives: Explore and quantify priority mineral and geothermal resources across the country; Increase adoption and use of appropriate and affordable technology along the value chain, increase investment in mining and value addition, and expand mineral processing and marketing.

The planned interventions for FY 2023/24 under the sub-programme that were monitored were:

- i) Undertake a detailed exploration and quantification of minerals and geothermal
- ii) Establishment and equip a dedicated exploration unit, with access to functional laboratories
- iii) Organize, formalize and regulate the artisanal and small-scale miners
- iv) Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions.

- v) Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement
- vi) Review of the Mining Act 2003 and develop other relevant laws and regulations
- vii) Establish and strengthen earthquake, landslides and other geo-hazard monitoring systems.

Performance of the interventions

The overall performance of the interventions was fair at 60.9%. Of the seven monitored interventions, two (02) had good performance, three (03) performed fairly, and two (02) had poor performance. Good performance was observed in: the maintenance of earthquake stations and issuing, monitoring and enforcement of licenses where the target of Non-Tax Revenue (NTR) was met. Fair performance was noted in exploration activities in the country, operationalization of regional centres and maintenance of mineral information systems. On the other hand, the registration of artisanal miners and operationalisation of the new Mineral and Mining Act 2022 performed poorly majorly being hindered by procurement delays, low staffing and delay in completing feasibility studies for further mineral exploration.

Table 3.1: Performance of the Mineral Exploration, Development and Value Addition Sub-programme as of 31st December 2023

No.	Intervention	Performance Rating	Remarks
i	Undertake a detailed exploration and quantification of minerals and geothermal Establishment and equip a dedicated exploration unit, with access to functional laboratories		Performance was at 63.8%. Data analysis for Karamoja Airborne Survey commenced. Feasibility studies for iron ore, REE and Uranium were ongoing but behind schedule.
ii	Establishment and equip a dedicated exploration unit, with access to functional laboratories		Fair performance at 54.2%. The recruitment process for centres in Fort Portal and Ntungamo was ongoing.
iii	Organize, formalize and regulate the artisanal and small-scale miners		Poor performance at 44.7%. a total of 1,150 (34% of target) ASMS were biometrically registered.
iv	Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions		Performance was good at 73.5%. 41% of the annual target for mineral licenses were monitored and the NTR collected was Ug shs 10.34 bn (86% of annual target)
v	Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement		Fair performance at 64.1%. Minerals systems were maintained. However, weigh bridges were not yet installed and the acquisition of some equipment for sample analysis was affected by delays in procurement.
vi	Review of the Mining Act 2003 and develop other relevant laws and regulations		Poor performance at 48.8%. The development of one of the planned two regulations to operationalise the new Mineral and Mining Act 2022 was ongoing.
vii	Establish and strengthen earthquake, landslides and other geo-hazard monitoring systems		Performance was good at 77.1%. The maintenance of the earthquake stations in Entebbe, Nakawuka and in the Albertine region continued.
	Overall Intervention Output Performance		Fair Performance at 60.9%

Source: Author's Compilation

3.2.1 Undertake a detailed exploration and quantification of minerals and geothermal resources in the country

Under the intervention, mineral exploration is undertaken through collecting, collating, processing and analysis of mineral samples in the different regions of the country. The intervention also explores the geothermal and Mineral potential in the country through geological, geophysical and geochemical surveys.

The output planned for FY is mineral and geothermal reserves established in the country.

Performance

The performance of the intervention was fair at 62.4%. The achievements under the different outputs are discussed below.

a) Establishment of Mineral Reserves

Under this output, the targets were:

- i) Complete the Karamoja Airborne Survey.
- ii) Additional mineral targets identified, mineralization models developed, drilling plan designed and data integration of the anomalous zones undertaken.

i) Airborne Geophysical Survey and Geological Mapping of Karamoja

The Karamoja Airborne Survey Project (1542) aims at achieving 100% of the country's mineral survey by completing the survey in the Karamoja sub-region. The project uses gravity, magnetic and radiometric techniques to survey the whole sub-region covering an approximate distance of 350,000 to 378,957 line-kilometres. The survey consists of three phases namely: 1, 2 and 3. Phases one and two include data acquisition, processing and interpretation while phase three consists of undertaking the sub-region's ground geological and geochemical mapping to confirm the anomalies.

The overall cumulative progress of the survey was at 80%. Phase one for the airborne magnetic, radiometric and gravity surveys with a line spacing of 200 meters covering a total of 225,000kms was completed. Phase one included gravity surveys for high-density minerals such as gold while determining the depth of the basin while the magnetic and radiometric surveys were for conductive minerals (copper) and radioactive minerals (Uranium) respectively. Phase two which targeted 40% of the phase one explored areas using high-resolution data with a line spacing of 100 meters was also completed.

Phase three data interpretation from the magnetic, radiometric and gravity surveys was at 70% progress using electromagnetic surveys and geological mapping. The geological mapping and geochemical surveys at a scale of 1:250,000 was completed over Karamoja and Lamwo regions and produced eight (8) map sheets. Geological data was integrated into the maps. Mapping at a scale of 1:150,000 was completed for Mbale, Napak and the remaining areas included Karenga, Kotido, Kaabong and part of Lamwo at Agoro hills. The survey has also undertaken geothermal and hydro-geological quality control to identify potential areas of underground water and heat and also continued training and sensitization of Uganda in mapping techniques.

However, the project was behind schedule by over six months and was affected by insecurity in the Karamoja sub-region which delayed work for phases two and three. Therefore, phase three which majorly involved ground mapping could not be undertaken and works had been

earlier suspended in FY 2022/23. A one-year extension till 30th June 2025 was granted to allow completion of works.

ii) Identification and development of other mineral targets

Several undertakings were ongoing to identify different minerals which included copper, gold Uranium, iron ore and Rare Earth Elements (REE) among others. In that regard, the feasibility studies of iron ore prospects in Southwestern Uganda was undertaken in two (Kihumuro, Kamena) of the six (Kihumuro, Rukaranga, Kijuguta, Karukra Kamena and Kyanyamuzinda) targeted prospects and a report generated with support from the European Union ADT Africa and Kalem Group.

Further exploration and drilling were awaiting compensation and relocation of affected persons as well as acquiring a partner for development. The magnetic and gravity survey for Uranium exploration in the Katara area, Buhweju District was also conducted and interpretation of the geochemical and geological of the Boma Uranium mineralization prospect was undertaken. The gravity survey covered a total of 33.6- line km while the magnetic survey covered 24.7- line km out of the annual planned total of 47.6-line km.

Promotion of Investment in the sector

The Ministry of Energy and Mineral Development (MEMD) continued to engage partners for more mineral value addition. The evaluation of proposals for redevelopment of Kilembe copper mines was ongoing and the Government was yet to secure a development partner for the project. To boost gold mining, the license holder for Wagagai Gold Mine in Busia District was in the process of setting up a gold processing plant whereas the Rare Earth Elements (REE) mining development project in Makuutu by Rwenzori Rare Metals Limited was underway and the license holder was undertaking further exploration.

b) Establishment of Geothermal reserves

The targets for this output for the FY are:

- i) Development of Kibiro and Panyimur geothermal prospects undertaken. Eight Temperature Gradient Holes (TGH) and eight exploration wells at Kibiro and Panyimur geothermal prospects drilled.
- ii) A comprehensive geothermal information system developed.

Development of Kibiro and Panyimur geothermal prospects

Temperature gradient monitoring for existing Temperature Gradient Holes (TGH) in the prospects continued and the procurement of a drilling service contractor for Panyimur prospect was completed and a total of seven (7) out of the planned eight (8) Temperature Gradient Holes (TGH) were drilled.

In addition, the procurement of a consultant to undertake an Environmental and Social Impact Assessment (ESIA) for more deep drilling at Panyimur was completed and an inception report produced. In addition, the Electricity Regulatory Authority (ERA) approved feasibility studies for a proposed 10MW Panyimur-Panyigoro geothermal power plant.

Detailed gravity survey and hydrothermal alteration mapping to update the gravity and conceptual model at the Kibiro geothermal prospect was conducted. However, the drilling of the Four TGH at the Kibiro prospect had not yet commenced and preparations were ongoing.

For further geothermal exploration, the desk studies for the geological, geophysical and geochemical surveys at Kanangarok, Kitagata and Ihimbo prospects commenced. A detailed survey for the areas was awaiting availability of funds for the activity. Development of a comprehensive geothermal information system had not yet commenced.

3.2.2 Establish and equip a dedicated exploration unit, with access to functional laboratories

The intervention aims at the establishment of functional exploration units in all the regions of the country to decentralize the Directorate of Geological Survey and Mines (DGSM) functions and thus quicken the process of analysis of mineral samples explored in the various regions countrywide. The intervention also aims at equipping the new exploration units or regional centres with key equipment and staff. The outputs for FY 2023/24 are: land for the Busia center acquired, mineral beneficiation centers in Ntungamo and Fort Portal equipped and mineral beneficiation staff recruited.

Performance

The performance of the intervention was fair at 54.2%. The construction of mineral beneficiation centres in Rwengoma in Ntungamo District and Fort Portal City to decentralize and quicken the mineral sample analysis was completed. The first phase for equipping these centers with staff and equipment had slow progress and therefore the centers were not yet operational. The ToRs were developed and the recruitment process was initiated but was awaiting a no-objection from the Public Service Commission.



Top: The Mineral Beneficiation Centre at Rwengoma, Ntungamo District

Right: A completed but not yet equipped plant house



Land for the mineral beneficiation centre in Busia District was identified, and so were the lawful owners. Negotiation with the land owners and occupants was ongoing therefore payment had not been done by 31st December 2023.

3.2.3 Organize, formalize and regulate the artisanal and small-scale miners

The goal of the intervention is to improve the livelihood of more than 26.5% of the population which is employed directly and indirectly in the mineral sub-sector more especially Artisanal Small-Scale Miners (ASMs) who mostly work under poor conditions. The output is the formalization and regulation of artisanal miner groups through the sensitization of 5,000 ASMs (3,000 males, 2,000 females) in best practice mining and biometric registration of ASMs.

Performance

The performance was poor at 44.7%. A total of 680 ASMs (430 males, 250 females) were sensitized on gender mainstreaming, best mining practices (mercury-free gold recovery), smuggling and anti-money laundering in Busia, Rubanda and Kabale districts representing 32% of the semi-annual target.

The first phase of formalizing and biometric registration of ASMs also commenced but progressed slowly with a total of 1,150 (34% of target) miners registered. Of these, 750 were

male and 400 female ASMs. A total of 810 mineral license holders were also sensitized on best mining practices and artisanal mining. The registration was affected by low staffing. In addition, the MEMD received the funds for the output towards the end of Quarter two and thus was not able to implement all the activities by 31st December 2023.

Although the use of mercury in gold processing has seen a reduction and replacement by the use of Borax, the artisanal mining sites were still grappling with the continued use of toxic chemicals (cyanide, mercury), environmental degradation, use of child labour and low enrollment in schools was often registered around the mining areas. The ASMs lacked basic mining equipment due to their low financial capacity thus leading to low mineral production and unsafe working conditions. Additionally, the mineral production was further hampered by poor infrastructural development at the mining sites with most areas not having access to electricity which is required for the operation of machinery. Formalization of all ASMs in the country will thus enable the Government to tackle the above obstacles by providing training and financial support to improve artisanal mining activities.

3.2.4 Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions.

The intervention aims at issuing mining licenses and inspecting and monitoring mining areas to ensure that they are operated under safe working conditions. The planned outputs were; mining rights and licenses inspected and issued; and enforcement and awareness campaigns undertaken to ensure safe working conditions of miners.

The annual outputs for this FY 2023/24 are:

- i) 80% of mineral prospecting and exploration, mining, and mineral trade rights monitored.
- ii) Review of mineral licenses, due diligence on mineral rights undertaken and non-compliance notices issued.
- iii) Stakeholders sensitized on licensing requirements.

Performance

The performance was good at 73.5%. Overall, 41% (164) of the planned 50% of the mineral prospecting, exploration, mining and mineral trade rights were monitored. A total of 174 mineral license applications were reviewed and concluded thus meeting the semi-annual target of 100 licenses. The MEMD also reviewed and granted two applications for mineral beneficiation licenses namely; one Goldsmith License and one Mineral Smelting License to promote mineral value addition.

The NTR from the licenses issued and the royalty payments arising from the mining activities was Ug shs 10.34bn (172% of the semi-annual target). Due diligence on 43 of the planned 50 mineral dealer's licence applications was also conducted. In line with this, 122 non-compliance notices were issued. However, only three (10% of target) surface rights verifications were conducted due to limited funds for the activity.

To promote licensing and safety, a total of 450 stakeholders and 130 license holders were sensitized on licensing requirements in the various mining areas across the country and the MEMD continued monthly compilation of mineral statistics and quarterly dissemination to the public.

Although mineral licenses were issued for different minerals in the country and some applications for mineral value addition were granted, the MEMD could not accurately ascertain the quantity of minerals mined because of a lack of independent weigh stations. The newly acquired weigh bridges had not yet been installed.

3.2.5 Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement

The intervention targets the maintenance of specialized machinery and mineral information systems as well as building the technical capacity of staff to undertake effective sample analysis and monitoring of mining sites to promote mineral inspection, regulation and enforcement. This in turn is meant to boost mineral exploration.

The annual outputs for this FY 2023/24 are:

- i) Installation of weighbridges within the mining areas.
- ii) Mineral information systems maintained and staff trained in mineral skills.
- iii) Specialized equipment and consumables for mineral and geothermal exploration procured.
- iv) Mineral staff recruited.

Performance

The performance of the intervention was fair at 64.1%.

Installation of weighbridges within mining areas

To accurately track mined mineral quantities, the MEMD plans to install six weighbridges in the mineral-producing regions. The sites for installation of these weighbridges were identified and assessed at Buyaga Parish, Sironko; Olilim Parish, Katakwi and Lorengechora Parish, Napak District. The geotechnical investigations were also undertaken by the Ministry of Works and Transport (MoWT). However, the installation had not begun, awaiting approval of weighbridge designs from MoWT. Additional 12 sites for earmarked areas with bulky minerals such as limestone for weighbridge locations were also identified and negotiations with the land owners and occupants were ongoing.

Development of Mineral Information Systems and staff training

The maintenance of the different systems that included: The Geological and Mineral Information System (GMIS) and National Mining Cadastre and Registry System (MCRS) to quicken the licensing process continued. The procurements of ICT equipment (laptops and desktops) for the system's operation were at the contract award stage. Other procurements aimed at designing additional systems progressed slowly. For example, the respective procurements of consultants to undertake designs for the mineral statistics databank and the E-government mineral production and statistics system had not been concluded and the Terms of Reference (ToRs) had been developed. Likewise, the procurement of the Datamine and Vulcan software was in the initial stages with the ToRs developed.

To boost capacity to undertake mineral activities, a total of 11 staff were trained in geothermal development in reservoir engineering, exploration geophysics, and earth resources engineering specialized areas as well as in geothermal power utilisation. One additional staff enrolled for a PhD study in Mining and Minerals Engineering in the United Kingdom.

Maintenance and Acquisition of Specialised Machinery

The output to ensure efficient operation of equipment for mineral sample analysis. The maintenance and testing of geophysical equipment such as magnetometers, gravimeters, XRF, Radonmeter and MT sets among others was undertaken. The procurement of several laboratory consumables was initiated. These included; reagents, heating elements for the high-temperature muffle furnace, spare parts and accessories for the fume hoods and Esco oven.

Recruitment of Mineral Staff

The recruitment process for 30 mineral inspectors and six project administration staff was initiated and was awaiting a no objection from the Public Service Commission. This will boost monitoring activities and regulation in the sector.

3.2.6 Review of the Mining Act 2003 and develop other relevant laws and regulations

The intervention addresses the gaps in the Mining Act 2003 by enacting a bill seeking to promote transparency of mining operations aimed at transforming artisanal small-scale mining in Uganda to create an enabling environment for attracting investments among others. The act therefore targets introducing artisanal mining permits and small-scale mining licenses to impact the livelihood of ASMs and the Ugandan population that benefits indirectly from the sector.

The annual outputs for FY 2023/24 are:

- i) Two regulations to enforce the Mining and Minerals Act 2022 developed.
- ii) Mineral code system for Uganda developed.

Performance

The semi-annual performance was poor at 48.8%. Consultations on the regulations and mining legislation were conducted through a national workshop in mining. This led to the commencement of the ASM regulations as well as the zoning of areas for ASM mining. Following this, the final draft of the Building Substances Bill was under Parliamentary review. In addition, a training workshop on African Mineral and Energy Classification (AMREC) was conducted aimed at developing a mineral code system.

The operationalization of the act is envisaged to accelerate the formalization of artisanal mining, improve mining and mineral administration and business processes, ensure efficient collection and management of mineral revenues, promote value addition to minerals and increase mineral trade. It will therefore greatly contribute to the programme objectives of; increased investment in mining and value addition and expanded mineral-based processing and marketing. The delay in development of the regulations to operationalize the Mineral and Mining Act 2022 was therefore hampering support to the ASMs.

3.2.7 Establish and strengthen earthquake, landslides and other geohazard monitoring systems

The intervention aims at developing and putting in place measures to avoid the destruction of life and property due to geohazards. The output was measured to avoid the destruction of life and property due to geohazards in place through the management and maintenance of geohazard infrastructure.

The annual outputs for FY 2023/24 are: Earthquake data centers monitored and maintained, earthquake analysts trained and data disseminated to end users

Performance

The performance was good at 77.1%. The MEMD continued with the collection, analysis and interpretation of earthquake data using the seismic stations at Entebbe, Hoima, Nakawuka (Wakiso), Kilembe (Kasese) and Kyahi (Mbarara). A total of 37 seismic events were registered on three of the seismic stations. Additionally, 19 passive seismic stations installed in the Albertine Graben were maintained through the cooperation agreement between the MEMD and the Virginia Polytechnic and State University USA aimed at conducting geoscientific research in the Western Arm of the East African Rift System. The performance of the Mineral Development Programme is given in Table 3.2.

Table 3.2: Performance of Mineral Development Programme at 31st December 2023

Intervention	Output	Annual Budget (Ug shs bn)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	Remarks
Undertake a detailed exploration and quantification of minerals and geothermal resources in the country	Geological, geochemical and geophysical surveys over mineral targets conducted Mineral targets identified, mineralization models developed and drilling plan designed Gold mining, Rare Earth Elements project and Kilembe mines revamping undertaken	7.830	49.4	70.4	100	30.0	60.7	Fair performance
	Karamoja Airborne Survey completed	19.829	8.3	88.2	20	1.2	71.9	Good performance
	Geothermal Exploration undertaken	4.908	51.2	48.4	100	30.0	58.6	Fair performance
Establish and equip a dedicated exploration unit, with access to functional laboratories	Mineral beneficiation centers in Ntungamo and Fort Portal equipped 16 mineral	2.380	36.9	0.6	100	20.0	54.2	Fair performance

Intervention	Output	Annual Budget (Ug shs bn)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	Remarks
	beneficiation staff recruited							
Organize, formalize and regulate the artisanal and small-scale miners	5,000 ASMs sensitized. PPEs procured for 20 staff. 8,000 ASMs biometrically registered 1,000 miners and mineral license holders sensitized	2.543	42.5	72.4	100	19.0	44.7	Poor performance
Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions.	80% of mineral prospecting, and exploration licenses monitored 200 mineral licenses reviewed and due diligence on 100 mineral rights undertaken 50 surface right verifications on mining license applications undertaken	3.408	36.7	79.1	100	27.0	73.5	Good performance
Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement	Land for weighbridges and additional regional centres acquired 4 weighbridge operators recruited 30 mine inspectors, 6 project administration staff and 20 drivers recruited Designs for Mineral systems and software completed	12.560	5.5	8.1	100	2.5	45.7	Poor performance

Intervention	Output	Annual Budget (Ug shs bn)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	Remarks
	Maintenance and calibration of mineral exploration equipment and software Training in mineral techniques and systems held 20 staff trained in mineral skills	1.693	49.0	54.5	100	35.0	71.4	Good performance
	20 Desktop computers and 20 laptop computers procured	0.588	46.6	73.4	100	35.0	75.1	Good performance
Review of the Mining Act 2003 and develop other relevant laws and regulations	Develop one mineral code system for Uganda	0.138	50.8	100.0	100	26.0	51.2	Fair performance
	Two regulations to enforce the Mining and Minerals Act 2022 developed	0.100	45.3	-	100	21.0	46.3	Fair performance
Establish and strengthen earthquake, landslides and other geohazard monitoring systems	Monitor earthquakes and maintenance of earthquake monitoring infrastructure Training of analysts and dissemination of data to end users	0.152	58.4	95.1	100	45.0	77.1	Fair performance
	Total	56.128	23.6	60.7				
Average Outputs Performance							60.9	Overall performance

Source: MEMD Q4 Reports, Field Findings

Challenges

- i) The mining industry continues to be dominated by artisanal miners whose production levels are low, often under unsafe working conditions due to the use of rudimentary methods.

- ii) Low staffing in the Mineral Development Programme affected the ability to undertake activities such as the operation of regional centres, training and inspection which are required to better regulate the sector and undertake further minerals exploration.
- iii) The acquisition of key equipment for mineral sample analysis and mineral systems development was hampered by delayed procurement processes.

Recommendations

- i) With the enactment of the Minerals and Mining law, the Government should focus on attracting large-scale mining companies so that there is increased investment in the sector. This will create more jobs and also increase the revenue from the mining sector.
- ii) The MEMD should fast-track the regulations for operationalization of the Mining and Minerals Act 2022 to enable better regulation of artisanal mining activities.
- iii) The MEMD should fast-track the recruitment process, and key procurements and also prioritize funding to the key sub-programme activities to realize the full potential for the country to generate more revenue from the mineral production.

CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Programme Conclusion

The performance of the Mineral Development Programme was fair at 60.9%. Funding for the programme has seen a slight increase over the past two years but the programme remains underfunded yet it has a lot of potential to contribute to the nation's economy. The Government undertook several interventions mainly geared towards the exploration of new mineral locations, enhancement of technical capacity in the sector and the streamlining of the activities of the artisanal miners. However, the sector is still dominated by small-scale artisanal miners with limited financial capacity in a sector that is capital-intensive. The low level of investment by the Government and the private sector continues to hold back the potential economic benefits from the sector due to the high levels of capital required to undertake value addition to the mined minerals.

The final draft regulations to operationalize the newly enacted Minerals and Mining Law which aims at allowing the Government to better organize and regulate the mining sector were under Parliamentary review. Operationalization of the law will attract the much-needed investment in value addition and processing of minerals so that more jobs can be created and revenue from the programme.

4.2 Recommendations

- i) The MEMD should further increase budget allocations for interventions under the Mineral Development Programme, especially aspects of exploration and tooling so that the potential of the minerals sector can be fully harnessed.
- ii) The Government should attract more high-quality investment in the sector that will see enhanced value addition thus creating more direct and indirect employment opportunities.

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1. Ministry of Energy and Mineral Development (2023), Ministerial Policy Statement, Vote; 017.
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