



Mineral Development Programme

Annual Budget Monitoring Report

Financial Year 2022/23

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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

With a strategic focus on the theme for Financial Year 2022/23, “Full Monetization of the Ugandan Economy through Commercial Agriculture, Industrialization, Expanding and Broadening Services, Digital Transformation and Market Access,” the Government of Uganda has focused on the allocation of resources to strategic interventions which reflect a strong drive and dedication towards sustainable economic growth for the people of Uganda.

The findings from this year’s annual monitoring exercise reveal commendable strides in the programme operations, however, the challenges we face in the pursuit of economic transformation are evident. Limited resources demand service delivery efficiency, thus the urgent need for strategic reforms if we are to reap the development dividends of our investments.

A recent project review in some programmes revealed ineffective usage of loans and counterpart funding. This raises concerns about potential funding losses and increased costs. I urge all the implementing agencies to ensure that adjustments in planning, financial monitoring and analysis, coupled with prudent management are undertaken immediately. Let us seize this moment to build a more prosperous and sustainable Uganda for generations to come.



Ramathan Ggoobi

Permanent Secretary/Secretary to the Treasury

EXECUTIVE SUMMARY

The overall performance of the Mineral Development Programme for the Financial Year (FY) 2022/23 was fair at 65.4%. The major highlight during the FY was the enactment of the Minerals and Mining Bill into law. The Bill 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. The regulations to operationalize the new law were drafted and submitted to the Ministry of Justice and Constitutional Affairs.

Another major highlight was the completion of the two mineral beneficiation regional centres in Fort Portal and Ntungamo districts. However, the centres were not yet equipped due to insufficient funding. The Ministry of Energy and Mineral Development (MEMD) should prioritize the allocation of funding for equipping and staffing the resource centres so that they can be operationalized. Additionally, land for the centres in Busia and Gulu districts was acquired and titling was ongoing.

During the FY, 209 Mineral Rights and Licenses were granted. A total of 230 exploration licenses and 100 mining licenses at 298 sites were inspected and monitored. Non-tax revenue (NTR) of Ug shs 11.37 billion (bn) was realized during the period from the licensing and the royalty payments arising from the mining activities.

The biometric registration of the artisanal miners finally commenced during the FY and 7,039 miners were registered in the mining areas of Kassanda, Busia, Namayingo and Buhweju. Of the registered miners, 3,887 were male and 3,152 females, but progress was slow due to poor funding which affected the procurement of additional biometric information equipment kits.

There was good progress under the Karamoja Airborne Survey Project with 80% of all the planned outputs achieved. The magnetic, radiometric and gravity mapping was completed over Karamoja and Lamwo, and the pending work included undertaking the electromagnetic exploration for conductive minerals and a geochemical survey for some of the zones in the survey area. The progress was significantly affected by the insecurity in the sub-region that led to the suspension of works for more than three months.

Exploration of some mineral potential sites was undertaken. Notable among these were the 10 iron ore prospects which were appraised and selected for drilling in South Western Uganda. The drilling was delayed because compensation for the affected communities had not been completed. The pitting and sampling at the Boma uranium prospect were undertaken with five (5) pits dug, logged and sampled to test for uranium mineralization.

Challenges

1. Low funding to the Mineral Development Programme is affecting the ability to undertake 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.
2. The mining industry continues to be dominated by artisanal miners whose production levels are low due to most of their operations being manually undertaken and the use of rudimentary techniques for mining.

Recommendations

1. The MEMD should prioritize funding to the Mineral Development Programme so that the country's mineral potential can be fully harnessed. There is a need to adequately equip, train and facilitate the staff working under the programme.
2. 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.

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, 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 annual monitoring of selected interventions under the Mineral Development Programme for the budget execution period from 1st July 2022 to 30th June 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:

1. Increase exploration and quantification of priority minerals and geothermal resources across the country;
2. Increase adoption and use of appropriate and affordable technology along the value chain;
3. Increase investment in mining and value addition; and
4. Expand mineral-based processing and marketing.
5. 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), Ministry of Trade and Industry (MoTIC), 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 FY 2022/23.

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.

A total of nine (9) were reviewed. The monitored interventions translated into 96.3% coverage of the approved budget for FY2022/23.

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

1. Significant contribution to the programme objectives and national priorities.
2. Levels of investment and interventions that had a large volume of funds allocated were prioritized.
3. 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.
4. Completed projects to assess beneficiary satisfaction and value for money.

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 2022/23; National and Programme Budget Framework Papers; A handbook for implementation of NDPIII Gender and Equity Commitments, 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, policy documents, Aide Memoires and Evaluation Reports for selected programmes/projects.
- 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 Limitations

1. Limited credible outcome performance data in the programme institutions; and the analysis was done at the output level.
2. 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 Ug shs 31.79 billion (bn). Overall, the release was fair at 67.5% (Ug shs 21.45bn) and absorption was very good at 99.3% (Ug shs 21.30bn). The programme was affected by delayed procurements and inadequate release of Government of Uganda (GoU) funds which constrained the progress of some key activities during the FY.

Physical Performance

The programme performance was fair at 65.4%. One key achievement was the enactment of the Mining and Minerals Act 2022, on 13th October 2022. To support the artisanal miners, the development of regulations to operationalize the new Mining and Minerals Act was ongoing.

Also, during the FY, the completion of works on the two mineral beneficiation centres in Fort Portal, Kabarole and Rwengoma, Ntungamo districts was finally achieved. The centres were however not yet operational as they lacked equipment and staffing.

The Karamoja Airborne Survey also progressed to 80% but performance was affected by the suspension of works as a result of insecurity in the region. The collection of radiometric and magnetic data for Karamoja and Lamwo was completed. The collected data was processed and interpreted and targets were generated for further geological investigation. The installation of the newly acquired weigh bridges in the Karamoja region however did not progress pending approval of designs by the Ministry of Works and Transport (MoWT).

The registration of artisanal miners also commenced with 7,039 registered. More extensive registration would have been undertaken if it had not been for the low funding which prevented the procurement of additional biometric registration equipment.

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 2022/23 under the sub-programme that were monitored were:

- i. Establishment and equip a dedicated exploration unit, with access to functional laboratories
- ii. Undertake a detailed exploration and quantification of minerals and geothermal
- iii. Establishment and equip a dedicated exploration unit, with access to functional laboratories
- iv. Organize, formalize and regulate the artisanal and small-scale miners
- v. Review of the Mining Act 2003 and develop other relevant laws and regulations
- vi. Domesticating appropriate regional and international treaties, conventions, agreements, and protocols which support good governance in the mining industry

- vii. Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement
- viii. Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions.
- ix. Strengthen monitoring and inspection of mining operations to minimize negative social and environmental impacts
- x. Establish and strengthen earthquake, landslides and other geo-hazard monitoring systems.

Performance of the interventions

The overall performance of the outputs for the interventions was fair at 65.4%. Of the nine monitored interventions, three (03) had good performance, four (04) performed fairly, and two (02) had poor performance. Good performance was noted in policy formulation where the Mining and Mineral Bill 2021 was enacted into law, while exploration of mineral and geothermal reserves was fair as constrained by delayed procurements. Poor performance was noted in delays to operationalise the completed mineral centres and installation of the weighbridges acquired in FY 2021/22 in the Eastern region to ascertain the quantity of mined minerals. Table 3.1 lives the highlights of performance per intervention.

Table 3.1: Performance of the Mineral Exploration, Development and Value Addition Sub-programme as of 30th June 2023

No.	Intervention	Performance Rating	Remarks
i	Establishment and equip a dedicated exploration unit, with access to functional laboratories		Poor performance at 47.1%. Regional centres in Ntungamo and Fort Portal were completed but were not yet operationalised.
ii	Undertake a detailed exploration and quantification of minerals and geothermal Establishment and equip a dedicated exploration unit, with access to functional laboratories		Good Performance at 72.0%. Mineral reserves in iron ore were established and evaluation of gold, uranium, and Rea Earth Elements was undertaken. The airborne survey of Karamoja was at 80%.
iii	Review of the Mining Act 2003 and develop other relevant laws and regulations		Good performance at 81.7%. Mining and Minerals Law 2022 was enacted and operationalization of the act was ongoing.
iv	Organize, formalize and regulate the artisanal and small-scale miners		Fair performance at 68.6%. Biometric registration commenced with 7,039 ASMs registered.
v	Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions		Fair performance at 69.2%. A total of 209 mineral rights and licenses were granted and 230 exploration licenses and 100 mining licenses at 298 sites were inspected and monitored.
vi	Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement		Fair performance at 56.6%. Minerals systems were maintained. Weighbridges were not yet installed. Some laboratory equipment was yet to be delivered.
vii	Domesticate appropriate regional and international treaties, conventions, agreements, and		Good performance at 81.7%. Gazetted the International Conference on the Great Lakes Region (ICGRL) Regulations to mitigate against illegal exploitation of Natural resources.

No.	Intervention	Performance Rating	Remarks
	protocols which support good governance in the mining industry		
viii	Strengthen monitoring and inspection of mining operations to minimize negative social and environmental impacts		Poor performance at 48.9%. Some personal protective equipment (PPEs) were procured but the technical standards on Health, Safety and Environment (HSE) were not developed.
ix	Establish and strengthen earthquake, landslides and other geo-hazard monitoring systems		Fair performance. Data collection, analysis and interpretation of earthquake data using the seismic stations and geoscientific research in the Western Arm of the East African Rift System were undertaken.
	Overall Intervention Output Performance		Fair performance at 65.4%

Source: Author's Compilation

3.2.1 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 to quicken sample analysis.

The outputs for FY 2022/23 were: the completion and operationalization of the beneficiation centres in Ntungamo and Fort Portal, and 12 plots of land for the Directorate of Geological Survey and Mines (DGSM) titled.

Performance

The performance of the intervention was poor at 47.1% with most targets not achieved.

Construction of Mineral Beneficiation Centres

The construction of mineral beneficiation centres in Rwengoma, Ntungamo and Fort Portal City to decentralize and quicken the mineral sample analysis continued well during the FY. The building construction works for both centres that commenced in FY 2019/20 were completed pending minor road works. The Ntungamo Centre was handed over to MEMD in February 2023, the Fort Portal Center was yet to be handed over. The scope of construction at the Ntungamo Centre included: senior staff quarters, a canteen, a multi-purpose hall, male and female dormitories, and plant and office blocks.



L-R: The completed but not yet fully equipped plant house; and a view of the completed staff quarters at Rwengoma, Ntungamo District

Specifications for some of the equipment to be installed at the centres were being developed. Procurement of some of the equipment to operationalize the centres was initiated but not concluded in the FY due to inadequate funds. In the same breath, no recruitment of staff was undertaken. The MEMD should fast-track the development of specifications for the centres. The MEMD in partnership with MFPED should also hasten the equipping of these centres so that they can be operationalized.

In preparation for the construction of other regional centres, land in Busia and Gulu was acquired. Titling of Busia and Gulu was in the advanced stages at the Tororo and Gulu land offices respectively. Additionally, the titling of the Entebbe land accommodating the DGSM offices was ongoing with documents yet to be submitted to the Area Land Committee.

3.2.2 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 was mineral and geothermal reserves established in the country through the completion of the Karamoja Aerial Survey and the acquisition of geological data for geothermal areas in Kibiro, Buranga and Panyimur.

Performance

The performance was good at 72.0%. The extent of achievement of the outputs is described hereafter.

Establishment of Mineral Reserves

Under this output, the targets were:

- Complete the Karamoja Airborne Survey
- Two iron ore mineral targets drilled and appraised
- Investment in the mineral sector promoted
- One modelling software procured

Airborne Geophysical Survey and Geological Mapping of Karamoja

The Karamoja Airborne Survey Project (1542) 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 geological and geochemical mapping.

The annual target was the completion of phases two and three of the project. 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 225,000 kms was completed. Additionally, phase two for the magnetic, radiometric and gravity surveys for explored areas in phase one with a line spacing of 100 meters covering 90,000 total line kms was also completed after being behind schedule by 6 months. The Karamoja gravity, magnetic and radiometric maps for high-density minerals (gold), conductive minerals (copper) and radioactive minerals (Uranium) were generated respectively.

Phase three for the geological and geochemical activities however registered slow progress due to insecurity in the region which resulted in a three-month suspension of works. The survey remains behind schedule with phase three geochemical and geological activities and electromagnetic surveys pending.

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.

Iron ore mineral targets appraised and drilled

The MEMD embarked on the development of the iron resources explored in the South Western region. A total of 10 iron ore prospects were mapped, appraised and selected for drilling in collaboration with the European Union (EU) which has earmarked Euros 796,000 for the evaluation and feasibility study. The selected prospects in the different South Western districts were: Kihumuro, Rukaranga, Rugando and Kijuguta in Kabale; Karukara and Nyamiringa in Rubanda; Kamena and Kyanyamuzinda in Kisoro; Katagata and Rwengongo in Rukiga.

The detailed mapping of seven (7) of the ten iron sites for drilling was undertaken and appraisal reports were produced. Sensitization, surveying and evaluation of Right of Way (RoW) to drilling sites to determine and effect compensation on the affected persons was also completed but the RAP evaluation report was yet to be produced. There is a need to complete the compensation of affected persons so that the drilling can commence to ascertain the detailed iron ore potential in these areas.

For other regions, the exploration of resources for Rare Earth Elements (REE) in Eastern Uganda in Makuutu, Iganga District was ongoing. The exploration of silica sand in the Central region in Kyanamukaka and Kyesiga sub-counties in Masaka was also carried out. The DGSM also continued exploration of uranium, gold, phosphates, 3Ts (Tin, Tungsten, Tantalum), copper, Nickel, and Wolfram among others in other parts of the country. The MEMD was also in search of potential partners for the development of Kilembe mines for the exploration of copper and cobalt ore and evaluated expressions of interest from investors.

Promotion of Investment in the sector

The promotion of explored mineral potential continued. The MEMD engaged local and foreign prospective partners on investment opportunities in the sector. Information on iron ore was shared with Roofings, Tembo Steel, Steel and Tube Companies while data on gold, Rare Earth Elements (REE), uranium, tantalite, tungsten and lithium deposits was provided to prospective partners from Italy, United Arab Emirates (UAE), Australia and China. However, no financing for mineral infrastructure development had been secured in the FY.

Development of Modelling software

The software specifications were developed, and procurement of software was initiated but had not been concluded due to funding gaps. The software will construct realistic and accurate representations of the ore deposits.

a) Establishment of Geothermal Potential

The output targeted the drilling of Temperature Gradient Holes (TGH) at Kibiro and Panyimur, undertaking the Environmental and Social Impact Assessment (ESIA) for drilling exploration at Kibiro, Hoima and Panyimur, Pakwach.

During the FY, Some of the TGH in Panyimur were also drilled by MEMD. Further drilling was hampered by a delay in procuring a drilling services contractor for the geothermal project and the contract was awaiting Solicitor General approval. For the drilled wells, temperature measurement was not undertaken pending the conclusion of procurement for the temperature gradient hole logging tool. The procurement process was concluded in Quarter Four (Q4) and the tool was yet to be delivered by the supplier. Additionally, two more geothermal areas were discovered in Amuru District at Okidi and Elegu.

To develop the Panyimur geothermal prospect more fully, the MEMD received a grant contract from the African Union Commission for drilling 4 TGHs, updating the conceptual model and locating deep exploration wells. To that effect, the procurement of a consultant to carry out the ESIA for the proposed geothermal deep exploration was ongoing at contract signature.

Reconnaissance surveys for the geothermal potential in Midwestern were undertaken to explore the direct uses of geothermal energy in electricity production.

3.2.3 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 bill 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 output for the FY 2022/23 was the Mining and Minerals Bill 2021 enacted and the act popularized to mining stakeholders.

Performance

The performance was good. The Mining and Minerals Bill 2021 was enacted into law in October 2022 to guide and enhance mineral certification mechanisms, value addition, and mineral revenue management and accelerate the formalization of artisanal miners. The

regulations to operationalize the new law were drafted and submitted to the Ministry of Justice and Constitutional Affairs. Gazetting of the law was ongoing.

The act focuses on providing a robust, predictable and transparent legal regime, improving mining and mineral administration and business processes, ensuring efficient collection and management of mineral revenues, promoting value addition to minerals and increasing mineral trade. It is envisaged that will greatly contribute to the programme objectives of; increased investment in mining and value addition and expanded mineral-based processing and marketing.

The Mining and Minerals Act 2022 was popularized to mining stakeholders at the Mineral Wealth Conference in Munyonyo and the Energy and Minerals Week in Kampala. The mineral rights holders (102), miners, communities and Local Governments in areas with most ASMs in Busia, Kabale and Rubanda were also sensitized on the impact of the act on mining operations.

3.2.4 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 was the formalization and regulation of artisanal miner groups through sensitization and registration with a target of procuring ten sets of biometric registration and registering 6,000 ASMs.

Performance

The performance was fair at 68.6%. With the enactment of the Mining and Minerals Bill 2021, the demarcation of ASM mining sites was commenced. The process to sensitize and formalize the artisanal miners also continued in mining communities in the financial year. Sensitization of 1,640 out of the targeted 3,000 artisanal miners was undertaken.

The procurement of some biometric equipment was finalized. Procuring of additional equipment was not undertaken due to inadequate funds. The biometric registration of ASMs commenced at the various gold mining sites in Busia and Kassanda but with slow progress and a total of 7,039 (3,887 males and 3,152 females), ASMs were registered. Overall, a cumulative total of over 8,000 ASMs were sensitized, trained and organized into associations over the previous financial years awaiting commenced biometric registration. The formalization of all ASMs in the country will enable the Government to provide financial support to improve artisanal mining activities. The mapping and gazetting of suitable ASM sites was undertaken in Kassanda, Busia, Buhweju, and Karamoja. Other activities such as the establishment of a pilot demonstration site for artisanal miners due to constrained funding.

Although the use of mercury in gold processing was being replaced by the use of Borax, the artisanal mining sites were still grappling with the use of toxic chemicals (cyanide, mercury), environmental degradation, use of child labour and low enrollment in schools was often registered around the mining areas. It was also observed, that the ASMs lacked basic mining equipment due to their low financial capacity thus leading to low mineral production and unsafe working conditions. More enforcement by MEMD, NEMA and the Ministry of Gender, Labour and Social Development to ensure the mining activities comply with the environmental, health, safety and labour regulations.

3.2.5 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.

Performance

The performance was fair at 69.2%. A total of 209 mineral rights and licenses were granted. Of these, 4 were Exploration Licenses, 103 Prospecting Licenses, 76 Mineral Dealer's Licenses, one (1) Location License and 23 Goldsmith Licenses. The NTR from the licenses issued and the royalty payments arising from the mining activities was Ug shs 11.37 billion. A total of 230 exploration licenses and 100 mining licenses at 298 sites were inspected and monitored. The DGSM also carried out inspections to certify Tin, Tantalum, Tungsten and Gold (3TG) mine sites in Western, Southwestern, Eastern, Northern and Central Regions.

As a means of enforcement to ensure compliance, 292 non-performance notices were issued to license holders. Although mineral licenses were issued for different minerals in the country and production was ongoing by the different companies, the MEMD could not accurately ascertain the quantity of minerals mined because of a lack of independent weigh stations. MEMD had procured six (6) weigh bridges which were not yet installed pending approval of designs from MoWT. The mineral production was also being 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.

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

The intervention aims at the maintenance of specialized mineral testing machinery, and mineral information systems and building capacity of DGSM staff to undertake effective monitoring of mining sites to promote mineral inspection, regulation and enforcement. This in turn is meant to boost mineral exploration.

The outputs for FY 2022/23 were:

- Capacity of new staff built
- Mining Cadastre and Registry System (MRCS) maintained and updated
- Specialized equipment and consumables for geothermal exploration and minerals equipment procured
- Installation of weighbridges

Performance

The performance was fair at 56.6%. To build technical capacity in geothermal and mineral skills, a total of 46 staff (92% of target) were trained in specialized geothermal development areas, classification and valuation of mineral resources and use of mineral systems and equipment.

The MRCS, an e-government-based mineral licensing system aimed at hastening the licensing process was updated and maintained and monthly mineral statistics were disseminated.

To equip the DGSM, the procurement of geothermal laboratory downhole temperature gradient equipment and field compact analyzer with simultaneous detection of more than one element was concluded awaiting delivery by the supplier.

Several key equipment and laboratory accessories were acquired including the new mineral rig to aid mineral exploration and analysis. The rig was assembled and successfully tested in Kasampawo Village, Kassanda District. The rig had however not been used for field drilling activities due to funding constraints which prevented its field deployment.

The minerals data collection and traceability equipment (GPS, Camera) were also acquired and user training for the new equipment was undertaken for the DGSM staff.



The new mineral drilling rig at the DGSM offices in Entebbe

The installation of the dust extract and chemical venting system installation was also undertaken in the laboratory. Other remaining equipment such as fire assay, consumables and laboratory gases (argon, acetylene, helium, oxygen, and nitrous oxide) were also delivered.

The sites for installation of the acquired six weighbridges to determine the quantity of minerals mined were assessed at Buyaga Parish, Sironko; Olilim Parish, Katakwi and Lorengechora Parish, Napak District. The geotechnical investigations were undertaken by the Ministry of Works and Transport (MoWT) for two sites in Sironko and Katakwi. However, installation had not begun awaiting approval of weigh bridge designs from MoWT. The DGSM needs to engage MoWT to expedite the approval of weighbridge designs so that construction works can commence. The completion of the weigh bridge stations will boost accurate tracking of the quantity of mineral production.

3.2.7 Domesticate appropriate regional and international treaties, conventions, agreements and protocols

The intervention aims at good governance and best practices promoted in the country's mining sub-sector. The output was the International Conference on the Great Lakes Region (ICGLR) regulations formulated.

The performance was good. To promote good governance and regional stability in the mining sector, the regional member states¹ in the Great Lakes Region set up the ICGLR regional certification mechanism in the fight against illegal exploitation of natural resources for the 3TGs (Tin, Tungsten, Tantalum and Gold) through issuing certificates, audit mining companies and mineral exporters. The regulations to enable the implementation of the ICGLR Regional

¹ Angola, Burundi, Central African Republic, Republic of Congo, Democratic Republic of Congo, Kenya, Uganda, Rwanda, Republic of South Sudan, Sudan, Tanzania and Zambia.

Certification Mechanism were gazetted in collaboration with the German Federal Institute for Geosciences and Natural Resources (BGR) and GIZ. The regulations were forwarded to Uganda Printing and Publishing Corporation (UPPC) for gazetting.

3.2.8 Strengthen monitoring and inspection of mining operations

Under the intervention, standards on Health, Safety and Environment (HSE) are developed to ensure that the mining activities minimize the degradation of the environment while ensuring the safety of miners. The planned output was the provision of safety equipment to miners and technical standards on HSE developed.

Performance

The performance was poor. A total of 180 (102 males and 78 females) miners were trained on the best Occupational Health Safety and Environment (OSHE) and a set of personal protective equipment (helmet, suit/overall, safety boot, mask with filters, ear muffin, hat, and cap) were procured for 26 staff. However, awareness campaigns to develop the HSE technical standards were not held due to a lack of funds as a result of low prioritization.

3.2.9 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 outputs targeted data acquisition at the seismological stations and establishing an infrasound station in Entebbe.

Performance

The performance was fair. The DGSM continued with the collection, analysis and interpretation of earthquake data using the seismic stations at Entebbe, Hoima, Nakawuka (Wakiso), Kilembe (Kasese) and Kyahi (Mbarara). The MEMD signed a contract between the Ministry and ACE Consults Limited for seismic remote data collection, transmission, and analysis. The online data acquisition system from the remote station located in Hoima and Kilembe was restored. Since the rift valley is prone to earthquakes, the Geoscientific research in the Western Arm of the East African Rift System was also conducted and Phase II MT data acquisition in the Albertine Graben was completed.

The performance of the mineral development programme is given in table 3.2 below.

Table 3.2: Performance of Mineral Development Programme at 30th June 2023

Intervention	Output	Annual Budget (Ug shs billion)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)
Establish and equip a dedicated exploration unit, with access to functional laboratories	Beneficiation Center in Fort Portal and Ntungamo equipped to 50% 8 staff (4 per centre) recruited and equipped	2.960	48.8	98.6	100	23.0	47.1

Intervention	Output	Annual Budget (Ug shs billion)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)
	12 DGSMS Plots of land titled						
Undertake a detailed exploration and quantification of minerals and geothermal resources in the country	1. Two iron ore mineral targets appraised 2. One modelling software procured 3. 2 iron ore mineral targets drilled	3.300	52.2	98.8	100	39.0	74.6
	Karamoja Airborne survey completed	16.475	72.1	100.2	100	54.0	74.9
	Temperature Gradient Holes Drilled in Kibiro and Panyimur and ESIA undertaken	3.145	59.3	100.2	100	39.5	66.6
Review of the Mining Act 2003 and develop other relevant laws and regulations	Mining and Minerals Bill enacted, Mining and Minerals regulations developed and act popularised to the mining stakeholders International Conference on the Great Lakes Region (ICGLR) regulations formulated.	0.674	64.9	96.3	100	53.0	81.7
Domesticate appropriate regional and international treaties, agreements and protocols							
Organize, formalize and regulate the artisanal and small-scale miners	1. 6,000 ASMs formalised 2. 10 sets of biometric registration equipment acquired 3. Suitable ASM sites mapped and demarcated in all four regions of Uganda 4. 1 pilot demonstration site established in Western or Eastern Uganda	1.274	66.3	94.8	100	45.5	68.6

Intervention	Output	Annual Budget (Ug shs billion)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)
Strengthen capacity to monitor, inspect and enforce health, safety and environmental provisions	1. Exploration and mining activities and mineral trade monitored 2. International collaborations and best practices maintained through payment of annual subscriptions 3. Enforcement and compliance	1.071	65.0	96.1	100	45.0	69.2
Strengthen the capacity to undertake mineral certification, trading, testing, inspection, regulation and enforcement	50 staff trained in mineral classification Investment in the mineral sector promoted Data collection and Traceability equipment procured	0.794	65.3	95.8	100	37.0	56.6
Strengthen monitoring and inspection of mining operations	Technical standards on HSE developed	0.157	61.3	100.2	100	30.0	48.9
	Total	29.850	65.4	99.4			
Average Outputs Performance						65.4	

Source: MEMD Q4 Reports, Field Findings

Challenges

1. The low funding restricted the ability of the Mines Directorate to regulate and monitor mining activities. The budget release stood at 65.4%. Most of the mining locations are still experiencing issues of environmental degradation and child labour.
2. 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.

Recommendations

1. The MEMD should prioritize funding to the key sub-programme activities to realize the full potential for the country to generate more revenue from the minerals is very high.
2. The MEMD should fast-track the regulations for operationalization of the Mining and Minerals Act 2022 to enable better regulation of artisanal mining activities.

CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Programme Conclusion

The performance of the Mineral Development Programme was fair at 65.4 %. The programme although under-prioritized in terms of funding has a lot of potential to contribute to the nation's economy. The sector is still dominated by small-scale artisanal miners who have limited financial capacity in a sector that is capital-intensive. The low level of investment by the Government, and the minimal value addition of mined minerals by the private sector continue to hold back the potential economic benefits from the sector.

The Government is making slow progress and has undertaken some 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. Also, the new minerals and mining law allows the Government to better organize and regulate the mining sector and improve the benefits of the sector to the national economy. This 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

1. The MEMD should increase budget allocations for interventions under the Mineral Development Programme so that the potential of the minerals sector can be fully harnessed.
2. The Government should attract more investment in the sector that will see enhanced value addition thus creating more direct and indirect employment opportunities.

REFERENCES

1. Ministry of Energy and Mineral Development (2023), Ministerial Policy Statement, Vote; 017
2. Ministry of Energy and Mineral Development (2023), Quarter 1 to 4 FY 2022/23 reports
3. National Planning Authority, Third National Development Plan (NDPIII) 2020/21 – 2024/25