



MINERAL DEVELOPMENT PROGRAMME

DRAFT PROGRAM BUDGET FRAMEWORK PAPER FOR FINANCIAL YEAR 2021/22

**SUBMITTED TO THE MINISTRY OF FINANCE PLANNING
AND ECONOMIC DEVELOPMENT**

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PROGRAMME: Mineral Development

FOREWORD

The FY 2021/22 marks the second year of implementation of the third National Development Plan whose goal is “**Increased Household Incomes and Improved Quality of Life of Ugandans**”. In order to effectively achieve this goal, the Plan adopts a strategy of rapid industrialization by prioritizing key growth areas of the Economy, Minerals being part.

Basing on the objectives of the NDPIII which are;

- (i) Enhance value addition in key growth opportunities;
- (ii) Strengthen the private sector capacity to drive growth and create jobs;
- (iii) Consolidate and increase the stock and quality of productive infrastructure;
- (iv) Enhance the productivity and social wellbeing of the population; and
- (v) Strengthen the role of the state in guiding and facilitating development

The prioritization of Minerals therefore places the country at a better strategic position to achieve the following overall macro-economic key results over the medium-term;

- Increase income per Capita (USD) from 864 to 1,219
- Increasing Real GDP growth rate from 6.2% to 7.2%.
- Reduce population below poverty line from 21.4% to 18.87%

Being part of the NDP III Development Programs, the Mineral Development Program aims to increase mineral exploitation and value addition in selected resources for quality and gainful jobs in industrialization. In addition to their intrinsic and practical value as part of a manufactured product, minerals also have a significant general value to an economy from both a financial and an employment standpoint. Globally the demand for minerals is also important and is increasing. Investing in mineral development will lower the cost of production and boost the supply of locally manufactured products like cement, iron and steel, and fertilizers.

Furthermore, in the wake of the Covid-19 pandemic, it has more than ever become particularly crucial to strengthen domestic capacity in as far as production and value addition are concerned which are core concerns to be addressed in the Mineral Development Program.

Therefore, among other things, the Mineral Development Program has been tasked with achievement of the following results over the NDP III period;

- Reduce the value of imported Iron and Steel from USD 370 million to USD 96 million;
- Reduce the volume and value of imported inorganic fertilizers by 75 percent from 75,000 tonnes (USD 30 million) to 18,750 tonnes (USD 7.5 million), respectively;
- Increase volume and value of refined gold exports from USD 450 million to USD 787 million;
- Increase volume of copper produced from 0 to 2, 000 metric tonnes;
- Increase the number of trained and skilled Geoscientists from 108 to 200;
- Increase the value of investment into the exploration and processing of the selected minerals from USD 0.8 billion to USD 2 billion;
- Increase contribution of processed minerals to total manufactured exports from 5 percent to 7.1 percent;
- Increase the number of jobs created by the programme by 10 percent annually.
- Increase the per capita consumption of steel from 13.1 kg (2019) to 30 kg

This will build on the previous achievements as well as lead to undertaking of interventions that primarily support mineral based industrialization with cognizance of the wider international Development Agendas which aim to achieve sustainable and efficient use of natural resources by 2030 (SDG) as well as harness the greater benefits of local production and processing (EAC).

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ROBERT KASANDE
PERMANENT SECRETARY

Abbreviations and Acronyms

ACRONYM	ACRONYM NAME
CRMs	Certified Reference Materials
DGSM	Directorate of Geological Survey and Mines
ESIA	Environmental and Social Impact Assessment
MEMD	Ministry of Energy and Mineral Development
OPM	Office of the Prime Minister
UBOS	Uganda Bureau of Statistics
UCMP	Uganda Chamber of Mines and Petroleum
UGX	Uganda Shillings
UNDP	United Nations Development Programme
UNFC 2009	United Nations Framework Classification
USD	United States Dollars
UWA	Uganda Wildlife Authority

P1: PROGRAMME OVERVIEW

BACKGROUND

1.1 Minerals' contribution to development

1.1.1 Sector contribution to economic development

Minerals are essential for modern societies and the minerals industry has a strong potential in contributing to the achievement of the Sustainable Development Goals, i.e. contributing to a smart, sustained and decent economic growth, providing well-paid jobs and opportunities in active regions. The demand for primary minerals is expected to rise as populations and real per capita income increases in accordance with vision 2040. It is therefore important to foster the domestic production when possible and intensify the diversification of resources.

From baseline studies of development minerals in Uganda, 2018, it was established that the Operations of artisanal miners alone, have the potential of contributing over 3% of GDP if well regulated. Artisanal mining has remained largely unregulated and its contribution not accounted for, partly explaining the less than 1% contribution of the sector to GDP. From the current illegal mining in Mubende, Buhweju, Busia, Namayingo, Nakapiripirit, Amudat, Kaabong, Abim and Moroto Districts, its estimated that about 200 kgs of gold equivalent to USD 8m (current price of USD 40,000 per Kg), is being illegally mined per month (Baseline Assessment of Development Minerals in Uganda, 2018) compared to Non-Tax revenue (NTR) of USD 3.2m collected annually; The formalization of the sector therefore has the potential of increasing GDP.

Overall, due to their intrinsic value, Minerals are key in the industrialization process, value addition to an economy from both a financial, economic and employment standpoint and leveraging investments in other sectors of the economy.

GOAL AND OBJECTIVES OF THE AGRO INDUSTRIALISATION PROGRAM

The overall goal of the Mineral Development programme is to **increase the exploitation and value addition to selected resources for job rich industrialization.**

The key outcome targets to be achieved over the next five years are:

- Reduce the value of imported Iron and Steel from USD 370 million to USD 96 million;
- Reduce the volume and value of imported inorganic fertilizers by 75 percent from 75,000 tonnes (USD 30 million) to 18,750 tonnes (USD 7.5 million), respectively;
- Increase volume and value of refined gold exports from USD 450 million to USD 787 million;
- Increase volume of copper produced from 0 to 2, 000 metric tonnes;
- Increase the number of trained and skilled Geoscientists from 108 to 200;
- Increase the value of investment into the exploration and processing of the selected minerals from USD 0.8 billion to USD 2 billion;

- Increase contribution of processed minerals to total manufactured exports from 5 percent to 7.1 percent;
- Increase the number of jobs created by the programme by 10 percent annually.
- Increase the per capita consumption of steel from 13.1 kg (2019) to 30 kg

1.1.2 Investment programme objectives

Investments to achieve the above targets under the Mineral Development programme will be guided by six major objectives, namely:

- Increasing agricultural production and productivity;
- Improving post-harvest handling and storage of agricultural products;
- Increasing agro-processing and value addition;
- Increasing market access and competitiveness of agricultural products in domestic and international markets;
- Increasing the mobilisation, access and utilisation of agricultural finance;
- Strengthening agriculture sector institutional capacities for agro-industrialisation.

SNAPSHOT OF MEDIUM-TERM BUDGET ALLOCATIONS

Table P1.1 Overview of Programme Expenditure (Ush Billion)

		Approved Budget	MTEF Budget Projections				2025/26
		2020/21	2021/22	2022/23	2023/24	2024/25	
Recurrent	Wage	-	-	-	-	-	0
	Non-wage	6.22	6.22	6.22	6.22	6.22	6.22
Devt.	GoU	33.98	22.46	22.46	22.46	22.46	22.46
	Ext Fin.	38.38	51.90	0.00	0.00	0.00	0.00
GoU Total		40.21	28.68	28.68	28.68	28.68	28.68
Total GoU+Ext Fin (MTEF)		78.59	80.57	28.68	28.68	28.68	28.68
Grand Total		78.59	80.57	28.68	28.68	28.68	28.68

PROGRAMME STRATEGY AND LINKAGE TO THE NATIONAL DEVELOPMENT PLAN III: IMPORTANCE OF AGRICULTURE IN THE NDP3 RESULTS CONTEXT

NDP III Key Development Results

NDP Goal: Increase the exploitation and value addition to selected resources for job rich industrialization

Key Expected key targets	Baseline FY2017/18	NDP 3 Target FY202021-2024/25	Vision 2040 Target
• Income per Capita (USD) from 864 to 1,219	864	1,219	9,500
• Increasing Real GDP growth rate from 6.2% to 7.2%.	6.2%	7.2%	
• Reduce population below poverty line from 21.4% to 18.87%	21.4%	18.87%	5%

The programme shall provide for the use of competitive bidding as a basis to license viable investors in areas with known, indicated and measured mineral resources (brownfields) while for areas with very limited geological information (Greenfields), licenses will continue to be issued to competent and qualified exploration and mining companies on a first come first serve basis. This will ensure that the remains viable enough to create the needed employment and goods needed for industrialization.

NDP Objective 1: Enhance value addition in Key Growth Opportunities

Key Expected key targets	Baseline FY2017/18	NDP 3 Target FY202021 2024/25	Vision 2040 Target
Sectoral contribution to GDP (percent) from Industry	26.5%	28.56	
Manufactured exports as a percent of total exports	12.3%	19.81	
Share of intermediate goods (inputs) in total imports (percent)	18.9%	25.5%	

The program shall undertake the following interventions to enhance mineral value addition;

- develop and put in place mechanisms that encourage in-country value addition of mineral resources to discourage the export of low value mineral concentrates;
- put in place appropriate incentives to encourage private sector to set up modern credible mineral analysis and beneficiation laboratories and industries;

- establish mineral beneficiation centers for training on mining and value addition techniques and marketing;
- put in place an appropriate framework and structures for the regulation of mineral processing and exportation; and
- benchmark and adopt international best practices in mineral value addition.

Objective 2: Strengthen private sector capacity to drive growth and create jobs

Key Expected key targets	Baseline FY2017/18	NDP 3 Target FY2020/21 2024/25	Vision 2040 Target
Foreign Direct Investment (percent of GDP)	2.96%	4.15%	
Exports as percent of GDP	26.24%	32.26%	
Net annual no. of jobs created	424,125	594,193	

The program shall improve the extent to which the country's private sector and its entrepreneurs can participate in mining by putting in place mechanisms for easing access to affordable financing for sector actors, building capacity in management and technological skills, requiring all mining projects to add value in-country and give priority to the sourcing of local suppliers of goods and services.

Objective 5: Strengthen the role of the State in development

Key Expected key targets	Baseline FY2017/18	Baseline FY2017/18	Vision 2040 Target
Revenue to GDP ratio (%)	12.5	15.01	25

The programme shall promote local content and national participation in the mineral industry by;

- providing mechanisms for Ugandans to participate as independent developers or in partnership with foreign investors;
- requiring licensees to equip nationals with skills and give priority to Ugandans in recruitment and employment at all levels;
- collaborating with institutions of higher learning and set up new training institutions to support the development of the mining industry;
- promoting skills development, education, training and research and development in the mining industry;

- promoting state participation in the development of strategic minerals by setting up a state-owned mining company to take up the state's commercial interests in the sector;
- requiring mining companies to procure goods and services available in Uganda and sold by Ugandan owned entities and individuals at competitive prices and acceptable quality;
- requiring mining companies to enter into Community Development Agreements (CDAs) with mining host communities; and
- build the capacity and empower host mining communities to negotiate CDAs with mining companies.

Table P1.2 PROGRAMME OUTCOMES AND OUTCOME INDICATORS

Programme Outcome: Sustainable Management of Mineral Resources for Economic Development							
Programme Objectives contributed to by the Programme Outcome							
<ol style="list-style-type: none"> 1. Explore and quantify priority mineral resources across the country 2. Increase adoption and use of appropriate and affordable technology along the value chain 3. Strengthen the legal and regulatory framework as well as the human and institutional capacity 4. Increase investment in mining and value addition 5. Expand mineral processing and marketing 							
Programme Outcome Indicators	Performance Targets						
	Base year	Baseline	2021/22	2022/23	2023/24	2024/25	2025/26
Value of Mineral Exports as per permits issued (UGX Bn)	2017	8	20	25	30	35	40
Change in revenue of mineral rights	2017	12	28	30	33	40	43
Value of Mineral Production (UGX Bn)	2017	140	500	550	700	1000	1200

P2: INTERMEDIATE OUTCOMES, OUTCOME INDICATORS AND PROPOSED BUDGET ALLOCATIONS ALIGNED TO THE NDP

Table P2.1: Intermediate Outcomes and Outcome Indicators Aligned to the NDP

Vote 017: Ministry of Energy and Mineral Development							
Sub-programme: Mineral Exploration, Development and Value Addition							
Sub-Programme Objective							
To establish, promote and regulate the development of mineral and geothermal resources for job creation for female and male actors in the value chain sustainable development							
Intermediate Outcome 1: Increased investment in the sector							
Intermediate Outcome Indicators	Performance Targets						
	Base Year	Baseline	2021/22	2022/23	2023/24	2024/25	2025/26
Outcome Indicator 1.1: Value of investment (UGX Bn)	2018/19	185	185	190	190	200	200
Intermediate Outcome 2: Competitive mining sector							
Outcome Indicator 2.1: Share of the global investment in mining, (%)	2018/19	0.01	0.02	0.04	0.08	0.09	0.1
Intermediate Outcome 3: Increased mineral production							
Outcome Indicator 3.1: Volume of minerals produced by type (tonnes) Limestone (Mn tons); Gold, Iron Ore, Graphite, Copper	2018/19	Limestone 1.1MT	Limestone 1.1MT	Limestone 1.3MT	Limestone 1.4MT	Limestone 1.5MT	Limestone 1.5MT
		Gold 0.0127T	Gold 0.0127T	Gold 0.015T	Gold 0.05T	Gold 0.06T	Gold 0.07T
		Iron ore 9,000 T	Iron ore 9,000 T	Iron ore 10,000 T	Iron ore 9,000 T	Iron ore 15,000 T	Iron ore 9,000 T
		Graphite 0T	Graphite 0T	Graphite 0T	Graphite 0T	Graphite 100,000T	Graphite 100,000 T
		Copper 0T	Copper 300T	Copper 600T	Copper 1000T	Copper 1500T	Copper 2,000 T
Outcome Indicator 3.2: Value of refined Gold exports (UGX Bn)	2018/19	450	550	700	800	900	1,000
Intermediate Outcome 4: Increased mineral revenue earnings							

Outcome Indicator 4.1: Contribution of mining sector to GDP (%)	2018/19	1.4	1.4	1.5	1.6	2.5	3.0
Outcome Indicator 4.2: NTR (UGX Bn)	2018/19	16	16	18	20	25	30
Intermediate Outcome 5: Sustainable mining practices adopted							
Outcome Indicator 5.1: Carbon emissions per value added	2018/19	0.001	0	0	0	0	0
Intermediate Outcome 6: Increased mineral beneficiation facilities							
Outcome Indicator 6.1: Number of mineral beneficiation facilities	2018/19	19	28	30	35	36	36
Intermediate Outcome 7: Effective regulatory framework							
Outcome Indicator 7.1: Proportion of licensees adhering to requirements (%)	2018/19	20	30	50	70	80	90
Intermediate Outcome 8: Skilled and competitive human resource							
Outcome Indicator 8.1: No. of skilled human resource	2017/18	500	800	1000	1200	1300	1500
Outcome Indicator 8.2: No of skilled Geoscientists	2017/18	108	120	140	160	180	200
Intermediate Outcome 9: Functional and sustainable physical infrastructure							
Outcome Indicator 9.1: No. of functional laboratory techniques	2017/18	15	37	37	45	45	45
Outcome Indicator 9.2: No. of functional regional offices and beneficiation centers	2017/18	4	4	6	6	7	8
Outcome Indicator 9.3: No. of effective geophysical techniques	2017/18	4	4	5	6	7	7
Outcome Indicator 9.4: No. of functional seismological stations	2017/18	5	5	10	12	12	15
Intermediate Outcome 10: Increased employment in the sector							
Outcome Indicator 10: Number of people employed in the mineral sector (million)	2017/18	0.8	0.8	1.2	1.5	1.8	2
Intermediate Outcome 11: Reduced importation of mineral products							

Outcome Indicator 11.1: Volume of imported Iron and Steel (tonnes)	2017/18	700,000	600,000	450,000	300,000	200,000	125,000
Outcome Indicator 11.2: Value of imported Iron and Steel (USD Mn)	2017/18	370	253	214	175	136	97
Outcome Indicator 11.3: Volume of imported inorganic fertilizers (tonnes)	2017/18	75,000	49,198.3	42,169.9	36,145.7	30,982	18,750
Outcome Indicator 11.4: Value of imported inorganic fertilizers (USD Mn)	2017/18	26	18.1	15.4	12.8	10.1	7.5

Table P2.2: Medium Term Projections by Sub-Programme

<i>Billion Uganda Shillings</i>	Medium Term Projections					
Sub-Programme Service	Approved Budget 2020/21	2021/22 Proposed Budget	2022/23	2023/24	2024/25	2025/26
Mineral Exploration, Development and Value Addition	78.59	80.57	28.68	28.68	28.68	28.68
Total for the Vote	78.59	80.57	28.68	28.68	28.68	28.68
Total for the PROGRAMME	78.59	80.57	28.68	28.68	28.68	28.68

P3: PROGRAMME INTERVENTIONS FOR 2021/22

Planned Outputs	Budget Requirement FY 2021/22 (Ushs Billion)	MTEF Allocation FY 2021/22 (Ushs. Billion)	Funding Gap (Ushs Billion)
Sub-Programme: Mineral Exploration, Development and Value Addition			
Establish Mineral Wealth and appropriate Mining Infrastructure			
<p>Completion of Construction and equipping mineral beneficiation centers in Western Uganda for mineral value addition</p> <p>Quantification of the country's mineral wealth</p> <p>Implement mineral led industrialization strategies</p> <p>Formulate and gazette regulations for the ICGLR (Implementation of the Pact on Security, Stability and Development in the Great Lakes Region) Act 2017</p> <p>Procure mineral certification, trading, testing, inspection, regulation and enforcement equipment and run a certification system</p> <p>Register and develop a database for artisanal miners</p> <p>Identify and gazette areas for artisanal and small-scale miners Sensitization and training</p> <p>Licensing of artisanal miners</p>	24.88	24.88	0
To establish Infrasonic Network Infrastructure			

Design Construct and install a volcanic monitoring and mapping infrastructure to enable execution of a full-scale scientific study to map volcanic system and monitor volcanic threats in Teso-Bugisu sub-region. i.e map the subsurface volcanic system architecture, magma flow to the heat source of the hot springs on Mt Elgon.	15.0	0.0	15.0
Design, Construct, Install and Operate A Seismic Network Infrastructure in the Albertine - Rhino Graben Oil Fields for Hazard, Risk Assessment and Management	2.0	0	2.0
To refurbish the physical structure of the laboratories and systems to support the required analytical and value addition capacity			
<p>Analytical and mineral beneficiation test equipment, accessories and consumables acquired and are operational</p> <p>The physical structure of the laboratories and systems to support the required analytical and value addition capacity remodeled and refurbished</p> <p>Training and skills development in analytical and mineral beneficiation achieved</p> <p>ISO/IEC 17025:2017 Accreditation process for the Mineral Laboratories at DGSM accomplished</p> <p>Systems and capabilities to monitor analytical and mineral value addition operations put in place</p>	12.57	0	12.57
Complete 20% of airborne geophysical and geological mapping of Karamoja region			

<p>Magnetic, Radiometric, Electromagnetic and Gravity Electromagnetics data to follow-up on mineral targets, underground water, geothermal</p> <p>Geological and Geochemical mapping</p> <p>Data Processing and interpretation for Karamoja aerial surveys</p> <p>Supervision and data quality control</p>	64.09	64.09	0
To explore and develop geothermal resources for power production and direct heat uses in Industry and Agriculture.			
<p>Drilling of four (4) exploration wells at Kibiro or Panyimur.</p> <p>Construction of access roads to drilling sites.</p> <p>Procurement and installation of specialized equipment for well logging and testing, and laboratory analysis.</p> <p>Environmental and Social Impact Assessments; and other studies that include project costs, funding options, power sale direct use and mineral extraction in the geothermal prospects of Kibiro and Panyimur.</p> <p>Capacity building for staff in geothermal resource assessment.</p> <p>Explore and promote geothermal resources for electricity production and direct utilization in Agro-processing</p>	55.75	3.45	52.31
Enhance revenue from the sector by putting in place an effective and efficient mineral revenue assessment and collection mechanism			
<p>Mining specific weigh bridges installed at major mining sites.</p>	15.7	0.0	15.7

E-government mineral production system and data bank for mineral statistics developed and maintained.			
A model mine and gold elution plants established to demonstrate best-practice mining with the least impact to the environment			
Construct a mineral market and buying center for Gold and base metals to eliminate black market traders			
Support Uganda's Mineral Based Industrialization			
Undertake geological and feasibility studies and generate bankable projects	5.0	0.0	5.0
Complete geochemical map of the country			
Construct mineral depository			
Total Vote 017:	194.99	92.42	102.57

Programme Challenges in addressing gender and equity issues for FY 2021/22

- a) High mobility of labour/influx of migrant workers in mining areas which results in: risk of sexual violence against women, girls, boys and Persons with disability (PWDs); increased exposure to health risks such as sexually transmitted infections including HIV/AIDS.
- b) Exposure to hazardous working conditions in mining areas.
- c) Limited disaggregated data that renders equity issues inviable.
- d) Women and PWDs have limited access to credit and are thus underrepresented among potential mining investors