

Section 3: Energy and Mineral Development Sector

S1: Sector Overview

This section provides an overview of Sector Expenditures and sets out the Sector's contribution to the NDP, its policy objectives, and key performance issues.

(i) Snapshot of Sector Performance and Plans*

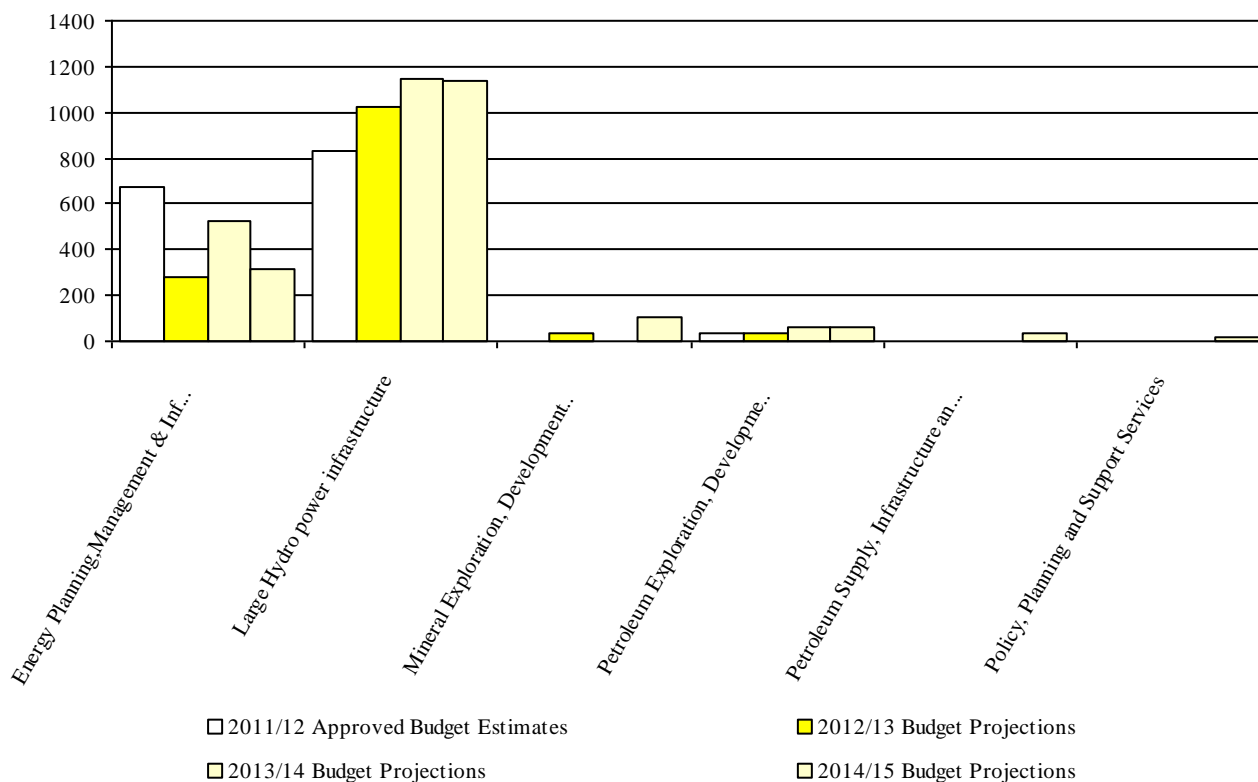
Table S1.1 and Chart S1.1 below summarises the Medium Term Budget allocations for the Sector:

Table S1.1: Overview of Sector Expenditures (US\$ Billion, excluding taxes and arrears)

	2010/11 Outturn	2011/12		MTEF Budget Projections			
		Approved Budget	Spent by End Dec	2012/13	2013/14	2014/15	
Recurrent	Wage	2.055	2.197	0.000	2.526	2.929	3.445
	Non Wage	2.440	6.157	0.000	6.157	7.031	7.742
Development	GoU	212.149	1,097.631	0.000	1,167.830	1,380.697	1,525.670
	Donor**	0.000	213.968	0.000	198.008	344.852	135.246
GoU Total		216.644	1,105.984	0.000	1,176.514	1,390.657	1,536.858
Total GoU+Donor (MTEF)		N/A	1,319.953	0.000	1,374.522	1,735.509	1,672.104
<i>Non Tax Revenue</i>		<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>
Grand Total		N/A	1,319.953	0.000	1,374.522	1,735.509	1,672.104

* Excluding Taxes and Arrears

Chart S1.1: Medium Term Budget Projections by Vote Function (US\$ Billion)*



* Excluding Taxes and Arrears

Section 3: Energy and Mineral Development Sector

(ii) Sector Contributions to the National Development Plan

The sector will strive to contribute to the following NDP sector objectives:

NDP Objective 1:

Increase in power generation capacity to reach 780MW-820 MW from the current 280-330 MW, increase Rural Electrification to 10 percent, promote energy efficiency programmes and renewable energy sources nationwide.

NDP Objective 2:

Scale up Oil and Gas exploration, undertake commercial production of Oil and Gas and build subsequent infrastructure for distribution, operations and management, through: i) enhanced Capacity Building for the oil & gas sector, ii) increased monitoring Upstream petroleum activities and iii) the development and implementation of a communication strategy for oil & gas in the country

NDP Objective 3:

Empower artisanal and small scale miners and scale up regulation of the mineral sub sector and increase licensing to generate NTR collections and promote exports.

(iii) Medium Term Sector Policy Objectives

The sector objectives which guide medium term outputs and resource allocations are:

(i) to meet the energy needs of Uganda's population for social and economic development in an environmentally sustainable manner

(ii) to develop the Petroleum and Mineral sectors for them to contribute significantly to sustainable national economic and social growth; and

(iv) Summary of Sector Performance

The status of the sector in terms of its three priority sector outcomes is set out below:

Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution

Progress on large hydro power projects: electricity generation capacity is currently at 603MW (Thermal and Hydro)

(i) Construction works for the Bujagali Hydropower dam, power house and the associated transmission line is getting close to completion. The first turbine of 50 MW will be commissioned in October 2011 and full commissioning of the 250 MW plant will be in April 2012.

(ii) Karuma Hydropower Project (600MW): A detailed feasibility study and engineering designs have been concluded. The procurement process to acquire a contractor to undertake construction has started. The hydropower plant will be constructed using resources from the Energy Fund as a Public project. Construction is expected to start in the FY 2011/12.

(iii) Isimba Hydropower Project (100 MW): A detailed feasibility study and engineering designs is being undertaken and is expected to be completed in June 2011. It has an estimated capacity of 120 MW. This project will be developed in partnership with the private sector.

(iv) Ayago Hydropower Project (600MW): The pre-feasibility studies were completed and a detailed feasibility study and engineering designs will now be undertaken before project development commences.

Renewable Energy Projects: The projects under development include: Buseruka Min hydro (10 MW), Ishasha Mini hydro (6.5MW) and Nyagak Mini hydro (3.3 MW).

Section 3: Energy and Mineral Development Sector

Rural Electrification: As a result of implementing the rural electrification programme access to electricity has increased from 1% to 6% with the national coverage rising to 12%. Rural Electrification schemes are at various stages of construction (about 1800km)

Energy Efficiency (EE): The major activities undertaken include the distribution of 800,000 energy saving lamps that resulted in a saving of 30MW during peak hours; and over 750,000 household and 800 institutional improved energy saving stoves have been disseminated leading to reduction in fuel wood use, thus preserving the environment.

Outcome 2: Well managed and safeguarded mineral resources for production and exports

Geological mapping and mineral assessment of the area south of 1 degree was completed. These include Kigezi, Ankole, South Buganda, Busoga, Bukedi and Tooro regions. Preliminary geological maps of the area north of 1 degree were produced. Based on existing maps and reports combined with remote sensing, interpretation has been compiled at 1:500,000, 1:250,000 and 1:100,000 scales. They include Acholi, Lango, West Nile, Bunyoro and North Buganda region. The survey is expected to be concluded by June 2012. The sector acquired airborne geophysical survey data acquired through aerial survey. These are available to exploration companies. This is in addition to available reading materials packaged and exhibited as promotional brochures / flyers.

The target areas identified for detailed mineral commodity assessments for their potentials are: Kafunzo for Nickel-Copper-Cobalt in Ntungamo; Mayuge iron ores, Mayuge; Bukusu carbonatite complex for rare earth elements, Mt. Elgon zone; Murchison Project for nickel bearing ultramafic intrusion; Iganga circular magnetic anomalies for Nickel-Copper-Platinum-Chromium in mafic intrusions; Kitaka, gold and base metals in Kamwenge; Kaliro-Kamuli-Ivukulu, confirm Archaean greenstone belt extension for gold, Busoga region; Alooi-Aboke for gold and base metals, Lango region; Kamuli-Iganga, possible potential for kimberlite intrusions (diamond) in the Archaean craton, Busoga region; Nyabushenyi for Lithium, Ntungamo; Limestone potential of the Crater Lakes area, Bushenyi; Pakwach for diatomite, Nebbi; and Dimension stone in Mubende.

A total 609 licenses and certificates were operational as at 31st December, 2010. Of these, 104 Prospecting Licenses (PL), 395 Exploration Licenses (EL), 59 Location Licenses (LL), 23 Mining Leases, and 28 Mineral Dealers' License (MDL).

The generated non-tax revenue amounted to Ushs 3.631 billion accrued from royalties, mineral license fees and sale of publication and geophysical data. Royalties contributed to Ushs 2.795 billion.

Section 3: Energy and Mineral Development Sector

Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development

Capacity Building: Significant effort to build capacity in the sector through formal and industrial training has been registered. Government has to date retained and trained about 27 staff in Petroleum Exploration and Production Department (PEPD) to Masters Degree and 26 staff to diploma and postgraduate diploma level in petroleum fields. A significant number of staff is undergoing training in specialized petroleum courses in reputable universities abroad.

Government started training of specialized programs in the oil and gas industry through establishment of training institutions. About 103 students are admitted to Makerere University to undertake a Bachelors degree in Petroleum Geosciences which started in 2009. Kigumba Petroleum Institute which was commissioned in 2010 to develop the necessary technical skills in the sector is offering certificates and diplomas to 28 Ugandans.

In order for Government to participate in and monitor development and production phases it has, under the support from the Norwegian Supported Project to Strengthen the State Petroleum Administration, held a number of workshops in the areas of data management, regulatory framework formulation, development and refining.

Government procured for the sector highly specialized Information Technology (IT) hardware and software and other goods and services to enhance delivery of results. These include Geographical Information System (GIS) for map production, and Geosoft, Geographix & Petrel software to facilitate in the resource assessment.

Licensing and Exploration: Due to systematic effort on promotion in the sector, five out of the 10 Exploration Areas (EA) in the Albertine Graben have been licensed to international oil companies, to date. These are: EA1, 2, 3A, 4B&5. The remaining unlicensed areas are receiving remarkable interest from the oil companies. Licensing in the country is currently suspended pending enactment of a new law which will provide for a competitive bidding mechanism for acreages.

In Exploration Area 4B, Dominion Petroleum completed the drilling of Ngaji-1, the first exploration well in Lake Edward. The well was not a discovery and it was plugged and abandoned. The company is evaluating the findings in the Ngaji-1 well plus the earlier acquired seismic data, in preparation to acquire more seismic data in the area. **Drilling Operations:** Seven (7) appraisal wells Ngiri-2, Mpyo-1, Kigogole-2, Kigogole-4, Kigogole-5, Nsoga-5 and one (1) exploration well Ngaji-1 were drilled all these wells except for Ngaji-1 encountered hydrocarbons. A cumulative total of 48 wells have so far been drilled in the country and 44 out of these have encountered hydrocarbons, hence maintaining a very high (91%) technical success rate.

Approximately 8000 Kms of Two-dimension (2D) and 1500 Sq Kms of Three-dimension (3D) seismic data have been acquired by licensed oil companies in their effort to understand the hydrocarbon potential of the Albertine Graben.

A total of 51 exploration and appraisal wells have so far been drilled in the country to date. Out of these, 46 wells have encountered oil and/ or gas.

Through the appraisal of the discoveries made in about 35% of the prospective area, 2.5 billion barrels of oil equivalent is estimated to be in place in the country with a recovery factor estimated to be more than 25%. This resource base, can support production and refining of over 120,000 barrels of oil per day (bopd).

Legal and Regulatory Framework: Government, through a consultative process, formulated the National Oil and Gas Policy for Uganda in February 2008. The policy goal is to use the country's oil and gas resources to contribute to early achievement of poverty eradication and creating lasting value to society. In

Section 3: Energy and Mineral Development Sector

its implementation, Government is drafting legislations for Resource, Revenue and Environmental management, implementing a communication strategy to bridge the information gap between the sector and general public, developing the national content to ensure optimal participation in the sector, among others. In line with the policy, an appropriate institutional framework is being developed with a view to create institutions each responsible for Policy Setting, Regulation and Business interests.

S2: Sector Performance and Plans to Improve Sector Outcomes

This section describes past performance and plans to improve sector outcomes. For each outcome it sets out outcome indicators, key sector outputs and actions to improve sector performance. It then sets out analysis of the efficiency of sector allocations and major capital investments.

(i) Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution

Status of Sector Outcomes

The table below sets out the status of sector outcomes in terms of key sector outcome indicators.

Table S2.1: Sector Outcome Indicators

<i>Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution</i>			
Outcome and Outcome Indicator	Baseline	2012/13 Target	Medium Term Forecast
Percentage of the population accessing other sources of energy (eg solar energy)	0.44 (2009)	0.5	1 (2015)
Percentage of the population accessing other sources of energy (biomass, solar)	500MW (2008)		800MW (2011)
Percentage of the population accessing electricity	10 (2009)	12	14 (2015)
Average number of MW Load Shedded at peak hours per Quarterly	20 (2009)	0	0 (2015)

Performance for the first half of the 2011/12 financial year

Development of the Bujagali Hydropower Project: Construction works for the dam, power house and the associated transmission line is getting close to completion. The first turbine of 50 MW will be commissioned in October 2011 and full commissioning of the 250 MW plant will be in April 2012. This will displace expensive thermal plants that were brought in on an emergency basis.

Karuma Hydropower Project (600MW): A detailed feasibility study and engineering designs have been concluded. The procurement process to acquire a contractor to undertake construction has started. The hydropower plant will be constructed using resources from the Energy Fund as a Public project. Construction is expected to start in the FY 2011/12.

Isimba Hydropower Project (100 MW): A detailed feasibility study and engineering designs is being undertaken and is expected to be completed in June 2011. It has an estimated capacity of 120 MW. This project will be developed in partnership with the private sector.

Ayago Hydropower Project (600MW): The pre-feasibility studies were completed and a detailed feasibility study and engineering designs will now be undertaken before project development commences.

Hydropower Development Master Plan: A draft Hydropower Development Master Plan study has been presented to key stakeholders. The study is targeting sites above 50MW mainly along the River Nile. The objective of the Study is to prepare a Hydropower Development Master Plan that is in line with the long term power and transmission development plan. It aims to prioritize potential hydropower sites basing on technical, environmental, economical and financial aspects; to prepare preliminary designs thereof; and to build government capacity in this field.

Renewable Energy Projects: Renewable Energy Projects: Mpanga mini hydro was commissioned on 10th Feb 2011 and is generating 18 MW. Other projects under development include: Buseruka Mini hydro (10

Section 3: Energy and Mineral Development Sector

MW), Ishasha Mini hydro (6.5MW) and Nyagak Mini hydro (3.3 MW).

The construction of other projects like: - Feasibility studies for Kikagati (10 MW) were completed and construction is to start in July 2011, detailed feasibility studies for Olewa were completed, and procurement of a contractor for the rehabilitation of Maziba (1MW) has been started. While Muzizi (20 MW) will commence after studies and other modalities have been finalized.

Rural Electrification (RE) Programme. The Program to increase access to modern energy services through rural electrification has been implemented since 2001. The main targets for rural electrification are district headquarters, production areas and communities which create nuclei for rural social and economic transformation. As a result of implementing the rural electrification programme access to electricity has increased from 1% to 6% with the national coverage rising to 12%.

Energy Efficiency (EE) Programmes: The major activities which have been undertaken under this measure are:

i) Distribution of 800,000 energy saving lamps that resulted in a saving of 30MW during peak hours.

ii) Energy Auditing has been conducted to establish areas of energy efficiency improvements in a number industries, commercial buildings and public institutions. From the findings of the energy audits investments, in energy efficient equipment is done to reduce energy waste and improve efficiency in energy usage.

iii) Over 750,000 household and 800 institutional improved energy saving stoves have been disseminated leading to reduction in fuel wood use, thus preserving the environment.

Table S2.2: Key 2012/13 Outputs Contributing to the Sector Outcome*

<i>Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
Vote: 017 Ministry of Energy and Mineral Development			
<i>Vote Function: 0301 Energy Planning, Management & Infrastructure Dev't</i>			
Output: 030102	Energy Efficiency Promotion		
<i>Description of Outputs:</i>	Reduction of deforestation rate through dissemination of 50,000 improved stoves.	Disseminated 7,000 improved stoves and an additional 32 Institutional stoves done	Disseminated 40,000 improved household stoves
<i>Performance Indicators:</i>			
No. of improved stoves disseminated to households	50000	13500	40000
Percentage of Energy Losses in the distribution network	27	27	27
Percentage of Audited Institutions implementing Energy efficiency recommendations	50	50	50
<i>Output Cost (US\$ bn):</i>	1.699	0.000	3.657
Output: 030103	Renewable Energy Promotion		

Section 3: Energy and Mineral Development Sector

Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
<i>Description of Outputs:</i>	Renewable Energy projects under development (Kikagati, Nyagak III, Buseruka, Muzizi, Maziba, and Nyamwamba Disseminate 130 institutional stoves, monitor development of 5 minihydros and 6,000 solar PVs disseminated.	Two (2) Renewable Energy projects that are still under development i.e. Buseruka and Nyagak I. Maziba contractor is being hired. Disseminated 32 institutional stoves, and 1155 solar PVs to the previous ones.	Nyagak III and Maziba construction to be undertaken. Muzizi feasibility study to be completed. Nyamwamba: IA and PPA construction to commence Solar PV Systems in 7,000 household installed Solar Energy Packages in 160 Health Centers. 15 Water pump
<i>Performance Indicators:</i>			
Status of Kikaagate Energy Project	2. Environmental and Social Impact Studies(ESIA)		6. Construction
Status of Ishasha energy project	6. Construction		6. Construction
Number of Solar systems installed	6000	1155	7000
No. of Renewable Energy projects under development	5	2	3
Status of Nyagak Energy Project	6. Construction		7. Commissioning
Status of Buseru Energy Project	construction		Commissioning
<i>Output Cost (US\$ bn):</i>	4.459	0.000	11.991
Output: 030104	Increased Rural Electrification		
<i>Description of Outputs:</i>	Rural Electrification schemes extended to district headquarters	Continued with the Rural Electrification schemes to extend power to five (5) district headquarters which were at different final stages	Continued to implement Rural Electrification schemes to extend power to district headquarters and rural growth centres.
<i>Performance Indicators:</i>			
Number of District Headquarters electrified	5	5	5
Distance in KM of Rural Electrification schemes covered with Government support	120	150	700
<i>Output Cost (US\$ bn):</i>	16.398	0.000	48.248
Output: 030152	Thermal and Small Hydro Power Generation (UETCL)		
<i>Description of Outputs:</i>	Construction of 30 MW of thermal to be undertaken.	Extended Well Testing (EWT) at Kabaale was completed, Preparations for the Construction of 30 MW Thermal Plant at Kabaale in Hoima still in progress	Commence construction of the thermal power plant at Kabaale
<i>Output Cost (US\$ bn):</i>	328.337	0.000	152.289

Vote Function: 0302 Large Hydro power infrastructure

Output: 030280 Large Hydro Power Infrastructure

Section 3: Energy and Mineral Development Sector

<i>Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
<i>Description of Outputs:</i>	50 percent of the claimants compensated and 50 percent land freed up for contractors.	Procurement of a RAP implementation consultant was underway since the report was approved by the Chief Govt Valuer.	70 percent of the claimants compensated for Karuma and 70 percent land freed up for contractors.
<i>Performance Indicators:</i>			
Percentage of land claimants under r Resettlement Action Plan (RAP) paid	25	0	70
<i>Output Cost (US\$ bn):</i>	828.600	0.000	1,019.468

* Excludes taxes and arrears

2012/13 Planned Outputs

- (i) Completion of construction and commissioning of the Bujagali Hydro power project (250MW);
- (ii) Commencement of construction of Karuma Hydropower Project (600MW undertaken);
- (iii) Commencement of construction of Isimba hydro power project (100MW) undertaken;
- (iv) Ayago (North & South) Hydropower Project full feasibility studies undertaken;
- (v) One (1) Renewable Energy Projects commissioned;
- (vi) At least 180 schemes under the Rural Electrification Programme completed; and
- (vii) Energy Efficiency (EE) investments in streetlighting undertaken and training in Energy Audits carried out.

Medium Term Plans

- (i) Construction of Karuma Hydropower Project (600MW) completed;
- (ii) Construction of Isimba hydro power project (100MW) completed;
- (iii) Commence the construction of Ayago (North & South) Hydropower Project,;
- (iv) Hydropower Development Master Plan under implementation; and
- (v) implement at least 400 schemes under Rural Electrification Programme.

Actions to Improve Outcome Performance

Government will continue implementing key priority projects in the Energy Sector specifically increasing the generation capacity and transmission infrastructure; and also increase/improve access to modern energy services through Rural Electrification and Renewable Energy development.

Table S2.3: Actions and Medium Term Strategy to Improve Sector Outcome

<i>Sector Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution</i>			
2011/12 Planned Actions:	2011/12 Actions by Dec:	2012/13 Planned Actions:	MT Strategy:
Vote: 017 Ministry of Energy and Mineral Development			
Vote Function: 03 01 Energy Planning, Management & Infrastructure Dev't			
Construction of new power transmission and distribution infrastructure, and continued refurbishment of the existing transmission and distribution infrastructure (i.e line, transformer and substation upgrade)	UMEME has started on the refurbishment of the existing network especially around Kampala and continued monitoring of measures put forward on energy loss reduction	Refurbishment of the transmission and distribution infrastructure (i.e line, transformer and substation upgrade)	Refurbishment of the transmission and distribution infrastructure (i.e line, transformer and substation upgrade)

Section 3: Energy and Mineral Development Sector

<i>Sector Outcome 1: Increased access to affordable modern sources of energy through enhanced generation capacity and distribution</i>			
2011/12 Planned Actions:	2011/12 Actions by Dec:	2012/13 Planned Actions:	MT Strategy:
Develop standard power purchase agreements that provide competitive feed-in tariffs for private sector participation in the sector	The option of using the Oil and Gas resources from the planned extended well tests to generate electricity was considered	Develop more cheaper sources of power and increase their mix in power generation	Develop more cheaper sources of power and increase their mix in power generation
Vote Function: 03 02 Large Hydro power infrastructure			
Undertake the development of Karuma	Feasibility study for Karuma (600MW) and Isimba (140MW) in Progress which will lead to the proper design and construction of the dams	50 percent of the claimants compensated and 50 percent land freed up for contractors.	50 percent of the claimants compensated and 50 percent land freed up for contractors.

Section 3: Energy and Mineral Development Sector

(ii) Outcome 2: Well managed and safeguarded mineral resources for production and exports

Status of Sector Outcomes

The table below sets out the status of sector outcomes in terms of key sector outcome indicators.

Table S2.1: Sector Outcome Indicators

<i>Outcome 2: Well managed and safeguarded mineral resources for production and exports</i>			
Outcome and Outcome Indicator	Baseline	2012/13 Target	Medium Term Forecast
Value of Non Tax Revenue (NTR) earned per year in mineral production and exportation (Ushs bn)	3.62 (2009)	5.0	6.0 (2015)
% coverage of Geo scientific data for the whole country acquired (Geological and Geophysical mapping)	90 (2009)	99	100 (2015)

Performance for the first half of the 2011/12 financial year

The following outputs were undertaken:-

- (i) Provided basic geo-scientific information for the development of the mineral sector;
- (ii) Promoted optimal use of minerals and mineral trade for social improvement of the people;
- (iii) Provided technical services in the field of geosciences to guide national planning and development;
- (iv) Ensured best mining practices and accountability;
- (v) Promoted mineral value addition and trade to increase revenues;
- (vi) Promoted the gazettement of geosites and geoparks;
- (vii) Put in place an earthquake administration policy, expanded the network of operation centres, designed an earthquake disaster management plan, and equipped the research laboratories
- (viii) Institutional Capacity for the Mineral sector.

Licensing of exploration and mining: During 2010, 123 Prospecting Licenses, 133 Exploration Licenses, 18 location Licenses, 2 Mining Leases (ML), 51 Mineral Dealers' Licenses (MDL), and 1 Goldsmith's Licenses (GL) were granted. This is attributed to the dissemination of the results of the airborne geophysical survey.

Non-Tax Revenue (NTR): In 2010, Government realized revenue to the tune of Ushs 3.631 billion as NTR accruing from royalties, mineral license fees. Royalties alone contributed Ushs 2.795 billion of the total revenue generated shared or to be shared at a rate of 80% for Central Government, 17% for Local Governments of mining districts and 3% to the lawful landowner. It is worthwhile noting that the major contributors to the revenue earned in 2010 were Tororo Cement Ltd, Hima Cement Ltd and Kasese Cobalt Company Ltd.

Table S2.2: Key 2012/13 Outputs Contributing to the Sector Outcome*

<i>Outcome 2: Well managed and safeguarded mineral resources for production and exports</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
Vote: 017 Ministry of Energy and Mineral Development			
<i>Vote Function: 0305 Mineral Exploration, Development & Production</i>			
Output: 030502	Institutional capacity for the mineral sector		

Section 3: Energy and Mineral Development Sector

<i>Outcome 2: Well managed and safeguarded mineral resources for production and exports</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
<i>Description of Outputs:</i>	40 additional staff trained as geologists, geochemists, geophysicists, mining engineers, mine inspectors, laboratory and geo-technicians 200 mineral artisans and small scale miners trained. Build capacity of small scale miners in value addition.	Five (5) staff still training, 10 staff training in short term courses 56 mineral artisans and small scale miners trained. - Three (3) worksops for training small scale miners in Kabale, Kisoro and Karamoja.	One (1) workshop to review legal framework drafting new laws in the subsector. Train of Two staff in legal and management best practices Two (2) staff participate in sector investment promotion.
<i>Performance Indicators:</i>			
Number of MEMD staff trained in the geosciences fields	20	7	20
Number of mineral artisans and small scale miners trained	600	206	300
<i>Output Cost (US\$ bn):</i>	0.332	0.000	2.755
Output: 030503	Mineral Exploration, development, production and value-addition promoted		
<i>Description of Outputs:</i>	Fifty (50) geological reports produced.	10 geological reports produced and 10 geological maps produced	Geological, geophysical, geochemical surveys of Sheet Kawoko (79/1) and Lukaya (79/2) and follow up 16 mineral targets. Promotion of Karamoja Airborne surveys. And Geothermal development, upgrading installation of earthquake monitoring network.
<i>Performance Indicators:</i>			
Number of geological maps produced and disseminated	200	70	250
Status of exploration and mining on Muko Iron ore project	10	30	50
Status of development of Sukulu phosphates project	5	10	25
<i>Output Cost (US\$ bn):</i>	0.640	0.000	16.231
Output: 030505	Licencing and inspection		
<i>Description of Outputs:</i>	300 mineral licenses (i.e. prospecting, exploration, retention, goldsmith, blaster certificates, location, mining leases, mineral dealers) granted Twelve (12) mine sites inspected.	79 mineral licenses (i.e. prospecting, exploration, retention, goldsmith, blaster certificates, location, mining leases, mineral dealers) granted, and cummulativey 184 for two quarters - Two (2) inspections done	Twelve (12) inspections to mining areas. Mineral exploration and mining areas monitored 300 mineral rights issued and NTR collected.
<i>Performance Indicators:</i>			
Number of mining site inspections conducted	12	4	12
Number of mineral licenses granted	500	289	300
<i>Output Cost (US\$ bn):</i>	0.080	0.000	1.661

Section 3: Energy and Mineral Development Sector

* Excludes taxes and arrears

2012/13 Planned Outputs

Mineral Exploration, Development & Production: The following outputs will be undertaken:-

- (i) Provide basic geo-scientific information for the development of the mineral sector.
- (ii) Promote optimal use of minerals and mineral trade for social improvement of the people.
- (iii) Provide technical services in the field of geosciences to guide national planning and development.
- (iv) Ensure best mining practices and accountability.
- (v) Promote mineral value addition and trade to increase revenues.
- (vi) Promote the gazettement of geosites and geoparks.
- (vii) Put in place an earthquake administration policy, expand the network of operation centres, design an earthquake disaster management plan, and equipping the research laboratories
- (viii) Institutional Capacity for the Mineral sector.

Medium Term Plans

- (i) Provide basic geo-scientific information for the development of the mineral sector.
- (ii) Promote optimal use of minerals and mineral trade for social improvement of the people.
- (iii) Provide technical services in the field of geosciences to guide national planning and development.
- (iv) Ensure best mining practices and accountability.
- (v) Promote mineral value addition and trade to increase revenues.
- (vi) Promote the gazettement of geosites and geoparks.
- (vii) Put in place an earthquake administration policy, expand the network of operation centres, design an earthquake disaster management plan, and equipping the research laboratories
- (viii) Institutional Capacity for the Mineral sector.

Actions to Improve Outcome Performance

Government will continue to acquire, process and disseminate geo-information as well as aggressively sensitize the public on the key area of sustainable mineral exploitation. Establishment of reliable information systems to process, analyze, preserve, and retrieve real-time dissemination of the geo-information is also essential. The use of internet/intranet and dissemination of geo-information via web is the way to go. In addition, establishment of regional offices and staffing will be implemented so as services are brought nearer to the people. More training of staff to Masters Degree level will continue.

The sector has requested MoFPED to put in place Appropriation-in-Aid to boost Non Tax Revenue collection.

Table S2.3: Actions and Medium Term Strategy to Improve Sector Outcome

<i>Sector Outcome 2: Well managed and safeguarded mineral resources for production and exports</i>			
2011/12 Planned Actions:	2011/12 Actions by Dec:	2012/13 Planned Actions:	MT Strategy:
Vote: 017 Ministry of Energy and Mineral Development			
Vote Function: 03 05 Mineral Exploration, Development & Production			
Sensitisation of local communities and land owners on the benefits of the intended projects	Sensitisation of local communities and land owners on the benefits of the intended projects	Involved the private sector developers, local leaders and land owners in a dialogue to ease access	Sensitisation of local communities and land owners on the benefits of the intended projects
Present a case for the option of retaining part of the revenue from the non tax revenue generated by the Ministry.	Presented a case for additional funding with the MoFPED.	Retain 30% of NTR from mineral sector as appropriation in aid to fund	Identify sustainable sources of revenue through packaging of development projects.

Section 3: Energy and Mineral Development Sector

(iii) Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development

Status of Sector Outcomes

The table below sets out the status of sector outcomes in terms of key sector outcome indicators.

Table S2.1: Sector Outcome Indicators

<i>Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development</i>			
Outcome and Outcome Indicator	Baseline	2012/13 Target	Medium Term Forecast
Oil and Gas Production (Number of barrels per day).	0 (2009)	4000	4000 (2011)
Number of oil wells successfully drilled and appraised.	10 (2009)	14	5 (2011)
Amount of oil and gas discovered (barrels of oil equivalent)	2.0 (2009)	2.2	2.5 (2015)
Amount of oil and gas discovered	()		()

Performance for the first half of the 2011/12 financial year

Petroleum Exploration and Production Development: Government continued to support efforts to promote petroleum exploration in Uganda. Investment in this sector by December 2010 was in the order of US\$ 1.5 billion and is expected to increase when the development and production phases commence. To date, five out of the ten exploration areas in the Albertine Graben are licensed to various companies.

Seismic and drilling operations: Tullow Oil, the licensee of Exploration Area (EA) 2 continued to appraise fields discovered in EA 2 through appraisal drilling and carried out 2D and 3D seismic surveys in the area, with a view of properly defining the discoveries in this area and also aid in the planning for production of crude oil. In Exploration Area 5, Neptune Petroleum (U) Ltd contracted ArkeX of UK to acquire 8,411 flight line km of aerial gravity gradiometry (FTG) and magnetic data. Interpretation of the FTG data was undertaken. In Exploration Area 4B, Dominion Petroleum completed the drilling of Ngaji-1, the first exploration well in Lake Edward. The well was not a discovery and it was plugged and abandoned. The company is evaluating the findings in Ngaji-1 well plus the earlier acquired seismic data in preparation to acquire more seismic data in the area.

Drilling operations: Seven (7) appraisal wells Ngiri-2, Mpyo-1, Kigogole-2, Kigogole-4, Kigogole-5, Nsoga-5 and one (1) exploration well Ngaji-1 were drilled. All these wells except for Ngaji-1 encountered hydrocarbons. A cumulative total of 48 wells have so far been drilled in the country and 44 out of these have encountered hydrocarbons, hence maintaining a very high (91%) technical success rate. The country's petroleum potential continued to be promoted and more companies continued to express interest in acquiring petroleum exploration acreage in the country.

Drafting the new Petroleum Bill continued and a number of stakeholder consultations on the draft Bill were undertaken.

On Capacity Building in the Oil and Gas sector, five members of staff commenced MSc. Petroleum studies in the disciplines of Geochemistry, Geoscience and Engineering at various universities abroad. The work on creation of Petroleum Institutions continued.

Government continued its role of monitoring oil companies' activities in the respective licensed areas/blocks. Two appraisal wells in EA 2 were successfully drilled while seismic data was acquired in EA 1 and EA 2A.

On petroleum refining, Government continued to review the feasibility study report with the view of beginning preparations for promotional meetings for the refinery.

On early production program, preparations for the development of the Nzizi-gas power project continued

Section 3: Energy and Mineral Development Sector

On the Communication Strategy for the Oil and Gas sector in the country, radio talk shows and familiarization visits to the exploration areas continued to be undertaken by the Ministry officials. Consultancy to implement the communication strategy continued while workshops on petroleum operations between Government and the Civil Society Organizations were held.

The 1st phase of the construction of the Petroleum Data Centre, office accommodation and Core Store was completed.

Petroleum Supply, Infrastructure & Regulation: The Petroleum supply subsector went through a relatively smooth year in 2010 save for the month of September 2010 when erratic supplies of petrol were experienced. Crude oil prices fluctuated between US\$68 and US\$91 per barrel; while the local pump prices fluctuated between Ushs. 2,990 and Ushs. 2,350 for petrol, Ushs. 1,800 and Ushs. 2,050 for kerosene and Ushs. 2,100 and Ushs. 2,400 for diesel respectively. No serious petroleum shortages were experienced in the country. Consumption henceforth increased by 9% from 1,114 million litres in 2009 to 1,209 million litres.

Licensing: In line with the Petroleum Supply (General) Regulations, 2009 which aim at streamlining the downstream petroleum sub-sector, Government issued new guidelines for licensing of operators in the sector. The guidelines require that all operators comply with Health, Safety and Environmental regulations. During the reporting period, four (4) new companies were issued with petroleum operating licenses under the Petroleum Supply (General) Regulations, 2009. Streamlining of operators in the subsector is slated for completion by December 2011.

Strategic Fuel Reserves: The Jinja Storage Tanks (JST) with a capacity of 30 million litres exists to hold national strategic fuel reserves. With a view of streamlining operations, the Ministry of Energy and Mineral Development is in process of implementing a Public-Private Partnership arrangement for its revamping, restocking and operation. Plans are in place to integrate JST into the Kenya – Uganda oil pipeline system. In the medium to long term, four (4) storage facilities will be built in Nakasongola, Gulu, Mbale and Kasese for better service delivery. Once a petroleum refinery is established in the country, this issue of strategic fuel reserves shall be even more comprehensively dealt with.

Kenya-Uganda Oil Pipeline Extension: Government is still committed to develop the Kenya – Uganda oil pipeline despite the challenges experienced in both countries of land acquisition and the need to redesign the infrastructure to cater for the future export of petroleum products from Uganda. The Project Agreements have been revised to include the aspect of reverse flow, considering the value addition policy for Uganda to set up a petroleum refinery for processing her crude oil discoveries. The pipeline developer is to take the Final Investment Decision once the Agreements are cleared by the two country's attorney offices. This process will lead to compensation of the project affected persons and thereafter construction works will commence.

Quality and Standards Monitoring: The Government continued with the fuel marking and quality monitoring program. The program promotes quality assurance and protects the market by ensuring that smuggled and transit products are not sold in the country. The non-compliance level has reduced from 29% in 2009 to 4.2% in 2010. This implies that there has been a tremendous improvement in the quality of fuel sold in the country and reduction in tax invasion. This challenge is a continuous one and therefore the program will be further strengthened. In addition, the process to develop petroleum standards has been initiated jointly between the Ministry of Energy and Mineral Development and Uganda National Bureau of Standards. This will further enhance the process of ensuring compliance of petroleum products and facilities to established quality requirements and codes of practice.

During the same period the 2nd Technical Petroleum Committee (TPC) was nominated following the end of the 1st Committee's term of office. TPC is an advisory body to the Minister on policy matters related to downstream petroleum sub-sector and is provided for in the Petroleum Supply Act, 2003.

Table S2.2: Key 2012/13 Outputs Contributing to the Sector Outcome*

Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development

Section 3: Energy and Mineral Development Sector

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
Vote: 017 Ministry of Energy and Mineral Development			
<i>Vote Function: 0303 Petroleum Exploration, Development & Production</i>			
Output: 030303	Capacity Building for the oil & gas sector		
<i>Description of Outputs:</i>	Three more staff to commence M.Sc. Studies; New Petroleum institutions in place, up and running.	Seven (7) members of staff continued with their masters degrees in various science fields. Creation of new petroleum institutions in progress and awaiting the new laws.	Six (6) members of staff will commenced MSc. Studies in Petroleum Geoscience, Engineering and Refinery Design.
<i>Performance Indicators:</i>			
Status on creation of the Petroleum Directorate, the Petroleum Authority and National Oil Company	100	30	100
Number of staff trained	3	7	6
<i>Output Cost (US\$ bn):</i>	6.238	0.000	5.859
Output: 030304	Monitoring Upstream petroleum activities		
<i>Description of Outputs:</i>	More exploration and appraisal wells to be drilled and additional seismic data to be acquired in EA1, EA2, EA4B and EA5. Production of energy from the Nzizi gas project and EWT. Acquisition of 314 sq km of 3D seismic data in EA2 to be completed.	Four (4) appraisal wells were successfully drilled in EA1. Extended Well Testing (EWT) was completed at Kigogole-1 and Kigogole-3 in EA2 for thermal power.	Monitoring drilling of exploration wells in EA4B and EA5. Monitor drilling of appraisal and development wells in EA1, EA2 and EA3A. Monitor acquisition of more seismic data in EA4B. Commence government's participation in petroleum production.
<i>Performance Indicators:</i>			
Number of line (km) of seismic data acquired.	800	311	1000
% of petroleum exploration programmes monitored	100	100	100
Number of wells drilled	10	4	14
<i>Output Cost (US\$ bn):</i>	2.768	0.000	1.800
Output: 030305	Develop and implement a communication strategy for oil & gas in the country		

Section 3: Energy and Mineral Development Sector

Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
<i>Description of Outputs:</i>	Communication strategy in place. More information on petroleum activities disseminated.	Ministry officials interacted with the public and Civil society organizations through through a total of twenty one (21) sensitization workshops and Stakeholders' Forum, radio talk shows held Nwoya, Buliisa, Kiryandongo, Nebbi, Kibaale and Kampala.	A website on Petroleum Exploration Development and Production operations to be maintained. Twelve (12) radio talk shows to be held in Kila and towns within the Albertine Graben. Continue to dialogue with CSOs, the media and other stakeholders.
<i>Performance Indicators:</i>			
Number of Exploration Areas and people visited and sensitized on petroleum exploration and production activities	5	5	5
% of stakeholder communities consulted	50	40	50
Number of workshops, radio talk shows, and publications undertaken	20	21	30
<i>Output Cost (US\$ bn):</i>	<i>0.102</i>	<i>0.000</i>	<i>0.640</i>
Output: 030380	Oil Refinery Construction		
<i>Description of Outputs:</i>	Land for refinery and related infrastructure identified and acquired. Legal and regulatory framework for oil refining and related infrastructure. Capacity building and training in refinery development	Land for refinery and related infrastructure identified and the boundary drawn. The procurement for Environment consultant commenced (now about 30%). Procurement of RAP consultant was underway. Two staff sent for training	Land for refinery and supporting infrastructure acquired. FEED commenced Transaction advisory services commenced. Logistics Assessment study undertaken. Baseline survey for environmental impact concluded.
<i>Performance Indicators:</i>			
Status of land acquisition for oil refinery infrastructure	3. RAP studies		4. RAP Implementation
Status of 1 oil refinery development	2. Environmental and Social Impact Studies(ESIA)		6. Front End Engineering Designs (FEED)
Status of compensation for land claimants under Resettlement Action Plan (RAP)	3. RAP studies		4. RAP Implementation
Status of Environmental Impact Assessment completed	20	30	100
<i>Output Cost (US\$ bn):</i>	<i>14.858</i>	<i>0.000</i>	<i>13.515</i>

Vote Function: 0304 Petroleum Supply, Infrastructure and Regulation

Output: 030402 Management and Monitoring of petroleum supply Industry

Section 3: Energy and Mineral Development Sector

<i>Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development</i>			
<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2011/12 Spending and Outputs Achieved by End Dec	2012/13 Proposed Budget and Planned Outputs
<i>Description of Outputs:</i>	- Petroleum supply market operations monitored. - Petroleum standards enforced, - Compliance with applications for new applicants evaluated.	- Ten Operating licenses and 3 Construction Permits issued. - 24 audits and 14 EIA reports reviewed - Quarterly report on petroleum products quality produced. - 2451 samples analysed 2340 passed - Fuel marking supervised and program reports in place	- Petroleum supply market operations monitored. - Petroleum standards enforced, - Compliance with applications for new applicants evaluated.
<i>Performance Indicators:</i>			
% of petroleum facilities monitored conforming to standards	100	25	100
Herfindahl Index (HI) of market Competitiveness	0.1	0.13	0.1
<i>Output Cost (US\$ bn):</i>	0.427	0.000	0.441
Output: 030405	Development of Petroleum Refinery and Processing		
<i>Description of Outputs:</i>		salaries of staff dully paid	
<i>Output Cost (US\$ bn):</i>	0.013	0.000	0.013
Output: 030406	Kenya - Uganda - Rwanda Oil pipelines		
<i>Description of Outputs:</i>	Project activities coordinated	Still awaiting Allocation of Funds to compensate the Project Affected Persons(PAPS)	
<i>Output Cost (US\$ bn):</i>	0.057	0.000	0.057

* Excludes taxes and arrears

2012/13 Planned Outputs

The sector will continue to implement the National Oil and Gas Policy by undertaking the following activities: -

- (i) Promote the Country's petroleum potential and prepare a licensing round;
- (ii) Coordinate the formulation of a new petroleum bill;
- (iii) Build Capacity of the Oil and Gas sector through formal and informal training;
- (iv) Monitor the exploration for oil and gas together with appraisal of the discovered oil and gas fields;
- (v) Define and implement the National Content in the Oil and Gas Sector;
- (vi) Development and Implementation of a Communication strategy for the Oil and Gas Sector; and
- (vii) Participate in Regional initiatives.

Petroleum Supply, Infrastructure & Regulation: The following outputs will be undertaken:-

- (i) Develop Petroleum facility standards and product specification;
- (ii) Monitor the petroleum supply Industry;
- (iii) Maintain the National Petroleum Information System;
- (iv) Enforce Operational Standards and carry out laboratory testing of petroleum products;
- (v) Coordinate the development of Petroleum Refinery and Processing; and
- (vi) Commence the construction of the Kenya - Uganda oil pipeline and undertake the feasibility study for the Uganda - Rwanda Oil pipeline.

Medium Term Plans

Petroleum Exploration, Development and Production:

Section 3: Energy and Mineral Development Sector

The sector will continue to implement the oil and gas policy over the medium term, this will involve undertaking the following:-

- (i) Promote the Country's petroleum potential and licensing;
- (ii) Coordinate the implementation of the oil and gas regulations in the sector;
- (iii) Build Capacity of the Oil and Gas sector;
- (iv) Monitor the Upstream petroleum activities;
- (v) Develop and Implement a Communication strategy for the Oil and Gas Sector in the country; and
- (vi) Participate in Regional initiatives.

Petroleum Supply, Infrastructure & Regulation

- (i) Update the downstream Petroleum Policy, and Regulation;
- (ii) Monitor the petroleum supply Industry for compliance;
- (iii) Maintenance of National Petroleum Information System;
- (iv) Operational Standards and laboratory testing of petroleum products;
- (v) Development of Petroleum Refinery and Processing;
- (vi) Kenya - Uganda - Rwanda Oil pipelines commissioned; and
- (vii) Strategic National Petroleum Reserves developed.

Actions to Improve Outcome Performance

The sector commenced fresh registration of all petroleum installations and operations and the response is good. We are now finalizing the procurement process for refurbishing and restocking of Jinja Storage Tanks. The sector has enhanced monitoring the industry under the Fuel Marking and Quality Control Programme. In addition, the sector is enforcing the legal requirement that all Oil Marketing Companies should maintain stocks of 10 days as operating reserve on their part. These have worked well to stabilize the supply of products.

The Oil Pipeline still faces a challenge of acquiring land for wayleaves and we are discussing with the investor, TAMOIL, to have them take over the funding of land acquisition on a carried-interest basis.

Table S2.3: Actions and Medium Term Strategy to Improve Sector Outcome

<i>Sector Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development</i>			
2011/12 Planned Actions:	2011/12 Actions by Dec:	2012/13 Planned Actions:	MT Strategy:
Vote: 017 Ministry of Energy and Mineral Development			
Vote Function: 03 03 Petroleum Exploration, Development & Production			
Continued strengthening of the institutional capacity; three more technical staff to commence M.Sc. Degrees in Petroleum studies.	Six technical Staff undertaking M.Sc. Degrees in Petroleum studies. Implemetantion of the National participation and local content strategy by both Government and oil companies commenced.	Six technical staff commence MSc. Programs in Petroleum Studies and other strategic training programs undertaken.	Continued strengthening of the institutional capacity
New Petroleum Law in place.	Drafting of oil and gas Resource Management and Value addition bills concluded, submitted to Cabinet, reviewed and passed.	Development of the attendant regulations and guidelines. Revision of the Model Production Sharing Agreement (PSA).	Continue the implementation of the oil and gas policy and legislations.
Vote Function: 03 04 Petroleum Supply, Infrastructure and Regulation			

Section 3: Energy and Mineral Development Sector

<i>Sector Outcome 3: A well managed and safe guarded petroleum, Oil and gas resource chain for sustainable development</i>			
2011/12 Planned Actions:	2011/12 Actions by Dec:	2012/13 Planned Actions:	MT Strategy:
Promotion of the development of the Kenya-Uganda oil pipeline.	Assessment of the cost of transportation through the southern route was considered	- Work out modalities for using the southern route - Develop and stock the fuel reserves and connect them to the pipeline network.	- Work out modalities for using the southern route - Develop and stock the fuel reserves and connect them to the pipeline network.
Operationalising the JST tanks through a PPP arrangement, commencement of the feasibility study for inland distribution and storage of petroleum products	Presented a budgetary request to the MoFPED for refurbishing , construction and stocking 4 regional reserves. GoU also initiated a procurement process for PPP arrangement to run the Jinja Storage Tanks(JST)	Continued Restocking Capacity building Develop and utilise national strategic reserves	Continued Restocking Capacity building Develop and utilise national strategic reserves

(iv) Efficiency of Sector Budget Allocations

Table S2.4: Allocations to Key Sector and Service Delivery Outputs over the Medium Term

Billion Uganda Shillings	(i) Allocation (Shs Bn)				(ii) % Sector Budget			
	2011/12	2012/13	2013/14	2014/15	2011/12	2012/13	2013/14	2014/15
Key Sector	1,205.0	1,278.6	1,476.3	1,404.1	91.3%	90.7%	85.1%	84.0%
Service Delivery	361.5	245.6	307.4	238.1	27.4%	17.9%	17.7%	14.2%

Table S2.5: Key Unit Costs of Services in the Sector (Shs '000)

Unit Cost Description	Actual 2010/11	Planned 2011/12	Proposed 2012/13	Costing Assumptions and Reasons for any Changes and Variations from Plan
Vote: 017 Ministry of Energy and Mineral Development				
<i>Vote Function: 0301 Energy Planning, Management & Infrastructure Dev't</i>				
Cost per Mega Watt hour (MWh) of thermal generated electricity	318,827	318,827	318,827	The cost represents the energy price per MW generated at Aggreko Mutundwe Plant priced at USD 160.78 per MWh, calculated at a base price of 1US = 1980UShs (Feb 2009 prices)
Cost per kilo Watt hour (kWh) sold by the system operator UETCL to the energy distributors	348	348	235	The cost represents the peak hour cost of electricity transmitted by UETCL
<i>Vote Function: 0302 Large Hydro power infrastructure</i>				
Cost per Mega Watt of electricity produced per hour by a large hydro power station	36,744	37,907	25,000	Approved energy tariff for the power generated at the Nalubaale - Kiira operated by a concessionaire
<i>Vote Function: 0305 Mineral Exploration, Development & Production</i>				
Cost per line kilometre of airborne geophysical data	17,500	17,500	17,500	Total survey cost under the Sustainable Management of Mineral Resources Project 2006 - 2011 of USD 5.005 million for 632,681 line kilometres covered; averaged USD 7.911 per line kilometre

(v) Sector Investment Plans

Table S2.6: Allocations to Capital Investment over the Medium Term

Billion Uganda Shillings	(i) Allocation (Shs Bn)				(ii) % Sector Budget			
	2011/12	2012/13	2013/14	2014/15	2011/12	2012/13	2013/14	2014/15
Consumption Expenditure (Outputs Provided)	95.8	115.7	217.0	349.8	7.3%	8.4%	12.5%	20.9%
Grants and Subsidies (Outputs Funded)	367.9	163.1	328.4	123.2	27.9%	11.9%	18.9%	7.4%
Investment (Capital Purchases)	856.3	1,095.8	1,190.0	1,199.1	64.9%	79.7%	68.6%	71.7%
Grand Total	1,320.0	1,374.5	1,735.5	1,672.1	100.0%	100.0%	100.0%	100.0%

Section 3: Energy and Mineral Development Sector

Table S2.7: Major Capital Investments

Project Vote Function Output <i>US\$ Thousands</i>	2011/12		2012/13
	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by December (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)
Vote: 017 Ministry of Energy and Mineral Development			
Vote Function: 0301 Energy Planning, Management & Infrastructure Dev't			
<i>Project 0325 Energy for Rural Transformation II</i>			
030177 Purchase of Specialised Machinery & Equipment	Procurement and Installation of a plotter for GIS lab	Procurement of the test bench commenced and is in progress with Donor	Procurement and Installation of a plotter for GIS lab
	Procure 2 laptops for GIS lab	Funding. Procurement of items for the GIS Lab done under Donor Funding. Budget for plotter submitted to the World Bank for clearance	Procure 2 laptops for GIS lab
	Procure 2 cameras for GIS lab		Procure 2 cameras for GIS lab
	Procurement and Installation of a CFL Test Bench.		Procurement and Installation of a CFL Test Bench.
Total	2,454,000	0	454,000
<i>GoU Development</i>	<i>2,000,000</i>	<i>0</i>	<i>0</i>
<i>Donor Development</i>	<i>454,000</i>	<i>0</i>	<i>454,000</i>
<i>Project 0331 Rural Electrification</i>			
030176 Purchase of Office and ICT Equipment, including Software		PROCUREMENT OF PRINTERS AND SCANNERS COMMENCED TO BE COMPLETED IN JANUARY 2012	Office ICT equipment procured
Total	350,000	0	400,000
<i>GoU Development</i>	<i>350,000</i>	<i>0</i>	<i>400,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
030175 Purchase of Motor Vehicles and Other Transport Equipment	Two (2) field vehicles purchased	no funds released	Two (2) field vehicles purchased
Total	4,100,000	0	250,000
<i>GoU Development</i>	<i>4,100,000</i>	<i>0</i>	<i>120,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>130,000</i>
<i>Project 0940 Support to Thermal Generation</i>			
030199 Arrears		No releases were made	
Total	207,532,000	0	0
<i>GoU Development</i>	<i>207,532,000</i>	<i>0</i>	<i>0</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Project 1025 Karuma Interconnection Project</i>			
030172 Government Buildings and Administrative Infrastructure	Feasibility study report for Karuma Project available.	Feasibility Study for Karuma Hydropower Project Completed.	Feasibility study report for Karuma Project available.
		- Procurement of the EPC Contractor in Progress at Bidding Stage. Opening of bids shall be 31/01/2012. The interconnection project is being handled by UETCL	
Total	1,055,000	0	1,055,000
<i>GoU Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Donor Development</i>	<i>1,055,000</i>	<i>0</i>	<i>1,055,000</i>
Vote Function: 0302 Large Hydro power infrastructure			

Section 3: Energy and Mineral Development Sector

Project	2011/12		2012/13
Vote Function Output <i>US\$ Thousands</i>	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by December (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)
Vote Function: 0302 Large Hydro power infrastructure			
<i>Project 1143 Isimba HPP</i>			
030272 Government Buildings and Administrative Infrastructure		Continued with the feasibility study for Isimba Hydro Power Project	
Total	2,921,000	<i>0</i>	0
<i>GoU Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Donor Development</i>	<i>2,921,000</i>	<i>0</i>	<i>0</i>
<i>Project 1183 Karuma Hydroelectricity Power Project</i>			
030280 Large Hydro Power Infrastructure		- Procurement of the EPC Contractor for the Karuma Hydro Power Plant still in Progress at Bidding Stage. Bids are expected on the 31st January 2012. -Procurement of Project Manager for the Construction Karuma HPP was re-advertised and still in progress. -Procurement of an implementing Agency for the RAP in progress.	-EPC Contract Signed and Contractor for Karuma Hydropower Project on Site. -Five (5) Sensitisation Workshops for Karuma HP Project affected people and local community held. -100% of Project Affected Persons for Karuma HPP Compensated/Resettled. -100% Land Freed Up for Contractors. -RAP implementing Agency for Evacuation Lines in place. -100% of the Project Affected Persons for Karuma HPP Power Evacuation Lines Compensated/Resettled. -Construction of Karuma HPP Commences. 20% of the Works Covered.
Total	828,600,000	<i>0</i>	1,019,468,000
<i>GoU Development</i>	<i>828,600,000</i>	<i>0</i>	<i>1,019,468,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
Vote Function: 0303 Petroleum Exploration, Development & Production			
<i>Project 1142 Management of the Oil and Gas Sector in Uganda</i>			
030378 Purchase of Office and Residential Furniture and Fittings		New furniture procured for the office extension to accommodate the Refinery Unit and other offices. Periodic maintenance of furniture undertaken.	Furniture including cabinets, shelves and racks procured. Periodic maintenance of furniture undertaken.
Total	25,000	<i>0</i>	25,000
<i>GoU Development</i>	<i>25,000</i>	<i>0</i>	<i>25,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>

Section 3: Energy and Mineral Development Sector

Project	2011/12		2012/13
Vote Function Output <i>US\$ Thousands</i>	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by December (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)
Vote Function: 0303 Petroleum Exploration, Development & Production			
030377 Purchase of Specialised Machinery & Equipment		Laboratory chemicals and other consumables procured.	Laboratory equipment, chemicals, plus Geophysical equipment procured. Laboratories well maintained.
Total	165,000	<i>0</i>	486,000
<i>GoU Development</i>	<i>165,000</i>	<i>0</i>	<i>386,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>100,000</i>
030376 Purchase of Office and ICT Equipment, including Software		Computer hardware, accessories, communication equipment and software procured. The Department's Internet service with M/S Infocom renewed. Annual maintenance for Petrel Reservoir modelling Software and Geosoft renewed.	Ten PCs and a set of servers procured. Five software packages maintained. Internet subscription paid for 12 months.
Total	35,000	<i>0</i>	150,000
<i>GoU Development</i>	<i>35,000</i>	<i>0</i>	<i>150,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
030375 Purchase of Motor Vehicles and Other Transport Equipment		Procurement process for two vehicles continued.	Three (3) field vehicles procured.
Total	210,000	<i>0</i>	360,000
<i>GoU Development</i>	<i>210,000</i>	<i>0</i>	<i>360,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
030372 Government Buildings and Administrative Infrastructure		Periodic maintenance of office buildings (paintings, fixing of toilets, doors and windows) plus the surrounding environment undertaken. Phase-2 building plans and BOQs approved. Procurement of Contractor commenced	Continue Phase II of construction of Oil and Gas Data Centre, Office accommodation, Core store and Laboratory Building. Office buildings and the surrounding environment well maintained.
Total	7,401,000	<i>0</i>	6,400,000
<i>GoU Development</i>	<i>7,401,000</i>	<i>0</i>	<i>6,400,000</i>
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>
Project 1184 Construction of Oil Refinery			

Section 3: Energy and Mineral Development Sector

Project	2011/12		2012/13	
Vote Function Output <i>US\$ Thousand</i>	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by December (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)	
Vote Function: 0303 Petroleum Exploration, Development & Production				
030380 Oil Refinery Construction		Bidding process for the procurement of consultancy services to conduct RAP undertaken. Refinery Land earmarked by a minute from Hoima District Land Board. Draft TOR for Baseline Environmental Survey developed. TOR for Logistics Assessment Study drafted. Procurement of Consultant done. Process of Refinery land acquisition at Kabaale, Hoima commenced.	<ul style="list-style-type: none"> - Front-End Engineering Design - Aerodrome location technical studies - Refinery foundation strength and hydrological studies - Purchase of field vehicles - Communication strategy for the development of a refinery 	
Total	14,858,000	0	13,515,000	
<i>GoU Development</i>	<i>13,515,000</i>	<i>0</i>	<i>13,515,000</i>	
<i>Donor Development</i>	<i>1,343,000</i>	<i>0</i>	<i>0</i>	
Vote Function: 0305 Mineral Exploration, Development & Production				
<i>Project 1199 Uganda Geothermal Resources Development</i>				
030572 Government Buildings and Administrative Infrastructure		95 % of civil works construction and renovation of DGSM offices and laboratories completed under SMMRP. Specifications for Lab chemicals being prepare	<ul style="list-style-type: none"> •Regional geothermal database and network installed •Fume hoods for the geothermal laboratory installed •Equipment maintained and other laboratory consumables purchased. 	
Total	100,000	0	30,000	
<i>GoU Development</i>	<i>100,000</i>	<i>0</i>	<i>30,000</i>	
<i>Donor Development</i>	<i>0</i>	<i>0</i>	<i>0</i>	

S3 Proposed Budget Allocations for 2012/13 and the Medium Term

This section sets out the proposed sector budget allocations for 2012/13 and the medium term, including major areas of expenditures and any notable changes in allocations.

Table S3.1: Past Expenditure and Medium Term Projections by Vote Function

	2010/11 Outturn	2011/12		Medium Term Projections		
		Appr. Budget	Spent by End Dec	2012/13	2013/14	2014/15
Vote: 017 Ministry of Energy and Mineral Development						
0301 Energy Planning, Management & Infrastructure Dev't	206.630	449.883	0.000	280.901	523.698	318.337
0302 Large Hydro power infrastructure	0.000	831.521	0.000	1,019.468	1,144.192	1,141.227
0303 Petroleum Exploration, Development & Production	7.205	34.041	0.000	32.409	62.301	57.975
0304 Petroleum Supply, Infrastructure and Regulation	0.624	1.189	0.000	1.289	1.647	33.647
0305 Mineral Exploration, Development & Production	1.165	1.588	0.000	37.394	1.718	100.915
0349 Policy, Planning and Support Services	1.020	1.732	0.000	3.061	1.953	20.003
Total for Vote:	216.644	1,319.953	0.000	1,374.522	1,735.509	1,672.104

Section 3: Energy and Mineral Development Sector

	2010/11 Outturn	2011/12		Medium Term Projections		
		Appr. Budget	Spent by End Dec	2012/13	2013/14	2014/15
Total for Sector:	216.644	1,319.953	0.000	1,374.522	1,735.509	1,672.104

* Excluding Taxes and Arrears and including NTR

(i) The Total Budget over the Medium Term

In the FY 2010/11, the overall budgetary allocations to the Sector is UGX 499.167 Bn, of which UGX 1.88 Bn is Wage Recurrent, UGX 6.17 Bn is Non Wage Recurrent , UGX 133.96 Bn is Domestic Development, while UGX 340.45 Bn is donor development funding. It is therefore important to note that the budgetary allocations for wage remained the same as for the FY 2009/10, while the non-wage recurrent component increased by UGX 3 Bn.

(ii) The major expenditure allocations in the sector

(iii) The major planned changes in resource allocations within the sector

Table S3.2: Major Changes in Sector Resource Allocation

* Excluding Taxes and Arrears

S4: Unfunded Outputs for 2012/13 and the Medium Term

This section sets out the highest priority outputs in 2012/13 and the medium term which the sector has been unable to fund in its spending plans.

Table S4.1: Additional Output Funding Requests

Additional Requirements for Funding and Outputs in 2012/13	Justification of Requirement for Additional Outputs and Funding
<i>Vote Function:0304 Petroleum Supply, Infrastructure and Regulation</i>	
Output: 0304 04 Operational Standards and laboratory testing of petroleum products	
Funding Requirement (US\$ Bn): 65.570	<i>This activity is in line Objective 7 and 8 of NDP under Oil and Gas sector.</i>
Compensation for wayleaves for the oil product pipeline project	<i>PSD is newly established Department, new staff have been recruited and need specialized training in downstream related field to handle the activities of the sector effectively.</i>
<i>Vote Function:0305 Mineral Exploration, Development & Production</i>	
Output: 0305 05 Licencing and inspection	
Funding Requirement (US\$ Bn): 14.740	<i>Additional resources are essential to enhanced generation of Non-tax revenue.</i>
Ther need to develop mining activities and follow up on the results of the airborne geophysical survey	