Geological Survey

Vote Number: 471

Controlling Officer: Secretary for Natural Resources, Energy & Environment

1. Overview

1.1 Mission

To acquire, monitor, update, archive and disseminate geo-scientific information of Malawi in order to foster socio-economic development and contribute to poverty reduction through the utilisation and management of minerals and other geological resources.

1.2 Objectives and Strategies

Objectives	*Strategies*
To promote the mineral sector	Provide laboratory, extension, research and consultancy services to the public and private sectors
To make geo data readily available to potential investors	Computerise all the existing geological data and create an integrated management information system
To Improve seismic monitoring	Identify active seismic points, develop seismic monitoring framework and produce seismic map of Malawi
To re map the geology of the country, identify the main structural features and unveil the country's true mineral potential	Re-map the geology of Malawi at a detailed scale, re-evaluate known mineral deposits and conducting High Resolution Country wide Geophysical Survey

1.3 Summary of Achievements in 2010/ 2011

- Purchased and installed Seismological equipment in the following areas: Karonga, Bangula in Nsanje, Kanengo in Lilongwe, Chileka, Zomba, Mzuzu, Neno, Mwanza, Malindi and Zomba;

- Mapped seismically active faults in Karonga and Thunduwike in Mzimba; and

- Participated in international and local for a and meetings aligned towards mineral promotion.

1.4 Priority Outputs and Measures

Output	What Objective Is Output Contributing To?	2010-11 Planned	2010-11 Preliminary	2011-12	2012-13	2013-14
Establishing a Geo-data Management Centre	To make Geo-data readily available to potential investors	Digitize all existing geological data	Digitisation of geological data in progress	Design and Installation of Data-base	Geophysical Information System (GIS) based database of the geology and mineral resources occurence is established	Geo-data Management Centre established

Output	What Objective Is Output Contributing To?	2010-11 Planned	2010-11 Preliminary	2011-12	2012-13	2013-14
Seismic monitoring is conducted	To improve Seismic monitoring	Map seisimically active faults in Karonga and Thunduwike in Mzimba, install seismological equipment in 7 seismically active area	Mapped seisimically active faults in Karonga and Thunduwike in Mzimba, Install the seismological equipment	Constantly monitor all the 10 earthquake prone areas and produce annual geoharzards report	Constantly monitor all the 10 earthquake prone areas and produce annual geoharzards report	MConstantly monitor all the 10 earthquake prone areas and produce annual geoharzards report
Detailed geological map of Malawi and occurrence maps of potential mineral deposits produced	To remap the geology of the country, identify the main structural features and unveil the country's true mineral potential	Re evaluate known mineral deposits at Ngana and North Rukuru for exploitation	Identification of a contractor to conduct the coal quantification exercise is still in progress because shortlisted consultants did not meet minimum requirements	A high resolution country wide Geophysical Airborne Survey Re evaluate known mineral deposits at Ngana and North Rukuru for exploitation	Geological and ground mapping survey is conducted	A detailed geological Map of Malawi and occurrence maps of potential mineral deposits
Provide technical services to the private sector i.e Mchenga Coal Mine	To promote the mineral sector	Provide technical services to the private sector i.e Mchenga Coal Mine	Technical services are being provided to Mchenga Coal Mine	Provide technical services to the private sector i.e. Mchenga Coal Mine, Globe Metals and Watech	Provide technical services to the private sector i.e. Mchenga Coal Mine, Globe Metals and Watech	Provide technical services to the private sector i.e. Mchenga Coal Mine, Globe Metals and Watech

2. Summary of Budget

2.1 Medium-Term Expenditure Allocations

Table 2a: Budget by Type

	MK 000'000s				
	2010-11 Approved	2010-11 Revised	2011-12 Estimate	2012/13 Projection	2013/14 Projection
PE	44.57	50.57	51.94	55.92	62.21
ORT	97.51	97.51	83.66	90.77	98.48
Recurrent - Total:	**142.08**	**148.08**	**135.59**	**146.69**	**160.69**
Dev Part II	175.00	175.00	0.00	0.00	0.00
Development - Total:	**175.00**	**175.00**	**0.00**	**0.00**	**0.00**
471 - Geological Survey - Total:	**317.08**	**323.08**	**135.59**	**146.69**	**160.69**

Most of the resources have been allocated to Management and support services to cater for overhead costs which include utility bills and other core functions.

Table 2b: Budget by Program

	MK 000'000s				
	2010-11 Approved	2010-11 Revised	2011-12 Estimate	2012/13 Projection	2013/14 Projection
03. Land Resources	274.63	280.63	0.00	0.00	0.00
02. Natural Resources and Environment Management -	***274.63***	***280.63***	***0.00***	***0.00***	***0.00***
04. Geological Services	0.00	0.00	61.42	66.39	72.93
13. Mining, Energy Generation and Supply - Total:	***0.00***	***0.00***	***61.42***	***66.39***	***72.93***
03. Management and Support Services	29.67	29.67	58.57	63.43	69.23
04. HR Development and Management	12.78	12.78	15.61	16.87	18.53
17. Public Administration - Total:	***42.45***	***42.45***	***74.18***	***80.31***	***87.76***
471 - Geological Survey - Total:	**317.08**	**323.08**	**135.59**	**146.69**	**160.69**

Table 2c: Development Budget Projects

	MK 000'000s					
	Total Estimated Cost	2010-11 Approved	2010-11 Revised	2011-12 Estimate	2012/13 Projection	2013/14 Projection
063 - Geoinformation & Seismological Equipment		175.00	175.00	0.00	0.00	0.00
Dev Part II - Total:		**175.00**	**175.00**	**0.00**	**0.00**	**0.00**
471 - Geological Survey - Total:		**175.00**	**175.00**	**0.00**	**0.00**	**0.00**

2.2 Medium-Term Revenue Projections

Revenue for the Department is generated through services such as drilling, laboratory, geological information to the private sector; Building capacity in all sections and updating of the geological information in order to attract the private investors will increase collections

Table 2d: Medium Term Revenue Projections

	MK 000'000s				
	2010/11 Approved	2010/11 Revised	2011/12 Estimate	2012/13 Projection	2013/14 Projection
471 - Geological Survey - Total Revenue	1.00	1.00	1.00	1.10	1.21

3. Past Performance and Planned Outputs

Table 3a - Recurrent Budget Outputs

Sub - Program/ **Program**	**2010/11 Approved Budget**		**2010/11 Revised Budget**		**2011/12 Estimates**	
	Planned Outputs	**Allocation: MK 000'000s**	Actual Outputs	**Allocation: MK 000'000s**	Planned Outputs	**Allocation: MK 000'000s**
03. Land Resources						
	Re evaluate known mineral deposits at Ngana and North Rukuru for exploitation	**99.63**	Identification of a contractor to conduct the coal quantification exercise is still in progress	**105.63**	A high resolution country wide Geophysical Airborne Survey to be conducted	**0.00**
02. Natural Resources and Environment Management - Total		**99.63**		**105.63**		**0.00**
04. Geological Services						
	Purchase and install seismological equipment and monitor seismically active areas i.e Karonga	**0.00**	Seismological equipment has been Purchased and installed in all the 7 earthquake prone areas.All the seismically active areas are costantly being monotored.	**0.00**	Monitor all the seismically active areas of the country i.e Karonga, Mwanza	**61.42**
13. Mining, Energy Generation and Supply - Total		**0.00**		**0.00**		**61.42**
03. Management and Support Services						
	Management and Support Services	**29.67**	Management and Support Services	**29.67**	Management and Support Services	**58.57**
04. HR Development and Management						
	HR Development and Management	**12.78**	HR Development and Management	**12.78**	HR Development and Management	**15.61**
17. Public Administration - Total		**42.45**		**42.45**		**74.18**
471 - Geological Survey - Recurrent Budget Total		**142.08**		**148.08**		**135.59**

Table 3b - Development Budget Outputs

Project	2010/11 Approved Budget		2010/11 Revised Budget			2011/12 Estimates	
	Planned Outputs	**Allocation: MK 000'000s**	Actual Outputs	**Allocation: MK 000'000s**		Planned Outputs	**Allocation: MK 000'000s**
063 - Geoinformation & Seismological Equipment							
	Purchase and installation of seismology equipment, and establishment of Geo Information Centre	175.00	10 seismometers purchased, 11 Vaults constructed, 4 destkop and 2 laptop computers purchased, Geological Maps and seismic information digitised	175.00			0.00
471 - Geological Survey - Development Total							
		175.00		**175.00**			**0.00**

4. Itemized Budget Summary

Table 4a - Recurrent Budget by Item

	MK 000'000s			
	2010-11 Approved	2010-11 Revised	2011-12 Estimate	% Change 2011/12
10 - Salaries	37.71	43.71	50.61	34.22%
11 - Other allowances	6.86	6.86	1.33	-80.67%
21 - Internal travel	38.00	38.00	20.88	-45.04%
22 - External travel	2.06	2.06	1.66	-19.17%
23 - Public Utilities	5.11	5.11	15.81	209.03%
24 - Office supplies and expenses	9.90	9.90	9.04	-8.65%
25 - Medical supplies and expense	1.29	1.29	0.18	-85.61%
28 - Training expenses	6.45	6.45	2.96	-54.07%
29 - Acquisition of technical services	0.00	0.00	0.48	
33 - Other goods and services	0.06	0.06	1.42	2267.54%
34 - Motor vehicle running expenses	3.27	3.27	3.74	14.49%
35 - Routine Maintenance of Assets	13.40	13.40	5.71	-57.41%
39 - Grants to International Organisations	1.14	1.14	0.00	-100.00%
40 - Grants and Subventions	0.00	0.00	0.58	
41 - Acquisition of Fixed Assets	16.84	16.84	21.19	25.82%
471 - Geological Survey - Total:	**142.08**	**148.08**	**135.59**	**-4.56%**

Table 4b - Development Budget by Item

	MK 000'000s			
	2010-11 Approved	2010-11 Revised	2011-12 Estimate	% Change 2011/12
21 - Internal travel	2.42	2.42	0.00	-100.00%
28 - Training expenses	7.61	7.61	0.00	-100.00%
34 - Motor vehicle running expenses	3.00	3.00	0.00	-100.00%
35 - Routine Maintenance of Assets	0.50	0.50	0.00	-100.00%
41 - Acquisition of Fixed Assets	161.47	161.47	0.00	-100.00%
471 - Geological Survey - Total:	**175.00**	**175.00**	**0.00**	**-100.00%**