Ministry of Natural Resources, Energy & Environment

Vote Number: 470

Controlling Officer: Secretary for Natural Resources, Energy & Environment

1. Overview

1.1 Mission

To coordinate, facilitate and promote participation of all stakeholders in the sustainable development, utilization, and management of natural resources, energy and environment for socio-economic growth and development

1.2 Objectives and Strategies

Objectives	*Strategies*
To enhance resilience to climate change risks and promote proper use of weather and climate information by various stakeholders	Improve efficiency in provision of weather and climate information; develop capacity in climate change and meteorology and formulate policies and regulatory framework in climate, climate change and meteorology.
To enhance sustainable management of the Malawi artificial and natural forests for sustainable provision of forest goods and services	Develop and conserve forest plantations and natural woodlands, build capacity of various stakeholders in sustainable management and utilisation of forestry resources and enforce national and international forestry legislations.
To promote sustainable use of the environment and natural resources in Malawi	Ensure stakeholder compliance to environmental plans, policies and legislation, increase education and public awareness on issues of environmental protection, and operationalise environmental information management systems.
To generate sufficient amount of energy to meet the economic and social demands	Provide reliable energy sources to all sectors, encourage use of energy efficient technologies and promote private sector investment in energy generation and distribution

1.3 Summary of Achievements in 2010/ 2011

i) The Ministry intensified its campaign to attract private investment in the energy sector. Call for proposals for independent power production at Lower Fufu in Rumphi and Chimgonda, Chasombo and Chizuma potential sites in Nkhotakota were undertaken. The Ministry is also working with the World Bank to finance feasibility studies for construction of a backbone transmission network and potential hydro power generation at Mpatamanga Gorge on Shire River, Lower Fufu on South Rukuru and Chimgonda on Dwambadzi River.

ii) The Ministry also continued implementing the Malawi Rural Electrification Programme (MAREP) Phase VI for the 54 trading centres. So far construction works for seven centers (Mlare in Karonga, Kasinje in Ntcheu, Masenjere in Nsanje, Mitondo in Chikhwawa, Chimbalanga in Mulanje, Mlenga in Thyolo, Nsambo in Lilongwe) were finalised and delivery of MAREP materials to the remaining sites is almost complete.

iii) 20 officers who are involved in energy planning were trained on the use of IAEA Energy Planning Tools. A Country Report on Assessment of Energy Demand was finalised and will soon be published by the IAEA.

iv) Draft guidelines for sustainable use of biodiversity were prepared

v) Environmental inspections to six premises (Lumbadzi Sewer Line to assess its performance; Illovo Sugar Factory in Chikhwawa for waste water treatment compliance; Press Cane Company for waste water evaporation assessment during ethanol production; Lilongwe waste dumping site in Area 38 to assess the state of the dumping site; CHS Investment Company in Kanengo to appreciate the paper recycling processes; and Lilongwe Tobacco waste disposal site at Kanengo to examine the relevance of the disposal area) were conducted. The Ministry also continued monitoring the activities being conducted at Kayelekera Uranium Mine to ensure that it complies with environmental and human safety standards.

vi) A Malawi Electricity Investment Plan and a draft Climate Change Investment Plan were developed to guide investments in electricity generation and climate change respectively.

vii) The Ministry prepared and disseminated daily weather forecasts and issued early warnings. Based on the forecast reports, a 2010/11 seasonal forecast was derived and published. The forecast indicated a normal to above normal rainfall season.

viii) Several nursery management operations including bed preparation and sowing were conducted in readiness for the forthcoming forestry season. In addition, firebreaks and pruning were conducted in all the forest plantations. The 2010/11 Forestry Season was launched by His Excellency the State President, Ngwazi Professor Bingu Wa Mutharika.

ix) Forestry law enforcement operations were intensified. Confiscation of illegally procured forestry products at border posts and set roadblocks were the strategies deployed. Regional patrols also strengthened the law enforcement operations

x) High rate of encroachment for cultivation, settlement, illegal extraction of timber, firewood and poles was one of the challenges monitored in the 2010/11 financial year. In some cases, patrols were difficult due to lack of equipment and protection from encroachers

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
Install modern equipment in various meteorological Stations; formulate Climate Change Policy	To promote proper use of weather and climate and climate change information by various stakeholders and enhance resilience to climate change risks	Equip 21 Principal Meteorological stations and 20 Automatic Weather Stations with modern technologies	21 Principal Meteorological stations and 20 Automatic Weather Stations equipped with modern technologies	Formulated a climate change policy and equip 20 Automatic Weather Stations with modern technologies	Equip 20 Automatic Weather Stations with modern technologies	Equip 20 Automatic Weather Stations with modern technologies
Number of hectares planted with trees and managed	To enhance sustainable management of the Malawi artificial and natural forests for sustainable provision of forest goods and services	Plant 50,000 hectares with trees, and manage the existing 1.1 million hectares of forest reserves and plantations	42,000 hectares have been covered with new trees and 1.1 million hectares have been protected except for the 600 ha lost to bush fires	Plant 20,000 hectares with trees, and manage the existing 1.1 million hectares of forest reserves and plantations	Plant 20,000 hectares with trees, and manage the existing 1.1 million hectares of forest reserves and plantations	Plant 20,000 hectares with trees, and manage the existing 1.1 million hectares of forest reserves and plantations

Output	What Objective Is Output Contributing To?	2010-11 Planned	2010-11 Preliminary	2011-12	2012-13	2013-14
Atomic Energy Bill prepared and submitted to Parliament, Monthly environmental and pollution control inspections conducted	To improve sustainable utilization of the environment and natural resources in Malawi	Prepare Atomic Energy Bill and submit it to Parliament, conduct monthly environmental and pollution control inspections	Atomic Energy Bill prepared and submitted to Parliament, Monthly environmental and pollution control inspections conducted	Conduct monthly environmental and pollution control inspections	Conduct monthly environmental and pollution control inspections	Conduct monthly environmental and pollution control inspections
Construction of Kapichira II Power Station to generate 64MW, Electricity Grid extended to 54 Trading Centres and distribute power saver Bulbs to replace the convetional incandescent lamps	To generate sufficient amount of energy to meet the economic and social demands	Produce detailed designs for Kapichira II Power Station to generate 64MW; extend electricity grid to 54 trading centres	Detailed design for Kapichira II Power Station to be completed by December 2011; 7 trading centres electirified under MAREP VI	Install generation equipment at Kapichira, complete electrification of the remaining 47 Trading Centres and distributed 2 million Compact Flourescent Lamps to the public	Complete installation of generation equipment at Kapichira, extend electricity grid to 54 trading centres	Commission Kapichira II Power Station, extend electricity grid to 54 trading centres

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	1,200.14	1,254.30	1,295.01	1,387.22	1,543.14
ORT	478.76	478.84	427.57	493.30	530.98
Recurrent - Total:	**1,678.90**	**1,733.13**	**1,722.58**	**1,880.51**	**2,074.12**
Dev Part II	940.00	2,705.00	270.00	195.00	121.00
Dev Part I	196.00	196.00	751.47	0.00	0.00
Development - Total:	**1,136.00**	**2,901.00**	**1,021.47**	**195.00**	**121.00**
470 - Natural Resources, Energy & Environment - Total:	**2,814.90**	**4,634.13**	**2,744.05**	**2,075.51**	**2,195.12**

Table 2b: Budget by Program

	MK 000'000s				
	2010-11 Approved	2010-11 Revised	2011-12 Estimate	2012/13 Projection	2013/14 Projection
02. Forestry Management	912.40	949.63	1,773.87	1,026.78	1,072.33
03. Land Resources	107.23	108.23	21.76	25.11	27.03
04. Meteorological Services	182.17	182.17	146.03	169.76	201.34
05. Environmental Services	0.00	0.00	67.92	80.00	105.00
02. Natural Resources and Environment Management -	***1,201.80***	***1,240.03***	***2,009.59***	***1,301.65***	***1,405.70***
05. Other Research	14.90	14.90	0.00	0.00	0.00
12. Research and Development (R&D) - Total:	***14.90***	***14.90***	***0.00***	***0.00***	***0.00***
01. Energy Generation	223.58	1,988.58	113.24	128.97	39.39
02. Energy Supply	748.38	748.38	79.83	80.40	136.73
03. Mining Services	3.84	3.84	5.80	6.69	7.20
13. Mining, Energy Generation and Supply - Total:	***975.79***	***2,740.79***	***198.87***	***216.07***	***183.32***
02. Legal Services	16.36	15.36	15.82	18.26	19.65
16. Governance and Rule of Law - Total:	***16.36***	***15.36***	***15.82***	***18.26***	***19.65***
02. Minister's Office	16.36	16.36	21.99	26.96	31.67
03. Management and Support Services	500.99	513.99	405.75	392.60	420.23
04. HR Development and Management	67.04	67.04	69.82	80.91	89.41
07. Internal Monitoring and Evaluation	1.58	1.58	19.72	36.20	42.05
17. Public Administration - Total:	***585.97***	***598.97***	***517.28***	***536.67***	***583.36***
Other	20.08	24.08	2.49	2.87	3.09
Other - Total:	***20.08***	***24.08***	***2.49***	***2.87***	***3.09***
470 - Natural Resources, Energy & Environment - Total:	**2,814.90**	**4,634.13**	**2,744.05**	**2,075.51**	**2,195.12**

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
001 - Rural Electrification Programme		196.00	196.00	0.00	0.00	0.00
009 - Forestry Management for Sustainable Livelihoods	0.00	0.00	0.00	751.47	0.00	0.00
Dev Part I - Total:	**0.00**	**196.00**	**196.00**	**751.47**	**0.00**	**0.00**
065 - Rural Electrification Programme	10,500.00	105.00	105.00	0.00		
066 - Alternative Sources of Energy	1,500.00	100.00	100.00	0.00		
069 - Oil Pipeline and Fuel Storage	7,000.00	60.00	60.00	60.00	60.00	96.00

	MK 000'000s					
	Total Estimated Cost	2010-11 Approved	2010-11 Revised	2011-12 Estimate	2012/13 Projection	2013/14 Projection
083 - Modernization of Meteorological Services for Aviation Industry	200.00	75.00	75.00	75.00	25.00	25.00
085 - Tree Planting and Management for Carbon Sequestration	2,068.56	50.00	50.00	0.00	0.00	0.00
086 - Community Vitalization and Afforestation in Middle Shire (COVAMS)	1,132.00	15.00	15.00	15.00	10.00	0.00
087 - Forestry Replanting and Tree Nursery Project (FOREP)	250.00	85.00	85.00	0.00	0.00	0.00
088 - Coal-Fired Power Generation (Feasibility)	800.00	200.00	200.00	95.00	100.00	
089 - Automated Billing ESCOM	250.00	250.00	250.00	0.00	0.00	0.00
091 - Climate Change and Meteorology Capacity Development Project		0.00	0.00	15.00	0.00	0.00
094 - Forest Preservation Programme		0.00	0.00	10.00	0.00	0.00
098 - Kapachira II		0.00	1,765.00	0.00	0.00	0.00
Dev Part II - Total:	**23,700.56**	**940.00**	**2,705.00**	**270.00**	**195.00**	**121.00**
470 - Natural Resources, Energy & Environment - Total:	**23,700.56**	**1,136.00**	**2,901.00**	**1,021.47**	**195.00**	**121.00**

2.2 Medium-Term Revenue Projections

Revenues are raised through royalties, licence applications, rent of government houses, concessions and sale of forestry products, boarded off materials and publications

The Ministry will continue with patrols to minimise smuggling of forestry products. In addition to this, accountability and transparency will be enforced during revenue collection.

Table 2d: Medium Term Revenue Projections

	MK 000'000s				
	2010/11 Approved	2010/11 Revised	2011/12 Estimate	2012/13 Projection	2013/14 Projection
470 - Natural Resources, Energy & Environment - Total R	385.83	385.83	385.83	400.00	400.00

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**
02. Forestry Management						
	Manage the existing 1.1 million hectares of forest reserves and plantations	**788.34**	Almost all the existing hectarage has been properly managed except for 600 hectares that were lost to bush fires	**825.57**	Manage the existing 1.1 million hectares of forest reserves and plantations	**997.40**
03. Land Resources						
	Prepare guidelines for Sustainable use of biodiversity and develop Country position papers	**107.23**	Guidelines for Sustainable use of Biodiversity have been prepared	**108.23**	Develop country position papers	**21.76**
04. Meteorological Services						
	Disseminate daily weather information and seasonal climatic forecasts	**107.17**	Daily weather information and seasonal climatic forecasts have been disseminated	**107.17**	Disseminate daily weather information and seasonal climatic forecasts	**125.31**
05. Environmental Services						
	Conduct monthly environmental and pollution control inspections	**0.00**	Monthly environmental and pollution control inspections conducted	**0.00**	Conduct monthly environmental and pollution control inspections	**67.92**
02. Natural Resources and Environment Management - Total		**1,002.74**		**1,040.97**		**1,212.39**
01. Energy Generation						
	Rehabilitate Nkula A, Tedzani I and II Hydro Power Plants	**23.58**	Tedzani I and II Hydro power plants have been rehabilitated; agreement with Millenium Challenge Corporation on rehabilitation of Nkula A is reached	**23.58**	Rehabilitate Nkula A Hydro Powerstation and distribute 2 million Compact Flourescent Lamps	**18.24**
02. Energy Supply						
	Electrify 54 trading centre and 3 solar villages	**37.38**	7 trading centres and 3 solar villages have been electrified. For the other trading centres, construction materials have been delivered to sites and work is in progess	**37.38**	Finalise electrification of the remaining 47 trading centre and distribute 2 million energy saver bulbs to the public	**19.83**

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. Mining Services						
	Process exploration, and mining licence applications	**3.84**	360 applications have been processed	**3.84**	360 applications to be processed	**5.80**
13. Mining, Energy Generation and Supply - Total		**64.79**		**64.79**		**43.87**
02. Legal Services						
	Legal Services provided	**16.36**	Legal Services provided	**15.36**	Formulate Climate Change Policy	**15.82**
16. Governance and Rule of Law - Total		**16.36**		**15.36**		**15.82**
02. Minister's Office						
	Minister's Office services are provided	**16.36**	Minister's Office services are provided	**16.36**	Minister's Office services are provided	**21.99**
03. Management and Support Services						
	Management and Support Services provided	**489.94**	Management and Support Services have been provided	**502.94**	Management and Support Services provided	**336.48**
04. HR Development and Management						
	HR Development and Management services provided	**67.04**	HR Development and Management services have been provided	**67.04**	HR Development and Management services provided	**69.82**
07. Internal Monitoring and Evaluation						
	Provide Internal Monitoring and Evaluation services	**1.58**	Internal Monitoring and Evaluation services have been provided	**1.58**	Provide Internal Monitoring and Evaluation services	**19.72**
17. Public Administration - Total		**574.93**		**587.93**		**448.01**
Other						
		20.08		**24.08**		**2.49**
Other - Total		**20.08**		**24.08**		**2.49**
470 - Natural Resources, Energy & Environment - Recurrent Budget Total		**1,678.90**		**1,733.13**		**1,722.58**

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**
001 - Rural Electrification Programme						
	Extend the Electricity Grid to 54 Trading Centres	196.00	Electrification of 7 trading centre is complete.Construction materials for the remaining targeted trading centres have been delivered to the sites	196.00		0.00
009 - Forestry Management for Sustainable Livelihoods						
		0.00		0.00	Review Forestry Act, National Forestry Policy and formulate a forestry M & E framework	751.47
065 - Rural Electrification Programme						
	Extend the Electricity Grid to 54 Trading Centres	105.00	Electrification of 7 trading centre is complete.Construction materials for the remaining targeted trading centres have been delivered to the sites	105.00		0.00
066 - Alternative Sources of Energy						
	Electrification of three villages using Wind/Solar Hybrid systems is finalised	100.00	Kadzuwa, Chitawo and Mdyaka Villages are connected to mini solar power grid with 150 households as beneficiaries.	100.00		0.00
069 - Oil Pipeline and Fuel Storage						
	Conduct a detailed feasibility study for construction of an Oil Pipe line	60.00	Investors who are to conduct the feasibility study for construction of strategic fuel storage facilities have been identified	60.00	Conduct a detailed feasibility study for construction of the oil Pipe line	60.00
083 - Modernization of Meteorological Services for Aviation Industry						
	Install modern meteorological equipment in 41 Weather Stations	75.00	Modern meteorological equipment has been installed in the targeted 41 weather stations	75.00	Install modern meteorological equipment in 20 Automatic Weather Stations	75.00

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**
085 - Tree Planting and Management for Carbon Sequestration						
	Plant 50,000 hectares of land with trees	50.00	42,000 have been planted	50.00	Plant 50,000 hectares of land with trees	0.00
086 - Community Vitalization and Afforestation in Middle Shire (COVAMS)						
	Train villagers in two traditional authories in sustainable use of forestry resources	15.00	Villagers in T/A Kuntaja & Senior T/A Kapeni have been trained in sustainable uses of forestry products including participatory forestry management	15.00	Plant 10,000 hectares of land with trees	15.00
087 - Forestry Replanting and Tree Nursery Project (FOREP)						
	700 hactares of Industrial Wood plantations replanted	85.00	700 ha have been replanted with trees	85.00		0.00
088 - Coal-Fired Power Generation (Feasibility)						
	Condust a detailed feasibility study for the Coal fired power plant	200.00	A consultant has been recruited to quantify coal reserves in the northern region	200.00	The consultant is to complete both quantification of coal reserves and environmental Impact Assessment.	95.00
089 - Automated Billing ESCOM						
	Installed maximum demand meters on all big consumers	250.00	The procurement processes for supply of the Maximum Demand Meters is stil in progress	250.00		0.00
091 - Climate Change and Meteorology Capacity Development Project						
		0.00		0.00	Conduct a study on indigenous knowledge about climate change	15.00
094 - Forest Preservation Programme						
		0.00		0.00	Plant 600 Hectares with trees	10.00
098 - Kapachira II						
	Produce detailed designs for Kapichira II Power Station to generate 64MW	0.00	Detailed designs for Kapichira II Power Station to be completed by December 2011	1,765.00		0.00

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**
470 - Natural Resources, Energy & Environment - Development Total		**1,136.00**		**2,901.00**			**1,021.47**

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	1,153.10	1,207.26	1,252.48	8.62%
11 - Other allowances	47.04	47.04	42.53	-9.58%
21 - Internal travel	114.41	114.10	148.09	29.43%
22 - External travel	30.11	33.11	29.38	-2.42%
23 - Public Utilities	40.48	40.37	67.97	67.92%
24 - Office supplies and expenses	65.66	65.28	63.67	-3.04%
25 - Medical supplies and expense	9.63	9.44	7.71	-19.89%
27 - Education supplies and services	2.73	2.73	4.20	53.75%
28 - Training expenses	26.70	26.50	9.35	-64.97%
29 - Acquisition of technical services	8.73	6.73	2.98	-65.91%
30 - Insurance expenses	3.14	3.03	1.04	-66.71%
31 - Agricultural Inputs	2.99	2.61	0.87	-70.86%
32 - Food and rations	5.34	5.34	2.47	-53.81%
33 - Other goods and services	3.09	3.09	3.33	7.93%
34 - Motor vehicle running expenses	64.00	65.41	59.83	-6.52%
35 - Routine Maintenance of Assets	45.30	44.76	18.57	-59.00%
39 - Grants to International Organisations	2.20	2.08	6.16	180.15%
41 - Acquisition of Fixed Assets	54.26	54.26	1.95	-96.41%
470 - Natural Resources, Energy & Environment - Total:	**1,678.90**	**1,733.13**	**1,722.58**	**2.60%**

Table 4b - Development Budget by Item

	MK 000'000s			
	2010-11 Approved	2010-11 Revised	2011-12 Estimate	% Change 2011/12
21 - Internal travel	47.48	47.48	335.08	605.68%
22 - External travel	6.74	6.74	14.33	112.58%
23 - Public Utilities	6.24	6.24	2.37	-62.09%
24 - Office supplies and expenses	9.96	9.96	33.87	240.17%
27 - Education supplies and services	0.50	0.50	3.10	520.00%
28 - Training expenses	12.52	12.52	5.65	-54.88%
29 - Acquisition of technical services	192.94	1,957.94	376.08	94.92%
30 - Insurance expenses	2.40	2.40	1.00	-58.33%
31 - Agricultural Inputs	19.12	19.12	3.02	-84.21%
32 - Food and rations	2.95	2.95	0.46	-84.28%
33 - Other goods and services	1.72	1.72	0.00	-100.00%
34 - Motor vehicle running expenses	31.83	31.83	100.29	215.13%
35 - Routine Maintenance of Assets	23.59	23.59	62.66	165.59%
40 - Grants and Subventions	250.00	250.00	0.00	-100.00%
41 - Acquisition of Fixed Assets	528.01	528.01	83.56	-84.17%
470 - Natural Resources, Energy & Environment - Total:	**1,136.00**	**2,901.00**	**1,021.47**	**-10.08%**