

# Vote:302 Uganda National Meteorological Authority

## VI: Vote Overview

### (i) Snapshot of Medium Term Budget Allocations

**Table V1.1: Overview of Vote Expenditures**

Billion Uganda Shillings	FY2018/19 Outturn	FY2019/20		FY2020/21 Proposed Budget	MTEF Budget Projections			
		Approved Budget	Spent by End Sep		2021/22	2022/23	2023/24	2024/25
Recurrent Wage	6.386	7.413	1.464	7.413	7.413	7.413	7.413	7.413
Non Wage	3.640	5.148	0.176	5.148	6.178	7.413	8.896	10.675
Devt. GoU	10.699	14.202	0.486	14.202	14.202	14.202	14.202	14.202
Ext. Fin.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>GoU Total</b>	<b>20.725</b>	<b>26.763</b>	<b>2.125</b>	<b>26.763</b>	<b>27.793</b>	<b>29.029</b>	<b>30.511</b>	<b>32.291</b>
<b>Total GoU+Ext Fin (MTEF)</b>	<b>20.725</b>	<b>26.763</b>	<b>2.125</b>	<b>26.763</b>	<b>27.793</b>	<b>29.029</b>	<b>30.511</b>	<b>32.291</b>
<i>A.I.A Total</i>	1.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Grand Total</b>	<b>22.205</b>	<b>26.763</b>	<b>2.125</b>	<b>26.763</b>	<b>27.793</b>	<b>29.029</b>	<b>30.511</b>	<b>32.291</b>

### (ii) Vote Strategic Objective

a) Improve the quality and quantity of meteorological services to customers by strengthening the observing network, National Meteorological Center, Data and Information exchange according to WMO and International Civil Aviation Organization standards.

b) Build a skilled and motivated workforce through good human resource management practices.

c) Promote greater awareness of the benefits of using meteorological services, information and products for public safety and socio-economic planning.

d) Improve the accuracy and reliability of forecasts and advisory services through the development of climate prediction and short-term weather forecasting capability.

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## *V2: Past Vote Performance and Medium Term Plans*

### **Performance for Previous Year FY 2018/19**

Contract for the weather radar was signed and Letter of Credit of opened within the available funds.

19 rain gauges, 60 measuring cylinders, 25 rain bottles, 4 hook gauges, 4 micro gauge were procured. 6 Weather stations reequipped with calibrated digital barometers.

Formalised land in Sembabule with a lease agreement signed with Buganda Land Board for 49yrs; Bududa land was surveyed and letter of land allocation was issued to UNMA by the rownclerk office; Rakai was surveyed and a letter of no objection by the district issued to UNMA to acquire the title; Kyenjojo land formalisation was completed with an MoU signed between UNMA and the District. MAM seasonal forecasts issued from March 2019 to May 2019 for all regions of the country; MAM seasonal forecasts were translated into 25 local languages for all regions of the country from March 2019 to May 2019; 7 regional radio talk shows were conducted in Gulu, Moroto, Mbale, Mbarara, Fort Potal, Kampala and Kakumiro to disseminate and get feedback on the seasonal forecasts issued. 9 Community based Automatic weather stations reactivated in Kaabong(2), Kumi-Ongino, Namukora, Agoro, Agago, Amuru, Kamuli and Gulu.

UNMA support to the Aviation sector provided through 364 Terminal Aerodrome Forecasts and 3737 Flight folders to enable air navigation in and outside the country

Enhanced capacity of farmers and agricultural extension officers on the application of weather and climate information at farm level in Butaleja(40), Isingiro, Gulu, and Sembabule (50)

The March-April-May seasonal forecast was published in local newspapers

29 manual weather stations and 40 Automatic Weather Stations maintained across the country.

4 Stations of Gulu, Pacwa and Butiaba were reactivated by installation of a new raingauges; Bugaya was reactivated with repair of the data transmitter.

Lira zonal office rehabilitation was undertaken to 90% completion level

### **Performance as of BFP FY 2019/20 (Performance as of BFP)**

UNMA support to the Aviation sector provided through issuance of 552 Terminal Aerodrome Forecasts and Aviation forecasts and 4624 flight folders to enable air navigation in and outside the country

110 rain-gauges maintained functional countrywide.

29 manual weather stations functionality improves through corrective maintenance.

7 ADCON Automatic Weather Stations (AWS) functionality improved in Bugaya, Kidera, Kiige, Namasagali, Arua, Wadelai and Masindi.

One seasonal climate outlook issued for June July August season (JJA)

Land for the second weather radar procured and fully paid off in Mbarara

### **FY 2020/21 Planned Outputs**

20 Automatic Weather Stations, 150 Manual Rain gauges, 60 Digital thermometers, 52 Anemometers, 52 Digital Evaporation Pans, 52 Sunshine recorders and 300 Measuring cylinders procured.

8 Air pollution Monitoring Stations established in 4 Regions of Uganda, a Pilot briefing system for Entebbe and Soroti Airports and 2 Transformers procured for 2 weather radars.

4392 Terminal Aerodrome Forecasts, 810 SIGMETs and 53568 METARs and 25254 Flight folders issued for Entebbe, Soroti, Gulu, Arua and Kasese Aerodromes

Four seasonal climate outlooks issued, translated into 30 local languages on quarterly basis for regions of Uganda; Regional talk shows conducted to disseminate and get feedback on the seasonal forecasts issued.

Daily forecasts disseminated to 3 media houses of UBC TV, Star TV and Bukedde 1 T.V ; seasonal forecasts published in local newspapers;

Seasonal rainfall performance evaluations and impacts carried out in four regions of the country.

Enhanced capacity of farmers and agricultural extension officers on the utilisation of weather and climate information at farm level in all regions of the country

Finalise the Revival of Weather Observations at Airfields of Kisoro, Kihhi, Mbarara, Pakuba, Kidepo provided with Weather Observation Stations; 300 Rain gauges maintained functional across Uganda; 52 Manual Weather Stations and 68 ADCON Automatic Weather Stations' functionality maintained

### **Medium Term Plans**

40 Automatic Weather Stations, 250 Manual Rain gauges, 100 Digital thermometers, 60 Anemometers, 60 Digital Evaporation Pans, 60 Sunshine recorders and 600 Measuring cylinders procured.

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## Efficiency of Vote Budget Allocations

The vote has reduced allocations to consumptive items and prioritised in increasing functionality of weather stations across the country

### Vote Investment Plans

Major capital investments include the following:

20 Automatic Weather Stations, 150 Manual Rain gauges, 60 Digital thermometers, 52 Anemometers, 52 Digital Evaporation Pans, 52 Sunshine recorders, 300 Measuring cylinders procured.

8 Air pollutions Monitoring Stations established in 4 Regions of Uganda, a Pilot briefing system procured for Entebbe and Soroti Airports and 2 Transformers procured for 2 weather radars.

2 radar operation centers established at Mbarara and Lira.

Entebbe International Airport Meteorological Station and upper air station renovated

### Major Expenditure Allocations in the Vote for FY 2020/21

The major expenditure allocations are for:

20 Automatic Weather Stations, 150 Manual Rain gauges, 60 Digital thermometers, 52 Anemometers, 52 Digital Evaporation Pans, 52 Sunshine recorders, 300 Measuring cylinders procured.

8 Air pollutions Monitoring Stations established in 4 Regions of Uganda, a Pilot briefing system procured for Entebbe and Soroti Airports and 2 Transformers procured for 2 weather radars.

2 radar operation centers established at Mbarara and Lira.

Entebbe International Airport Meteorological Station and upper air station renovated

## V3: PROGRAMME OUTCOMES, OUTCOME INDICATORS AND PROPOSED BUDGET ALLOCATION

**Table V3.1: Programme Outcome and Outcome Indicators**

<b>Programme :</b>	<b>53 National Meteorological Services</b>				
<b>Programme Objective :</b>	To provide data and information on weather, climate and climate change to support sustainable social and economic development of the economy				
<b>Responsible Officer:</b>	Executive Director				
<b>Programme Outcome:</b>	<b>Increased access to real-time meteorological information by the public including the disabled, youth, children and elderly</b>				
<i>Sector Outcomes contributed to by the Programme Outcome</i>					
<b>1. Improved Weather, Climate and Climate Change Management, Protection and Restoration of Environment and Natural Resources</b>					
<b>Programme Performance Indicators (Output)</b>	<b>Performance Targets</b>				
	<b>2019/20 Plan</b>	<b>2019/20 Q1 Actual</b>	<b>2020/21 Target</b>	<b>2021/22 Target</b>	<b>2022/23 Target</b>
• Level of Accuracy of Seasonal weather forecasts issued for all categories of people including the female, male, children, youth, and elderly per climatological zone	80%,63%	78%,5%	85%	85%	85%

**Table V3.2: Past Expenditure Outturns and Medium Term Projections by Programme**

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Billion Uganda shillings	2018/19	2019/20		2020/21	MTEF Budget Projections			
	Outturn	Approved Budget	Spent By End Q1	Proposed Budget	2021/22	2022/23	2023/24	2024/25
<b>Vote :302 Uganda National Meteorological Authority</b>								
53 National Meteorological Services	20.545	26.763	2.125	26.763	27.793	29.029	30.511	32.291
<b>Total for the Vote</b>	<b>20.545</b>	<b>26.763</b>	<b>2.125</b>	<b>26.763</b>	<b>27.793</b>	<b>29.029</b>	<b>30.511</b>	<b>32.291</b>

## V4: SUBPROGRAMME PAST EXPENDITURE OUTTURNS AND PROPOSED BUDGET ALLOCATIONS

**Table V4.1: Past Expenditure Outturns and Medium Term Projections by SubProgramme**

Billion Uganda shillings	2018/19	2019/20		2020/21	Medium Term Projections			
	Outturn	Approved Budget	Spent By End Sep	Proposed Budget	2021/22	2022/23	2023/24	2024/25
<i>Programme: 53 National Meteorological Services</i>								
01 Headquarters	0.569	0.656	0.040	1.080	1.080	2.315	3.000	3.500
02 Finance and Administration	8.377	10.383	1.400	10.017	11.046	11.046	11.844	11.449
03 Training and Research	0.998	1.521	0.199	1.465	1.465	1.465	1.465	3.139
1371 Uganda National Meteorological Authority (UNMA)	10.689	14.202	0.486	14.202	14.202	14.202	14.202	14.202
<b>Total For the Programme : 53</b>	<b>20.634</b>	<b>26.763</b>	<b>2.125</b>	<b>26.763</b>	<b>27.793</b>	<b>29.029</b>	<b>30.511</b>	<b>32.291</b>
<b>Total for the Vote :302</b>	<b>20.634</b>	<b>26.763</b>	<b>2.125</b>	<b>26.763</b>	<b>27.793</b>	<b>29.029</b>	<b>30.511</b>	<b>32.291</b>

N / A

**Table V4.3: Major Capital Investment (Capital Purchases outputs over 0.5Billion)**

FY 2019/20		FY 2020/21
Appr. Budget and Planned Outputs	Expenditures and Achievements by end Sep	Proposed Budget and Planned Outputs
<b>Vote 302 Uganda National Meteorological Authority</b>		
Programme : 53 National Meteorological Services		
Project : 1371 Uganda National Meteorological Authority (UNMA)		

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## Output: 72 Government Buildings and Administrative Infrastructure

Aviation Weather Observation stations established at 4 Airfileds of Kisoro, Mbarara, Pakuba, Kidepo (0.064Bn)			Entebbe International Airport Meteorological Station and upper air station renovated, UNMA stall in Jinja upgraded and 2 radar operation centers established at Mbarara and Lira.
Countrywide, 15 Weather Station sites secured with fences	Land for the second weather radar procured and fully paid off in Mbarara		
Exhibition Stall at Agriculture show reconstructed.			
Headquarter offices fenced off to improve security			
Land for the second weather radar procured in Mbarara			
Office Accomodation for 10 Weather Stations of Ntusi, Kibanda, Mubende, Mityana, Gulu, Wadelai, Pachwa, Namalu, Bududa, Ivukula improved			
Sanitation Facilities for 10 Weather Stations of Kibanda, Ntusi, Mityana, Pachwa, Wadelai, Bududa, Namalu, Kiige, Kotido, Ivukula improved			
<b>Total Output Cost(Ushs Thousand):</b>	<b>0.744</b>	<b>0.200</b>	<b>2.850</b>
Gou Dev't:	0.744	0.200	2.850
Ext Fin:	0.000	0.000	0.000
A.I.A:	0.000	0.000	0.000

## Output: 75 Purchase of Motor Vehicles and Other Transport Equipment

			10 motorcycles and 2 double cabin pickups procured
<b>Total Output Cost(Ushs Thousand):</b>	<b>0.000</b>	<b>0.000</b>	<b>0.524</b>
Gou Dev't:	0.000	0.000	0.524
Ext Fin:	0.000	0.000	0.000
A.I.A:	0.000	0.000	0.000

## Output: 76 Purchase of Office and ICT Equipment, including Software

2 High Processing Computers (HPC) and 1 Server procured to strengthen the production of forecast products			1 scanner, 2 laptops, 20 Solar Panels, batteries and inverters, 3 heavy duty printers, 59 desktop computers and 10 Air conditioners procured.
20 Weather Stations equipped with Communication Facilities	Procurement of computers for all staff without computers initiated		
3 computers and 1 printers procured for effective dissemination of meteorological information.			
computers procured for all staff without computers			
<b>Total Output Cost(Ushs Thousand):</b>	<b>0.333</b>	<b>0.000</b>	<b>0.464</b>
Gou Dev't:	0.333	0.000	0.464
Ext Fin:	0.000	0.000	0.000
A.I.A:	0.000	0.000	0.000

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## Output: 77 Purchase of Specialised Machinery & Equipment

100 Manual Rain gauges,60 Digital thermometers,30 Anemometers,30 Evaporation Pans,30 Soil thermometers,10 Soil augures,30 Digital Barometers,2 Stevenson Screen, 30 Sunshine recorders,300 Measuring cylinders procured and installed countrywide (3.106Bn)	Funds received in the quarter were utilized to Top-up the Letter of Credit for the third weather radar.	20 Automatic Weather Stations, 150 Manual Rain gauges, 60 Digital thermometers, 52 Anemometers, 52 Digital Evaporation Pans, 52 Sunshine recorders, 300 Measuring cylinders procured.	
4 Air pollution Monitoring Stations established in 4 Divisions in Kampala		8 Air pollutions Monitoring Stations established in 4 Regions of Uganda, a Pilot briefing system procured for Entebbe and Soroti Airports and 2 Transformers procured for 2 weather radars.	
Purchase of new standby generator			
Verification techniques of Aviation weather Forecasts improved through procurement Real Time Verification System (RTVS) to enhance forecast accuracy issued across the country (0.555Bn)			
<b>Total Output Cost(Ushs Thousand):</b>	<b>9.927</b>	<b>0.090</b>	<b>4.565</b>
Gou Dev't:	9.927	0.090	4.565
Ext Fin:	0.000	0.000	0.000
A.I.A:	0.000	0.000	0.000

## V5: VOTE CHALLENGES FOR 2020/21 AND ADDITIONAL FUNDING REQUESTS

### Vote Challenges for FY 2020/21

Due to the capital-intensive nature of meteorological equipment, stations have only one set of instruments making it difficult to withdraw the equipment for the periodic calibration.

**Table V5.1: Additional Funding Requests**

Additional requirements for funding and outputs in 2020/21	Justification of requirement for additional outputs and funding
<b>Vote : 302 Uganda National Meteorological Authority</b>	
<b>Programme : 53 National Meteorological Services</b>	
<b>OutPut : 01 Weather and Climate services</b>	
Funding requirement US\$ Bn : <b>9.000</b>	Insurance, consumables, routine corrective and preventive maintenance for the three weather radars ensure functionality of the radars which require 24 hour uninterrupted operations