

# Vote:023 Ministry of Science, Technology and Innovation

## VI: Vote Overview

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

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

Billion Uganda Shillings	FY2017/18 Outturn	FY2018/19		FY2019/20 Proposed Budget	MTEF Budget Projections			
		Approved Budget	Spent by End Sep		2020/21	2021/22	2022/23	2023/24
Recurrent Wage	0.602	2.060	0.127	2.060	2.163	2.272	2.385	2.504
Non Wage	23.520	29.354	6.233	29.280	33.672	40.407	48.488	58.186
Devt. GoU	33.256	24.458	7.274	24.458	29.349	29.349	29.349	29.349
Ext. Fin.	0.000	114.422	0.000	49.434	69.900	66.092	19.041	0.000
<b>GoU Total</b>	<b>57.379</b>	<b>55.872</b>	<b>13.634</b>	<b>55.799</b>	<b>65.185</b>	<b>72.028</b>	<b>80.223</b>	<b>90.040</b>
<b>Total GoU+Ext Fin (MTEF)</b>	<b>57.379</b>	<b>170.295</b>	<b>13.634</b>	<b>105.233</b>	<b>135.085</b>	<b>138.120</b>	<b>99.263</b>	<b>90.040</b>
<i>A.I.A Total</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Grand Total</b>	<b>57.379</b>	<b>170.295</b>	<b>13.634</b>	<b>105.233</b>	<b>135.085</b>	<b>138.120</b>	<b>99.263</b>	<b>90.040</b>

### (ii) Vote Strategic Objective

To provide leadership, an enabling environment and resources for scientific research and knowledge based development for industrialization, competitiveness and employment creation leading to a sustainable economy

## V2: Past Vote Performance and Medium Term Plans

### Performance for Previous Year FY 2017/18

1. Undertook recruitment of technical staff to fill up the Ministry approved structure;
2. Submitted and obtained approval of the Cabinet on Commercialization of Kiira Motors Corporation;
3. Initiated the review of the 2009 National STI Policy;
4. Initiated collaboration and partnership with Massachusetts Institute of Technology (MIT), Harvard University, University of California on R&D
5. National Innovation Fund guidelines developed to support Basic and Applied research, Technology development & transfer and Technopreneurship/commercialization
6. National Standard Indicator Framework for STI finalized in liaison with Uganda Bureau of Statistics (UBOS), Ministry of Finance, Planning and Economic Development (MoFPED), National Planning Authority (NPA)
7. Sector Performance Indicator profiling and Target setting undertaken across the 4 regions of the Country
8. Sector Working Group Operationalized
9. Gender and equity awareness training for Ministry staff undertaken

### Performance as of BFP FY 2018/19 (Performance as of BFP)

1. Draft Sector Development plan finalized to guide Sector interventions
2. Innovation Fund Framework finalized. This is due for discussion in Cabinet to facilitate the process of identification and support of the different Scientists and Innovators. In these guidelines explicit consideration to all categories of beneficiaries across the country
3. Finalized the recruitment of staff to the Technical departments of the Ministry. By the close of Quarter one FY 2018/2019, the Ministry staffing level stood at 58%
4. Initiated the review of STI policy in liaison with United Nations Conference on Trade and Development (UNCTAD)
5. Scientific Innovations and Research profiled in selected locations across the Country
6. Monitoring and Evaluation of Innovation fund projects undertaken

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## FY 2019/20 Planned Outputs

- Integrating STI in Government Development Processes at both Local and District Local Governments. This involves finalising and dissemination of guidelines on integration of STI across Government
- Develop a National Research Agenda. This will provide a package of key Researchable areas in line with the Country's development aspirations
- Develop a Research and Development (R&D) strategy as a framework upon for support and commercialization of Research products
- Develop a National Innovation Registry. This requires a sound data bank and a strong Monitoring and Evaluation system
- Conduct sensitization, awareness and advocacy programs on Science, Technology and Innovation to increase the level of appreciation of STI activities and initiatives across the Country
- Profile Innovations and Research undertaken Country wide. This requires establishment of a coordination mechanism with Local Governments to profile these innovation whenever and wherever they occur
- Conduct a feasibility study on STI infrastructure development across the country ( Incubation centers, laboratories, STI Parks, Business Centers)
- Establish an Innovation and Intellectual Property Support Center
- Facilitate and strengthen Micro, Small and Medium Enterprises (MSMEs) through tooling, retooling and co-financing
- Conduct the STI career guidance week
- Promoting and strengthening adoption and Commercialization of products
- Establish a robust STI Infrastructure to facilitate Research and Innovation Countrywide
- Commercialise Kiira Vehicle
- Facilitate and support other SME, scientists and Innovators
- Facilitate and support commercialization of innovations
- Develop Policies, Standards and guidelines on Biosafety, Intellectual Property and STI integration
- Enforce, Monitor and evaluate implementation of STI Policy, standards and guidelines
- Dissemination of Policies, guidelines and Standards
- Capacity building/enhancement in gender and equity analysis across all STI MDAs and stakeholders

## Medium Term Plans

1. Setting up and operationalization of STI infrastructure
2. Establish National Science, Technology, Engineering and Innovation services that support the needs of both rural and urban population.
3. Support basic and applied Research
4. Support the application of Bio Engineering and Bio Technology
5. Support and exploit Intellectual Property Rights
6. Enhance the level of integration of Science, Technology and Innovation involving all the key actors/stakeholders (Central and Local Government; Informal and formal Sectors)
7. Develop STI Local content for all interest groups and stakeholders.

## Efficiency of Vote Budget Allocations

The allocation made to the different Programs and Sub programs is based on the key strategic objectives enshrined in the National Development Plan II. The Programs and Sub Program allocations are hinged on to the key result areas and the National Standard indicator framework of Government

## Vote Investment Plans

1. Establishment of regional science and technology parks
2. Transport and assorted ICT equipment

## Major Expenditure Allocations in the Vote for FY 2019/20

The major Expenditure allocation of Shs. 24 Billion is a transfer to Kiira Motors corporation to facilitate the implementation of Kiira Motor Vehicle Project. FY 2019/2020 will be the second year of implementation of this project

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

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

Vote Controller :
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# Vote:023 Ministry of Science, Technology and Innovation

<b>Programme :</b>	<b>01 Regulation</b>						
<b>Programme Objective :</b>	To Coordinate all matters pertaining to STI standards and regulation, and coordination of Bio sciences and Bio economy, Physical and Chemical Sciences						
<b>Responsible Officer:</b>	Director, STI Regulation						
<b>Programme Outcome:</b>	<b>Enhance Standards for the development of Science, Technology and Innovations</b>						
<i>Sector Outcomes contributed to by the Programme Outcome</i>							
<b>1. Effective STI regulatory framework</b>							
<b>2. Improved resource utilization and accountability</b>							
<b>Programme Performance Indicators (Output)</b>	<b>Performance Targets</b>						
	<b>2017/18 Actual</b>	<b>2018/19 Target</b>	<b>Base year</b>	<b>Baseline</b>	<b>2019/20 Target</b>	<b>2020/21 Target</b>	<b>2021/22 Target</b>
N / A							
<b>Vote Controller :</b>							
<b>Programme :</b>	<b>02 Research and Innovation</b>						
<b>Programme Objective :</b>	To Coordinate the National Innovation System, Research and Development endeavors/activities in the country						
<b>Responsible Officer:</b>	Director, Research and Innovation						
<b>Programme Outcome:</b>	<b>Increased Research, Innovations and emerging Technologies</b>						
<i>Sector Outcomes contributed to by the Programme Outcome</i>							
<b>1. Improved resource utilization and accountability</b>							
<b>2. Increased level of technology and innovation</b>							
<b>Programme Performance Indicators (Output)</b>	<b>Performance Targets</b>						
	<b>2017/18 Actual</b>	<b>2018/19 Target</b>	<b>Base year</b>	<b>Baseline</b>	<b>2019/20 Target</b>	<b>2020/21 Target</b>	<b>2021/22 Target</b>
N / A							
<b>Vote Controller :</b>							
<b>Programme :</b>	<b>03 Science Entrepreneurs</b>						
<b>Programme Objective :</b>	To Coordinate all entrepreneurial activities, Development of Technological incubation, development of small and medium enterprise and enhancement of STI skills						
<b>Responsible Officer:</b>	Director, Technopreneurship						
<b>Programme Outcome:</b>	<b>Increased Human Capital development in Science, Technology and Innovations</b>						
<i>Sector Outcomes contributed to by the Programme Outcome</i>							
<b>1. Improved resource utilization and accountability</b>							
<b>Programme Performance Indicators (Output)</b>	<b>Performance Targets</b>						
	<b>2017/18 Actual</b>	<b>2018/19 Target</b>	<b>Base year</b>	<b>Baseline</b>	<b>2019/20 Target</b>	<b>2020/21 Target</b>	<b>2021/22 Target</b>
N / A							

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

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Billion Uganda shillings	2017/18	2018/19		2019-20	MTEF Budget Projections			
	Outturn	Approved Budget	Spent By End Q1	Proposed Budget	2020-21	2021-22	2022-23	2023-24
<b>Vote :023 Ministry of Science, Technology and Innovation</b>								
01 Regulation	1.244	4.009	0.321	5.067	4.509	8.109	8.190	8.190
02 Research and Innovation	1.416	143.845	0.264	80.067	102.082	99.591	52.170	29.780
03 Science Entrepreneurship	1.210	4.562	0.207	4.962	5.612	6.887	6.717	6.717
49 General Administration and Planning	53.509	17.878	12.839	15.137	22.882	23.533	32.187	45.353
<b>Total for the Vote</b>	<b>57.379</b>	<b>170.295</b>	<b>13.631</b>	<b>105.233</b>	<b>135.085</b>	<b>138.120</b>	<b>99.263</b>	<b>90.040</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	2017/18	FY 2018/19		2019-20	Medium Term Projections			
	Outturn	Approved Budget	Spent By End Sep	Proposed Budget	2020-21	2021-22	2022-23	2023-24
<b>Programme: 01 Regulation</b>								
04 Monitoring and Evaluation	0.275	0.000	0.085	0.000	0.000	0.000	0.000	0.000
05 Quality Assurance	0.182	0.000	0.029	0.000	0.000	0.000	0.000	0.000
12 Science, Technology and Innovation Policy and Regulation	0.787	0.000	0.208	0.000	0.000	0.000	0.000	0.000
15 Bio Safety and Bio Security	0.000	1.300	0.000	1.720	1.481	1.481	2.381	2.381
16 Bio Sciences and Bio Economy	0.000	1.350	0.000	1.670	1.330	1.481	2.581	3.500
17 Physical, Chemical and Social Sciences	0.000	1.359	0.000	1.677	1.698	5.147	3.228	2.309
<b>Total For the Programme : 01</b>	<b>1.244</b>	<b>4.009</b>	<b>0.321</b>	<b>5.067</b>	<b>4.509</b>	<b>8.109</b>	<b>8.190</b>	<b>8.190</b>
<b>Programme: 02 Research and Innovation</b>								
06 International Collaboration	0.376	0.000	0.063	0.000	0.000	0.000	0.000	0.000
07 Research and Development	0.351	1.490	0.069	1.710	1.490	0.380	0.380	0.390
08 Technology Development	0.437	1.300	0.098	1.642	1.300	1.340	1.140	1.340
10 Infrastructure Development	0.000	1.305	0.000	1.635	1.015	3.010	2.940	2.460
14 Innovation Registration and Intellectual Property Management	0.252	1.328	0.034	1.646	1.028	1.320	1.320	1.590
1511 Kiira Motors Corporation	0.000	24.000	0.000	24.000	27.349	27.449	27.349	24.000
1513 National Science, Technology, Engineering and Innovation Skills Enhancement Project	0.000	114.422	0.000	49.434	69.900	66.092	19.041	0.000
<b>Total For the Programme : 02</b>	<b>1.416</b>	<b>143.845</b>	<b>0.264</b>	<b>80.067</b>	<b>102.082</b>	<b>99.591</b>	<b>52.170</b>	<b>29.780</b>
<b>Programme: 03 Science Entrepreneurship</b>								
09 Technology Uptake, Commercialisation and Enterprise Development	0.333	1.550	0.060	1.650	1.550	1.600	1.760	2.071
10 Science, Technology and Innovation infrastructure Development	0.299	0.000	0.048	0.000	0.000	0.000	0.000	0.000
11 Skills Development	0.324	1.537	0.064	1.687	1.637	2.910	2.760	1.944
13 Small and Medium Enterprise Development and Facilitation	0.253	0.000	0.034	0.000	0.000	0.000	0.000	0.000
18 Advancement and Outreach	0.000	1.475	0.000	1.625	2.425	2.377	2.197	2.702
<b>Total For the Programme : 03</b>	<b>1.210</b>	<b>4.562</b>	<b>0.207</b>	<b>4.962</b>	<b>5.612</b>	<b>6.887</b>	<b>6.717</b>	<b>6.717</b>

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<b>Programme: 49 General Administration and Planning</b>								
01 Finance and Administration	20.083	14.786	5.539	12.762	17.870	20.345	25.345	28.745
03 Internal Audit	0.170	0.215	0.026	0.125	0.130	0.070	0.140	0.195
1459 Institutional Support to Ministry of Science, Technology and Innovation	33.256	0.458	7.274	0.458	2.000	1.900	2.000	5.349
19 Policy and Planning	0.000	2.419	0.000	1.792	2.882	1.218	4.702	11.063
<b>Total For the Programme : 49</b>	<b>53.509</b>	<b>17.878</b>	<b>12.839</b>	<b>15.137</b>	<b>22.882</b>	<b>23.533</b>	<b>32.187</b>	<b>45.353</b>
<b>Total for the Vote :023</b>	<b>57.379</b>	<b>170.295</b>	<b>13.631</b>	<b>105.233</b>	<b>135.085</b>	<b>138.120</b>	<b>99.263</b>	<b>90.040</b>

**Table V4.2: Key Changes in Vote Resource Allocation**

<b>Major changes in resource allocation over and above the previous financial year</b>	<b>Justification for proposed Changes in Expenditure and Outputs</b>
<b>Vote :023 Ministry of Science, Technology and Innovation</b>	
<i>Programme : 49 Ministry of Science, Technology and Innovation</i>	
<b>Output: 01 Administration and Support Services</b>	
Change in Allocation (US\$ Bn) : <b>(2.161)</b>	The rent arrears was budgeted for in the current FY which has deducted from the line item. Thus reduction to 2.9Billion
<b>Output: 02 Research , Information and statistical services</b>	
Change in Allocation (US\$ Bn) : <b>(0.130)</b>	It is hoped that all the start up activities towards the full functionalisation of the Sector Statistical system would have been complete in the FY 2018/2019. Therefore it necessitated a reduction of the allocation in the subsequent FY
<b>Output: 03 Policy , Planning and Monitoring</b>	
Change in Allocation (US\$ Bn) : <b>(0.498)</b>	

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

<b>FY 2018/19</b>		<b>FY 2019/20</b>
<b>Appr. Budget and Planned Outputs</b>	<b>Expenditures and Achievements by end Sep</b>	<b>Proposed Budget and Planned Outputs</b>
<b>Vote 023 Ministry of Science, Technology and Innovation</b>		
Programme : 02 Research and Innovation		
Project : 1513 National Science, Technology, Engineering and Innovation Skills Enhancement Project		

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### Output: 72 Government Buildings and Administrative Infrastructure

Cadastral, topographic, hydrological surveys and sites preparation undertaken	-		Phase 1 - Learning factory construction equipment procured and delivered
Environmental and social management and Monitoring plans developed	-		Phase 1 of the civil works for the TIBIC - Namanve and NSTEIC - Sanga completed
Innovation and Design Hubs established	-		
Manufacturing incubation hubs constructed	-		
Physical infrastructural designs developed and approved	-		
Physical infrastructure for NSTESEC and TIBIC established	-		
Shell infrastructure- techno-business facilitation centres established			
Testing, centres and calibration facilities established			
Utilities and access roads constructed			
<b>Total Output Cost(Ushs Thousand):</b>	<b>93.190</b>	<b>0.000</b>	<b>40.217</b>
Gou Dev't:	0.000	0.000	0.000
Ext Fin:	93.190	0.000	40.217
A.I.A:	0.000	0.000	0.000

### Output: 77 Purchase of Specialised Machinery & Equipment

Design centre machinery and equipment procured & supplied	-		Phase 1 of learning factory - Construction equipment procured and delivered
Machinery and equipment , motor vehicles procured & supplied	-		
Production workshops and quality assurance laboratories equipped			
Prototyping equipment procured			
<b>Total Output Cost(Ushs Thousand):</b>	<b>14.860</b>	<b>0.000</b>	<b>9.217</b>
Gou Dev't:	0.000	0.000	0.000
Ext Fin:	14.860	0.000	9.217
A.I.A:	0.000	0.000	0.000

## V5: VOTE CHALLENGES FOR 2019/20 AND ADDITIONAL FUNDING REQUESTS

### Vote Challenges for FY 2019/20

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1. Funding shortfalls: There is no funding for support for Scientists and Innovation for continuity – No Research and Innovation Fund provided this FY 2018/19. Additionally the development allocation of 0.59 Billion is so meagre and may not support the retooling needs of the Ministry
2. Inadequate budget to support Research and Development and the proven concepts for commercialization. For Instance the support to other Scientists, a development grant of UGX. 5bn was reallocated by Parliament from the UNCST Budget.
3. Insufficient physical and technological infrastructure to support Scientific Research and Innovation.
4. Limited commercialization of research results and utilization of acquired patents
5. Expensive R&D and innovation infrastructure and inputs (R&D expenditures, training scientist and engineers, laboratory equipment, public research institutions)
6. Non provision of Science Officers in Local Governments Structure
7. Limited involvement of private sector in STI

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

Additional requirements for funding and outputs in 2019/20	Justification of requirement for additional outputs and funding
<b>Vote : 023 Ministry of Science, Technology and Innovation</b>	
<b>Programme : 01 Regulation</b>	
<i>OutPut : 01 Enabling Policies, Laws and Regulations developed</i>	
Funding requirement US\$ Bn : <b>0.500</b>	Not Applicable
<b>Programme : 02 Research and Innovation</b>	
<i>OutPut : 01 Research and Development</i>	
Funding requirement US\$ Bn : <b>5.200</b>	These funds were erroneously reallocated from the Sector at the finalization of the Budget for FY 2018/2019
<i>OutPut : 51 Transfers to Innovators and Scientists</i>	
Funding requirement US\$ Bn : <b>20.000</b>	Objective 2 of the NDP II on ST&I on Page 197 stresses the need to enhance Research and Development in Uganda
<b>Programme : 03 Science Entrepreneurship</b>	
<i>OutPut : 02 Value addition centre established</i>	
Funding requirement US\$ Bn : <b>100.000</b>	Objective 3 of the STI NDP II objectives implores Government to set up value addition centres across the Country
<i>OutPut : 04 Support Scientific and innovations</i>	
Funding requirement US\$ Bn : <b>5.000</b>	To support Research and Development through facilitating clearance of Research activities
<b>Programme : 49 General Administration and Planning</b>	
<i>OutPut : 78 Purchase of Office and residential Furniture and fittings</i>	
Funding requirement US\$ Bn : <b>3.000</b>	To provide an enabling environment for the provision of effective services