

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

<i>Billion Uganda Shillings</i>	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	1.368	2.060	0.486	2.060	2.060	2.060	2.060	2.060
Non Wage	25.124	33.813	2.727	33.813	40.576	48.691	58.429	70.115
Devt. GoU	21.022	53.388	73.545	53.388	53.388	53.388	53.388	53.388
Ext. Fin.	0.000	83.284	0.000	60.611	63.337	18.257	0.000	0.000
GoU Total	47.515	89.261	76.758	89.261	96.024	104.139	113.878	125.563
Total GoU+Ext Fin (MTEF)	47.515	172.545	76.758	149.872	159.361	122.396	113.878	125.563
<i>A.I.A Total</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Grand Total	47.515	172.545	76.758	149.872	159.361	122.396	113.878	125.563

(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

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V2: Past Vote Performance and Medium Term Plans

Performance for Previous Year FY 2018/19

1. Developed the National Research and Innovation Program Framework to support the entire Research and Innovation value chain, diffusion of technologies and commercialization of products
2. Developed an all-inclusive Sector Development Plan for the period FY 2019/20 to 2024/25
3. Initiated collaborations with Local and International partners like Universities, Research Institutions, and Development Partners to improve the Country's capacity for research, technology transfer and partnerships amongst Research Institutions, Industry and Communities taking into account the role of women. Some of these include USA, Russia, China, United Kingdom, Malaysia, Israel, South Africa, Brazil, Iran and European Union.
4. Recruited staff to fill the approved structure of the Ministry. The number of staff out of a total establishment of 147 now stands at 123 which is 78.9%.. Of these 83 are male and 40 are female
5. Initiated the review of an all-inclusive National ST&I Policy to cater for the changing ST&I environment and accommodate categories of people within the ST&I Eco-system.
6. Commenced construction of the Kiira Vehicle Plant in Jinja which shall have an installed initial capacity to produce 5,000 vehicles per year by 2021 with potential to employ high numbers of women and qualified youth
7. Commenced the construction of an Industrial Skills Production Center at UIRI, Namanve to facilitate skilling of the youth
8. Developed the draft Sector Strategic Plan for Statistics
9. Capacity building initiatives for staff on cross cutting issues (Gender and Equity; HIV/AIDS, Environment and Climate Change) undertaken.

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

1. Regional stakeholder engagements on the role of ST&I in the development process conducted
 2. Scientific research and innovations profiled and documented in various regions across the country
 3. Innovation and Intellectual Property sensitization conducted in various regions and support centers established in universities
 4. Two Electric Buses Jointly Developed Kiira Motor Corporation and a .consortium from China. Busses have access for the disabled
 5. Commenced preparation of the Research and Innovation Fund Bill which should include a strategy for supporting innovations from all vulnerable groups countrywide
 6. Trademarks for Kiira EV, Kiira EVS, Kayoola EVS and Kiira Vehicle Plant issued by URSBA
 7. Finalized preparation of the draft Ministry Client Charter
 8. STI awareness engagements with National leaders, Local Governments, women, youth, PWDs, professional and research bodies conducted in various regions
 9. Global supply chain for Tooke products under PIBID developed and operationalized in Africa, Europe and Asia. The production process will take into account women and the disabled
 10. Baseline assessment of the current sericulture ecosystem (institutions, farmers, women and infrastructure) in the country undertaken
 11. Monitoring and Evaluation of Innovation Fund projects undertaken across the Country
 12. Inventory of STI sectoral policies developed, updated, maintained and submitted to the Office of the President; standards and guidelines prepared
 13. The draft National Research Agenda prepared and is awaiting approval
 14. Profiled innovations and research across the country
 15. Capacity building on gender and equity budgeting undertaken
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FY 2020/21 Planned Outputs

1. Enhance national, regional and international collaborations in the Science, Technology and Innovation (STI) ecosystem
2. Enhance transfer and adoption of various technologies under the STI ecosystem to spur industrialization in all regions of the country
3. Finalize the STI policy as well as developing other minor policies while taking into account implication on marginalized groups such as women, children and the disabled
4. Finalize the guidelines for integration of ST&I in MDAs and all regions in the country
5. Establish relevant STI infrastructure such as building space laboratories and acquiring research and training equipment to support Universities and researchers while taking into account access for the disabled
6. Finalize the development of the National Research Agenda to provide a catalogue of the country's research priorities to address societal issues for all Ugandans including the marginalized groups
7. Undertake and document nationwide profiling of new and existing research and indigenous knowledge for all groups of people and regions of the country
8. Finalize development of the National Technology and Transfer Strategy to enable technologies to be diffused in all regions of the country
9. Conduct a study on youth and women empowerment potential of cleantech innovation, entrepreneurship and investments
10. Design, develop and validate framework(s) for engaging with the private sector and marginalized groups for development, investment and commercialization of cleantech solutions
11. Develop Frameworks and standards for science, technology and innovation infrastructure in all regions across the country (STI parks, incubation centres, laboratories) taking into account accessibility by disabled groups
12. Initiate establishment of STI regional centers of excellence
13. Establish IP Licensing Offices in Universities in all regions; develop an IP database
14. Develop Innovation and IP Policy, guidelines and Strategies for adaptation by all groups of people in the country including the hard to reach areas
15. Establish mechanisms and strategies for financing products from the various regions for commercialization
16. Establish ST&I business skilling and training programme for prospective entrepreneurs, youth, women, informal sector and SME operators
17. Conduct impact assessment of technology transfer, adoption and diffusion initiatives and programs. This should include impact on women and the elderly
18. Conduct the Uganda International Science and Innovation Festival 2020 which should showcase innovations from all regions and groups
19. Develop a National ST&I Advancement and Outreach Strategy with inclusion of hard to reach regions and disabled persons
20. Develop a baseline report on the status of ST&I integration in LGs and MDAs indicating the impact on all various groups and regions countrywide
21. Establish an ST&I framework/system for empowering and harnessing Ugandans abroad to invest and participate in the implementation of ST&I programs and projects within the Country
22. Conduct a baseline survey for ST&I statistics which should take into account all groups of citizenry for effective and efficient implementation of the NDP III
23. Develop, enforce, monitor and evaluate implementation of ST&I policies, regulations, standards and priorities in all regions of the country
24. Develop the Research and Innovation Fund Bill which should include a strategy for supporting innovations from all vulnerable groups countrywide

Medium Term Plans

1. Promote the development of a well-coordinated science, technology and innovation eco-system emphasizing inclusion for all
2. Develop requisite Technology & Innovation infrastructure in various regions while taking into account the needs of the disabled
3. Build human resource capacity for Technology & Innovation especially amongst the children and youth
4. Strengthen Research & Development capacities and applications in all regions of the country
5. Increase development, transfer and adoption of appropriate technologies and innovations amongst all categories of persons in the country
6. Improve the legal and regulatory framework
7. Develop STI Local content for all interest groups and stakeholders.
8. Setting up and operationalization of STI infrastructure

Efficiency of Vote Budget Allocations

The allocations made to the different programs and sub-programs were based on the key strategic objectives enshrined in the vote strategies, interventions highlighted in the National Development Plan and other planning frameworks. These allocations also take into account the key result arrears and the National Standard Indicator Framework of Government.

Vote Investment Plans

1. Establishment of skilling centres in Ssanga and Namanve under the National Science, Technology, Engineering and Innovation Skills Enhancement Project (NSTEISEP)
2. Construction of the Kiira Motors vehicle plant assembly in Jinja
3. Retooling of the Ministry

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Major Expenditure Allocations in the Vote for FY 2020/21

1. Shs. 20bn is a transfer to Kiira Motors Corporation to facilitate the ongoing construction works under the Kiira Motor Vehicle Project. FY 2020/21 will be the third year of implementation of this project
2. Shs.10bn for the Innovation fund to support Researchers and Innovators in the country. Emphasis will be placed on promotion of innovations in the informal Sector while having a national focus (leaving no one behind)
3. Shs. 9.5bn for the Presidential Initiative on Banana Industrial Development (PIBIBD)
4. Shs. 72.467bn for the National Science, Technology, Engineering and Innovation Skills Enhancement Project (NSTEISEP). This will support to retool and provide employment to the disadvantaged as craftsmen and technicians

V3: PROGRAMME OUTCOMES, OUTCOME INDICATORS AND PROPOSED BUDGET ALLOCATION

Table V3.1: Programme Outcome and Outcome Indicators

Programme :	01 Regulation				
Programme Objective :	To Coordinate all matters pertaining to STI standards and regulation, and coordination of Bio sciences and Bio economy, Physical and Chemical Sciences				
Responsible Officer:	Director, STI Regulation				
Programme Outcome:	Enhance Standards for the development of Science, Technology and Innovations				
<i>Sector Outcomes contributed to by the Programme Outcome</i>					
1. Effective STI regulatory framework					
Programme Performance Indicators (Output)	Performance Targets				
	2019/20 Plan	2019/20 Q1 Actual	2020/21 Target	2021/22 Target	2022/23 Target
• Percentage Compliance to National STI Standards and Guidelines	22%	0%	25%	27%	30%
Programme :	02 Research and Innovation				
Programme Objective :	To Coordinate the National Innovation System, Research and Development endeavors/activities in the country				
Responsible Officer:	Director, Research and Innovation				
Programme Outcome:	Increased Research, Innovations and emerging Technologies				
<i>Sector Outcomes contributed to by the Programme Outcome</i>					
1. Increased level of technology and innovation					
Programme Performance Indicators (Output)	Performance Targets				
	2019/20 Plan	2019/20 Q1 Actual	2020/21 Target	2021/22 Target	2022/23 Target
• % of MDAs trained/sensitised on Science, Technology and Innovation	20%	5%	25%	30%	50%
Programme :	03 Science Entrepreneurship				
Programme Objective :	To Coordinate all entrepreneurial activities, Development of Technological incubation, development of small and medium enterprise and enhancement of STI skills				
Responsible Officer:	Director, Technopreneurship				
Programme Outcome:	Increased Human Capital development in Science, Technology and Innovations				
<i>Sector Outcomes contributed to by the Programme Outcome</i>					

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1. Increased technological and science uptake in development

Programme Performance Indicators (Output)	Performance Targets				
	2019/20 Plan	2019/20 Q1 Actual	2020/21 Target	2021/22 Target	2022/23 Target
• Percentage increase in transfer , adaptation and uptake of technologies	2%	0.2%	5%	10%	15%

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

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
Vote :023 Ministry of Science, Technology and Innovation								
01 Regulation	1.742	4.617	0.344	4.519	4.617	4.906	5.869	5.869
02 Research and Innovation	15.524	121.673	69.910	98.857	101.638	56.558	45.164	45.164
03 Science Entrepreneurship	1.685	4.977	0.372	4.442	4.804	12.630	4.804	4.804
49 General Administration and Planning	28.424	41.278	6.106	42.055	48.302	48.302	58.040	69.726
Total for the Vote	47.375	172.545	76.732	149.872	159.361	122.396	113.878	125.563

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
Programme: 01 Regulation								
15 Bio Safety and Bio Security	0.496	1.502	0.107	1.427	1.437	1.437	1.523	1.523
16 Bio Sciences and Bio Economy	0.479	1.538	0.110	1.435	1.523	1.523	2.401	1.842
17 Physical, Chemical and Social Sciences	0.480	1.577	0.127	1.657	1.657	1.945	1.945	2.504
Total For the Programme : 01	1.777	4.617	0.344	4.519	4.617	4.906	5.869	5.869
Programme: 02 Research and Innovation								
07 Research and Development	0.590	1.490	0.145	1.430	1.465	2.681	2.681	5.887
08 Technology Development	0.537	1.504	0.119	1.515	1.515	1.515	2.681	2.035
10 Infrastructure Development	0.543	1.470	0.126	1.405	1.435	1.435	5.887	2.160
14 Innovation Registration and Intellectual Property Management	0.501	1.526	0.132	1.496	1.486	0.270	1.515	2.681
1511 Kiira Motors Corporation	13.309	20.000	12.137	20.000	20.000	20.000	20.000	20.000
1513 National Science, Technology, Engineering and Innovation Skills Enhancement Project	0.000	95.684	57.250	73.011	75.737	30.657	12.400	12.400
Total For the Programme : 02	15.557	121.673	69.910	98.857	101.638	56.558	45.164	45.164
Programme: 03 Science Entrepreneurship								
09 Technology Uptake, Commercialisation and Enterprise Development	0.587	1.850	0.128	1.677	1.839	3.837	2.037	2.188
11 Skills Development	0.574	1.601	0.131	1.360	1.460	3.460	1.307	1.307
18 Advancement and Outreach	0.447	1.526	0.114	1.405	1.505	5.333	1.460	1.309
Total For the Programme : 03	1.691	4.977	0.372	4.442	4.804	12.630	4.804	4.804

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Programme: 49 General Administration and Planning								
01 Finance and Administration	19.279	18.203	1.754	17.842	0.750	1.450	1.028	1.028
02 Human Resource	0.000	0.000	0.000	0.931	0.000	0.000	0.000	0.000
03 Internal Audit	0.138	0.180	0.020	0.218	23.938	22.738	31.938	41.938
1459 Institutional Support to Ministry of Science, Technology and Innovation	7.713	20.988	4.157	20.988	20.988	20.988	20.988	20.988
19 Policy and Planning	1.299	1.907	0.175	2.075	2.626	3.126	4.086	5.772
Total For the Programme : 49	28.430	41.278	6.106	42.055	48.302	48.302	58.040	69.726
Total for the Vote :023	47.454	172.545	76.732	149.872	159.361	122.396	113.878	125.563

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			
Vote 023 Ministry of Science, Technology and Innovation					
Programme : 02 Research and Innovation					
Project : 1513 National Science, Technology, Engineering and Innovation Skills Enhancement Project					
Output: 72 Government Buildings and Administrative Infrastructure					
Cadastral/topographic/hydrological surveys & site preparation undertaken -Namanve	-				
Cadastral/Topographic/Hydrological/Geo-Tech surveys undertaken -Sanga	-				
Final designs for the NSTEI-SE Project (NSTESEC & TIBIC) prepared and approved	-				
Inception reports, scope of civil works under the NSTEI-SE Project (NSTESEC & TIBIC) prepared and approved	-				
Preliminary Engineering Designs for the NSTEI-SE Project (NSTESEC & TIBIC) prepared and approved	-				
Schematic designs for NSTEI-SE Project (NSTESEC & TIBIC) prepared and approved	-				
Technical Services & Infrastructure operations (Sanga & Namanve) provided	-				
Technical support services undertaken (TIBIC	-				
Technical designs, Environmental management plan)- Namanve	-				
Utilities constructed & installed. (Namanve)	-				
Utilities constructed & installed. (Sanga)	-				
Utilities, Grading and Access Roads Constructed (Namanve)	-				
Utilities, Grading, land levelling and Access Roads Constructed (Sanga)	-				
Total Output Cost(Ushs Thousand):	54.984			0.000	0.000
Gou Dev't:	1.500			0.000	0.000
Ext Fin:	53.484			0.000	0.000

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A.I.A:	0.000	0.000	0.000
Output: 77 Purchase of Specialised Machinery & Equipment			
Equipment & machinery delivery supervised	-		
Equipment and machinery suppliers for NSTESEC and TIBIC identified and confirmed	Draft equipment and machinery list		
Orientation of the selected ToT participants into project deliverables undertaken	-		
Pre-shipment inspection for identified equipment & machinery undertaken	-		
Providers of Training of Trainers for Uganda instructors identified and confirmed	-		
Relevant papers and documentation for the ToT trainees obtained	-		
Relevant permits and certification for equipment and machinery obtained			
Relevant Ugandan candidates/participants in the ToT identified and confirmed			
Technical Service & Infrastructure Operations (Sanga & Namanve)			
Total Output Cost(Ushs Thousand):	29.800	0.000	0.000
Gou Dev't:	0.000	0.000	0.000
Ext Fin:	29.800	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

1. Funding shortfalls: Much as Shs. 10 Billion was appropriated to the Ministry as Innovation Fund, it still remains insufficient in view of Government commitments to support Scientists, Researchers and Innovators Additionally the development allocation of 0.337 Billion is so meagre and may not support the retooling needs of the Ministry
2. Insufficient physical and technological infrastructure to support Scientific Research and Innovation.
3. Limited commercialization of research results and utilization of acquired patents
4. Expensive R&D and innovation infrastructure and inputs (R&D expenditures, training scientist and engineers, laboratory equipment, public research institutions)
5. Non provision of Science Officers in Local Governments Structure
6. Limited involvement of private sector in STI

Table V5.1: Additional Funding Requests

Additional requirements for funding and outputs in 2020/21	Justification of requirement for additional outputs and funding
Vote : 023 Ministry of Science, Technology and Innovation	
Programme : 02 Research and Innovation	
OutPut : 02 Technology, Innovation, Transfer and Development	
Funding requirement US\$ Bn : 100.000	Scale up of innovation fund activities to promote incubation, Technology transfer and commercialization of Research and Innovation outcomes
OutPut : 51 Transfers to Innovators and Scientists	

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Funding requirement US\$ Bn : 48.000	Shs. 48 Billion is required for the construction of the Kiira Vehicle Plant in Jinja for the FY 2020/2021 in line with the road map approved by Cabinet. This is in line with two NDP III Program objective of (i) increasing development, transfer and adoption of appropriate technologies and innovations. (ii) Strengthening R&D capacities and applications
Programme : 03 Science Entrepreneurship	
<i>OutPut : 04 Support Scientific and innovations</i>	
Funding requirement US\$ Bn : 13.800	Commercialization of Research outcomes
Programme : 49 General Administration and Planning	
<i>OutPut : 51 Transfers to Innovators and Scientists</i>	
Funding requirement US\$ Bn : 56.100	A funding shortfalls to support the commercialization of Sericulture Technologies in Uganda. This seeks to strengthen R&D capacities and applications To increase development, transfer and adoption of appropriate technologies and innovations and enhancing Research and Development applications and initiatives
<i>OutPut : 76 Purchase of Office and ICT Equipment, including Software</i>	
Funding requirement US\$ Bn : 0.500	Procurement and supply of assorted Office and ICT equipment
<i>OutPut : 78 Purchase of Office and residential Furniture and fittings</i>	
Funding requirement US\$ Bn : 4.000	Partitioning of Office premises (2 Floors) and procurement of assorted furniture