

Vote:142 National Agricultural Research Organisation

V1: Vote Overview

I. Vote Mission Statement

To innovate for sustainable agricultural transformation

II. Strategic Objective

- a. Client and impact-oriented, market responsive agricultural sector research agenda developed and implemented
- b. Capacity and efficiency of public and private agricultural sector research service provider teams to respond to client needs and market opportunities improved.
- c. Infrastructural and financial sustainability capacities to support and facilitate agricultural research enhanced and strengthened
- d. Mechanisms for contributing to agricultural research sector policy formulation and development strengthened.
- e. Quality assurance procedures in the NARS established and implemented.

III. Major Achievements in 2019/20

Agricultural Research is underpinned by two key vote functions which are generation of technologies and the research extension interface outputs. Their respective key performance indicators are as follows:

1. Generation of technologies

The following is performance under the vote function:

a) New varieties/ prototypes submitted to Variety Release Committee for release

NARO developed 17 new varieties for priority and national strategic commodities, which were submitted to the National Variety Release Committee (NVRC) of MAAIF. The varieties have superior attributes over the current existing varieties with respect to yield advantage, pest and disease resistance, adaptation to drought prone environments and culinary attributes. The annual target was 20 varieties.

b) Number of production technologies generated

NARO developed 41 improved technologies, information and management practices (TIMPs) for increasing production and productivity in crops, fisheries, livestock, forestry and other cutting issues such as gender, soils, land, water while embedding gender, equity, social and environment safe guards. The annual target were 70 improved technologies.

c) Number of research studies under competitive grants scheme (CGS)

NARO undertakes and promotes a competitive grants scheme, in which participating public sector actors and private sector actors receive research grants on a competitive basis. 38 research studies under competitive grants scheme (CGS) were funded. The annual target was 40 studies.

2. Research extension interface promoted and strengthened

The following is performance under the vote function:

a) Number of technological innovation platforms established/supported

NARO establishes and in many cases supports or promotes innovation platforms. An innovation platform is a space for learning and change normally along a value chain. It is a group of individuals (who often represent organizations) with different backgrounds and interests: farmers, traders, food processors, researchers, government officials. 18 innovation platforms were supported/established. An annual target of 10 platforms was planned. However, with increased enthusiasm by farmers, processors and other groups in the value chain and the Contribution of off-budget support, the target was surpassed 90%.

b) Number of technological innovations delivered to uptake pathways

NARO TIMPs are developed with a view to improve agricultural production and productivity using various uptake pathways in the farming communities. 38 TIMPs were delivered to various technology uptake pathways. 40 technologies were planned for the financial year.

The overall average performance at half year stood at more than the targeted 50% and this is an outstanding performance for the vote, in delivery of its mandate.

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IV. Medium Term Plans

Increase niche markets for communities in agricultural sector through Undertaking Market studies to define flagship products tailored to the industry in order to spur agro industrialization for share prosperity and have research for impact

Increase research products and services suited for industry through, development of market differentiated research products tailored to different social and economic class typologies, Strengthen capacity for business incubation, and promotion and business development for the industry. Undertake research to broaden application of natural resources for agro industrial resources.

Develop database on technical efficiency, social acceptability and economic profitability of the developed research products.

Increase competitiveness of the developed products in the niche markets and tools for their traceability.

Design appropriate public private partnership models to boost uptake of products for the market for people impact.

Develop appropriate agro mechanization innovations to stimulate the youth in Agro entrepreneurship.

Strengthen communities to increasingly use improved agricultural technologies and innovations through; Strengthened research extension and outreach linkages for impact programmes among the early adopters on and off NARO PARIs.

Increasing availability of improved technologies and information, improved seed multiplication across the 17 centers and across all 9 Agro ecological Zones in Uganda.

Enhance conservation and harnessing genetic resources through research. (In-vitro fertilization, embryo transfer, seed banks among others)

Enhancing Natural Resource Management and response to research emergencies (invasive species and pests).

Strengthen Institutional Orientation to Agricultural Transformation through; building capacity of Agricultural research funding self-reliance, targeting Establishment of one grants management office and strengthening internal revenue generation)

Strengthening land security and management through titling, Strengthening Human resource management planning and development, targeting welfare improvement for recruitment and retention. Strengthen effective research planning, Monitoring and evaluation management functions.

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V. Summary of Past Performance and Medium Term Budget Allocations

Table 5.1: Overview of Vote Expenditures (US\$ Billion)

		2018/19 Outturn	2019/20		2020/21	MTEF Budget Projections			
			Approved Budget	Expenditure by End Dec		2021/22	2022/23	2023/24	2024/25
Recurrent	Wage	22.472	22.472	11.236	33.233	33.233	33.233	33.233	33.233
	Non Wage	7.099	19.717	8.680	19.717	23.660	28.392	34.070	40.884
Devt.	GoU	29.892	37.473	10.670	37.473	37.473	37.473	37.473	37.473
	Ext. Fin.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GoU Total		59.463	79.662	30.587	90.423	94.366	99.098	104.776	111.591
Total GoU+Ext Fin (MTEF)		59.463	79.662	30.587	90.423	94.366	99.098	104.776	111.591
	Arrears	0.114	0.000	0.000	0.020	0.000	0.000	0.000	0.000
Total Budget		59.577	79.662	30.587	90.443	94.366	99.098	104.776	111.591
A.I.A Total		4.396	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Grand Total		63.973	79.662	30.587	90.443	94.366	99.098	104.776	111.591
Total Vote Budget Excluding Arrears		63.859	79.662	30.587	90.423	94.366	99.098	104.776	111.591

VI. Budget By Economic Classification

Table V6.1 2019/20 and 2020/21 Budget Allocations by Item

<i>Billion Uganda Shillings</i>	2019/20 Approved Budget				2020/21 Draft Estimates		
	GoU	Ext. Fin	AIA	Total	GoU	Ext. Fin	Total
Output Class : Outputs Provided	60.905	0.000	0.000	60.905	73.743	0.000	73.743
211 Wages and Salaries	24.796	0.000	0.000	24.796	37.264	0.000	37.264
212 Social Contributions	2.230	0.000	0.000	2.230	3.323	0.000	3.323
213 Other Employee Costs	2.310	0.000	0.000	2.310	5.067	0.000	5.067
221 General Expenses	11.210	0.000	0.000	11.210	9.229	0.000	9.229
222 Communications	0.652	0.000	0.000	0.652	0.802	0.000	0.802
223 Utility and Property Expenses	2.409	0.000	0.000	2.409	1.797	0.000	1.797
224 Supplies and Services	6.199	0.000	0.000	6.199	4.984	0.000	4.984
225 Professional Services	1.573	0.000	0.000	1.573	1.073	0.000	1.073
226 Insurances and Licenses	0.471	0.000	0.000	0.471	0.384	0.000	0.384
227 Travel and Transport	5.919	0.000	0.000	5.919	6.890	0.000	6.890
228 Maintenance	3.060	0.000	0.000	3.060	2.880	0.000	2.880
273 Employer social benefits	0.076	0.000	0.000	0.076	0.050	0.000	0.050
Output Class : Outputs Funded	1.844	0.000	0.000	1.844	1.844	0.000	1.844
262 To international organisations	1.800	0.000	0.000	1.800	1.800	0.000	1.800

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264 To Resident Non-government units	0.044	0.000	0.000	0.044	0.044	0.000	0.044
Output Class : Capital Purchases	16.913	0.000	0.000	16.913	14.835	0.000	14.835
281 Property expenses other than interest	1.835	0.000	0.000	1.835	1.477	0.000	1.477
312 FIXED ASSETS	15.078	0.000	0.000	15.078	13.358	0.000	13.358
Output Class : Arrears	0.000	0.000	0.000	0.000	0.020	0.000	0.020
321 DOMESTIC	0.000	0.000	0.000	0.000	0.020	0.000	0.020
Grand Total :	79.662	0.000	0.000	79.662	90.443	0.000	90.443
Total excluding Arrears	79.662	0.000	0.000	79.662	90.423	0.000	90.423

VII. Budget By Programme And Subprogramme

Table V7.1: Past Expenditure Outturns and Medium Term Projections by Programme and SubProgramme

Billion Uganda shillings	FY 2018/19 Outturn	FY 2019/20		2020-21 Proposed Budget	Medium Term Projections			
		Approved Budget	Spent By End Dec		2021-22	2022-23	2023-24	2024-25
51 Agricultural Research	63.973	79.662	30.587	90.443	94.366	99.098	104.776	111.591
01 Headquarters	32.489	35.065	16.336	48.776	56.893	61.625	67.303	74.118
0382 Support for NARO	29.892	35.445	9.932	36.973	37.473	37.473	37.473	37.473
07 National Crops Resources Research Institute	0.201	0.654	0.328	0.266	0.000	0.000	0.000	0.000
08 National Fisheries Resources Research Institute	0.092	0.987	0.493	0.350	0.000	0.000	0.000	0.000
09 National Forestry Resources Research Institute	0.077	0.645	0.320	0.250	0.000	0.000	0.000	0.000
10 National Livestock Resources Research	0.092	0.180	0.090	0.250	0.000	0.000	0.000	0.000
11 National Semi arid Resources Research	0.078	0.080	0.040	0.250	0.000	0.000	0.000	0.000
12 National Laboratories Research	0.106	0.297	0.149	0.350	0.000	0.000	0.000	0.000
13 Abi ZARDI	0.075	0.278	0.140	0.192	0.000	0.000	0.000	0.000
14 Bulindi ZARDI	0.083	0.488	0.244	0.196	0.000	0.000	0.000	0.000
15 Kachwekano ZARDI	0.090	0.475	0.238	0.192	0.000	0.000	0.000	0.000
1560 Relocation and Operationalisation of the National Livestock Resources Research Institute (NALIRRI)	0.000	2.028	0.738	0.500	0.000	0.000	0.000	0.000
16 Mukono ZARDI	0.086	0.475	0.238	0.350	0.000	0.000	0.000	0.000
17 Ngetta ZARDI	0.090	0.475	0.257	0.192	0.000	0.000	0.000	0.000
18 Nabium ZARDI	0.076	0.349	0.175	0.192	0.000	0.000	0.000	0.000
19 Mbarara ZARDI	0.079	0.475	0.238	0.192	0.000	0.000	0.000	0.000
20 Buginyaya ZARDI	0.105	0.480	0.230	0.350	0.000	0.000	0.000	0.000
21 Rwebitaba ZARDI	0.091	0.475	0.264	0.192	0.000	0.000	0.000	0.000
26 NARO Internal Audit	0.080	0.130	0.047	0.180	0.000	0.000	0.000	0.000
27 National Coffee Research Institute	0.091	0.180	0.090	0.250	0.000	0.000	0.000	0.000

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Total for the Vote	63.973	79.662	30.587	90.443	94.366	99.098	104.776	111.591
Total Excluding Arrears	63.859	79.662	30.587	90.423	94.366	99.098	104.776	111.591

VIII. Programme Performance and Medium Term Plans

Table V8.1: Programme Outcome and Outcome Indicators (Only applicable for FY 2020/21)

Programme :	51 Agricultural Research				
Programme Objective :	(1) Develop and promote demand-driven technologies, innovations and management practices that respond to target clientele demands; (2) Increase research products and services suited for vertical integration into industries; (3) Improve access and sustainable utilization of improved agricultural technologies and innovations by communities; (4) Increase Total Factor Productivity to accelerate community institutional orientation to agricultural transformation.				
Responsible Officer:	Director General				
Programme Outcome:	Increased production and productivity of priority and strategic commodities				
<i>Sector Outcomes contributed to by the Programme Outcome</i>					
1. Increased production and productivity of priority and strategic commodities					
Outcome Indicators	Performance Targets				
			2020/21	2021/22	2022/23
	Baseline	Base year	Target	Projection	Projection
• Percentage of new varieties promoted and adopted by farmers and other users	12%	2018	14%	17%	20%
• Number of commercialisable technologies and innovations generated through competitive grant projects	5	2018	5	5	5
• Increased production and productivity at some level resulting from utilization of improved technologies	1.8%	2018	2%	2%	2%
SubProgramme: 01 Headquarters					
<i>Output: 01 Generation of agricultural technologies</i>					
No. of improved productivity technologies generated			107	110	115
No. of new varieties submitted to Variety Release Committee for release			37	40	45
No. of research studies under competitive grants scheme			38	40	45
<i>Output: 02 Research extension interface promoted and strengthened</i>					
No. of technological innovation platforms established/supported			68	78	88
No. of technological innovations delivered to uptake pathways			131	136	141
SubProgramme: 0382 Support for NARO					
<i>Output: 01 Generation of agricultural technologies</i>					
No. of improved productivity technologies generated			107	110	120
No. of new varieties submitted to Variety Release Committee for release			37	45	50
No. of research studies under competitive grants scheme			38	45	55

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<i>Output: 02 Research extension interface promoted and strengthened</i>			
No. of technological innovation platforms established/supported	68	70	75
No. of technological innovations delivered to uptake pathways	131	135	135
SubProgramme: 07 National Crops Resources Research Institute			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	11	22	44
No. of new varieties submitted to Variety Release Committee for release	17	34	68
No. of research studies under competitive grants scheme	2	4	8
<i>Output: 02 Research extension interface promoted and strengthened</i>			
No. of technological innovation platforms established/supported	4	4	4
No. of technological innovations delivered to uptake pathways	12	13	14
SubProgramme: 08 National Fisheries Resources Research Institute			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	12	20	28
No. of new varieties submitted to Variety Release Committee for release	3	6	12
No. of research studies under competitive grants scheme	4	8	16
<i>Output: 02 Research extension interface promoted and strengthened</i>			
No. of technological innovation platforms established/supported	6	12	22
No. of technological innovations delivered to uptake pathways	9	18	36
SubProgramme: 09 National Forestry Resources Research Institute			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	3	6	12
No. of research studies under competitive grants scheme	3	6	12
<i>Output: 02 Research extension interface promoted and strengthened</i>			
No. of technological innovation platforms established/supported	5	10	20
No. of technological innovations delivered to uptake pathways	1	2	4
SubProgramme: 10 National Livestock Resources Research			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	18	18	25
No. of new varieties submitted to Variety Release Committee for release	2	2	2
No. of research studies under competitive grants scheme	5	10	15
SubProgramme: 11 National Semi arid Resources Research			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	6	12	24

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No. of new varieties submitted to Variety Release Committee for release	5	10	20
No. of research studies under competitive grants scheme	2	4	8
SubProgramme: 12 National Laboratories Research			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	1	2	4
No. of new varieties submitted to Variety Release Committee for release	3	3	6
No. of research studies under competitive grants scheme	4	8	16
SubProgramme: 13 Abi ZARDI			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	2	4	8
No. of research studies under competitive grants scheme	2	4	8
<i>Output: 02 Research extension interface promoted and strengthened</i>			
No. of technological innovation platforms established/supported	1	2	4
No. of technological innovations delivered to uptake pathways	5	10	20
SubProgramme: 14 Bulindi ZARDI			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	8	8	16
No. of research studies under competitive grants scheme	2	4	8
<i>Output: 02 Research extension interface promoted and strengthened</i>			
No. of technological innovation platforms established/supported	2	4	8
No. of technological innovations delivered to uptake pathways	4	8	16
SubProgramme: 15 Kachwekano ZARDI			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	4	8	16
No. of new varieties submitted to Variety Release Committee for release	2	4	8
No. of research studies under competitive grants scheme	1	2	4
<i>Output: 02 Research extension interface promoted and strengthened</i>			
No. of technological innovation platforms established/supported	1	2	4
No. of technological innovations delivered to uptake pathways	3	6	12
SubProgramme: 16 Mukono ZARDI			
<i>Output: 01 Generation of agricultural technologies</i>			
No. of improved productivity technologies generated	3	6	12
No. of research studies under competitive grants scheme	2	4	8

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SubProgramme: 17 Ngetta ZARDI			
Output: 01 Generation of agricultural technologies			
No. of research studies under competitive grants scheme	1	2	4
Output: 02 Research extension interface promoted and strengthened			
No. of technological innovation platforms established/supported	3	6	12
No. of technological innovations delivered to uptake pathways	6	12	24
SubProgramme: 18 Nabium ZARDI			
Output: 01 Generation of agricultural technologies			
No. of improved productivity technologies generated	7	14	28
No. of research studies under competitive grants scheme	2	4	8
SubProgramme: 19 Mbarara ZARDI			
Output: 01 Generation of agricultural technologies			
No. of improved productivity technologies generated	7	14	28
SubProgramme: 20 Buginyaya ZARDI			
Output: 01 Generation of agricultural technologies			
No. of improved productivity technologies generated	6	12	24
No. of new varieties submitted to Variety Release Committee for release	2	4	8
No. of research studies under competitive grants scheme	2	4	8
SubProgramme: 21 Rwebitaba ZARDI			
Output: 01 Generation of agricultural technologies			
No. of improved productivity technologies generated	6	12	24
No. of research studies under competitive grants scheme	1	2	4
SubProgramme: 27 National Coffee Research Institute			
Output: 01 Generation of agricultural technologies			
No. of improved productivity technologies generated	3	8	10
No. of new varieties submitted to Variety Release Committee for release	3	8	10
No. of research studies under competitive grants scheme	3	6	9
Output: 02 Research extension interface promoted and strengthened			
No. of technological innovation platforms established/supported	3	5	10
No. of technological innovations delivered to uptake pathways	5	8	12

IX. Major Capital Investments And Changes In Resource Allocation

Table 9.1: Major Capital Investment (Capital Purchases outputs over 0.5Billion)

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FY 2019/20		FY 2020/21	
Appr. Budget and Planned Outputs	Expenditures and Achievements by end Dec	Proposed Budget and Planned Outputs	
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<i>Program : 01 51 Agricultural Research</i>			
Development Project : 0382 Support for NARO			
Output: 01 51 72 Government Buildings and Administrative Infrastructure			
<p>1. NACORI staff houses rehabilitated and habitable; 2. NACORI office blocks rehabilitated with ramps for the weak and disabled and functional; 1. NASARRI staff houses rehabilitated and habitable; 2. NASARRI office blocks with ramps rehabilitated and functional; 3. Drying yards/floors rehabilitated and functional; 4. Vehicle/equipment workshop rehabilitated and functional.</p> <p>1. RWEBITABA ZARDI staff houses rehabilitated and habitable; 2. RWEBITABA ZARDI Office blocks with ramps rehabilitated; 3. RWEBITABA ZARDI drying yards/floors rehabilitated; 4. RWEBITABA ZARDI vehicle/equipment worksh</p> <p>1. Staff houses rehabilitated asbestos removed and re-roofed with iron sheets. 2. Office blocks re-roofed with iron sheets rehabilitated and functional; Functional and rejuvenated PARIs Improved Infrastructure at Kajansi Improved value addition Infrastructure at Bulindi ZARDI Improved value addition Infrastructure at Nabuin Nabuin ZARDI perimeter fence in place, farm animals and field experiments secured</p>	<p>Tendering completed. Contracts signed with various contractors. Works completed and awaiting payment. At NAROSEC - Contractor on Board. Work In Progress at 50% (NASARRI office blocks).</p> <p>Tendering completed. Contracts signed with various contractors. Works completed and awaiting payment.</p> <p>- Tendering concluded. Contracts awarded to various firms. Contracts signed with only two firms due to Insufficient funds on Vote. Awaiting signature of other Contracts Tendering completed. Contracts signed with various contractors. Works completed and awaiting payment.</p> <p>Tendering completed. Contracts signed with various contractors. Works completed and awaiting payment.</p>	<p>Seven(7) Gender and equity responsive agricultural research infrastructure(laboratories and a plant. Remodel 4 cash offices, 4 staff house and 4 engineering feasibility studies and engineering designs developed.</p>	
Total Output Cost(Ushs Thousand)	12,113,293	1,978,643	12,192,000
Gou Dev't:	12,113,293	1,978,643	12,192,000
Ext Fin:	0	0	0
A.I.A:	0	0	0
Output: 01 51 77 Purchase of Specialised Machinery & Equipment			
<p>Assortment of labour saving value addition equipment for NAFORRI suitable for women Assortment of labour saving value addition equipment for NACRRI suitable for women Assortment of labour saving value addition equipment for NAFIRRI suitable for women Assortment of value addition equipment for Abi ZARDI Assortment of value addition equipment for Bulindi ZARDI Assortment of value addition equipment for Nabuin ZARDI Assortment of value addition equipment for NARL-Kawanda Cage equipments and installation, tractor implements like Loader, Slasher, echo sounder ,radar, fire extinguishers, public address system,money counting machine and other water vessel purchased equipments Functional invitro fertilisation and semen processing equipment procured and installed Functional Marine vessel CORMORANT overhauled Functional solar system in place Irrigation equipment for one PARI New one tractor with implements</p>	<p>Tender concluded. Contract signed. Works completed awaiting payment.</p> <p>Procurement handled at Nabuin. Still awaiting for submission of BOQs by the user department.</p> <p>M/S Vitro Cow-Kenya identified to supply equipment. Process on going.</p> <p>Procurement still in Pipeline. Tender concluded. Contract signed awaiting delivery and Installation of the equipment Awaiting submission of Bills of Quantities by the end user. Advert placed in the New vision Newspaper. Bid Closure/Opening is 8th January 2020.</p>	<p>Three (3) batches of assorted laboratory equipment acquired to support research (Livestock research embryology, FMD culture equipment, anti-tick vaccine lab equipment).</p>	
Total Output Cost(Ushs Thousand)	2,515,738	64,188	2,166,648
Gou Dev't:	2,515,738	64,188	2,166,648

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Ext Fin:	0	0	0
A.I.A:	0	0	0

X. Vote Challenges and Plans To Improve Performance

Vote Challenges

MAJOR POLICY CHALLENGES 2020/21

- 1) Lack off an enabling law to unlock the potential benefits of Agricultural biotechnology.
- 2) Inadequate land law which gives ownership of government land to chairman Uganda land commission which makes protection of Agricultural research land difficult and also puts the future of Agriculture research and major Capital investment in jeopardy.
- 3) Inadequate Organizational structure to address emerging demands in Agriculture research. There is increased population, climate variability and increasing administrative districts which exert increased demand for Agriculture research services.
- 4) Lack of funds to operationalize the presidential directive to relocate National Livestock Resources Research Institute from Tororo currently a phosphate deposit to Maruzi in Apac which has hindered appropriate livestock research in the country.
- 5) Streamlining the NAR Act 2005 to address the emerging demands in Agricultural research.
- 6) Lack of sound vehicles to deliver demand driven Agriculture research to spur Agricultural industrialization. The existing fleet is beyond the recommended five years and 250,000 km for boarding off.
- 7) Funding gap of statutory deduction resulting from wage enhancement UGX 4,116,350,288 gratuity.
- 8) Wage shortfall of UGX 1,000,000,000 less than what was communicated by Ministry of Public Service a factor which will worsen the the levels of turnover among the researchers yet there is an urgent need for stability to trigger Argo Industrialization through research..
- 9) Strengthening the capacity of agricultural engineering research at Namalere: to develop engineering technologies that improve safety of food products to eliminate allied illnesses, accelerate market competitiveness of strategic agricultural commodities in the regional trade; and support incubation of proven agricultural engineering technologies and transiting them into enterprises targeting women and youth – UGX 6.85 billion.

Plans to improve Vote Performance

- 1) NARO will intensify advocacy for increased Agricultural research scientist’s salaries in the medium term. Currently NARO has petitioned Ministry of Finance and Ministry of Public service for salary enhancement to the level of Public Universities Pay in order to create Agriculture research human resource management.
- 2) In order to address the challenges of inadequate funding for research, NARO targets to establish a robust grants management office to coordinate all the research funding strategies.
- 3) In order to address the challenge of land grabbing, NARO will intensify efforts to tittle all the land under its use and at the same time create training grounds and skilling for the youth entrepreneurs and farmers.

ACTIONS TO ADDRESS THE MAJOR POLICY CHALLENGES;

NARO will undertake the following intervention to address the itemized challenges:

- 1) In order to address the land ownership related challenges, NARO has engaged relevant Authorities for amendment of the land act to give NARO ownership rather than user rights allowed by Uganda Land commission.
- 2) In order to address the research challenges related to Biosafety, NARO drafted and presented the Bio safety bill to Parliament of Uganda for enactment.
- 3) In order to address the Inadequate Organization structure to address emerging demands in Agriculture research, NARO has engaged the relevant Authorities (Ministry of Public Service and Ministry of Finance Planning and Economic Development).
- 4) The NAR act is undergoing review in order to Streamline the NAR act to address the emerging demands in Agriculture research.
- 5) NARO is yet to petition parliament to allow NARO to purchase vehicles for Public research institutes to enable smooth implementation of research.

XI Off Budget Support

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Table 11.1 Off-Budget Support by Sub-Programme

<i>Billion Uganda Shillings</i>	2019/20 Approved Budget	2020/21 Draft Estimates
Programme 0151 Agricultural Research	0.00	38.19
<i>Recurrent Budget Estimates</i>		
07 National Crops Resources Research Institute	0.00	15.29
<i>400-MULTI-LATERAL DEVELOPMENT PARTNERS</i>	<i>0.00</i>	<i>0.05</i>
<i>411-International Fund for Agriculture and D</i>	<i>0.00</i>	<i>3.02</i>
<i>425-Food and Agriculture Organization</i>	<i>0.00</i>	<i>0.25</i>
<i>450-African Union (AU)</i>	<i>0.00</i>	<i>1.16</i>
<i>455- Bill and Merinda Gates Foundation</i>	<i>0.00</i>	<i>1.07</i>
<i>650-OTHER FOREIGN SOURCES OF FUNDS</i>	<i>0.00</i>	<i>7.79</i>
<i>USAID</i>	<i>0.00</i>	<i>1.93</i>
08 National Fisheries Resources Research Institute	0.00	3.89
<i>401-Africa Development Bank (ADB)</i>	<i>0.00</i>	<i>0.90</i>
<i>406-European Union (EU)</i>	<i>0.00</i>	<i>1.86</i>
<i>500-BILATERAL DEVELOPMENT PARTNERS</i>	<i>0.00</i>	<i>1.14</i>
09 National Forestry Resources Research Institute	0.00	0.00
<i>ACIAR</i>	<i>0.00</i>	<i>0.00</i>
10 National Livestock Resources Research	0.00	3.51
<i>406-European Union (EU)</i>	<i>0.00</i>	<i>2.63</i>
<i>425-Food and Agriculture Organization</i>	<i>0.00</i>	<i>0.22</i>
<i>500-BILATERAL DEVELOPMENT PARTNERS</i>	<i>0.00</i>	<i>0.20</i>
<i>550-United States of America</i>	<i>0.00</i>	<i>0.24</i>
<i>Bioinnovate Africa Programme</i>	<i>0.00</i>	<i>0.22</i>
11 National Semi arid Resources Research	0.00	1.41
<i>411-International Fund for Agriculture and D</i>	<i>0.00</i>	<i>0.11</i>
<i>450-African Union (AU)</i>	<i>0.00</i>	<i>0.66</i>
<i>455- Bill and Merinda Gates Foundation</i>	<i>0.00</i>	<i>0.19</i>
<i>650-OTHER FOREIGN SOURCES OF FUNDS</i>	<i>0.00</i>	<i>0.40</i>
<i>ICIPE)</i>	<i>0.00</i>	<i>0.06</i>
12 National Laboratories Research	0.00	8.02
<i>410-International Development Association (IDA)</i>	<i>0.00</i>	<i>0.06</i>
<i>411-International Fund for Agriculture and D</i>	<i>0.00</i>	<i>0.24</i>
<i>650-OTHER FOREIGN SOURCES OF FUNDS</i>	<i>0.00</i>	<i>6.50</i>
<i>QUEENSLAND UNIVERSITY</i>	<i>0.00</i>	<i>1.21</i>
13 Abi ZARDI	0.00	0.28
<i>414-Islamic Development Bank</i>	<i>0.00</i>	<i>0.28</i>

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15 Kachwekano ZARDI	0.00	0.23
<i>650-OTHER FOREIGN SOURCES OF FUNDS</i>	<i>0.00</i>	<i>0.15</i>
<i>KOPIA</i>	<i>0.00</i>	<i>0.08</i>
16 Mukono ZARDI	0.00	0.93
<i>406-European Union (EU)</i>	<i>0.00</i>	<i>0.67</i>
<i>500-BILATERAL DEVELOPMENT PARTNERS</i>	<i>0.00</i>	<i>0.07</i>
<i>Africa Academy of Science</i>	<i>0.00</i>	<i>0.19</i>
27 National Coffee Research Institute	0.00	4.63
<i>400-MULTI-LATERAL DEVELOPMENT PARTNERS</i>	<i>0.00</i>	<i>2.66</i>
<i>406-European Union (EU)</i>	<i>0.00</i>	<i>0.19</i>
<i>USAID</i>	<i>0.00</i>	<i>1.78</i>
Total for Vote	0.00	38.19

XII. Vote Cross Cutting Policy And Other Budgetary Issues

Table 12.1: Cross- Cutting Policy Issues

Issue Type: HIV/AIDS

Objective :	Enhancing resilience of NARO work force and the community towards HIV/AIDS.
Issue of Concern :	Increased prevalence of HIV/AIDS among the married and the youth in Uganda.
Planned Interventions :	NARO will adopt an inclusive approach that involves HIV/AIDS education on transmission, create awareness, prevention, voluntary testing, caring and psycho-social support.
Budget Allocation (Billion) :	46,000,000.000
Performance Indicators:	Number of staff whose awareness on HIV/AIDS is enhanced.

Issue Type: Gender

Objective :	Undertake and promote gender responsive Agriculture Research. Environment
Issue of Concern :	Inadequate integration of gender concerns in agriculture research among the key players.
Planned Interventions :	Intensify integration of gender concerns in the generation and dissemination of technologies to eliminate gender related barriers to Agriculture transformation.
Budget Allocation (Billion) :	26,000,000.000
Performance Indicators:	Number of gender responsive technologies generated or disseminated.

Issue Type: Enviroment

Objective :	Conduct and Promote research for Sustainable utilization of natural resources.
Issue of Concern :	Environmental degradation which has led to climate variability. That is loss of soil fertility, resurgence of pests and diseases, reduced animal and crop yields
Planned Interventions :	Generation & promotion of technologies which are sustainable in the utilization of natural resources such as biodegradable plastics, biological control agents to eliminate invasive species and bio-diesel .
Budget Allocation (Billion) :	20,000,000.000
Performance Indicators:	Number of technologies developed or promoted for sustainable utilization of natural resources.

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XIII. Personnel Information

Table 13.1 Staff Establishment Analysis

Title	Salary Scale	Number Of Approved Positions	Number Of Filled Positions
Research Officer	UR 5(i)	210	184
Technician	UR6	115	107

Table 13.2 Staff Recruitment Plan

Post Title	Salary Scale	No. Of Approved Posts	No Of Filled Posts	Vacant Posts	No. of Posts Cleared for Filling FY2020/21	Gross Salary Per Month (UGX)	Total Annual Salary (UGX)
Research Officer	UR 5(i)	210	184	26	12	42,000,000	504,000,000
Technician	UR6	115	107	8	4	6,200,000	74,400,000
Total		325	291	34	16	48,200,000	578,400,000