

VOTE: 142

National Agricultural Research Organization (NARO)

V1: VOTE OVERVIEW

i) Vote Strategic Objectives

- Increase agricultural technologies and innovations for food and nutrition security
- Increase research products and services for competitive markets and industry
- Enhance access and sustainable utilization of improved agricultural technologies and innovations by agricultural value chain actors.
- Strengthen institutional capacity of NARO to coordinate, undertake and deliver agricultural research products and services

ii) Snapshot of Medium Term Budget Allocations

Table V1.1 Overview of Vote Medium Term Allocations (Ush Billion)

Billion Uganda Shillings	FY2022/23		FY2023/24	MTEF Budget Projections			
	Approved Budget	Spent by End Sep	Proposed Budget	2024/25	2025/26	2026/27	2027/28
Recurrent	Wage	38.811	9.703	38.811	40.752	44.827	49.310
	Non Wage	29.397	6.177	26.690	27.224	32.669	44.103
Dev.	GoU	48.575	6.502	35.970	35.970	43.164	60.430
	ExtFin	0.000	0.000	0.000	0.000	0.000	0.000
GoU Total		116.783	22.382	101.471	103.945	120.659	153.842
Total GoU+Ext Fin (MTEF)		116.783	22.382	101.471	103.945	120.659	153.842
A.I.A Total		0.000	0	0	0.000	0.000	0.000
Grand Total		116.783	22.382	101.471	103.945	120.659	153.842

Table V1.2: Medium Term Projections by Programme and Sub-Subprogramme

Billion Uganda Shillings	FY2022/23		2023/24	MTEF Budget Projection			
	Approved Budget	Spent by End Sep	Proposed Budget	2024/25	2025/26	2026/27	2027/28
01 AGRO-INDUSTRIALIZATION							
01 Agricultural Research	116.783	22.382	101.371	103.843	120.537	153.676	153.676

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Total for the Programme	116.783	22.382	101.371	103.843	120.537	153.676	153.676
17 REGIONAL BALANCED DEVELOPMENT							
01 Agricultural Research	0.000	0.000	0.100	0.102	0.122	0.165	0.165
Total for the Programme	0.000	0.000	0.100	0.102	0.122	0.165	0.165
Total for the Vote: 142	116.783	22.382	101.471	103.945	120.659	153.842	153.842

V2: MEDIUM TERM BUDGET ALLOCATIONS BY DEPARTMENT AND PROJECT

Table V2.1: Medium Term Projections by Department and Project

Billion Uganda Shillings	FY2022/23		2023/24	MTEF Budget Projection			
	Approved Budget	Spent by End Sep	Proposed Budget	2024/25	2025/26	2026/27	2027/28
Programme: 01 AGRO-INDUSTRIALIZATION							
Sub-SubProgramme: 01 Agricultural Research							
Recurrent							
001 Abi Zonal Agriculture Research Institute(ZARDI)	0.117	0.029	0.100	0.100	0.100	0.500	0.500
002 Buginyaya Zonal Agriculture Research Institute(ZARDI)	0.272	0.067	0.250	0.250	0.250	0.750	0.500
003 Bulindi Zonal Agriculture Research Institute(ZARDI)	0.139	0.042	0.100	0.100	0.100	0.500	0.500
004 Kachwekano Zonal Agriculture Research Institute(ZARDI)	0.214	0.048	0.175	0.175	0.175	0.500	0.500
005 Mbarara Zonal Agriculture Research Institute(ZARDI)	0.117	0.029	0.100	0.100	0.100	0.500	0.500
006 Nabuin Zonal Agriculture Research Institute(ZARDI)	0.117	0.029	0.100	0.100	0.100	0.650	0.500
007 NARO-SECRETARIATE	64.849	15.041	60.551	61.023	69.977	74.960	81.810
008 National Agricultural Research Laboratories	0.300	0.075	0.250	0.250	0.250	0.750	1.000
009 National Coffee Research Institute	0.197	0.049	0.175	0.175	0.175	0.675	0.500

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<i>Recurrent</i>							
010 National Crops Resources Research Institute	0.247	0.062	0.175	0.175	0.175	0.675	0.500
011 National Fisheries Resources Research Institute	0.197	0.049	0.175	0.175	0.175	0.675	1.000
012 National Forestry Resources Research Institute	0.125	0.031	0.100	0.100	0.100	0.500	0.500
013 Mukono Zonal Agriculture Research Institute (ZARDI)	0.264	0.066	0.175	0.175	0.175	0.675	0.500
014 National Livestock Resources Research Institute (NaLIRRI)	0.622	0.156	2.600	2.600	2.600	3.000	1.000
015 National Semi Arid Resources Research Institute (NaSARRI)	0.122	0.031	0.100	0.100	0.100	2.000	0.500
016 Ngetta ZARDI	0.117	0.029	0.100	0.100	0.100	1.000	0.500
017 Rwebitaba ZARDI	0.192	0.047	0.175	0.175	0.175	1.000	0.500
<i>Development</i>							
1560 Relocation and Operationalisation of the National Livestock Resources Research Institute(NALIRRI)	7.719	0.000	6.000	6.000	6.000	10.000	10.000
1619 Retooling of National Agricultural Research Organization	40.856	6.502	29.970	24.000	19.000	25.000	25.000
<b>Total for the Sub-SubProgramme</b>	<b>116.783</b>	<b>22.382</b>	<b>101.371</b>	<b>95.873</b>	<b>99.827</b>	<b>124.310</b>	<b>126.310</b>
<b>Total for the Programme</b>	<b>161.832</b>	<b>22.382</b>	<b>101.371</b>	<b>95.873</b>	<b>99.827</b>	<b>124.310</b>	<b>126.310</b>
<b>Programme: 17 REGIONAL BALANCED DEVELOPMENT</b>							
<b>Sub-SubProgramme: 01 Agricultural Research</b>							
<i>Recurrent</i>							
002 Buginyaya Zonal Agriculture Research Institute(ZARDI)	0.000	0.000	0.100	0.102	0.122	0.165	0.165
<b>Total for the Sub-SubProgramme</b>	<b>0.000</b>	<b>0.000</b>	<b>0.100</b>	<b>0.102</b>	<b>0.122</b>	<b>0.165</b>	<b>0.165</b>

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Total for the Programme	0.000	0.000	0.100	0.102	0.122	0.165	0.165
Total for the Vote: 142	116.783	22.382	101.471	95.975	99.949	124.475	126.475

V3: VOTE MEDIUM TERM PLANS

Planned Outputs for FY2023/24 and Medium Term Plans

FY2022/23	FY2023/24		
Plan	BFP Performance	Plan	MEDIUM TERM PLANS

Programme Intervention: 010407 Strengthen agricultural research and technology development

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The major intervention areas for the FY 2022,2023 are in tandem with the National Vision 2040, NDP III particularly Agro Industrialization Program, objectives 1 and 2 on increased production, productivity, and Agro processing and value addition, respectively. These are enshrined in the AGI Program Implementation Action Plan, NRM Manifesto 2021 ,2026 and NARO Strategic Plan aspirations. The investment areas are geared towards Industrialization for inclusive growth, employment and wealth Creation.

A total of 30 crop varieties were submitted to the National Variety Release Committee of MAAIF for release. These were: 3 cassavas, 3 wheat, 4 groundnuts, 4 rice, 2 potato, 3 sweet potato and 11 sorghum varieties. These varieties have superior attributes over the current existing varieties with respect to yield advantage, pest and disease resistance, and adaptation to drought-prone environment, culinary attributes and market and consumer preferences. The sorghum and cassava varieties are also suitable for industrial use in the manufacture of products such as beer, confectionery, starch and ethanol. Additionally, groundnuts are rich in oils that have health benefits. The potatoes have appropriate properties for yield and fast food. Similarly, the sweet potato candidates are good for fighting hidden hunger, targeting increased household food and nutrition among women and children. The on-farm multi-locational clinical trials will be conducted in five approved test sites including; Mbarara ZARDI, Isimba Prisons Farm-Masindi, Kiburara Prison Farm-Ibanda and National Livestock Resources Research Institute, Maruzi in Apac and Nabuin ZARDI in Nabulatuk district. To date, NARO has launched trials in Mbarara, Kiburara, and Isimba sites.

1. 16 Agricultural research products and services suited for industry including vaccines, varieties, protocols and Industrial products developed.  
2. 6 soil sheets update (Masindi, Arua, Gulu, Aloi, Moroto, and Mbale) from a scale of 1: 250,000 to a scale of 1: 50,000  
3. Water weeds on four (4) water bodies (L. Victoria, L. Kyoga, L. Albert, L. Nyaguo) managed.  
false codling moth, papaya mealybug and black coffee twig borer) to minimize interceptions of 4. Ugandan exports of produce on international market.  
5. 136 production technologies (recommended agronomic practices and value-added products will be delivered to various uptake pathways.  
6. 150 MT of early generation seed will be produced and supplied by NARO seed companies and other seed producers.  
7. 16 new strategic partnerships for research and commercialization will be established.  
8. Four research sites will be titled including Bugusege, Kibimbiri, Aduk and Ivakula; six sites fanced Kihhihi, Kigumba, Nyabishegwa, Kibale, Katakwi and Kumi and boundary opening for Kiige and Bukedea the effort will contribute towards stabilizing Agricultural research.  
9. Two (2) research laboratories for fish diagnostics at Aquaculture Research Development Centre (ARDC) Kajansi and Coffee/Cocoa research at NACORI, Kituza will be equipped and one the fish feed production facility at ARDC Kajansi will be equipped to support aquaculture for increased production and productivity.  
10. Two agri-engineering technologies including; wet coffee processing technologies and implements for reduced drudgery will be developed, and commercialization of the fish smoking klin will be scaled.  
11. 20 continuing Staff trained at PhD

1. NARO will establish a think tank under the grants office to generate ideas that reflect global trends and opportunities; and constitute them into negotiable proposals  
2. NARO will intensify establishment of centers of excellence (African Union of Excellence in for Research in Aquaculture {CoERA}, East African Innovation Center for Millet and Sorghum {ICFMS}, Cassava Regional Center of Excellence {CRCoE}, groundnuts and hubs for Excellence in Breeding {EiB}) to emerge as a research leader at regional and global level, 3. NARO will position herself to build networks and capacity for resource mobilization and management for the greater region.  
4. NARO will develop a roadmap to become self-reliant to create stability in agricultural research. The road map will layout an action towards investment in development of flagship products and services for the industry and market to generate revenue to support Agricultural research.  
5. NARO will invest to improve infrastructure for training farmers for improved uptake of technologies.

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11. 20 continuing Staff trained and masters and retooled on new methods and innovations

Programme Intervention: 010411 Strengthen the agricultural extension system

		NARO intends to deliver 68 research products for food Nutrition, market and industry to uptake pathways for increased total factor productivity	Build resilient systems to support extension and service delivery through delivery of requisite products toward climate variability
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V4: Highlights of Vote Projected Performance

Table V4.1: Budget Outputs and Indicators

Programme:	01 AGRO-INDUSTRIALIZATION					
Sub SubProgramme:	01 Agricultural Research					
Department:	001 Abi Zonal Agriculture Research Institute(ZARDI)					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2020-2021	2			2
Number of research products and services suitable for industry developed	Number	2021-2022	1			1
Budget Output:	010011 Technology Promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved technologies and innovations adopted	Number	2021-2022	3	3	0	3
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of technologies adopted	Number	2021-2022	8	8	0	8
Department:	002 Buginyaya Zonal Agriculture Research Institute(ZARDI)					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved technologies and innovations adopted	Number	202-2022	2	4	0	4
Number of markets created along product lines	Number	2021-2022	2			4
Number of research products and services for food and nutrition security generated	Number	2021-2022	16	2	1	16
Budget Output:	010011 Technology Promotion					
PIAP Output:	Agricultural Research platforms established					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Agricultural Research platforms established					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of Agricultural research platforms established	Number	2021-2022	2			4
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of technologies adopted	Number	2021-2022	3	4	0	3
Department:	003 Bulindi Zonal Agriculture Research Institute(ZARDI)					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	11	5	0	11
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of District Adaptive Research Support Teams (DARSTs) developed	Number	2021-2022	7	2	0	7
Number of technologies adopted	Number	2021-2022		9	1	
Department:	004 Kachwekano Zonal Agriculture Research Institute(ZARDI)					

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Sub SubProgramme:	01 Agricultural Research					
Budget Output:	010008 Capacity Strengthening					
PIAP Output:	Agricultural Researchers profiled and registered					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of researchers profiled and registered	Number	2021-22	8			
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services suitable for industry developed	Number	2021-2022	2			4
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved technologies and innovations adopted	Number	2021-2022	2	7	0	4
Number of research products and services suitable for industry developed	Number	2021-2022	8	1	0	8
Budget Output:	010011 Technology Promotion					
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of technologies adopted	Number	2020-2021	4			4
Department:	005 Mbarara Zonal Agriculture Research Institute(ZARDI)					
Budget Output:	010008 Capacity Strengthening					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of market-oriented products generated	Number	2021-2022	2	5	1	4
Number of improved technologies and innovations adopted	Number	2021-2022	1	7	0	4
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of markets created along product lines	Number	2021-2022	2			4
Number of research products and services for food and nutrition security generated	Number	2021-2022	13			13
Budget Output:	010011 Technology Promotion					
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of technologies adopted	Number	2021-2022	13			13
Department:	006 Nabuin Zonal Agriculture Research Institute(ZARDI)					
Budget Output:	010011 Technology Promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved technologies and innovations adopted	Number	2021-2022	4	14	0	4
Number of research products and services suitable for industry developed	Number	2021-2022	9			9
Department:	007 NARO-SECRETARIATE					
Budget Output:	000001 Audit and Risk Management					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of markets created along product lines	Number	2021-2022	2			4
Budget Output:	000014 Administrative and Support Services					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of functional public-private partnerships established for technology development and promotion	Number	2021-2022	8	14	5	4
Department:	008 National Agricultural Research Laboratories					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services suitable for industry developed	Number	2021-2022	10			10
Budget Output:	010011 Technology promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of market-oriented products generated	Number	2021-2022	2			4
Department:	009 National Coffee Research Institute					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of functional public-private partnerships established for technology development and promotion	Number	2021-2022	2			2
Number of improved technologies and innovations adopted	Number	2021-2022	2			2
Number of research products and services for food and nutrition security generated	Number	2021-2022	5			5
Budget Output:	010011 Technology Promotion					
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of District Adaptive Research Support Teams (DARSTs) developed	Number	2021-2022	2			2
Department:	010 National Crops Resources Research Institute					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	4			4
Budget Output:	010011 Technology Promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	8			8
Department:	011 National Fisheries Resources Research Institute					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of market-oriented products generated	Number	2021-2022	4	5	0	4
Number of research products and services suitable for industry developed	Number	2021-2022	2	3	1	2
Budget Output:	010011 Technology Promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of market-oriented products generated	Number	2021-2022	2			4
Department:	012 National Forestry Resources Research Institute					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:		01 Agricultural Research					
PIAP Output:		Demand driven agriculture technologies developed					
Indicator Name		Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed	
Number of research products and services for food and nutrition security generated		Number	2021-2022	1	2	0	1
Number of research products and services suitable for industry developed		Number	2021-2022	3	2	0	3
Budget Output:		010011 Technology Promotion					
PIAP Output:		Demand driven agriculture technologies developed					
Programme Intervention:		010407 Strengthen agricultural research and technology development					
Indicator Name		Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed	
Number of research products and services suitable for industry developed		Number	2021-2022	2			2
PIAP Output:		Research-extension farmer linkages developed and strengthened					
Programme Intervention:		010407 Strengthen agricultural research and technology development					
Indicator Name		Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed	
Number of technologies adopted		Number	2021-2022	2			4
Department:		013 Mukono Zonal Agriculture Research Institute (ZARDI)					
Budget Output:		010010 Technology Generation					
PIAP Output:		Demand driven agriculture technologies developed					
Programme Intervention:		010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved technologies and innovations adopted	Number	2021-2022	8	2	2	8
Budget Output:	010011 Technology Promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of market-oriented products generated	Number	2021-2022	2			4
Department:	014 National Livestock Resources Research Institute (NaLIRRI)					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	8	1	1	8
Budget Output:	010011 Technology Promotion					
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of technologies adopted	Number	2021-2022	6			6

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<b>Sub SubProgramme:</b>	01 Agricultural Research					
<b>Department:</b>	015 National Semi Arid Resources Research Institute (NaSARRI)					
<b>Budget Output:</b>	010010 Technology Generation					
<b>PIAP Output:</b>	Demand driven agriculture technologies developed					
<b>Programme Intervention:</b>	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	4	8	2	4
Number of research products and services suitable for industry developed	Number	2021-2022	2	6	1	2
<b>Budget Output:</b>	010011 Technology Promotion					
<b>PIAP Output:</b>	Demand driven agriculture technologies developed					
<b>Programme Intervention:</b>	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved cotton varieties developed	Number	2021-2022	2			4
<b>Department:</b>	016 Ngetta ZARDI					
<b>Budget Output:</b>	010010 Technology Generation					
<b>PIAP Output:</b>	Demand driven agriculture technologies developed					
<b>Programme Intervention:</b>	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services suitable for industry developed	Number	2021-2022	1			1
<b>Budget Output:</b>	010011 Technology Promotion					
<b>PIAP Output:</b>	Demand driven agriculture technologies developed					
<b>Programme Intervention:</b>	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of market-oriented products generated	Number	2021-22	2			4
PIAP Output:	Research-extension farmer linkages developed and strengthened					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of technologies adopted	Number	2021-2022	6			6
Department:	017 Rwebitaba ZARDI					
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	15	4	0	15
Number of research products and services suitable for industry developed	Number	2021-2022	1	4	1	1
Budget Output:	010011 Technology Promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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National Agricultural Research Organization (NARO)

Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved technologies and innovations adopted	Number	2021-2022	4			
PIAP Output:	Research-extension-farmer linkages developed and strengthened					
Programme Intervention:	010411 Strengthen the agricultural extension system					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
9 Zonal agricultural extension coordinators recruited	Number	2021-2022	2			2
Project:	1560 Relocation and Operationalisation of the National Livestock Resources Research					
Budget Output:	000017 Infrastructure Development and Management					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-22	15			15
Number of research products and services suitable for industry developed	Number	2021-2022	3	13	0	3
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services suitable for industry developed	Number	2021-2022	8	13	1	5
Project:	1619 Retooling of National Agricultural Research Organization					
Budget Output:	000003 Facilities and Equipment Management					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services suitable for industry developed	Number	2021-2022	8			8
Budget Output:	000017 Infrastructure Development and Management					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services suitable for industry developed	Number	2021-2022	8			8
Budget Output:	010008 Capacity Strengthening					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	4			4
Budget Output:	010009 Research Partnerships					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of functional public-private partnerships established for technology development and promotion	Number	2021-2022	6	12	0	5
Budget Output:	010010 Technology Generation					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of research products and services for food and nutrition security generated	Number	2021-2022	15			15
Budget Output:	010011 Technology Promotion					
PIAP Output:	Demand driven agriculture technologies developed					
Programme Intervention:	010407 Strengthen agricultural research and technology development					

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National Agricultural Research Organization (NARO)

Sub SubProgramme:	01 Agricultural Research					
PIAP Output:	Demand driven agriculture technologies developed					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
Number of improved technologies and innovations adopted	Number	2021-2022	68	36	0	68
Number of research products and services for food and nutrition security generated	Number	2021-2022	8			8
Programme:	17 REGIONAL BALANCED DEVELOPMENT					
Sub SubProgramme:	01 Agricultural Research					
Department:	002 Buginyaya Zonal Agriculture Research Institute(ZARDI)					
Budget Output:	010011 Technology Promotion					
PIAP Output:	Youth and Women cooperatives supported					
Programme Intervention:	170209 Organize farmers into cooperatives at district level					
Indicator Name	Indicator Measure	Base Year	Base Level	FY2022/23		FY2023/24
				Target	Q1 Performance	Proposed
No. of Youth and Women cooperatives supported	Number	2021-2022	0			20

V5: VOTE CROSS CUTTING ISSUES

i) Gender and Equity

OBJECTIVE	To develop and disseminate technologies which promote equity among Ugandans across all regions.
Issue of Concern	Low levels of adoption for improved technologies among the regions for food, nutrition security, and industry
Planned Interventions	Establish demonstrations for various technologies in different Agro ecological zones to increase adoption levels for impact
Budget Allocation (Billion)	3.1
Performance Indicators	Number of technologies to support regional development developed and disseminated

ii) HIV/AIDS

OBJECTIVE	To minimize levels of new infections among the youth and the married
Issue of Concern	Increasing number of new HI/AIDs infections among the youth

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National Agricultural Research Organization (NARO)

Planned Interventions	Develop market led technologies to create business enterprises for the youth through incubation.
Budget Allocation (Billion)	0.1
Performance Indicators	Number of Market led technologies adopted among the youth

iii) Environment

OBJECTIVE	Develop technological solutions for emerging environmental concerns
Issue of Concern	High level of hidden hunger among the children, elderly and expecting mothers.
Planned Interventions	Develop technologies for management of deficiencies in trace mineral elements such as zinc, iron, vitamin A and Proteins
Budget Allocation (Billion)	0.1
Performance Indicators	Number of biofortified products developed and delivered to uptake pathways

iv) Covid

OBJECTIVE	Develop Sustainable solutions that respond to emerging and re-emerging pandemics in Uganda.
Issue of Concern	High level of emerging and reemerging pests and diseases which has resulted into interceptions of Ugandan products from local, regional, and international markets
Planned Interventions	Develop Bio-control solutions for management of pests and diseases; and engineering solutions for post harvest handling for food and feed safety to minimizes the levels of dangerous chemical residues in Agricultural products.
Budget Allocation (Billion)	1
Performance Indicators	Number of Bio-control and engineering products developed for food and feed safety.