

Vote:142 National Agricultural Research Organisation

QUARTER 3: Highlights of Vote Performance

V1: Summary of Issues in Budget Execution

Table V1.1: Overview of Vote Expenditures (UShs Billion)

	Approved Budget	Released by End Q 3	Spent by End Q3	% Budget Released	% Budget Spent	% Releases Spent
Recurrent Wage	33.233	24.925	24.925	75.0%	75.0%	100.0%
Non Wage	25.291	19.394	17.936	76.7%	70.9%	92.5%
Dev. GoU	51.473	31.990	30.629	62.1%	59.5%	95.7%
Ext. Fin.	0.000	0.000	0.000	0.0%	0.0%	0.0%
GoU Total	109.997	76.308	73.491	69.4%	66.8%	96.3%
Total GoU+Ext Fin (MTEF)	109.997	76.308	73.491	69.4%	66.8%	96.3%
Arrears	0.020	0.034	0.034	166.3%	166.3%	100.0%
Total Budget	110.017	76.342	73.524	69.4%	66.8%	96.3%
<i>A.I.A Total</i>	0.000	0.000	0.000	0.0%	0.0%	0.0%
Grand Total	110.017	76.342	73.524	69.4%	66.8%	96.3%
Total Vote Budget Excluding Arrears	109.997	76.308	73.491	69.4%	66.8%	96.3%

Table V1.2: Releases and Expenditure by Program*

<i>Billion Uganda Shillings</i>	Approved Budget	Released	Spent	% Budget Released	% Budget Spent	%Releases Spent
Program: 0151 Agricultural Research	110.00	76.31	73.49	69.4%	66.8%	96.3%
Total for Vote	110.00	76.31	73.49	69.4%	66.8%	96.3%

Matters to note in budget execution

During the nine months of the financial year 2020/21 reporting period, Ministry of Finance Planning and Economic Development released to NARO Vote 142 Uganda shillings 76.3 billion as support to the development and recurrent expenditures of the Secretariat and her sixteen Institutes and satellites. This was 93% performance against the nine months' budget. The funds thus released were disbursed to the Institutes as soon as the warrants were approved. The nine months financial Period recurrent budget was released at 100% and disbursed to the implementers; however, there was a 17% funding gap against the nine months' development budget. Non-Tax Revenue collected and transferred to treasury during the financial Period at the various institutes amounted to 2.4 billion.

In line with the agreements signed with international collaborators, NARO contributed a total of shilling 747.6 million. This contribution to international organization under development budget is lagging behind at 42% of the item line as it is treated as subvention. It is very likely that NARO will continue to register a domestic arrear at the end of the year. the same period. There was some cash in transit of UGX716mn. The trade creditors therefor stood at 1,706 billion at 31 March 2021.

Table V1.3: High Unspent Balances and Over-Expenditure in the Domestic Budget (Ushs Bn)

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(i) Major unspent balances

Programs , Projects

Program 0151 Agricultural Research

0.789 Bn Shs SubProgram/Project :01 Headquarters

Reason: There service providers had not submitted the demand note to NARO by the end of the quarter.

The Servicing of the final batches of IFMS computers were delayed by interruption caused by Covid 19 Pandemic.

The Suppliers had not supplied the last batch of the order made to them by the end of the quarter, thus not paid.

Services were delivered late in the quarter thus payment was not finalised by the end of the quarter.

Bank details of 2 insurers were not filled successfully under IFMS

Items

299,370,842.000 UShs 228001 Maintenance - Civil

Reason: There service providers had not submitted the demand note to NARO by the end of the quarter.

99,246,800.000 UShs 226001 Insurances

Reason: Bank details of 2 insurers were not filled successfully under IFMS

64,196,725.000 UShs 221001 Advertising and Public Relations

Reason: Services were delivered late in the quarter thus payment was not finalised by the end of the quarter

43,189,980.000 UShs 224001 Medical Supplies

Reason: The Suppliers had not supplied the last batch of the order made to them by the end of the quarter, thus not paid.

40,040,000.000 UShs 221016 IFMS Recurrent costs

Reason: The Servicing of the final batches of IFMS computers were delayed by interruption caused by Covid 19 Pandemic

0.008 Bn Shs SubProgram/Project :26 NARO Internal Audit

Reason: Invoice notes were not received by NARO by the end of the quarter.

Invoice notes were not received by NARO by the end of the quarter as the training was held late in the quarter

Items

5,142,501.000 UShs 221002 Workshops and Seminars

Reason: Invoice notes were not received by NARO by the end of the quarter

2,710,000.000 UShs 221003 Staff Training

Reason: Invoice notes were not received by NARO by the end of the quarter as the training was held late in the quarter

0.515 Bn Shs SubProgram/Project :0382 Support for NARO

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Reason: The license issuing body had not finalized the process by the end of the quarter.

There service providers had not submitted the demand note to NARO by the end of the quarter.

The final review was interrupted by Covid 19 Pandemic. The reviewing team reviewed the works in the 1st week of April 2021.

The Servicing of the final batches of IFMS computers were delayed by interruption caused by Covid 19 Pandemic.

Items

157,823,797.000 UShs	281504 Monitoring, Supervision & Appraisal of Capital work	Reason: The final review was interrupted by Covid 19 Pandemic. The reviewing team reviewed the works in the 1st week of April 2021.
122,328,758.000 UShs	228001 Maintenance - Civil	Reason: The service providers had not submitted the demand note to NARO by the end of the quarter.
103,980,016.000 UShs	223002 Rates	Reason: Jinja Municipality had not submitted the demand note for the ground rate for NaFIRRI
45,353,782.000 UShs	226002 Licenses	Reason: The license issuing body had not finalized the process by the end of the quarter
35,000,000.000 UShs	221016 IFMS Recurrent costs	Reason: The Servicing of the final batches of IFMS computers were delayed by interruption caused by Covid 19 Pandemic

(ii) Expenditures in excess of the original approved budget

V2: Performance Highlights

Table V2.1: Programme Outcome and Outcome Indicators*

Programme : 51 Agricultural Research			
Responsible Officer: Director General			
Programme Outcome: Increased production and productivity of priority and strategic commodities			
Sector Outcomes contributed to by the Programme Outcome			
1 .Increased production and productivity of priority and strategic commodities			
Programme Outcome Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
Percentage of new varieties promoted and adopted by farmers and other users	Percentage	45%	10%
Number of commercialisable technologies and innovations generated through competitive grant projects	Number	5	3
Increased production and productivity at some level resulting from utilization of improved technologies	Percentage	2%	0.5%

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Table V2.2: Key Vote Output Indicators*

Programme : 51 Agricultural Research			
Sub Programme : 01 Headquarters			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	107	70
No. of new varieties submitted to Variety Release Committee for release	Number	37	11
No. of research studies under competitive grants scheme	Number	38	40
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	68	18
No. of technological innovations delivered to uptake pathways	Number	131	70
Sub Programme : 0382 Support for NARO			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	107	70
No. of new varieties submitted to Variety Release Committee for release	Number	37	11
No. of research studies under competitive grants scheme	Number	38	40
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	68	40
No. of technological innovations delivered to uptake pathways	Number	131	30
Sub Programme : 07 National Crops Resources Research Institute			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	11	7
No. of new varieties submitted to Variety Release Committee for release	Number	17	8

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No. of research studies under competitive grants scheme	Number	2	3
Sub Programme : 08 National Fisheries Resources Research Institute			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	12	10
No. of new varieties submitted to Variety Release Committee for release	Number	3	0
No. of research studies under competitive grants scheme	Number	4	4
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	6	3
No. of technological innovations delivered to uptake pathways	Number	9	5
Sub Programme : 09 National Forestry Resources Research Institute			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	3	3
No. of research studies under competitive grants scheme	Number	3	3
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	5	1
No. of technological innovations delivered to uptake pathways	Number	1	1
Sub Programme : 10 National Livestock Resources Research			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	18	3
No. of new varieties submitted to Variety Release Committee for release	Number	2	0
No. of research studies under competitive grants scheme	Number	5	5
Sub Programme : 11 National Semi arid Resources Research			

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KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	6	3
No. of new varieties submitted to Variety Release Committee for release	Number	5	7
No. of research studies under competitive grants scheme	Number	2	2
Sub Programme : 12 National Laboratories Research			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	1	1
No. of new varieties submitted to Variety Release Committee for release	Number	3	4
No. of research studies under competitive grants scheme	Number	4	2
Sub Programme : 13 Abi ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	2	2
No. of research studies under competitive grants scheme	Number	2	2
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	1	1
No. of technological innovations delivered to uptake pathways	Number	5	2
Sub Programme : 14 Bulindi ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	8	4
No. of research studies under competitive grants scheme	Number	2	2
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	2	2

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No. of technological innovations delivered to uptake pathways	Number	4	3
Sub Programme : 15 Kachwekano ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	4	4
No. of new varieties submitted to Variety Release Committee for release	Number	2	0
No. of research studies under competitive grants scheme	Number	1	1
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	1	1
No. of technological innovations delivered to uptake pathways	Number	3	3
Sub Programme : 1560 Relocation and Operationalisation of the National Livestock Resources Research Institute (NALIRRI)			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	1	1
Sub Programme : 16 Mukono ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	3	2
No. of research studies under competitive grants scheme	Number	2	1
Sub Programme : 17 Ngetta ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	1	8
No. of research studies under competitive grants scheme	Number	1	1

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KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	3	0
No. of technological innovations delivered to uptake pathways	Number	6	3
Sub Programme : 18 Nabium ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	7	4
No. of research studies under competitive grants scheme	Number	2	2
Sub Programme : 19 Mbarara ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	7	3
Sub Programme : 20 Buginyaya ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	6	5
No. of new varieties submitted to Variety Release Committee for release	Number	2	4
No. of research studies under competitive grants scheme	Number	2	2
Sub Programme : 21 Rwebitaba ZARDI			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	6	4
No. of research studies under competitive grants scheme	Number	1	2
Sub Programme : 27 National Coffee Research Institute			
KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of improved productivity technologies generated	Number	3	0

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No. of new varieties submitted to Variety Release Committee for release	Number	3	0
No. of research studies under competitive grants scheme	Number	3	3
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q3
No. of technological innovation platforms established/supported	Number	3	3
No. of technological innovations delivered to uptake pathways	Number	5	2

Performance highlights for the Quarter

The physical performance shows the NARO Key Performance Indicators in the reporting period included 11 candidate varieties were submitted to the Variety Release Committee against the set target of 20 varieties. The production technologies generated and released were 15 against the set target of 70. The Research studies implemented under Competitive Grant Scheme stood at 40 against the set target of 40. The Technological innovation platforms (TIPs) were either established or supported technological transfer. TIPs established or supported were at 18 against the set target of 17. The number of technological innovations delivered to uptake pathways stood at 40 compared to set target of 55. The number of scientific publications was at 48 compared to the target of 30. NARO implemented 11 Gender and equity responsive -research infrastructure across the PARIs.

The development release has continued to contribute to creation of nonresidential buildings and other structure as below:

- 1) At the National Coffee Research Institute (NaCORI)- a multipurpose laboratory is almost complete,
- 2) At the National Livestock Resources Research Institute (NaLIRRI) the Vaccine facility that will house the Anti tick, FMD and ECF is out of the foundation and progressing well, Aflasafe processing facility to mitigate aflatoxin, fencing off the institute premises and road network within the campus is also WIP.
- 3)Additional works at Rwebitaba ZARDI to bring to use the premises built in the previous years.
- 4)At Nabuin Zonal Agricultural Research and Development Institute – fencing off the institute premises is complete.
- 5)At Namalere /NARL an Administration block for the agricultural engineering programme has been started
- 6)An Avocado screen house at NAFORRI is progressing well
- 7) A Diagnostic Aquatic laboratory at Kajansi-NAFIRRI is almost complete.

NARO has also invested in the installation of solar security lights at 5 institutes, grain silos and a hay barn at Maruzi. Advance payment on the vaccine equipment and in vitro machinery was made. A number of desk computers and laptops were purchased during the period.

V3: Details of Releases and Expenditure

Table V3.1: GoU Releases and Expenditure by Output*

<i>Billion Uganda Shillings</i>	Approved Budget	Released	Spent	% GoU Budget Released	% GoU Budget Spent	%GoU Releases Spent
Program 0151 Agricultural Research	110.02	76.34	73.52	69.4%	66.8%	96.3%
<i>Class: Outputs Provided</i>	80.59	56.24	53.76	69.8%	66.7%	95.6%
015101 Generation of agricultural technologies	15.73	10.31	10.17	65.5%	64.6%	98.6%
015102 Research extension interface promoted and strengthened	7.03	3.71	3.31	52.8%	47.1%	89.2%
015103 Internal Audit	0.18	0.09	0.08	47.3%	42.7%	90.3%

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<i>Billion Uganda Shillings</i>	Approved Budget	Released	Spent	% GoU Budget Released	% GoU Budget Spent	%GoU Releases Spent
015104 Agricultural research capacity strengthened	57.65	42.13	40.21	73.1%	69.7%	95.4%
Class: Outputs Funded	1.84	0.77	0.75	41.6%	40.5%	97.5%
015151 Payments to International Organisations (CGIAR, ASARECA, WARDA)	1.84	0.77	0.75	41.6%	40.5%	97.5%
Class: Capital Purchases	27.56	19.30	18.98	70.0%	68.9%	98.3%
015172 Government Buildings and Administrative Infrastructure	20.11	15.55	15.23	77.3%	75.7%	97.9%
015176 Purchase of Office and ICT Equipment, including Software	0.45	0.42	0.42	93.9%	93.4%	99.4%
015177 Purchase of Specialised Machinery & Equipment	6.91	3.32	3.32	48.1%	48.1%	100.0%
015178 Purchase of Office and Residential Furniture and Fittings	0.09	0.01	0.01	14.4%	14.3%	99.3%
Class: Arrears	0.02	0.03	0.03	166.3%	166.3%	100.0%
015199 Arrears	0.02	0.03	0.03	166.3%	166.3%	100.0%
Total for Vote	110.02	76.34	73.52	69.4%	66.8%	96.3%

Table V3.2: 2020/21 GoU Expenditure by Item

<i>Billion Uganda Shillings</i>	Approved Budget	Released	Spent	% GoU Budget Released	% GoU Budget Spent	%GoU Releases Spent
Class: Outputs Provided	80.59	56.24	53.76	69.8%	66.7%	95.6%
211102 Contract Staff Salaries	33.23	24.92	24.92	75.0%	75.0%	100.0%
211103 Allowances (Inc. Casuals, Temporary)	4.44	2.93	2.80	65.9%	63.1%	95.8%
212101 Social Security Contributions	3.32	2.91	2.49	87.4%	75.0%	85.8%
213001 Medical expenses (To employees)	0.30	0.30	0.30	100.0%	100.0%	100.0%
213002 Incapacity, death benefits and funeral expenses	0.23	0.23	0.23	100.0%	100.0%	100.0%
213004 Gratuity Expenses	4.54	3.41	3.41	75.0%	75.0%	100.0%
221001 Advertising and Public Relations	1.13	0.63	0.52	55.2%	45.5%	82.5%
221002 Workshops and Seminars	5.32	1.76	1.55	33.2%	29.1%	87.8%
221003 Staff Training	0.87	0.29	0.22	32.8%	25.0%	76.2%
221004 Recruitment Expenses	0.11	0.06	0.05	50.0%	49.6%	99.2%
221006 Commissions and related charges	0.05	0.05	0.05	90.6%	90.6%	100.0%
221007 Books, Periodicals & Newspapers	0.09	0.00	0.00	0.0%	0.0%	0.0%
221008 Computer supplies and Information Technology (IT)	0.36	0.29	0.23	81.8%	64.0%	78.3%
221009 Welfare and Entertainment	0.55	0.23	0.23	41.0%	41.0%	99.9%
221011 Printing, Stationery, Photocopying and Binding	0.67	0.27	0.26	41.1%	39.7%	96.5%
221012 Small Office Equipment	0.10	0.02	0.01	16.1%	13.0%	80.7%
221016 IFMS Recurrent costs	0.23	0.21	0.13	89.2%	56.6%	63.4%
221017 Subscriptions	0.08	0.05	0.05	65.6%	63.1%	96.1%
222001 Telecommunications	0.17	0.16	0.12	92.0%	70.5%	76.6%

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222002 Postage and Courier	0.01	0.01	0.00	51.1%	19.0%	37.2%
222003 Information and communications technology (ICT)	0.62	0.39	0.31	63.1%	49.8%	79.0%
223002 Rates	0.23	0.23	0.13	100.0%	55.3%	55.3%
223004 Guard and Security services	0.44	0.39	0.37	89.2%	83.0%	93.0%
223005 Electricity	1.11	0.99	0.97	89.4%	87.4%	97.7%
223006 Water	0.10	0.09	0.08	90.6%	80.9%	89.3%
224001 Medical Supplies	2.35	2.26	2.22	96.2%	94.3%	98.1%
224004 Cleaning and Sanitation	0.40	0.35	0.32	87.5%	80.8%	92.3%
224005 Uniforms, Beddings and Protective Gear	0.17	0.15	0.13	85.6%	74.4%	86.9%
224006 Agricultural Supplies	6.02	5.10	5.10	84.7%	84.6%	99.9%
225001 Consultancy Services- Short term	1.96	0.45	0.40	22.8%	20.2%	88.5%
226001 Insurances	0.12	0.12	0.02	95.9%	13.3%	13.9%
226002 Licenses	0.27	0.22	0.17	81.9%	65.0%	79.3%
227001 Travel inland	4.92	2.47	2.25	50.3%	45.8%	91.0%
227002 Travel abroad	0.25	0.00	0.00	0.0%	0.0%	0.0%
227004 Fuel, Lubricants and Oils	1.78	0.77	0.75	43.2%	42.5%	98.4%
228001 Maintenance - Civil	1.96	1.90	1.48	96.8%	75.3%	77.8%
228002 Maintenance - Vehicles	1.09	0.96	0.89	87.9%	81.7%	92.9%
228003 Maintenance – Machinery, Equipment & Furniture	0.82	0.60	0.53	72.9%	65.0%	89.2%
228004 Maintenance – Other	0.14	0.07	0.05	48.7%	32.7%	67.2%
273102 Incapacity, death benefits and funeral expenses	0.05	0.05	0.04	91.5%	82.2%	89.8%
Class: Outputs Funded	1.84	0.77	0.75	41.6%	40.5%	97.5%
262201 Contributions to International Organisations (Capital)	1.80	0.77	0.75	42.6%	41.5%	97.5%
264101 Contributions to Autonomous Institutions	0.04	0.00	0.00	0.0%	0.0%	0.0%
Class: Capital Purchases	27.56	19.30	18.98	70.0%	68.9%	98.3%
281501 Environment Impact Assessment for Capital Works	0.31	0.02	0.00	4.8%	0.0%	0.0%
281502 Feasibility Studies for Capital Works	0.31	0.02	0.00	4.8%	0.0%	0.0%
281503 Engineering and Design Studies & Plans for capital works	0.43	0.02	0.00	4.7%	0.0%	0.0%
281504 Monitoring, Supervision & Appraisal of Capital work	0.61	0.53	0.38	87.1%	61.3%	70.4%
312101 Non-Residential Buildings	14.05	12.99	12.88	92.5%	91.7%	99.1%
312102 Residential Buildings	0.43	0.41	0.41	95.1%	95.1%	100.0%
312104 Other Structures	3.96	1.56	1.56	39.4%	39.4%	100.0%
312202 Machinery and Equipment	1.88	1.27	1.27	67.6%	67.6%	100.0%
312203 Furniture & Fixtures	0.09	0.01	0.01	14.4%	14.3%	99.3%
312213 ICT Equipment	0.45	0.42	0.42	93.9%	93.4%	99.4%
312214 Laboratory Equipments	5.03	2.05	2.05	40.8%	40.8%	100.0%
Class: Arrears	0.02	0.03	0.03	166.3%	166.3%	100.0%
321605 Domestic arrears (Budgeting)	0.00	0.00	0.00	116.9%	116.9%	100.0%
321607 Utility arrears (Budgeting)	0.02	0.02	0.02	100.0%	100.0%	100.0%

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321613 Telephone arrears (Budgeting)	0.00	0.01	0.01	1.3%	1.3%	100.0%
Total for Vote	110.02	76.34	73.52	69.4%	66.8%	96.3%

Table V3.3: GoU Releases and Expenditure by Project and Programme*

<i>Billion Uganda Shillings</i>	Approved Budget	Released	Spent	% GoU Budget Released	% GoU Budget Spent	%GoU Releases Spent
Program 0151 Agricultural Research	110.02	76.34	73.52	69.4%	66.8%	96.3%
<i>Recurrent SubProgrammes</i>						
01 Headquarters	48.55	37.13	35.69	76.5%	73.5%	96.1%
07 National Crops Resources Research Institute	0.24	0.16	0.16	66.2%	66.2%	100.0%
08 National Fisheries Resources Research Institute	0.33	0.20	0.20	61.0%	61.0%	100.0%
09 National Forestry Resources Research Institute	0.23	0.14	0.14	61.8%	61.8%	100.0%
10 National Livestock Resources Research	5.24	4.09	4.09	78.1%	78.1%	100.0%
11 National Semi arid Resources Research	0.24	0.12	0.12	52.3%	52.3%	100.0%
12 National Laboratories Research	1.33	0.90	0.90	67.5%	67.5%	100.0%
13 Abi ZARDI	0.18	0.10	0.10	55.1%	55.1%	100.0%
14 Bulindi ZARDI	0.19	0.14	0.14	72.5%	72.5%	100.0%
15 Kachwekano ZARDI	0.18	0.11	0.11	63.3%	63.3%	100.0%
16 Mukono ZARDI	0.35	0.25	0.25	72.8%	72.8%	100.0%
17 Ngetta ZARDI	0.18	0.12	0.12	67.6%	67.6%	100.0%
18 Nabium ZARDI	0.18	0.12	0.12	67.2%	67.2%	100.0%
19 Mbarara ZARDI	0.18	0.14	0.14	75.4%	75.4%	100.0%
20 Buginyaya ZARDI	0.34	0.25	0.25	73.1%	73.1%	100.0%
21 Rwebitaba ZARDI	0.18	0.13	0.13	72.8%	72.8%	100.0%
26 NARO Internal Audit	0.18	0.09	0.08	47.3%	42.7%	90.3%
27 National Coffee Research Institute	0.25	0.15	0.15	60.6%	60.6%	100.0%
<i>Development Projects</i>						
0382 Support for NARO	50.17	31.47	30.11	62.7%	60.0%	95.7%
1560 Relocation and Operationalisation of the National Livestock Resources Research Institute (NALIRRI)	1.30	0.52	0.52	40.2%	40.2%	100.0%
Total for Vote	110.02	76.34	73.52	69.4%	66.8%	96.3%

Table V3.4: External Financing Releases and Expenditure by Sub Programme

<i>Billion Uganda Shillings</i>	Approved Budget	Released	Spent	% Budget Released	% Budget Spent	%Releases Spent
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Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
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Program: 51 Agricultural Research

Recurrent Programmes

Subprogram: 01 Headquarters

Outputs Provided

Output: 01 Generation of agricultural technologies

		Item	Spent
1 work plan and budget 2021/22 appropriated	(1) NARO Annual work plan and budget 2021/22 developed and presented to NARO Council	221002 Workshops and Seminars	18,896
3 resource mobilization platforms developed	(2) 16 PARIs plans & target FY2021-22 reviewed and comments re-routed to 16 Directors of Research	227001 Travel inland	13,393
16 PARIs plans & target FY2021-22 set	(3) NARO Mid-term Performance report developed		
1 NARO Mid-term Performance report developed	(4) 6 technologies with IP potential identified		
2 records management policy instruments developed	Technology disclosures ongoing		
16 technologies with IP potential	(5) 1 Patent application drafted and nearing completion for filing		
	(6) 1 IPMC engagement organised to review licence agreements and MOUs drafted for commercialization of NARO technologies.		
	(7) Quarterly Status report on Agricultural research in Uganda developed.		

Reasons for Variation in performance

Total	32,288
Wage Recurrent	0
Non Wage Recurrent	32,288
AIA	0

Output: 02 Research extension interface promoted and strengthened

		Item	Spent
6 online platforms to support research& development in place	(1) Initiated the development of the NARO partnership policy.	221001 Advertising and Public Relations	12,240
10 technologies with commercial potential identified	(2) Profiled and developed technology compendium for generated NARO technologies for the period 2018-2020.	221002 Workshops and Seminars	7,350
2 Policy framework documents validated		227001 Travel inland	2,620
4 existing platform maintained	(3) Initiated development of SOPs for showcasing NARO technologies.		
1 Mobile App development initiated	(4) Conducted a planning meeting for farm clinics .		
1 digital library platform developed	(5) Conducted a farmer technology needs assessment in three3 communities each in Rwenzori, Mubende and Bunyoro		
	(6) Initiated the development of a technology incubation centre with demolition and rennovation works		

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

commenced in MUZARDI

(7) Developed the NARO VIN system

(8) One MOU between NARO and Community Enterprises Development Organization for development of precooked beans product signed.

(9) Identified IP enabled technologies at MbaZARDI. Two technologies were captured and drafting ongoing. 2 IPMC meeting held and recommendations on research -industry partnership with i.e Uganda Breweries Limited made and finalization of the Licence agreement to use with seed companies. 1 patent application for lateral flow assay for african swine fever diagnosis completed and filed with ARIPO.

(10) 35 stakeholders from USTA representing seed companies engaged on the NARO framework for access and licencing of varieties as a supporting tool to the operationalisation of the NARO IP and commercialisation policies. Draft is ready and awaiting approval

(11) Digital collection updated with 135 publications digitized (115 project reports, 20 brochures). 60 publications allocated class numbers and catalogue entries

(12) First draft of the DIRCKM policy framework developed and validated

(13) Uploaded new content on the online information hub

(14) NARO feedback system developed

(15) Promotion of NARO key technologies on World Food day

Reasons for Variation in performance

Total	22,210
Wage Recurrent	0
Non Wage Recurrent	22,210
<i>AIA</i>	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
2877.7 hectares of land surveyed for titling at serere,lugala,Nabuin and Ssendusu	1) NARO Human resource of 910 persons remunerated, facilitated and welfare enhanced..	Item	Spent
Well implemented research agenda in 16 PARIs	(2) NARO physical resources managed and maintained. These include motor vehicle fleet , office buildings and utilities	211102 Contract Staff Salaries	24,924,922
NARO wide Performance Mid-term report	(3) Agricultural research agenda strengthened. by facilitating NARO council, NARO top management, committees, staff and officers of the organization.	211103 Allowances (Inc. Casuals, Temporary)	908,189
100 NARO staff & associates trained in IP	(4) A status report was produced for both un-surveyed land surveyed land	212101 Social Security Contributions	2,492,492
NARO Council oversight role strengthened		213001 Medical expenses (To employees)	300,000
		213002 Incapacity, death benefits and funeral expenses	225,000
		213004 Gratuity Expenses	3,406,425
		221001 Advertising and Public Relations	20,335
		221002 Workshops and Seminars	75,929
		221003 Staff Training	6,250
		221008 Computer supplies and Information Technology (IT)	12,504
		221009 Welfare and Entertainment	171,789
		221011 Printing, Stationery, Photocopying and Binding	60,111
		221016 IFMS Recurrent costs	50,210
		222001 Telecommunications	66,038
		222002 Postage and Courier	991
		222003 Information and communications technology (ICT)	24,249
		223004 Guard and Security services	103,918
		223005 Electricity	484,120
		223006 Water	15,050
		224001 Medical Supplies	49,767
		224004 Cleaning and Sanitation	114,511
		224005 Uniforms, Beddings and Protective Gear	43,125
		224006 Agricultural Supplies	743,305
		226001 Insurances	988
		227001 Travel inland	174,131
		227004 Fuel, Lubricants and Oils	218,138
		228001 Maintenance - Civil	514,477
		228002 Maintenance - Vehicles	288,435
		228003 Maintenance – Machinery, Equipment & Furniture	96,178
		228004 Maintenance – Other	18,706
		273102 Incapacity,death benefits and funeral expenses	20,345

Reasons for Variation in performance

No funds were released to undertake survey , open boundaries and secure titles for all NARO land.

Total 35,630,627

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
		Wage Recurrent	24,924,922
		Non Wage Recurrent	10,705,705
		AIA	0
		Total For SubProgramme	35,685,125
		Wage Recurrent	24,924,922
		Non Wage Recurrent	10,760,203
		AIA	0

Recurrent Programmes

Subprogram: 07 National Crops Resources Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

Produce breeder and early generation seed for all parental materials and commercial varieties 1,000kgs of maize, 500kgs of Beans, 500bags of Cassava and 2,000 assorted horticultural seedlings for all farmers in uganda	1. 300kgs of foundation seed of beans produced (NAROBAN 6&7) 2. 11 tons of rice foundation seed produced and processed 3. 1 ton of rice breeder seed produced for 4 rice varieties 4. 1 ton of Quality rice breeder seed produced 5. 2.97 tons of breeder seed for High Iron Bean 6. Maize – 2 tons, - Land prepared for next planting. (7) 8 acres established for production of breeder seed for NAROBAN 6 and 7 (8) 2.97 MT of breeder seed for High Iron beans	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	20,235

Reasons for Variation in performance

Total	20,235
Wage Recurrent	0
Non Wage Recurrent	20,235
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Maintenance of three Bio-sciences laboratories equipment and vehicles, four on-station field research facilities, six Crop production facilities and four research handling facilities.	(1) NACRRI research physical facilities managed and maintained (One staff house, one workshop). (2) NACRRI human resource managed and maintained. Hired labour, contract staff and casual labourers wages paid. (canteen, dormitories, estates and farm management).	Item 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221002 Workshops and Seminars 221008 Computer supplies and Information Technology (IT) 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 222001 Telecommunications 223004 Guard and Security services 223005 Electricity 224004 Cleaning and Sanitation 226001 Insurances 227001 Travel inland 227004 Fuel, Lubricants and Oils 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture	Spent 7,724 3,750 3,004 4,497 1,305 4,120 3,500 8,750 26,250 6,803 960 4,284 14,248 16,585 6,725

Reasons for Variation in performance

Due to inadequate release of funds, the maintenance of three Bio-sciences laboratories equipment and vehicles was not done.

Total	112,505
Wage Recurrent	0
Non Wage Recurrent	112,505
<i>AIA</i>	0

Arrears

Output: 99 Arrears

Reasons for Variation in performance

Item	Spent
Total	0
Wage Recurrent	0
Non Wage Recurrent	0
<i>AIA</i>	0
Total For SubProgramme	132,739
Wage Recurrent	0
Non Wage Recurrent	132,739
<i>AIA</i>	0

Recurrent Programmes

Subprogram: 08 National Fisheries Resources Research Institute

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
<i>Outputs Provided</i>			
Output: 01 Generation of agricultural technologies			
1 Least-cost mycotoxin safe aqua feeds formulated.	(i) 50 Kg of dried BSF larvae produced for use in experiments; (ii). 550 kgs of fresh BSF produced for making experimental fish feed and for running experiment to evaluate potential of different materials to preserve BSF	Item	Spent
1 technology for increasing shelf life live feed		211103 Allowances (Inc. Casuals, Temporary)	5,063
1 broad spectrum probiotic combination to manage hatchery bacterial diseases, 2 fish feeds formulae based on local ingredients		224001 Medical Supplies	400
1 biocontrol agent for K		224006 Agricultural Supplies	13,154
		227004 Fuel, Lubricants and Oils	2,920
			Total
			21,536
			Wage Recurrent
			0
			Non Wage Recurrent
			21,536
			AIA
			0
Output: 02 Research extension interface promoted and strengthened			
16,000,000 fish seed (Tilapia, catfish mirror carp and Barbus) will be produced.	232,374 quality sex reversed tilapia fry produced and availed to farmers.	Item	Spent
1 CSO/NGO to work on HIV AIDs in fishing communities in place		221001 Advertising and Public Relations	1,250
1 Analysis of women and youth participation in various value chains of small fish completed		221008 Computer supplies and Information Technology (IT)	7,000
		221011 Printing, Stationery, Photocopying and Binding	1,966
		222001 Telecommunications	3,726
		227001 Travel inland	3,500
		227004 Fuel, Lubricants and Oils	2,815
			Total
			20,257
			Wage Recurrent
			0
			Non Wage Recurrent
			20,257
			AIA
			0
Output: 04 Agricultural research capacity strengthened			

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
16,500 brood stocks of 4 farmer preferred fish species stocked	109568 Nile tilapia, 30200 African catfish, 1500 mirror carpseed produced	Item	Spent
32 fish hatchery operators trained		211103 Allowances (Inc. Casuals, Temporary)	21,557
6,000,000 sex reversed tilapia fry		221001 Advertising and Public Relations	2,750
		221006 Commissions and related charges	10,000
		221008 Computer supplies and Information Technology (IT)	1,451
		221009 Welfare and Entertainment	3,436
		221011 Printing, Stationery, Photocopying and Binding	1,905
		222001 Telecommunications	3,250
		222003 Information and communications technology (ICT)	10,674
		223004 Guard and Security services	10,500
		223005 Electricity	22,000
		223006 Water	11,625
		224004 Cleaning and Sanitation	9,454
		226001 Insurances	2,760
		227001 Travel inland	3,978
		227004 Fuel, Lubricants and Oils	7,536
		228001 Maintenance - Civil	7,500
		228002 Maintenance - Vehicles	20,615
		228003 Maintenance – Machinery, Equipment & Furniture	9,345

Reasons for Variation in performance

Total	160,335
Wage Recurrent	0
Non Wage Recurrent	160,335
AIA	0
Total For SubProgramme	202,128
Wage Recurrent	0
Non Wage Recurrent	202,128
AIA	0

Recurrent Programmes

Subprogram: 09 National Forestry Resources Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
10 Endangered medicinal and timber tree species conserved ,3 seed stands of three citrus varieties established in Kifu Research Forest,10 ha of forest research trials managed,1 protocol for Production of healthy Citrus fruit seedlings, 5 acre of National	1) 6 acres of multi-locational shea trials (breeding seed orchards) maintained. 2) 3.5 ha of Calliandra seed stands at Kifu maintained for seed production. 3) Designs of 1 type of value added woodwaste product (Resin treated table) developed. 4) Bamboo culms harvested and seasoning ongoing. - 22,000 high quality clonal eucalyptus plantlets raised; 5) Grevillea and Araucaria research trials maintained in Kifu research Forest.	Item 221002 Workshops and Seminars 224006 Agricultural Supplies 227001 Travel inland	Spent 1,875 1,523 375

Reasons for Variation in performance

No funds for work on citrus, Endangered medicinal and timber tree species.

Total	3,773
Wage Recurrent	0
Non Wage Recurrent	3,773
AIA	0

Output: 02 Research extension interface promoted and strengthened

Information on various forestry research technologies delivered to stakeholders along the forestry resources value chain enhanced through reaching out to five hundred thousand(500,000) stakeholders using various mechanisms.	Design of 1 type of value added woodwaste product (resin-treated table) developed. 2 epoxy-treated tables from wood waste (tree stump offcuts) developed. 3 sets of resin-treated tables developed from wood waste.	Item 221001 Advertising and Public Relations 221008 Computer supplies and Information Technology (IT)	Spent 2,650 6,999
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Reasons for Variation in performance

Total	9,649
Wage Recurrent	0
Non Wage Recurrent	9,649
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
i)-70 staff trained in teamwork building and Accountability and research proposal development. ii)-Institute research capacity strengthened through advisory committee guidance	(i) Institute staff accorded guidance by NaFORRI management team and completed NaFORRI 5-year Strategic plan 2023/4 to 2027/28; (ii) Staff guided on project proposal framework in NARO by the Grants Office; (iii) An inventory of Off budget projects implemented at NaFORRI since 1999 taken; (iv) Staff guided on how to improve performance and good work ethics by NARO PARI Directors forum; (v) staff welfare safety improved through provision of office break tea, emergency first aid and counselling by COVID-19 Mukono task force .(vi) Recommendations on improvement of research delivery made by Advisory committee members (vi) Management team (Director,program leaders/PIs & Unit heads) participated in NARO-Wide quarterly Review & planning workshop Two green houses and nursery infrastructure at NaFORRI operational; 2 state-of-the-art screen houses for massive Hass avocado production established	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	9,558
		221002 Workshops and Seminars	2,503
		221009 Welfare and Entertainment	1,522
		221011 Printing, Stationery, Photocopying and Binding	2,832
		222001 Telecommunications	2,000
		222002 Postage and Courier	125
		222003 Information and communications technology (ICT)	3,558
		223004 Guard and Security services	14,625
		223005 Electricity	33,482
		224004 Cleaning and Sanitation	15,757
		224005 Uniforms, Beddings and Protective Gear	1,500
		227001 Travel inland	3,060
		227004 Fuel, Lubricants and Oils	10,429
		228001 Maintenance - Civil	8,125
228002 Maintenance - Vehicles	14,580		
228003 Maintenance – Machinery, Equipment & Furniture	7,829		

Reasons for Variation in performance

Total	131,483
Wage Recurrent	0
Non Wage Recurrent	131,483
AIA	0
Total For SubProgramme	144,905
Wage Recurrent	0
Non Wage Recurrent	144,905
AIA	0

Recurrent Programmes

Subprogram: 10 National Livestock Resources Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
1) Three livestock laboratories and one forage conservation facility maintained. 1 variety of lab lab developed 2 Vaccine molecules developed	"1) Two technology exhibitions conducted 2) One livestock research newsletters, 1 brochures/leaflets developed and disseminated 3) Two research planning and knowledge sharing workshops conducted 4) Demonstrations of sorghum and pearl millet for biorefining for food, sugar, and biomaterials. 5) Farmers and stakeholders appreciate sorghum and pearl millet diversity available for use. 6) Farmers appreciate mechanization practices 7) Characterization data collected. 8) Insight into potential sorghum and pearl millet lines for promotion identified.	Item 221002 Workshops and Seminars 221006 Commissions and related charges 221017 Subscriptions 223004 Guard and Security services 223005 Electricity 224001 Medical Supplies 224004 Cleaning and Sanitation 224005 Uniforms, Beddings and Protective Gear 224006 Agricultural Supplies 225001 Consultancy Services- Short term 228001 Maintenance - Civil 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture	Spent 488,914 8,984 22,534 63,000 98,624 1,089,859 70,453 68,423 1,133,599 170,000 455,000 154,369 149,250
Total			3,973,009
Wage Recurrent			0
Non Wage Recurrent			3,973,009
AIA			0

Reasons for Variation in performance

Output: 04 Agricultural research capacity strengthened

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Item	Spent
1) Three livestock laboratories and one forage conservation facility maintained. 3. Four livestock production facilities maintained. 4. Six research handling facilities maintained	Livestock research infrastructure maintained. These include the following: 1) Three livestock laboratories and one forage conservation facility maintained. 2) Two on-station field research facilities maintained 3) Four livestock production facilities 4) Six handling facilities	Item 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221002 Workshops and Seminars 221008 Computer supplies and Information Technology (IT) 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 221012 Small Office Equipment 223005 Electricity 224004 Cleaning and Sanitation 226001 Insurances 227001 Travel inland 227004 Fuel, Lubricants and Oils 228002 Maintenance - Vehicles	Spent 56,817 5,250 1,602 7,379 4,349 4,120 1,032 3,750 8,704 960 2,448 7,374 13,603

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
		Total	117,387
		Wage Recurrent	0
		Non Wage Recurrent	117,387
		AIA	0
		Total For SubProgramme	4,090,396
		Wage Recurrent	0
		Non Wage Recurrent	4,090,396
		AIA	0

Recurrent Programmes

Subprogram: 11 National Semi arid Resources Research

Outputs Provided

Output: 01 Generation of agricultural technologies

20 cotton strain lines evaluated on 3 stations [Lira, Arua and Kasese] for yield, fibre quality attributes, quality oil and protein content.
A well Maintained NaSARRI's Corporate Image promoted along various value chains of stakeholders in the region.

Preliminary analysis has indicated that the average square date was at 35 days after planting, flowering was at 65 days while the average boll burst was at 128 days after planting. Plant height average was at 110 cm. Harvesting has been completed at NaSARRI only.

Item	Spent
227001 Travel inland	4,500
227004 Fuel, Lubricants and Oils	7,010

Reasons for Variation in performance

Total	11,510
Wage Recurrent	0
Non Wage Recurrent	11,510
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
A well Maintained NaSARRI's Corporate Image promoted among stakeholders across the agro ecological zone. Increased public awareness about the use of improved technologies . Four (4) advisory and sixteen (16) committee meetings conducted.	1) NaSARRI's Corporate Image promoted among stakeholders thru field days 2) NASAARI research agenda popularized and strengthened thru two dissemination workshop and five committee meeting facilitated	Item 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221002 Workshops and Seminars 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 222001 Telecommunications 222003 Information and communications technology (ICT) 223004 Guard and Security services 223005 Electricity 224004 Cleaning and Sanitation 226001 Insurances 227001 Travel inland 227004 Fuel, Lubricants and Oils 228002 Maintenance - Vehicles 273102 Incapacity,death benefits and funeral expenses	Spent 10,334 1,827 3,000 3,479 3,126 3,827 27,277 11,482 17,137 6,433 848 1,719 3,965 12,099 5,655

Reasons for Variation in performance

Total	112,208
Wage Recurrent	0
Non Wage Recurrent	112,208
AIA	0
Total For SubProgramme	123,718
Wage Recurrent	0
Non Wage Recurrent	123,718
AIA	0

Recurrent Programmes

Subprogram: 12 National Laboratories Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

		Item	Spent
3 Value added products of maize, beans, soybean for commercialization.	1) Fabrication of the 1st prototype decorticator in progress (10% done)	211103 Allowances (Inc. Casuals, Temporary)	35,671
1 botanical and bio-control pest control system tested.	2) Draft survey report on status of on-farm postharvest coffee handling & processing in Bulambuli and Kalungu districts	222001 Telecommunications	3,750
Groundnut decorticator available.	3) Design and working drawings of 1st prototype completed	223005 Electricity	11,250
8 climate smart technologies utilized.	4) Briquetting and shading machines used for producing the formulated functional. Draft formula of 1st blend of pine (X%), eucalyptus (Y%) and groundnut shells (Z%)	223006 Water	6,375
2000 banana genotypes Hybrid seed generated	5) NARO PAH-Safe Fish Kiln Commissioned. MoU signed with 6 private smoked fish processors and 1 institution for processing and marketing quality and PAH-safe smoked fish.	224006 Agricultural Supplies	166,718
	6) Two units of NAROFIK-3 fish kiln fabricated, and 4 units fabricated delivered to 4 fish processors	227001 Travel inland	64,181
	7) Leaflet and poster of the kiln developed and 500 copies "	227004 Fuel, Lubricants and Oils	1,936
	8)Two sites for constructing kiln house identified at Kwer Kabu Acaye Women Group and Kajjansi aquaculture research and development centre. Construction of kiln houses supervised at one site	228003 Maintenance – Machinery, Equipment & Furniture	2,250
	9) Cost benefit analysis of the NAROFIK-3 Kiln prototype established. It is economically viable business. Payback period of 1 year with a net margin of 37% which is a robust business.		
	10) A database of plants with potential for generating botanical pesticides generated from interaction with farmers in Eastern Uganda		
	11) Nutritional parameters for bean products determined. Market testing of instant maize products development of appropriate packages for instant maize products on-going. Processing trials for instant bean products on-going.		
	12. Protocols for production of instant-maize flour and snacks developed. Feedback information from the markets (supermarkets, integrated markets) Suitable package information fit with product certification		
	13) 1st prototype of single row animal drawn weeder fabricated. The prototype takes 3.5 hours to weed 1 hectare of sorghum. It has weeding efficiency of 84% climate smart technologies have been developed.		

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
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Reasons for Variation in performance

	Total	292,131
	Wage Recurrent	0
	Non Wage Recurrent	292,131
	<i>AIA</i>	0

Output: 02 Research extension interface promoted and strengthened

Strengthened capacity through Research extension interface promotions		Item	Spent
	1) Extension workers and farmers trained on bicontrol agents for management of T. absoluta, Buseolla and Chilo.	211103 Allowances (Inc. Casuals, Temporary)	22,917
		221002 Workshops and Seminars	7,883
	2) Knowledge and skills of 12 farmers, 36 ox-drivers, 12 artisans and 8 extension staff from Wol, Paimol, Lokole and Arum sub counties in Agago district enhanced in planting, weeding and transport using oxen	221011 Printing, Stationery, Photocopying and Binding	3,625
		224006 Agricultural Supplies	287,167
		227001 Travel inland	36,040

Reasons for Variation in performance

	Total	357,631
	Wage Recurrent	0
	Non Wage Recurrent	357,631
	<i>AIA</i>	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Institutional research capacity strengthened through four stake holder guidance engagements and four routine maintenance of research facilities, equipment, vehicles and support.	- Office equipment, field machinery & laboratory equipment at the institute maintained. - Human resources facilitated and strengthened.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	55,959
		221002 Workshops and Seminars	12,255
		221003 Staff Training	10,500
		221008 Computer supplies and Information Technology (IT)	10,445
		221009 Welfare and Entertainment	4,198
		221011 Printing, Stationery, Photocopying and Binding	7,297
		221012 Small Office Equipment	375
		222001 Telecommunications	2,700
		222002 Postage and Courier	63
		223004 Guard and Security services	19,810
		223005 Electricity	24,250
		224004 Cleaning and Sanitation	15,870
		227001 Travel inland	5,200
		227004 Fuel, Lubricants and Oils	26,663
		228002 Maintenance - Vehicles	39,631
		228003 Maintenance – Machinery, Equipment & Furniture	8,553
228004 Maintenance – Other	2,031		

Reasons for Variation in performance

Total	245,797
Wage Recurrent	0
Non Wage Recurrent	245,797
AIA	0
Total For SubProgramme	895,560
Wage Recurrent	0
Non Wage Recurrent	895,560
AIA	0

Recurrent Programmes

Subprogram: 13 Abi ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
4 advisory committee, PARI directors' forum meetings and 2 planning reviews held.	1). Four advisory committee, PARI directors' forum meetings and 2 planning reviews held to guide the research agenda. 2). The extent of investment and utilisation of cassava as food and feed among different stakeholders and the contribution of research documented 3). High Quality Cassava Flour (HQCF) from four cassava varieties (Narocas1, Nase19, Nase14 and Nase3) can variably substitute wheat flour upto 30% in leavened bread without compromising sensory attributes and significantly increase mineral content 4). An assessment for apiary conducted at the institute technology demonstration site at Got Ali, Nebbi 5). Documentation of the contribution of research by NARO to the development of the cassava value chain conducted among different stakeholders in West Nile 6). 5.5 tons of Longe 5D seed harvested and cleaned 7). 400 kg of bean seeds harvested and cleaned	Item 221006 Commissions and related charges 222001 Telecommunications 224006 Agricultural Supplies 227001 Travel inland 228003 Maintenance – Machinery, Equipment & Furniture	Spent 6,525 600 16,756 10,326 19,875
Two Cassava composites products developed			
One nutrition platform for nutrient enhanced cassava products developed			
Well maintained institutional research assets			

Reasons for Variation in performance

Total	54,082
Wage Recurrent	0
Non Wage Recurrent	54,082
AIA	0

Output: 02 Research extension interface promoted and strengthened

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Item	Spent
At least two cassava based products disseminated to technology uptake pathways in West Nile	1) Documentation of the contribution of research by NARO to the development of the cassava value chain conducted among different stakeholders in West Nile	221001 Advertising and Public Relations	2,188
Eight seminars conducted on nutrition focusing on nutrient enhanced research products	2). Cassava composite products exhibited at the World Science Day celebrations at Kyambogo University 2). LSB groups profiled for crops and varieties grown, land available for production and seed demand estimates for 3 year period (3) One cassava-based formula for growing chicken under evaluation	221002 Workshops and Seminars 221008 Computer supplies and Information Technology (IT) 221011 Printing, Stationery, Photocopying and Binding	3,125 3,750 688

Reasons for Variation in performance

Total	9,750
Wage Recurrent	0
Non Wage Recurrent	9,750
AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
Output: 04 Agricultural research capacity strengthened			
Two field days organized to show case research outputs and share experience. Enhancement of an appropriate clean working environment. Four monitoring sessions conducted.	1). Established field demonstrations of beans and maize. 2) Abi ZARDI human resources, financial resources, and physical resources maintained 3).Four monitoring sessions conducted.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	4,779
		221002 Workshops and Seminars	450
		221008 Computer supplies and Information Technology (IT)	2,901
	2) Three beneficiary group sensitized and three experimental field selected and prepared	221009 Welfare and Entertainment	870
		222001 Telecommunications	600
		223004 Guard and Security services	4,500
		223005 Electricity	1,500
		223006 Water	300
		224004 Cleaning and Sanitation	2,902
		226001 Insurances	300
		227001 Travel inland	2,754
		227004 Fuel, Lubricants and Oils	2,212
		228001 Maintenance - Civil	750
		228002 Maintenance - Vehicles	8,019
		228003 Maintenance – Machinery, Equipment & Furniture	1,323
		273102 Incapacity,death benefits and funeral expenses	1,500

Reasons for Variation in performance

Total	35,658
Wage Recurrent	0
Non Wage Recurrent	35,658
AIA	0
Total For SubProgramme	99,490
Wage Recurrent	0
Non Wage Recurrent	99,490
AIA	0

Recurrent Programmes

Subprogram: 14 Bulindi ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
50% increase in banana productivity	Germ plasm for breeding and multiplication was maintained on station. The institute maintains 2 acres of mother garden (0.25 acres of lablab, centrosema, green leaf desmoldia, Alfalfa and Brachieria brizantha respectivel. On station mother gardens were maintained 2 crop (banana, and coffee). Cassava multiplication fields were maintained 5kg of Chloris gayana and centrosema seeds were harvested. The institute maintains livestock such as camborough pigs for multiplication (20 pigs), Delivered 15 improved piglets to pig farmers in Hoima and Masindi. the breed has high fecundity and quality market carcass for pork industries. The institute also maintains Mubende goats unit of flock size 42 goats (18F and 19M), 10 Mubende, 4 Boers, 23crosses, Mubende goats have high biotic potential, quality market carcass and skin. The unit is being equipped to become goat health management center. The institute also maintains an on station apiary. The institute is quantifying apiary performance, identifying constraints and for designing management options for on station apiaries in Kyabigambire Sub County, Hoima District	Item	Spent
Groundnut lines segregated against four attributes.		211103 Allowances (Inc. Casuals, Temporary)	6,450
Reduced Rice yield loss by 50%		221002 Workshops and Seminars	3,375
one effective bio-fungicide identified		222001 Telecommunications	4,500
Status of fruit fly species in the LACZ determined.		223004 Guard and Security services	9,000
		223005 Electricity	9,000
		227001 Travel inland	2,508

Reasons for Variation in performance

Total	34,833
Wage Recurrent	0
Non Wage Recurrent	34,833
AIA	0

Output: 02 Research extension interface promoted and strengthened

5 research technologies promoted.	140 farmers trained good agronomic practices for rice, vegetables, bananas and beans.	Item	Spent
Strengthening research demonstrations for uptake among farmers and early adopters for increased production.		221001 Advertising and Public Relations	5,950
	Capacity building for 30 farmers in seed banking and water harvesting in Kyagwali refuge settlement; 40 farmers and 10 community based facilitators from Kagadi and Kiryandongo given guided tours of research activities and crop/livestock demos		

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
		Total	5,950
		Wage Recurrent	0
		Non Wage Recurrent	5,950
		<i>AIA</i>	0

Output: 04 Agricultural research capacity strengthened

3 stakeholder meetings conducted and feedback disseminated to the respective recipients	1) Two stake holder meetings (chicken project inception, MAAIF, pre-season extension meeting)	Item	Spent
		221002 Workshops and Seminars	2,253
		221009 Welfare and Entertainment	1,957
		221011 Printing, Stationery, Photocopying and Binding	1,592
		222001 Telecommunications	1,800
		222002 Postage and Courier	17
		223004 Guard and Security services	6,300
		223005 Electricity	28,800
		224004 Cleaning and Sanitation	7,121
		224005 Uniforms, Beddings and Protective Gear	9,900
		226001 Insurances	1,152
		227001 Travel inland	1,633
		227004 Fuel, Lubricants and Oils	3,133
		228002 Maintenance - Vehicles	24,073
		228003 Maintenance – Machinery, Equipment & Furniture	911
		228004 Maintenance – Other	264
		273102 Incapacity, death benefits and funeral expenses	900

Reasons for Variation in performance

Total	91,805
Wage Recurrent	0
Non Wage Recurrent	91,805
<i>AIA</i>	0

Arrears

Output: 99 Arrears

Reasons for Variation in performance	Item	Spent
	Total	0
	Wage Recurrent	0
	Non Wage Recurrent	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
		AIA	0
		Total For SubProgramme	132,588
		Wage Recurrent	0
		Non Wage Recurrent	132,588
		AIA	0

Recurrent Programmes

Subprogram: 15 Kachwekano ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

		Item	Spent
6 onstation ponds rehabilitated and maintained in functional state	1) Three fish strains of Nile Tilapia (from Lakes Kayumbu, Kioga and Albert)	221011 Printing, Stationery, Photocopying and Binding	540
2 breeding bucks accessed	characterised and maintained (provision 50kg of feed and security) at Kyanamira fish facility	224001 Medical Supplies	19,832
Ten Soil fertility profiles developed		227001 Travel inland	8,703
3 onstation orchards rehabilitated	2) 6 onstation ponds rehabilitated and a Dairy herd of 24 maintained.	227004 Fuel, Lubricants and Oils	955

Reasons for Variation in performance

	Total	30,030
	Wage Recurrent	0
	Non Wage Recurrent	30,030
	AIA	0

Output: 02 Research extension interface promoted and strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
3 new potato varieties promoted and tested on the market Baseline information on the performance of the Buck exchange Programme obtained	(1) 50 farmers mobilized on one field day conducted (2). 44 farmers (30 males, 14 females) exposed and back stopped with apple technologies (3). Three (3) consultative meetings held, attended by 44 (Kabale-14, Kisoro-13 and Rukungiri - 17) different value chain actors including progressive dairy farmers, dairy processors and value addition, cooperative marketing association representatives, DVOs, DPMOs, OWC, among others. First draft of technical report written to summarise key issues discussed during meetings (4). 100 farmers mobilised through 2 farmer field days to promote NAROPOT 1 and 3 in Rubanda and Knungu districts (5). Atleast 80 farmers reached through exhibition of apple and potato technologies during the 2020 world food day exhibition (6). 10 seed demonstration fields were harvested and results of the demonstration indicated yield increase with production range of 14-37T/ha depending on the location and the variety. Seed production Manual was published and 400 copies printed for distribution to farmers (7). trained 300 farmers in seed potato production (8) 2 video documentaries recorded (One on agronomic practices, best harvesting practices and grading of potatoes, One on Climate Smart Agriculture) (9.) Generated 20 tones of basic seed, 29,300 minitubers and trained 300 farmers in seed potato production 10) 5 farmer groups selected, Kachpot 1 and Rwangume seed distributed in partnership with ADREAM (local NGO)	Item 221001 Advertising and Public Relations 221011 Printing, Stationery, Photocopying and Binding 224001 Medical Supplies 224006 Agricultural Supplies 227001 Travel inland 227004 Fuel, Lubricants and Oils	Spent 4,718 1,615 5,225 3,372 10,335 720

Reasons for Variation in performance

Total	25,984
Wage Recurrent	0
Non Wage Recurrent	25,984
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
four (4) consultative engagements, four (4) routine research infrastructure, vehicles machinery and equipment maintained.	Institutional research capacity Enhanced through one (1) consultative engagements, one Institutional research capacity Enhanced through one (1) consultative engagements, one (1) routine research infrastructure, vehicles machinery and equipment maintained. 3) Farmer groups linked to 1 processor. 4) Nursery bed maintenance, orchard management (pruning, defoliation, bending and staking, spraying,), Grafting of 1000 apple seedlings	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	5,377
		221009 Welfare and Entertainment	832
		221011 Printing, Stationery, Photocopying and Binding	1,780
		222001 Telecommunications	2,170
		222003 Information and communications technology (ICT)	4,448
		223004 Guard and Security services	3,400
		223005 Electricity	7,225
		223006 Water	4,250
		224004 Cleaning and Sanitation	5,550
		226001 Insurances	850
		227001 Travel inland	2,903
		227004 Fuel, Lubricants and Oils	5,104
		228001 Maintenance - Civil	3,821
		228002 Maintenance - Vehicles	6,564
228003 Maintenance – Machinery, Equipment & Furniture	3,876		

Reasons for Variation in performance

Total	58,149
Wage Recurrent	0
Non Wage Recurrent	58,149
AIA	0
Total For SubProgramme	114,163
Wage Recurrent	0
Non Wage Recurrent	114,163
AIA	0

Recurrent Programmes

Subprogram: 16 Mukono ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
Four (04) technologies generated (1 best legume for milk yield selected dosage rate DE application for odour reduction selected, and 3 management technologies)	6 bags of cassava cuttings (NAROCAS 1) sold and about 35 bags still available for sale; 5,200 kg of bean seed produced, 12 tons of maize seed produced under the seed project	Item 221011 Printing, Stationery, Photocopying and Binding 222001 Telecommunications 223004 Guard and Security services 223005 Electricity 223006 Water 224001 Medical Supplies 227001 Travel inland 227004 Fuel, Lubricants and Oils	Spent 6,300 4,750 23,750 45,800 5,700 9,639 12,605 13,380

Reasons for Variation in performance

Total	121,924
Wage Recurrent	0
Non Wage Recurrent	121,924
AIA	0

Output: 04 Agricultural research capacity strengthened

2 Multi-stake holder innovation platform in Seed and seedling Production and Marketing established. One Multi-stake holder innovation platform in Seed One policy to guide decision making.	Availed 6300 KR clonal plantlets availed to msip farmers from sembabule, Mukono, Mityana, Kayunga, Namayingo and Masaka; 21,000 coffee cuttings have been put in cages but not yet ready for release; 415 Kgs of coffee beans sold	Item 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221008 Computer supplies and Information Technology (IT) 221009 Welfare and Entertainment 222002 Postage and Courier 224004 Cleaning and Sanitation 226001 Insurances 228001 Maintenance - Civil 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture 228004 Maintenance – Other 273102 Incapacity, death benefits and funeral expenses	Spent 18,972 5,100 18,739 2,175 510 25,699 1,260 23,337 22,290 10,024 2,125 2,700
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Reasons for Variation in performance

Total	132,930
Wage Recurrent	0
Non Wage Recurrent	132,930
AIA	0
Total For SubProgramme	254,855

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
		Wage Recurrent	0
		Non Wage Recurrent	254,855
		AIA	0

Recurrent Programmes

Subprogram: 17 Ngetta ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

		Item	Spent
Soil seed bank estimation technique, integrated weed management technologies for maize developed 2 incidence maps (1 for citrus leaf and fruit spot and 1 for gummosis disease) updated 2 integrated disease management options for citrus diseases validated 1	1) Established that the green house germination technique is the most effective to estimate soil seed bank, followed by cloth bag method. Flootation method is not suitable . 2) One incidence map on severity updated on Alternana brown spot disease, Pseudoerosporal leaf and fruit spot and Anthracnose	211103 Allowances (Inc. Casuals, Temporary)	6,371
		221001 Advertising and Public Relations	480
		221002 Workshops and Seminars	5,167
		221011 Printing, Stationery, Photocopying and Binding	421
		223005 Electricity	4,560
		224001 Medical Supplies	4,911
		224006 Agricultural Supplies	7,240
		227001 Travel inland	22,168
		227004 Fuel, Lubricants and Oils	973
		Wage Recurrent	0
		Non Wage Recurrent	52,290
		AIA	0

Reasons for Variation in performance

Output: 02 Research extension interface promoted and strengthened

		Item	Spent
Improved stakeholder awareness through demonstrations and exhibitions for proven agricultural research technologies enhancing; production practices on and off -station	5 technology demonstrations (beans, groundnuts, sorghum, soy beans, millet) established on-station	211103 Allowances (Inc. Casuals, Temporary)	3,074
		221002 Workshops and Seminars	225
		221011 Printing, Stationery, Photocopying and Binding	324
		224006 Agricultural Supplies	4,830
		227001 Travel inland	3,852
		227004 Fuel, Lubricants and Oils	1,601
		Total	13,906
		Wage Recurrent	0
		Non Wage Recurrent	13,906
		AIA	0

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
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Output: 04 Agricultural research capacity strengthened

Institutional research capacity strengthened through 4 stakeholder consultative meetings and routine maintenance of research facilities, equipment and machinery	1) Ngetta ZARDI facilitated to undertake zonal mandate. Conducted routine maintenance of vehicles, research facilities, equipment and machinery 2) 22 LSB groups strategically linked to QDS suport services and networks	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	3,784
		221011 Printing, Stationery, Photocopying and Binding	1,465
		223004 Guard and Security services	14,749
		223005 Electricity	4,940
		223006 Water	3,800
		224004 Cleaning and Sanitation	1,894
		227001 Travel inland	4,036
		227004 Fuel, Lubricants and Oils	3,780
		228002 Maintenance - Vehicles	15,692

Reasons for Variation in performance

Total	54,139
Wage Recurrent	0
Non Wage Recurrent	54,139
AIA	0
Total For SubProgramme	120,334
Wage Recurrent	0
Non Wage Recurrent	120,334
AIA	0

Recurrent Programmes

Subprogram: 18 Nabium ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

2 cereal and 2 legume crops promoted in NEAZ for sustainable food production and resilient agricultural practices,30,000 seedlings of mango, citrus &clonal eucalyptus produced for sustainable afforestation and re-afforestation & 4 demo gardens established	The demo trials have been completed. Post harvest data collecton to be done. Lrminary observations indicate that Tomato varieties Rio grande and Nuru, Pepper varieties California wonnder and Cayenne long slim; cabbage varities Copenhagen, Baraka F1 and Spinach and Onion variety Red Creole exhibited tolence to drought and have potential for production in the NEAZ . 2) Clonal eucalyptus plants in the mother garden ready for harvest.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	5,418
		221011 Printing, Stationery, Photocopying and Binding	1,080
		224006 Agricultural Supplies	12,500
		227001 Travel inland	5,546
		227004 Fuel, Lubricants and Oils	2,890

Reasons for Variation in performance

Total	27,435
Wage Recurrent	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
		Non Wage Recurrent	27,435
		AIA	0

Output: 04 Agricultural research capacity strengthened

Awareness among communities about the transmission, impact and control of brucellosis strengthened.	Seroprevalence determined from Amudat District using Rose bengal test, in 322 cattle (13.04% positive equivalent of 42/322), 328 goats (0.9% positive equivalent of 3/328), 300 sheep (1% positive equivalent of 3/300), 46 camels (4.3% positive equivalent of 2/46)	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	22,679
		221001 Advertising and Public Relations	1,740
		221002 Workshops and Seminars	3,004
		221009 Welfare and Entertainment	870
		221011 Printing, Stationery, Photocopying and Binding	1,911
		222002 Postage and Courier	204
		223004 Guard and Security services	9,092
		223005 Electricity	8,378
		224004 Cleaning and Sanitation	4,431
		224005 Uniforms, Beddings and Protective Gear	2,160
		226001 Insurances	630
		227001 Travel inland	3,507
		227004 Fuel, Lubricants and Oils	6,297
		228001 Maintenance - Civil	7,200
		228002 Maintenance - Vehicles	10,699
		228003 Maintenance – Machinery, Equipment & Furniture	7,290
		273102 Incapacity, death benefits and funeral expenses	2,700

Reasons for Variation in performance

Total	92,791
Wage Recurrent	0
Non Wage Recurrent	92,791
AIA	0
Total For SubProgramme	120,225
Wage Recurrent	0
Non Wage Recurrent	120,225
AIA	0

Recurrent Programmes

Subprogram: 19 Mbarara ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand	
Seven (7) production technologies and innovations generated for increased production and productivity	1). 60% of the data on growth performance and profitability of species (small catfish) farmed under pond and tank systems has been generated. I details, artificial breeding initiated and evaluation trials for growth of small catfish at 50,100 , 150 and 200 fish per square meter of surface water were established. Preliminary data so far shows that the highest body growth rate (1g/day) is achivable with a stocking density of 100 heads of small catfish. 2) Seven hormonal Induction and synchronisation of oestrus done in 20 cows out of which eleven (11) cows got on heat and were inseminated using Friesian semen. 3). Reproductive and productive performance of the herd assessment basing on milk yield, lactation length, calving interval, age , udder structure and health 4). 5000 coffee seedlings produced 5) 35 tonnes of green chop fed to dairy cattle,assorted feed supplements fed to animals ;600 kg of salt,400 kg of soy meal, 40 kg of pig and dairy macro mixes. 6). 22 goat kids produced (13 male & 19 female),9 goats availed to the community for meat.21 piglets produced. 20 Calves produced (10male & 10 female), 10 heads of cattle availed to the community for meat (NTR)	Item 221011 Printing, Stationery, Photocopying and Binding 222001 Telecommunications 223004 Guard and Security services 223005 Electricity 223006 Water 227001 Travel inland 227004 Fuel, Lubricants and Oils 228002 Maintenance - Vehicles	Spent 1,800 4,750 9,229 18,000 13,500 2,101 1,784 3,800	
			Total	54,964
			Wage Recurrent	0
			Non Wage Recurrent	54,964
			AIA	0

Reasons for Variation in performance

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Eleven (11) technological innovations delivered to uptake pathways	1). 22 goat kids produced (13 male & 19 female),9 goats availed to the community for meat.21 piglets produced. 20 Calves produced (10male & 10 female), 10 heads of cattle availed to the community for meat. 2) 40% of the data required for developing the model is available. From the preliminary results, factors for model development could be high interaction effects of bean variety, cropping type and planting date (Late planted NABE 19, in monocropping had high incidences of Aphids, (60%) compared to Late planted NAROBAN 1, with monocropping at 30%). Generally NAROBAN 1 is not a favourable target for aphids in both mono and intercropped cropping systems which could explain its relative high yields; Data on weather based data on temperature, relative humidity, sunshine hours is still being collected using nearest weather stations. 1) Hosted world food celebrations. 2) Mbarara zardi technologies were availed to farmers.	Item	Spent
Four 4 technological innovation platforms established/supported		211103 Allowances (Inc. Casuals, Temporary)	13,372
Six thousand two hundred (6200) planting materials for 8 priority improved crop delivered to uptake pathways		221001 Advertising and Public Relations	576
		221006 Commissions and related charges	11,000
		221008 Computer supplies and Information Technology (IT)	3,560
		221009 Welfare and Entertainment	1,305
		221011 Printing, Stationery, Photocopying and Binding	1,911
		223004 Guard and Security services	10,800
		224004 Cleaning and Sanitation	5,473
		226001 Insurances	1,152
		227001 Travel inland	2,916
		227004 Fuel, Lubricants and Oils	8,988
		228001 Maintenance - Civil	5,700
		228002 Maintenance - Vehicles	9,821
		228003 Maintenance – Machinery, Equipment & Furniture	4,806

Reasons for Variation in performance

Total	81,380
Wage Recurrent	0
Non Wage Recurrent	81,380
AIA	0
Total For SubProgramme	136,345
Wage Recurrent	0
Non Wage Recurrent	136,345
AIA	0

Recurrent Programmes

Subprogram: 20 Buginyaya ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Models of crop residues based livestock feeds, efficacious ethno vet-medicinal plants for control of worms	(1) Forty two goats (11 indigenous and 31 improved Boer goat genotypes) maintained for breeding purposes at Bulegeni station. (2) In-vitro experiments revealed that effective time for 20 mg/l of Azadirachta indica and Tithonia diversifolia extracts on Heamonchus spp were 8 and 6 hours respectively. Phyto-chemical composition of Tithonia diversifolia and Azadirachta indica profiled. (3) Effective stocking and feeding management was tested. Growth rate averaged 3.6% and 4.5% BW; daily weight gain was 4.8 and 5g/day in the first and second trials respectively, on 35% Kajjansi feed. The stocks reached carrying capacity at 4kgm-3, with adults attaining 1.2kg in 8 months at Bulegeni.	Item 211103 Allowances (Inc. Casuals, Temporary) 221002 Workshops and Seminars 224001 Medical Supplies 224006 Agricultural Supplies 227001 Travel inland 227004 Fuel, Lubricants and Oils 228002 Maintenance - Vehicles	Spent 13,190 7,669 22,111 53,907 21,481 9,122 18,753

Reasons for Variation in performance

Total	146,233
Wage Recurrent	0
Non Wage Recurrent	146,233
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
250 bags of improved OFSP vines and 15MT of planting material for commercial potato varieties delivered to uptake pathways, Increased apple productivity through capacity of 200 farmers and TOTs trained in best management practices of apples.	1) 1500 mother TC plants ordered and 3,200 minitubers of assorted potato varieties established in screen house 2)1 screen house cultivation bed prepared for RACs establishment. 3) 60 kgs of Chloris gayana and 30 bags of NARONAP3 availed for farmers in Bulambuli and Kapchorwa districts.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	5,692
		221001 Advertising and Public Relations	900
		221006 Commissions and related charges	6,000
		221009 Welfare and Entertainment	1,304
		221011 Printing, Stationery, Photocopying and Binding	1,911
		221012 Small Office Equipment	170
		222001 Telecommunications	3,800
		223004 Guard and Security services	18,400
		223005 Electricity	16,400
		223006 Water	5,550
		224004 Cleaning and Sanitation	4,677
		226001 Insurances	900
		227001 Travel inland	2,916
		227004 Fuel, Lubricants and Oils	6,284
		228001 Maintenance - Civil	7,200
		228002 Maintenance - Vehicles	12,482
228003 Maintenance – Machinery, Equipment & Furniture	3,645		
228004 Maintenance – Other	1,275		
273102 Incapacity,death benefits and funeral expenses	1,800		

Reasons for Variation in performance

Total	101,304
Wage Recurrent	0
Non Wage Recurrent	101,304
AIA	0
Total For SubProgramme	247,538
Wage Recurrent	0
Non Wage Recurrent	247,538
AIA	0

Recurrent Programmes

Subprogram: 21 Rwebitaba ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Generation of 6 acres of early generation bean seed, 2 acres of early generation indigenous fields, raising 2,000,000 seedlings of orchard & 25 coffee mother gardens maintained	1) Total of 12,130 plantlets of oranges, avocado, calliandra, passion fruits, guavas and Maesopsis were raised and being maintained in the nursery.	Item 211103 Allowances (Inc. Casuals, Temporary)	Spent 23,478
		221011 Printing, Stationery, Photocopying and Binding	540
	2) 900kgs of bean foundation seed were harvested	224001 Medical Supplies	12,554
		224006 Agricultural Supplies	42,558
	3) 7 community mother gardens supported	227001 Travel inland	5,515
	227004 Fuel, Lubricants and Oils	3,441	
	4) 7 tree nurseries maintained.	228002 Maintenance - Vehicles	1,500
	5) Information effectiveness of different Tea disease management practices generated .		

Reasons for Variation in performance

Total	89,586
Wage Recurrent	0
Non Wage Recurrent	89,586
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
2 office buildings, 1 conference facility, 4 staff houses, screen houses & 2 animal structures rehabilitated. Well maintained 6 vehicles & 3 motorcycles. Holding 2 in each; radio talk show, TV documentaries & exhibitions & 10 contracted staff facilitated	- Conducted routine maintenance of research facilities, equipment and machinery Renovating Institute breeding facility completed Quality pasture seed fild established Quality pasture seed produced & pasture samples analysed Quality seed fumigated & packed Quality seeds available on market	Item 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221002 Workshops and Seminars 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 222001 Telecommunications 223004 Guard and Security services 223005 Electricity 223006 Water 224004 Cleaning and Sanitation 224005 Uniforms, Beddings and Protective Gear 226001 Insurances 227001 Travel inland 227004 Fuel, Lubricants and Oils 228001 Maintenance - Civil 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture 273102 Incapacity, death benefits and funeral expenses	Spent 5,692 660 406 1,393 955 1,388 4,163 2,775 1,850 4,777 3,700 490 2,235 2,685 3,700 3,758 1,879 1,800

Reasons for Variation in performance

Total	44,305
Wage Recurrent	0
Non Wage Recurrent	44,305
AIA	0
Total For SubProgramme	133,891
Wage Recurrent	0
Non Wage Recurrent	133,891
AIA	0

Recurrent Programmes

Subprogram: 26 NARO Internal Audit

Outputs Provided

Output: 03 Internal Audit

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Develop generate; 1 tool for reporting risk trends	(1) 4 Internal Audit staff's capacity developed.	Item 221002 Workshops and Seminars	Spent 6,182
12 CGS projects Audit performance reports	(2) One report on analysis of Mid- year balances and financial statements for the period ended 31st December 2020.	221003 Staff Training	2,050
2 Procurement compliance Audit reports	(3) One reports on Internal Audit value added services to management and the organization as a whole produced.	227001 Travel inland	68,703
1 value for money audit report	(4) One report on special circumstances produced.		
Governance & Environmental audits reports	(5) One reports on Governance, risk and control produced.		
4 Risk Registers for PARI's	(6) One report on IFMS Compliance budget report produced.		
2 audit rep	(7) One mid year performance review report and action log produced.		
	(8) One risk management report produced.		
	(9) A report on Human Resources and Payroll audit produced.		
	(10) A report on Core research/ value for money audit produced.		
	(11) Risk management policy and procedural manual discussed.		
	(12) Report on High and medium risks produced Risk Register updated.		
	(13) Risk management policy and procedural manual discussed. (14) Report on High and medium risks produced. (15) Risk Register updated. (16) One report on CGS projects progress review produced.		

Reasons for Variation in performance

Total	76,935
Wage Recurrent	0
Non Wage Recurrent	76,935
<i>AIA</i>	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
		Total For SubProgramme	76,935
		Wage Recurrent	0
		Non Wage Recurrent	76,935
		AIA	0

Recurrent Programmes

Subprogram: 27 National Coffee Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

For CWD, occurrence and distribution determined in 5 coffee growing regions, 2 protein and DNA-based protocols developed for diagnosis, 2 coffee host defense mechanisms unravel approaches. 2 resistance specific bio-markers	(1) Distribution map and prevalence in Masaka, Butambala, Gomba, Kasanda, Luwero and Kayunga districts	(2) No correlation found between CWD prevalence and soil physiochemical properties	(3) Protocols for collecting data from northern Uganda developed	Item	Spent
				211103 Allowances (Inc. Casuals, Temporary)	4,257
				221001 Advertising and Public Relations	1,275
				221011 Printing, Stationery, Photocopying and Binding	144
				224006 Agricultural Supplies	13,260
				225001 Consultancy Services- Short term	6,496
				227001 Travel inland	18,866
				227004 Fuel, Lubricants and Oils	5,272

Reasons for Variation in performance

Total	49,570
Wage Recurrent	0
Non Wage Recurrent	49,570
AIA	0

Output: 02 Research extension interface promoted and strengthened

Strengthen the institute with 5 computer accessories and utilized in training farmers and extension agents.	(1) Strengthened NACORI ICT capacity for training farmers and extension staff	(2) 20,000 seedlings for candidate Arabica coffee varieties initiated, Mother garden for Arabica coffee established at Bugusege substation.	(3) 65 acres of well managed coffee production fields (mother gardens) with optimum crop harvests.	Item	Spent
				221008 Computer supplies and Information Technology (IT)	4,320

Reasons for Variation in performance

Total	4,320
Wage Recurrent	0
Non Wage Recurrent	4,320
AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Output: 04 Agricultural research capacity strengthened			
Institutional research capacity strengthened through 4 (four) Advisory committee meetings, and 4 routine maintenance, 3 research papers published	1) NACORI Human resource contract staff remunerated, facilitated and welfare enhanced. (2) NACORI physical resources managed and maintained. These include motor vehicle fleet, offices, office buildings and utilities (3) NACORI financial resources managed and maintained. (4) NACORI research agenda strengthened, by facilitating NACORI AD, NACORI Director and staff and officers	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	13,913
		221001 Advertising and Public Relations	2,305
		221006 Commissions and related charges	7,200
		221009 Welfare and Entertainment	1,979
		221011 Printing, Stationery, Photocopying and Binding	1,911
		222001 Telecommunications	3,854
		222002 Postage and Courier	500
		223004 Guard and Security services	18,050
		223005 Electricity	11,400
		224004 Cleaning and Sanitation	7,521
		226001 Insurances	1,000
		228001 Maintenance - Civil	7,400
		228002 Maintenance - Vehicles	9,166
228003 Maintenance – Machinery, Equipment & Furniture	6,641		
273102 Incapacity, death benefits and funeral expenses	3,676		

Reasons for Variation in performance

Total	96,515
Wage Recurrent	0
Non Wage Recurrent	96,515
AIA	0
Total For SubProgramme	150,405
Wage Recurrent	0
Non Wage Recurrent	150,405
AIA	0

Development Projects

Project: 0382 Support for NARO

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
Six (06) candidate vaccines validated/developed and evaluated (anti-tick, multi strain FMD and 3 African Swine Fever Genotype X vaccine)	NAROSEC 1.) Supervision carried out in 4 institutes (Bulindi, NaFORRI, NaFIRRI and NaLIRRI)	Item 211103 Allowances (Inc. Casuals, Temporary)	Spent 1,040,983
37 varieties submitted to VRC & 53 Research innovations	2) IFMS update from institutes for the Nine months report preparation.	221001 Advertising and Public Relations	20,000
64 research studies conducted.		221002 Workshops and Seminars	340,817
110 scientific publications	NACORI 3).. Protocols for production of coffee and cocoa prototypes for enhancing diversity and smallholder incomes under development	221003 Staff Training	50,000
	4). Protocols for feasibility study for growing coffee in Karamoja region developed and awaits pretesting	221008 Computer supplies and Information Technology (IT)	54,476
	NACRRI 5). 2800 kg of maize (Longe 5) seed and 1500 Kg of beans (NAROBAN1) produced and supplied to seed producers	221011 Printing, Stationery, Photocopying and Binding	19,320
	NAFORRI 6) 2.6 ha of research trials maintained; Beating up done for 100 pits in the arboretum in Kifu RF; Grevillea and Araucaria research trials maintained in Kifu RF	222003 Information and communications technology (ICT)	38,036
	7) 4. 5 acres of avocado gene-bank managed for germplasm production	223004 Guard and Security services	963
	6). 16 acres of shea multilocational trials (breeding seed orchards) maintained	223005 Electricity	67,204
	7) 7. Design of 1 type of value added woodwaste product (resin-treated table) developed. 2 epoxy-treated tables from wood waste (tree stump off cuts) developed. 3 sets of resin-treated tables developed from wood waste.	224001 Medical Supplies	794,783
	NASARRI 8) 1.5 acres of breeder seed plots for cowpea and greengram planted.	224006 Agricultural Supplies	1,607,009
	NALIRRI • Super-structure for vaccine research and production complex still under construction.	225001 Consultancy Services- Short term	16,913
	9) 2 lab lab varieties submitted for release.	227001 Travel inland	749,013
		227004 Fuel, Lubricants and Oils	77,248
		228001 Maintenance - Civil	30,000
		228002 Maintenance - Vehicles	6,538
		228003 Maintenance – Machinery, Equipment & Furniture	15,000

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
		Total	4,928,304
		GoU Development	4,928,304
		External Financing	0
		AIA	0

Output: 02 Research extension interface promoted and strengthened

131 technologies delivered to uptake pathways (fish kiln, bio fortified and high yielding varieties) for improved production and productivity of key commodities of economic importance. 68 platforms (incubation, IP AND technology dissemination and uptake)	NAROSEC	Item	Spent
	1. NARO technology compendium for generated technologies for the period 2018-2020 developed.	211103 Allowances (Inc. Casuals, Temporary)	127,924
	2. Disseminated NARO technologies appropriate to 3 communities each in Rwenzori, Mubende and Bunyoro	221001 Advertising and Public Relations	417,046
	3. Developed the NARO VIN system	221002 Workshops and Seminars	469,755
	4. One (1) MOU between NARO and Community Enterprises Development Organization (CEDO) for development of precooked beans product signed	221003 Staff Training	15,000
	5. 35 stakeholders from USTA representing seed companies engaged	221008 Computer supplies and Information Technology (IT)	66,583
	• Draft Compilation of NAROWide newsletter 2020/2021 is ready and awaiting approval	221011 Printing, Stationery, Photocopying and Binding	82,718
	6. 135 publications digitized (115 project reports, 20 brochures)	222001 Telecommunications	5,529
	7. 60 publications allocated class numbers and catalogue entries	222003 Information and communications technology (ICT)	191,757
	8. 90 journal articles uploaded onto the e-repository at NARO Information Hub	224001 Medical Supplies	166,765
	• Stakeholder consultation conducted and First draft of the DIRCKM policy framework developed and validated	224006 Agricultural Supplies	619,539
	9. A limited fraction of content uploaded on the online information hub	225001 Consultancy Services- Short term	7,870
	10. NARO feedback system developed awaiting TPM and User committee endorsement	226001 Insurances	1,200
		226002 Licenses	28,730
		227001 Travel inland	422,236
		227004 Fuel, Lubricants and Oils	32,090
		228001 Maintenance - Civil	159,599
		228002 Maintenance - Vehicles	15,376
		228003 Maintenance – Machinery, Equipment & Furniture	14,525
	Abi		
	11) One farmer group identified and will be trained in producing, packaging and marketing sorghum QDS in the west Nile region		
	BugiZARDI		
	12) One Demand articulation report detailing programme activities with stakeholders and research needs produced		
	Bulindi		
	13) Trained 25 visiting fish farmers, supported 3 fish farmers in harvesting tilapia.		

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QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

(14) 65 technologies delivered to uptake pathways (fish kiln, bio fortified and high yielding varieties) for improved production and productivity of key commodities of economic importance.

(15) 25 platforms (incubation, IP and technology dissemination and uptake).
 (16) Engaged Feed the Future USAID project NARO chapter and Vision group on farm clinics, (4) On IP management (a) - Scouting conducted in 4 PARIs 6 technologies identified and disclosed, two undergoing drafting that is; (b) One-on-One engagements organised at PARIs (c) 3 IPMC meeting held and 3 recommendations on commercialization generated

Reasons for Variation in performance

Total	2,844,241
GoU Development	2,844,241
External Financing	0
AIA	0

Output: 04 Agricultural research capacity strengthened

	Item	Spent
Staff capacity for 49 staff strengthened in short and long term training (PhD, master and short term training for refresher. Sixteen (16) research facilities maintained/repared and equipped with agriculture supplies and consumables) at the 16 institutes	A) NARO developed and submitted the following	
	(a) Budget framework Paper developed and submitted.	211103 Allowances (Inc. Casuals, Temporary) 234,594
		221001 Advertising and Public Relations 3,600
		221002 Workshops and Seminars 83,133
	(b) NARO Q2 Performance/ Status Report submitted and NARO KPI's documented. -	221003 Staff Training 133,639
		221004 Recruitment Expenses 54,582
	B) Human resource capacity strengthened as follows:	221008 Computer supplies and Information Technology (IT) 24,226
		221009 Welfare and Entertainment 22,500
	a) Short term skills improvement programmes conducted for 16 PARI and	221011 Printing, Stationery, Photocopying and Binding 46,494
		221012 Small Office Equipment 11,000
	b) NAROSEC, 5 staff supported to undertake MSc and PhD study programme.	221016 IFMS Recurrent costs 80,000
		221017 Subscriptions 27,945
	c) Annual subscription paid for 30 staff who belong to professional bodies.	222002 Postage and Courier 50
		222003 Information and communications technology (ICT) 9,162
	d) 30 Staff Recruited and appointed in accordance with staff establishment.	223002 Rates 128,520
		223004 Guard and Security services 1,498
	C) Procurement and suppliers were acquired for the smooth and effective agricultural research service delivery as follows:	223005 Electricity 22,270
	223006 Water 9,000	

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

1) Agricultural Supplies. Running Framework Contracts on-going. Contracts awarded as and when need arises.	224001 Medical Supplies	42,000
	224004 Cleaning and Sanitation	1,689
	224006 Agricultural Supplies	289,776
	225001 Consultancy Services- Short term	195,338
The following contract were signed, supplies delivered, Payment effected and Contract closed.	226001 Insurances	512
1) Supply of Uniforms, Beddings and Protective Gear	226002 Licenses	144,716
	227001 Travel inland	536,459
2) Printing, Stationery and Binding	227004 Fuel, Lubricants and Oils	246,896
	228001 Maintenance - Civil	241,664
3) Printing of NARO Annual Report	228002 Maintenance - Vehicles	143,554
4) Printing of UJAS Booklets Printing of Compedium Booklets	228003 Maintenance – Machinery, Equipment & Furniture	151,619
5) Supply of Assorted Stationery	228004 Maintenance – Other	21,919
6) Printing of Assorted Information Material		
7) Supply of Assorted Toners Supply of Tonner for Heavy Duty Photocopiers		
8) Printing of NARO Customised Letter Heads		
9) Supply of additional copies of NARO Annual work plans		
10) Cleaning and Sanitation		
11) Insurance of Motor Vehicles		
12) Agricultural Supplies (Procurements handled at Institutes)		
13) Motor Vehicle Repairs/Maintenance		
14) Medical and Veterinary Supplies		
15) NARO Grants Office Establishment. Contracts Signed, Assignment still ongoing		

Reasons for Variation in performance

Total	2,908,356
GoU Development	2,908,356
External Financing	0
AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
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Outputs Funded

Output: 51 Payments to International Organisations (CGIAR, ASARECA, WARDA)

		Item	Spent
NARO's subscription to four (04) international organisation maintained for improved image and future resources mobilization for research.	1) NARO contribution to International agencies effected. Africa Rice for the year 2020.	262201 Contributions to International Organisations (Capital)	747,611
	2) Bioersivity International 3rd cash contribution (Novel Approaches improvement of Banana Production in East Africa Biotechnological Methodologies Phase IV.		

Reasons for Variation in performance

Total	747,611
GoU Development	747,611
External Financing	0
AIA	0

Capital Purchases

Output: 72 Government Buildings and Administrative Infrastructure

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

		Item	Spent
Eight (8) Gender and equity responsive agricultural research infrastructure(Multi purpose laboratories and a plant and Namalere Agri engineering facility and Aflasafe plant) Remodel 4 cash offices, 4 staff house and 4 engineering feasibility studies and e	1) Construction of Staff Houses at Kigumba - Civil Works completed and Site handed over.	281504 Monitoring, Supervision & Appraisal of Capital work	375,229
	2) Construction of a Multipurpose Laboratory at NaCORRI - Contract signed, Site handed over, advance effected and Civil Works still in progress.	312101 Non-Residential Buildings	12,579,877
		312102 Residential Buildings	411,842
		312104 Other Structures	1,559,386
	3) Construction of a (Milking Parlor Platform) - Contract still running until 30th March 2021.		
	4) Construction of Seed Processing Structure - Civil works completed. Payment effected and contract closed.		
	5) Assorted Multipurpose Office Blocks at Maruzi. Contract Signed. Works Commenced.		
	6) Additional Civil Works at Rwebitaba ZARDI-Phase 2. Civil works completed. Payment effected and contract closed.		
	7) External Civil Works at Rwebitaba ZARDI. Contract Signed. Site handed over. Advance Payment Guarantee submitted for payment..		
	8) Construction of an Aflasafe Facility at NaLIRRI-Nakyesasa. Contract signed. Site handed over. Advance paid and Civil works in progress.		
	9) Construction of a Multipurpose Vaccine Facility in NaLIRRI-Nakyesasa. Contract signed. Site handed over. Advance paid and civil works in progress.		
	10) Construction of a fish floating feed structure - Procurement awaits installation of equipment.		
11) Other procurement. are on going but were differed due to insufficient funds.			
(12) The following contracts were signed, civil works on going : (a) Proposed Construction of Aquatic Diagnostics Lab at Kajjansi. (b) Road Network at Nalirri (C) Setting Up of a Wall Fence in NALIRRI.			

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QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
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Reasons for Variation in performance

The other procurement, which are on going but were differed due to insufficient funds include:

- 1) Construction of Main Reception and Offices at NAROSEC Entebbe - Tendering concluded. Contract awarded to Laplace Contractors at an amount of Ugx 198, 311,581 however not signed due to insufficient funds.
- 2) Installation of Electrical Works - Tendering concluded. Contract awarded to All In Trade at an amount of Ugx 76,935,354 however not signed due to insufficient funds.
- 3) Painting of Office Buildings and External works at NAROSEC. Tendering concluded. Contract awarded to Lite Solutions at an amount of Ugx 257,842,894 however not signed due to insufficient funds.
- 3) Construction of an Administration Block at NARL-Namalere. Contract awarded to M/S CMD Investments at a contract amount of Ugx 2,153,249,043. Awaiting contract signature.
- 4) Construction of a Screen House at NaFORRI. Contract awarded to M/S Crystal Consult at a contract amount of Ugx 488,523,674. Awaiting Contract Signature
- 5) Rehabilitation of an Incubation Center. - Contract awarded to M/S Zepu Engineering at a contract amount of Ugx 364,078,616. Awaiting Contract Signature.
- 6) Construction of a Seed Cleaning Facility. Contract awarded to M/S Zebra Construction and Engineering at a contract amount of Ugx 440,783,000. Awaiting Contract Signature.

The following procurement not handled due to insufficient funds

- 1) Environmental Impact Assessment for Capital Works
- 2) Feasibility Studies for capital works.
- 4) Master plan infrastructural plan including stores designs.
- 5) Engineering and Design Studies for Capital Works.

Total	14,926,334
GoU Development	14,926,334
External Financing	0
AIA	0

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

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
One software acquired, and ten offices retooled with computers. Two research institutes connected to the area wide networks.	<p>1) Lot.3-Laptops delivered and payment in process. Still awaiting for deliveries for other lots before end of March 2021.</p> <p>2) Contract signed for only Phase-1. (Completed and Contract Closed) .</p> <p>3) Supplies delivered, payment effected and Contract closed for the following: (1) Supply and Installation of Board Portal Software (2) ICT Internvetion WAN phase one (3) Network Switch and Router delivered. (4) Supply and Installation of Software for a dedicated cloud server.</p> <p>4) Supply and Installation of Board Portal Software - Supplies delivered, payment effected and Contract closed.</p> <p>5) Network Switch and Router - Items delivered, Payment effected and contract closed.</p> <p>6) Supply and Installation of Software for a dedicated cloud server - Software delivered and installed, payment effected and contract closed.</p> <p>7) Data Management Services. Consultancy completed, payment effected and closed</p>	<p>Item</p> <p>312213 ICT Equipment</p>	<p>Spent</p> <p>417,671</p>

Reasons for Variation in performance

- 1) WAN Phase 2 worth Ugx 700,000,000- not signed due to insufficient funds.
- 2) Lot.5-Contract awarded to Tinosoft at a Contract amount of Ugx 41,890,000 however not signed due to insufficient funds.

Total	417,671
GoU Development	417,671
External Financing	0
AIA	0

Output: 77 Purchase of Specialised Machinery & Equipment

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Three (3) batches of assorted laboratory equipment acquired to support research (Livestock research embryology, FMD culture equipment, anti-tick vaccine lab equipment) to enable vaccine research and Production.	1) Specialized Laboratory & Vaccine Equipment - Contract signed. Advance Payment effected. Awaiting for delivery.	Item 312202 Machinery and Equipment 312214 Laboratory Equipments	Spent 1,271,593 2,050,000
	2) Supply of Machinery & Equipment - Avocado. Specifications prepared. Procurement in Pipeline at the Institutes.		
	3) Supply and Installation of Fish Capsulation Machine. Supplies delivered, payment effected and Contract closed.		
	4) Assorted supply of machinery & equipment - Procurements handled at Institutes, funds disbursed.		
	5) Supply and Installation of fish capsulation machine. Supplies delivered, payment effected and contract closed.		
	6) Specialised Laboratory & Vaccine Equipment. Contract Signed. Advance Payment effected. Awaiting for delivery.		
	7) Supply and Installation of Floating Fish Feed Equipment . Contract signed . Advance Guarantee submitted, payment in the pipeline.		
	8) Supply of assorted specialised machinery & equipment. Supplies delivered under Lot.1, payments effected and Contract closed.		
	9) Supply of Specialised In Vitro Embryology Equipment. Implementation of Contract ongoing for a period of One (1) Year. Advance Payment effected.		
	10) Supply and installation of solar security lights equipment delivered and installed, payment effected and contract closed. (Delivery affected by COVID 19.		

Reasons for Variation in performance

- 1) Supply of tractors with Assorted Implements - contract awarded to M/S Engineering Solutions at an amount of Ugx 227,550,104, however not signed due to insufficient funds.
- 2) Supply and Installation of Incubation Equipment & Assorted Machinery . Tendering process concluded at the Institute but contracts not signed due to insufficient funds

Total	3,321,593
GoU Development	3,321,593
External Financing	0
AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	US\$ Thousand
Output: 78 Purchase of Office and Residential Furniture and Fittings			
Three research facilities furnished (NaCORI multipurpose laboratory, Nakyesasa livestock research facility and vaccinology facility at Nakyesasa)	Supply of Furniture & Fittings - Tendering process concluded. Contract awarded to M/S Nina Interiors (U) Ltd at a Contract amount of Ugx 175,269,988 but not signed due to insufficient funds.	Item 312203 Furniture & Fixtures	Spent 13,119
Four residential houses furnished			
<i>Reasons for Variation in performance</i>			
		Total	13,119
		GoU Development	13,119
		External Financing	0
		AIA	0
		Total For SubProgramme	30,107,228
		GoU Development	30,107,228
		External Financing	0
		AIA	0

Development Projects

Project: 1560 Relocation and Operationalisation of the National Livestock Resources Research Institute (NALIRRI)

Outputs Provided

Output: 01 Generation of agricultural technologies

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Item	Spent
1900 MT of silage and hay produced for dry season feeding	A) Livestock feed and feed ingredients produced.	211103 Allowances (Inc. Casuals, Temporary)	90,000
320 MT of grain soya, maize and sunflower produced efficient livestock feed	1) 50 and 50 tons of soya and maize grain respectively produced	224006 Agricultural Supplies	79,750
3MT of forage seed produced	2) 800 tons of maize silage produced	227001 Travel inland	10,000
	3) 150 tons of hay produced	227004 Fuel, Lubricants and Oils	16,000
		228002 Maintenance - Vehicles	16,000
		228003 Maintenance – Machinery, Equipment & Furniture	10,250

Reasons for Variation in performance

Total	222,000
GoU Development	222,000
External Financing	0
AIA	0

Capital Purchases

Output: 72 Government Buildings and Administrative Infrastructure

Vote:142 National Agricultural Research Organisation

QUARTER 3: Cumulative Outputs and Expenditure by End of Quarter

Annual Planned Outputs	Cumulative Outputs Achieved by End of Quarter	Cumulative Expenditures made by the End of the Quarter to Deliver Cumulative Outputs	UShs Thousand
Capacity for livestock research strengthened through establishment of six research management structures (administration/office block, hay barn, grain store, staff residential block, Water and electricity supply, infrastructure master plan and 1 kilometer	Maruzi infrastructure have established or maintained as follows: 1) Hay barn, Silo bank structures constructed 2) 2 km (100%) internal road network system developed 3) Infrastructural development sceneriors approved by relevant authorities 4) 1 kilometers fenceed off using treated poles and barbed wire.	Item 312101 Non-Residential Buildings	Spent 300,000

Reasons for Variation in performance

	Total	300,000
	GoU Development	300,000
	External Financing	0
	AIA	0
	Total For SubProgramme	522,000
	GoU Development	522,000
	External Financing	0
	AIA	0
	GRAND TOTAL	73,490,568
	Wage Recurrent	24,924,922
	Non Wage Recurrent	17,936,418
	GoU Development	30,629,228
	External Financing	0
	AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
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Program: 51 Agricultural Research

Recurrent Programmes

Subprogram: 01 Headquarters

Outputs Provided

Output: 01 Generation of agricultural technologies

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Item	Spent
16 PARIs plans & target FY2021-22 set 1 developed	(1) NARO Annual work plan and budget 2021/22 developed and revised	221002 Workshops and Seminars	18,896
-	2) NARO Semi-annual status report on Agricultural research in Uganda developed.	227001 Travel inland	9,620

Reasons for Variation in performance

Total	28,516
Wage Recurrent	0
Non Wage Recurrent	28,516
AIA	0

Output: 02 Research extension interface promoted and strengthened

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Item	Spent
1) One digital library platform enhanced.	(1) Initiated the development of the NARO partnership policy.	221001 Advertising and Public Relations	2,200
2) Promotion of NARO key technologies through meetings and farm clinics,	(2) Profiled and developed technology compendium for generated NARO technologies for the period 2018-2020.	221002 Workshops and Seminars	2,100
	(3) Initiated development of SOPs for showcasing NARO technologies.	227001 Travel inland	1,520
	(4) Conducted a planning meeting for farm clinics .		
	(5) Conducted a farmer technology needs assessment in three communities each in Rwenzori, Mubende and Bunyoro		
	(6) Initiated the development of a technology incubation centre in MUZARDI		
	(7) Developed the NARO VIN system		
	(8) One MOU between NARO and Community Enterprises Development Organization for development of precooked beans product signed.		
	(9) Identified IP enabled technologies at MbaZARDI. Two technologies were captured and drafting ongoing. 2 IPMC		

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

meeting held and recommendations on research -industry partnership with i.e Uganda Breweries Limited made and finalization of the Licence agreement to use with seed companies. 1 patent application for lateral flow assay for african swine fever diagnosis completed and filed with ARIPO.

(10) 35 stakeholders from USTA representing seed companies engaged on the NARO framework for access and licencing of varieties as a supporting tool to the operationalisation of the NARO IP and commercialisation policies. Draft is ready and awaiting approval

(11) Digital collection updated with 135 publications digitized (115 project reports, 20 brochures). 60 publications allocated class numbers and catalogue entries

(12) First draft of the DIRCKM policy framework developed and validated

(13) Uploaded new content on the online information hub

(14) NARO feedback system developed .

(15) NARO Annual Corporate Report at 60%

(16) NARO newsletter at 40%.

Reasons for Variation in performance

Total	5,820
Wage Recurrent	0
Non Wage Recurrent	5,820
<i>AIA</i>	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
1) NARO Human resource of 678 managed and maintained.	1) NARO Human resource of 910 persons remunerated, facilitated and welfare enhanced. (Staff Contract Salaries, NSSF contributions, medical insurance, Workers Compensation benefits, tea lunch etc).	Item	Spent
2) Boundaries of 3 TVCs of Kumi,Lugala and Bugusege opened and land surveyed for proper identification.	(2) NARO physical resources managed and maintained. These include motor vehicle fleet , offices, office buildings and utilities	211102 Contract Staff Salaries	8,308,307
3) NARO physical resources (motor vehicle fleet , office buildings, equipment) maintained.	(3) NARO financial resources managed and maintained.	211103 Allowances (Inc. Casuals, Temporary)	573,389
4) NARO wide Performance Mid-term report 100 NARO staff & associates trained in IP	(4) Agricultural research agenda strengthened. by facilitating NARO council, NARO top management, NARO committees, staff and officers of the organization.	212101 Social Security Contributions	830,831
5) NARO Council oversight role strengthened.	(5) Staff were supported to attend a court case to defend land at Rwebitaba ZARDI	213001 Medical expenses (To employees)	150,000
		213002 Incapacity, death benefits and funeral expenses	112,500
		213004 Gratuity Expenses	1,135,475
		221001 Advertising and Public Relations	12,000
		221002 Workshops and Seminars	430
		221003 Staff Training	5,000
		221008 Computer supplies and Information Technology (IT)	1,304
		221009 Welfare and Entertainment	20,112
		221011 Printing, Stationery, Photocopying and Binding	21,213
		221016 IFMS Recurrent costs	1,320
		222001 Telecommunications	21,150
		222002 Postage and Courier	257
		222003 Information and communications technology (ICT)	5,950
		223004 Guard and Security services	46,388
		223005 Electricity	174,313
		223006 Water	6,400
		224001 Medical Supplies	24,131
		224004 Cleaning and Sanitation	47,554
		224005 Uniforms, Beddings and Protective Gear	7,000
		224006 Agricultural Supplies	75,700
		227001 Travel inland	83,704
		227004 Fuel, Lubricants and Oils	112,617
		228001 Maintenance - Civil	350,130
		228002 Maintenance - Vehicles	136,888
		228003 Maintenance – Machinery, Equipment & Furniture	70,117
		228004 Maintenance – Other	15,303
		273102 Incapacity,death benefits and funeral expenses	9,500

Reasons for Variation in performance

No funds were released to undertake survey , open boundaries and secure titles for all NARO land.

Total	12,358,981
Wage Recurrent	8,308,307
Non Wage Recurrent	4,050,674

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
			AIA 0
		Total For SubProgramme	12,393,317
		Wage Recurrent	8,308,307
		Non Wage Recurrent	4,085,009
			AIA 0

Recurrent Programmes

Subprogram: 07 National Crops Resources Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

		Item	Spent
Produce breeder and early generation seed for all parental materials and commercial varieties	(1) Land prepared for next planting.		
	(2) 8 acres established for production of breeder seed for NAROBAN 6 and 7	211103 Allowances (Inc. Casuals, Temporary)	4,946
	(3) 2.97 MT of breeder seed for High Iron beans		

Reasons for Variation in performance

Total	4,946
Wage Recurrent	0
Non Wage Recurrent	4,946
AIA	0

Output: 04 Agricultural research capacity strengthened

		Item	Spent
- NACRRI research physical facilities managed and maintained. - NACRRI human resource managed and maintained.	(1) NACRRI research physical facilities managed and maintained (One staff house, one workshop).	211103 Allowances (Inc. Casuals, Temporary)	2,459
		221001 Advertising and Public Relations	2,250
	(2) NACRRI human resource managed and maintained. Hired labour, contract staff and casual labourers wages paid. (canteen, dormitories, estates and farm management).	221008 Computer supplies and Information Technology (IT)	1,703
		221011 Printing, Stationery, Photocopying and Binding	1,625
		222001 Telecommunications	500
		223004 Guard and Security services	1,250
		223005 Electricity	3,750
		224004 Cleaning and Sanitation	1,198
		226001 Insurances	320
		227001 Travel inland	1,933
		227004 Fuel, Lubricants and Oils	4,752
		228002 Maintenance - Vehicles	3,415
		228003 Maintenance – Machinery, Equipment & Furniture	1,275

Reasons for Variation in performance

Due to inadequate release of funds, the maintenance of three Bio-sciences laboratories equipment and vehicles was not done.

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
		Total	26,429
		Wage Recurrent	0
		Non Wage Recurrent	26,429
		AIA	0
<i>Arrears</i>			
		Total For SubProgramme	31,375
		Wage Recurrent	0
		Non Wage Recurrent	31,375
		AIA	0
<i>Recurrent Programmes</i>			
Subprogram: 08 National Fisheries Resources Research Institute			
<i>Outputs Provided</i>			
Output: 01 Generation of agricultural technologies			
Produced BSF larvae for use in fish feeds	Produced and used 350kgs of fresh BSF for fish feeding experiment and experiment investigating efficient preservative for insect meal.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	1,238
		224001 Medical Supplies	400
		224006 Agricultural Supplies	2,346
		227004 Fuel, Lubricants and Oils	1,080
<i>Reasons for Variation in performance</i>			
Feed ingredients for least-cost mycotoxin safe aqua feeds were procured.			
		Total	5,064
		Wage Recurrent	0
		Non Wage Recurrent	5,064
		AIA	0
Output: 02 Research extension interface promoted and strengthened			
Fish seed (Tilapia, catfish mirror carp and Barbus) will be produced.	48050 quality sex reversed tilapia fry produced and availed to farmers.	Item	Spent
		221001 Advertising and Public Relations	750
		221008 Computer supplies and Information Technology (IT)	1,000
		221011 Printing, Stationery, Photocopying and Binding	884
		222001 Telecommunications	274
		227001 Travel inland	1,300
		227004 Fuel, Lubricants and Oils	935
<i>Reasons for Variation in performance</i>			
		Total	5,143
		Wage Recurrent	0
		Non Wage Recurrent	5,143
		AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Output: 04 Agricultural research capacity strengthened			
Nile tilapia brood stock acquired and maintained on station.	4300 Nile tilapia, 8100 African catfish produced.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	6,583
Quality sex reversed tilapia fry produced and availed to farmers.		221001 Advertising and Public Relations	1,650
		221008 Computer supplies and Information Technology (IT)	550
		221011 Printing, Stationery, Photocopying and Binding	752
		222001 Telecommunications	750
		222003 Information and communications technology (ICT)	1,326
		223004 Guard and Security services	1,500
		223005 Electricity	6,000
		223006 Water	2,375
		224004 Cleaning and Sanitation	2,546
		226001 Insurances	920
		227001 Travel inland	1,795
		227004 Fuel, Lubricants and Oils	2,674
		228001 Maintenance - Civil	2,500
		228002 Maintenance - Vehicles	7,385

Reasons for Variation in performance

Total	39,306
Wage Recurrent	0
Non Wage Recurrent	39,306
AIA	0
Total For SubProgramme	49,513
Wage Recurrent	0
Non Wage Recurrent	49,513
AIA	0

Recurrent Programmes

Subprogram: 09 National Forestry Resources Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

Continue the conservation of medicinal, fruit and timber trees on a 10 ha research station	1) Grevillea and Araucaria research trials maintained in Kifu research Forest.	Item	Spent
		224006 Agricultural Supplies	477
	2) Five acres of Hass avocado mother garden establishment at Kifu	227001 Travel inland	225

Reasons for Variation in performance

No funds for work on citrus, Endangered medicinal and timber tree species.

Total 702

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
		Wage Recurrent	0
		Non Wage Recurrent	702
		AIA	0

Output: 02 Research extension interface promoted and strengthened

Information on various forestry research technologies delivered to stakeholders along the forestry resources value chain enhanced	Actual Outputs Achieved in Quarter	Item	Spent
	1) 3 sets of resin-treated tables developed from wood waste ready for uptake.	221001 Advertising and Public Relations	1,590
	2) 48 value chain actors (27 seed collectors & 21 nursery operators) trained in Calliandra seed quality assurance.	221008 Computer supplies and Information Technology (IT)	2,001

Reasons for Variation in performance

Total	3,591
Wage Recurrent	0
Non Wage Recurrent	3,591
AIA	0

Output: 04 Agricultural research capacity strengthened

Office, screen house and laboratories were maintained. - staff welfare improved through provision of office break tea, emergency first aid and counselling.	Actual Outputs Achieved in Quarter	Item	Spent
	2 green houses and nursery infrastructure at NaFORRI operational; 2 state-of-the-art screen houses for massive Hass avocado production established	211103 Allowances (Inc. Casuals, Temporary)	3,042
		221011 Printing, Stationery, Photocopying and Binding	1,118
		222002 Postage and Courier	75
		222003 Information and communications technology (ICT)	442
		223004 Guard and Security services	3,375
		223005 Electricity	7,727
		224004 Cleaning and Sanitation	4,243
		224005 Uniforms, Beddings and Protective Gear	500
		227001 Travel inland	1,381
		227004 Fuel, Lubricants and Oils	3,732
		228001 Maintenance - Civil	1,875
		228002 Maintenance - Vehicles	5,421
		228003 Maintenance – Machinery, Equipment & Furniture	2,171

Reasons for Variation in performance

Total	35,099
Wage Recurrent	0
Non Wage Recurrent	35,099
AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
		Total For SubProgramme	39,392
		Wage Recurrent	0
		Non Wage Recurrent	39,392
		AIA	0

Recurrent Programmes

Subprogram: 10 National Livestock Resources Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Information on various livestock research technologies delivered to stakeholders along the livestock resources value chain enhanced	1) Two technology exhibitions conducted. 2) One livestock research newsletters, 1 brochures /leaflets developed and disseminated 3) Two research planning and knowledge sharing workshops conducted 4) Demonstrations of sorghum and pearl millet for biorefining for food, sugar, and biomaterials. 5) Farmers and stakeholders appreciate sorghum and pearl millet diversity available for use. 6) Farmers appreciate mechanization practices 7) Characterization data collected. 8) Insight into potential sorghum and pearl millet lines for promotion identified.	Item	Spent
		221006 Commissions and related charges	2,995
		221017 Subscriptions	7,511
		223004 Guard and Security services	17,000
		223005 Electricity	31,875
		224001 Medical Supplies	241
		224004 Cleaning and Sanitation	23,484
		224005 Uniforms, Beddings and Protective Gear	22,808
		224006 Agricultural Supplies	2,749
		228002 Maintenance - Vehicles	35,624
		228003 Maintenance – Machinery, Equipment & Furniture	30,750

Reasons for Variation in performance

Total	175,036
Wage Recurrent	0
Non Wage Recurrent	175,036
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
On station conservation of experimental livestock and livestock production facilities maintained.	Livestock research infrastructure maintained. These include the following: 1) Three livestock laboratories and one forage conservation facility maintained. 2) Two on-station field research facilities maintained 3) Four livestock production facilities 4) Six handling facilities	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	18,083
		221001 Advertising and Public Relations	750
		221008 Computer supplies and Information Technology (IT)	2,622
		221011 Printing, Stationery, Photocopying and Binding	1,625
		223005 Electricity	2,250
		224004 Cleaning and Sanitation	3,296
		226001 Insurances	320
		227001 Travel inland	1,105
		227004 Fuel, Lubricants and Oils	2,626
		228002 Maintenance - Vehicles	4,397

Reasons for Variation in performance

Total	37,073
Wage Recurrent	0
Non Wage Recurrent	37,073
AIA	0
Total For SubProgramme	212,109
Wage Recurrent	0
Non Wage Recurrent	212,109
AIA	0

Recurrent Programmes

Subprogram: 11 National Semi arid Resources Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Information on various semi arid resources research technologies delivered to stakeholders along the crop resources value chain enhanced	Data on agronomic parameters collected only at NaSARRI. Days to boll burst (full exposure of seed cotton) ranged from 128-165 days after plnting. Plant height was n the range of 90-130cm with an average of 110 cm.	Item	Spent
		227004 Fuel, Lubricants and Oils	2,608

Reasons for Variation in performance

Total	2,608
Wage Recurrent	0
Non Wage Recurrent	2,608
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
NaSARRI's Corporate Image promoted among stakeholders thru field days hosted in Napak. NASARRI Institutional mandate strengthened through 3 consultative engagements with stakeholders	1 dissemination workshop and 3 committee meeting facilitated	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	3,094
		221001 Advertising and Public Relations	827
		221011 Printing, Stationery, Photocopying and Binding	656
		222001 Telecommunications	827
		222003 Information and communications technology (ICT)	6,464
		223004 Guard and Security services	2,482
		223005 Electricity	4,137
		224004 Cleaning and Sanitation	1,328
		226001 Insurances	248
		227001 Travel inland	376
		227004 Fuel, Lubricants and Oils	1,116
		228002 Maintenance - Vehicles	2,753
		273102 Incapacity,death benefits and funeral expenses	1,655

Reasons for Variation in performance

Total	25,963
Wage Recurrent	0
Non Wage Recurrent	25,963
AIA	0
Total For SubProgramme	28,571
Wage Recurrent	0
Non Wage Recurrent	28,571
AIA	0

Recurrent Programmes

Subprogram: 12 National Laboratories Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Development of prototype, protocepts, markets, physical-chemical and nutrient composition of value added products determined.	1) Fabrication of the 1st prototype decorticator in progress (10% done)	Item 211103 Allowances (Inc. Casuals, Temporary)	Spent 10,739
	2) Draft survey report on status of on-farm postharvest coffee handling & processing in Bulambuli and Kalungu districts (only 20% of farmers were using the available drying technologies (tarpaulin and cemented floor); 95% of farmers in Bulambuli use motor and pestal for pulping coffee)	222001 Telecommunications	1,250
		223005 Electricity	3,750
	3) Design and working drawings of 1st prototype completed	223006 Water	2,125
		224006 Agricultural Supplies	7,282
	4) Briquetting and sharding machines used for producing the formulated functional. Draft formula of 1st blend of pine (X%), eucalyptus (Y%) and groundnut shells (Z %)	227001 Travel inland	20,779
		227004 Fuel, Lubricants and Oils	564
	5) NARO PAH-Safe Fish Kiln Commissioned. MoU signed with 6 private smoked fish processors and 1 institution for processing and marketing quality and PAH-safe smoked fish.	228003 Maintenance – Machinery, Equipment & Furniture	750
		6) Two units of NAROFIK-3 fish kiln fabricated, and 4 units fabricated in Q1 & 2 delivered to 4 fish processors (Fish Farming Cluster, MIMUK Grain Millers, Kiyindi Women Fish Processors Association and Kwer Kabu Acaye Women Group)	
	7) Leaflet and poster of the kiln developed and 500 copies of the leaflets were printed. About 200 copies of leaflets ditributed to stakeholders"		
8)Two sites for constructing kiln house identified at Kwer Kabu Acaye Women Group and Kajjansi aquaculture research and development centre. Construction of kiln houses supervised at one site (MIMUK Grain Millers)			
9) Cost benefit analysis of the NAROFIK-3 Kiln prototype established. It is economically viable business. Payback period of 1 year with a net margin of 37% which is a robust business.			
10) A database of plants with potential for generating botanical pesticides generated from interaction with farmers in Eastern Uganda			

Reasons for Variation in performance

Total	47,239
Wage Recurrent	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
		Non Wage Recurrent	47,239
		AIA	0

Output: 02 Research extension interface promoted and strengthened

Strengthened capacity through Research extension interface promotions	Actual Outputs Achieved in Quarter	Item	Spent
	1) Extension workers and farmers trained on bicontrol agents for management of T. absoluta, Buseolla and Chilo.	211103 Allowances (Inc. Casuals, Temporary)	12,084
		221011 Printing, Stationery, Photocopying and Binding	875
	2) Knowledge and skills of 12 farmers, 36 ox-drivers, 12 artisans and 8 extension staff from Wol, Paimol, Lokole and Arum sub counties in Agago district enhanced in planting, weeding and transport using oxen	224006 Agricultural Supplies	12,833
		227001 Travel inland	14,840

Reasons for Variation in performance

Total	40,632
Wage Recurrent	0
Non Wage Recurrent	40,632
AIA	0

Output: 04 Agricultural research capacity strengthened

- Office equipment, field machinery & laboratory equipment at the institute maintained. - Human resources facilitated and strengthened.	- Office equipment, field machinery & laboratory equipment at the institute maintained. - Human resources facilitated and strengthened.	Item	Spent
		221003 Staff Training	3,500
		221008 Computer supplies and Information Technology (IT)	3,955
		221011 Printing, Stationery, Photocopying and Binding	1,166
		221012 Small Office Equipment	225
		222001 Telecommunications	900
		222002 Postage and Courier	38
		223004 Guard and Security services	5,270
		223005 Electricity	6,750
		224004 Cleaning and Sanitation	4,631
		227001 Travel inland	2,346
		227004 Fuel, Lubricants and Oils	4,338
		228002 Maintenance - Vehicles	6,170
		228003 Maintenance – Machinery, Equipment & Furniture	227
		228004 Maintenance – Other	1,219

Reasons for Variation in performance

Total	40,733
Wage Recurrent	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
		Non Wage Recurrent	40,733
		AIA	0
		Total For SubProgramme	128,604
		Wage Recurrent	0
		Non Wage Recurrent	128,604
		AIA	0

Recurrent Programmes

Subprogram: 13 Abi ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

	Item	Spent
1) . NWAEZ research agenda strengthened by facilitating one advisory committee, meetings.	1). One advisory committee, PARI directors' forum meetings	221006 Commissions and related charges 2,175
2). Participate in planning and reviews meeting meeting	2) Planning reviews held to guide the Abi ZARDI research agenda.	222001 Telecommunications 200
3). Continue development of Cassava composites products developed	3) Eight lines of indigenous pulses collected awaiting laboratory analysis	224006 Agricultural Supplies 5,244
One nutrition platform for nutrient enhanced cassava products developed .		227001 Travel inland 4,674
		228003 Maintenance – Machinery, Equipment & Furniture 5,125
	Total	17,418
	Wage Recurrent	0
	Non Wage Recurrent	17,418
	AIA	0

Output: 02 Research extension interface promoted and strengthened

	Item	Spent
1) Abi ZARDI TIMPS delivered to stakeholders	Documentation of the contribution of research by NARO to the development of the cassava value chain conducted among different stakeholders in West Nile	221001 Advertising and Public Relations 1,313
2). LSB groups supported.		221008 Computer supplies and Information Technology (IT) 1,250
		221011 Printing, Stationery, Photocopying and Binding 313

Reasons for Variation in performance

Total	2,875
Wage Recurrent	0
Non Wage Recurrent	2,875
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
1) Abi ZARDI human resources, financial resources, and physical resources maintained.	Three beneficiary group sensitized and three experimental field selected and prepared	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	1,521
		221008 Computer supplies and Information Technology (IT)	1,099
		222001 Telecommunications	200
		223004 Guard and Security services	1,500
		223005 Electricity	500
		223006 Water	100
		224004 Cleaning and Sanitation	1,099
		226001 Insurances	100
		227001 Travel inland	1,243
		227004 Fuel, Lubricants and Oils	788
		228001 Maintenance - Civil	250
		228002 Maintenance - Vehicles	2,982
		228003 Maintenance – Machinery, Equipment & Furniture	377
		273102 Incapacity, death benefits and funeral expenses	500

Reasons for Variation in performance

Total	12,258
Wage Recurrent	0
Non Wage Recurrent	12,258
AIA	0
Total For SubProgramme	32,551
Wage Recurrent	0
Non Wage Recurrent	32,551
AIA	0

Recurrent Programmes

Subprogram: 14 Bulindi ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Germ plasm for breeding and multiplication was maintained on station.	Germ plasm for breeding and multiplication was maintained on station. The institute maintains 2 acres of mother garden (0.25 acres of lablab, centrosema , green leaf desmoldia, Alfalfa and Brachieria brizantha respectivel. On station mother gardens were maintained 2 crop (banana, and coffee). Cassava multiplication fields were maintained 5kg of Chloris gayana and centrosema seeds were harvested. The institute maintains livestock such as camborough pigs for multiplication (20 pigs), Delivered 15 improved piglets to pig farmers in Hoima and Masindi. the breed has high fecundity and quality market carcass for pork industries. The institute also maintains Mubende goats unit of flock size 42 goats (18F and 19M), 10 Mubende, 4 Boers, 23crosses, Mubende goats have high biotic potential, quality market carcass and skin. The unit is being equipped to become goat health management center. The institute also maintains an on station apiary. The institute is quantifying apiary performance, identifying constraints and for designing management options for on station apiaries in Kyabigambire Sub County, Hoima District	Item 211103 Allowances (Inc. Casuals, Temporary) 222001 Telecommunications 223004 Guard and Security services 223005 Electricity 227001 Travel inland	Spent 2,200 2,000 4,000 4,000 1,008

Reasons for Variation in performance

	Total	13,208
	Wage Recurrent	0
	Non Wage Recurrent	13,208
	AIA	0

Output: 02 Research extension interface promoted and strengthened

1) . Research technologies promoted.	140 farmers trained good agronomic practices for rice, vegetables, bananas and beans.	Item	Spent
2) . Strengthening research demonstrations for uptake among farmers and early adopters for increased production.	Capacity building for 30 farmers in seed banking and water harvesting in Kyagwali refuge settement; 40 farmers and 10 community based faciliatators from Kagadi and Kiryandongo given guided tours of research activities and crop/livestock demos	221001 Advertising and Public Relations	4,200
3). Stakeholder meetings conducted and feedback disseminated	2) • 28 students (23M, 5F) received information through guided tours • 10 Farmers (9M, 1F), accessed different technologies		

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
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Reasons for Variation in performance

		Total	4,200
		Wage Recurrent	0
		Non Wage Recurrent	4,200
		<i>AIA</i>	0

Output: 04 Agricultural research capacity strengthened

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Item	Spent
1). Routine maintenance of research facilities, machinery, equipment.	Two stakeholder meetings (chicken project inception, MAAIF, pre-season extension meeting)	221011 Printing, Stationery, Photocopying and Binding	813
2). On station demos maintained (Banana, coffee, and Cassava.		222001 Telecommunications	800
		222002 Postage and Courier	12
		223004 Guard and Security services	2,800
		223005 Electricity	12,800
		224004 Cleaning and Sanitation	3,516
		224005 Uniforms, Beddings and Protective Gear	4,400
		226001 Insurances	512
		227001 Travel inland	928
		227004 Fuel, Lubricants and Oils	1,469
		228002 Maintenance - Vehicles	11,708
		228003 Maintenance – Machinery, Equipment & Furniture	355
		228004 Maintenance – Other	186
		273102 Incapacity,death benefits and funeral expenses	400

Reasons for Variation in performance

		Total	40,699
		Wage Recurrent	0
		Non Wage Recurrent	40,699
		<i>AIA</i>	0

Arrears

		Total For SubProgramme	58,107
		Wage Recurrent	0
		Non Wage Recurrent	58,107
		<i>AIA</i>	0

Recurrent Programmes

Subprogram: 15 Kachwekano ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
1) Fish ponds rehabilitated and maintained in functional state.	Three fish strains of Nile Tilapia (from Lakes Kayumbu, Kioga and Albert) characterised and maintained (provision 50kg of feed and security) at Kyanamira fish facility	Item	Spent
		221011 Printing, Stationery, Photocopying and Binding	240
2) Livestock experimental breeds maintained on station Goat and dairy cattle.		224001 Medical Supplies	671
		227001 Travel inland	6,109
		227004 Fuel, Lubricants and Oils	501
Total			7,521
Wage Recurrent			0
Non Wage Recurrent			7,521
AIA			0

Reasons for Variation in performance

Output: 02 Research extension interface promoted and strengthened

New potato varieties promoted and tested on the market	1) Five farmer groups selected, Kachpot 1 and Rwangume seed distributed in partnership with ADREAM (local NGO).	Item	Spent
		221001 Advertising and Public Relations	3,330
		221011 Printing, Stationery, Photocopying and Binding	1,140
	2) Farmer groups linked to 1 processor	224001 Medical Supplies	1,100
		224006 Agricultural Supplies	513
		227001 Travel inland	5,461
		227004 Fuel, Lubricants and Oils	320
Total			11,864
Wage Recurrent			0
Non Wage Recurrent			11,864
AIA			0

Reasons for Variation in performance

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Consultative engagements, routine research infrastructure, vehicles and equipment maintained.	Institutional research capacity enhanced through one (1) consultative engagements, one (1) routine research infrastructure, vehicles machinery and equipment maintained.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	3,694
		221011 Printing, Stationery, Photocopying and Binding	1,388
		222001 Telecommunications	1,532
	3) Farmer groups linked to 1 processor.	222003 Information and communications technology (ICT)	2,998
	4) Nursery bed maintenance, orchard management (pruning, defoliation, bending and staking, spraying,), Grafting of 1000 apple seedlings	223004 Guard and Security services	2,400
		223005 Electricity	5,100
		223006 Water	3,000
		224004 Cleaning and Sanitation	4,224
		226001 Insurances	600
		227001 Travel inland	2,452
		227004 Fuel, Lubricants and Oils	3,746
		228001 Maintenance - Civil	2,697
		228002 Maintenance - Vehicles	4,942
		228003 Maintenance – Machinery, Equipment & Furniture	2,498
		Total	41,270
		Wage Recurrent	0
		Non Wage Recurrent	41,270
		AIA	0
		Total For SubProgramme	60,655
		Wage Recurrent	0
		Non Wage Recurrent	60,655
		AIA	0

Reasons for Variation in performance

Recurrent Programmes

Subprogram: 16 Mukono ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
Improved technologies generated and management technologies.	6 bags of cassava cuttings (NAROCAS 1) sold and about 35 bags still available for sale; 5,200 kg of bean seed produced, 12 tons of maize seed produced under the seed project	Item	Spent
		221011 Printing, Stationery, Photocopying and Binding	2,800
		222001 Telecommunications	1,000
		223004 Guard and Security services	5,000
		223005 Electricity	16,800
		223006 Water	1,200
		224001 Medical Supplies	1,445
		227001 Travel inland	7,179
		227004 Fuel, Lubricants and Oils	6,478
		Wage Recurrent	0
		Non Wage Recurrent	41,902
		AIA	0

Reasons for Variation in performance

Output: 04 Agricultural research capacity strengthened

Routine maintenance of research facilities ,equipment, machinery, support and utilities. One multi-stake holder innovation platform in Seed and seedling Production and Marketing supported established.	Availed 6300 KR clonal plantlets availed to msip farmers from sembabule, Mukono, Mityana, Kayunga, Namayingo and Masaka; 21,000 coffee cuttings have been put in cages but not yet ready for release; 415 Kgs of coffee beans sold	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	8,112
		221001 Advertising and Public Relations	3,600
		221008 Computer supplies and Information Technology (IT)	8,240
		222002 Postage and Courier	360
		224004 Cleaning and Sanitation	12,687
		226001 Insurances	560
		228001 Maintenance - Civil	10,372
		228002 Maintenance - Vehicles	10,841
		228003 Maintenance – Machinery, Equipment & Furniture	3,905
		228004 Maintenance – Other	1,500
		273102 Incapacity, death benefits and funeral expenses	1,200
		Wage Recurrent	0
		Non Wage Recurrent	61,378
		AIA	0
		Total For SubProgramme	103,280
		Wage Recurrent	0
		Non Wage Recurrent	103,280

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
			AIA 0

Recurrent Programmes

Subprogram: 17 Ngetta ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

		Item	Spent	
Soil seed bank estimation technique, integrated weed management technologies for maize developed	1) Established that the green house germination technique is the most effective to estimate soil seed bank, followed by cloth bag method. Flootation method is not suitable .	211103 Allowances (Inc. Casuals, Temporary)	2,173	
		221001 Advertising and Public Relations	339	
		221011 Printing, Stationery, Photocopying and Binding	187	
		223005 Electricity	960	
		224001 Medical Supplies	736	
		224006 Agricultural Supplies	1,376	
		227001 Travel inland	12,626	
		227004 Fuel, Lubricants and Oils	509	
			Total	18,906
			Wage Recurrent	0
	Non Wage Recurrent	18,906		
	AIA	0		

Reasons for Variation in performance

Output: 02 Research extension interface promoted and strengthened

		Item	Spent
Improved stakeholder awareness through demonstrations and exhibitions for proven agricultural research technologies enhancing; production practices on and off -station	5 technology demonstrations (beans, groundnuts, sorghum, soy beans, millet) established on-station	211103 Allowances (Inc. Casuals, Temporary)	1,366
		221011 Printing, Stationery, Photocopying and Binding	105
		224006 Agricultural Supplies	921
		227001 Travel inland	1,872
		227004 Fuel, Lubricants and Oils	717
			Total
	Wage Recurrent	0	
	Non Wage Recurrent	4,981	
	AIA	0	

Reasons for Variation in performance

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
Ngetta ZARDI facilitated to undertake zonal mandate. Conducted routine maintenance of vehicles, research facilities, equipment and machinery	1) Ngetta ZARDI facilitated to undertake zonal mandate. Conducted routine maintenance of vehicles, research facilities, equipment and machinery	Item	Spent
		221011 Printing, Stationery, Photocopying and Binding	748
		223004 Guard and Security services	5,005
	2) 22 LSB groups strategically linked to QDS suport services and networks	223005 Electricity	1,040
		223006 Water	800
		224004 Cleaning and Sanitation	935
		227001 Travel inland	1,617
		227004 Fuel, Lubricants and Oils	881
		228002 Maintenance - Vehicles	7,632

Reasons for Variation in performance

Total	18,657
Wage Recurrent	0
Non Wage Recurrent	18,657
AIA	0
Total For SubProgramme	42,544
Wage Recurrent	0
Non Wage Recurrent	42,544
AIA	0

Recurrent Programmes

Subprogram: 18 Nabium ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Item	Spent
1) Crops promoted in NEAZ for sustainable food production and resilient agricultural practices promoted	1) The demo trials have been completed. Post harvest data collecton to be done. Lrmininary observations indicate that Tomato varieties Rio grande and Nuru, Pepper varieties California wonnder and Cayenne long slim; cabbage varities Copenhagen, Baraka F1 and Spinach and Onion variety Red Creole exhibited tolence to drought and have potential for production in the NEAZ	211103 Allowances (Inc. Casuals, Temporary)	1,848
2) Seedlings of mango, citrus & clonal eucalyptus produced for sustainable afforestation and re-afforestation		221011 Printing, Stationery, Photocopying and Binding	480
3) Demonstration and mother gardens maintained.		224006 Agricultural Supplies	1,679
		227001 Travel inland	3,159
4) Support to established MSIPs supporting value chain development.	2) Clonal eucalyptus plants in the mother garden ready for harvest	227004 Fuel, Lubricants and Oils	1,399

Reasons for Variation in performance

Total	8,565
Wage Recurrent	0
Non Wage Recurrent	8,565
AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
Output: 04 Agricultural research capacity strengthened			
Awareness among communities about the transmission, impact and control of brucellosis strengthened.	Seroprevalence determined from Amudat District using Rose bengal test, in 322 cattle (13.04% positive equivalent of 42/322), 328 goats (0.9% positive equivalent of 3/328), 300 sheep (1% positive equivalent of 3/300), 46 camels (4.3% positive equivalent of 2/46)	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	4,261
		221001 Advertising and Public Relations	1,040
		221011 Printing, Stationery, Photocopying and Binding	976
		222002 Postage and Courier	144
		223004 Guard and Security services	1,072
		223005 Electricity	922
		224004 Cleaning and Sanitation	278
		224005 Uniforms, Beddings and Protective Gear	960
		226001 Insurances	280
		227001 Travel inland	1,993
		227004 Fuel, Lubricants and Oils	2,955
		228001 Maintenance - Civil	3,200
		228002 Maintenance - Vehicles	5,204
		228003 Maintenance – Machinery, Equipment & Furniture	2,840
		273102 Incapacity, death benefits and funeral expenses	1,200

Reasons for Variation in performance

Total	27,323
Wage Recurrent	0
Non Wage Recurrent	27,323
AIA	0
Total For SubProgramme	35,888
Wage Recurrent	0
Non Wage Recurrent	35,888
AIA	0

Recurrent Programmes

Subprogram: 19 Mbarara ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
At least three production technologies and innovations generated for increased production and productivity.	1. Hormonal Induction of oestrus done in 25 cows. Of these eleven 11 cows came on heat and were artificially inseminated using Friesian semen. This brings the cumulative total of inseminations to 33 during the year so far. 2. Six (6) calves were born as a result of AI bringing the total number to 18 born within this financial year [and a total of 33 calves within the herd since 2019] 3. Reproductive and productive performance of the Dairy herd was assessed basing on milk yield, lactation length, calving interval, age, udder structure and health. Twenty three (23) of the best performing cows were selected for further insemination and subsequent improvement of the herd.	Item	Spent
		221011 Printing, Stationery, Photocopying and Binding	800
		222001 Telecommunications	1,000
		223004 Guard and Security services	3,082
		223005 Electricity	8,000
		223006 Water	6,000
		227001 Travel inland	1,197
		227004 Fuel, Lubricants and Oils	864
		228002 Maintenance - Vehicles	800
	Total	21,743	
	Wage Recurrent	0	
	Non Wage Recurrent	21,743	
	A/A	0	

Reasons for Variation in performance

Output: 04 Agricultural research capacity strengthened

Four 4 technological innovation platforms established/supported	1) Hosted world food celebrations. 2) Mbarara zardi technologies were availed to farmers.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	2,510
		221001 Advertising and Public Relations	276
		221008 Computer supplies and Information Technology (IT)	1,758
		221011 Printing, Stationery, Photocopying and Binding	976
		223004 Guard and Security services	4,800
		224004 Cleaning and Sanitation	2,106
		226001 Insurances	512
		227001 Travel inland	1,657
		227004 Fuel, Lubricants and Oils	4,050
		228001 Maintenance - Civil	1,200
		228002 Maintenance - Vehicles	2,437
		228003 Maintenance – Machinery, Equipment & Furniture	775
	Total	23,057	
	Wage Recurrent	0	
	Non Wage Recurrent	23,057	

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
			AIA 0
		Total For SubProgramme	44,800
		Wage Recurrent	0
		Non Wage Recurrent	44,800
			AIA 0

Recurrent Programmes

Subprogram: 20 Buginyaya ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

	Item	Spent
Models of crop residues based livestock feeds, efficacious ethno vet-medicinal plants for control of worms Superior dual purpose cattle, 2 alternative spawning & fingerling rearing methods for Nile tilapia & Mirror carp & evaluate, Cost effective feeds	(1) Forty two goats (11 indigenous and 31 improved Boer goat genotypes) maintained for breeding purposes at Bulegeni station. (2) In-vitro experiments revealed that effective time for 20 mg/l of Azadirachta indica and Tithonia diversifolia extracts on Heamonchus spp were 8 and 6 hours respectively. Phyto-chemical composition of Tithonia diversifolia and Azadirachta indica profiled. (3) Effective stocking and feeding management was tested. Growth rate averaged 3.6% and 4.5% BW; daily weight gain was 4.8 and 5g/day in the first and second trials respectively, on 35% Kajjansi feed. The stocks reached carrying capacity at 4kgm-3, with adults attaining 1.2kg in 8 months at Bulegeni.	
	211103 Allowances (Inc. Casuals, Temporary)	4,499
	224001 Medical Supplies	5,709
	224006 Agricultural Supplies	17,421
	227001 Travel inland	12,234
	227004 Fuel, Lubricants and Oils	4,410
	228002 Maintenance - Vehicles	6,788

Reasons for Variation in performance

Total	51,062
Wage Recurrent	0
Non Wage Recurrent	51,062
AIA	0

Output: 04 Agricultural research capacity strengthened

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
- Conducted routine maintenance of research facilities, equipment and machinery.	1) 1500 mother TC plants ordered and 3,200 minitubers of assorted potato varieties established in screen house 2)1 screen house cultivation bed prepared for RACs establishment. 3) 60 kgs of Chloris gayana and 30 bags of NARONAP3 availed for farmers in Bulambuli and Kapchorwa districts.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	2,434
		221001 Advertising and Public Relations	400
		221011 Printing, Stationery, Photocopying and Binding	976
		221012 Small Office Equipment	120
		222001 Telecommunications	800
		223004 Guard and Security services	6,400
		223005 Electricity	6,400
		223006 Water	1,800
		224004 Cleaning and Sanitation	1,294
		226001 Insurances	400
		227001 Travel inland	1,657
		227004 Fuel, Lubricants and Oils	2,866
		228001 Maintenance - Civil	3,200
		228002 Maintenance - Vehicles	6,071
		228003 Maintenance – Machinery, Equipment & Furniture	1,420
		228004 Maintenance – Other	900
		273102 Incapacity,death benefits and funeral expenses	800

Reasons for Variation in performance

Total	37,937
Wage Recurrent	0
Non Wage Recurrent	37,937
AIA	0
Total For SubProgramme	88,999
Wage Recurrent	0
Non Wage Recurrent	88,999
AIA	0

Recurrent Programmes

Subprogram: 21 Rwebitaba ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
1). Generation of early generation improved materials indigenous fields,	1) Total of 12,130 plantlets of oranges, avocado, calliandra, passion fruits, guavas and Maesopsis were raised and being maintained in the nursery.	Item 211103 Allowances (Inc. Casuals, Temporary)	Spent 8,008
2). Raising seedlings		221011 Printing, Stationery, Photocopying and Binding	240
3) Tea and coffee mother gardens maintained.	2) 900kgs of bean foundation seed were harvested	224001 Medical Supplies	2,982
	3) 7 community mother gardens supported	224006 Agricultural Supplies	15,369
		227001 Travel inland	3,141
		227004 Fuel, Lubricants and Oils	1,637
	4) 7 tree nurseries maintained.		
	5) Information effectiveness of different Tea disease management practices generated .		

Reasons for Variation in performance

Total	31,377
Wage Recurrent	0
Non Wage Recurrent	31,377
AIA	0

Output: 04 Agricultural research capacity strengthened

Conduct routine maintenance of research facilities, equipment and machinery.	- Conducted routine maintenance of research facilities, equipment and machinery Renovating Institute breeding facility completed Quality pasture seed field established Quality pasture seed produced & pasture samples analysed Quality seed fumigated & packed Quality seeds available on market	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	2,434
		221001 Advertising and Public Relations	360
		221011 Printing, Stationery, Photocopying and Binding	488
		222001 Telecommunications	450
		223004 Guard and Security services	1,350
		223005 Electricity	900
		223006 Water	600
		224004 Cleaning and Sanitation	1,772
		224005 Uniforms, Beddings and Protective Gear	1,200
		226001 Insurances	159
		227001 Travel inland	1,270
		227004 Fuel, Lubricants and Oils	1,260
		228001 Maintenance - Civil	1,200
		228002 Maintenance - Vehicles	1,368
		228003 Maintenance – Machinery, Equipment & Furniture	485
		273102 Incapacity, death benefits and funeral expenses	800

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	<i>UShs Thousand</i>
		Total	16,096
		Wage Recurrent	0
		Non Wage Recurrent	16,096
		AIA	0
		Total For SubProgramme	47,473
		Wage Recurrent	0
		Non Wage Recurrent	47,473
		AIA	0

Recurrent Programmes

Subprogram: 26 NARO Internal Audit

Outputs Provided

Output: 03 Internal Audit

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
1) Develop and test generate one tool for reporting risk trends	(1) 4 Internal Audit staff's capacity developed.	Item	Spent
		221002 Workshops and Seminars	3,690
2) Audit performance reports	(2) One report on analysis of Mid- year balances and financial statements for the period ended 31st December 2020.	221003 Staff Training	1,900
3) Procurement compliance Audit reports		227001 Travel inland	33,700
4) Undertake one value for money audit report .	(3) One reports on Internal Audit value added services to management and the organization as a whole produced.		
	(4) One report on special circumstances produced.		
	(5) One reports on Governance, risk and control produced.		
	(6) One report on IFMS Compliance budget report produced.		
	(7) One mid year performance review report and action log produced.		
	(8) One risk management report produced.		
	(9) A report on Human Resources and Payroll audit produced.		
	(10) A report on Core research/ value for money audit produced.		
	(11) Risk management policy and procedural manual discussed.		
	(12) Report on High and medium risks produced Risk Register updated.		

Reasons for Variation in performance

Total	39,290
Wage Recurrent	0
Non Wage Recurrent	39,290
AIA	0
Total For SubProgramme	39,290
Wage Recurrent	0
Non Wage Recurrent	39,290
AIA	0

Recurrent Programmes

Subprogram: 27 National Coffee Research Institute

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
<i>Outputs Provided</i>			
Output: 01 Generation of agricultural technologies			
1) CWD, occurrence and distribution determined in coffee growing regions.	Protocols for collecting data from northern Uganda developed.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	1,452
2) coffee host defense mechanisms unravel approaches.		221001 Advertising and Public Relations	900
		221011 Printing, Stationery, Photocopying and Binding	64
		225001 Consultancy Services- Short term	6,496
		227001 Travel inland	10,745
		227004 Fuel, Lubricants and Oils	2,511
			Total
			22,168
			Wage Recurrent
			0
			Non Wage Recurrent
			22,168
			AIA
			0
Output: 02 Research extension interface promoted and strengthened			
65 acres of well managed coffee mother gardens as production fields with optimum crop harvests.	(1) Strengthened NACORI ICT capacity for training farmers and extension staff	Item	Spent
	(2) 20,000 seedlings for candidate Arabica coffee varieties initiated, Mother garden for Arabica coffee established at Bugusege substation.	221008 Computer supplies and Information Technology (IT)	1,920
<i>Reasons for Variation in performance</i>			
			Total
			1,920
			Wage Recurrent
			0
			Non Wage Recurrent
			1,920
			AIA
			0
Output: 04 Agricultural research capacity strengthened			

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
- Conducted routine maintenance of research facilities, equipment and machinery Successful advisory committee and staff meetings	1) NACORI Human resource contract staff remunerated, facilitated and welfare enhanced. (2) NACORI physical resources managed and maintained. These include motor vehicle fleet , offices, office buildings and utilities (3) NACORI financial resources managed and maintained. (4) NACORI research agenda strengthened. by facilitating NACORI AD, NACORI Director and staff and officers	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	5,949
		221001 Advertising and Public Relations	780
		221011 Printing, Stationery, Photocopying and Binding	975
		222001 Telecommunications	984
		223004 Guard and Security services	3,800
		223005 Electricity	2,400
		224004 Cleaning and Sanitation	1,916
		228001 Maintenance - Civil	2,400
		228002 Maintenance - Vehicles	3,336
		228003 Maintenance – Machinery, Equipment & Furniture	1,438
		273102 Incapacity,death benefits and funeral expenses	1,295

Reasons for Variation in performance

Total	25,273
Wage Recurrent	0
Non Wage Recurrent	25,273
AIA	0
Total For SubProgramme	49,361
Wage Recurrent	0
Non Wage Recurrent	49,361
AIA	0

Development Projects

Project: 0382 Support for NARO

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
- Continue the evaluation of six livestock vaccines	NAROSEC 1.) Supervision carried out in 4 institutes (Bulindi, NaFORRI, NaFIRRI and NaLIRRI)	Item 211103 Allowances (Inc. Casuals, Temporary)	Spent 125,182
- Continue the field evaluation of 40 crop lines at various stages (AYT, NPT, and DUS)	2) IFMS update from institutes for the Nine months report preparation.	221002 Workshops and Seminars	67,422
	NACORI 3).. Protocols for production of coffee and cocoa prototypes for enhancing diversity and smallholder incomes under development	221008 Computer supplies and Information Technology (IT)	35,776
	4). Protocols for feasibility study for growing coffee in Karamoja region developed and awaits pretesting	222003 Information and communications technology (ICT)	8,636
	NACRRI 5). 2800 kg of maize (Longe 5) seed and 1500 Kg of beans (NAROBAN1) produced and supplied to seed producers	223004 Guard and Security services	223
	NAFORRI 6) 2.6 ha of research trials maintained; Beating up done for 100 pits in the arboretum in Kifu RF; Grevillea and Araucaria research trials maintained in Kifu RF	223005 Electricity	13,212
	7) 4. 5 acres of avocado gene-bank managed for germplasm production	224001 Medical Supplies	73,094
	6). 16 acres of shea multilocational trials (breeding seed orchards) maintained	224006 Agricultural Supplies	438,168
	7) 7. Design of 1 type of value added woodwaste product (resin-treated table) developed. 2 epoxy-treated tables from wood waste (tree stump off cuts) developed. 3 sets of resin-treated tables developed from wood waste.	227001 Travel inland	224,550
	NASARRI 8) 1.5 acres of breeder seed plots for cowpea and greengram planted	227004 Fuel, Lubricants and Oils	11,966
		228002 Maintenance - Vehicles	538

Reasons for Variation in performance

Total	998,768
GoU Development	998,768
External Financing	0
AIA	0

Output: 02 Research extension interface promoted and strengthened

Continue the delivery of improved agricultural technologies, innovations,	NAROSEC 1. NARO technology compendium for
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Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

information and management practices to the farming community for season B.	generated technologies for the period 2018 -2020 developed.	Item	Spent
	2. Disseminated NARO technologies appropriate to 3 communities each in Rwenzori, Mubende and Bunyoro	211103 Allowances (Inc. Casuals, Temporary)	34,950
	3. Developed the NARO VIN system	221001 Advertising and Public Relations	8,400
	4. One (1) MOU between NARO and Community Enterprises Development Organization (CEDO) for development of precooked beans product signed	221002 Workshops and Seminars	67,730
	5. 35 stakeholders from USTA representing seed companies engaged	221008 Computer supplies and Information Technology (IT)	18,431
	• Draft Compilation of NAROWide newsletter 2020/2021 is ready and awaiting approval	221011 Printing, Stationery, Photocopying and Binding	4,900
	6. 135 publications digitized (115 project reports, 20 brochures)	222001 Telecommunications	1,348
	7. 60 publications allocated class numbers and catalogue entries	222003 Information and communications technology (ICT)	175,966
	8. 90 journal articles uploaded onto the e-repository at NARO Information Hub	224001 Medical Supplies	30,655
	• Stakeholder consultation conducted and First draft of the DIRCKM policy framework developed and validated	224006 Agricultural Supplies	123,897
	9. A limited fraction of content uploaded on the online information hub	225001 Consultancy Services- Short term	3,980
	10. NARO feedback system developed awaiting TPM and User committee endorsement	226002 Licenses	12,975
		227001 Travel inland	89,731
		227004 Fuel, Lubricants and Oils	9,730
		228001 Maintenance - Civil	33,000
		228002 Maintenance - Vehicles	4,000
	Abi		
	11) One farmer group identified and will be trained in producing, packaging and marketing sorghum QDS in the west Nile region		
	BugiZARDI		
	12) One Demand articulation report detailing programme activities with stakeholders and research needs produced		
	Bulindi		
	13) Trained 25 visiting fish farmers, supported 3 fish farmers in harvesting tilapia.		
	(14) 65 technologies delivered to uptake pathways (fish kiln, bio fortified and high yielding varieties) for improved production and productivity of key commodities of economic importance.		
	(15) 25 platforms (incubation, IP and technology dissemination and uptake).		
	(16) Engaged Feed the Future USAID project NARO chapter and Vision group on farm clinics, (4) On IP management (a) - Scouting conducted in 4 PARIs 6 technologies identified and disclosed, two		

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QUARTER 3: Outputs and Expenditure in Quarter

undergoing drafting that is;. (b) One-on-One engagements organised at PARIs (c) 3 IPMC meeting held and 3 recommendations on commercialization generated

Reasons for Variation in performance

	Total	619,692
GoU Development		619,692
External Financing		0
AIA		0

Output: 04 Agricultural research capacity strengthened

Conduct routine maintenance of agricultural research infrastructure and work place.	A) Human resource capacity strengthened as follows:	Item	Spent
	a) Short term skills improvement programmes conducted for 16 PARI and	211103 Allowances (Inc. Casuals, Temporary)	42,183
		221002 Workshops and Seminars	30,296
		221003 Staff Training	74,199
	b) NAROSEC, 5 staff supported to undertake MSc and PhD study programme.	221004 Recruitment Expenses	102
		221008 Computer supplies and Information Technology (IT)	6,762
	c) Annual subscription paid for 30 staff who belong to professional bodies.	221011 Printing, Stationery, Photocopying and Binding	3,419
		221016 IFMS Recurrent costs	44,050
	d) 30 Staff Recruited and appointed in accordance with staff establishment.	221017 Subscriptions	17,963
		222002 Postage and Courier	50
	B) Procurements and suppliers were acquired for the smooth and effective agricultural research service delivery as follows:	222003 Information and communications technology (ICT)	1,542
	1) Agricultural Supplies. Running Framework Contracts on-ongoing. Contracts awarded as and when need arises.	223002 Rates	78,520
		223004 Guard and Security services	500
		223005 Electricity	1,270
		223006 Water	1,000
	The following contract were signed, supplies delivered, Payment effected and Contract closed.	224001 Medical Supplies	16,000
	1) Supply of Uniforms, Beddings and Protective Gear	224004 Cleaning and Sanitation	739
		224006 Agricultural Supplies	137,000
		226001 Insurances	512
	2) Printing, Stationery and Binding	226002 Licenses	124,063
		227001 Travel inland	120,206
	3) Printing of NARO Annual Report	227004 Fuel, Lubricants and Oils	73,927
		228001 Maintenance - Civil	165,888
	4) Printing of UJAS Booklets Printing of Compedium Booklets	228002 Maintenance - Vehicles	30,431
		228003 Maintenance – Machinery, Equipment & Furniture	27,754
	5) Supply of Assorted Stationery	228004 Maintenance – Other	200
	6) Printing of Assorted Information Material		
	7) Supply of Assorted Toners		

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QUARTER 3: Outputs and Expenditure in Quarter

- Supply of Tonner for Heavy Duty Photocopiers
- 8) Printing of NARO Customised Letter Heads
- 9) Supply of additional copies of NARO Annual work plans
- 10) Cleaning and Sanitation
- 11) Insurance of Motor Vehicles
- 12) Agricultural Supplies (Procurements handled at Institutes)
- 13) Motor Vehicle Repairs/Maintenance
- 14) Medical and Veterinary Supplies
- 15) NARO Grants Office Establishment. Contracts Signed, Assignment still ongoing
- C) NARO visibility enhanced with the following:
 - (a)Supply of Promotional Items for Stakeholders
 - (b)Development of NARO Wide Website
 - (c) Provision of NARO Wide Media Services-Phase 1
 - (d) Provision of Photography services
 - (e) Promotion of NARO online promotional and visibility

Reasons for Variation in performance

Total	998,576
GoU Development	998,576
External Financing	0
AIA	0

Outputs Funded

Output: 51 Payments to International Organisations (CGIAR, ASARECA, WARDA)

NARO contribution to international organizations effected	Bioversity International 3rd cash contribution (Novel Approaches improvement of Banana Production in East Africa Biotechnological Methodologies Phase IV	Item	Spent
		262201 Contributions to International Organisations (Capital)	320,705

Reasons for Variation in performance

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
		Total	320,705
		GoU Development	320,705
		External Financing	0
		AIA	0

Capital Purchases

Output: 72 Government Buildings and Administrative Infrastructure

Establish gender responsive agricultural research infrastructure and work place (in NACORI, Nalirri, Rwebitaba, NARL, Mbarara, Kigumba, Nabuin).		Item	Spent
	1) Construction of staff houses at Kigumba - civil works completed and Site handed over.	281504 Monitoring, Supervision & Appraisal of Capital work	213,796
	2) Construction of a Multipurpose Laboratory at NaCORRI - Contract signed, Site handed over, advance effected and Civil Works still in progress.	312101 Non-Residential Buildings 312104 Other Structures	1,220,487 474,020
	3) Construction of a (Milking Parlor Platform) - Contract still running until 30th March 2021.		
	4) Construction of Seed Processing Structure - Civil works completed. Payment effected and contract closed.		
	5) Assorted Multipurpose Office Blocks at Maruzi. Contract Signed. Works Commenced.		
	6) Additional Civil Works at Rwebitaba ZARDI-Phase 2. Civil works completed. Payment effected and contract closed.		
	7) External Civil Works at Rwebitaba ZARDI. Contract Signed. Site handed over. Advance Payment Guarantee submitted for payment..		
	8) Construction of an Aflasafe Facility at NaLIRRI-Nakyesasa. Contract signed. Site handed over. Advance paid and Civil works in progress.		
	9) Construction of a Multipurpose Vaccine Facility in NaLIRRI-Nakyesasa. Contract signed. Site handed over. Advance paid and civil works in progress.		
	10) Construction of a Fish Floating Feed Structure - Procurement awaits installation of equipment.		
	11)		

Reasons for Variation in performance

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QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
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The other procurement, which are on going but were differed due to insufficient funds include:

- 1) Construction of Main Reception and Offices at NAROSEC Entebbe - Tendering concluded. Contract awarded to Laplace Contractors at an amount of Ugx 198, 311,581 however not signed due to insufficient funds.
- 2) Installation of Electrical Works - Tendering concluded. Contract awarded to All In Trade at an amount of Ugx 76,935,354 however not signed due to insufficient funds.
- 3) Painting of Office Buildings and External works at NAROSEC. Tendering concluded. Contract awarded to Lite Solutions at an amount of Ugx 257,842,894 however not signed due to insufficient funds.
- 3) Construction of an Administration Block at NARL-Namalere. Contract awarded to M/S CMD Investments at a contract amount of Ugx 2,153,249,043. Awaiting contract signature.
- 4) Construction of a Screen House at NaFORRI. Contract awarded to M/S Crystal Consult at a contract amount of Ugx 488,523,674. Awaiting Contract Signature
- 5) Rehabilitation of an Incubation Center. - Contract awarded to M/S Zepu Engineering at a contract amount of Ugx 364,078,616. Awaiting Contract Signature.
- 6) Construction of a Seed Cleaning Facility. Contract awarded to M/S Zebra Construction and Engineering at a contract amount of Ugx 440,783,000. Awaiting Contract Signature.

The following procurement not handled due to insufficient funds

- 1) Environmental Impact Assessment for Capital Works
- 2) Feasibility Studies for capital works.
- 4) Master plan infrastructural plan including stores designs.
- 5) Engineering and Design Studies for Capital Works.

Total	1,908,303
GoU Development	1,908,303
External Financing	0
AIA	0

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

- Roll-out NARO WAN into 4 PARIs.	1) Lot.3-Laptops delivered and payment in process. Still awaiting for deliveries for other lots before end of March 2021.	Item 312213 ICT Equipment	Spent 106,141
	2) Contract signed for only WAN Phase-1. (Completed and Contract Closed) .		
	3) Supply and Installation of Software for a dedicated cloud server - Software delivered and installed, payment effected and contract closed.		
	4) Data Management Services. Consultancy completed, payment effected and closed		

Reasons for Variation in performance

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QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
1) WAN Phase 2 worth Ugx 700,000,000- not signed due to insufficient funds.			
2) Lot.5-Contract awarded to Tinosoft at a Contract amount of Ugx 41,890,000 however not signed due to insufficient funds.			
		Total	106,141
		GoU Development	106,141
		External Financing	0
		AIA	0

Output: 77 Purchase of Specialised Machinery & Equipment

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Item	Spent
Acquire an assortment of field , office and laboratory equipment for livestock research	1) Specialized Laboratory & Vaccine Equipment - Contract signed. Advance Payment effected. Awaiting for delivery.	312202 Machinery and Equipment	811,835
	2) Supply of Machinery & Equipment - Avocado. Specifications prepared. Procurement in Pipeline at the Institutes.	312214 Laboratory Equipments	1,591
	3) Supply and Installation of Fish Capsulation Machine. Supplies delivered, payment effected and Contract closed.		
	4) Assorted supply of machinery & equipment - Procurements handled at Institutes, funds disbursed.		
	5) Supply and Installation of fish capsulation machine. Supplies delivered, payment effected and contract closed.		
	6) Specialised Laboratory & Vaccine Equipment. Contract Signed. Advance Payment effected. Awaiting for delivery.		
	7) Supply and Installation of Floating Fish Feed Equipment . Contract signed . Advance Guarantee submitted, payment in the pipeline.		
	8) Supply of assorted specialised machinery & equipment. Supplies delivered under Lot.1, payments effected and Contract closed.		
	9) Supply of Specialised In Vitro Embryology Equipment. Implementation of Contract ongoing for a period of One (1) Year. Advance Payment effected.		

Reasons for Variation in performance

- 1) Supply of tractors with Assorted Implements - contract awarded to M/S Engineering Solutions at an amount of Ugx 227,550,104, however not signed due to insufficient funds.
- 2) Supply and Installation of Incubation Equipment & Assorted Machinery . Tendering process concluded at the Institute but contracts not signed due to insufficient funds

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QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
		Total	813,426
		GoU Development	813,426
		External Financing	0
		AIA	0

Output: 78 Purchase of Office and Residential Furniture and Fittings

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Acquire an assortment of field , office and laboratory fittings for livestock research and NARO Secretariat	Supply of Furniture & Fittings - Tendering process concluded. Contract awarded to M/S Nina Interiors (U) Ltd at a Contract amount of Ugx 175,269,988 but not signed due to insufficient funds.	Item 312203 Furniture & Fixtures	Spent 1,710

Reasons for Variation in performance

Total	1,710
GoU Development	1,710
External Financing	0
AIA	0
Total For SubProgramme	5,767,320
GoU Development	5,767,320
External Financing	0
AIA	0

Development Projects

Project: 1560 Relocation and Operationalisation of the National Livestock Resources Research Institute (NALIRRI)

Outputs Provided

Output: 01 Generation of agricultural technologies

Vote:142 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
On station generation of livestock technologies for season B.	A) Livestock feed and feed ingredients produced.	Item	Spent
	1) 50 and 50 tons of soya and maize grain respectively produced	211103 Allowances (Inc. Casuals, Temporary)	15,000
	2) 800 tons of maize silage produced	224006 Agricultural Supplies	20,000
	3) 150 tons of hay produced	227001 Travel inland	5,000
		227004 Fuel, Lubricants and Oils	6,000
	B) Livestock farming information materials produced and disseminated.	228002 Maintenance - Vehicles	4,000
	a) Two technology exhibitions conducted.	228003 Maintenance – Machinery, Equipment & Furniture	6,250
	b) One livestock research newsletters, 1 brochures/leaflets developed and disseminated		
		Livestock research agenda strengthened with two research planning and knowledge sharing workshops.	

Reasons for Variation in performance

Total	56,250
GoU Development	56,250
External Financing	0
AIA	0

Capital Purchases

Output: 72 Government Buildings and Administrative Infrastructure

Capacity of Livestock research strengthened and finalizing the establishment of (for already initiated work) office, field, and laboratory infrastructure with water, telephone, internet and electricity at Maruzi and Nakyesasa.	Maruzi infrastructure have established or maintained as follows:	Item	Spent
	1) Hay barn, Silo bank structures constructed	312101 Non-Residential Buildings	100,000
	2) 2 km (100%) internal road network system developed		
	3) Infrastructural development sceneriors approved by relevant authorities		
	4) 1 kilometers fenceed off using treated poles and barbed wire.		

Reasons for Variation in performance

Total	100,000
GoU Development	100,000

Vote:142

 National Agricultural Research Organisation

QUARTER 3: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	<i>UShs Thousand</i>
		External Financing	0
		AIA	0
		Total For SubProgramme	156,250
		GoU Development	156,250
		External Financing	0
		AIA	0
		GRAND TOTAL	19,409,398
		Wage Recurrent	8,308,307
		Non Wage Recurrent	5,177,521
		GoU Development	5,923,570
		External Financing	0
		AIA	0

Vote:142 National Agricultural Research Organisation

QUARTER 4: Revised Workplan

<i>UShs Thousand</i>	Planned Outputs for the Quarter	Estimated Funds Available in Quarter (from balance brought forward and actual/expected releases)		
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Program: 51 Agricultural Research

Recurrent Programmes

Subprogram: 01 Headquarters

Outputs Provided

Output: 01 Generation of agricultural technologies

	Item	Balance b/f	New Funds	Total
1) Finalize the revised NARO work plan and budget 2021/22	221002 Workshops and Seminars	1,105	0	1,105
2) Finalize the NARO resource mobilization policy	227001 Travel inland	3,319	0	3,319
3) Finalize the NARO records management policy instruments	Total	4,424	0	4,424
	<i>Wage Recurrent</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Non Wage Recurrent</i>	<i>4,424</i>	<i>0</i>	<i>4,424</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>

Output: 02 Research extension interface promoted and strengthened

	Item	Balance b/f	New Funds	Total
1) .Seek approval , finalize and popularize the partnership policy. 2. Monitor performance of MSIPs. 3. Track technologies delivered to uptake pathways	221001 Advertising and Public Relations	57,822	0	57,822
2) Conduct a meeting to finalize the SOPs, print them and popularize them. 2. Coordinate Farm Clinics and other showcasing events. 3 3) Popularize the technology compendium	221002 Workshops and Seminars	13	0	13
4) Feedback to communities regarding availability of appropriate technologies from NARO.	221008 Computer supplies and Information Technology (IT)	3,800	0	3,800
5) complete the renovation works for the Incubation hub building in MuZARDI	227001 Travel inland	3,485	0	3,485
6) Draft relevant MOUs and licensing agreements with Private sector for technology commercialization	Total	65,120	0	65,120
7) Finalise drafting and filing of three IPR application (2 patent applications and 1 utility model)	<i>Wage Recurrent</i>	<i>0</i>	<i>0</i>	<i>0</i>
8) Two IPMC meeting to recommend seed companies for license signing and reviewing other commercialisation and IP related MOUs and agreements for decisions and recommendations.	<i>Non Wage Recurrent</i>	<i>65,120</i>	<i>0</i>	<i>65,120</i>
9) Engage staff and selected stakeholders in IP awareness on IPM policy frameworks.	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>
10) NAROWide newsletter compiled and disseminated				
11) Collect missing content from insitutes.				
12) Digitization of 120 publications				
13) Allocation of 60 publications with class numbers and catalogue entries				
14)100 journal articles uploaded onto the e-repository at NARO Information Hub "				
15) DIRCKM policy framework popularized among stakeholders				
16) Data of various KM stakeholders collected, analyzed and preliminary report produced				
17) Data on NARO users KAP collected and recommendations for improvement availed.				
18) Knowledge products on selected interventions developed through hands on training				

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QUARTER 4: Revised Workplan

Output: 04 Agricultural research capacity strengthened

	Item	Balance b/f	New Funds	Total
1) NARO Human resource of 910 persons remunerated, facilitated and welfare enhanced..	211103 Allowances (Inc. Casuals, Temporary)	96,079	0	96,079
(2) NARO physical resources managed and maintained. These include motor vehicle fleet , office buildings and utilities	212101 Social Security Contributions	412,900	0	412,900
	221001 Advertising and Public Relations	6,375	0	6,375
(3) Agricultural research agenda strengthened. by facilitating NARO council, NARO top management, committees, staff and officers of the organization.	221002 Workshops and Seminars	2,469	0	2,469
	221003 Staff Training	19,130	0	19,130
	221008 Computer supplies and Information Technology (IT)	26,025	0	26,025
(4) Un-surveyed NARO land titled	221009 Welfare and Entertainment	160	0	160
	221011 Printing, Stationery, Photocopying and Binding	6,465	0	6,465
	221012 Small Office Equipment	3,000	0	3,000
	221016 IFMS Recurrent costs	40,040	0	40,040
	222001 Telecommunications	37,437	0	37,437
	222002 Postage and Courier	4,149	0	4,149
	222003 Information and communications technology (ICT)	24,086	0	24,086
	223004 Guard and Security services	27,717	0	27,717
	223005 Electricity	22,397	0	22,397
	223006 Water	9,264	0	9,264
	224001 Medical Supplies	43,190	0	43,190
	224004 Cleaning and Sanitation	26,639	0	26,639
	224005 Uniforms, Beddings and Protective Gear	19,375	0	19,375
	224006 Agricultural Supplies	3,729	0	3,729
	225001 Consultancy Services- Short term	12,614	0	12,614
	226001 Insurances	99,247	0	99,247
	227001 Travel inland	23,553	0	23,553
227004 Fuel, Lubricants and Oils	397	0	397	
228001 Maintenance - Civil	299,371	0	299,371	
228002 Maintenance - Vehicles	52,605	0	52,605	
228003 Maintenance – Machinery, Equipment & Furniture	36,306	0	36,306	
228004 Maintenance – Other	20,020	0	20,020	
273102 Incapacity, death benefits and funeral expenses	4,655	0	4,655	
	Total	1,379,395	0	1,379,395
	<i>Wage Recurrent</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Non Wage Recurrent</i>	<i>1,379,395</i>	<i>0</i>	<i>1,379,395</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>

Vote:142 National Agricultural Research Organisation

QUARTER 4: Revised Workplan

Subprogram: 07 National Crops Resources Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

Early generation seed fields (beans, maize, cassava, sweet potato) and citrus mother gardens (citrus and mangoes,) maintained

Output: 04 Agricultural research capacity strengthened

1) NACRRI Human resource persons remunerated, facilitated and welfare enhanced.
 (2) NACRRI physical resources managed and maintained. These include motor vehicle fleet , office buildings and utilities
 (3) NACRRI Agricultural research agenda strengthened. by facilitating advisory committee

Subprogram: 08 National Fisheries Resources Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

Continue the on going work to produce the following:
 1) 1 Least-cost mycotoxin safe aqua feeds formulated.
 2) 1 technology for increasing shelf life live feed 1 broad spectrum probiotic combination to manage hatchery bacterial diseases,
 3) Fish feeds formulae based on local ingredients 1 biocontrol agent

Output: 02 Research extension interface promoted and strengthened

200,000 fish seed (Tilapia, catfish mirror carp and Barbus)

Output: 04 Agricultural research capacity strengthened

4000 brood stocks of 4 farmer preferred fish species stocked

2) 16 fish hatchery operators trained 6,000,000 sex reversed tilapia fry

Subprogram: 09 National Forestry Resources Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

1) Endangered medicinal and timber tree species conserved ,
 2) Seed stands of three citrus varieties established in Kifu Research Forest, 10 ha of forest research trials managed,
 3) One protocol for Production of healthy Citrus fruit seedlings

Output: 02 Research extension interface promoted and strengthened

Information on various forestry research technologies delivered to stakeholders along the forestry resources value chain enhanced

Vote:142 National Agricultural Research Organisation

QUARTER 4: Revised Workplan

Output: 04 Agricultural research capacity strengthened

1) Institute research capacity strengthened through advisory committee guidance.

2) Institute research capacity strengthened human resources, physical resources and financial resources.

Subprogram: 10 National Livestock Resources Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Continue the development of vaccines for tick and FMD.

Output: 04 Agricultural research capacity strengthened

1) Three livestock laboratories and one forage conservation facility maintained. 3. Four livestock production facilities maintained. 4. Six research handling facilities maintained

Subprogram: 11 National Semi arid Resources Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Continue on going work 20 cotton strain lines evaluated on 3 stations [Lira, Arua and Kasese] for yield, fibre quality attributes, quality oil and protein content. ..

Output: 04 Agricultural research capacity strengthened

1) NaSARRI's Corporate Image promoted among stakeholders thru field days 2) NASAARI research agenda popularized and strengthened thru two dissemination workshop and five committee meeting facilitated

Subprogram: 12 National Laboratories Research

Outputs Provided

Output: 01 Generation of agricultural technologies

Conclude on-going studies

1) Value added products of maize, beans, soybean for commercialization.

2) Botanical and bio-control pest control system tested. Groundnut decorticator available.

3) Climate smart technologies utilized.

4) Banana genotypes Hybrid seed generated

Output: 02 Research extension interface promoted and strengthened

Strengthened capacity through training and technology promotional engagements promotions

Output: 04 Agricultural research capacity strengthened

1) Institutional research capacity strengthened through one stake holder guidance engagement and four routine maintenance of research facilities,equipment,vehicles and support.

2) 12.6 acres of compound mowed, 65 offices, 26 laboratories cleaned April to June 2021.

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QUARTER 4: Revised Workplan

Subprogram: 13 Abi ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

- 1) One advisory committee, PARI directors' forum meetings and 2 planning reviews held.
- 2) Two Cassava composites products developed
- 3) One nutrition platform for nutrient enhanced cassava products developed

Output: 02 Research extension interface promoted and strengthened

- 1) Two cassava based products disseminated to technology uptake pathways in West Nile
- 2) Eight seminars conducted on nutrition focusing on nutrient enhanced research products.

Output: 04 Agricultural research capacity strengthened

Well maintained institutional research asset.

Subprogram: 14 Bulindi ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

one effective bio-fungicide identified Status of fruit fly species in the LACZ determined

Output: 02 Research extension interface promoted and strengthened

- 1) Delivery and access to improved agricultural technologies and information to 700 farmers
- 2) Four dissemination workshops, TV and radio talk shows conducted

Output: 04 Agricultural research capacity strengthened

Strengthening the human resource, financial and institutional management capacity of BUZARDI in delivery of research outputs

Subprogram: 15 Kachwekano ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

- 3 on-station ponds rehabilitated and maintained and fully functional.
- 2) breeding bucks accessed Ten Soil fertility profiles developed 3 onstation orchards rehabilitated.
- 3) Publication of survey findings on dairy production practices in SWHAEZ
- 4) Atleast 24 disease free dairy cows with the best morphological and udder conformation, health identified for dairy research.

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QUARTER 4: Revised Workplan

Output: 02 Research extension interface promoted and strengthened

150 Farmers mobilised through 1 field days to increase uptake of NARO technologies for increases productivity. Productivity enhancing technologies promoted through 3 radio talk shows, 1 video documentaries and production of dissemination materials (Assorted).

Output: 04 Agricultural research capacity strengthened

Enhancing institutional research capacity through routine monitoring (1trips)safeguarding assets (Assorted) serving computers (1)and infrastructure vehicle(1) machinery (1) maintained,

Subprogram: 16 Mukono ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

Four (04) technologies generated

Output: 04 Agricultural research capacity strengthened

2 Multi-stake holder innovation platform in Seed and seedling Production and Marketing established. One Multi-stake holder innovation platform in Seed One policy to guide decision making.

Subprogram: 17 Ngetta ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

- 1) Soil seed bank estimation technique, integrated weed management technologies for maize developed
- 2) incidence maps (1 for citrus leaf and fruit spot and 1 for gummosis disease) updated
- 3) integrated disease management options for citrus diseases validated.
- 4) 3 acres of improved soya bean varieties (MAKSOY3N and Pigeon pea SEPI 1) maintained & harvested
- 4) 660kg of maize seed and 2 bags of fertilizer procured
- 5) Five acres of improved cassava varieties planted and 14 cres of cassava ratoons maintained
- 6) Threee acres of citrus, 4 acres of mango mango, and 2 acres of coffee mother gardens and demos maintained
- 4 acres of Boundry woodlot maintained

Output: 02 Research extension interface promoted and strengthened

- 1) Capacity of 10 extension workers and 200 citrus farmers in citrus disease management enhanced.
- 2) Fishing farming technologies demonstrated

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QUARTER 4: Revised Workplan

Output: 04 Agricultural research capacity strengthened

- 1) 10 farm roads, 21 acres of compound maintained and 1 insitute infrastructure renovated.

Subprogram: 18 Nabium ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

- 1) one effective weed seed bank estimation method for different soils in the zone identified
- 2) one integrated practice of managing weeds in maize under conservation agriculture developed
- 3) The incidence and severity of 3 key citrus diseases in 8 districts of northern Uganda determined and a map generated showing their distribution in northern Uganda
- 3) One report on efficacy of different IPDM options produced
- 4) Preliminary report on growth performance of apiculture forage trees
- 4) 2 dual purpose trees to serve as apiary forage and shade for coffee and cocoa in northern Uganda identified
- 5) One agronomic package for mulberry production identified
- 6) 3 indigionuos fruit trees with economic and health attributes identified
- 7) One publication in a peer reviewed journal
- 9) one approach for stock replacement in livestock and poultry identified
- 10) Two disease management approaches in livestock and poultry identified for promotion
- 11) One validation trial established on station

Output: 04 Agricultural research capacity strengthened

- 1) One technology demonstration report produced.
- 2) Proven agricultural technologies demonstrated to stakeholders.

Subprogram: 19 Mbarara ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

- 1) AI undertaken using high grade semen in 10 dairy cows
- 2) Reproductive traits of served and other dairy cows on station assessed.
- 3) Cows, heifers and calves with superior traits selected and tracked as an Elite herd.

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QUARTER 4: Revised Workplan

Output: 04 Agricultural research capacity strengthened

Agriculture research capacity strengthened, guided through one (1) advisory committee meeting, maintenance of research facilities, equipment and support.

Subprogram: 20 Buginyaya ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

- 1) Two ton of improved been cultivars produced and availed for uptake
- 2) 1000 bags of quality cassava planting materials availed to enhance food security and incomes
- 3) 100 bags of OFSP availed to vulnerable households to combat malnutrition for these vulnerable groups
- 4) 0.5 tons produced and availed to commercial seed producers
- 5) Recommend the most effective management option for weevils and nematodes in bananas conducted
- 6) Recommend the most responsive fertilizer combination for improved arabica coffee productivity to fast track attainment of national coffee targets
further 0.1 yield increase attained through better disease management
- 7) Management and maintenance of seed plots
- 8) 20 apple orchards rehabilitated to improve fruiting
- 9) Submit two candidate lines to the variety release committee for release

10) Most adapted genotypes exhibited in demonstration fields. Seed of adapted genotypes availed to farmers and agro-input dealers

11) Recommend and disseminate the most suitable ISFM option in the zone

12) Rice crop management system that reduces the effects of yield suppression of Nerica 1 variety recommended

13) 1500 assorted tree seedlings availed to support initiatives of climate change adaptation

14) 8 tons produced and availed to LSBs .

Output: 04 Agricultural research capacity strengthened

250 bags of improved OFSP vines and 15MT of planting material for commercial potato varieties delivered to uptake pathways, Increased apple productivity through capacity of 200 farmers and TOTs trained in best management practices of apples.

Subprogram: 21 Rwebitaba ZARDI

Outputs Provided

Output: 01 Generation of agricultural technologies

- 1) Generation of one acres of early generation bean seed.
- 2) Two acres of early generation indigenous fields,
- 3) raising 2,000,000 seedlings of orchard & 25 coffee mother gardens maintained

Vote:142 National Agricultural Research Organisation

QUARTER 4: Revised Workplan

Output: 04 Agricultural research capacity strengthened

Management and maintenance of Institute physical resources.

Subprogram: 26 NARO Internal Audit

Outputs Provided

Output: 03 Internal Audit

	Item	Balance b/f	New Funds	Total
1) Internal audit staff capacity developed.				
2) Mid-year financial statement and value for money audit.	221002 Workshops and Seminars	5,143	0	5,143
3) One reports on Internal Audit value-added services to management and the organization as a whole produced.	221003 Staff Training	2,710	0	2,710
4) One Investigation reports.				
5) One Governance and Environmental audits reports produced.	227001 Travel inland	365	0	365
6) One IFMS Compliance budget compliance reports produced.				
7) One Final year performance review workshop conducted.				
8) One Risk management report produced .				
9) One Human Resources and Payroll audit report produced.				
10) One Core research/Value for Money audit report produced.				
11) Risk Management strengthened.				
12) Reports on High and medium risks produced.				
13) Risk Register updated.				
	Total	8,218	0	8,218
		Wage Recurrent	0	0
		Non Wage Recurrent	8,218	8,218
		AIA	0	0

Subprogram: 27 National Coffee Research Institute

Outputs Provided

Output: 01 Generation of agricultural technologies

For CWD, occurrence and distribution determined in 5 coffee growing regions, 2 protein and DNA-based protocols developed for diagnosis, 2 coffee host defense mechanisms unravel approaches. 2 resistance specific bio-markers

Output: 02 Research extension interface promoted and strengthened

Strengthen the institute with 5 computer accessories and utilized in training farmers and extension agents.

Output: 04 Agricultural research capacity strengthened

Institutional research capacity strengthened through 4 (four) Advisory committee meetings, and 4 routine maintenance, 3 research papers published

Development Projects

Project: 0382 Support for NARO

Vote:142 National Agricultural Research Organisation

QUARTER 4: Revised Workplan

Outputs Provided

Output: 01 Generation of agricultural technologies

	Item	Balance b/f	New Funds	Total
a) Continue the development of candidate vaccines for (anti-tick, multi strain FMD and 3 African Swine Fever Genotype and X vaccine)	211103 Allowances (Inc. Casuals, Temporary)	18,140	0	18,140
b) 21 varieties submitted to VRC	221002 Workshops and Seminars	40,869	0	40,869
c) 70 Research innovations	221008 Computer supplies and Information Technology (IT)	15,524	0	15,524
d) Support on going 64 research studies.	227001 Travel inland	60,028	0	60,028
e) 30 scientific publications	227004 Fuel, Lubricants and Oils	4,000	0	4,000
	Total	138,560	0	138,560
	GoU Development	138,560	0	138,560
	External Financing	0	0	0
	AIA	0	0	0

Output: 02 Research extension interface promoted and strengthened

	Item	Balance b/f	New Funds	Total
70 technologies delivered to uptake pathways (fish kiln, bio fortified and high yielding varieties) for improved production and productivity of key commodities of economic importance.	211103 Allowances (Inc. Casuals, Temporary)	380	0	380
	221001 Advertising and Public Relations	45,459	0	45,459
21 platforms supported.	221002 Workshops and Seminars	151,499	0	151,499
	221011 Printing, Stationery, Photocopying and Binding	124	0	124
	222003 Information and communications technology (ICT)	58,189	0	58,189
	225001 Consultancy Services- Short term	130	0	130
	226002 Licenses	70	0	70
	227001 Travel inland	79,958	0	79,958
	Total	335,808	0	335,808
	GoU Development	335,808	0	335,808
	External Financing	0	0	0
	AIA	0	0	0

Vote:142 National Agricultural Research Organisation

QUARTER 4: Revised Workplan

Output: 04 Agricultural research capacity strengthened

	Item	Balance b/f	New Funds	Total
A) Staff capacity for 5 staff strengthened in short and long term training (PhD, master and short term training for refresher.	211103 Allowances (Inc. Casuals, Temporary)	9,463	0	9,463
	221002 Workshops and Seminars	13,510	0	13,510
B)- Short term skills improvement programmes conducted for 16 PARI	221003 Staff Training	46,005	0	46,005
	221004 Recruitment Expenses	418	0	418
4) Enhanced NARO visibility.	221008 Computer supplies and Information Technology (IT)	18,000	0	18,000
	221011 Printing, Stationery, Photocopying and Binding	2,986	0	2,986
	221016 IFMS Recurrent costs	35,000	0	35,000
	221017 Subscriptions	2,055	0	2,055
	223002 Rates	103,980	0	103,980
	225001 Consultancy Services- Short term	38,542	0	38,542
	226002 Licenses	45,284	0	45,284
	227001 Travel inland	51,272	0	51,272
	227004 Fuel, Lubricants and Oils	8,221	0	8,221
	228001 Maintenance - Civil	122,329	0	122,329
	228002 Maintenance - Vehicles	15,084	0	15,084
	228003 Maintenance – Machinery, Equipment & Furniture	28,135	0	28,135
	228004 Maintenance – Other	2,581	0	2,581
	Total	542,862	0	542,862
	<i>GoU Development</i>	<i>542,862</i>	<i>0</i>	<i>542,862</i>
	<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>

Outputs Funded

Output: 51 Payments to International Organisations (CGIAR, ASARECA, WARDA)

	Item	Balance b/f	New Funds	Total
NARO's subscription to four (04) international organisation maintained for improved image and future resources mobilization for research.	262201 Contributions to International Organisations (Capital)	18,889	0	18,889
	Total	18,889	0	18,889
	<i>GoU Development</i>	<i>18,889</i>	<i>0</i>	<i>18,889</i>
	<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>

Vote:142 National Agricultural Research Organisation

QUARTER 4: Revised Workplan

Capital Purchases

Output: 72 Government Buildings and Administrative Infrastructure

	Item	Balance b/f	New Funds	Total
A) Works progress to be at 100% completion for the following:				
1) Construction of NACORI multipurpose laboratory.	281501 Environment Impact Assessment for Capital Works	15,000	0	15,000
2) seed facility completed at Mbarara ZARDI .				
3) 800m Perimeter Wall fence construction at Nakyesasa	281502 Feasibility Studies for Capital Works	15,000	0	15,000
4) Fencing experimental field sites at Nabuin ZARDI				
5) Rehabilitation of Bugusege satelite research station	281503 Engineering and Design Studies & Plans for capital works	20,330	0	20,330
6) Rehabilitation of Abi ZARDI staff houses and Laboratory				
7) Construction of staff houses at Kigumba satelite	281504 Monitoring, Supervision & Appraisal of Capital work	157,824	0	157,824
.				
8) 400m Road works construction at Nakyesasa.	312101 Non-Residential Buildings	113,709	0	113,709
9) Silage Bunks construction at Nakyesasa.				
10) Hay barn construction at Maruzi.	312102 Residential Buildings	81	0	81
11) Aquatic Laboratory construction at Kajansi ARDC.				
	Total	321,943	0	321,943
B) Project work progress between 25%-70% complete for the following:				
	<i>GoU Development</i>	<i>321,943</i>	<i>0</i>	<i>321,943</i>
	<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>
1) Namalele Administration block construction at Namalere				
2) Rwebitaba external works				
3) Rehabilitation/Small Works and construction of reception at NAROSEC				
4) Rehabilitation/Small Works and External painting, carpot repairs & parking patching works at NAROSEC				
5) Aflasafe plant construction at Nakyesasa				
6) Multi purpose vaccine facility construction at Nakyesasa				
7) construction of start up structures (paddock fencing, cattle dip,water reticulation, fencing, toilet hay barn & containers), at Maruzi				
8) Construction of a Milk Quality Control Platform & Production Storage at NaLIRRI				
9) Installation of Solar power at eleven Stations				
10) Construction of a seed store for the seed sorting plant at Mbarara				
11) Construction of a Hass screen House at NAFORRI				
12) Monitor ing , Supervi sion & Apprais al of capital works				
13) Engineering design studies				
14) Feasibility studies for capital works				

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QUARTER 4: Revised Workplan

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

A standard range of ICT products and services offered to include the following:

Item	Balance b/f	New Funds	Total		
1) MOU cleared for Data center services from NITA-U to host and backup NARO applications	312213 ICT Equipment	2,335	0	2,335	
2) Integrated WAN services; VoIP, file sharing, printing services and financial management system(Ms Dynamics) shared between 3) NAROSEC and three institutes; MuZARDI, NaFORRI, BuZARDI. 2. Extended NBI to BuZARDI, AbiZARDI, MbaZARDI and ARDC-4) Kajjansi for internet and other leased line communication services.		Total	2,335	0	2,335
5) 6 Laptops, 12 Desktops, 11 UPS, 18 Audio recorders, 9 universal routers procured.		<i>GoU Development</i>	<i>2,335</i>	<i>0</i>	<i>2,335</i>
6) Procurement undergoing for the SLA of preventive maintenance, repair and service of ICT equipment		<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>
7) 1. Kaspersky endpoint antivirus licenses procured for 250 users. 2. Acquired zoom licenses to Manage an online meeting "NARO half year review and planning virtual meeting" and other online meetings in different institutes like NaCRRRI, NaLIRRI, BuZARDI and NaFORRI. 3. 8) Capacity gap assessment report made for the conducted online meeting		<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>
9) Scheduled training for all systems administrator in streamlining of ICT operations and procedures to be included in the ICT manual:					
8) Supply of Assorted IT Equipment -Lot.1-All in One Desktop-Lot.2-Desktop Computers, Lot.3-Laptops, Lot.4-UPSs					
9) Supply and Installation of Audio Visual Equipment					
10) ICT Internvetion -WAN in PARIs.					

Output: 77 Purchase of Specialised Machinery & Equipment

A) Procurement of the following goods and non consultancy Services:
 Supply of Specialised In Vitro Embryology Equipment
 Supply and Installation of Floating Fish Feed Equipment
 Supply and Installation of Incubation Equipment & Assorted Machinery
 Supply of Specialised Machinery & Equipment
 Supply of Machinery & Equipment - Avocado
 Specialised Laboratory & Vaccine Equipment
 Supply of Tractors with Assorted Implements

Output: 78 Purchase of Office and Residential Furniture and Fittings

Item	Balance b/f	New Funds	Total	
Supply of Furniture & Fittings .	312203 Furniture & Fixtures	92	0	92
	Total	92	0	92
	<i>GoU Development</i>	<i>92</i>	<i>0</i>	<i>92</i>
	<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>
	GRAND TOTAL	2,817,646	0	2,817,646
	<i>Wage Recurrent</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Non Wage Recurrent</i>	<i>1,457,157</i>	<i>0</i>	<i>1,457,157</i>
	<i>GoU Development</i>	<i>1,360,489</i>	<i>0</i>	<i>1,360,489</i>

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<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>